



BOARD OF DIRECTORS
EAST BAY MUNICIPAL UTILITY DISTRICT

375 - 11th Street, Oakland, CA 94607

Office of the Secretary: (510) 287-0440

Notice of Special Meeting

FY22 and FY23 Budget Workshop #2

Tuesday, March 23, 2021

9:00 a.m.

*****Virtual*****

At the call of President Doug A. Linney, the Board of Directors has scheduled a Budget Workshop for 9:00 a.m. on Tuesday, March 23, 2021. Due to COVID-19 and in accordance with the most recent Alameda County Health Order, and with the Governor's Executive Order N-29-20 which suspends portions of the Brown Act, **this meeting will be conducted by webinar or teleconference only.** In compliance with said orders, a physical location will not be provided for this meeting. These measures will only apply during the period in which state or local public health officials have imposed or recommended social distancing.

The Board will meet in workshop session to review the proposed Fiscal Year 2022 (FY22) and Fiscal Year 2023 biennial budget, rates, operating and capital priorities, and staffing; the proposed FY22 System Capacity Charge and FY22 Wastewater Capacity Fee; and will receive follow-up information from the January 26, 2021 Budget Workshop #1.

Dated: March 18, 2021

A handwritten signature in blue ink that reads 'Rischa S. Cole'.

Rischa S. Cole

Secretary of the District

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**BOARD OF DIRECTORS
EAST BAY MUNICIPAL UTILITY DISTRICT**

375 - 11th Street, Oakland, CA 94607

Office of the Secretary: (510) 287-0440

AGENDA
Special Meeting
FY22 and FY23 Budget Workshop #2
Tuesday, March 23, 2021
9:00 a.m.
*****Virtual*****

Location

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Board members will participate via webinar or teleconference

*****Please see appendix for public participation instructions*****

ROLL CALL:

PUBLIC COMMENT: The Board of Directors is limited by State law to providing a brief response, asking questions for clarification, or referring a matter to staff when responding to items that are not listed on the agenda.

DISCUSSION:

1. Staff will present the proposed Fiscal Year 2022 (FY22) and Fiscal Year 2023 biennial budget, rates, operating and capital priorities, and staffing; the proposed FY22 System Capacity Charge and FY22 Wastewater Capacity Fee; and will provide follow-up information from the January 26, 2021 Budget Workshop #1. (Skoda)

ADJOURNMENT:

Disability Notice

If you require a disability-related modification or accommodation to participate in an EBMUD public meeting please call the Office of the Secretary (510) 287-0404. We will make reasonable arrangements to ensure accessibility. Some special equipment arrangements may require 48 hours advance notice.

Document Availability

Materials related to an item on this agenda that have been submitted to the EBMUD Board of Directors within 72 hours prior to this meeting are available for public inspection in EBMUD's Office of the Secretary at 375 11th Street, Oakland, California, during normal business hours, and can be viewed on our website at www.ebmud.com.

FY22 and FY23 Budget Workshop #2
Tuesday, March 23, 2021
9:00 a.m.

EBMUD public Board meetings will be conducted via Zoom.
Board workshops are recorded, live-streamed, and posted on the District's website.

Please visit this page beforehand to familiarize yourself with Zoom.
<https://support.zoom.us/hc/en-us/articles/201362193-Joining-a-Meeting>

Online

<https://ebmud.zoom.us/j/94804788254?pwd=Z2duWU9RZzVqb3RMd1RlNXVISjNsUT09>

Webinar ID: 948 0478 8254

Passcode: 467920

By Phone

Telephone: 1 669 900 6833

Webinar ID: 948 0478 8254

Passcode: 467920

International numbers available: <https://ebmud.zoom.us/u/acMN6fbEoB>

Providing public comment

The EBMUD Board of Directors is limited by State law to providing a brief response, asking questions for clarification, or referring a matter to staff when responding to items that are not listed on the agenda.

If you wish to provide public comment please:

- Use the raise hand feature in Zoom to indicate you wish to make a public comment
<https://support.zoom.us/hc/en-us/articles/205566129-Raising-your-hand-in-a-webinar>
 - If you participate by phone, press *9 to raise your hand
- When prompted by the Secretary, please state your name, affiliation if applicable, and topic
- The Secretary will call each speaker in the order received
- Comments on **non-agenda items** will be heard at the beginning of the meeting
- Comments on **agenda items** will be heard when the item is up for consideration
- Each speaker is allotted 3 minutes to speak; the Board President has the discretion to amend this time based on the number of speakers
- The Secretary will keep track of time and inform each speaker when his/her allotted time has concluded

To observe the workshop, please visit:

<https://www.ebmud.com/about-us/board-directors/board-meetings/>

EAST BAY MUNICIPAL UTILITY DISTRICT

DATE: March 18, 2021

MEMO TO: Board of Directors

THROUGH: Clifford C. Chan, General Manger *CCC*

FROM: Sophia D. Skoda, Director of Finance *SDS*

SUBJECT: Budget Workshop #2 – March 23, 2021 and Follow-up from Budget Workshop #1

SUMMARY

Budget Workshop #2, scheduled on March 23, 2021, will review the proposed Fiscal Year 2022 (FY22) and 2023 (FY23) budget, rates, operating and capital priorities, staffing, and provide responses to questions raised during the January 26, 2021 Budget Workshop #1.

DISCUSSION

During Budget Workshop #1, staff reviewed the approach to developing the FY22 and FY23 budget and rates, the rate increase assumptions, operating and capital priorities, staffing, and issues raised at the November 24, 2020 System Capacity Charge Update (SCC) Workshop. The impacts of the pandemic on District operations, customers, and the regional economy were discussed at Budget Workshop #1 and were considered in preparing the proposed FY22 and FY23 biennial budget and rates. The proposed biennial budget balances the need to be cautious, flexible, and realistic to respond to the changing economic landscape, as the long-term effects of the pandemic and recovery are unknown.

The proposed rate increases are four percent for FY22 and four percent for FY23 for both water and wastewater. The proposed water rates support enhanced water affordability through lower rate increases than previously projected. There is no change for the wastewater rates from previously projected. These rate increases will allow the District to continue with critical maintenance activities, infrastructure improvements, meet long-term financial stability goals, and be responsive to customers impacted by the pandemic.

During Workshop #2, staff will present the proposed FY22 and FY23 biennial budget, rates, fees and charges. Attachments to this memo include the workshop presentation, two volumes of the proposed budget document, and another memo on the FY22 and FY23 Recommended Revisions to the Water and Wastewater Systems' Schedule of Rates and Charges Subject to Proposition 218 which will be covered in more detail in the Biennial Report and Recommendation of the General Manager Fiscal Years 2022 and 2023 Revisions to the Water and Wastewater System

Schedule of Rates and Charges, Capacity Charges, and Other Fees to be filed at the May 11, 2021 Board meeting. Unless the Board requests additional information, this workshop will be the last before the issuance of the Proposition 218 notice.

Follow-up to Questions Raised at Budget Workshop #1

Below are responses to the questions raised by the Board during Budget Workshop #1. Budget Workshop #2 will include a presentation in response to questions from Budget Workshop #1 on the fully-manned and operated (FM&O) and consultant contracts.

Other Agencies Actions for Lower or no Rate Increases in FY21

During Budget Workshop #1, staff reviewed the actions of other water and wastewater agencies who took either no rate action or a rate action lower than had been anticipated as a result of the pandemic. Below is a summary of actions the agencies have taken:

- Marin Municipal Water District (MMWD): Voted to delay a four percent FY21 increase for nine months. MMWD put in place a hiring freeze, slowed down and/or delayed purchases for the replacement of vehicles and capital equipment, deferred travel and training, and reduced planned overtime costs.
- Zone 7 Water Agency: Voted to not implement a 6.7 percent rate increase for FY21. Zone 7 filled their budget gap using one-time savings and deferral of some capital work.
- San Francisco Public Utilities Commission (SFPUC): Voted to not increase rates to its wholesale customers in FY21. SFPUC has not had large capital cuts to projects and budget gaps have been filled by higher-than-projected water sales and lower-than-projected debt expenses.
- Alameda County Water District (ACWD): Voted to not increase rates for calendar year 2021. ACWD was able to meet budget gaps without cuts as reserves were available to close these gaps. They noted that conservative assumptions on water demand and full spending in capital and operating budgets have allowed the build-up of sufficient reserves to meet the gaps. ACWD also did not implement previously projected increased payoff of pension and Other Post-Employment Benefits liabilities.
- North Marin Water District (NMWD): Voted to delay FY21 rate increase by three months. NMWD absorbed the delay using unspent capital funds for projects that had not yet started.
- City of Hayward: Voted to delay planned 3.1 percent water rate increase from October 2020 to January 2021. Hayward had a minor cost impact of under a \$100,000 which was mitigated through delay of some routine maintenance and use of reserves.
- Santa Clara Valley Water District (Valley Water): Voted to not increase rates for FY21. Valley Water met the budget gap through a delay of \$40 million in planned capital spending and pulling back on a proposed addition of 23 new staff positions. As a result of the deferred capital spending, they expect higher projected rate increases in FY22 and beyond.

Rate Increase Alternatives

The proposed water Capital Improvement Program (CIP) reprioritized some projects and deferred some previously planned work. The proposed CIP continues to focus on rehabilitation and replacement of critical water system infrastructure. The Board requested information on what water capital projects could be accelerated and shifted to an earlier date if two different options for water rate increases were proposed. The first option was four percent in FY22 and five percent in FY23, and the second alternative was five percent in FY22 and five percent in FY23.

- Four percent in FY22 and five percent in FY23: The additional one percent rate increase in FY23 would enable an additional \$74 million to be spent in capital-related work over the five years of the CIP. The Alameda Crossings (\$10 million), Leland Reservoir Replacement (\$39 million), and Sobrante Water Treatment Plant Reliability Improvements (\$25 million) would be able to start one to two years sooner.
- Five percent in FY22 and five percent in FY23: The additional one percent rate increase in each fiscal year would enable one additional water capital project over the prior alternative. The additional project would be the Lafayette No. 1 Aqueduct Relining for \$98 million which would be able to start three years sooner.

The revenue from the additional rate increases would only pay for a portion of the added costs, and additional debt funding would be required if these projects were accelerated. The two alternatives above would accelerate the schedule for the four projects by approximately one to three years. Staff is not recommending that the proposed CIP be adjusted to include either of these options.

The current proposed CIP is already an increase of \$126.0 million or 7 percent from the prior five-year total. Even with approval for additional staffing of 12 FTEs needed, consultant support and resources, it would be very challenging for the District to deliver these additional projects on top of the projects already in the proposed plan and schedule. As presented at Budget Workshop #1, the District will be evaluating its approaches and capabilities to deliver the large-scale projects in the proposed CIP balancing staffing levels with the use of outside resources.

Status of 232 New FTEs for Capital Added Since FY12

During Budget Workshop #1, staff presented the CIP growth over the last ten years and additional FTEs added to support the growth. The Board asked for information on the filled and funding status of the approximately 232 FTEs mentioned. As of January 6, 2021, which is the basis for the data presented in Budget Workshop #1, the 232 FTEs were funded and 98 percent were filled. The District has a practice of providing job opportunities for employees such as promotions and temporary backfill assignments. Vacancies are unavoidable due to promotions and other staff movement. Recruitment and filling of positions is a continuous process.

Retirements by Classification

During Budget Workshop #1, the Board asked a question about workforce planning around retirements. Typically, the majority of employees retire within five years of when they are eligible to retire without an adjustment to their formula. However, there are a good percentage of employees who stay well beyond their eligible retirement date. Projecting retirement eligibility has an added complexity for the Public Employees' Pension Reform Act (PEPRA) pension tier since there have not been enough PEPRA retirements to establish any trend. The data shown in the table below assumes that PEPRA employees would retire at age 62 which is a reasonable assumption since the option to receive Social Security usually becomes available. The peak of retirements has passed, and the trend is now on the downward slope. As mentioned in Budget Workshop #1, an effort will be launched to evaluate the number of potential retirements and impacts of those retirements to future capital projects to determine right-size staffing and the CIP.

The following table details the number of employees by bargaining unit that reach retirement eligibility over the next five years.

Retirement Eligible Estimate							
Number of Employees by Bargaining Group							
Calendar Year	2019	444	21	39	Conf	Mgmt	Total
2021	125	111	52	5	10	22	325
2022	14	35	10	1	4	5	69
2023	12	29	9	0	2	4	56
2024	23	21	14	3	2	0	63
2025	14	24	9	2	2	8	59
Total	188	220	94	11	20	39	572

CCC:SDS:jmc


Attachments

I:\Sec\2021 Board Related Items\Workshop 2021\3-23-21 Board Workshop 2\FIN - Budget Workshop 2 transmittal.docx

EAST BAY MUNICIPAL UTILITY DISTRICT

DATE: March 18, 2021

MEMO TO: Board of Directors

FROM: Clifford C. Chan, General Manager 

SUBJECT: FY22 and FY23 Recommended Revisions to the Water and Wastewater Systems' Schedule of Rates and Charges Subject to Proposition 218

SUMMARY

The District updates the Water and Wastewater Systems' rates and charges biennially in conjunction with the development of its budget. The FY22/23 rates and charges are designed to cover the expenditures identified in the proposed operating and capital budgets and meet Board policy goals and legal requirements. After the 2014-2016 drought, water consumption in the last four years has stabilized to a level lower than pre-drought water consumption. Since the 2014-2016 drought, water consumption has increased about 10 to 15 percent, which is well below pre-drought consumption levels. The lower consumption has been a driver for higher water rate increases necessary to recoup the capital costs which are fixed, and costs to operate, maintain, and upgrade our complex and aging water and wastewater systems.

To determine the appropriate rates needed to recover our costs, the District engaged an independent rate consultant in 2015 and in 2019 to perform cost of service (COS) studies on the Water and Wastewater Systems. The District's 2015 and 2019 COS studies identified adjustments to individual water and wastewater rates and charges to conform to COS principles to allocate operating and capital costs to customers based on customer class use characteristics. The District has prepared preliminary FY22/23 budgets and financial plans to address the operating and capital needs of the water and wastewater systems. The District has determined that rate increases are necessary for the water and wastewater service charges to:

- Meet current and long-term projected costs of operating and maintaining the Water and Wastewater Systems
- Fund capital infrastructure improvements for the aging Water and Wastewater Systems
- Maintain financial stability
- Comply with state-mandated regulatory requirements
- Meet and comply with annual debt service requirements
- Avoid operational deficits and depletion of reserves

The proposed water and wastewater rates and charges are recommended to be effective on bills issued on or after July 1, 2021 for FY22 and on or after July 1, 2022 for FY23.

The proposed FY22 and FY23 water rates will be lower than projected two years ago due to actual revenues in FY19 and projected revenues for FY20 exceeding budgeted amounts, which reduced the amount of debt issued to fund the capital program. After the proposed four percent rate increase in FY22 and four percent increase in FY23, the average eight centum cubic feet (CCF) single-family residential (SFR) user will see an increase of \$2.53 per month in FY22 and an increase of \$2.66 per month in FY23.

The overall wastewater rate increases of four percent for FY22 and four percent for FY23 will remain as previously projected. The average SFR bill for wastewater treatment based on the average use of six CCF will increase by \$0.89 per month in FY22 and \$0.98 per month in FY23. Wastewater customers also pay a Wet Weather Facilities Charge collected on the property tax bill. Depending on lot size, in FY22 this charge will increase between \$4.64 to \$16.52 per year, and in FY23 between \$4.82 to \$17.18 per year.

The four percent increases will be applied to individual components of the overall water and wastewater rates and charges. An individual customer's bill may increase by slightly more or less than four percent, depending on the specific rates and charges components applicable to the customer and how much water is used, and the cumulative effect of rounding individual rate components to the nearest whole cent.

The recommendations in this memorandum cover the water and wastewater charges subject to California Constitution article XIII D, section 6 (commonly referred to as Proposition 218). In compliance with Proposition 218, which established specific rules for implementing new or adjusting existing charges, the District will hold a public hearing on June 8, 2021 to consider the adoption of the proposed rates and charges, and at least 45 days prior to the scheduled public hearing, mail notices to the owners of record of parcels upon which the proposed charges will be imposed and tenants directly responsible for the payment of the proposed charges (i.e., "customers" who are not property owners). Due to COVID-19 this hearing will be conducted remotely via Zoom and will be accessible online or via telephone. If public health directives change after the Proposition 218 notice is mailed, the public hearing may be conducted with members of the public physically present consistent with legal and public health requirements. The public would still be able to participate in the hearing virtually or by telephone. The Proposition 218 notice provides telephone and virtual meeting information.

Any owner of record and any customer may submit a written protest to the proposed rates and charges increases; however, only one written protest will be counted per identified parcel. Each protest must: (1) be in writing; (2) state that the identified property owner or customer is opposed to the proposed increases to the rates and charges; (3) provide the location of the identified parcel by assessor's parcel number or street address; and (4) include the original signature of the property owner or customer submitting the protest. Written protests against the proposed increases may be personally delivered or mailed to the District. To be tabulated, written notices must be received by the District prior to the close of the public comment portion of the public hearing. If a majority of the affected parcel owners or customers in the service area submit written protests, the proposed

increases may not be imposed. On March 11, 2021, a draft copy of the Proposition 218 notice was sent to the Board for review.

Fees not subject to Proposition 218, including capacity charges, recreation fees, installation charges, and other one-time fees and charges, will be included in the Biennial Report and Recommendation of the General Manager Fiscal Years 2022 and 2023 Revisions to the Water and Wastewater System Schedule of Rates and Charges, Capacity Charges, and Other Fees that will be presented at the May 11, 2021 Board meeting.

RECOMMENDATIONS

Recommended changes to Water and Wastewater Systems rates and charges are:

Water System Rates

- Increase water rates and charges (meter, volume, elevation surcharge, nonpotable/recycled water, and private fire service) four percent overall for FY22 and four percent overall for FY23. These proposed rate increases support the District's proposed FY22 and FY23 operating and capital expenses and meet Board policy goals.
- The impact to the average SFR customer is an increase of \$2.53 per month in FY22 and an additional increase of \$2.66 per month in FY23. Combining the FY22 and FY23 water rate increases results in an increase of \$5.19 per month or about 8.2 percent compared to the current FY21 bill.

Wastewater System Rates

- Increase the wastewater treatment rates and charges and Wet Weather Facilities Charges four percent overall for FY22 and four percent overall for FY23. These proposed rate increases support the District's proposed FY22 and FY23 operating and capital expenses and meet Board policy goals.
- For the EBMUD wastewater treatment charges collected on the EBMUD water bill, the impact to the average SFR customer is an increase of \$0.89 per month in FY22 and an additional increase of \$0.98 per month in FY23. Combining the FY22 and FY23 wastewater rate increases results in an increase of \$1.87 per month or about 8.1 percent compared to the current FY21 bill.
- For the Wet Weather Facilities Charge collected on the property tax bill, the impact will depend on lot size. In FY22 this charge will increase between \$4.64 to \$16.52 per year, and in FY23 between \$4.82 to \$17.18 per year.

DISCUSSION

Water Rates and Charges

Revenue from water rates and charges must increase by four percent overall in FY22 and four percent in FY23 to cover the expenditures identified in the proposed FY22 and FY23 operating and capital budgets, and to meet Board policy goals. The proposed rate increases are based on assumptions of water sales of 144 million gallons per day (MGD) for FY22 and 146 MGD for FY23. The assumption of water sales for FY22 of 144 MGD is a slight increase from the budgeted water sales for FY21.

The details of the FY22 and FY23 budget objectives, operating budget, capital expenses, and debt expenses are contained in the FY22 and FY23 Biennial Budget and Capital Project Summaries. The proposed operating and capital budgets contribute to the increased FY22 and FY23 water rates and charges in roughly the following proportions:

- Capital – increases in rate-funded capital and debt service drive approximately 60 percent of the additional rate revenue required in FY22 and FY23.
- Operating – increases in labor and benefits, a limited number of additional funded positions, increases in non-labor expenses and reductions in non-rate revenues drive approximately 40 percent of the additional rate revenue required in FY22 and FY23.

Table 1 shows the calculation of the rate adjustment required over the two-year period between FY21 and FY23. It starts with the operating, debt service and capital cash flow expenses identified in the multi-year budget and nets out other revenue sources which include bond proceeds, property taxes, capacity charges and use of reserves to pay for capital. Comparing the FY23 revenue requirement with estimated revenues under existing rates, the table identifies a revenue deficiency of \$47.2 million, and a necessary rate revenue adjustment of eight percent over the two-year period, four percent (FY22) and four percent (FY23).

Table 1 - Revenue Shortfalls (In Million \$) Addressed Through Proposed Rate Increase

	FY21	FY23	2-Yr Δ
Revenue Requirement			
+ O&M expense	\$315.4	\$328.7	4.2%
+ Debt service expense	217.7	222.4	2.2%
+ Capital expense	385.5	377.2	-2.2%
Total expenses =	918.6	928.3	1.0%
- Other revenues	-336.1	-288.3	-14.2%
Revenue requirement =	\$582.5	\$640.0	9.8%
Revenue Adjustment			
+ Revenue requirement		\$640.0	
- Revenue from existing rates		-592.8	
Difference =		\$47.2	
Total Rate Revenue Requirement Adjustment		8.0%	

Wastewater Rates and Charges

Revenue from wastewater rates and charges must increase by four percent overall in FY22 and four percent in FY23 to cover the expenditures identified in the proposed FY22 and FY23 operating and capital budgets, and to meet Board policy goals. The proposed operating and capital budgets combined with the reduced billed water use increase the District's revenue requirements and contribute to the FY22 and FY23 wastewater rates and charges increases in roughly the following proportions:

- Capital – increases in capital expenses and debt service drive approximately 35 percent of the additional rate revenue required in FY22 and FY23.
- Operating – increases in non-labor costs and increases in labor and benefits drive approximately 65 percent of the additional rate revenue required in FY22 and FY23.

Table 2 shows the calculation of the rate adjustment required over the two-year period between FY21 and FY23. It starts with the operating, debt service, and capital cash flow expenses identified in the multi-year budget and nets out other revenue sources which include bond proceeds, property taxes, Resource Recovery revenues, capacity charges, and the use of reserves to pay for capital. Comparing the FY23 revenue requirement with estimated revenues under existing rates, the table identifies a revenue deficiency of \$8.8 million, and a necessary rate revenue requirement adjustment of eight percent over the two-year period, four percent (FY22) and four percent (FY23).

Table 2 - Revenue Shortfalls (In Million \$) Addressed Through Proposed Rate Increases

	FY21	FY23	2-Yr Δ
Revenue Requirement			
+ O&M expense	\$78.6	\$89.7	14.1%
+ Debt service expense	29.8	31.9	7.0%
+ Capital expense	46.0	49.8	8.3%
Total expenses =	154.4	171.4	11.0%
- Other revenues	-45.0	-52.0	15.8%
Revenue requirement =	\$109.4	\$119.4	9.1%
Revenue Adjustment			
+ Revenue requirement		\$119.4	
- Revenue from existing rates		-110.6	
Difference =		\$8.8	
Total Rate Revenue Requirement Adjustment		8%	

FY22 and FY23 Revenue Requirements and Proposed Rates

State law and District policy both mandate public utility rates and charges be based on COS. The COS study allocates operating and capital costs to customer classes based on both customer class usage characteristics and facility design and operations. This nexus between usage and cost forms the financial and legal basis for setting utility rates and charges. The District's most recent COS studies were completed in 2019 for the Wastewater System and 2015 for the Water System. The proposed FY22 and FY23 rates were developed using the rate models from these COS studies and the District's projected rate revenue requirement for FY22 and FY23. Table 3 shows the revenue requirement for FY22 and FY23 for the Water System.

Table 3 - Water System Revenue Requirement for FY22 and FY23

Water	FY22			FY23		
	Operating	Capital	Total	Operating	Capital	Total
Revenue Requirements						
Operating - O&M Expenses	314,700,000		\$314,700,000	328,700,000		\$328,700,000
Capital - Debt Service		211,900,000	\$211,900,000		222,400,000	\$222,400,000
Capital - Expenses		341,500,000	\$341,500,000		377,200,000	\$377,200,000
Total Revenue Requirements	\$314,700,000	\$553,400,000	\$868,100,000	\$328,700,000	\$599,600,000	\$928,300,000
Revenue Offsets (incl \$3M used for CAP)						
Property Taxes		40,000,000	\$40,000,000		40,000,000	\$40,000,000
Power	5,000,000		\$5,000,000	5,000,000		\$5,000,000
Interest	1,200,000		\$1,200,000	2,500,000		\$2,500,000
SCC Revenue		25,000,000	\$25,000,000		25,700,000	\$25,700,000
Operating Reimbursement	13,000,000		\$13,000,000	13,400,000		\$13,400,000
RARE Reimbursement	3,400,000		\$3,400,000	3,500,000		\$3,500,000
All Other		15,200,000	\$15,200,000		15,300,000	\$15,300,000
Transfer (to)/from Rate Stabilization Reserve	\$0		\$0	\$0		\$0
Total Revenue Offsets	\$22,600,000	\$80,200,000	\$102,800,000	\$24,400,000	\$81,000,000	\$105,400,000
Adjustments						
Transfer of Cash for Capital from Other Funds	\$0	(155,100,000)	(\$155,100,000)	\$0	(182,900,000)	(\$182,900,000)
Total Adjustments	\$0	(\$155,100,000)	(\$155,100,000)	\$0	(\$182,900,000)	(\$182,900,000)
Cost of Service to be Recovered from Rates (less CAP)	\$292,100,000	\$318,100,000	\$610,200,000	\$304,300,000	\$335,700,000	\$640,000,000

Table 4 shows the revenue requirement for FY22 and FY23 for the Wastewater System.

Table 4 - Wastewater System Revenue Requirement for FY22 and FY23

Wastewater	FY22			FY23		
	Operating	Capital	Total	Operating	Capital	Total
Revenue Requirements						
O&M Expenses	\$85,400,000		\$85,400,000	\$89,700,000		\$89,700,000
Capital - Debt Service		\$30,700,000	\$30,700,000		\$31,900,000	\$31,900,000
Capital - Expenses		\$45,800,000	\$45,800,000		\$49,800,000	\$49,800,000
Total Revenue Requirements	\$85,400,000	\$76,500,000	\$161,900,000	\$89,700,000	\$81,700,000	\$171,400,000
Revenue Offsets (incl \$0.4M for CAP)						
Resource Recovery	\$6,100,000	\$2,900,000	\$9,000,000	\$6,100,000	\$1,900,000	\$8,000,000
Property Taxes		\$6,300,000	\$6,300,000		\$6,300,000	\$6,300,000
Ad Valorem Bond Levy		\$0	\$0		\$0	\$0
Interest	\$300,000		\$300,000	\$500,000		\$500,000
Laboratory Services	\$4,600,000		\$4,600,000	\$4,800,000		\$4,800,000
Reimbursements	\$1,700,000		\$1,700,000	\$1,800,000		\$1,800,000
Permit Fees	\$1,700,000		\$1,700,000	\$1,700,000		\$1,700,000
Capacity Charges		\$3,000,000	\$3,000,000		\$3,100,000	\$3,100,000
All Other Revenue	\$3,400,000	\$3,300,000	\$6,700,000	\$3,400,000	\$3,000,000	\$6,400,000
Transfer (to)/from Rate Stabilization Reserve	\$0		\$0	\$0		\$0
Total Revenue Offsets	\$17,800,000	\$15,500,000	\$33,300,000	\$18,300,000	\$14,300,000	\$32,600,000
Adjustments						
Transfer of Cash for Capital from Other Funds		(\$14,100,000)	(\$14,100,000)		(\$19,400,000)	(\$19,400,000)
Total Adjustments	\$0	(\$14,100,000)	(\$14,100,000)	\$0	(\$19,400,000)	(\$19,400,000)
Cost of Service to be Recovered from Rates (less CAP)	\$67,600,000	\$46,900,000	\$114,500,000	\$71,400,000	\$48,000,000	\$119,400,000

Based on the Water System COS study, water service fees have five customer classes: single family residential, multi-family residential, non-residential, private fire customer, and nonpotable/recycled. Together, the rates for the components of the water fees are structured to proportionately recover the costs of providing water service among the various customer classes. The rates for EBMUD's water fees have five components: Water Flow Charge, Water Service Charge, Elevation Surcharge, Private Fire Service Charge, and Drought Surcharge.

Based on the Wastewater System COS study, wastewater service fees have three customer classes: single family residential, multi-family residential, and non-residential. Non-residential customers are further classified based on the type of business operated. Together, the rates for the components of the wastewater service fees are structured to proportionately recover the costs of providing wastewater services among the various customer classes. The rates for the wastewater fees have up to five components: Treatment Service Charge, Treatment Flow Charge, Treatment Strength Charge, Pollution Prevention Fee, and Wet Weather Facilities Charge.

Tables 5 through 8 provide a summary of the proposed rates and the resulting customer impacts are presented below.

Table 5 - Proposed Water Flow Charges and Elevation Charges - (\$/CCF)

Water Flow and Elevation Charges on Water Bill					
Flow Charges	FY21	FY22	Percent Change	FY23	Percent Change
Single Family Residential					
Tier 1 up to 7 CCF	\$4.25	\$4.42	4.0%	\$4.60	4.1%
Tier 2 up to 16 CCF	\$5.85	\$6.08	3.9%	\$6.32	3.9%
Tier 3 over 16 CCF	\$7.72	\$8.03	4.0%	\$8.35	4.0%
Multi-Family Residential	\$6.01	\$6.25	4.0%	\$6.50	4.0%
All other accounts (commercial/industrial)	\$5.98	\$6.22	4.0%	\$6.47	4.0%
Nonpotable/Recycled Water	\$4.66	\$4.85	4.1%	\$5.04	3.9%
Elevation Surcharge* (\$/CCF)					
Pressure Zone 1	\$0.00	\$0.00	0.0%	\$0.00	0.0%
Pressure Zone 2	\$0.86	\$0.89	3.5%	\$0.93	4.5%
Pressure Zone 3	\$1.79	\$1.86	3.9%	\$1.93	3.8%

*Elevation Surcharge is assessed to certain customers based on location. The Elevation Surcharge is applied to each unit of water delivered to properties in some pressure zones, and is calculated to recover the increased cost of power and facility costs required to pump water to locations 200 feet or more above sea level.

Table 6 - Proposed Monthly Water Service Charges (Meter) - (\$/Meter Size)

Monthly Meter Service Charges on Water Bill					
Meter Size (in inches)	FY21	FY22	Percent Change	FY23	Percent Change
5/8 or 3/4	\$27.87	\$28.98	4.0%	\$30.14	4.0%
1	\$42.10	\$43.78	4.0%	\$45.53	4.0%
1-1/2	\$77.68	\$80.79	4.0%	\$84.02	4.0%
2	\$120.35	\$125.16	4.0%	\$130.17	4.0%
3	\$234.19	\$243.56	4.0%	\$253.30	4.0%
4	\$362.25	\$376.74	4.0%	\$391.81	4.0%
6	\$717.90	\$746.62	4.0%	\$776.48	4.0%
8	\$1,144.74	\$1,190.53	4.0%	\$1,238.15	4.0%
10	\$1,642.68	\$1,708.39	4.0%	\$1,776.73	4.0%
12	\$2,282.95	\$2,374.27	4.0%	\$2,469.24	4.0%
14	\$2,923.16	\$3,040.09	4.0%	\$3,161.69	4.0%

16	\$3,705.68	\$3,853.91	4.0%	\$4,008.07	4.0%
18	\$4,488.18	\$4,667.71	4.0%	\$4,854.42	4.0%

Table 7 - Proposed Monthly Private Fire Service Charges - (\$/Meter Size)

Monthly Private Fire Service Charges on Water Bill					
Meter Size (in inches)	FY21	FY22	Percent Change	FY23	Percent Change
5/8 or 3/4	\$14.83	\$15.42	4.0%	\$16.04	4.0%
1	\$20.38	\$21.20	4.0%	\$22.05	4.0%
1-1/2	\$34.17	\$35.54	4.0%	\$36.96	4.0%
2	\$50.73	\$52.76	4.0%	\$54.87	4.0%
3	\$94.96	\$98.76	4.0%	\$102.71	4.0%
4	\$144.67	\$150.46	4.0%	\$156.48	4.0%
6	\$282.80	\$294.11	4.0%	\$305.87	4.0%
8	\$448.55	\$466.49	4.0%	\$485.15	4.0%
10	\$641.90	\$667.58	4.0%	\$694.28	4.0%
12	\$890.50	\$926.12	4.0%	\$963.16	4.0%
14	\$1,139.13	\$1,184.70	4.0%	\$1,232.09	4.0%
16	\$1,443.02	\$1,500.74	4.0%	\$1,560.77	4.0%
18	\$1,746.89	\$1,816.77	4.0%	\$1,889.44	4.0%

Table 8 - Single Family Residential Customer Monthly Water Bill Impacts – Includes Proposed Water Service and Flow Charges

Single Family Residential Water Charges on Water Bill								
	Use (CCF)	FY21 Bill	FY22 Bill	Increase from FY19	Percent Change	FY23 Bill	Increase from FY22	Percent Change
25 th Percentile	4	\$44.87	\$46.66	\$1.79	4.0%	\$48.54	\$1.88	4.0%
50 th Percentile (median use)	6	\$53.37	\$55.50	\$2.13	4.0%	\$57.74	\$2.24	4.0%
75 th Percentile	10	\$75.17	\$78.16	\$2.99	4.0%	\$81.30	\$3.14	4.0%
95 th Percentile	24	\$172.03	\$178.88	\$6.85	4.0%	\$186.02	\$7.14	4.0%
Average Single Family Residential Use*	8	\$63.47	\$66.00	\$2.53	4.0%	\$68.66	\$2.66	4.0%

*8 CCF/month represents recent average single family residential use. Previous comparisons used 10 CCF/month, which represented historic average single family residential use prior to recent drought conditions.

Table 9 - Other Customer Monthly Water Bill Impacts – Includes Proposed Water Service and Flow Charges

Multi-Family Residential and Non-Residential Water Charges on Water Bill									
	Meter (Inches)	Use (CCF)	FY21 Bill	FY22 Bill	Increase from FY21	Percent Change	FY23 Bill	Increase from FY22	Percent Change
Multi-Family Residential 4 dwelling units	1	25	\$192.35	\$200.03	\$7.68	4.0%	\$208.03	\$8.00	4.0%
Multi-Family Residential 5+dwelling units	1	50	\$342.60	\$356.28	\$13.68	4.0%	\$370.53	\$14.25	4.0%
Commercial	1	50	\$341.10	\$354.78	\$13.68	4.0%	\$369.03	\$14.25	4.0%
Industrial	2	500	\$3,110.35	\$3,235.16	\$124.81	4.0%	\$3,365.17	\$130.01	4.0%

Table 10 shows the proposed wastewater treatment unit rates that are used to calculate the total wastewater flow and strength charges for each of the wastewater customer classes based on the specific characteristics of their wastewater discharge.

Table 10 - Proposed Wastewater Treatment Unit Rates

Wastewater Treatment Unit Rates					
Unit Rates	FY21	FY22	Percent Change	FY23	Percent Change
Service Charge (\$/account)	\$7.30	\$7.59	4.0%	\$7.89	4.0%
Flow (\$/CCF)	\$1.317	\$1.370	4.0%	\$1.425	4.0%
Strength – COD (\$/pound)	\$0.134	\$0.139	3.7%	\$0.145	4.3%
Strength – Total Suspended Solids (\$/pound)	\$0.551	\$0.573	4.0%	\$0.596	4.0%

Table 11 shows the proposed wastewater treatment charges for residential customers based on the unit rates in Table 10 and the number of dwelling units and monthly flow. Table 12 shows the proposed wastewater combined flow and strength charge per CCF for non-residential customers listed by business classification code (BCC) that is calculated from the unit rates in Table 10. Wastewater customers who have been issued strength permits for unique wastewater strength and flow are charged based on the unit rates in Table 10. Included in the monthly wastewater bill is the San Francisco Bay Pollution Prevention Fee that funds the Pollution Prevention Program that implements strategies to minimize and monitor pollutants from both residential and non-residential sources. The cost of the program has not increased, so the San Francisco Bay Pollution Prevention Fee will remain \$0.20 per month per dwelling unit for residential customers; \$5.48 per month per account for non-residential customers; and \$1.00 per month for multi-family residential customers with five or more units as shown in Table 13. Table 14 shows the resulting customer impacts for the proposed increases for the wastewater treatment bill.

Table 11 - Proposed Monthly Single Family and Multi-Family* Residential Wastewater Treatment Rates and Charges

Wastewater Treatment Rates & Charges					
Unit Rates	FY21	FY22	Percent Change	FY23	Percent Change
Service Charge (\$/account)	\$7.30	\$7.59	4.0%	\$7.89	4.0%
Flow (\$/CCF)	\$1.32	\$1.37	3.8%	\$1.43	4.4%
Strength – (\$ per dwelling unit)	\$7.60	\$7.90	3.9%	\$8.22	4.1%

*Multi-Family Residential is 2 to 4 dwelling units; all charges except the Treatment Service Charges are per dwelling unit.

Table 12 - Proposed Wastewater Non-Residential Flow and Strength Rates per CCF by Business Classification Code

Business Classification Code	FY21 Current Rate per CCF	FY22 Proposed Rate per CCF	Change	FY23 Proposed Rate per CCF	Change
2010 Meat Products	\$9.24	\$9.60	3.9%	\$10.00	4.2%
2011 Slaughterhouses	8.83	9.18	4.0%	9.55	4.0%
2020 Dairy Product Processing	7.25	7.53	3.9%	7.84	4.1%
2030 Fruit and Vegetable Canning	5.83	6.05	3.8%	6.31	4.3%
2040 Grain Mills	\$5.80	6.03	4.0%	6.28	4.1%
2050 Bakeries (including Pastries)	10.03	10.42	3.9%	10.86	4.2%
2060 Sugar Processing	5.74	5.96	3.8%	6.21	4.2%
2077 Rendering Tallow	17.40	18.09	4.0%	18.83	4.1%
2080 Beverage Manufacturing & Bottling	4.36	4.52	3.7%	4.71	4.2%
2090 Specialty Foods Manufacturing	18.75	19.47	3.8%	20.29	4.2%
2600 Pulp and Paper Products	4.98	5.17	3.8%	5.38	4.1%
2810 Inorganic Chemicals Mfgr.	6.40	6.66	4.1%	6.92	3.9%
2820 Synthetic Material Manufacturing	1.50	1.56	4.0%	1.62	3.8%
2830 Drug Manufacturing	3.23	3.36	4.0%	3.50	4.2%

2840	Cleaning and Sanitation Products	6.54	6.79	3.8%	7.08	4.3%
2850	Paint Manufacturing	12.61	13.10	3.9%	13.65	4.2%
2893	Ink and Pigment Manufacturing	4.56	4.74	3.9%	4.94	4.2%
3110	Leather Tanning and Finishing	17.43	18.09	3.8%	18.85	4.2%
3200	Earthenware Manufacturing	3.53	3.67	4.0%	3.82	4.1%
3300	Primary Metals Manufacturing	2.80	2.91	3.9%	3.03	4.1%
3400	Metal Products Fabricating	1.64	1.70	3.7%	1.77	4.1%
3410	Drum and Barrel Manufacturing	17.74	18.42	3.8%	19.20	4.2%
3470	Metal Coating	1.77	1.84	4.0%	1.92	4.3%
4500	Air Transportation	2.34	2.43	3.8%	2.53	4.1%
4951	Groundwater Remediation	1.34	1.42*	6.0%	1.48	4.2%
5812	Food Service Establishments	6.06	6.30	4.0%	6.56	4.1%
6513	Apartment Buildings (5 or more units)	2.94	3.06	4.1%	3.19	4.2%
7000	Hotels, Motels with Food Service	4.36	4.53	3.9%	4.71	4.0%
7210	Commercial Laundries	3.92	4.08	4.1%	4.24	3.9%
7215	Coin Operated Laundromats	2.94	3.06	4.1%	3.18	3.9%
7218	Industrial Laundries	11.15	11.58	3.9%	12.07	4.2%
7300	Laboratories	2.11	2.19	3.8%	2.28	4.1%
7542	Automobile Washing and Polishing	2.79	2.90	3.9%	3.02	4.1%
8060	Hospitals	2.68	2.78	3.7%	2.90	4.3%
8200	Schools	1.97	2.05	4.1%	2.13	3.9%
	All Other BCC (includes dischargers of only segregated domestic wastes from sanitary conveniences)	2.94	3.06	4.1%	3.19	4.2%

*Strength loading assumptions for Groundwater Remediation adjusted for FY22 in 2019 COS update, resulting in 6% increase for FY22.

Business Classification Code		FY21 Current Rate per CCF	FY22 Proposed Rate per CCF	Change	FY23 Proposed Rate per CCF	Change
A	0-9% Food/91-100% Domestic	\$2.940	\$3.060	4.1%	\$3.190	4.2%
B	10-19% Food/81-90% Domestic	3.252	3.384	4.1%	3.527	4.2%
C	20-29% Food/71-80% Domestic	3.564	3.708	4.0%	3.864	4.2%
D	30-39% Food/61-70% Domestic	3.876	4.032	4.0%	4.201	4.2%
E	40-49% Food/51-60% Domestic	4.188	4.356	4.0%	4.538	4.2%
F	50-59% Food/41-50% Domestic	4.500	4.680	4.0%	4.875	4.2%
G	60-69% Food/31-40% Domestic	4.812	5.004	4.0%	5.212	4.2%
H	70-79% Food/21-30% Domestic	5.124	5.328	4.0%	5.549	4.1%
I	80-89% Food/11-20% Domestic	5.436	5.652	4.0%	5.886	4.1%
J	90-99% Food/1-10% Domestic	5.748	5.976	4.0%	6.223	4.1%
K	0-9% Bakery/91-100% Domestic	2.940	3.060	4.1%	3.190	4.2%
L	10-19% Bakery/81-90% Domestic	3.649	3.796	4.0%	3.957	4.2%
M	20-29% Bakery/71-80% Domestic	4.358	4.532	4.0%	4.724	4.2%
N	30-39% Bakery/61-70% Domestic	5.067	5.268	4.0%	5.491	4.2%

O	40-49% Bakery/51-60% Domestic	5.776	6.004	3.9%	6.258	4.2%
P	50-59% Bakery/41-50% Domestic	6.485	6.740	3.9%	7.025	4.2%
Q	60-69% Bakery/31-40% Domestic	7.194	7.476	3.9%	7.792	4.2%
R	70-79% Bakery/21-30% Domestic	7.903	8.212	3.9%	8.559	4.2%
S	80-89% Bakery/11-20% Domestic	8.612	8.948	3.9%	9.326	4.2%
T	90-99% Bakery/1-10% Domestic	9.321	9.684	3.9%	10.093	4.2%

Table 13 – Monthly San Francisco Bay Pollution Prevention Fee

Monthly San Francisco Bay Pollution Prevention Fee					
	FY21	FY22	Percent Change	FY23	Percent Change
Residential (\$ per dwelling unit)*	\$0.20	\$0.20	0.0%	\$0.20	0.0%
Non-residential (\$ per account)	\$5.48	\$5.48	0.0%	\$5.48	0.0%

*SF Bay Pollution Prevention Fee for apartments (5 or more dwelling units) will remain \$1.00 per month for FY22 and FY23.

Table 14 - Customer Monthly Wastewater Treatment Bill Impacts - Includes Service, Flow and Strength Charges and Pollution Prevention Fees

Wastewater Charges on Water Bill									
	Meter (Inches)	Use (CCF)	FY21 Bill	FY22 Bill	Increase from FY21	Percent Change	FY23 Bill	Increase from FY22	Percent Change
Average Single Family Residential	5/8	6	\$23.02	\$23.91	\$0.89	3.9%	\$24.89	\$0.98	4.1%
Single Family Residential	5/8	9	\$26.98	\$28.02	\$1.04	3.9%	\$29.18	\$1.16	4.1%
Multi-Family Residential 4 dwelling units	1	25	\$71.50	\$74.24	\$2.74	3.8%	\$77.32	\$3.08	4.1%
Multi-Family Residential 5+dwelling units	1	50	\$155.30	\$161.59	\$6.29	4.1%	\$168.39	\$6.80	4.2%
Commercial	1	50	\$159.78	\$166.07	\$6.29	3.9%	\$172.87	\$6.80	4.1%
Industrial	2	500	\$9,387.78	\$9,748.07	\$360.29	3.8%	\$10,158.37	\$410.30	4.2%

The Wet Weather Facilities Charge (WWFC) is a fixed charge that is imposed on a property itself. The WWFC funds the capital expenses for facilities required to handle the peak wet weather flows that enter the District's Wastewater System through the local wastewater collection systems and sewer connections. The amount of wet weather flows that enter the wastewater system in the form of inflow and infiltration is proportional to the size of the collection system needed to serve each

property. For example, larger lots generally have more wet weather flows that could enter the wastewater system than smaller lots. For this reason, lot size is used as a proxy to estimate the size of the collection system to serve each property. Accordingly, the WWFC is structured using three generalized lot sizes (or bins): 0 to 5,000 square feet (sq ft), 5,001 to 10,000 sq ft, and over 10,000 sq ft. The WWFC is based on median lot size for each of these bins, regardless of whether a property is residential or non-residential.

Since the WWFC is based on the property's propensity to contribute peak wet weather flows and is unrelated to the amount of water used at the property, the District collects the WWFC on the property tax bill for all parcels that have connections to the local wastewater collection systems within the District's wastewater service area. The WWFC for public agencies that are exempt from property taxes is collected through the District's billing process. As shown in Table 15, the WWFC will increase four percent in FY22 and four percent in FY23.

Table 15 - Proposed Annual Wet Weather Facilities Charge - (\$/Lot Size)

Proposed Wet Weather Facilities Charge (\$/Lot Size)							
	FY21 Bill	FY22 Bill	Increase from FY21	Percent Change	FY23 Bill	Increase from FY22	Percent Change
Small Lot 0 - 5,000 sq. ft.	\$115.70	\$120.34	\$4.64	4.0%	\$125.16	\$4.82	4.0%
Medium Lot 5,001 – 10,000 sq. ft.	\$180.74	\$187.98	\$7.24	4.0%	\$195.50	\$7.52	4.0%
Large Lot >10,000 sq. ft.	\$413.10	\$429.62	\$16.52	4.0%	\$446.80	\$17.18	4.0%

Drought Rates

The District's schedule of drought rates will remain in effect for FY22 and FY23 as a contingency plan in the event of a water shortage. In the FY16 and FY17 budget, the Board adopted a staged system of drought rates to recover water shortage-related costs and has maintained this rate schedule in the event it is needed.

The District's 2015 COS study developed drought surcharges of up to 8 percent, 20 percent and 25 percent on the volumetric charges during water shortage Stages 2, 3 and 4, respectively. Drought surcharges would be applicable to all potable water customer accounts only if the Board of Directors declares a Stage 2, 3, or 4 water shortage. The drought surcharges correspond to increasingly severe stages of water shortages and are charged on each unit of water used during the billing period. The surcharges are calculated to recover costs of providing supplemental water, costs of water shortage-related customer service, and loss of revenue. For example, under a Stage 4 water shortage, an average single family customer using 8 CCF per month would pay a drought surcharge of up to \$9.63 per month in FY23.

Prior to implementing the drought surcharges, the District would update its assumptions of drought related fiscal impacts to reflect the best available information regarding expected customer demand, cost of securing and providing supplemental water supplies, etc. The District would develop and adopt surcharges consistent with the COS study, not to exceed the drought surcharge percentages listed above. The District's Proposition 218 notice will include information regarding these surcharges so that they remain available to the Board to implement the next time the District is in a water shortage that requires reductions in water use by its customers resulting in fiscal impacts.

Customer Bill Impact of Recent Rate Increases with Reduced Consumption


The average single family residential monthly water use has dropped from as high as 12 CCF per month in FY07 to 8 CCF per month in current projections. Over the last 14 years, the District has raised water rates on average 7.3 percent per year. While rates have increased, conservation actions have reduced average water use for single family customers and resulted in less impact on monthly bills. As a result of reduced water use, over the last 12 years, the actual monthly water bill increased just 4.8 percent per year based on average single family customer water use, which declined from 12 CCF per month to 8 CCF per month during that period. If the proposed FY22 and FY23 water rates are adopted, the monthly water bill using the average single family customer water use will have increased 4.9 percent per year from FY07 to FY23.


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EAST BAY MUNICIPAL UTILITY DISTRICT

DATE: March 18, 2021

MEMO TO: Board of Directors

THROUGH: Clifford C. Chan, General Manager 

FROM: Sophia D. Skoda, Director of Finance 

SUBJECT: Proposed Fiscal Year 2022 System Capacity Charges and Wastewater Capacity Fees

SUMMARY

The District assesses a System Capacity Charge (SCC) to new customers or customers seeking to increase the capacity of their existing water service to charge for the costs of existing water system facilities and new facilities required to serve expected growth and new development. The SCC is in addition to the charge for the meter and service lateral installation and any main extensions required to provide service. The Wastewater Capacity Fee (WCF) was implemented to recover costs of providing wastewater treatment capacity for new or expanded system use.

At the November 24, 2020 System Capacity Charge Update Workshop, the preliminary results from the SCC Study were presented. This memo updates the results presented in November for the final study calculations for Fiscal Year 2022 (FY22) SCC and WCF. The SCC Study incorporates the latest information available to the District including the District's lower water use trends, projections from the 2050 Demand Study, and updates to the value of the District's water system facilities. Using the methodology in the SCC Study, the evaluation of the system capacity attributable to new residential and nonresidential customers is lower by approximately 30 percent overall.

In addition, the study recommends a new category for multi-family residential (MFR) units smaller than 500 square feet, with an SCC 20 percent lower than a standard size MFR unit. The SCC Study also reviews SCC alternatives for developments that provide community benefits. One concept under consideration is for the District to provide financing for qualified applicants to pay the SCC over time rather than requiring upfront payment. The WCF has been updated for FY22 and incorporates the SCC recommendations for the MFR customer class.

The proposed FY22 SCC and WCF will be presented at the March 23, 2021 Budget Workshop. The complete schedules of the proposed FY22 SCC and WCF rates will be published in the Biennial Report and Recommendation of the General Manager FY22/23 Revisions to the Water and Wastewater System Schedule of Rates and Charges, Capacity Charges, and Other Fees that will be presented at the May 11, 2021 Board meeting.

DISCUSSION

During the FY20/21 budget and rates workshops, the Board directed staff to update the Water System SCC. The District retained Stantec Consulting Services (Stantec) to perform the SCC Study. The completed study and the recommendations have been used to calculate the proposed changes to the SCC and WCF for FY22.

Background on the SCC

The District uses the SCC to charge new development or those upgrading to larger meters for their proportional share of the cost of water supply, treatment, and distribution system facilities and for investments in additional future water supplies needed for new customers. The SCC adheres to the District's principle of '*growth pays for growth*' which recovers the cost of providing system capacity to new customers for both existing system infrastructure and the additional future water supplies and infrastructure needed to serve the customer that is charged. The SCC limits the financial impacts of serving new customers on existing ratepayers.

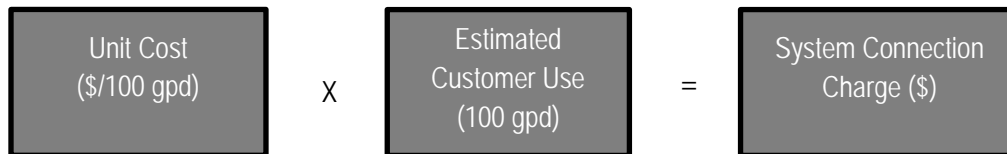
The SCC is divided into three regions (east of hills, hills, and west of hills) to recognize the differences in typical demand profiles and capacity across the District's service area. The fee basis has been updated multiple times since the inception of the SCC in 1983, with annual fee increases using the Engineering News Record construction cost index.

The SCC is comprised of three components: a system-wide component, a regional component, and a future water supply component. The system-wide component ensures new or upsized connections pay for their proportionate share of the value of existing facilities that serve the entire service area. The regional component serves the same purpose, but for specific facilities that are unique to the region. The future water supply component collects the incremental cost of constructing future water supply projects to serve new or upsized connections.

SCC Study

This SCC Study provides a comprehensive review of the District's SCC calculation methodology, including the calculation of the unit cost per 100 gallons per day, as well as the demand basis for assessing the charge to individual applicants. The formula used to calculate SCCs is shown in Figure 1. The SCC is calculated by multiplying the unit cost of system capacity by the customer's estimated capacity requirement, both of which are calculated specifically for each of the three regions.

Figure 1: SCC Formula


$$\begin{array}{|c|} \hline \text{Unit Cost} \\ \text{(\$/100 gpd)} \\ \hline \end{array} \times \begin{array}{|c|} \hline \text{Estimated} \\ \text{Customer Use} \\ \text{(100 gpd)} \\ \hline \end{array} = \begin{array}{|c|} \hline \text{System Connection} \\ \text{Charge (\$)} \\ \hline \end{array}$$

The review and recommendations related to these two primary components of the SCC are outlined in the following sections.

Unit Cost

SCC unit costs were evaluated based on the existing system systemwide, regional, and future water supply assets and their respective capacity to provide service to the District's customers. Based on the review of the current methodology, industry standards, and the District's historical and ongoing investments in the water system, the following changes are recommended for the determination of the unit cost.

- Update existing asset valuation from replacement cost new (RCN) for all assets to a mix of RCN and a replacement cost new less depreciation to account for the ongoing investments occurring within some asset classes.
- Update the asset register to include all previously completed future water supply projects and include these costs within the buy-in component of the SCC unit costs.
- Update the future water supply cost component of the SCC unit cost calculations to only reflect projects that are yet to be completed.
- Update the assumed system-wide and regional potable consumption to reflect the latest projections from the District's 2050 Demand Study.

Table 1 summarizes the updated FY22 unit costs for each of the individual SCC components based on the methodology outlined above. The current total unit costs are provided for comparison purposes.

Table 1: Updated SCC Unit Costs for FY22

Unit Costs \$/100 gpd					
Region	System-Wide Buy-In	Regional Buy-In	Future Water Supply	Total	Current Total
Region 1	\$3,575	\$1,787	\$798	\$6,160	\$6,463
Region 2	\$3,575	\$4,585	\$798	\$8,958	\$8,708
Region 3	\$3,575	\$2,720	\$798	\$7,093	\$6,903

Estimated Customer Use

Currently, the District assesses SCCs to new customers based on an assumed average water use for single-family residential (SFR), MFR, and non-residential customer classes. The SCC Study used recent water use data from 2005 to 2017 to update typical water use characteristics for each customer class, both system-wide and in each region. Based on review of historical usage patterns, the District's current methodology for developing estimated customer use by customer class, and industry standards, the following changes are recommended for calculating projected customer usage for meters under 2 inches:

- Calculate average water use by customer class and meter size based on historic observed water consumption. This would replace the existing approach which calculates the average water use for a 5/8" and 3/4" metered customer and then escalates the projected water use based on an American Water Works Association meter equivalence schedule.
- Use a uniform consumption level for MFR dwelling units in all regions, but differentiate the estimated demand based on MFR dwelling unit size. This would replace the existing methodology which calculates a single use for all MFR units, regardless of size, but differentiated by region.

Tables 2 to 4 presents the estimated water use based on the recommended approach and analysis and for application within the assessment of the SCC for each customer class.

Table 2: Single-Family Customer Water Use (gallons per day)

Region	Meter Size		
	5/8" & 3/4"	1"	1 ½"
Region 1	190	270	345
Region 2	210	450	580
Region 3	490	750	965

Table 3: Multi-Family Customer Water Use (gallons per day)

Region	Dwelling Unit Size	
	< 500 sq. ft	> 500 sq. ft
Service Area Wide	95	120

Table 4: Non-Residential Family Customer Water Use (gallons per day)

Region	Meter Size			
	5/8"	3/4"	1"	1 ½"
Region 1	246	402	765	1,995
Region 2	334	478	856	2,430
Region 3	460	704	1,254	3,089

Proposed FY22 SCC

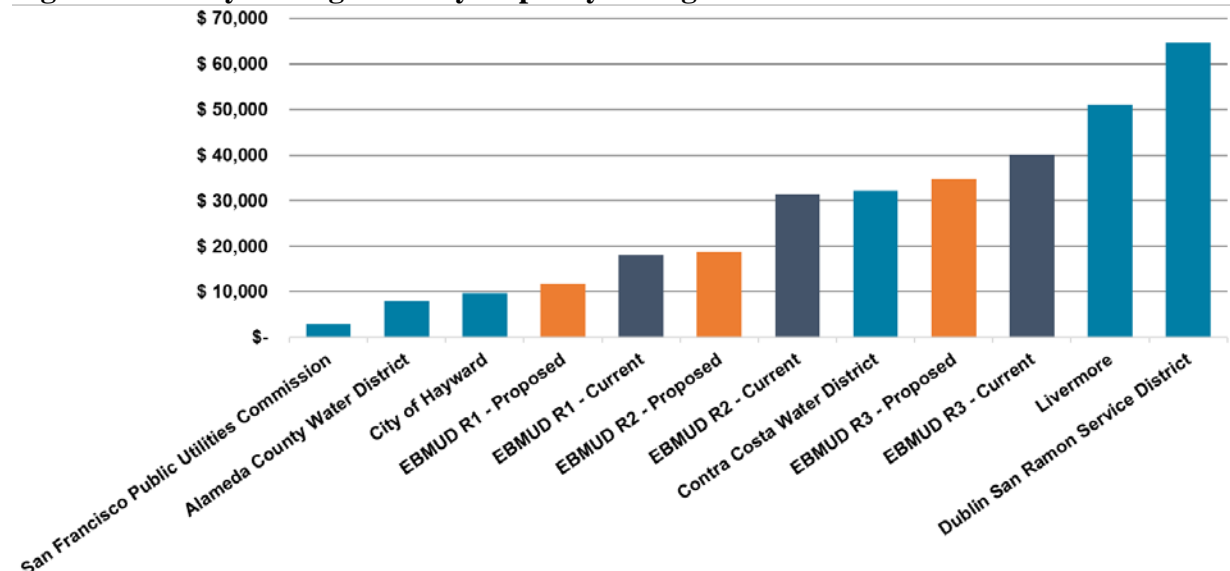
The proposed FY22 SCCs are calculated by applying the formula shown in Figure 1. Table 5 summarizes the current and proposed SCCs by customer class. The proposed SCCs for all customer classes are lower than the charges currently assessed by the District. For SFR, MFR, and non-residential applicants, the proposed SCC will be reduced for nearly all customers from 5 percent to over 50 percent depending on the customer class and meter size, except for the non-residential 1½” meter size, which will remain about the same as the current SCC.

Table 5: Comparison of Current and Proposed SCCs

Customer Type	Region	Current SCC	Proposed SCC
SFR ¾"	Region 1	\$18,100	\$11,705
	Region 2	\$31,350	\$18,811
	Region 3	\$40,040	\$34,754
Non-Res. 5/8"	Region 1	\$25,850	\$15,151
	Region 2	\$46,590	\$29,960
	Region 3	\$43,140	\$32,619
MFR per unit Standard Size	Region 1	\$10,530	\$7,392
	Region 2	\$14,630	\$10,749
	Region 3	\$13,740	\$8,511
MFR per unit Small Size (under 500 sq ft)	Region 1	\$10,530	\$5,852
	Region 2	\$14,630	\$8,510
	Region 3	\$13,740	\$6,738

Figure 2 shows the current capacity charges for nearby water agencies compared to the District's SCC. Cities which provide water or sewer service often consider the impact of capacity charges on their development plans and may minimize the allocation of costs to new customers resulting in lower connection charges when compared to special districts. Cities expect new development to generate benefits in increased local economic activity, taxes, and other ancillary financial benefits. As a special district, the District does not receive these types of benefits and must recover the full value of the investments in the water system made by the ratepayers. Any reduction in the revenue collected from the SCC would have to be made up from increased water rates. Other factors that affect capacity charges include the complexity of the water system, age and condition of facilities, and amount of new capacity required to serve new customers. In addition, some agencies do not include the water supply costs in their capacity charges because they are supplied by a wholesaler.

Figure 2: Survey of Single Family Capacity Charges for Customers with 3/4" Meters¹



Projected Impact on FY22 SCC Revenues

Since FY16, the service area has seen a high level of new development, especially in the urban core. Most of the growth has been in large MFR projects. The District experienced a reduction in new connections in FY20 and in FY21, which also coincides with the COVID-19 pandemic. It is unclear what the long-term impact of the pandemic will have on development, but a slowdown

¹ SFPUC, Hayward, CCWD Livermore and DSRSD offer 5/8" connection charges for SFR for those applicants whose demand can be accommodated by the smaller meter.

SFPUC has higher retail water rates than all other utilities surveyed.

City of Hayward's Connection Fee does not include a water supply component and they have relatively high retail water rates.

Alameda County Water District and Contra Costa Water District have less complex systems than EBMUD.

Dublin San Ramon Service District and Livermore both include Zone 7 charges.

had been expected even prior to the pandemic. District staff estimates that the proposed updates to the SCC will reduce the current SCC by approximately 30 percent and would have a corresponding reduction in SCC revenues collected depending on the development pattern. The District's previous projection for FY22 SCC revenue was \$40 million. If the District implements the proposed SCC changes, the projected SCC revenues would be approximately \$25 million for FY22, which includes a projection of a slowdown in building activity.

Community Benefit Developments

The public has expressed interest in the District providing support to developments that have community benefits. The types of developments deemed to have community benefits would have to be determined but could include low-income housing and homeless housing/services. One potential way to support community benefit projects is through a long-term loan for the SCC. The District currently has a provision for a two-year loan at fair market interest rates for qualifying projects for low-income and homeless housing or job training projects. Since this program was initiated in 1997, there have not been any participants. Staff is investigating modifications to this program to include more projects with community benefits. If feasible, staff will present a draft proposal to the Board.

Reduced SCCs for Projects with Demonstrated Low Water Use

For SFR and non-residential projects that can be served with a 1½ inch water meter, the SCC is assessed using an assigned water use based on analyses of average water use by SCC region and meter size. The Board requested staff investigate modifying the SCC so that reductions from the standard SCC can be applied to projects with demonstrated low water use. One jurisdiction in Maryland offers a reduced capacity charge for applicants with Leadership in Energy and Environmental Design (LEED) certifications. However, this agency also requires periodic LEED recertification and inspection at the cost of the owner; if found to be out of compliance, the owner at the time of inspection is required to pay the additional capacity fee.

This proposal would require the District to ensure low water use systems installed at construction completion are maintained in the future. Staff has determined that it would be challenging to manage such a program given the need for ongoing monitoring and the potential for payments from future owners. Staff will continue to evaluate this option in addition to other possible options linked to the District's water conservation program to provide incentives for the construction of low water use projects in conjunction with the SCC program and will present findings at the April 27, 2021 Sustainability/Energy Committee meeting.

Proposed FY22 Wastewater Capacity Fee

The Wastewater Capacity Fee (WCF) was implemented to recover costs of providing wastewater treatment capacity for new or expanded system use. The WCF is based on a "buy-in" or an equity approach, whereby new users buy-in to a wastewater system that has adequate capacity to serve both existing demands and new growth. The wastewater system capacity is expressed in

terms of wastewater flow volume (flow) and strength factors including Chemical Oxygen Demand (COD) and Total Suspended Solids (TSS). For FY22, the WCF calculations have been updated to reflect construction cost escalations. These calculations are shown in Tables 6 to 8.

Table 6 – Proposed FY22 Unit Wastewater Capacity Fee Rates

Unit Capacity Rate	Current	FY22	% Increase
Annual Flow - centum cubic feet (CCF)	\$14.12	\$14.35	1.6%
Annual COD - pounds	\$ 1.48	\$ 1.51	2.0%
Annual TSS - pounds	\$ 6.79	\$ 6.90	1.6%

Single-Family Residential Wastewater Capacity Fee

The proposed FY22 WCF is calculated using the District's baseline residential indoor water use of 84 CCF per year and COD loadings of 374 pounds per year and TSS loadings of 157 pounds per year and reflects the findings and recommendations of the recent wastewater COS Study. The proposed residential WCF for FY22 is \$2,850 per dwelling unit, an increase of 1.4 percent over the current fee of \$2,810.

Table 7 – Proposed FY22 WCF for SFR

	Current	FY22	% Increase
SFR WCF	\$2,810	\$2,850	1.4%

Multi-Family Residential Wastewater Capacity Fee

The WCF is assessed on a per dwelling unit basis for all MFR connections. The proposed FY22 WCF is calculated using the MFR indoor water use from the 2021 SCC Study of water consumption by dwelling unit for MFR of 59 CCF (46 CCF for under 500 sq ft dwelling units) per year and corresponding COD loadings of 262 pounds (205 pounds for under 500 sq ft dwelling units) per year, and TSS loadings of 110 pounds (86 pounds for under 500 sq ft dwelling units) per year. The proposed MCF for standard MFR dwelling units for FY22 is \$2,000, a decrease of 28.8 percent over the current fee of \$2,810.

Table 8 – Proposed FY22 WCF for MFR

	Current	FY22	% Increase
MFR Standard Dwelling Unit WCF	\$2,810	\$2,000	-28.8%
MFR Under 500 sq ft Dwelling Unit WCF		\$1,560	

Non-Residential Wastewater Capacity Fee

For non-residential applicants, the WCF is assessed based on the water meter size up to 1½ inches and the strength category (low, medium, high). Table 9 shows the current and proposed WCF for a 5/8-inch meter by strength category. For applicants with water meters 2 inches and above, an applicant specific WCF is calculated using the WCF unit costs in Table 6.

Table 9 – Proposed FY22 WCF for Non-Residential 5/8 inch

	Current	FY22	% Increase
5/8” Non-Residential Low Strength	\$4,170	\$4,240	1.7%
5/8” Non-Residential Medium Strength	\$8,440	\$8,580	1.7%
5/8” Non-Residential High Strength	\$16,530	\$16,810	1.7%

NEXT STEPS

The complete schedules of proposed FY22 SCC and WCF rates will be published in the Biennial Report and Recommendation of the General Manager Fiscal Years 2022 and 2023 Revisions to the Water and Wastewater System Schedule of Rates and Charges, Capacity Charges, and Other Fees for the Board to consider at its May 11, 2021 meeting. If adopted by the Board on June 8, 2021, the new SCC and WCF rates would be effective on July 1, 2021.

CCC:SDS:RCL

Proposed Biennial Budget

Fiscal Years 2022 & 2023

District Overview ***Water System*** ***Wastewater System***



East Bay Municipal Utility District
Oakland, California

East Bay Municipal Utility District

Biennial Budget

Fiscal Years 2022 and 2023

Volume 1 District Overview
Water System
Wastewater System

Volume 2 Supplemental Material:
Capital Project Summaries

Presented to the Board of Directors
March 23, 2021

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BIENNIAL BUDGET FY22 & FY23
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BIENNIAL BUDGET FY22 & FY23
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SUPPLEMENTAL VOLUME

Capital Project Summaries

Note: Totals for charts and tables throughout the document may not sum due to rounding.

July 1, 2021

Honorable Members of the Board of Directors:

I am pleased to present the water and wastewater budgets for Fiscal Years 2022 (FY22) and 2023 (FY23) that support our mission to provide reliable, high quality water and wastewater services for the people of the East Bay.

In 1923, residents of the eastern San Francisco Bay voted to establish the East Bay Municipal Utility District forging the way for publicly-owned high quality water service. After 100 years of operation, our services remain sustainable and resilient regardless of the situations we have faced, from the current pandemic, Public Safety Power Shutoffs events to earthquakes, droughts, fires, and economic crises. We are proud to look back on almost a century of serving the East Bay community.

In 2020, during my first year as General Manager, many challenges faced our communities and the nation ranging from the COVID-19 pandemic and high unemployment to racial equity and social justice concerns. At the start of the pandemic, EBMUD ceased water shutoffs before it was mandated by the State of California. We recognized the importance of our water and wastewater services to our customers especially with battling the COVID-19 pandemic. Our ability to respond to these and many other challenges are critical to keeping the East Bay community connected, healthy, and thriving.

The timeline for recovery from the COVID-19 pandemic and its long-term impacts remain unknown. From the launch of the development of this biennial budget, it was clear the budget would have to balance the need to be cautious, flexible, and realistic to respond to the changing landscape. The FY22 and FY23 biennial budget balances the economic realities and struggles of our customers with the need to continue to move forward with critical infrastructure projects and maintenance work.

Resources have been prioritized to achieve Strategic Plan goals and expand new initiatives while maintaining fair and reasonable water and wastewater rates. The FY22 and FY23 biennial budget supports:

- Water affordability through lower rate increases than previously projected,
- Ongoing critical maintenance activities,
- Key infrastructure investments,
- Racial justice and social equity initiatives,
- K-12 school education program outreach, and
- Customer Support Program enhancements.



Then.....Now

CUSTOMER BILL IMPACTS

The FY22 and FY23 rates and customer bill impacts are shown in the below table. Water rates are one full percent below what was projected two years ago (a 20 percent reduction) while the wastewater rates are as forecasted in the prior biennial budget. Single family residential customers continue to consume on average 8 centum cubic feet (CCF) of water per month (about 200 gallons per day). Almost half of our customers also receive wastewater treatment services, and their average bill is based on discharging 6 CCF per month of their total water use to the sewer system. The table below shows the overall rate increases and the impact on the average monthly bill for our water and wastewater customers.

FY22 & FY23 Overall Rate & Average Monthly Bill Increase

	Water System		Wastewater System	
	<u>FY22</u>	<u>FY23</u>	<u>FY22</u>	<u>FY23</u>
% Rate Increase	4.0%	4.0%	4.0%	4.0%
Avg. Bill Increase	\$2.53	\$2.66	\$0.89	\$0.98

The attachment to this message shows the bill impact for a range of use levels. Wastewater customers also pay an annual Wet Weather Facilities Charge collected on the property tax bill. The annual charge is based on lot size and will increase 4.0 percent in FY22 or \$4.64 for the smallest lots to \$16.52 for the largest lots. In FY23, the charge will increase an additional 4.0 percent ranging from \$4.82 to \$17.18 per year.

The rate increases reflect the revenue necessary to meet the budget needs and are consistent with the District's 2015 Water and 2019 Wastewater Cost of Service studies that allocate costs among customer classes based on usage characteristics. State law requires basing rates and charges on the cost of service.

NEGOTIATING LABOR AGREEMENTS

District employees are represented by American Federation of State, County and Municipal Employees (AFSCME) Local 2019, AFSCME Local 444, International Federation of Professional and Technical Engineers Local 21, and International Union of Operating Engineers Local 39. The labor agreements expire in April 2021. The District is in the process of negotiating agreements with represented employees, and working with management and non-represented employees as well.

BUDGET OVERVIEW

Reaching from the Sierra Nevada foothills to the San Francisco Bay, the District operates and maintains a vast network of pipelines, storage reservoirs, and treatment facilities to deliver clean, healthy water to customers and provide wastewater service. Maintaining high quality service requires ongoing investments in this infrastructure, some of which is over 100 years old.

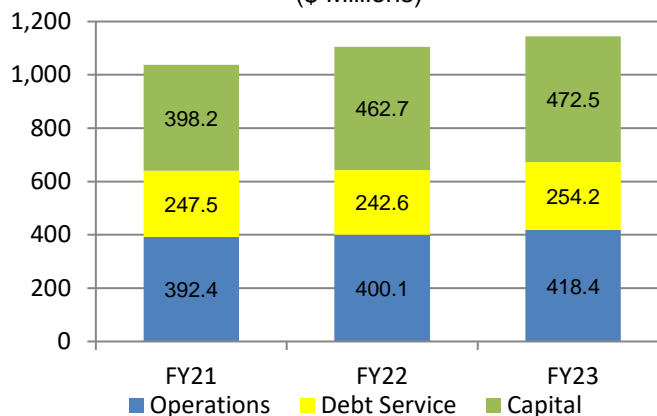
The development of this biennial budget and the five-year capital improvement program was guided by our Strategic Plan. Our main budget priorities are to continue investments in and maintenance of aging infrastructure, and provide for long-term financial stability.

The budget was developed after assessing facilities and determining the highest priority projects based on safety, reliability, water quality, regulatory compliance, cost-effectiveness, and improving service to our customers.

The following table shows the budget appropriations for FY22 and FY23 for the Water System and Wastewater System operations, debt service, and capital appropriation compared to FY21. The operations budget reflects the day-to-day costs to provide water and wastewater services such as electricity, chemicals, and labor. The debt service budget includes the interest and principal on bonds issued to pay for capital investments in infrastructure along with other debt-related costs. The capital appropriation budget includes funding for capital projects such as replacing pipes, upgrading water treatment plants, and rehabilitating our wastewater treatment plant.

FY21, FY22, AND FY23 APPROPRIATIONS (\$ Millions)					
	FY21 Budget	FY22 Budget	% Chg	FY23 Budget	% Chg
Water System					
Operations	313.8	314.7	0.3%	328.7	4.4%
Debt Service	217.7	211.9	-2.7%	222.4	5.0%
Capital Appropriation	<u>356.4</u>	<u>404.8</u>	13.6%	<u>418.4</u>	3.4%
Total	887.9	931.4	4.9%	969.4	4.1%
Wastewater System					
Operations	78.6	85.4	8.7%	89.7	5.1%
Debt Service	29.8	30.7	2.9%	31.9	3.9%
Capital Appropriation	<u>41.8</u>	<u>57.9</u>	38.5%	<u>54.1</u>	-6.6%
Total	150.2	174.0	15.8%	175.7	1.0%
District-wide					
Operations	392.4	400.1	2.0%	418.4	4.6%
Debt Service	247.5	242.6	-2.0%	254.2	4.8%
Capital Appropriation	<u>398.2</u>	<u>462.7</u>	16.2%	<u>472.5</u>	2.1%
Total	1,038.2	1,105.4	6.5%	1,145.1	3.6%

FY21 - FY23 Water and Wastewater Budgets
(\$ Millions)



Water System – In FY22, the operations budget is increasing \$0.9 million, or 0.3 percent compared to FY21. Additional positions are being funded to support capital projects and operations work on infrastructure maintenance, and several initiatives mentioned earlier. Labor and benefit costs are increasing primarily to fund additional positions, a cost of living adjustment, negotiated pays such as standby and job site reporting, and a rise in benefit costs for retirement and health care. These increases are offset by overall lower salaries due to new employees starting at lower salary steps than the employees they replaced, savings due to the time required to fill positions, less use of overtime, and lower cost of living increases compared to the prior fiscal year. Non-labor operational costs are increasing such as computer software, specialized outside services, vehicle operating and maintenance costs, and additional retirement benefit payments made mostly through a 415(m) plan. These increases are significantly offset by higher capital support services consistent with prior trends which transfer costs to the capital budget, vehicle maintenance and repairs reimbursement, and lower energy costs. Debt service in FY22 is decreasing due to actions taken to reduce new bond issuances in prior years and lower assumed interest rates consistent with projected market trends. The FY22 capital appropriation of \$404.8 million will fund work over multiple years such as pipeline replacements, water treatment plant upgrades, and reservoir and pumping plant rehabilitation.

In FY23, the operations budget increases by \$14.0 million, or 4.4 percent. The rise in labor expenses includes scheduled step increases, a cost of living adjustment, overtime, standby, and a rise in benefit costs for retirement and health care. In addition, non-labor operational cost increases are expected in several areas such as fees and licenses, Board of Directors election fees, vehicle operating and maintenance costs, energy, computer software, self-insured liability claims, District laboratory services, and chemicals. These increases are partially offset by less use of professional services and higher capital support services which decreases operating expense by a like amount. Debt service is increasing as payments will be made on revenue bonds planned to be issued in FY22 and FY23. The FY23 capital appropriation \$418.4 million will continue to fund key infrastructure projects.

Wastewater System – In FY22, the operations budget is increasing by \$6.8 million, or 8.7 percent compared to FY21. Labor and benefit costs are increasing primarily to fund additional positions, a cost of living adjustment, overtime costs, and a rise in benefit costs for retirement and health care. These increases are offset by decreases in standby pay, new employees starting at lower salary steps than the employees they replaced, and lower cost of living increases compared to the prior fiscal year. Non-labor costs are increasing for chemicals, spoils/sludge disposal, reimbursable costs to the Water System, insurance premiums, and fees/licenses. These increases are offset by higher capital support services consistent with prior trends which transfer costs to the capital budget. Debt service is increasing as new revenue bonds are planned to be issued in FY22. The FY22 capital appropriation of \$57.9 million will fund work over multiple years such as rehabilitating structures and replacing equipment at the Main Wastewater Treatment Plant (MWWTP), making seismic upgrades, and addressing nutrients.

In FY23, the operations budget increases by \$4.3 million, or 5.1 percent. Labor and benefit costs are increasing primarily for scheduled step increases, a cost of living adjustment, costs of overtime and standby, and a rise in benefit costs for retirement and health care. Non-labor costs are increasing primarily due to chemical costs, spoils/sludge disposal, reimbursable expense to the

Water System, and insurance premiums. These costs are offset by an increase for capital support services which decreases operating expense by a like amount and less use of contract services. Debt service is increasing as payments will be made on revenue bonds planned to be issued in FY22 and FY23. The FY23 capital appropriation of \$54.1 million will continue to fund key infrastructure projects at the MWWTP and off-site locations.

FIVE-YEAR CAPITAL IMPROVEMENT PROGRAM

This capital improvement program reflects our ongoing commitment to rehabilitate and replace aging infrastructure. The following focuses on planned spending on capital projects which is a significant component in calculating rates.

- In FY22-26, planned Water System capital spending totals \$2.0 billion, an increase of \$126.0 million or 7 percent from the prior five-year total.
- The planned Wastewater System capital spending totals \$243.2 million, an increase of \$8.8 million or 4 percent from the prior five-year total.

Water System Top Projects – The table shows the major Water System capital projects and the projected five-year spending as we continue to invest in infrastructure and maintain a high level of system reliability and water quality:

- Largest project spending is for Treatment Plant Upgrades which includes operational and water quality improvements and modernization involving the filter, chemical, control, disinfection, and safety systems.
- Pipeline Rebuild includes plans to replace 22.5 miles of distribution pipelines per year in FY22-23, an increase from 20 miles in FY20-21, increasing to 25 miles per year in FY24-26.
- Large Diameter Pipelines includes replacing deteriorated transmission pipelines and installing new pipelines which are the backbone of the water distribution system.
- Reservoir Rehabilitation includes upgrading or replacing steel and concrete storage reservoirs and large open-cut reservoirs to optimize storage capacity, improve safety for staff, and improve water quality.
- Other projects will rehabilitate pumping plants, install services and fire hydrants for new customers, replace polybutylene and copper service laterals, and make improvements to building structures and systems at various locations and increase energy efficiency.

Water System Major Capital Projects (\$ Millions)	
Projects	FY22-FY26 Cash Flow
Treatment Plant Upgrades	418
Pipeline Rebuild	336
Large Diameter Pipelines	155
Reservoir Rehabilitation	114
Pumping Plant Rehabilitation	107
New Service Installations	80
Service Lateral Replacements	78
Building Facilities Improvements	71

Wastewater System Top Projects – The table shows the major Wastewater System capital projects and the projected five-year spending as we continue to make improvements to the MWWTP to maintain our strong record of regulatory compliance and protection of the San Francisco Bay:

- General Wastewater work involves improvements to buildings that serve multiple treatment processes and includes seismic retrofits to various structures at the MWWTP.
- Rehabilitation work will continue on sewer interceptors and pump stations including underground pipelines, tie-in structures, pumps and related equipment.
- Work on the treatment process with a focus on Preliminary and Secondary Treatment to rehabilitate concrete structures such as primary sedimentation tanks and channels, the oxygen production plant, and secondary clarifiers.
- Other projects will address issues with the dewatering building and equipment to produce beneficial biosolids, improve the plant's utilities and chemical piping, and make improvements to the power generation station to improve reliability for producing renewable energy and minimize biogas flaring.

Wastewater System Major Capital Projects	
(\$ Millions)	
Projects	FY22-FY26 Cash Flow
General Wastewater	66
Interceptors and Pump Stations	38
Secondary Treatment	29
Dewatering	26
Preliminary Treatment	25
Utilities and Site Work	21
Power Generation System	15

USING THE BUDGET DOCUMENT

The biennial budget document is comprised of two volumes. This volume contains all of the key budget information for both the Water and Wastewater Systems, including a District overview, detailed operating and capital budgets, and five-year financial forecasts. The attachment provides bill impacts for a wide range of use levels. The supplemental volume provides summaries of the projects in the Capital Improvement Program.

Since 1996, the District's budget documents have consistently received the Government Finance Officers Association's (GFOA) coveted Distinguished Budget Presentation Award. In addition, for the fifth time, the California Society of Municipal Finance Officers has conferred its Operating Budget Excellence Award for the District's biennial budget documents.



In 2020, GFOA selected EBMUD for the Award for Excellence for its FY20 & FY21 Biennial Budget In Brief publication. The award was given for an "Exceptionally Well Implemented Best Practice". GFOA's Award for Excellence recognizes innovative contributions in the field of government finance and leading examples of best practice implementation.



CONCLUSION

Our history demonstrates the reliability of our water and wastewater services and our commitment to our customer and the communities we serve. Our experiences and the people who built our systems are woven into the fabric that makes the East Bay what it is today.

The FY22 and FY23 biennial budget funds critical infrastructure and maintenance work while delivering lower water rate increases than previously projected. Looking forward, we face new challenges, none greater than the effects of climate change. The District is positioned to meet this and other new challenges with the same commitment, passion, and innovation which are a part of our nearly 100-year history. With the ongoing support of the Board and staff, I am confident that we will meet our challenges well into the future and ensure our operations remain sustainable and resilient.

This budget serves as a policy document and a financial plan for the next two fiscal years. I want to thank the staff whose collaborative efforts resulted in a budget that is based on fair and reasonable rates as we continue to provide reliable, high quality water and wastewater services.

Respectfully submitted,

A handwritten signature in blue ink that reads "Clifford C. Chan".

Clifford C. Chan
General Manager

RATE IMPACTS BY USE LEVEL AND CUSTOMER CLASS

This attachment shows the bill impacts of the FY22 and FY23 water and wastewater rates and charges for a range of customer classes and use levels. Water use is measured in CCF (centum cubic feet) where 1 CCF equals 748 gallons.

Water Charges: Monthly Bill Impacts

The following table shows the monthly bill impact of the adopted rate increases on a cross-section of single family residential customers, ranging from 4 CCF (25th percentile) to 24 CCF (95th percentile), and for the median customer using 6 CCF and the average customer using 8 CCF. The table shows the monthly bill impact although single family residential customers receive bills covering a two month period.

Single Family Residential Water Charges on Water Bill								
	Use (CCF)	FY21	FY22	Increase from FY21	Percent Change	FY23	Increase from FY22	Percent Change
25 th Percentile	4	\$44.87	\$46.66	\$1.79	4.0%	\$48.54	\$1.88	4.0%
50 th Percentile (median use)	6	\$53.37	\$55.50	\$2.13	4.0%	\$57.74	\$2.24	4.0%
75 th Percentile	10	\$75.17	\$78.16	\$2.99	4.0%	\$81.30	\$3.14	4.0%
95 th Percentile	24	\$172.03	\$178.88	\$6.85	4.0%	\$186.02	\$7.14	4.0%
Average Single Family Residential Use*	8	\$63.47	\$66.00	\$2.53	4.0%	\$68.66	\$2.66	4.0%

*8 CCF/month represents recent average single-family residential use.

The following table shows the monthly bill impact of the adopted rate increases for two multi-family residential buildings: one with 4 units using 25 CCF per month, and one with 5+ units using 50 CCF per month. Impacts are also shown for a sample commercial customer using 50 CCF per month and an industrial customer using 500 CCF per month.

Multi-Family Residential and Non-Residential Water Charges on Water Bill									
	Meter (Inches)	Use (CCF)	FY21	FY22	Increase from FY21	Percent Change	FY23	Increase from FY22	Percent Change
Multi-Family Residential 4 units	1	25	\$192.35	\$200.03	\$7.68	4.0%	\$208.03	\$8.00	4.0%
Multi-Family Residential 5+ units	1	50	\$342.60	\$356.28	\$13.68	4.0%	\$370.53	\$14.25	4.0%
Commercial	1	50	\$341.10	\$354.78	\$13.68	4.0%	\$369.03	\$14.25	4.0%
Industrial	2	500	\$3,110.35	\$3,235.16	\$124.81	4.0%	\$3,365.17	\$130.01	4.0%

Wastewater Treatment Charges: Monthly Bill Impacts

Wastewater customer charges appear in two separate places, on the water bill and the property tax bill. The tables below address each of these bills.

Wastewater charges are based on the volume of water used, but are capped at a maximum of 9 CCF per month per single family residential customer as only indoor water use is discharged into the sewer system. The following table shows bill impacts for both an average single family residential customer using 6 CCF per month and a customer discharging the maximum of 9 CCF. In addition, impacts are shown for two multi-family residential customers: one with 4 units using 25 CCF per month, and one with 5+ units using 50 CCF per month. Impacts are also shown for a sample commercial customer using 50 CCF per month and an industrial customer using 500 CCF per month.

Wastewater Charges on Water Bill									
	Meter (Inches)	Use (CCF)	FY21	FY22	Increase from FY21	Percent Change	FY23	Increase from FY22	Percent Change
Average Single Family Residential	5/8	6	\$23.02	\$23.91	\$0.89	3.9%	\$24.89	\$0.98	4.1%
Maximum Single Family Residential	5/8	9	\$26.98	\$28.02	\$1.04	3.9%	\$29.18	\$1.16	4.1%
Multi-Family Residential 4 units	1	25	\$71.50	\$74.24	\$2.74	3.8%	\$77.32	\$3.08	4.1%
Multi-Family Residential 5+ units	1	50	\$155.30	\$161.59	\$6.29	4.1%	\$168.39	\$6.80	4.2%
Commercial	1	50	\$159.78	\$166.07	\$6.29	3.9%	\$172.87	\$6.80	4.1%
Industrial	2	500	\$9,387.78	\$9,748.07	\$360.29	3.8%	\$10,158.37	\$410.30	4.2%

Wastewater Wet Weather Facilities Charge: Annual Property Tax Bill Impacts

The following table shows the annual Wet Weather Facilities Charges that are based on lot size and appear on the property tax bill. Wet Weather Facilities are large storage systems and wastewater system infrastructure designed to prevent heavy storms from causing raw sewage overflows into San Francisco Bay.

Wastewater Wet Weather Facilities Charge on Property Tax Bill							
	FY21	FY22	Increase from FY21	Percent Change	FY23	Increase from FY22	Percent Change
Small Lot ≤5,000 sq. ft.	\$115.70	\$120.34	\$4.64	4.0%	\$125.16	\$4.82	4.0%
Medium Lot 5,001 - 10,000 sq.ft.	\$180.74	\$187.98	\$7.24	4.0%	\$195.50	\$7.52	4.0%
Large Lot >10,000 sq. ft.	\$413.10	\$429.62	\$16.52	4.0%	\$446.80	\$17.18	4.0%

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INTRODUCTION: DISTRICT OVERVIEW

In 1923, the East Bay Municipal Utility District (EBMUD or the District) was created by voters to supply water to parts of Alameda and Contra Costa counties in California in response to periodic water shortages. In 1929, upon completion of Pardee Dam, the highest in the world at the time, the first water deliveries were made from the Sierra Mountains to the East Bay to serve a population of 460,000.



Pardee Reservoir – Ione, CA

Water service is now provided to 1.4 million customers in a 332-square mile area, which is larger than New York City, extending from Crockett in the north to San Lorenzo in the south, and eastward from San Francisco Bay to Walnut Creek and the San Ramon Valley.

Ninety percent of the water supply comes from rain and snowmelt within the protected watershed of the Mokelumne River and captured in Pardee and Camanche Reservoirs located on the western slope of the Sierra Nevada. The water is transported more than 90 miles west via three aqueducts to East Bay water treatment plants or terminal reservoirs, and from there to 170 local reservoirs and 4,200 miles of distribution pipeline. In 2002, to protect customers from the effects of a severe drought, the District created the Freeport Regional Water Project to convey up to 100 million gallons per day of supplemental Sacramento River water.

In 1944, voters in six of the East Bay cities served by the District elected to create a wastewater treatment facility to treat factory waste and raw sewage that was being released into San Francisco Bay. In 1951, the wastewater treatment began at a plant constructed in Oakland near the San Francisco-Oakland Bay Bridge. Wastewater service is now provided to 740,000 customers in an 88-square mile area along the east shore of the bay extending from Richmond in the north to Oakland in the south. In addition to treating wastewater, laboratory services operate 365 days a year to continually monitor the quality of our drinking water and the treated water from the wastewater plant that is discharged to San Francisco Bay.

The District has a seven-member Board of Directors elected from wards within the service area. The Water and Wastewater Systems are legally distinct entities governed by the same Board that is committed to governing through a public process, guided by the District's Mission Statement.

The mission of the District is:

"To manage the natural resources with which the District is entrusted; to provide reliable, high quality water and wastewater services at fair and reasonable rates for the people of the East Bay; and to preserve and protect the environment for future generations."

Board policies are implemented under the direction of the General Manager who, along with the General Counsel, is appointed by the Board. The Senior Management Team, comprised of department managers and directors, is responsible for managing operations. The District employs over 2,000 people in service to its mission.

KEY MILESTONES

1870	Population of 15,000 served by several private water companies, but lacks water storage. San Leandro Reservoir completed, later renamed after Anthony Chabot.
1910	Population swells to 150,000 with refugees from the 1906 San Francisco earthquake.
1919	San Pablo Reservoir completed by the East Bay Water Company.
1923	EBMUD is organized and then acquires water rights to the Mokelumne River.
1926	Upper San Leandro Reservoir completed by the East Bay Water Company.
1928	Lafayette Reservoir completed.
1929	Pardee Dam, highest in the world at the time, and the Mokelumne aqueduct completed.
1930	Population of 460,000 served at 35 million gallons per day (MGD).
1949	Second Mokelumne Aqueduct completed.
1951	Wastewater treatment system in operation to protect San Francisco Bay.
1963	Third Mokelumne Aqueduct completed.
1964	Camanche and Briones reservoir dams completed.
1970	Population of 1.1 million served at 220 MGD.
1974	EBMUD customers vote to add fluoride to water.
1985	Wastewater plant begins producing renewable energy.
1990	Population of 1.2 million served at 192 MGD.
1995	North Richmond Water Reclamation Plant begins recycled water.
1999	Wet Weather Program completed to minimize storm induced sewer overflows.
2000	Population of 1.3 million served at 216 MGD.
2002	Freeport Regional Water Authority established with Sacramento City and County.
2010	Population of 1.3 million served at 174 MGD following the 2007-2010 drought. Richmond Advanced Recycled Expansion (RARE) facility dedicated - 3.5 MGD.
2011	National law adopted to get lead out of drinking-water plumbing based EBMUD-sponsored state law. Facility tests completed from Freeport Regional Water Facility to the East Bay.
2015	Population of 1.4 million served at 148.5 MGD.
2018	The Mokelumne River was designated as California's 12th Wild and Scenic River.

For a complete history of the East Bay Municipal Utility District, please visit the history page at www.ebmud.com/about-us/who-we-are/mission-and-history/.

COMMUNITY

Service Area

Since 1929, when the District first delivered water from the Sierra Mountains to the East Bay, the population served has grown by almost a million people. Today the District's service area includes many of the Bay Area's largest employers. The District's vitality is inseparable from the \$776 billion Bay Area regional economy which is essential to the economic health of California and the nation. The gross domestic product (GDP) of the Bay Area is one of the highest in the United States. The District's infrastructure is diverse and extensive, with a replacement cost conservatively estimated at more than \$15 billion.

The District's water service area covers 332 square miles and includes 20 cities and 15 unincorporated communities located in Alameda and Contra Costa Counties on the east side of San Francisco Bay (the "East Bay"). The wastewater service area covers 88 square mile area along the east shore of the bay extending from Richmond in the north to Oakland in the south. The map below shows the District's water and wastewater service areas.



Population

Approximately 1.4 million people are served by the Water System, 740,000 of whom are also served by the Wastewater System. Oakland, the largest city in Alameda County, is the eighth largest in the state. The following table includes population data for the largest cities in the service area.

Population Trends*

Seven Largest Cities in Service Area
Alameda and Contra Costa Counties, and California

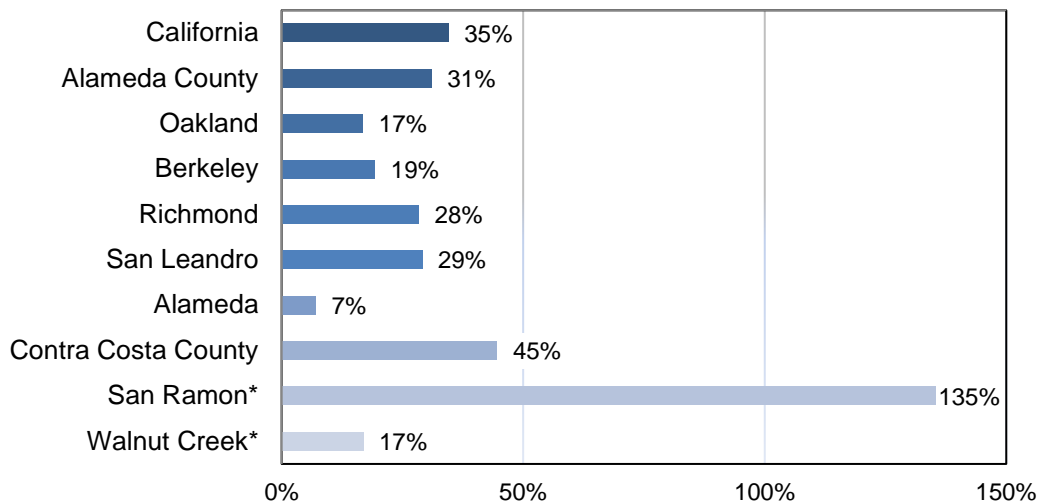
<u>City/County</u>	<u>1990</u>	<u>2000</u>	<u>2010</u>	<u>2020</u>
California	29,558,000	33,872,000	37,223,900	39,782,870
Alameda County	1,274,700	1,443,700	1,509,240	1,670,834
Oakland	371,100	399,500	390,757	433,697
Berkeley	102,700	102,700	112,621	122,580
Richmond	86,600	99,200	103,661	111,217
San Leandro	68,100	79,500	84,977	87,930
Alameda	75,900	72,300	73,835	81,312
Contra Costa County	797,600	948,800	1,047,948	1,153,561
San Ramon**	35,300	44,800	72,148	83,118
Walnut Creek**	60,600	64,300	64,140	70,860

* California Department of Finance, Demographic Research Unit, Population Estimates for California Cities.

** EBMUD does not serve all of San Ramon or Walnut Creek, but total population is shown for each.

Population Growth Since 1990

Seven Largest Cities in Service Area and Both Counties



* Total population shown even though EBMUD does not serve the entire community.

WATER AND WASTEWATER SYSTEMS

Water Supply



Mokelumne River

Ensuring a high quality water supply for today and the future is one of the District's highest priorities. Significant capital investments have been made to ensure a reliable water supply such as securing supplemental water sources and expanding recycled water programs.

One of the most important factors in water quality is the source: the purer the source the better the water. Ninety percent of the District's water comes from the 578-square mile watershed of the Mokelumne River located on the western slope of the Sierra Nevada. This area is mostly national forest, District-owned lands, and other undeveloped lands minimally affected by human

activity. The watershed collects snowmelt which flows into Pardee Reservoir near the town of Valley Springs.

Three large aqueducts carry this water more than 90 miles from Pardee Reservoir to the East Bay and protect it from pesticides, agricultural and urban runoff, and industrial discharges. When water demand is high or during times of operational need, the District also draws water from protected local watersheds.

Before water reaches homes and businesses, the District takes many steps to ensure its quality. This includes carefully managing watershed lands and storage reservoirs; treating the water; maintaining water quality through a complex system of distribution pipes, pumping plants and neighborhood reservoirs; testing water samples in our laboratory and in the field; and addressing customer concerns. These efforts ensure that all customers receive high-quality drinking water that meets or surpasses all state and federal requirements.



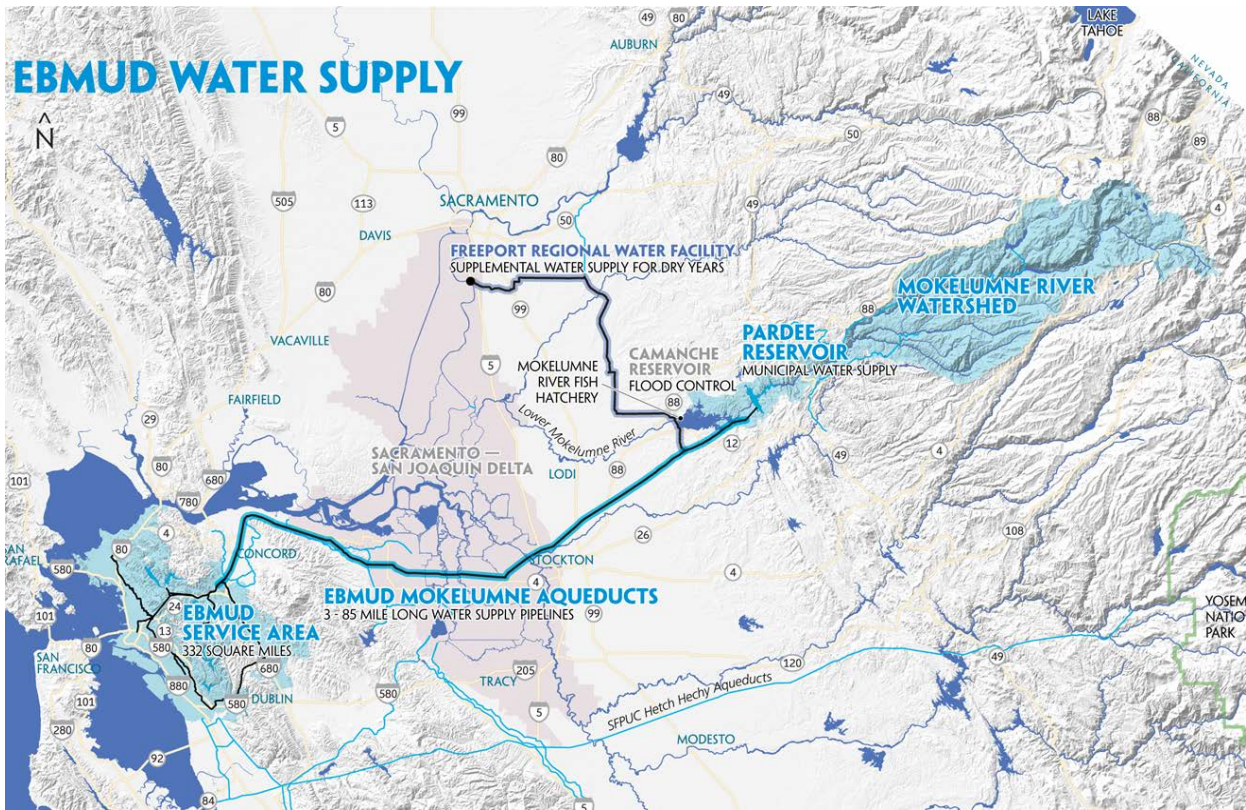
Pardee Dam and Powerhouse – Lone, CA

Every five years, the District updates its Urban Water Management Plan to ensure a reliable water supply for the next generation. This includes making the best use of limited supplies through water conservation and recycling and developing long-term projects to augment the water supply including water transfers from other water rights owners and regional projects with other agencies. The Plan will be updated in the spring of 2021.

The map below shows how the water travels from the Mokelumne River Watershed into Pardee Reservoir, across the Central Valley in the Mokelumne Aqueducts, and to the District's service area.



Freeport Water Project – Sacramento, CA



Wastewater Treatment

The District's wastewater treatment plant provides service for 740,000 people along the eastern shore of the San Francisco Bay, and treats approximately 56 million gallons of municipal wastewater per day. Wastewater is collected from homes and businesses through privately owned sewer laterals that feed into a network of city and other regional sewers, which eventually join the District's sewer interceptors and pump stations. These facilities carry the wastewater to the treatment plant located in Oakland. Stormwater is collected through separate community-owned systems. The plant treats sewage to meet stringent state and federal standards before recycling it or releasing cleaned water to the Bay. Prior to its construction, raw sewage was discharged directly into the Bay. As a partner in the stewardship of the Bay, the District works with residents and businesses to help them keep contaminants out of the sewer system.



Wastewater Treatment Plant – Oakland, CA



Power Generation Station – Oakland, CA

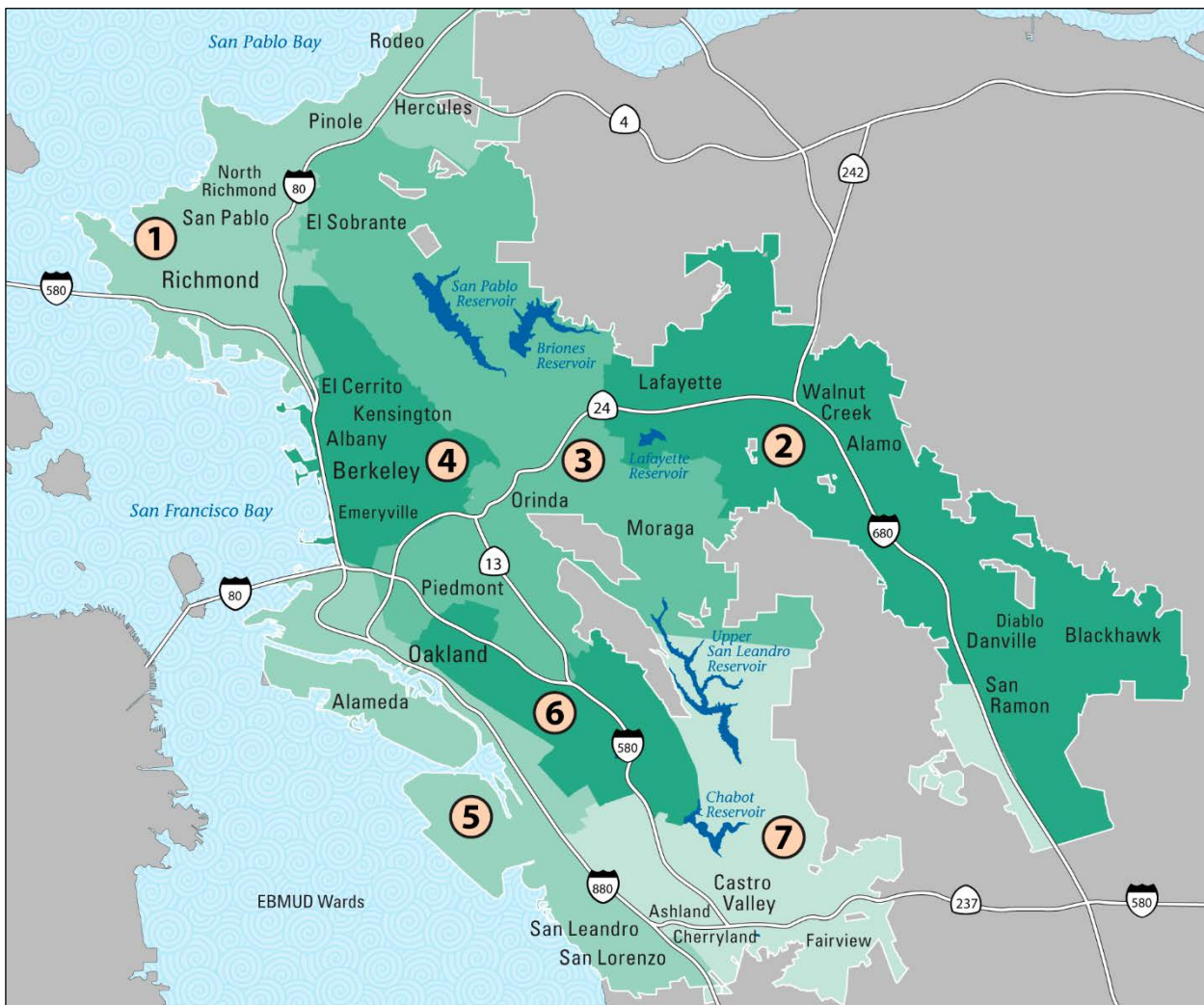
The District has been recycling and producing renewable energy at its wastewater plant since the mid-1980s. The District's plant transforms sewage and other organic wastes into green energy, nutrient-rich soil conditioner, and recycled water. The District produces sufficient renewable energy to meet its onsite power demands. Any excess energy is currently sold to the neighboring Port of Oakland.

DISTRICT ORGANIZATION

BOARD OF DIRECTORS

The District has a seven-member elected Board of Directors who determines overall policies, which are then implemented under the direction of the General Manager. The Board of Directors believes that the District has a public responsibility to preserve the region's resources and set industry standards for water and wastewater utilities.

Directors are publicly elected to four-year terms from seven wards within the service area. The following map shows the areas included in each ward.



The Board of Directors is shown below. Additional information can be found at:
www.ebmud.com/about-us/board-directors/your-board-members/.

WARD 1	Lesa R. McIntosh	Term expires 12/31/2024
	CONTRA COSTA COUNTY: Cities of Crockett, Hercules, Rodeo, and San Pablo; portions of Richmond and Pinole; and communities of North Richmond and Selby.	
WARD 2	John A. Coleman, Vice President	Term expires 12/31/2022
	CONTRA COSTA COUNTY: Cities of Alamo, Lafayette, Walnut Creek, Town of Danville; portions of San Ramon and Pleasant Hill and communities of Blackhawk and Diablo.	
WARD 3	Marguerite Young	Term expires 12/31/2022
	ALAMEDA COUNTY: City of Piedmont, and a substantial portion of Oakland. CONTRA COSTA COUNTY: Cities of Orinda and El Sobrante; Town of Moraga, and portions of Pinole and Richmond.	
WARD 4	Andy Katz	Term expires 12/31/2022
	ALAMEDA COUNTY: Cities of Albany, Berkeley, and Emeryville; and a portion of Oakland. CONTRA COSTA COUNTY: Cities of El Cerrito and Kensington.	
WARD 5	Doug Linney, President	Term expires 12/31/2024
	ALAMEDA COUNTY: Cities of Alameda and San Lorenzo; West Oakland and Oakland Airport Area, and a portion of San Leandro.	
WARD 6	William B. Patterson	Term expires 12/31/2024
	ALAMEDA COUNTY: Portions of Oakland (East Oakland and south of Park Boulevard/5 th Avenue) to the San Leandro City boundary.	
WARD 7	Frank Mellon	Term expires 12/31/2022
	ALAMEDA COUNTY: Castro Valley; portions of San Leandro and Hayward; communities of Cherryland and Fairview. CONTRA COSTA COUNTY: Portion of San Ramon.	

Board meetings are open to the public and are held twice monthly on the second and fourth Tuesday and at other times as needed. The Board is committed to governing through a public process, guided by the District's Mission Statement.

SENIOR MANAGEMENT

The General Manager (GM) and General Counsel are appointed by and report directly to the Board of Directors.

Clifford C. Chan	General Manager
Craig S. Spencer	General Counsel

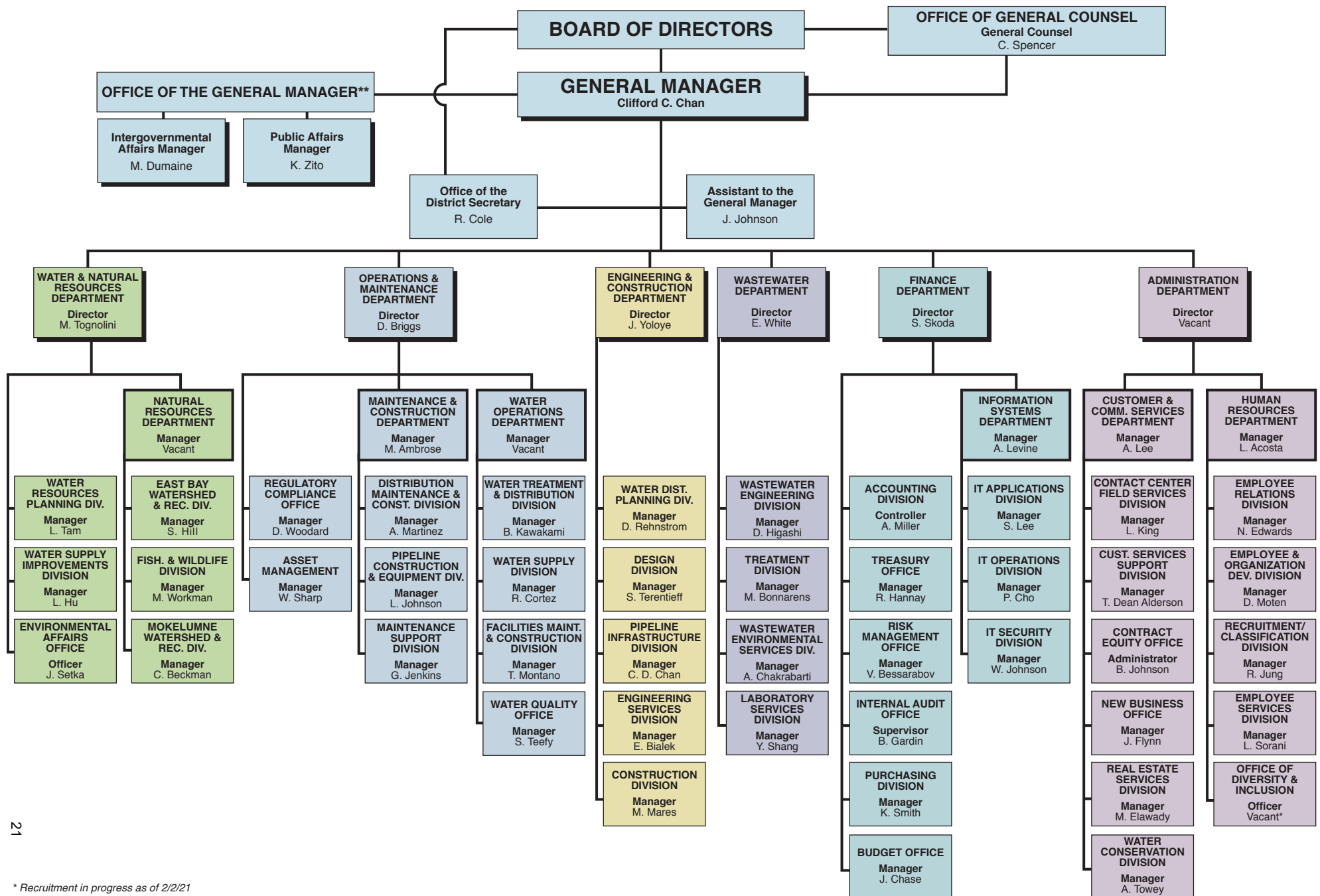
The Senior Management Team listed below is responsible for managing the operations of the District.

Laura A. Acosta	Manager of Human Resources
Michael R. Ambrose	Manager of Maintenance and Construction
David A. Briggs	Director of Operations and Maintenance
Rischa S. Cole	Secretary of the District
Marlaigne K. Dumaine	Special Assistant to the GM – Governmental Affairs
Andrew L. Lee	Manager of Customer and Community Services
Andrew J. Levine	Manager of Information Systems
Sophia D. Skoda	Director of Finance
Michael T. Tognolini	Director of Water and Natural Resources
Eileen M. White	Director of Wastewater
Jimi O. Yolo	Director of Engineering and Construction
Kelly Zito	Special Assistant to the GM – Communications
Vacant	Manager of Water Operations
Vacant	Special Assistant to the GM – Diversity, Equity, Development

The chart on the following page provides an overview of the organization and shows the different departments and divisions within the District. It can also be found at www.ebmud.com/about-us/board-directors/management/.



San Pablo Reservoir – El Sobrante, CA



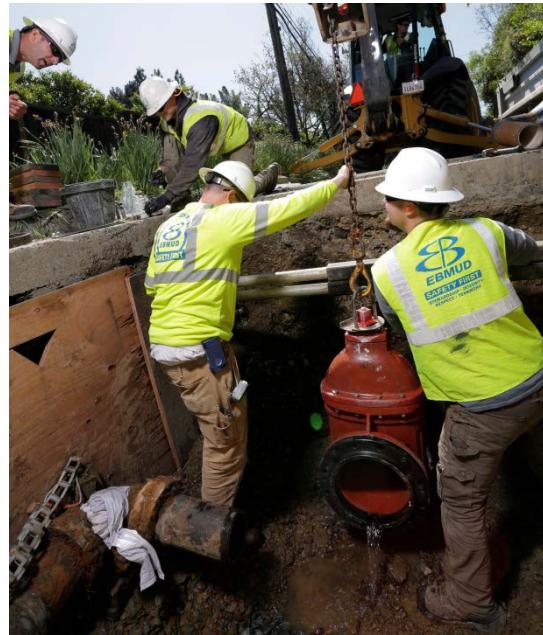
* Recruitment in progress as of 2/2/21

** The new Office of Diversity, Equity, and Development will be included in the FY22 Organization Chart

WORKFORCE

The District has over 2,000 employees. Most are represented by the American Federation of State, County and Municipal Employees, Locals 444 and 2019; the International Federation of Professional and Technical Engineers, Local 21; and the International Union of Operating Engineers, Local 39. The majority of employees work in the East Bay, but some also work in the Central Valley and Mokelumne watershed area.

The District is an equal employment opportunity (EEO) employer, and a proud leader in taking legal, proactive steps that support a diverse, inclusive workforce. The District strives to achieve a diverse workforce composition reflective of the labor market in regards to gender and race/ethnicity, and to identify deficiencies and obstacles in recruitment and develop action oriented programs to address such deficiencies/obstacles and thereby increase diversity. We are committed to providing a professional environment which is free from EEO discrimination, harassment, and/or retaliation. We take affirmative action to employ and advance in employment of qualified women, minorities, protected veterans, and individuals with disabilities. A new office reporting to the General Manager includes District functions of diversity, equity, and development, will help the District meet its goals to be a diverse agency meeting needs of our community and our staff.



Field Crew



Administration Building – Oakland, CA



Wastewater Treatment Plant – Oakland, CA

STRATEGIC PLAN SUMMARY

The District's Strategic Plan incorporates its mission and principles, and identifies its goals, strategies, objectives, and key performance indicators. The plan guides staff in the management and allocation of resources and assets. The Strategic Plan also guides the development of the biennial budget and the five-year capital improvement program to ensure that necessary resources are provided to implement the plan's strategies and objectives.

The current Strategic Plan was adopted by the Board of Directors in June 2020. It is the framework for how the District will respond to and prioritize challenges and evolving priorities. The plan incorporates the principles of fiscal responsibility, sustainability, and effective use of resources that minimize the District's environmental footprint.

The Strategic Plan includes the following elements:

- **Goals** define in broad terms the high-level achievements the District will pursue;
- **Strategies** define which actions are necessary to achieve each goal;
- **Objectives** reflect what needs to be accomplished in the near term; and
- **Key Performance Indicators (KPIs)** measure how well the District is doing in achieving its goals.



Strategic Plan Goals

The District has established the following set of goals integrating sustainability principles:

- **Long-Term Water Supply**
We ensure a reliable high-quality water supply for the future.
- **Water Quality and Environmental Protection**
We meet or surpass environmental and public health standards and protect public trust values.
- **Long-Term Infrastructure Investment**
We maintain and improve the District's infrastructure in a cost-effective manner to ensure sustainable delivery of reliable, high quality service now and in the future, addressing economic, environmental, and social concerns.
- **Long-Term Financial Stability**
We manage the District's finances to meet funding needs and maintain fair and reasonable water and wastewater rates.
- **Customer and Community Services**
We build stakeholder trust and long-term relationships through service excellence, proactive communication and education.
- **Workforce Planning and Development**
We create an environment that attracts, retains, and engages a high performing diverse and inclusive workforce in support of the District's mission and core values.

Implementing the Plan

The purpose of the strategic planning process is to define the actions that need to be taken in the next three to five years to achieve the District's mission now and into the future. The process is designed to assess the environment in which we operate and respond to both near and long-term challenges. The General Manager and the Senior Management Team lead the implementation of the Strategic Plan.

The Strategic Plan is adopted by the Board of Directors. Upon adoption, development of specific actions to implement the Strategic Plan begins. The Strategic Plan provides staff with an overall high-level direction to achieve future success; it does not describe the specific actions to be taken. By developing actions that are linked to the Strategic Plan we can ensure that we focus our resources on the highest priorities that will best serve our customers.

Strategic Plan Process



Individual employee performance plans are prepared annually to establish and communicate responsibilities and performance expectations to achieve the priorities contained in the plan.

The Strategic Plan is comprised of two documents. One contains our goals, strategies and objectives to define the actions to take to ensure both long-term achievements and near-term accomplishments, and the other includes a comprehensive set of KPIs that reflect the various strategies and objectives contained within the six Strategic Plan goals.

The KPI results are measured annually against established targets to evaluate progress towards meeting our goals and are presented to the Board's Finance Committee.

Strategic Plan goals, strategies, objectives, and KPIs are contained in the Appendix.

An online copy of the Strategic Plan is available at www.ebmud.com/about-us/who-we-are/.

CHAPTER 1: FINANCIAL ORGANIZATION AND BUDGET PROCESS

This chapter describes the District's financial structure and organization, and budget development process, and responsibilities. It provides the parameters under which the budget is created.

FINANCIAL ORGANIZATION

Fund Structure and Descriptions

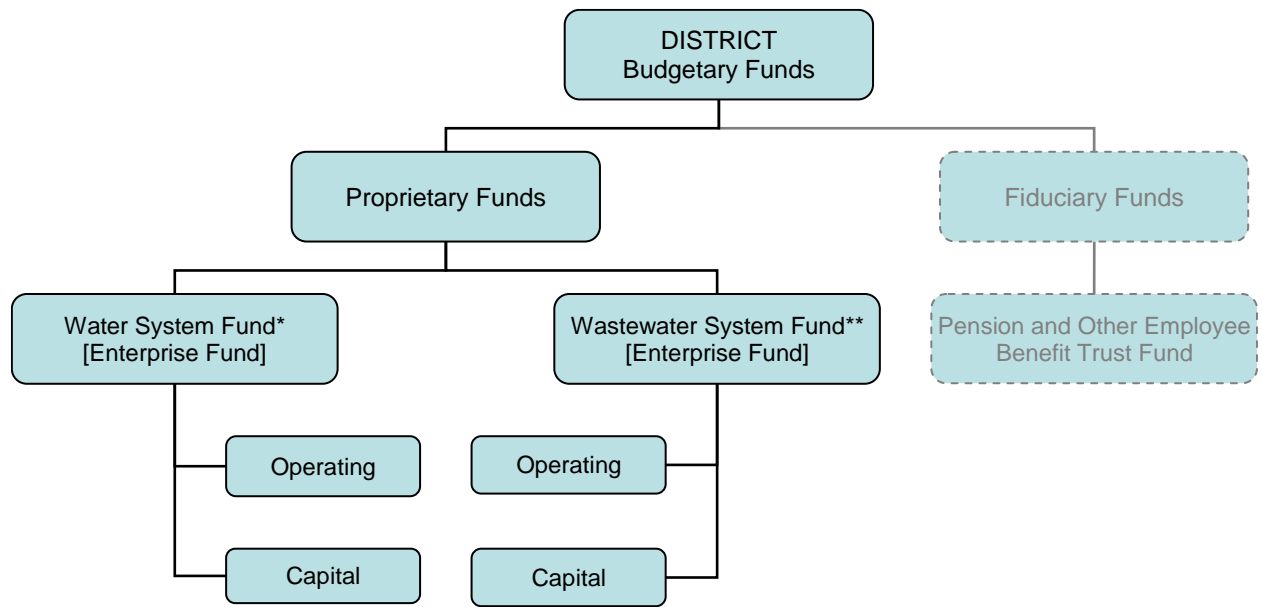
The District's financial structure is composed of proprietary funds (ongoing business operations) and fiduciary funds (see glossary for definitions of terms). The proprietary funds include two legally distinct and financially independent enterprise funds: the Water System and the Wastewater System. The two separate funds preserve the unique expenditure and revenue distinction between the two entities. When services are provided by one system for the benefit of the other, the appropriate fund is billed and cash transfers are made.

- The Water System is engaged in the collection, transmission, and distribution of water to communities within Alameda and Contra Costa Counties of California. In addition, the Water System provides support services to the Wastewater System and the cost of these services are charged to the Wastewater System. The Water System consists of fourteen staffed departments.
- The Wastewater System is engaged in the treatment of wastewater from residences and industries in the California communities of Alameda, Albany, Berkeley, Emeryville, Oakland, Piedmont, and the Stege Sanitary District. The Wastewater System consists of one staffed department.

Both systems are proprietary and enterprise funds. Enterprise funds are used to account for operations that are financed and operated in a manner similar to private business enterprises where the intent of the governing body is that the expense of providing goods or services to the general public on a continuing basis be financed or recovered primarily through user charges.

The Water System performs many support functions for the Wastewater System. These functions include but are not limited to financial services such as accounting, human resources services such as recruitment, information technology, customer services, legal services, and general oversight and governance. The Wastewater System reimburses the Water System directly for these services through a joint administrative and general annual expense.

Both systems are governed by the same elected Board of Directors and share policies and procedures. Throughout this document, the 'District' refers to the East Bay Municipal Utility District and is understood to encompass both the Water and Wastewater Systems.



***Departments**

Administration
 Customer & Community Services
 Engineering & Construction
 Finance
 Human Resources
 Information Systems
 Maintenance & Construction
 Natural Resources
 Office of the General Counsel
 Office of the General Manager
 Operations and Maintenance Support
 Water Operations
 Water Recycling Program
 Water Resources

****Department**

Wastewater

These funds are organized according to the Uniform System of Accounts for Water Utilities, as established by the California Public Utilities Commission, and adhere to the Government Finance Officers Association (GFOA) requirements for enterprise funds.

In addition to the proprietary funds, the District maintains a fiduciary fund to account for resources held for the benefit of parties outside the government. The fiduciary fund consists of the Pension and Other Employee Benefit Trust fund, which is maintained to account for assets held by the Employees' Retirement System in a trustee capacity for vested and retired employees.

Financial Reporting

Financial reports are prepared in conformity with generally accepted accounting principles. At the conclusion of each fiscal year, the Finance Department prepares the Comprehensive Annual Financial Report in compliance with principles and standards for financial reporting set forth by the Governmental Accounting Standards Board (GASB), and the guidelines recommended by the Government Finance Officers Association (GFOA) of the United States and Canada. An application has been submitted to GFOA for the Certificate of Achievement for Excellence in Financial Reporting for the Comprehensive Annual Financial Report for the fiscal year ending June 30, 2020. The Certificate of Achievement is a prestigious national award recognizing conformance with the highest standards for preparing a state and local government financial report. To receive the award, a government unit must publish an easily readable and efficiently organized report that satisfies both generally accepted accounting principles and applicable legal requirements. If awarded, this will be the sixteenth consecutive year that the District has received the award.

Budgetary and Accounting Basis

The basis of budgeting and accounting refers to the method for recognizing revenue and expenses in financial and budgetary reporting.

The District's budgets are prepared on a modified cash flow basis which projects the cash inflows and outflows over the course of a fiscal year (July 1 through June 30) excluding physical and intangible assets such as depreciation. Revenues are recognized as they are received and accounted for while obligations for expenditures are recognized when a commitment is made through an encumbered purchase order or actual expense.

The District's accounts and transactions are tracked on an accrual basis, which is the basis of accounting under generally accepted accounting principles. Under this method, all assets and liabilities associated with operations are included on the balance sheet; revenues are recorded when earned and expenses are recorded at the time commitments are incurred.

Depreciation and amortization are handled differently in budgetary and financial reporting. In budgetary reporting, depreciation and amortization are excluded, and the repayment of the principal on debt as an expense is included. In financial reporting, depreciation and amortization are included, and the repayment of the principal on debt as an expense is excluded.

This table illustrates the differences between the budget and accounting basis described above.

	BUDGETARY (Modified Cash Flow Basis)	ACCOUNTING (Accrual Basis)
Revenue	Recognized when received and accounted for	Recorded when earned
Obligations	Recognized when a commitment is made through encumbrance or expense	Recorded at the time commitments are incurred
Depreciation and amortization	Excluded	Included
Repayment of principal on debt	Included	Excluded

Financial Planning

The District prepares a strategic plan and annual financial forecasts that provide the basis for developing the budget. Long-term financial stability is a goal in the Strategic Plan, which includes managing the District's finances to support its needs and maintain reasonable water and wastewater rates.

Revenue requirements over a five-year planning horizon are evaluated to determine the level of rate adjustments required for the upcoming budget years. To the extent possible, increases in water and wastewater rates are adjusted to avoid large fluctuations.

Financial Policies

The District establishes policies and resolutions to comply with the stipulations set forth in the Municipal Utility District Act of the State of California (MUD Act). District policies are reviewed biennially; some policies such as the Investment Policy are reviewed annually. The policies described below set forth key objectives for long-range financial planning and control.

The following policies are included in the Appendices as a reference:

Policy 4.02	Cash Reserves
Policy 4.04	Financial Planning and Budgetary Control
Policy 4.07	Investment Policy
Policy 4.13	Establishing Water and Wastewater Rates
Policy 4.27	Debt Management

Policy 4.02: Cash Reserves: identifies specific financial metric targets. The District strives to maintain operating reserves at a level sufficient to meet working capital and unanticipated needs, specifically:

- Maintaining Working Capital Reserve of at least 3.0 times monthly net operating and maintenance expenses.
- Maintaining Self-Insured Liability Program Reserve based on the Actuarial Self-Insured Retention (SIR) funding recommendation.
- Maintaining Workers' Compensation Program Reserve based on the Actuarial SIR funding recommendation.
- Maintaining Rate Stabilization Reserve:
 - The Water System requires a minimum of 20 percent of projected annual water volume revenues.
 - The Wastewater System requires a minimum of 5 percent of operating and maintenance expenses.

Policy 4.04: Financial Planning and Budgetary Control: provides for the efficient use of District resources through financial planning and cost control; keeps total annual expenditures to the level of total annual revenue; provides periodic status reports on revenues, expenditures, and investments; and establishes the authority of the General Manager to transfer up to 5 percent of each fiscal years' budget between the capital and operating budgets within each System's funds, provided that the total budget for each System fund remains unchanged. Budget transfers between the Water and Wastewater Systems are prohibited.

Policy 4.07: Investment Policy: guides the investment of District funds. The policy ensures that all investments are compliant with the state law, and protects investments (safety), ensures availability of funds when needed (liquidity), provides earnings on the investment portfolio (yield) while reducing risk by investing in a variety of instruments (diversification) and the District's Conflict of Interest Code. Among the key guidelines included in the policy are the types and characteristics of permitted investments, parameters for investment decisions, reporting requirements, and internal controls.

Policy 4.13: Establishing Water and Wastewater Rates: sets forth the rate methodology, rate design, and rate distribution that provide adequate revenues while keeping rates affordable, encouraging conservation and efficient use of water, and reflecting the cost of providing service to customers. Rates should provide sufficient revenue to support a safe, reliable, and sufficient water supply and wastewater treatment services to its customers over the long term.

Policy 4.27: Debt Management: strives to maintain a reasonably conservative ratio between current funding sources and debt financing by:

- Maintaining an annual revenue bond debt service coverage ratio of at least 1.6 times;
- Limiting debt-funded capital to no more than 65 percent of the total capital program over each five-year planning period; and
- Limiting commercial paper/variable rate debt to 25 percent of outstanding long-term debt.

BUDGET PROCESS

During the budget process, the District makes decisions on the efficient use of its resources using the Strategic Plan for guidance. A financial plan and biennial budget are established for the Water and the Wastewater Systems that includes the operations and capital programs and sets levels of related expenditures that may be made.

The budget reflects the costs necessary to provide customers with safe, reliable water and wastewater service over the long-term while keeping rates fair and reasonable. The budget is also used to develop rates and charges that provide adequate revenues to meet the District's needs and encourages the efficient use of water.

Decisions on allocating resources and addressing budget needs do not end when the Board adopts the budget. Throughout the year, departments are responsible for implementing the budget and monitoring budget performance, responding to unforeseen or emergency circumstances, and participating in long-range financial planning.

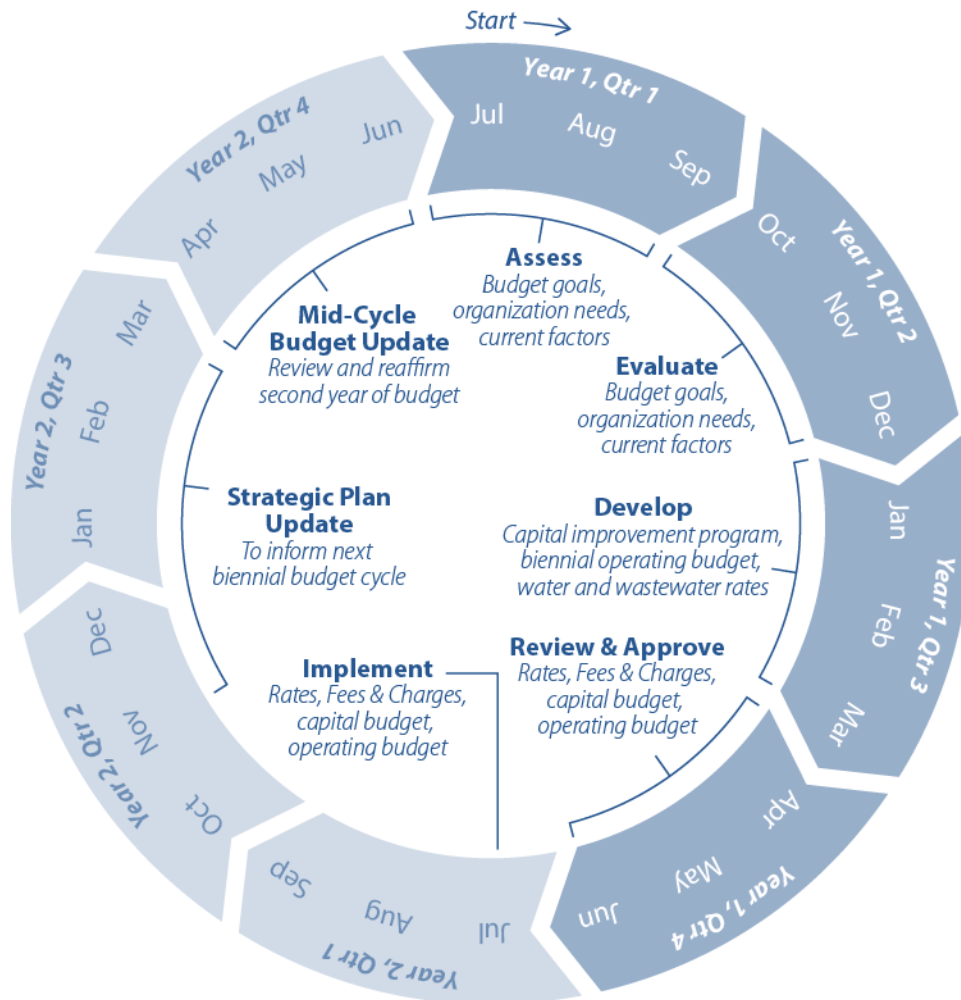
The District received the GFOA's Distinguished Budget Presentation Award for its FY20 and FY21 biennial budget document. This is the sixteenth consecutive budget document for which the District has received the GFOA award. For the fifth time, the California Society of Municipal Finance Officers (CSMFO) has presented the Excellence in Budgeting Award to the District. To qualify for these awards, the budget document had to meet stringent guidelines and criteria.

Balanced Budget

The District budget is balanced when revenues are equal to or greater than expenditures including debt service and ending fund balances meet minimum policy levels. The budget is established on the principle of overall revenue neutrality, as outlined in the American Water Works Association (AWWA) Principles of Water Rates, Fees and Charges recommendations for government-owned utilities. The District's rates and charges are set to ensure that revenues are sufficient to recover the total cash needs in a given fiscal year.

Budget Development Calendar

The District has a biennial budget process which is represented in the graphic below and described more fully in the following text.



Assess: Budget goals, organization needs, and current factors

July
August
September

Strategic Plan adopted.
Budget guidelines and assumptions prepared.
Capital budget development starts.

Evaluate: Budget goals, organization needs, and current factors

October
November
December

Operating budget development starts.
Review of capital budget requests begins.
Review of operating budget requests begins.

Develop: Capital improvement program, biennial operating budget, water and wastewater rates

January / February Operating budget and capital improvement program recommendations are developed by Senior Management with Board of Directors input. Water and Wastewater rates to fund budget needs are proposed.

March Documents are prepared to present proposed budget and rates to the Board and the public.
The General Manager presents the proposed operating and capital budgets, and proposed rates, fees and charges to the Board at budget workshops.

Review & Approve: Rates, fees & charges, capital budget, operating budget

April Another budget workshop occurs if needed to address any direction given by the Board at previous budget workshops.
California Proposition 218 notices are distributed to property owners.

May The General Manager's recommendations on the proposed rates, charges, and fees are filed with the Board of Directors.

June Public hearing on rates is held.
Board adopts operating and capital budgets; rates, fees and charges schedules; and positions authorization.

Implement: Adopted rates, fees & charges, capital and operating budgets

July Adopted rates and budget implementation begins.
Adopted budget, and rates and charges schedules published.

Strategic Plan Update

The Strategic Plan is updated every two to four years. This plan provides the District with overall direction for the next three to five years, sets priorities, and guides the development of the operating and capital budgets within those priorities.

Mid-Cycle Budget Update

The Board of Directors approves the budget covering a two-year period. The Board reviews and reaffirms the second year of the two-year budget prior to the start of a new fiscal year in July. A Mid-Cycle Budget Update workshop provides the Board of Directors with a budget status and any projected changes to revenues, expenditures, and staffing.

Annual and Semi-Annual Budget Performance Reports

At the mid-point and conclusion of each fiscal year, the Board of Directors is provided with a comparative analysis of expenditures to budget.

Budget Responsibilities

Budget decisions are made through a process that involves the Board of Directors, District staff and the public. The responsibilities for financial management planning and budget control are:

Departmental Responsibilities

- Prepare capital improvement program and biennial budget requests;
- Monitor financial performance and take prompt corrective action, as needed;
- Monitor key performance indicators and take corrective action, as appropriate; and
- Inform the General Manager when unforeseen circumstances indicate that budget amounts may be exceeded or that expected revenues may be less than planned.

Finance Department Responsibilities

Treasury Operations

- Monitor District's liquidity and ensure funds are available as needed, invest funds in accordance with Board policy, wire funds to pay approved demands, and take other actions associated with the prudent management of the District's financial resources;
- Provide for the issuance of debt to fund the capital improvement program; and
- Prepare financial projections, schedules of rates and charges, tax rate proposals and other financial materials.

Accounting

- Produce monthly and annual expenditure and revenue reports;
- Prepare and present information on financial trends to facilitate evaluation of the District's financial position and identify conditions requiring management attention; and
- Prepare periodic reports on the status of expenditures, revenues, investments and actions taken to ensure the financial stability of the District.

Budget Office

- Facilitate the development of the Strategic Plan;
- Project short-range and long-range financial needs, and recommend methods for meeting those needs;
- Prepare the District's biennial operations and capital improvement program budgets;
- Prepare monthly, quarterly, semi-annual and annual budget performance reports;
- Prepare the mid-cycle budget update;
- Assist departments throughout the year with their budgets and financial issues; and
- Develop procedures and controls to monitor and ensure compliance with the budget.

General Manager's Responsibilities

- Review and present to the Board of Directors long-range plans, budgets and revisions, schedules of rates and charges, payments of financial demands and other financial transactions, as necessary;
- Authorize budget transfers up to five percent of the fiscal years' budget between the operations and capital budgets in each of the Water and Wastewater System's budgets, provided that the total budget for each of the two systems remains unchanged;
- Authorize the allocation of budgeted funds from contingency; and
- Implement emergency financial procedures within approved limits, when necessary.

Budgetary Controls

Automated District-wide budgetary controls track spending to the amounts set in the budget. Budgetary controls function differently for operations and capital budget expenditures.

For the operations budget, each department is controlled within each of the three expenditure categories: personnel costs, contract services, and operations and maintenance. Departments are not allowed to exceed their authorized operations budget for each fiscal year.

For the capital budget, each capital project is controlled based on its appropriation. A project may not exceed its total appropriation. Unlike the operations budget, which expires on June 30 of each fiscal year, capital appropriations are multi-year and will last the life of the project.

Budget Adjustments

Adjustments to the operations budget are reallocations of funds between organizational units, categories, and/or line items, which allow departments to have financial flexibility within established budgetary controls.

Budget adjustments to the capital budget are reallocations of funds within or between projects. Approval from the affected department(s) and the Budget Office is required for all budget adjustments.

General Manager approval is required for the reallocation of funds from contingency, and the reallocation of funds between the operations and capital budgets in both the Water and Wastewater Systems. Approval from the Board of Directors is required for increases to the total adopted budget of the Water or Wastewater System.

Capital Improvement Program Preparation

The Capital Improvement Program (CIP) budget communicates the District's planned infrastructure investments for the next five years by identifying and prioritizing its capital needs.

The CIP consists of three primary levels:

Strategy – groups several programs representing key capital objectives as identified in the Strategic Plan. The strategies are summarized in the Capital Expenditures sections of the Water System and Wastewater System chapters.

Program – represents a group of related projects combined to facilitate planning and decision-making. A discussion of the significant programs can be found in the CIP program highlights sections of the Water System and Wastewater System chapters.

Project – a discrete set of capital improvement tasks, coordinated by a project manager. Appropriation requests and projected spending (cash flow) are authorized at the project level. A discussion of each project included in the CIP can be found in the supplemental volume of the budget document.

CIP Budget Preparation

The CIP is prepared as part of the biennial budget process. The responsibilities for preparing and managing the CIP are shared among staff as follows:

Project Management

Project managers work together to meet the requirements of the biennial CIP budget process and to implement a specific program or project. During the budget process the project appropriations and cash flows are updated, and project descriptions and justifications are modified to identify recent and anticipated major accomplishments. Managers also work together to identify the most effective ways to schedule, staff, and coordinate projects.

The steps used to budget for the CIP are:

- Propose and justify new capital projects needed to carry out the District's goals;
- Identify how resources will be allocated to accomplish the work; and
- Identify the required appropriation and estimated cash flow for each project, including any contingency and an inflation factor for future project appropriations and cash flows.

Capital Steering Committee (CSC)

The CSC consists of Department Directors and Managers responsible for the overall management of the CIP during the budget preparation process.

Responsibilities include:

- Serve as an advisory group to the General Manager and the Budget Office;
- Review projects for opportunities to combine programs and projects, streamline costs, and determine the necessity for proposed new projects;
- Confirm the adequacy of District resources to complete projects;
- Scrutinize planned project cash flow amounts;

- Finalize the list of individual projects to be presented to the General Manager and Board of Directors based on available resources, project need, and priority;
- Review the status of the CIP regularly;
- Work with project management staff to resolve administrative issues; and
- Authorize necessary changes to project scope, schedule, and budget that are within staff's administrative authority.

Budget Office

The Budget Office is responsible for the overall management of the budget process which includes:

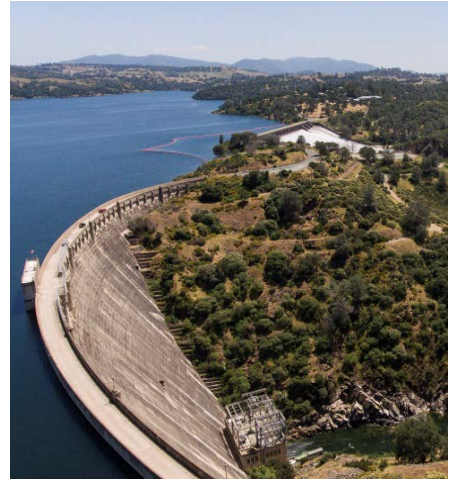
- Manage the CIP budget preparation and planning process;
- Provide staff support to the CSC;
- Ensure that the decisions of the CSC and General Manager are reflected in the budget;
- Determine the level of funding necessary for the CIP;
- Report to the General Manager and CSC the status of capital cash flow spending; and
- If required, request General Manager or Board approval for adjustments to the CIP project appropriations.

In FY22, a new budget system will be implemented which may change how the capital budget is developed in the future.

CHAPTER 2: BUDGET SUMMARY

This chapter summarizes the biennial budget for the Water and Wastewater Systems and includes the following topics:

- Budget Appropriations
- Operations
- Debt Service
- Capital Improvement Program
- Staffing
- Labor and Benefits
- Sources of Funds
- Fund Summaries



Pardee Dam – Lone, CA

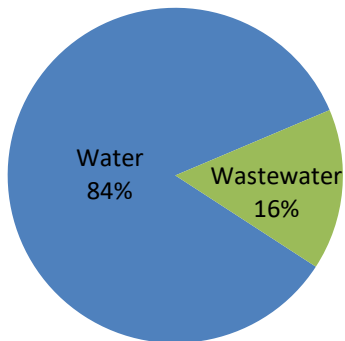
BUDGET APPROPRIATIONS

The budgeted appropriations are divided into three categories:

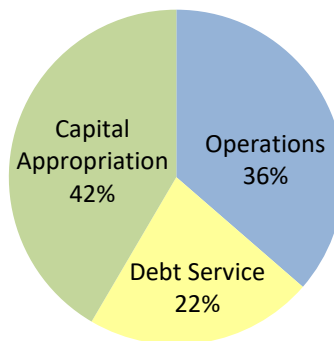
- **Operations** associated with the annual cost of providing all water and wastewater services;
- **Debt Service** on bonds issued to pay for the capital infrastructure investments along with other debt-related expenses; and
- **Capital** associated with projects to upgrade aging infrastructure, make seismic improvements, protect natural resources, and ensure a future water supply.

FY22 & FY23 APPROPRIATIONS (\$ Millions)							
	FY22			FY23			Grand Total
	Water	Wastewater	Total	Water	Wastewater	Total	
Operations	314.7	85.4	400.1	328.7	89.7	418.4	818.5
Debt Service	211.9	30.7	242.6	222.4	31.9	254.2	496.9
Capital Appropriation	<u>404.8</u>	<u>57.9</u>	<u>462.7</u>	<u>418.4</u>	<u>54.1</u>	<u>472.5</u>	<u>935.2</u>
Total	931.4	174.0	1,105.4	969.4	175.7	1,145.1	2,250.5

Appropriations by System



Appropriations by Category



The Water System has almost two times as many customers as Wastewater, yet its total appropriations are over five times greater than Wastewater due to the overall size and scope of activities of the Water System.

Total investments related to capital (debt service plus capital) comprise almost two-thirds of the appropriations.

APPROPRIATIONS BY SERVICES PROVIDED

EBMUD provides water and wastewater services to protect public health through the operation and maintenance of an infrastructure system spanning over 4,200 miles of pipeline, aqueducts, reservoirs, pumping plants, sewer interceptors, and treatment plants. Other services include recreation, fishery and habitat restoration, water conservation, pollution prevention, youth education, and producing renewable energy at dams and the wastewater treatment plant. Unlike many California water agencies, EBMUD owns its own water source and only purchases water during a drought.



Lafayette Reservoir – Lafayette, CA

The following table summarizes the budgeted appropriations by services provided.

FY22 & FY23 APPROPRIATIONS BY SERVICES PROVIDED (\$ Millions)		
SERVICES	FY22	FY23
Capital Improvement Program Projects to upgrade aging infrastructure, protect natural resources, and provide high quality water and wastewater services. Projects typically result in the construction of new facilities, or the rehabilitation or upgrade of existing facilities.	462.7	472.5
Debt Service Interest and principal repayment of bonds sold to pay for capital investments along with other debt-related expenses.	242.6	254.2
Water Service Operation and maintenance of facilities to store, treat and deliver high-quality water to 1.4 million customers including reservoirs, pipelines, and treatment plants; planning for future water supply; recycled water; and reading meters.	191.3	199.2
Wastewater Service Operation and maintenance of facilities to treat wastewater for 740,000 customers including sewer interceptors, the treatment plant, laboratory and wet weather facilities; and educational outreach to residences and businesses.	85.4	89.7
Support Services Human resources, finance, legal, information systems and other services.	79.6	84.0
Customer Service Water conservation programs, public information, school outreach, billing services, contact center, and additional customer support services.	25.0	26.1
Natural Resource Management and Protection Environmentally sound management of over 57,000 acres of watershed lands, operation of public recreation facilities and fisheries programs.	18.8	19.4
TOTAL BUDGET APPROPRIATIONS	1,105.4	1,145.1

OPERATIONS

Various departments carry out the day-to-day operations and the budget includes appropriations for labor, contract services and other expenses such as fuel, chemicals, and computer hardware and software. Appropriations are also budgeted for contingency to cover unanticipated needs and employee cost of living adjustments; intradistrict to ensure that certain internal expenses are not duplicated such as vehicle expenses and warehouse overhead; and capital support to capture costs that support, but are not directly attributable to capital projects. Capital support is subtracted from operations and reallocated to the capital budget. Intradistrict expenses are also subtracted from operations and only impact the Water System.



Wastewater Clarifier – Oakland, CA

The table below shows department operations within each system. The Maintenance & Construction and Water Operations Departments account for almost half of the Water System operations budget.

FY22 & FY23 DEPARTMENT OPERATIONS (\$ Millions)			
	FY22 Budget	FY23 Budget	% Chg
WATER SYSTEM			
Administration	0.4	0.4	0.8%
Customer & Community Services	24.2	24.6	1.9%
Engineering & Construction	22.4	22.4	0.3%
Finance	29.0	29.8	2.7%
Human Resources	14.6	15.3	4.4%
Information Systems	33.9	34.8	2.6%
Maintenance & Construction	79.2	80.1	1.2%
Natural Resources	18.4	18.7	1.5%
Office of the General Counsel	5.6	5.6	0.6%
Office of the General Manager	7.9	8.4	5.4%
Operations & Maintenance Support	23.6	24.2	2.2%
Water Operations	95.5	97.3	1.9%
Water Recycling Program	6.1	6.4	4.1%
Water Resources	<u>9.7</u>	<u>10.0</u>	3.8%
Staffed Departments	370.5	378.1	2.0%
Contingency	9.4	17.2	-
Intradistrict	(14.3)	(14.6)	2.1%
Capital Support	<u>(51.0)</u>	<u>(52.0)</u>	2.0%
TOTAL WATER SYSTEM	314.7	328.7	4.4%
WASTEWATER SYSTEM			
Staffed Department	87.8	90.9	3.5%
Contingency	1.4	2.7	-
Capital Support	<u>(3.8)</u>	<u>(3.9)</u>	2.6%
TOTAL WASTEWATER SYSTEM	85.4	89.7	5.1%
DISTRICT TOTAL	400.1	418.4	4.6%

DEBT SERVICE

Capital expenditures are typically funded through debt financing or on a “pay-as-you-go” basis, but a portion can also be funded by reimbursements, grants or loans. Debt financing is generally suited to large capital projects with a long useful life, and creates a measure of intergenerational equity in that future ratepayers will participate in the financing of the capital projects over their useful life. The “pay-as-you-go” option uses current year revenues and supports long-term financial stability.

The District’s policy is that over any five-year planning period no more than 65 percent of the Capital Improvement Program (CIP) will be funded from debt. Prior biennial budgets, as well as this budget, support additional “pay-as-you-go” funding to reduce debt service costs. Although debt service payments are considered to be part of the operating budget, debt proceeds are used to finance capital investments.

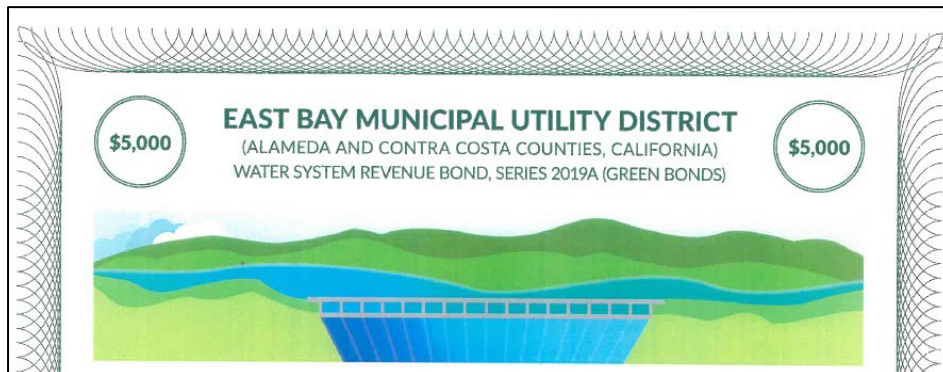
The Water System and Wastewater System have a similar projected level of debt funding of approximately 40 percent over the five-year FY22-26 CIP.

FY22 & FY23 Debt Service and Bonds Issued

Annual debt service payments are made to pay the interest and principal on the bonds issued to fund a portion of the CIP as shown in the table below. The table also shows the amount of new revenue bonds expected to be issued to help fund the CIP.

Total outstanding debt on the Water System is projected to be \$2.68 billion, and \$357.4 million on the Wastewater System as of June 30, 2021.

(\$ Millions)	FY22		FY23	
	Water System	Wastewater System	Water System	Wastewater System
Debt Service Payments	211.9	30.7	222.4	31.9
New Bonds Issued	150.0	10.0	150.0	20.0



Water Revenue Green Bond

CAPITAL IMPROVEMENT PROGRAM

The Capital Improvement Program (CIP) identifies the District's capital needs over the next five years and prioritizes projects to rehabilitate and replace aging infrastructure to better serve customers.

Capital appropriations are the amounts approved by the Board to be spent on capital projects, and may be expended over multiple years. Appropriations vary from year-to-year depending upon the funding needs of the projected work. Capital support consists of costs incurred by support functions that are not directly charged to individual capital projects, such as finance, human resources, and information systems. These costs support the CIP as a whole, and are deducted from the operations budget and included in the capital budget.



Pumping Plant Construction

The following table shows the annual appropriations for the five-year CIP, plus capital support. The Board adopts the appropriations for only the first two years of the CIP. The remaining years are for planning purposes and are subject to revision. Approximately 85 percent of the appropriations are associated with the Water System.

Planned Capital Appropriations within Fund (\$ Millions)						
	FY22	FY23	FY24	FY25	FY26	Total
Water	353.8	366.4	375.2	397.0	465.0	1,957.4
Capital Support	<u>51.0</u>	<u>52.0</u>	<u>53.0</u>	<u>54.1</u>	<u>55.2</u>	<u>265.3</u>
Water Total	404.8	418.4	428.3	451.1	520.2	2,222.7
Wastewater	54.1	50.2	28.9	79.5	164.0	376.7
Capital Support	<u>3.8</u>	<u>3.9</u>	<u>4.0</u>	<u>4.1</u>	<u>4.1</u>	<u>19.9</u>
Wastewater Total	57.9	54.1	32.8	83.6	168.1	396.6
District Total	462.7	472.5	461.1	534.7	688.3	2,619.3

Major capital projects to be undertaken are shown below. These and other capital projects are described in Chapter 3 and 4, and in the supplemental volume for this budget.

Water System	Wastewater System
Treatment Plant Upgrades	General Wastewater Improvements
Pipeline Rebuild	Interceptor and Pump Station Improvements
Large Diameter Pipelines	Secondary Treatment Improvements
Reservoir Rehabilitation	Dewatering Building and Equipment
Pumping Plant Rehabilitation	Preliminary Treatment Improvements
New Service Installations	Utilities and Site Work
Service Lateral Replacements	Power Generation System Improvements
Building Facilities Improvements	Electrical and Control Systems

STAFFING

Departments add and delete positions based on operational need, and look for opportunities to restructure workloads as employees leave the District. Staffing is shown by full-time equivalents (FTE) which varies depending upon appointment type. Civil service, civil service exempt, limited-term, and temporary construction appointments are full-time positions and equal 1.0 FTE. Intermittent positions equal 0.75 FTE. Part-time and temporary positions equal 0.5 FTE.



Wastewater Staff

In FY22, the District will have 2,156.75 authorized FTE, with full-time positions comprising over 95 percent of the workforce. The following shows the number of authorized FTEs for FY19 through FY23, as amended by Board actions. Over this five-year period, staff levels have increased by 40.75 FTE or 1.9 percent.

District Staffing (Number of Authorized FTEs)					
Appointment Type	FY19	FY20	FY21	FY22	FY23
Full-Time Civil Service and C.S. Exempt	2,014.0	2,058.0	2,058.0	2,065.0	2,065.0
Limited-Term / Temporary Construction	65.0	63.0	62.0	57.0	56.0
Intermittent	3.0	3.75	3.75	3.75	3.75
Temporary / Part-Time	<u>33.0</u>	<u>32.0</u>	<u>32.0</u>	<u>31.0</u>	<u>31.0</u>
Total Authorized FTEs	2,115.0	2,156.75	2,155.75	2,156.75	2,155.75
FTE Change From Previous FY	0.0	41.75	(1.0)	1.0	(1.0)

Limited-Term / Temporary Construction category includes 12 FTEs requiring Drought Declaration.

FY22 & FY23 Changes in FTE

Staffing changes provide opportunities to address priority areas such as investments in and maintenance of aging water and wastewater infrastructure. In FY22 and FY23, the goal is to hold staffing steady during this uncertain time while continuing to proceed with key projects and initiatives. The number of District-wide authorized FTE is increasing a net of 1.0 in FY22 through the addition of 9.5 FTEs and the deletion of 8.5 FTEs. In FY23, 1.0 FTE will be deleted.

Water System

The 7.5 FTEs added in FY22 will address:

- Replacement and maintenance of aging infrastructure
- Operations Support
- Customer Support Program
- Racial justice and social equity strategies

Wastewater System

The 2.0 FTEs added in FY22 will focus on:

- Priority issues such as biosolids, nutrients, and contaminants of emerging concerns
- Facilities control systems oversight and cyber security

LABOR AND BENEFITS



Leak Detection

Labor includes all compensation such as salaries and overtime. Benefits include the District's costs associated with retirement, health care, Social Security, disability and unemployment insurance. The District does not pay for the employee share of retirement contributions.

Labor and benefits are allocated to either operations or capital. Typical duties performed by employees that charge to operations include pipeline repairs, meter maintenance, treatment plant operations, customer support, human resources, and information systems. Typical capital duties include upgrades, rehabilitation

and replacement of pumping plants, pipelines, reservoirs and treatment plants.

The table below shows labor and benefits allocated between the operations and capital budgets. Total labor and benefits are projected to increase 1.7 percent in FY22, and 3.8 percent in FY23.

- Total labor and benefits budget attributable to operations is 73 percent.
- Benefits represent 38.3 percent of the total labor budget.

Labor and Benefits by Operations and Capital (\$ Millions)					
	FY21 Budget	FY22 Budget	% Chg	FY23 Budget	% Chg
Water					
Operations	256.2	261.4	2.0%	272.6	4.3%
Capital	101.5	102.5	1.0%	105.2	2.6%
Wastewater					
Operations	48.6	49.8	2.6%	51.7	3.8%
Capital	11.4	11.2	-1.5%	11.7	3.9%
District-wide					
Operations	304.8	311.2	2.1%	324.3	4.2%
Capital	112.9	113.7	0.7%	116.9	2.9%
Total	417.7	424.9	1.7%	441.2	3.8%

Includes cost of living adjustment.

Excludes the Capital Support overhead allocated from Operations to Capital.

Increases in labor and benefit costs are primarily attributable to funding additional FTEs, cost of living adjustments, overtime costs, and a rise for retirement and health care expenses. These increases are offset by drivers such as overall lower salaries in comparison to the prior biennial budget due to the significant number of new employees with salaries lower than the employees they replaced, savings due to the time required to fill positions, a lower assumed cost of living adjustment compared to the prior biennial budget, and less use in the first fiscal year of premium pay for eligible employees that report to a job site lacking the basic facilities provided at District locations. The majority of the additional FTEs are in the Water System to support capital projects, infrastructure maintenance, operations support, customer support program, racial justice and social equity strategies, internships, K-12 school education program, and wastewater operations.



Wastewater Employee

Several complex drivers impact labor and benefits such as a slower projected rise in benefits costs for retirement and health care. The budget continues to build on efforts to contain benefit costs, the largest of which are the employer pension contribution and health care expense. In 2012, pursuant to the California Public Employees' Pension Reform Act (PEPRA), the Board of Directors implemented a change in the District's Employee Retirement System, referred to as the 2013 Plan. New employees receive a reduced pension benefit and fund a greater share of that benefit themselves. This budget projects a growth in the number of employees in the 2013 Plan, thereby slowing the increase for the District's share of retirement costs.

The following table shows the different employer pension contribution rates since FY20. Most new employees are part of the 2013 Plan and all other employees participate in the 1955/1980 Plan. Approximately 42 percent of employees are part of the 2013 Plan. The FY22 contribution rates were changed based on updated actuarial assumptions adopted by the Retirement System in November 2020 and an

updated Actuarial Valuation adopted in January 2021. The actual FY23 rate will not be available until it is calculated by the actuary and adopted by the Retirement Board in 2022.

Employer Pension Contribution Rates			
Plan	FY20	FY21	FY22
1955/1980 Plan	37.86%	37.86%	42.37%
2013 Plan	31.24%	31.24%	33.32%

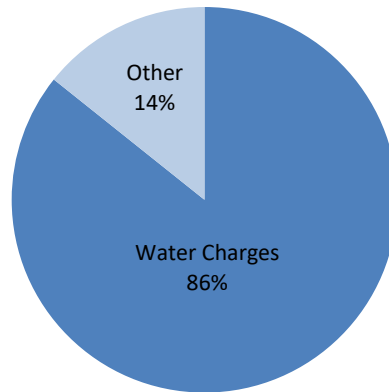
In the District's continuing efforts of cost containment, changes were made to health benefit provider options starting in 2019. The fiscal impact of these changes is expected to slow the growth of health care costs projected for this budget. This budget assumes a health benefit cost increase of approximately 5.0 percent each year.



Staff performing vegetation management on the Pardee watershed

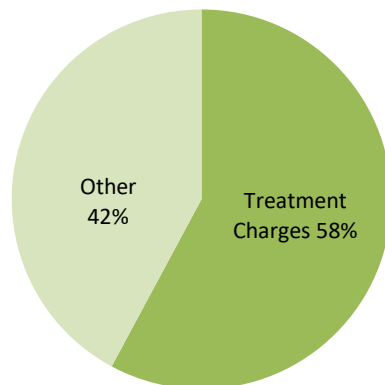
SOURCES OF FUNDS

FY22 & FY23 Water System Operating Revenue (Total = \$1.46 Billion)



The principal source of Water System operating revenue is Water Charges which account for 86 percent of revenues. As such, Water System revenue is highly sensitive to changes in customer water use.

FY22 & FY23 Wastewater System Operating Revenue (Total = \$299.6 Million)



The principal source of Wastewater System operating revenue is Treatment Charges which account for 58 percent of revenues. The Wastewater System is not as sensitive to changes in customer water use as the Water System since Treatment Charges are a smaller percentage of overall Wastewater revenue.



Wastewater Clarifier – Oakland, CA



Pumping Plant – Piedmont, CA

FUND SUMMARIES

The following table summarizes the beginning and ending Water System and Wastewater System fund balance based on projected sources and use of funds.

WATER SYSTEM FUND SUMMARY			
OPERATING & CAPITAL (\$ Millions)			
	FY22 Balance	FY23 Balance	% Change
Beginning Balance (Projected)	436.0	458.3	5.1%
Source of Funds			
Operating Revenues	713.0	745.4	4.5%
Capital**	<u>177.3</u>	<u>176.4</u>	-0.5%
Total Sources	890.3	921.8	3.5%
Use of Funds			
Operating			
Operations	314.7	328.7	4.4%
Debt Service	211.9	222.4	4.9%
Capital			
Revenue Funded	164.1	200.8	22.4%
Non-revenue Funded	<u>177.3</u>	<u>176.4</u>	-0.5%
Total Uses	868.0	928.2	6.9%
Sources less Uses	22.3	(6.4)	-128.9%
Ending Balance *	458.3	451.9	-1.4%
WASTEWATER SYSTEM FUND SUMMARY			
OPERATING & CAPITAL (\$ Millions)			
	FY22 Balance	FY23 Balance	% Change
Beginning Balance (Projected)	103.7	99.3	-4.2%
Source of Funds			
Operating Revenues	147.7	151.9	2.8%
Capital**	<u>9.8</u>	<u>19.6</u>	100.0%
Total Sources	157.5	171.5	8.8%
Use of Funds			
Operating			
Operations	85.4	89.7	5.1%
Debt Service	30.7	31.9	3.8%
Capital			
Revenue Funded	36.0	30.2	-16.0%
Non-revenue Funded	<u>9.8</u>	<u>19.6</u>	100.0%
Total Uses	161.9	171.5	5.9%
Sources less Uses	(4.4)	0.0	-100.0%
Ending Balance *	99.3	99.3	0.0%

* Includes reserves for working capital, self-insurance, worker's compensation, contingency, rate stabilization, and capital projects.

** Includes bonds, reimbursements, and grants.

CHAPTER 3: WATER SYSTEM

This chapter provides a detailed description of the Water System including discussions of the following topics:

- Fund Summary
- Sources of Funds
- Use of Funds
- Staffed Department Operations
- Debt Service and Financing
- Capital Improvement Program
- Five-Year Financial Forecast

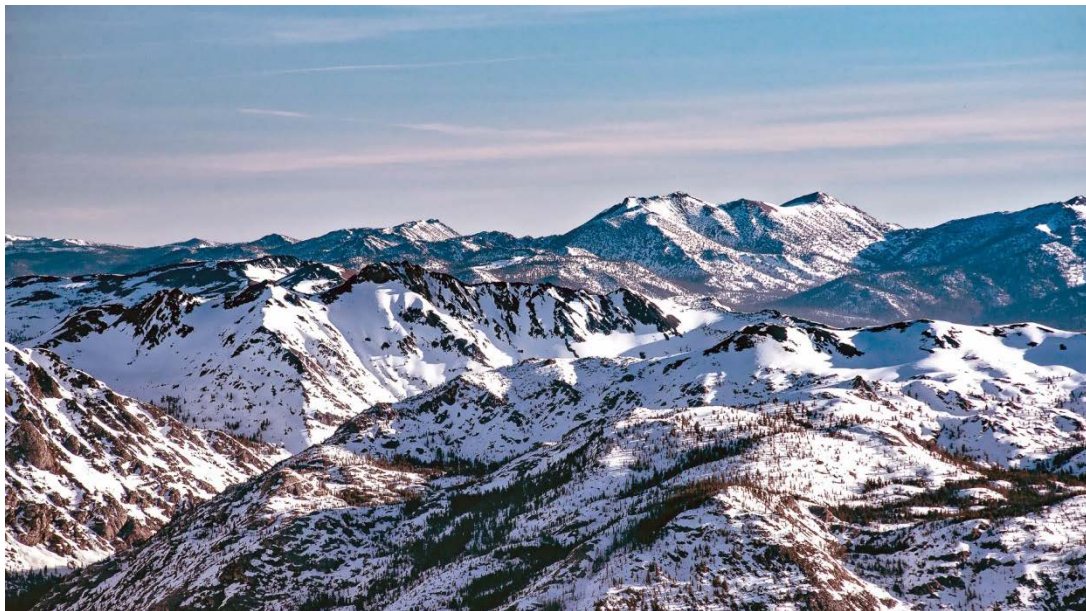


Lafayette Reservoir – Lafayette, CA

The Water System is an enterprise fund consisting of an operating and a capital budget. The Water System collects, transmits, and distributes water to communities within Alameda and Contra Costa Counties. In addition, the Water System provides and charges the Wastewater System for administrative, financial, and other support services.

The following are key projections and assumptions used in the FY22 and FY23 budget.

Water System Fund – Key Assumptions		
	FY22	FY23
Water Sales Volume (mgd)	144.3	145.8
% Rate Increase	4.00%	4.00%
Average monthly single family residential bill based on 8 ccf/month	\$66.00	\$68.66



Mokelumne Watershed Snow

FUND SUMMARY

The following fund summary table shows the Water System beginning and ending fund balance, and projected revenue and expenditure budgets for FY22 and FY23.

WATER SYSTEM DETAILED FUND SUMMARY			
SOURCES & USES (\$ Millions)			
	FY22 Balance	FY23 Balance	% Change
Beginning Balance (Projected)	436.0	458.3	5.1%
Source of Funds - Operating			
Water Charges	610.2	640.0	4.9%
Property Taxes	40.0	40.0	0.0%
Power Sales	5.0	5.0	0.0%
Interest Income	1.2	2.5	108.3%
SCC Revenue	25.0	25.7	2.8%
Reimbursements	13.0	13.4	3.1%
All Other Revenue	<u>18.6</u>	<u>18.8</u>	1.1%
Operating Sources	713.0	745.4	4.5%
Less: Revenue Funded Capital	<u>(164.1)</u>	<u>(200.8)</u>	22.4%
Net Operating Sources	548.9	544.6	-0.8%
Source of Funds - Capital			
New Bond Proceeds	147.0	147.0	0.0%
Revenue Funded Capital	164.1	200.8	22.4%
Loan Proceeds	0.0	0.0	0.0%
Grants	0.0	0.0	0.0%
Reimbursements	30.3	29.4	-3.0%
Commercial Paper	<u>0.0</u>	<u>0.0</u>	0.0%
Net Capital Sources	341.4	377.2	10.5%
Net Sources of Funds	890.3	921.8	3.5%
Use of Funds - Operating			
Labor	254.7	258.6	1.6%
Contract Services	22.1	22.2	0.0%
Other	93.7	97.3	3.8%
Contingency	9.4	17.2	82.0%
Debt Service	211.9	222.4	4.9%
Less: Capital Support	(51.0)	(52.0)	2.0%
Less: Intradistrict	<u>(14.3)</u>	<u>(14.6)</u>	2.1%
Net Operating Uses	526.6	551.0	4.6%
Use of Funds - Capital			
Project Cash Flows	290.4	325.2	12.0%
Plus: Capital Support	<u>51.0</u>	<u>52.0</u>	2.0%
Net Capital Uses	341.4	377.2	10.5%
Net Uses of Funds	868.0	928.2	6.9%
Total Sources	890.3	921.8	3.5%
Total Uses	<u>868.0</u>	<u>928.2</u>	6.9%
Total Sources less Uses	22.3	(6.4)	-128.8%
Ending Balance *	458.3	451.9	-1.4%

* Ending Balance includes all policy reserves and reserves for capital projects.

SOURCES OF FUNDS

The Water System has a variety of revenue sources that are used to fund operations, and a portion of the capital expense. The remaining capital expense is funded primarily by new bond proceeds and reimbursements.

The table below shows actuals and budgets for operating revenues and capital funding sources.



Water Treatment Plant Ozone System

Water System Sources of Funds (\$ Millions)					
	FY19 Actuals	FY20 Actuals	FY21 Budget	FY22 Budget	FY23 Budget
Operating Revenues					
Water Charges	520.6	567.4	582.5	610.2	640.0
Property Taxes	35.7	40.3	35.8	40.0	40.0
Power Sales	10.4	6.8	5.0	5.0	5.0
Interest Income	9.8	11.6	9.6	1.2	2.5
SCC Revenue	73.5	53.3	40.0	25.0	25.7
Reimbursements	11.3	12.7	12.6	13.0	13.4
All Other Revenue	<u>19.7</u>	<u>18.8</u>	<u>18.4</u>	<u>18.6</u>	<u>18.8</u>
Total Operating Revenues	680.9	710.9	703.9	713.0	745.4
Revenue Funded Capital	(259.2)	(67.1)	(197.0)	(164.1)	(200.8)
Capital Funding Sources					
Revenue Funded Capital	259.2	67.1	197.0	164.1	200.8
New Bond Proceeds	0.0	200.0	156.7	147.0	147.0
Grants	0.9	0.8	0.0	0.0	0.0
Reimbursements	<u>23.8</u>	<u>17.8</u>	<u>31.7</u>	<u>30.3</u>	<u>29.4</u>
Total Capital Funding Sources	283.9	285.7	385.4	341.4	377.2
Total Water Sources of Funds	705.6	929.5	892.3	890.3	921.8

Operating Revenue

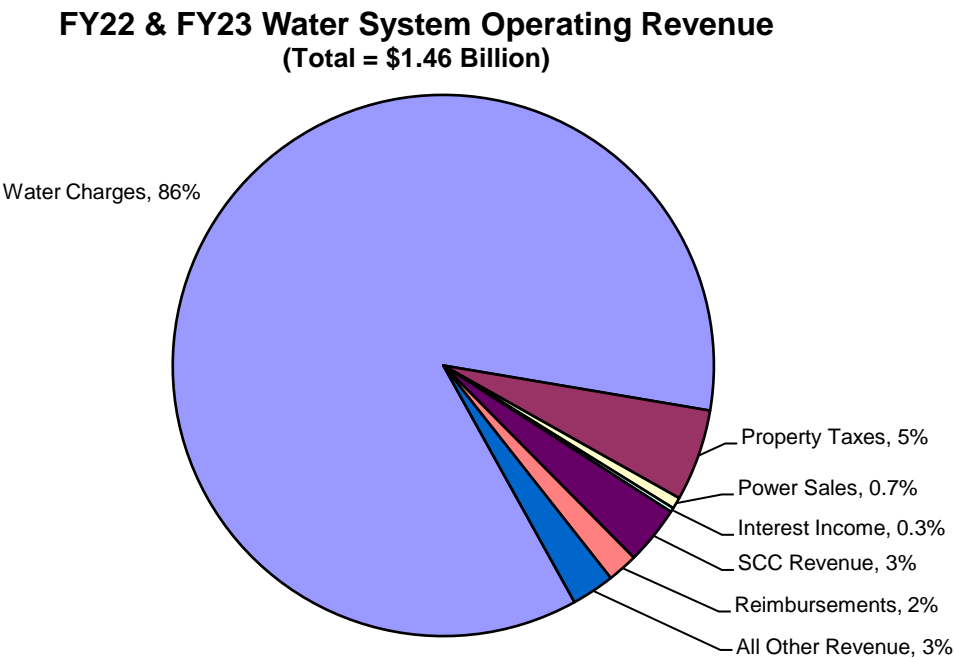
Water System operating revenues for FY22 are budgeted to increase \$9.1 million, or 1.3 percent compared to FY21, for a total of \$713.0 million. FY22 water sales are increasing slightly to 144.3 million gallons per day (MGD) compared to the FY21 budget of 143.0 MGD and reflects a rate increase of 4.0 percent. The FY22 budget also includes an increase in Property Taxes of \$4.2 million, small increases in Reimbursements and All Other, Power sales remaining steady at \$5.0 million, and decreases in SCC revenue of \$15.0 million and Interest Income of \$8.4 million.

In FY23, Water System operating revenues are budgeted to increase \$32.4 million, or 4.5 percent for a total of \$745.4 million. This increase is comprised primarily of \$29.8 million from Water Charges due to a slightly higher projected consumption of 145.8 MGD and the 4.0 percent increase in water rates.



Pardee Dam Hydroelectric Powerhouse

The figure below illustrates the various sources of revenue and the percentage of each source. Water Charges is the largest source of revenue comprising 86 percent of FY22 and FY23 total operating revenue.



Operating Revenue Descriptions

The following are descriptions of the sources of operating revenue, including information about the projected revenues for FY22 and FY23.

Water Charges

Water Charges consist of a monthly service charge, a volume charge for the amount of water used and an elevation charge for those customers located at higher elevations that require pumping. The Water Charges increase 4.0 percent in FY22 and an additional 4.0 percent in FY23.

FY22 Revenue (\$ Millions)			FY23 Revenue (\$ Millions)		
	<u>Amount</u>	<u>% of Total</u>		<u>Amount</u>	<u>% of Total</u>
Monthly Service Charge	177.5	29.1	Monthly Service Charge	185.0	28.9
Volume Charge	400.7	65.7	Volume Charge	421.4	65.8
Elevation Charge	<u>32.0</u>	<u>5.2</u>	Elevation Charge	<u>33.6</u>	<u>5.3</u>
Total	610.2	100.0	Total	640.0	100.0

FY22 Water Charges are projected to increase \$27.7 million, for a total of \$610.2 million, or 4.8 percent compared to FY21 as projected consumption increases slightly from 143.0 MGD to 144.3 MGD, and a 4.0 percent rate increase. FY23 Water Charges are projected to increase \$29.8 million, for a total of \$640.0 million, or 4.9 percent compared to FY22 as projected consumption increases slightly from 144.3 MGD to 145.8 MGD, and a rate increase of 4.0 percent.

Property Taxes

The District receives approximately 1.25 percent of the 1.0 percent county tax levy on properties within District boundaries. For FY22 and FY23, budgeted Property Tax revenue of \$40 million is based upon FY20 actual property tax receipts and uncertainty about COVID-19 recovery to the local economy.

Power Sales

The District operates hydroelectric power generation facilities at the Pardee and Camanche Dams. For FY22 and FY23, projecting normal precipitation, earnings of approximately \$5.0 million each year are expected, primarily from sales of power to other agencies.

Interest Income

Funds not needed for current expenditures are placed in short-term investments in accordance with the District's investment policy and may include money market funds, commercial paper, medium-term corporate notes, and short-term U.S. government securities. Interest earned on these funds in FY22 is projected to be \$1.2 million, an \$8.4 million decrease from FY21 due to a drop in interest rates from the 2.5 percent assumed for the FY21 budget. For FY23 Interest Income is projected to be \$2.5 million, a \$1.3 million increase over FY22. Interest earned is assumed to be 0.25 percent in FY22 reflecting current conditions, and 0.5 percent in FY23.

SCC Revenue

System Capacity Charges (SCC) are collected from customers requesting new water service and are designed to recover costs of facilities necessary to serve new customers. These costs include distribution and treatment facilities, facilities that serve the system as a whole such as Pardee and Camanche Reservoirs, terminal storage reservoirs, administrative facilities, and a portion of the costs of supplemental water supply. The purpose of the SCC is to assure that existing customers do not bear the cost of customer growth and that new customers pay for their share of the existing water system facilities. Funds collected from the SCC are held either in dedicated reserves or accounted for as a capital contribution from developers. Funds held in the dedicated reserve account are used to pay the debt service for the bonds issued to build supplemental water supply projects.

Due to the increase in building activity in the service area, the SCC revenue has been over \$50.0 million in each of the past four years. During FY21, the District updated the SCC calculation that results in a reduction in the SCC proposed for FY22. SCC revenue under the proposed SCC update is projected to be \$25.0 million for FY22, a \$15.0 million decrease from the amount budgeted for FY21, and \$25.7 million for FY23. The budgeted SCC revenue assumes the lower charges proposed in the updated SCC calculations are adopted and that the level of building activity slows.

Reimbursements

The Water System receives reimbursement for services provided to other agencies and from the Wastewater System for administrative costs, space rental in the Administration Building, and for providing billing and collection services. The Water System also receives reimbursements from several cities for providing billing and collection services for the cities' sewer charges. Total reimbursements for FY22 and FY23 are projected at \$13.0 million and \$13.4 million respectively.

All Other Revenue

All Other Revenue includes receipts from the sale or rental of District properties, fees for use of District recreational lands and facilities, insurance and property damage reimbursements, sales of surplus District equipment and vehicles, sales of District publications, reimbursements from the U.S. Treasury under the Build America Bonds program, reimbursement of operating expenses from the Richmond Advanced Recycled Expansion (RARE) project and other miscellaneous revenues. All Other Revenue is projected at \$18.6 million for FY22 and \$18.8 million for FY23.

Capital Funding

The following describe the sources of capital funding. The Capital Improvement Program (CIP) will be funded with bond proceeds, water revenues, reimbursements, and grants. It is anticipated that the District will receive \$147 million in new revenue bond proceeds in FY22 and \$147 million in FY23, combined with revenue funded capital of \$164.1 million in FY22 and \$200.8 million in FY23.

New Bond Proceeds

The District has the ability to issue long-term bonds to fund its capital program. The proceeds of the bond sales can be used to pay for capital expenses over several years. The repayment of the bonds is generally over 30 years and is made from water rate revenues.

Commercial Paper Issues

In addition to issuing long-term bonds, the District has used short-term borrowing in the form of commercial paper to raise revenues for capital expenses. The term of commercial paper can be up to 270 days. The repayment of commercial paper is made from water rate revenues.

Grants and Loans Proceeds

The District pursues federal and state grants and low-interest loans to fund some of its capital projects when they meet the conditions of the District's grant and loan programs.

Reimbursements

Some capital projects are performed at the request of other agencies, and the District is reimbursed for its expenses. An example would be the relocation of a water main at the request of a city or state agency. Also, work to expand the distribution system to meet new connections not covered by the System Capacity Charge is paid for directly by the applicants.

Revenue Funded Capital

Annual capital expenses that are not paid from debt funding, grants, loans or reimbursements are paid from operating revenues, either from current year revenues or from reserves.

Please refer to the section on Debt Service and Financing for details on debt funding of capital projects.

USE OF FUNDS

The Water System has three types of expenditures:

Operations – the annual costs of providing all water services;

Debt Service – the repayment of bonds for making capital investments in the water system along with other debt-related expenses; and

Capital Cash Flow – the annual costs of the CIP for long-term projects.

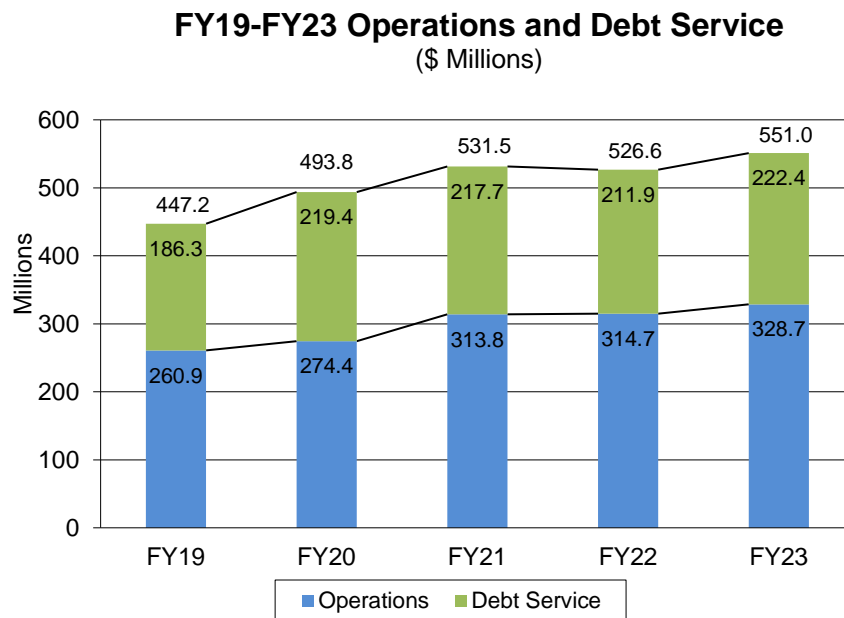
The following table shows the breakdown of expenses by the type of expenditure.

Use of Funds (\$ Millions)					
Expenditure Type	FY19 Actuals	FY20 Actuals	FY21 Budget	FY22 Budget	FY23 Budget
Operations	260.9	274.4	313.8	314.7	328.7
Debt Service	186.3	219.4	217.7	211.9	222.4
Capital Cash Flow	<u>283.9</u>	<u>285.7</u>	<u>385.5</u>	<u>341.4</u>	<u>377.2</u>
Total Expenditures	731.1	779.5	917.0	868.0	928.2

Operating Budget

This section describes the major components of the Water System operations budget. Typical operations expenditures include, but are not limited to labor, benefits, chemicals, energy, parts, materials, insurance, District vehicle fleet costs, and computer hardware and software.

In FY22, the operations and debt service budget is decreasing \$4.9 million or 0.9 percent of the FY21 budget, and in FY23 will increase \$24.4 million or 4.6 percent as shown below.



The operations budget is also shown by department on the following pages.

Department Operating Budgets

The Water System operations budget is comprised of various departments. The majority of these departments are referred to as staffed departments indicating employees are assigned to work in these areas. The staffed department budget funds the day-to-day operations of the District, and includes funding for labor, benefits, outside contract services, and other non-labor expenses such as electricity, chemicals, fuel, computer hardware, self-insured liability claims, and workers compensation claims. A description of each staffed department is included later in this chapter.

A small number of departments do not have personnel assigned to them and are referred to as non-staffed departments, described as follows:

Contingency – Funds are budgeted each fiscal year to cover projected labor-related expenses such as the employee cost of living adjustment which is based upon each year's February Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) in the San Francisco-Oakland-Hayward area. The budget funds a cost of living adjustment for each fiscal year. In FY23, contingency increases to account for the combination of the cost of living adjustments paid in the prior year and the current year. The contingency budget also includes funding for unanticipated needs which may arise before the next budget cycle.

Intradistrict – Certain internal service accounts are included in balance sheets to assure that internal expenses are not counted twice within the operations budget. Examples of these accounts include warehouse stores overhead and fleet vehicle expenses.

Capital Support – Costs that are not directly attributable to specific capital projects, but indirectly support the CIP. Capital support costs in the operations budget are reallocated to the capital budget and will decrease operating expenses by a like amount.

The following table presents the total FY22 and FY23 Water System operating budget by department.

Operating Budget by Department (\$ Millions)							
Departments	FY19 Actuals	FY20 Actuals	FY21 Budget	FY22 Budget	% Chg	FY23 Budget	% Chg
Administration	0.4	0.4	0.4	0.4	8.5%	0.4	0.8%
Customer & Community Services	19.3	21.4	24.8	24.2	-2.6%	24.6	1.9%
Engineering & Construction	17.6	19.0	22.5	22.4	-0.8%	22.4	0.3%
Finance	27.8	30.6	28.5	29.0	2.1%	29.8	2.7%
Human Resources	11.3	11.6	12.5	14.6	17.0%	15.3	4.4%
Information Systems	29.7	31.2	31.6	33.9	7.4%	34.8	2.6%
Maintenance & Construction	100.0	74.2	75.5	79.2	4.9%	80.1	1.2%
Natural Resources	15.8	16.2	18.2	18.4	1.3%	18.7	1.5%
Office of General Counsel	4.6	5.2	5.3	5.6	5.4%	5.6	0.6%
Office of the General Manager	6.2	6.3	7.3	7.9	8.3%	8.4	5.4%
Operations & Maintenance Support	20.8	22.1	23.4	23.6	0.9%	24.2	2.2%
Water Operations	54.1	88.6	94.1	95.5	1.4%	97.3	1.9%
Water Recycling Program	4.4	5.4	6.1	6.1	0.5%	6.4	4.1%
Water Resources	<u>11.0</u>	<u>8.7</u>	<u>9.4</u>	<u>9.7</u>	2.3%	<u>10.0</u>	3.8%
Staffed Departments	323.1	341.0	359.7	370.5	3.0%	378.1	2.0%
Contingency	1.7	1.7	6.7	9.4	40.0%	17.2	82.0%
Intradistrict	(13.1)	(12.9)	(12.6)	(14.3)	13.7%	(14.6)	2.1%
Capital Support	<u>(50.7)</u>	<u>(55.4)</u>	<u>(40.0)</u>	<u>(51.0)</u>	27.5%	<u>(52.0)</u>	2.0%
Operations	260.9	274.4	313.8	314.7	0.3%	328.7	4.4%
Debt Service	<u>186.3</u>	<u>219.4</u>	<u>217.7</u>	<u>211.9</u>	-2.7%	<u>222.4</u>	4.9%
Total Operating	447.2	493.8	531.5	526.6	-0.9%	551.0	4.6%

Department Operations Budget Highlights

The Water System comprises 14 staffed departments that perform and provide operations, and also support functions for the Wastewater System. This section details the various departments including their labor and non-labor budgets, department goals and staffing.

The table below is a summary of the Water System staffed departments' budgets, which excludes the capital support overhead allocated from operations to capital.

Category (\$ Millions)	FY19 Actuals	FY20 Actuals	FY21 Budget	FY22 Budget	% Chg	FY23 Budget	% Chg
Total Labor and Benefits	307.1	327.7	353.5	355.4	0.5%	359.3	1.1%
Less: Capital Labor and Benefits	<u>89.8</u>	<u>92.0</u>	<u>100.8</u>	<u>100.7</u>	<u>-0.2%</u>	<u>100.6</u>	<u>-0.1%</u>
Operating Labor and Benefits	217.2	235.7	252.7	254.7	0.8%	258.6	1.6%
Contract Services	17.8	18.5	19.4	22.1	14.4%	22.2	0.0%
Other Costs	<u>88.1</u>	<u>86.7</u>	<u>87.6</u>	<u>93.7</u>	6.9%	<u>97.3</u>	3.8%
Operating Total	323.1	341.0	359.7	370.5	3.0%	378.1	2.0%

Labor and Benefits

Labor and benefits are allocated between the staffed departments and contingency for cost of living adjustments. Cost of living adjustments are not shown in the staffed departments' labor and benefits budgets since it is based on the CPI-W index and the amount is not known until the annual index is published. Once the index is published, and if funds are needed, contingency would be transferred to departments. The details of the departments' labor and benefits budget are shown later in this chapter.

A number of complex drivers affect the labor and benefits budget. A limited number of additional FTEs have been funded in this budget. They support capital projects, infrastructure maintenance, operations support, customer support program, racial justice and social equity strategies, internships, and K-12 school education program. In FY22, total labor and benefit costs increase \$1.9 million or 0.5 percent primarily due to:

- Increased overtime costs,
- Increased standby pay, and
- A rise in benefit costs for retirement and health care.

These increases are offset by:

- Less use of negotiated premium pay for eligible employees that report to a job site lacking basic facilities provided at District locations,
- Savings to account for the time required to fill positions given the number of retirements, additional positions and the recruitment lead time,
- Overall lower salaries in comparison to the prior biennial budget due to the significant number of new employees with salaries lower than the employees they replaced, and
- Lower actual cost of living increase than budgeted compared to the prior year.

In FY23, total labor and benefit costs increase \$3.9 million or 1.1 percent compared to FY22 primarily for scheduled step increases, and slightly higher overtime and standby costs. These increases are offset by a savings due to the time required to fill positions and a small decrease in the number of funded FTEs.

Non-Labor

In FY22, staffed department non-labor costs are budgeted to increase \$8.9 million or 8.3 percent compared to the prior fiscal year. The major drivers accounting for the increase include:

- Computer software by \$2.0 million for Sedaru, ArcGIS mapping system, Microsoft Office 365, and a new cloud-based Oracle financial system;
- Specialized outside services contracts by \$1.5 million to design, maintain, and operate Windows infrastructure, manage industrial control system security and software maintenance agreements for two water treatment plants to improve reliability and operational efficiency;
- Vehicles use charges by \$1.3 million for operating and maintenance costs associated with fleet vehicles and equipment;
- Self-insured liability claims by \$0.8 million consistent with multi-year trends;
- Other services and expenses by \$0.6 million for outside banking services for customer payment processing, and preparation for the District's 100-year anniversary;
- Insurance premiums by \$0.5 million due to rising market industry costs;
- Fuel by \$0.5 million based on projected market trends; and
- Outside services for buildings and grounds by \$0.5 million for vegetation control management, reservoir cleaning, and concrete services peak load work.

Due to a change in the budget process, another non-labor cost driver is previously unbudgeted retirement benefit payments of \$0.9 million made through an IRS 415(m) plan and a separate post-employment agreement.

Energy costs are anticipated to decrease \$1.1 million due to lower energy use which partially offsets the increases shown above.

In FY23, staffed department non-labor costs are budgeted to increase \$3.6 million or 3.1 percent compared to FY22. The major drivers accounting for the increase include:

- Fees and licenses by \$0.6 million primarily for Board election fees which occur in the second year;
- Vehicle use charges by \$0.3 million due to anticipated operating and maintenance costs for fleet vehicles and equipment;
- Energy costs by \$0.3 million primarily due to increased water production;
- Computer software by \$0.3 million for annual license cost increases;
- Self-insured liability claims by \$0.2 million based on prior multi-year trends;
- Laboratory services by \$0.2 million for the Water System's share of the costs of additional improvements to the District's laboratory;
- Chemicals by \$0.2 million due to higher water production and a rising price for chemicals;
- Security contracts by \$0.2 million due to scheduled annual contract increases;
- Specialized outside services by \$0.2 million due to maintenance for chlorination boosting stations, training for specialized pipe installation such as HDPE, proprietary software support for water treatment plant operations, and specialized street cleaning services in compliance with permits;
- Rents and leases by \$0.2 million for the one-time build out and annual cost to relocate the District's disaster recovery data center from Sacramento;
- Mailing costs by \$0.2 million due to Proposition 218 notices which occurs in the second year;
- Workers compensation claims by \$0.2 million consistent with prior year trends;
- Disbursements to outside agencies by \$0.2 million due to project cost-sharing allocations to the Freeport Regional Water Authority and Dublin San Ramon Services District East Bay Municipal Utility District Recycled Water Authority;

- Retirement benefits by \$0.1 million for the IRS 415(m) plan and a separate post-employment agreement;
- Fuel by \$0.1 million based on projected market trends; and
- Other costs by \$0.3 million such as charges from wastewater, parts and materials for building and grounds, vehicle and construct equipment rentals, property taxes and assessments, spoils and sludge spoils, publications, and subscriptions.

Planned reductions related to professional services of \$0.3 million offset increases in FY23.

Department Operations by Budget Category

The table below depicts the Water System staffed departments operations budget by expense category. It excludes capital labor which is shown by department later in this chapter. Operating labor is the largest cost at almost 70 percent of the total operations budget.

FY22 & FY23 Department Operations by Categories (\$ Millions)								
Department	FY22				FY23			
	Labor	Contracts	Other	Total	Labor	Contracts	Other	Total
Administration	0.0	0.0	0.4	0.4	0.0	0.0	0.4	0.4
Customer & Community Services	20.8	0.3	3.0	24.2	21.1	0.3	3.2	24.6
Engineering & Construction	20.6	0.1	1.7	22.4	20.7	0.1	1.6	22.4
Finance	16.8	1.5	10.8	29.0	17.0	1.4	11.5	29.8
Human Resources	10.9	2.1	1.7	14.6	11.4	2.1	1.8	15.3
Information Systems	22.3	3.0	8.7	33.9	22.9	2.9	9.1	34.8
Maintenance & Construction	57.9	1.2	20.1	79.2	58.8	1.0	20.4	80.1
Natural Resources	11.3	3.2	4.0	18.4	11.4	3.2	4.1	18.7
Office of General Counsel	4.6	0.8	0.2	5.6	4.7	0.8	0.2	5.6
Office of the General Manager	6.4	0.4	1.1	7.9	6.6	0.2	1.5	8.4
Operations & Maintenance Support	12.4	4.6	6.7	23.6	12.5	4.8	6.9	24.2
Water Operations	61.5	4.9	29.0	95.5	62.3	5.1	29.8	97.3
Water Recycling Program	1.8	0.2	4.1	6.1	1.8	0.2	4.3	6.4
Water Resources	<u>7.5</u>	<u>0.1</u>	<u>2.1</u>	<u>9.7</u>	<u>7.4</u>	<u>0.4</u>	<u>2.2</u>	<u>10.0</u>
Total	254.7	22.1	93.7	370.5	258.6	22.2	97.3	378.1

STAFFED DEPARTMENT OPERATIONS

This section describes each of the staffed departments and includes the following topics:

Overview provides an overall statement about the key responsibilities of the department within the larger mission of the District as a whole.

Description of Services Provided describes the responsibilities of the department, by unit (division) or by function, including services required to meet regulatory or legal requirements.

FY22 & FY23 Goals highlight the highest priority work related to the budget, and the District Strategic Plan.

Department Budget Summary is a table that shows the Department's operating budget expenditures by category (Labor and Benefits, Contract Services, Other Costs). It also includes capital labor to provide a more comprehensive view of the departmental budgets.

Budget Highlights describe the significant changes in cost relative to the previous fiscal year and the reasons for those changes.

Staffing Summary is a table that shows the Full-Time Equivalent (FTE) for the department by appointment type (full-time, part-time, etc.).

Staffing Changes is a section included only if departments have position changes that require Board approval. It includes a table that enumerates position changes, followed by a brief description of the changes. The change in cost is determined by comparing the annual cost of the salaries and benefits of the top step of the current classification with the new classification at the top salary step.

The following guide lists each department and its divisions, and includes the page number to locate each department in this chapter.

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ADMINISTRATION DEPARTMENT (ADM)

OVERVIEW

The Administration Department is currently unstaffed, and its functions have been distributed to the Customer and Community Services Department and the Human Resources Department.

DESCRIPTION OF SERVICES PROVIDED

The department has the budget for District-wide memberships in professional and trade organizations.

FY22 & FY23 GOALS

The department does not have any Strategic Plan goals in FY22 and FY23.

DEPARTMENT BUDGET SUMMARY

The department's projected spending is compared to prior years in the table below.

Category (\$ Millions)	FY19 Actuals	FY20 Actuals	FY21 Budget	FY22 Budget	% Chg	FY23 Budget	% Chg
Total Labor and Benefits	0.0	0.0	0.0	0.0	0.0%	0.0	0.0%
Less: Capital Labor and Benefits	0.0	0.0	0.0	0.0	0.0%	0.0	0.0%
Operating Labor and Benefits	0.0	0.0	0.0	0.0	0.0%	0.0	0.0%
Contract Services	0.0	0.0	0.0	0.0	0.0%	0.0	0.0%
Other Costs	0.4	0.4	0.4	0.4	8.5%	0.4	0.8%
Operating Total	0.4	0.4	0.4	0.4	8.5%	0.4	0.8%

BUDGET HIGHLIGHTS

FY22

The department has no personnel or contract budget due to transferring services to other departments. Other costs are increasing due to new memberships and a projected rise in cost for professional dues.

FY23

The District membership budget remains flat.

STAFFING SUMMARY (ADM)

The table below summarizes staffing and there are no other changes.

Position Type	FY19	FY20	FY21	FY22	Chg	FY23	Chg
Full-Time	2.0	2.0	1.0	1.0	0.0	1.0	0.0
Limited-Term / Temp Construction	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intermittent	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temporary / Part-Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total FTE	2.0	2.0	1.0	1.0	0.0	1.0	0.0

CUSTOMER AND COMMUNITY SERVICES DEPARTMENT (CUS)

OVERVIEW

The Customer and Community Services Department provides quality, responsive customer service through the use of efficient business practices, technology, value-added programs and services to District customers and stakeholders guided by fairness, consistency, efficiency, high standards of professionalism, and fiscal responsibility.

DESCRIPTION OF SERVICES PROVIDED

The department includes the Contact Center, Field Services, Customer Services Support, New Business Office, Water Conservation, Real Estate Services, and Contract Equity divisions. These divisions are the direct interfaces for external customers and internal stakeholders to support billing, collection, and service inquiries; field service operation requests; customer programs and services; Customer Information System administration, maintenance, systems integration and support; water conservation services and assistance; new service and development requests; property management and land acquisitions; payment processing, mailing services and distribution; and promote equity and opportunities for District contracts and procurement. In FY22, the Contract Equity function reports to the new Office of Diversity, Equity, and Development in the Office of the General Manager.

FY22 & FY23 GOALS

The department is primarily responsible for the Customer and Community Services Strategic Plan goal. Key department goals include:

- Building trust through our commitment to customers, timely resolution of customer and community inquiries and provide responsive and quality service to meet or exceed customer expectations;
- Advancing sustainable programs and services that support or benefit the community, residents, and businesses;
- Developing a portfolio of customer programs in support of the most vulnerable customers including a sustainable non-rate revenue funding strategy and increase participation through targeted outreach;
- Implementing the District's Water Conservation Master Plan to improve the efficiency of water conservation programs and lock-in water efficiency gains and savings by promoting water conservation to all customer sectors, and community and business partners;
- Expanding the District's land leasing program by leveraging land assets and implementing a long-term real estate utilization plan to enhance business operations and increase non-rate revenue in support of customer programs;
- Enhancing the use of a paperless billing and remittance process to reduce waste and provide greater convenience to customers; and
- Reinvesting in our community through projects and procurements by promoting contract equity and providing small business contracting incentives.

DEPARTMENT BUDGET SUMMARY (CUS)

The department's projected spending is compared to prior years in the table below.

Category (\$ Millions)	FY19 Actuals	FY20 Actuals	FY21 Budget	FY22 Budget	% Chg	FY23 Budget	% Chg
Total Labor and Benefits	18.2	19.3	21.8	21.3	-2.3%	21.5	1.3%
Less: Capital Labor and Benefits	<u>2.1</u>	<u>0.6</u>	<u>0.3</u>	<u>0.4</u>	21.9%	<u>0.4</u>	3.1%
Operating Labor and Benefits	16.1	18.7	21.4	20.8	-2.7%	21.1	1.3%
Contract Services	0.3	0.2	0.4	0.3	-20.0%	0.3	1.5%
Other Costs	<u>2.9</u>	<u>2.6</u>	<u>3.0</u>	<u>3.0</u>	0.1%	<u>3.2</u>	6.3%
Operating Total	19.3	21.4	24.8	24.2	-2.6%	24.6	1.9%

BUDGET HIGHLIGHTS

The department's operating budget in FY22 is decreasing \$0.6 million or 2.6 percent compared to FY21. In FY23, the budget will increase \$0.4 million or 1.9 percent compared to the prior fiscal year. Significant budget changes include:

FY22

Total labor and benefits are decreasing \$0.5 million primarily due to fewer funded FTEs, savings taken to account for time required to fill positions, and lower salaries for new employees with salaries lower than the employees they replaced. Capital labor and benefit costs are increasing \$0.1 million due to a shift from operating labor to capital to support the projected workload of new service applications. Contract services are decreasing \$0.07 million primarily due to the elimination of check payment processing support replaced by lockbox services. Other costs are decreasing \$0.05 million primarily because printing and distribution cost for Proposition 218 only occur in the second year of the biennial budget. These are offset by increases in property taxes/assessments and fulfillment services.

FY23

Total labor and benefit costs are increasing \$0.2 million primarily due to scheduled salary step increases. Other costs are increasing \$0.2 million primarily for Proposition 218 notice costs in the second year of the budget.

STAFFING SUMMARY

The table below summarizes the staffing changes that have occurred.

Position Type	FY19	FY20	FY21	FY22	Chg	FY23	Chg
Full-Time	124.0	124.0	124.0	123.0	(1.0)	123.0	0.0
Limited-Term / Temp Construction	0.0	0.0	0.0	4.0	4.0	4.0	0.0
Intermittent	3.0	3.0	3.0	3.0	0.0	3.0	0.0
Temporary / Part-Time	13.5	13.5	13.5	12.0	(1.5)	12.0	0.0
Total FTE	140.5	140.5	140.5	142.0	1.5	142.0	0.0

STAFFING CHANGES

The net change in cost represents the difference between the annual salary at the top step including benefits for the existing highest job classification versus the highest classification for the change.

FY	Action	From Classification(s)	To Classification(s)	Cost Chg	FTE Chg	Project/Program
2022	Add		(LT) New Business Representative I	162,631	1.0	Strong building activity
2022	Flex Class & Convert	(TEMP) Customer Services Representative I / II	(LT) Customer Services Representative I / II / III	82,633	0.5	Customer Support Program
2022	Flex Class & Convert	(TEMP) Senior Customer Services Representative	(LT) Customer Services Representative III / (LT) Senior Customer Services Representative	83,351	0.5	Customer Support Program
2022	Convert	(TEMP) Senior Customer Services Representative	(LT) Senior Customer Services Representative	83,351	0.5	Customer Support Program
2022	Delete	Customer Services Manager		(311,010)	(1.0)	Workload efficiencies
FY22 TOTAL				100,956	1.5	

In FY22, the department is adding one limited-term FTE New Business Representative I to process applicant work for development projects, and converting three temporary positions to limited-term FTE in the Contact Center for the Customer Support Program. One Customer Services Manager will be deleted, as duties have been distributed among other staff.

ENGINEERING AND CONSTRUCTION DEPARTMENT (ENG)

OVERVIEW

The Engineering and Construction Department is responsible for developing plans, policies and programs that ensure the availability of adequate physical facilities for water treatment, storage and conveyance to meet future water service needs. These responsibilities include water system capital program implementation, infrastructure management, system expansions, and building facility improvements. The department provides technical leadership and innovation in engineering, construction, research and development, and operational efficiency improvements.

DESCRIPTION OF SERVICES PROVIDED

The department includes Water Distribution Planning, Design, Construction, Pipeline Infrastructure, and Engineering Services divisions. Services include planning, design, project management, and construction management and inspection of water system capital projects. Support services include cost estimating, contract specifications preparation, bid and award management, surveying, mapping, graphic design, hydraulic modeling, geotechnical engineering and dam safety, materials testing, engineering records storage and engineering support to other departments.

FY22 & FY23 GOALS

The department is primarily responsible for leading the Long-Term Infrastructure Investment goal and providing a supporting role to all other goals identified in the Strategic Plan. Key department goals include:

- Developing and maintaining coordinated master plans;
- Implementing the capital improvement program based on priorities identified in the plans to ensure resilient water infrastructure;
- Planning, design and supporting construction for the ramp-up of distribution pipeline infrastructure renewals and for system improvements and extensions;
- Planning, designing and constructing the rehabilitation of water supply and distribution facilities including pipelines, pumping plants, reservoirs, regulators, and rate control stations and dams;
- Planning, designing and constructing improvements at the water treatment plants to ensure continued safe and reliable plant operations and delivery of high-quality water to customers;
- Supporting the implementation and use of information technologies that improve the efficiency and effectiveness of business processes, such as Computer Aided Design and Building Information Management tools, geospatial tools, and radio frequency identification; and
- Providing engineering evaluations and recommendations as part of the District's Emergency Response Plan.

DEPARTMENT BUDGET SUMMARY (ENG)

The department's projected spending is compared to prior years in the table below.

Category (\$ Millions)	FY19 Actuals	FY20 Actuals	FY21 Budget	FY22 Budget	% Chg	FY23 Budget	% Chg
Total Labor and Benefits	53.2	57.6	62.0	63.6	2.5%	63.9	0.5%
Less: Capital Labor and Benefits	<u>37.0</u>	<u>40.1</u>	<u>41.1</u>	<u>43.1</u>	4.8%	<u>43.3</u>	0.5%
Operating Labor and Benefits	16.2	17.5	21.0	20.6	-1.9%	20.7	0.5%
Contract Services	0.1	0.1	0.1	0.1	-20.3%	0.1	1.3%
Other Costs	<u>1.3</u>	<u>1.4</u>	<u>1.4</u>	<u>1.7</u>	17.5%	<u>1.6</u>	-3.0%
Operating Total	17.6	19.0	22.5	22.4	-0.8%	22.4	0.3%

BUDGET HIGHLIGHTS

The department's operating budget in FY22 is decreasing \$0.1 million or 0.8 percent compared to FY21. In FY23, the budget will increase \$0.06 million or 0.3 percent compared to the prior fiscal year. Significant budget changes include:

FY22

Total labor and benefit costs are increasing \$1.6 million primarily due to funding a limited number of additional FTEs, overtime, a rise in retirement and health care, and partially offset by lower actual cost of living increase than budgeted compared to the prior year. Capital labor and benefit costs are increasing \$2.0 million primarily due to funding additional FTE, a shift from operating to capital, and overtime. Operating labor and benefit costs are decreasing \$0.4 million due to savings for the time required to fill positions, and less use of overtime. Other costs are increasing \$0.3 million primarily due to software licenses and fees for the State of California Division of Safety of Dams (DSOD).

FY23

Total labor and benefit costs for both capital and operating are increasing \$0.3 million primarily due to scheduled salary step increases. The operating labor budget is partially offset by the savings for the time required to fill positions. Other costs are decreasing \$0.1 million primarily due to one-time equipment purchases and office space configurations occurring in the prior year.

STAFFING SUMMARY

The below table summarizes the staffing changes and transfers that have occurred among departments. In FY22, a part-time FTE was returned to the Human Resources Department. In FY23, one limited-term FTE and a part-time FTE was returned to the Human Resources Department.

Position Type		FY20	FY21	FY22	Chg	FY23	Chg
Full-Time	257.0	272.0	272.0	274.0	2.0	274.0	0.0
Limited-Term / Temp Construction	14.0	11.0	11.0	10.0	(1.0)	9.0	(1.0)
Intermittent	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temporary / Part-Time	4.5	4.0	3.5	3.0	(0.5)	2.5	(0.5)
Total FTE	275.5	287.0	286.5	287.0	0.5	285.5	(1.5)

STAFFING CHANGES

The net change in cost represents the difference between the annual salary at the top step including benefits for the existing highest job classification versus the highest classification for the change.

FY	Action	From Classification(s)	To Classification(s)	Cost Chg	FTE Chg	Project/Program
2022	Add		Engineering Designer I / II	203,049	1.0	Pipeline Rebuild; Applicant Pipelines
2022	Convert	(LT) Engineering Designer I / II / Drafter I / II / III	Engineering Designer I / II / Drafter I / II / III	0	0.0	Pipeline Rebuild; Applicant Pipelines
FY22 TOTAL				203,049	1.0	

In FY22, the department is adding one FTE in support of the Pipeline Rebuild Program and Applicant Pipelines Projects. In addition, one limited-term FTE will be converted to a full-time FTE in support of the Pipeline Rebuild Program and Applicant Pipelines Projects.

FINANCE DEPARTMENT (FIN)

OVERVIEW

The Finance Department is responsible for providing proactive and strategic management of District finances and ensuring the long-term financial stability of the District. These responsibilities include managing the finances to meet funding needs, ensuring adequate internal financial controls are maintained, reporting financials timely and accurately, managing the budget effectively and efficiently, implementing reasonable methodologically sound rates and charges consistent with legal requirements, optimizing investment of cash funds, maintaining good standing in the credit markets, and engaging actively with external stakeholders to promote fiscal transparency and accountability.

DESCRIPTION OF SERVICES PROVIDED

The department includes Accounting, Budget Office, Internal Audit, Treasury Operations, Purchasing, and Risk Management divisions. It provides a range of financial services including accounts payable and payroll, financial reporting, biennial budget management, grant administration, strategic planning coordination, debt management, credit rating agency and investor relations, rates and charges, investment of funds, procurement and supply chain management, liability and workers compensation claim management, insurance procurement, and internal controls. The department also supports the District's Employee Retirement System with respect to investment management.

FY22 & FY23 GOALS

The department supports all six Strategic Plan goals but is primarily responsible for leading the Long-Term Financial Stability Strategic Plan goal. Key department goals include:

- Developing the biennial budget for FY24 and FY25;
- Developing the FY24 and FY25 rates, fees, and charges;
- Developing a long-range financing plan in support of sustainability and resilience;
- Continuing to grow fiscal transparency, accountability in financial reporting, and understanding of the District's rates and charges for the District's ratepayers; and
- Completing replacement of aging financial and materials management information computer systems.

DEPARTMENT BUDGET SUMMARY (FIN)

The department's projected spending is compared to prior years in the table below.

Category (\$ Millions)	FY19 Actuals	FY20 Actuals	FY21 Budget	FY22 Budget	% Chg	FY23 Budget	% Chg
Total Labor and Benefits	16.7	17.9	19.9	18.9	-5.1%	18.8	-0.8%
Less: Capital Labor and Benefits	<u>1.4</u>	<u>1.8</u>	<u>2.0</u>	<u>2.1</u>	6.0%	<u>1.8</u>	-15.9%
Operating Labor and Benefits	15.3	16.0	18.0	16.8	-6.3%	17.0	1.1%
Contract Services	1.1	1.3	1.4	1.5	0.8%	1.4	-6.7%
Other Costs	<u>11.5</u>	<u>13.3</u>	<u>9.1</u>	<u>10.8</u>	18.9%	<u>11.5</u>	6.6%
Operating Total	27.8	30.6	28.5	29.0	2.1%	29.8	2.7%

BUDGET HIGHLIGHTS

The department's operating budget in FY22 is increasing \$0.5 million or 2.1 percent compared to FY21. In FY23, the budget will increase \$0.8 million or 2.7 percent compared to the prior fiscal year. Significant budget changes include:

FY22

Total labor and benefit costs are decreasing \$1.0 million primarily due to a number of new employees with salaries lower than the employees they replaced, funding four less FTEs, less use of overtime and standby, and lower actual cost of living increase than budgeted compared to the prior year. Capital labor and benefits are increasing \$0.1 million primarily due to a shift from operating to capital for the FIS/MMIS Replacement Project. Operating labor and benefit costs are decreasing \$1.2 million primarily due to a number of new employees with lower salaries and less use of overtime and standby. Contract services are increasing \$0.1 million primarily due to the cost of service study and IT vulnerability assessment work. Other costs are increasing \$1.7 million for self-insured liability claims and workers' compensation claims based on multi-year prior trends, insurance premiums, lockbox services for customer payment processing, printing services, and fees that are mandated by the State of California for self-insurance.

FY23

Total labor and benefit costs are decreasing \$0.1 million. Capital labor and benefits are decreasing \$0.3 million primarily due to completion of the procurement phase of the FIS/MMIS Replacement Project. Operating labor and benefit costs are increasing \$0.2 million primarily due to scheduled salary step increases, a rise in retirement and health care, and overtime. Contract services are decreasing \$0.1 million primarily due to cost of service study performed in the first year. Other costs are increasing \$0.7 million for insurance premiums, self-insured liability claims and workers' compensation claims.

STAFFING SUMMARY

The table below summarizes the staffing changes and transfers that have occurred among departments. In FY22, one full-time FTE was returned to the Natural Resources Department. One full-time FTE was transferred to the Office of the General Manager. One full-time FTE was transferred from the Human Resources Department. One temporary construction FTE was returned to the Wastewater Department.

Position Type	FY19	FY20	FY21	FY22	Chg	FY23	Chg
Full-Time	98.0	101.0	101.0	100.0	(1.0)	100.0	0.0
Limited-Term / Temp Construction	1.0	1.0	1.0	0.0	(1.0)	0.0	0.0
Intermittent	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temporary / Part-Time	0.5	0.5	0.5	0.5	0.0	0.5	0.0
Total FTE	99.5	102.5	102.5	100.5	(2.0)	100.5	0.0

STAFFING CHANGES

The net change in cost represents the difference between the annual salary at the top step including benefits for the existing highest job classification versus the highest classification for the change.

FY	Action	From Classification(s)	To Classification(s)	Cost Chg	FTE Chg	Project/Program
2022	Flex Class & Character	Printing Technician II	(TC) Accounting and Financial Systems Analyst / (Reg) Printing Technician II	84,509	0.0	HRIS Replacement Project
2022	Convert	(Reg/LT) Senior Accounting & Financial Systems Analyst / (Reg) Management Analyst I / II	(Reg/TC) Senior Accounting & Financial Systems Analyst / (Reg) Management Analyst I / II	0	0.0	FIS / MMIS Replacement Project
2022	Convert	(LT) Sr. Accounting and Financial Systems Analyst / (Reg) Management Analyst I / II	(TC) Sr. Accounting and Financial Systems Analyst / (Reg) Management Analyst I / II	0	0.0	
2022	Convert	(Reg/LT) Admin Clerk / (LT) Information Systems Specialist I / II / III	(Reg/TC) Admin Clerk / (TC) Information Systems Specialist I / II / III	0	0.0	
2022	Reallocate & Flex Character	Administrative Clerk	(Reg/LT) Information Systems Support Analyst II	88,501	0.0	
2022	Convert	(Reg/LT) Stores Supervisor / (Reg/LT) Material Storage Supervisor	(Reg/TC) Stores Supervisor / (Reg/TC) Material Storage Supervisor	0	0.0	
FY22 TOTAL				173,010	0	

In FY22, staffing changes will support the HRIS and FIS/MMIS Replacement Projects. Of which four limited-term FTEs are converted to temporary construction FTEs to complete implementation of the FIS/MMIS Replacement Project.

HUMAN RESOURCES DEPARTMENT (HRD)

The Human Resources Department recruits, develops, and retains a diverse, well-qualified and professional workforce that reflects the values of EBMUD, supports the District's core mission, and leads the organization in positive employee relations, talent management, succession planning, and employee engagement.

DESCRIPTION OF SERVICES PROVIDED

The department is comprised of Diversity and Inclusion, Employee Relations, Employee Services, Recruitment and Classification, and Employee and Organizational Development divisions. These divisions administer the District's Employee Retirement System, deferred compensation programs, and employee and retiree benefits; provide guidance to effectively resolve grievances, as well as facilitate labor contract negotiations; implement training and development opportunities to support leadership and managerial skill enhancement; administer a performance recognition program that acknowledges employee contributions toward meeting District goals; steward a "grow our own" strategy to address skills shortages by developing employees to meet workforce demands; respond to discrimination and harassment complaints; work with the community on outreach efforts to attract a diverse applicant pool; and create and implement workforce development programs to recruit and onboard highly qualified and diverse employees. In FY22, the Diversity and Inclusion and Employee and Organizational Development divisions will transition to the new Office of Diversity, Equity, and Development in the Office of the General Manager.

FY22 & FY23 GOALS

The department is primarily responsible for leading the Workforce Planning and Development Strategic Plan goal. Key department goals include:

- Coordinating with the departments, community organizations and schools to increase diversity in candidates for jobs including but not limited to internships and apprenticeships;
- Providing Manager and Supervisor Training programs that provide the tools leaders need to create and maintain effective working cultures that support staff in achieving the District's mission;
- Providing team building, organizational development, and change management assistance to divisions and departments;
- Identifying and implementing a new Human Resource Information System (HRIS) to modernize employee and retiree services;
- Supporting labor negotiations and implementing pay, benefit, and policy changes as needed;
- Completing recruitments and onboarding in a timely manner to expeditiously fill vacancies;
- Updating the job classification descriptions; and
- Continuing to inspire an inclusive values-driven culture that engages all employees to support the District's mission.

DEPARTMENT BUDGET SUMMARY (HRD)

The department's projected spending is compared to prior years in the table below.

Category (\$ Millions)	FY19 Actuals	FY20 Actuals	FY21 Budget	FY22 Budget	% Chg	FY23 Budget	% Chg
Total Labor and Benefits	9.1	9.7	10.6	11.6	10.0%	11.6	-0.3%
Less: Capital Labor and Benefits	<u>0.2</u>	<u>0.2</u>	<u>0.6</u>	<u>0.8</u>	24.3%	<u>0.2</u>	-76.1%
Operating Labor and Benefits	8.9	9.5	9.9	10.9	9.1%	11.4	5.1%
Contract Services	1.7	1.5	1.7	2.1	18.7%	2.1	-0.1%
Other Costs	<u>0.7</u>	<u>0.7</u>	<u>0.8</u>	<u>1.7</u>	106.6%	<u>1.8</u>	5.8%
Operating Total	11.3	11.6	12.5	14.6	17.0%	15.3	4.4%

BUDGET HIGHLIGHTS

The department's operating budget in FY22 is increasing \$2.1 million or 17.0 percent compared to FY21. In FY23, the operating budget will increase \$0.7 million or 4.4 percent. Significant budget changes include:

FY22

Total labor and benefit costs are primarily increasing \$1.0 million due to funding additional FTEs to support the expansion of the Ranger intern program, employee services, and diversity, equity, and inclusion initiatives. Capital labor and benefit costs are increasing \$0.2 million due to a higher portion of labor allocated to support implementation of the HRIS project. Contract services costs are increasing \$0.4 million primarily due to additional outsourcing of Equal Employment Opportunity (EEO) investigations. Other costs are increasing \$0.9 million primarily due to a change in the budget process made through an IRS 415(m) plan and a separate post-employment agreement.

FY23

Total labor and benefits costs will remain essentially flat. Operating labor and benefit costs are increasing \$0.5 million to account for the capital shift, but are partially offset by a deletion of one FTE. Other costs are increasing \$0.1 million due to retirement benefits for the IRS 415(m) plan and a separate post-employment agreement.

STAFFING SUMMARY

The table below summarizes the staffing changes and transfers that have occurred among departments. In FY22, one full-time FTE was transferred to the Finance Department. Two limited-term FTEs were transferred from the Maintenance and Construction Department and converted as shown in the table below. Two part-time FTEs were returned to the Human Resources Department from the Engineering Department and the Water Resources Department. In FY23, one limited-term and one part-time FTE was returned from the Engineering Department.

Position Type	FY19	FY20	FY21	FY22	Chg	FY23	Chg
Full-Time	49.0	49.0	49.0	49.0	0.0	49.0	0.0
Limited-Term / Temp Construction	7.0	7.0	8.0	8.0	0.0	8.0	0.0
Intermittent	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temporary / Part-Time	4.0	4.0	4.5	6.5	2.0	7.0	0.5
Total FTE	60.0	60.0	61.5	63.5	2.0	64.0	0.5

STAFFING CHANGES

The net change in cost represents the difference between the annual salary at the top step including benefits for the existing highest job classification versus the highest classification for the change.

FY	Action	From Classification(s)	To Classification(s)	Cost Chg	FTE Chg	Project/Program
2022	Add		Human Resources Technician, Conf	166,703	1.0	Employee support services and records management
2022	Convert	LT Special Employment Program Trainee	(P/T) Ranger Naturalist I Intern	(70,108)	(0.5)	Create bridge for qualified Ranger Naturalist candidates
2022	Convert	LT Special Employment Program Trainee	(P/T) Ranger Naturalist I Intern	(70,108)	(0.5)	Create bridge for qualified Ranger Naturalist candidates
FY22 TOTAL				26,486	0.0	
2023	Delete	(LT) Human Resources Technician		(166,632)	(1.0)	LT expired
FY23 TOTAL				(166,632)	(1.0)	

In FY22, the department is adding one full-time FTE to replace a vacant position that was reallocated to the Finance Department for the FIS/MMIS replacement project. The reallocation of two limited-term FTEs from a Special Employment Program Trainee to a Ranger Naturalist I is needed to create a bridge for qualified Ranger Naturalist candidates.

In FY23, the department is deleting one limited-term FTE as the limited-term status has expired.

INFORMATION SYSTEMS DEPARTMENT (ISD)

OVERVIEW

The Information Systems Department is responsible for planning, acquiring, developing, deploying, operating, and maintaining information technology and services in support of District functions. These responsibilities include providing security and recoverability for business systems and data critical to the operations of the District.

DESCRIPTION OF SERVICES PROVIDED

The department includes the Project Management Office, IT Applications, IT Operations, and IT Security divisions. Together, these divisions support the lifecycle of the District's technology and communication needs including initial planning, acquisition, development, deployment, and ongoing maintenance. The department also manages and supports: desktop, mobile, and cloud computing; remote access; network connectivity; telephone, radio, and microwave communications; application development and integration for a wide range of business functions; risk identification in computing and network environments; guidance to ensure District systems and data are properly secured and available; and planning to ensure business continuity of District computing resources.

FY22 & FY23 GOALS

The department has a key role in the Long-Term Financial Stability Strategic Plan goal. Key department goals include:

- Ensuring maintenance and project work is performed in a manner that supports the achievement of goals outlined in the District's Strategic Plan and IT Master Plan;
- Continuing efforts to improve the District's cybersecurity posture;
- Completing planning and beginning implementation of projects to improve communication with customers and to replace the human resources and work/asset management systems;
- Completing implementation of a new financial information system, including procurement and warehousing; and
- Implementing the IT Governance FY22-23 Project Portfolio.

DEPARTMENT BUDGET SUMMARY (ISD)

The department's projected spending is compared to prior years in the table below.

Category (\$ Millions)	FY19 Actuals	FY20 Actuals	FY21 Budget	FY22 Budget	% Chg	FY23 Budget	% Chg
Total Labor and Benefits	21.0	22.2	22.8	22.8	-0.2%	22.9	0.5%
Less: Capital Labor and Benefits	0.8	0.4	0.0	0.5	0.0%	0.0	-100.0%
Operating Labor and Benefits	20.2	21.8	22.8	22.3	-2.3%	22.9	2.6%
Contract Services	1.9	2.7	2.2	3.0	37.5%	2.9	-4.2%
Other Costs	7.6	6.7	6.6	8.7	31.1%	9.1	4.9%
Operating Total	29.7	31.2	31.6	33.9	7.4%	34.8	2.6%

BUDGET HIGHLIGHTS

The department's operating budget in FY22 is increasing \$2.3 million or 7.4 percent compared to FY21. In FY23, the budget will increase \$0.9 million or 2.6 percent compared to the prior fiscal year. Significant budget changes include:

FY22

Total labor and benefit costs are essentially flat. Capital labor and benefit costs are increasing \$0.5 million due to a shift from operating to capital for the implementation of computer software applications. Operating labor and benefit costs are decreasing due to the capital shift but is partially offset by a rise in overtime and standby. Contract services are increasing \$0.8 million primarily for SCADA IT security support and for NetApp storage maintenance. Other costs are increasing \$2.1 million due to computer software such as Sedaru, ArcGIS mapping system, Microsoft Office 365, and a new cloud-based Oracle financial system. Computer software costs are anticipated to increase in the future as more applications transition to a cloud-based platform.

FY23

Total labor and benefit costs are increasing \$0.1 million. Capital labor and benefits are decreasing \$0.5 million due to a shift to operating. Operating labor and benefit costs are increasing primarily due to the shift from capital and scheduled salary step increases. Contract services are decreasing \$0.1 million primarily due to consultant services no longer needed since the new cloud-based Oracle financial system will be live. Other costs are increasing \$0.4 million due to computer software and a one-time build out cost to relocate the District's disaster recovery data center from Sacramento.

STAFFING SUMMARY

The table below summarizes staffing and there are no other staffing changes.

Position Type	FY19	FY20	FY21	FY22	Chg	FY23	Chg
Full-Time	93.0	92.0	92.0	92.0	0.0	92.0	0.0
Limited-Term / Temp Construction	2.0	2.0	2.0	2.0	0.0	2.0	0.0
Intermittent	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temporary / Part-Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total FTE	95.0	94.0	94.0	94.0	0.0	94.0	0.0

MAINTENANCE AND CONSTRUCTION DEPARTMENT (MCD)

OVERVIEW

The Maintenance and Construction Department is responsible for installing, replacing, rehabilitating, and maintaining the local water distribution system infrastructure, reading and maintaining the nearly 400,000 water meters, providing support services, and maintaining all vehicles and heavy equipment.

DESCRIPTION OF SERVICES PROVIDED

The department includes the Distribution Maintenance and Construction, Pipeline Construction and Equipment, and Maintenance Support divisions. Distribution Maintenance and Construction installs new services and pipelines and supports the maintenance, replacement, and installation of the water distribution system by identifying and repairing leaks, maintaining valves and hydrants, and replacing pipeline appurtenances. Pipeline Construction and Equipment installs replacement pipelines and provides paving services. Maintenance Support provides District-wide construction support and janitorial services, and is responsible for vehicle and equipment procurement, maintenance, and replacement, maintenance, repair, and reading meters, and backflow prevention.

FY22 & FY23 GOALS

The department has a key role in the Long-Term Infrastructure Investment Strategic Plan goal. Key department goals include:

- Replacing 20 miles of distribution pipe in FY22 and 22.5 miles FY23;
- Reading, testing, and replacing revenue-generating water meters;
- Leading the industry in water loss control through using new and innovative technology, effective maintenance practices, and efficient operations;
- Maintaining and procuring the District's fleet of vehicles and equipment to support District operations and meet greenhouse gas reduction goals; and
- Implementing preventive, predictive, and corrective maintenance plans for infrastructure such as pipelines, valves, hydrants, and meters to improve safety, reliability, and efficiency.

DEPARTMENT BUDGET SUMMARY (MCD)

The department's projected spending is compared to prior years in the table below.

Category (\$ Millions)	FY19 Actuals	FY20 Actuals	FY21 Budget	FY22 Budget	% Chg	FY23 Budget	% Chg
Total Labor and Benefits	113.1	94.7	104.0	104.4	0.3%	106.3	1.8%
Less: Capital Labor and Benefits	<u>43.0</u>	<u>40.4</u>	<u>48.6</u>	<u>46.5</u>	-4.2%	<u>47.5</u>	2.1%
Operating Labor and Benefits	70.1	54.3	55.5	57.9	4.3%	58.8	1.6%
Contract Services	3.6	1.3	0.9	1.2	28.1%	1.0	-18.9%
Other Costs	<u>26.3</u>	<u>18.6</u>	<u>19.1</u>	<u>20.1</u>	5.5%	<u>20.4</u>	1.3%
Operating Total	100.0	74.2	75.5	79.2	4.9%	80.1	1.2%

BUDGET HIGHLIGHTS

The department's operating budget in FY22 is increasing \$3.7 million or 4.9 percent compared to FY21. In FY23, the budget will increase \$0.9 million or 1.2 percent compared to the prior fiscal year. Significant budget changes include:

FY22

Total labor and benefit costs are increasing \$0.4 million primarily due to funding a limited number of FTEs supporting the pipeline maintenance/replacement and to reduce reliance on fully-manned and operated (FM&O) services, meter reading and maintenance, and fleet operations support and are partially offset by lower actual cost of living increase than budgeted compared to the prior year. As a result, the capital labor and benefit costs are decreasing \$2.1 million primarily due to a shift from capital labor to operating. Operating labor and benefit costs are increasing \$2.4 million primarily due to funding additional FTEs. Contract services are increasing \$0.3 million primarily attributable to concrete services used to manage peak workloads to meet key performance indicators. Other costs are increasing \$1.0 million primarily for vehicle use charges, equipment rentals, fuel and are partially offset by savings from paving materials and pipe products.

FY23

Total labor and benefit costs are increasing \$1.9 million primarily due to scheduled salary step increases, slightly higher overtime costs and a rise in retirement and health care. Contract services are decreasing \$0.2 million as it is anticipated that most of the prior year increase in concrete services will no longer be needed. Other costs are increasing \$0.3 million primarily for vehicle use charges and fuel.

STAFFING SUMMARY

The table below summarizes the staffing changes and transfers that have occurred among departments. In FY22, two limited-term FTEs were transferred to the Human Resources Department and two limited-term FTEs were transferred to the Water Operations Department.

Position Type	FY19	FY20	FY21	FY22	Chg	FY23	Chg
Full-Time	721.0	594.0	596.0	598.0	2.0	598.0	0.0
Limited-Term / Temp Construction	21.0	19.0	19.0	13.0	(6.0)	13.0	0.0
Intermittent	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temporary / Part-Time	2.5	2.5	2.5	2.5	0.0	2.5	0.0
Total FTE	744.5	615.5	617.5	613.5	(4.0)	613.5	0.0

STAFFING CHANGES

The net change in cost represents the difference between the annual salary at the top step including benefits for the existing highest job classification versus the highest classification for the change.

FY	Action	From Classification(s)	To Classification(s)	Cost Chg	FTE Chg	Project/Program
2022	Reauthorize	(LT) Meter Reader/ Mechanic	(LT) Meter Reader/ Mechanic	884,170	-	Reauthorize six LTs for meter reading and maintenance.
2022	Delete	LT Special Employment Program Trainee		(172,430)	(2.0)	Special Employment Program
FY22 TOTAL				711,741	(2.0)	

In FY22, six limited-term FTEs scheduled to revert to temporary status are reauthorized as limited-term to record water consumption for billing accuracy and deleting two limited-term FTEs since the Special Employment Program is no longer operational.

NATURAL RESOURCES DEPARTMENT (NRD)

OVERVIEW

The Natural Resources Department develops and implements plans, policies, and programs necessary to manage over 50,000 acres of water, watershed lands and related facilities. The department develops and implements programs for water quality, fisheries and wildlife enhancement and protection, natural resource management and monitoring, wildfire suppression and fuels management, and public recreation areas and trails on these lands, reservoirs, rivers, and streams.

DESCRIPTION OF SERVICES PROVIDED

The department includes the East Bay Watershed and Recreation, Mokelumne Watershed and Recreation, Fisheries and Wildlife, and Natural Resources Administration divisions. Both the East Bay and Mokelumne Watershed and Recreation divisions manage and protect the local and upcountry watershed lands owned by the District, including overseeing environmental, recreation, and public education programs. The Fisheries and Wildlife Division develops and maintains the scientific information necessary to manage and protect wildlife and fisheries on District-owned lands and the fisheries resources of the lower Mokelumne River, conducts monitoring to comply with water right agreements, provides biological support for capital projects, and responds to service area water discharge incidents. The Natural Resources Administration Division supports all divisions with planning, grant administration, budgeting, regional collaborations, initiatives, and special projects as assigned by the Department Director.

FY22 & FY23 GOALS

The department has a key role in the Water Quality and Environmental Protection Strategic Plan goal. Key department goals include:

- Implementing the water quality protection, environmental stewardship, and recreation and public use programs consistent with the East Bay and Mokelumne Watershed Master Plans;
- Continuing to build on the successful fisheries program for the Mokelumne River including expansion of the science programs on outmigration survival, juvenile barging, hatchery genetics management, and working collaboratively with public organization, non-profit, and local landowner partners along the lower Mokelumne River;
- Continuing to implement the East Bay Habitat Conservation Plan through pond maintenance, fencing, invasive species management, and monitoring;
- Participating and collaborating in addressing fire and fuels management and forest health issues in the East Bay and Mokelumne watersheds;
- Continuing to support the Mokelumne Safe Harbor Agreement; and
- Partnering with the Operations and Maintenance Department in ongoing water quality monitoring in the Mokelumne watershed.

DEPARTMENT BUDGET SUMMARY (NRD)

The department's projected spending is compared to prior years in the table below.

Category (\$ Millions)	FY19 Actuals	FY20 Actuals	FY21 Budget	FY22 Budget	% Chg	FY23 Budget	% Chg
Total Labor and Benefits	10.4	10.5	11.4	11.3	-0.7%	11.4	1.1%
Less: Capital Labor and Benefits	<u>0.2</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	0.1%	<u>0.1</u>	0.9%
Operating Labor and Benefits	10.2	10.4	11.3	11.3	-0.7%	11.4	1.1%
Contract Services	2.6	2.7	3.1	3.2	1.0%	3.2	0.9%
Other Costs	<u>3.0</u>	<u>3.1</u>	<u>3.7</u>	<u>4.0</u>	7.8%	<u>4.1</u>	3.1%
Operating Total	15.8	16.2	18.2	18.4	1.3%	18.7	1.5%

BUDGET HIGHLIGHTS

The department's operating budget in FY22 is increasing \$0.2 million or 1.3 percent compared to FY21. In FY23, the budget will increase \$0.3 million or 1.5 percent compared to the prior fiscal year. Significant budget changes include:

FY22

Total labor and benefit costs are decreasing \$0.1 million due to overall lower salaries for new employees with salaries lower than the employees they replaced, less use of overtime and standby pay. Contract services costs are increasing \$0.1 million primarily due to annual increases for security provided by the East Bay Regional Parks Joint Powers Agreement for watershed areas, four reservoirs, and two recreation areas. Other costs are increasing \$0.3 million primarily due to increased vehicle use charges, higher small tools and instruments expenses, and increased Lower Mokelumne River Joint Settlement Agreement (JSA) Partnership Fund expenses with the California Department of Fish and Wildlife and the United States Fish and Wildlife Service.

FY23

Total labor and benefit costs are increasing \$0.1 million due to scheduled salary step increases. Contract services costs are increasing slightly primarily due to annual contract escalation for security. Other costs are increasing \$0.1 million due to JSA expenses and vehicle use charges.

STAFFING SUMMARY

The table below summarizes the staffing changes and transfers that have occurred among departments. In FY22, a 1.0 FTE was returned from the Finance Department.

Position Type	FY19	FY20	FY21	FY22	Chg	FY23	Chg
Full-Time	66.0	64.0	64.0	64.0	0.0	64.0	0.0
Limited-Term / Temp Construction	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intermittent	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temporary / Part-Time	2.5	2.5	2.5	2.5	0.0	2.5	0.0
Total FTE	68.5	66.5	66.5	66.5	0.0	66.5	0.0

STAFFING CHANGES

The table below summarizes the FTE changes excluding transfers among departments.

FY	Action	From Classification(s)	To Classification(s)	Cost Chg	FTE Chg	Project/Program
2022	Delete	Manager of Natural Resources		(428,792)	(1.0)	Workload efficiencies
FY22 TOTAL				(428,792)	(1.0)	

In FY22, the department is deleting one FTE position due to workload efficiencies.

OFFICE OF THE GENERAL COUNSEL (OGC)

OVERVIEW

The Office of the General Counsel (OGC) provides the legal advice and assistance necessary to implement the District's mission, policies, and programs in a manner consistent with the law and to take charge of litigation and other legal matters in which the District is a party or in which it is legally interested.

DESCRIPTION OF SERVICES PROVIDED

The department provides legal assistance and litigation support to the Board, General Manager and staff in such areas as: resources law; municipal and public law; environmental law; public works contracting; construction and real estate law; personnel, benefits, retirement and labor law; risk management and insurance; public finance and governmental law; tort law; and rates, regulations, and public policy matters.

FY22 & FY23 GOALS

Key department goals include:

- Providing the District, its officers, and its employees with competent, responsible, and effective representation in all proceedings in which the District is a party or has an interest, and obtain the best results possible given the facts and law applicable to the specific case;
- Ensuring that all documents with legal significance presented to the OGC for review, or are originally prepared by OGC, accomplish the purpose for which they are intended, protect the District from legal risk to the full extent staff considers appropriate for the transaction, and are written in clear and understandable language in an appropriate legal form;
- Providing accurate, clear, and practical oral legal advice that is responsible to the questions and facts presented;
- Providing accurate, clear, and practical written legal memoranda and opinions that are thoroughly researched, timely, and in an appropriately professional form;
- Providing forceful and persuasive advocacy on behalf of the District in non-judicial settings when requested to do so;
- Ensuring that all legal services provided to the District are cost-effective, responsive to the directions of the Board, and professionally competent; and
- Adhering to the highest standards of professional conduct and legal ethics including those standards set forth in the Rules of Professional Conduct.

DEPARTMENT BUDGET SUMMARY (OGC)

The department's projected spending is compared to prior years in the table below.

Category (\$ Millions)	FY19 Actuals	FY20 Actuals	FY21 Budget	FY22 Budget	% Chg	FY23 Budget	% Chg
Total Labor and Benefits	3.9	4.2	4.3	4.6	6.9%	4.7	0.8%
Less: Capital Labor and Benefits	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	0.0%	<u>0.0</u>	0.0%
Operating Labor and Benefits	3.9	4.2	4.3	4.6	6.9%	4.7	0.8%
Contract Services	0.6	0.8	0.8	0.8	0.0%	0.8	0.0%
Other Costs	<u>0.1</u>	<u>0.1</u>	<u>0.2</u>	<u>0.2</u>	-6.8%	<u>0.2</u>	0.4%
Operating Total	4.6	5.2	5.3	5.6	5.4%	5.6	0.6%

BUDGET HIGHLIGHTS

The department's operating budget in FY22 is increasing \$0.3 million or 5.4 percent compared to FY21. In FY23, the budget will increase \$0.03 million or 0.6 percent compared to the prior fiscal year. Significant budget changes include:

FY22

Total labor and benefits are increasing \$0.3 million primarily due to funding an additional full-time FTE and professional staff career progression. Other costs are decreasing \$0.1 million due to less use of legal research services.

FY23

Total labor and benefits will increase \$0.1 million primarily due to fund the professional staff career progression that occurred in the prior fiscal year.

STAFFING SUMMARY

The table below summarizes staffing and there are no other changes.

Position Type	FY19	FY20	FY21	FY22	Chg	FY23	Chg
Full-Time	16.0	16.0	16.0	16.0	0.0	16.0	0.0
Limited-Term / Temp Construction	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intermittent	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temporary / Part-Time	1.0	1.0	1.0	1.0	0.0	1.0	0.0
Total FTE	17.0	17.0	17.0	17.0	0.0	17.0	0.0

OFFICE OF THE GENERAL MANAGER (OGM)

OVERVIEW

The Office of the General Manager manages the overall operations of the District and implements the policies and priorities of the elected Board of Directors with an emphasis on effectively communicating with all stakeholders and advancing EBMUD's policy objectives with the state legislature and congress.

DESCRIPTION OF SERVICES PROVIDED

The department includes five divisions: Office of the General Manager, Inter-Governmental Affairs, Public Affairs, Office of the Secretary, and the Office of Diversity, Equity, and Development. The Office of the General Manager provides several District-wide functions including: legislative and intergovernmental agency advocacy; public and community education and outreach; support to the Board of Directors and District-wide records management including managing responses to public records requests, and work on initiatives including racial justice and social equity strategies.

FY22 & FY23 GOALS

The department supports all the Strategic Plan goals. Key department goals include:

- Providing cross-departmental direction to cohesively and effectively manage operations and implement Board policies and priorities;
- Supporting water and wastewater program goals through engaging and communicating with the public and employees about operations and infrastructure, Board policy proposals and decisions, and stewardship of the District's natural, financial, and human resources;
- Educating stakeholders on the need for investment in infrastructure and other priorities as expressed through the Strategic Plan;
- Supporting water and wastewater program goals through legislative efforts to advance policy objectives, acquire state and federal funding, and proactively influence legislation through active outreach and customer education; and
- Exploring ways to work better together to continue providing administrative and ministerial support to the Board of Directors, the General Manager, and staff in carrying out the District's mission.

DEPARTMENT BUDGET SUMMARY (OGM)

The department's projected spending is compared to prior years in the table below.

Category (\$ Millions)	FY19 Actuals	FY20 Actuals	FY21 Budget	FY22 Budget	% Chg	FY23 Budget	% Chg
Total Labor and Benefits	5.2	5.7	6.1	6.4	6.0%	6.6	3.1%
Less: Capital Labor and Benefits	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	0.0%	<u>0.0</u>	0.0%
Operating Labor and Benefits	5.2	5.7	6.1	6.4	6.0%	6.6	3.1%
Contract Services	0.2	0.2	0.1	0.4	171.6%	0.2	-50.4%
Other Costs	<u>0.8</u>	<u>0.5</u>	<u>1.1</u>	<u>1.1</u>	1.6%	<u>1.5</u>	36.3%
Operating Total	6.2	6.3	7.3	7.9	8.3%	8.4	5.4%

BUDGET HIGHLIGHTS

The department's operating budget in FY22 is increasing \$0.6 million or 8.3 percent compared to FY21. In FY23, the budget will increase \$0.5 million or 5.4 percent compared to the prior fiscal year. Significant budget changes include:

FY22

Total labor and benefit costs are increasing \$0.3 million primarily due to funding additional FTEs for initiatives such as racial justice and social equity strategies and K-12 education program outreach, overtime which was not funded in FY21, and an increase in standby pay as the proportion of hours shifts more to eligible employees. Contract services are increasing \$0.3 million due to the District-wide customer survey conducted in the first year of the budget. Other costs are staying flat as costs associated with the 100-year anniversary are offset by reduced operating expenses such as the Board of Director election fees are not incurred in this year.

FY23

Total labor and benefit costs are increasing \$0.2 million due to funding one student intern FTE and scheduled salary step increases. Contract services are decreasing \$0.2 million due to the anticipated completion of several projects including the District-wide customer survey, social media animated videos to increase customer outreach, and a standardized guide for District publications. Other costs are increasing \$0.4 million primarily due to the Board election fees mentioned above which occur in the second year and a rise in price for the JD Power Water Satisfaction Study offset by completion of most work associated with the 100-year anniversary.

STAFFING SUMMARY

The table below summarizes the staffing changes and transfers that have occurred among departments. In FY22, one full-time FTE was transferred from the Finance Department.

Position Type	FY19	FY20	FY21	FY22	Chg	FY23	Chg
Full-Time	25.0	26.0	27.0	29.0	2.0	29.0	0.0
Limited-Term / Temp Construction	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intermittent	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temporary / Part-Time	0.5	0.5	0.5	0.5	0.0	0.5	0.0
Total FTE	25.5	26.5	27.5	29.5	2.0	29.5	0.0

STAFFING CHANGES

The net change in cost represents the difference between the annual salary at the top step including benefits for the existing highest job classification versus the highest classification for the change.

FY	Action	From Classification(s)	To Classification(s)	Cost Chg	FTE Chg	Project/Program
2022	Add		Special Assistant III / IV	398,114	1.0	Diversity and equity strategies
FY22 TOTAL				398,114	1.0	

In FY22, the department is adding one full-time FTE to lead the newly created division of the Office of Diversity, Equity, and Development.

OPERATIONS AND MAINTENANCE SUPPORT DEPARTMENT (OSD)

OVERVIEW

The Operations and Maintenance Support Department is responsible for managing and improving the operational information systems, water system infrastructure, processes and assets, and providing District-wide support and leadership in health and safety, environmental compliance, emergency preparedness, business continuity, and facility security.

DESCRIPTION OF SERVICES PROVIDED

The department includes the Regulatory Compliance Office, and Asset Management Division. The Regulatory Compliance Office provides environmental compliance guidance and assistance, security services, emergency preparedness support, and workplace health and safety support to the entire District. The Water Quality Office provides technical review and oversight of water quality issues at the treatment plants and in the distribution system, as well as review of upcoming legislative and regulatory changes that may impact water quality. The Asset Management Division develops and maintains work management systems and tools, including mobile and GIS technologies for field operations and staff; coordinates technical training and educational programs for department staff; and provides leadership and guidance for knowledge retention efforts.

FY22 & FY23 GOALS

The department has primary responsibility for leading the Water Quality and Environmental Protection Strategic Plan goal and supporting the Customer and Community Services and Workforce Planning and Development goals. Key department goals include:

- Ensuring compliance with water discharge, air emission, and land disposal requirements to protect and preserve the environment;
- Supporting the accelerated pipeline infrastructure renewal capital program;
- Providing technical input and guidance in the development of the capital program for the water treatment plants (WTPs);
- Reviewing water quality data on a regular basis and assessing strategies for improvements;
- Operating and maintaining District facilities to anticipate and meet all water discharge, air emission, and land disposal regulations to protect and preserve the environment;
- Minimizing impacts to the environment by reducing, recycling, reusing and reclaiming waste, and by conserving natural resources;
- Supporting a safe and healthy workplace for all employees; and
- Maintaining active Emergency Preparedness and Business Continuity Programs to plan for and manage the District's functions during and following an emergency.

DEPARTMENT BUDGET SUMMARY (OSD)

The department's projected spending is compared to prior years in the table below.

Category (\$ Millions)	FY19 Actuals	FY20 Actuals	FY21 Budget	FY22 Budget	% Chg	FY23 Budget	% Chg
Total Labor and Benefits	12.3	12.3	12.9	13.0	0.5%	13.1	1.1%
Less: Capital Labor and Benefits	<u>1.1</u>	<u>0.7</u>	<u>0.4</u>	<u>0.6</u>	50.0%	<u>0.6</u>	2.9%
Operating Labor and Benefits	11.2	11.6	12.5	12.4	-1.1%	12.5	1.0%
Contract Services	3.9	4.1	4.3	4.6	8.2%	4.8	3.4%
Other Costs	<u>5.6</u>	<u>6.4</u>	<u>6.7</u>	<u>6.7</u>	-0.1%	<u>6.9</u>	3.7%
Operating Total	20.8	22.1	23.4	23.6	0.9%	24.2	2.2%

BUDGET HIGHLIGHTS

The department's operating budget in FY22 is increasing \$0.2 million or 0.9 percent compared to FY21. In FY23, the budget will increase \$0.6 million or 2.2 percent compared to the prior fiscal year. Significant budget changes include:

FY22

Total labor and benefit costs are increasing \$0.1 million and are partially offset by lower actual cost of living increase than budgeted compared to the prior year. Capital labor and benefit costs are increasing \$0.2 million due to funding a limited number of FTEs supporting capital related work. Operating labor and benefit costs are decreasing \$0.1 million primarily due to not funding a senior management position and less use of overtime but is offset by a rise in retirement and health care. Contract services are increasing \$0.3 million primarily due to annual security contract price adjustments and expansion of security support as needed.

FY23

Total labor and benefit costs primarily in operating are increasing \$0.1 million due to scheduled salary step increases and a slight rise in retirement and health care. Contract services will increase \$0.2 million primarily due to annual security contract price adjustments. Other costs will increase \$0.2 million primarily due to an increase in the Water System's cost share for District laboratory services.

STAFFING SUMMARY

The table below summarizes the staffing changes that have occurred among departments.

Position Type	FY19	FY20	FY21	FY22	Chg	FY23	Chg
Full-Time	52.0	54.0	53.0	54.0	1.0	54.0	0.0
Limited-Term / Temp Construction	2.0	1.0	0.0	0.0	0.0	0.0	0.0
Intermittent	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temporary / Part-Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total FTE	54.0	55.0	53.0	54.0	1.0	54.0	0.0

STAFFING CHANGES

The net change in cost represents the difference between the annual salary at the top step including benefits for the existing highest job classification versus the highest classification for the change.

FY	Action	From Classification(s)	To Classification(s)	Cost Chg	FTE Chg	Project/Program
2022	Add		Assistant/ Associate Engineer	253,647	1.0	Trench Soils Management
FY22 TOTAL				253,647	1.0	

In FY22, the department is adding one FTE to develop, plan, and implement the trench soils master plan projects.

WATER OPERATIONS DEPARTMENT (WOD)

OVERVIEW

The Water Operations Department is responsible for the operation and maintenance of all water and power generation facilities spanning six counties, including Freeport Regional Water Authority facilities. Duties include oversight over all raw and treated water operations, dam operation and maintenance, support for water supply projects, support for water rights negotiation and interpretation, and management of the District's federal Central Valley Project supply.

DESCRIPTION OF SERVICES PROVIDED

The department includes Facilities Maintenance and Construction, Water Quality Office, Water Treatment and Distribution, and Water Supply divisions. Facilities Maintenance and Construction provides support for the water treatment and distribution infrastructure and other facilities including the computer systems used to operate the water system. Water Treatment and Distribution Division is responsible for providing high quality water by meeting or exceeding public health and water quality standards. Water Supply Division is responsible for raw water operation including flood control and Mokelumne River regulation, maintaining the District's aqueduct rights of way, operation and maintenance of upcountry water and wastewater systems and facilities, water system regulatory compliance and monitoring, water customer complaint investigation, and emergency response preparedness. The Water Quality Office provides technical review and oversight of water quality issues at the treatment plants and in the distribution system, as well as review of upcoming legislative and regulatory changes that impact water quality.

FY22 & FY23 GOALS

The department has a key role in implementing the Water Quality and Environmental Protection Strategic Plan goal. Key department goals include:

- Implementing OP/NET system improvements and cyber security controls for the industrial control systems and centralized security systems;
- Operating the water system to meet multiple objectives including municipal water supply, water quality, power generation, river flow regulation, environmental protection, and flood control;
- Meeting Joint Settlement Agreement (JSA) Mokelumne River minimum flow releases 100 percent of the time;
- Improving maintenance programs and asset management;
- Meeting water quality regulations and water quality goals 100 percent of the time;
- Managing Freeport Regional Water Facilities and other supplemental supply projects and supporting development of new supply projects;
- Operating the water system efficiently to minimize costs; and
- Leading the District's Energy Management Strategy.

DEPARTMENT BUDGET SUMMARY (WOD)

The department's projected spending is compared to prior years in the table below.

Category (\$ Millions)	FY19 Actuals	FY20 Actuals	FY21 Budget	FY22 Budget	% Chg	FY23 Budget	% Chg
Total Labor and Benefits	34.0	62.9	66.4	66.3	-0.2%	67.2	1.4%
Less: Capital Labor and Benefits	<u>1.9</u>	<u>5.4</u>	<u>5.8</u>	<u>4.8</u>	-16.8%	<u>4.8</u>	1.0%
Operating Labor and Benefits	32.1	57.5	60.6	61.5	1.4%	62.3	1.4%
Contract Services	1.5	3.5	3.9	4.9	27.0%	5.1	3.4%
Other Costs	<u>20.5</u>	<u>27.6</u>	<u>29.6</u>	<u>29.0</u>	-2.0%	<u>29.8</u>	2.8%
Operating Total	54.1	88.6	94.1	95.5	1.4%	97.3	1.9%

BUDGET HIGHLIGHTS

The department's operating budget in FY22 is increasing \$1.4 million or 1.4 percent compared to FY21. In FY23, the budget will increase \$1.8 million or 1.9 percent compared to the prior fiscal year. Significant budget changes include:

FY22

Total labor and benefits are slightly decreasing \$0.1 million primarily due to lower actual cost of living increase than budgeted compared to the prior year and partially offset by additional funded FTEs. Capital labor and benefits are decreasing \$1.0 million primarily due to the shift from capital labor to operating. Operating labor and benefit costs are increasing \$0.9 million primarily due to funding additional FTEs to perform electrical engineering support for regulatory compliance and landscape maintenance work. Contract services are increasing \$1.0 million primarily due to water operations software maintenance agreements, temporary support for electrical engineering during recruitment for the new FTE, vegetation management, and algaecide treatment for the Briones reservoir. Other costs are decreasing \$0.6 million primarily due to lower energy use estimates and equipment rentals, but are offset by increases in vehicle use charges and higher chemical costs due to an increase in water production and prices.

FY23

Total labor and benefits are increasing \$0.9 million due to scheduled salary step increases and a rise in retirement and health care. Contract services are increasing \$0.2 million primarily due to maintenance support for chlorination boosting stations, water operations software maintenance agreements, and tree trimming/removal for fire abatement. Other costs are increasing \$0.8 million mainly driven by energy, vehicle use charges, chemicals for a slight increase in water production, and Freeport Regional Water Authority project cost-sharing allocations.

STAFFING SUMMARY

The table below summarizes the staffing changes and transfers that have occurred among departments. Two full-time FTEs were transferred to the Maintenance and Construction Department. Two limited-term FTEs were transferred from the Maintenance and Construction Department.

Position Type	FY19	FY20	FY21	FY22	Chg	FY23	Chg
Full-Time	183.0	336.0	335.0	334.0	(1.0)	334.0	0.0
Limited-Term / Temp Construction	1.0	4.0	3.0	4.0	1.0	4.0	0.0
Intermittent	0.0	0.75	0.75	0.75	0.0	0.75	0.0
Temporary / Part-Time	2.5	2.5	2.5	2.0	(0.5)	2.0	0.0
Total FTE	186.5	343.3	341.3	340.75	(0.50)	340.75	0.0

STAFFING CHANGES

The net change in cost represents the difference between the annual salary at the top step including benefits for the existing highest job classification versus the highest classification for the change.

FY	Action	From Classification(s)	To Classification(s)	Cost Chg	FTE Chg	Project/Program
2022	Add		Assistant Engineer	229,715	1.0	Engineering support for regulatory compliance
2022	Delete	(PT) Housekeeper		(57,544)	(0.5)	Workload efficiencies
2022	Delete	(LT) Associate Engineer		(253,540)	(1.0)	LT expired
FY22 TOTAL				(81,368)	(0.50)	

In FY22, the department is adding one full-time FTE to provide engineering support for regulatory compliance. The department is also deleting one part-time FTE due to workload efficiencies and one limited-term FTE as the limited-term status has expired.

WATER RESOURCES DEPARTMENT (WRD)

OVERVIEW

The Water Resources Department develops and administers the plans, policies and programs necessary to protect existing District water resources, and develops additional water supplies and assures the availability of physical facilities to meet future needs.

DESCRIPTION OF SERVICES PROVIDED

The department includes the Bay-Delta Section, Water Resources Planning, and Water Supply Improvements Divisions. The Bay-Delta Section provides the District's technical and policy evaluation and advocacy efforts related to the state and federal plans to restore the San Francisco Bay-Delta ecosystem, technical and project management support to the department, and legislative and policy review and development. Water Resources Planning Division administers the District's licenses, permits and agreements for current water supplies and hydropower facilities; conducts water resource modeling to support operations and planning; performs hydrologic and hydraulic analysis of the District's facilities; and prepares reports and plans needed to comply with state and federal regulations. The Water Supply Improvements Division plans and implements supplemental supply and water recycling projects needed to meet current and future water supply needs.

FY22 & FY23 GOALS

The department is primarily responsible for the Long-Term Water Supply Strategic Plan goal. Key department goals include:

- Preserving and managing the District's Mokelumne and East Bay water rights entitlements and agreements, and complying with Federal Energy Regulatory Commission (FERC) hydropower license requirements and U.S. Bureau of Reclamation Central Valley Project contract entitlements;
- Continuing collaborative partnerships for ensuring dry-year water supply including a long-term water transfer agreement with Placer County Water Agency, potential participation in an expanded Los Vaqueros Reservoir, development of a groundwater banking demonstration project with San Joaquin County, and regional water supply reliability partnerships in the Bay Area and with upcountry agencies;
- Preparing the 2020 Urban Water Management Plan, a comprehensive five-year water supply plan that incorporates the state mandated Water Shortage Contingency Plan;
- Continuing to evaluate use of recycled water to further reduce demand on Mokelumne River and East Bay water supplies;
- Participating in State Water Resources Control Board (SWRCB) hearings on the Water Quality Control Plan and the state's Delta Conveyance Project; and
- Continuing to work collaboratively with other departments to incorporate Climate Change adaptation and mitigation strategies into key District Planning efforts and initiatives.

DEPARTMENT BUDGET SUMMARY (WRD)

The department's projected spending is compared to prior years in the table below.

Category (\$ Millions)	FY19 Actuals	FY20 Actuals	FY21 Budget	FY22 Budget	% Chg	FY23 Budget	% Chg
Total Labor and Benefits	8.3	8.8	9.3	9.3	-0.4%	9.3	0.5%
Less: Capital Labor and Benefits	<u>2.3</u>	<u>2.1</u>	<u>2.0</u>	<u>1.8</u>	-9.1%	<u>1.9</u>	2.8%
Operating Labor and Benefits	6.0	6.7	7.3	7.5	2.0%	7.4	0.0%
Contract Services	0.2	0.1	0.3	0.1	-73.1%	0.4	305.6%
Other Costs	<u>4.8</u>	<u>2.0</u>	<u>1.8</u>	<u>2.1</u>	17.3%	<u>2.2</u>	4.3%
Operating Total	11.0	8.7	9.4	9.7	2.3%	10.0	3.8%

BUDGET HIGHLIGHTS

The department's operating budget in FY22 is increasing \$0.3 million or 2.3 percent compared to FY21. In FY23, the budget will increase \$0.3 million 3.8 percent compared to the prior fiscal year. Significant budget changes include:

FY22

Total labor and benefit costs are essentially flat compared to FY21. Operating labor and benefits are increasing \$0.2 million primarily for a small shift from capital labor to operating. Contract services costs are decreasing \$0.2 million due to completion of the Dam Safety Program Audit, hydrologic/hydraulic probabilistic analyses, the Historic Properties Management Plan (an amendment to the FERC license per regulatory recommendation), and delay of required low flow analyses on the lower Mokelumne River. Other costs are increasing \$0.3 million primarily due to an increase in the District's share of payments to the joint Dublin San Ramon Services District/EBMUD Recycled Water Authority (DERWA) for recycled water use and fees and licenses including an increase to the water rights fees paid to the State of California.

FY23

Total labor and benefit costs are essentially flat. Contract services costs will increase \$0.3 million to comply with FERC regulatory mandates requiring an independent consultant performed every five years. Other costs will increase \$0.1 million primarily due to an increase to the District's share of payments to DERWA for recycled water use and water rights fees paid to the state.

STAFFING SUMMARY

The table below summarizes the staffing changes and transfers that have occurred among departments. In FY22, a 0.5 FTE was transferred to the Human Resources Department. There are no other staffing changes.

Position Type	FY19	FY20	FY21	FY22	Chg	FY23	Chg
Full-Time	36.0	37.0	37.0	37.0	0.0	37.0	0.0
Limited-Term / Temp Construction	0.0	1.0	1.0	1.0	0.0	1.0	0.0
Intermittent	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temporary / Part-Time	1.0	0.5	0.5	0.0	(0.5)	0.0	0.0
Total FTE	37.0	38.5	38.5	38.0	(0.5)	38.0	0.0

WATER RECYCLING PROGRAM (WRP)

OVERVIEW

The Water Recycling Program develops and implements projects that provide recycled water for appropriate uses by the District and its customers to reduce the demand on high quality drinking water supplies.

DESCRIPTION OF SERVICES PROVIDED

The program operates and maintains the North Richmond Water Reclamation Plant and the Richmond Advance Recycled Expansion (RARE) facility that provide recycled water for use in the Chevron refinery, and the East Bayshore Recycled Water treatment facility that provides recycled water to customers for irrigation applications. While this program is managed and budgeted under the Water System, the Wastewater Department is responsible for the ongoing operations and maintenance of the facilities that produce recycled water.

FY22 & FY23 GOALS

The department supports the Long-Term Water Supply Strategic Plan goal. Key department goals include:

- Continuing to operate and maintain the three recycled water treatment facilities (RARE, North Richmond, and East Bayshore) to meet regulatory standards for recycled water and to maximize the production;
- Maintaining contractual obligations with Chevron; and
- Continuing to offset the use of drinking water for non-potable applications as part of the District's water recycling goal.

DEPARTMENT BUDGET SUMMARY (WRP)

The department's projected spending is compared to prior years in the table below.

Category (\$ Millions)	FY19 Actuals	FY20 Actuals	FY21 Budget	FY22 Budget	% Chg	FY23 Budget	% Chg
Total Labor and Benefits	1.8	1.9	1.9	1.9	-1.9%	1.9	0.1%
Less: Capital Labor and Benefits	<u>0.0</u>	<u>0.1</u>	<u>0.0</u>	<u>0.1</u>	1222.9%	<u>0.1</u>	0.0%
Operating Labor and Benefits	1.8	1.9	1.9	1.8	-4.6%	1.8	0.1%
Contract Services	0.1	0.1	0.1	0.2	77.5%	0.2	-1.3%
Other Costs	<u>2.5</u>	<u>3.4</u>	<u>4.0</u>	<u>4.1</u>	1.2%	<u>4.3</u>	6.2%
Operating Total	4.4	5.4	6.1	6.1	0.5%	6.4	4.1%

BUDGET HIGHLIGHTS

The department's FY22 operating budget is increasing \$0.03 million or 0.5 percent compared to FY21. In FY23, the operating budget will increase \$0.3 million or 4.1 percent. Significant budget changes include:

FY22

Total labor and benefit costs are decreasing \$0.04 million primarily due to operating savings for the time required to fill positions, reduced standby pay, and lower actual cost of living increase than budgeted compared to the prior year, partially offset by increases in overtime, and a rise in retirement and health care. Capital labor and benefits are increasing \$0.05 million due to a shift of operating labor to capital. Operating labor and benefit costs are decreasing \$0.09 million. Contract services are increasing \$0.07 million due to shift of specialized maintenance services from Wastewater to WRP and RARE membrane process support and training for microfiltration and reverse osmosis systems at RARE Water Treatment Plant. Other costs are increasing \$0.05 million primarily due to charges from Wastewater and chemical costs offset by lower energy costs and fees and licenses. West County Wastewater District fees have decreased due to less discharge from RARE.

FY23

Other costs will increase \$0.25 million primarily due to chemicals, discharge fees, and charges from Wastewater.

STAFFING SUMMARY

The table below summarizes staffing and there are no other changes.

Position Type	FY19	FY20	FY21	FY22	Chg	FY23	Chg
Full-Time	8.0	8.0	8.0	8.0	0.0	8.0	0.0
Limited-Term / Temp Construction	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intermittent	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temporary / Part-Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total FTE	8.0	8.0	8.0	8.0	0.0	8.0	0.0

STAFFING

Appointment Types

The majority of the workforce is comprised of full-time civil service or full-time civil service exempt positions. Limited-term positions are intended to augment regular staff to accomplish extra work or other operational programs or activities of a limited duration, with appointments for a maximum of 4 years. Temporary construction positions are also of a limited and specified duration typically associated with capital projects. Intermittent positions represent the smallest number of appointment types and typically work 32 hours instead of 40 hours per week. Part-time positions are normally restricted to 832 hours per year. Temporary positions are limited to a 6-month duration, and are full-time during that duration.

The table below provides the full-time equivalent (FTE) by department and compares the changes from year-to-year. Depending upon the appointment type, the FTE value will be different.

- Full-time, limited-term and temporary construction appointment types equal 1.0 FTE;
- Intermittent appointment types equal 0.75 FTE; and
- Part-time and temporary appointment types equal 0.5 FTE.

FY22 & FY23 Department Staffing					
Department	FY21 Budget	FY22 Budget FTE Chg		FY23 Budget FTE Chg	
Administration	1.0	1.0	0.0	1.0	0.0
Customer & Community Services	140.5	142.0	1.5	142.0	0.0
Engineering & Construction	286.5	287.0	0.5	285.5	(1.5)
Finance	102.5	100.5	(2.0)	100.5	0.0
Human Resources	61.5	63.5	2.0	64.0	0.5
Information Systems	94.0	94.0	0.0	94.0	0.0
Maintenance & Construction	617.5	613.5	(4.0)	613.5	0.0
Natural Resources	66.5	66.5	0.0	66.5	0.0
Office of General Counsel	17.0	17.0	0.0	17.0	0.0
Office of the General Manager	27.5	29.5	2.0	29.5	0.0
Operations & Maintenance Support	53.0	54.0	1.0	54.0	0.0
Water Operations	341.25	340.75	(0.5)	340.75	0.0
Water Recycling Program	8.0	8.0	0.0	8.0	0.0
Water Resources	38.5	38.0	(0.5)	38.0	0.0
Water System Total	1,855.25	1,855.25	0.0	1,854.25	(1.0)

In FY22, a net total of one FTE is being added to the Water System but the Water System is transferring another FTE to the Wastewater System.

In FY23, one full-time FTE will be deleted in the Human Resources Department.

For a more detail description of the staffing changes, please see the specific department sections in this chapter.

Bargaining Unit Changes

Tables below show the net change in bargaining unit status of authorized FTEs represented by different unions, management/confidential, non-represented groups, and civil service exempt positions. The tables reflect Board of Directors authorized additions and deletions in FY22 and FY23 and correspond to the staffing changes table in each department.

FY22 vs. FY21 Dept Net Change in Bargaining Unit Status							
Department	Local 2019	Local 444	Local 21	Local 39	MGR/ CONF	NRP	EXMPT
Administration							
Customer & Community Services	2.5				(1)		
Engineering & Construction	1						
Finance							
Human Resources	1				1	(2)	
Information Systems							
Maintenance & Construction						(2)	
Natural Resources							(1)
Office of General Counsel							
Office of the General Manager							1
Operations & Maintenance Support	1						
Water Operations	(0.5)						
Water Recycling Program							
Water Resources							
Total Net Change	5	0	0	0	0	(4)	0

FY23 vs. FY22 Dept Net Change in Bargaining Unit Status							
Department	Local 2019	Local 444	Local 21	Local 39	MGR/ CONF	NRP	EXMPT
Administration							
Customer & Community Services							
Engineering & Construction							
Finance							
Human Resources					(1)		
Information Systems							
Maintenance & Construction							
Natural Resources							
Office of General Counsel							
Office of the General Manager							
Operations & Maintenance Support							
Water Operations							
Water Recycling Program							
Water Resources							
Total Net Change	0	0	0	0	(1)	0	0

DEBT SERVICE AND FINANCING

This section describes the Water System's current and projected debt obligations, current credit ratings, and adherence to the District's debt financing policies.

The District incurs debt to finance capital projects or purchase, repair or replace assets which will have useful lives equal to or greater than the related debt. Issuance of revenue supported debt is authorized by the Board of Directors, subject to a referendum process. Individual revenue bond issues are authorized by the Board of Directors.

The annual debt service principal and interest payments are charged to the operating budget. However, debt is only issued to finance capital investment activities.

Outstanding Debt

The Water System's total outstanding debt is projected to be \$2.68 billion as of June 30, 2021. This figure incorporates an anticipated partial pay down of Water System commercial paper (CP) in FY21. The District's debt issues are summarized on the following page and discussed in detail thereafter.

Outstanding Debt (\$ Millions) As of June 30, 2021				
Issue	Date of Issue	Last Maturity	Amount Issued	Principal Outstanding
LONG-TERM DEBT				
Revenue Bonds				
Series 2008A	3/20/2008	6/1/2038	322.5	105.3
Series 2010B (Build America Bonds)	2/23/2010	6/1/2040	400.0	400.0
Series 2012A	10/10/2012	6/1/2037	191.8	81.8
Series 2012B	11/13/2012	6/1/2026	358.6	86.4
Series 2014A	6/11/2014	6/1/2035	128.3	128.3
Series 2014B	6/11/2014	6/1/2030	242.7	199.2
Series 2014C	6/26/2014	6/1/2044	75.0	75.0
Series 2015A	3/3/2015	6/1/2037	429.4	429.4
Series 2015B	6/17/2015	6/1/2045	74.3	74.3
Series 2015C	6/17/2015	6/1/2045	110.7	110.7
Series 2017A	6/22/2017	6/1/2045	185.4	185.4
Series 2017B	6/22/2017	6/1/2037	309.7	296.2
Series 2019A	6/27/2019	6/1/2049	<u>161.8</u>	<u>157.0</u>
Total Revenue Bonds			2,990.2	2,328.8
% of Total Outstanding Debt				87%
Loans				
State Loan (parity)	1/1/2003	1/1/2024	2.2	0.3
State Loan (parity)	5/22/2008	4/1/2028	20.1	8.0
State Loan (parity)	12/14/2017	7/1/2048	14.0	13.3
State Loan (parity)	4/18/2018	7/1/2049	<u>12.0</u>	<u>11.5</u>
Total Loans			48.3	33.2
% of Total Outstanding Debt				1%
Total Long-Term Debt			3,038.5	2,362.0
SHORT-TERM DEBT				
Commercial Paper	Various	Various	N/A	320.8
% of Total Outstanding Debt				12%
TOTAL OUTSTANDING DEBT				2,682.8

The District plans to issue \$150 million in revenue bonds in FY22 and \$150 million in FY23 to support capital investment activities. Each \$150 million bond issue generates \$147 million in proceeds after the assumed cost of issuance.

Debt Service

The Water System's total outstanding debt of \$2.68 billion as of June 30, 2021 is projected to cost \$1.59 billion in interest as shown in the table below. The principal includes the planned annual pay down of CP. However, CP has no final maturity and the CP principal pay down schedule could differ. Interest on synthetic fixed-rate debt was calculated at their associated swap rates. Interest on CP is assumed to be 0.5 percent in FY22, rising to 3.0 percent by 2032.

Projected Debt Service on Current Outstanding Debt (\$ Thousands)			
Fiscal Year	Principal	Interest	Debt Service
2022	82,188	117,459	199,648
2023	85,660	115,547	201,206
2024	88,996	111,807	200,803
2025	92,729	108,671	201,400
2026	94,474	105,287	199,761
2027	98,635	102,330	200,966
2028	102,957	97,805	200,763
2029	107,545	93,015	200,560
2030	112,368	87,994	200,362
2031	117,462	82,702	200,165
2032	122,626	79,585	202,211
2033	128,036	73,909	201,944
2034	133,430	68,248	201,679
2035	139,055	62,369	201,425
2036	145,170	55,991	201,161
2037	151,881	49,026	200,907
2038	159,321	41,513	200,835
2039	167,277	33,114	200,391
2040	83,728	23,871	107,599
2041	67,935	19,707	87,642
2042	70,687	16,653	87,340
2043	73,579	13,466	87,045
2044	76,526	10,220	86,746
2045	58,459	6,834	65,293
2046	19,737	4,361	24,098
2047	20,190	3,610	23,799
2048	20,663	2,836	23,499
2049	20,845	2,039	22,884
2050	10,257	1,226	11,483
TOTAL	2,652,417	1,591,197	4,243,614

The debt service in the table is less than the budgeted debt service because the latter includes:

- Payments on new debt issues in FY22 and FY23, and
- Costs for liquidity fees, remarketing fees, basis spread, and debt service administration.

Debt Ratings

Credit risk is the risk that the issuer of a financial obligation, such as a revenue bond, will not fulfill its payment obligations to the holder of the investment. Credit ratings are assigned to bonds by Nationally Recognized Statistical Credit Rating Organizations based on published methodologies. The ratings reflect the organizations' opinions about the issuer's ability and willingness to meet its financial obligations on time and in full.

The Water System's strong credit ratings provide tangible benefits to ratepayers in the form of reduced debt service costs. A strong credit rating provides better access to capital markets, lower interest rates, better terms on debt, and access to a greater variety of debt products. Prudent financial management policies have contributed to the Water System's strong ratings.

As of January 1, 2021, ratings on the Water System's debt were as follows:

Water System Debt Ratings			
Debt by Type	Standard & Poor's	Moody's Investors Service	Fitch
Fixed Rate Revenue Bonds	AAA	Aa1	AA+
Variable Rate Revenue Bonds			
Long-term Underlying Rating	AAA	Aa1	--
Short-term Rating	A-1/A-1+	VMIG-1	--
Commercial Paper	A-1+	P-1	F1+

Definitions of the District's fixed rate and long-term debt ratings are shown below.

Standard & Poor's

An obligation rated 'AAA' has the highest rating assigned by S&P Global Ratings. The obligor's capacity to meet its financial commitments on the obligation is extremely strong.

Moody's Investors Service

Obligations rated 'Aa' are judged to be of high quality and are subject to very low credit risk. The modifier 1 indicates that the obligation ranks in the higher end of its generic rating category.

Fitch

'AA' ratings denote expectations of very low default risk. They indicate very strong capacity for payment of financial commitments. This capacity is not significantly vulnerable to foreseeable events. The modifiers "+" or "-" may be appended to a rating to denote relative status within major rating categories.

Debt Management Policy and Debt Service Coverage

The District is subject to legal debt limits prescribed in the Municipal Utility District (MUD) Act which describes three types of legal limitations: general debt limits, revenue bond limits, and short-term borrowing limits.

The District's general debt indebtedness cannot exceed the ordinary annual income and revenue of the District without a two-thirds approval of the voters. However, revenue bonds are not included in general debt limits.

The District is authorized to issue revenue bonds with the approval of a resolution from the Board of Directors, subject to a 60-day referendum period. The resolution specifies the maximum principal amount of bonds that may be issued pursuant to the authorization. The Board of Directors also approves individual series of revenue bonds issued under the broader authorization.

The MUD Act authorizes the District to issue short-term indebtedness without an election of the voters. The amount of short-term borrowing cannot exceed the lesser of 1) the annual average total revenue of the three preceding years or 2) 25 percent of the District's total outstanding bonds. This provision is substantially the same as the District's internal policy discussed below.

The District has also established its own policy regarding debt management (Policy 4.27: Debt Management – see Appendix). The purpose of the debt policy is to maintain a balance between current funding sources and debt financing over each five-year plan horizon to retain financing flexibility and achieve the lowest cost of financing.

The District's debt management policy is to:

- a) maintain an annual revenue bond debt service coverage ratio of at least 1.6 times;
- b) limit debt-funded capital to no more than 65 percent of the total capital program over each five-year planning period; and
- c) limit commercial paper / variable rate debt to 25 percent of outstanding long-term debt.

Debt Service Coverage Ratio

The debt service coverage policy ensures that the District has sufficient annual operating revenues to pay its operating expenses and meet its debt service obligations on its revenue bonds and other parity debt. The revenue bond debt service coverage ratio is defined as the District's net operating revenue (current year's operating revenue less the current year's operating expenses) divided by the current year's debt service on all revenue bonds and other parity debt. Net revenues are reduced by any Rate Stabilization Fund deposits and increased by any withdrawals. In FY22 and FY23, the projected debt coverage ratios are 2.02 and 2.02, respectively.

Debt-Funded Capital

The percentage of the capital program that is funded by debt over the five-year planning period FY22-26 is projected at 42.2 percent, which is below the financial policy maximum target of 65 percent. The debt percentage funding levels for FY22 and FY23 are shown in the table below.

Projected Debt Percentage of Funding (\$ Millions)		
	FY22	FY23
Expenditures		
Capital Cash Flow	290.4	325.2
Capital Support	<u>51.0</u>	<u>52.0</u>
Total Expenditures	341.4	377.2
Project Funding		
New Bond Proceeds	<u>147.0</u>	<u>147.0</u>
Total Resources	147.0	147.0
Debt Percentage of Funding	43.1%	39.0%

Commercial Paper and Variable Rate Debt Ratio

The District has authorized a short-term CP borrowing program consistent with the MUD Act and the District's debt management policy. Under this program, the District may issue CP notes at prevailing interest rates for periods of not more than 270 days from the date of issuance. The program is supported by liquidity agreements. The Water System CP is subordinate to the Water System's revenue bonds.

As of June 30, 2021, \$320.8 million of Water System CP is projected to be outstanding after an anticipated partial pay down of principal in FY21. Water System CP comprises about 12 percent of the \$2.68 billion in total outstanding debt.

Water System outstanding variable rate debt projected as of June 30, 2021 will be approximately \$105.3 million. Since FY14, the District has converted over \$340.0 million of its variable rate debt into fixed rate debt by terminating existing interest rate swap contracts and replacing the underlying variable rate bonds with fixed rate bonds. Going forward, the District expects to finance its capital program through a combination of available funds and fixed-rate debt.

CAPITAL IMPROVEMENT PROGRAM

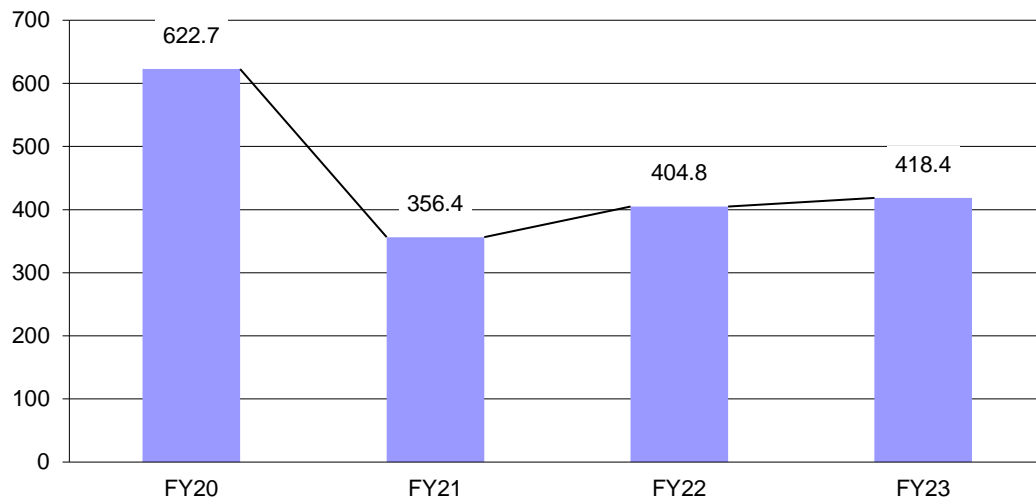
The CIP consists of projects that typically result in the construction of new facilities, or the rehabilitation or upgrade of existing facilities. Project costs include all expenditures required to study, plan, design, construct or upgrade new or existing facilities. Projects can also include large equipment purchases and the creation or replacement of computer systems.

Capital Appropriation

Capital appropriations are the amounts approved by the Board to be spent on projects in the CIP. Since these appropriations are often spent over multiple years, the amounts appropriated for each fiscal year will vary depending upon project scope and timing, and any unspent appropriation a project may already have.

The Water System's FY22 appropriation is increasing by \$48.3 million or 13.6 percent from FY21. In FY23, the appropriation is increasing by \$13.7 million or 3.4 percent from FY22. The appropriations for FY22 and FY23 and the prior two years are summarized below.

Four-Year Summary Capital Appropriation
(\$ Millions)



The FY22-26 Water System CIP requires \$2.22 billion in project appropriations, a decrease of \$22.9 million or 1.0 percent from the FY20-24 CIP. The decrease is primarily due to the Non-Program Specific Strategy as little additional appropriations are needed for contingency. Also, as capital work is being restructured, pumping plant and reservoir projects have been moved out of the Extensions & Improvements Strategy and into the Maintaining Infrastructure Strategy. Also, Capital Support is increasing to be more in line with projected spending.

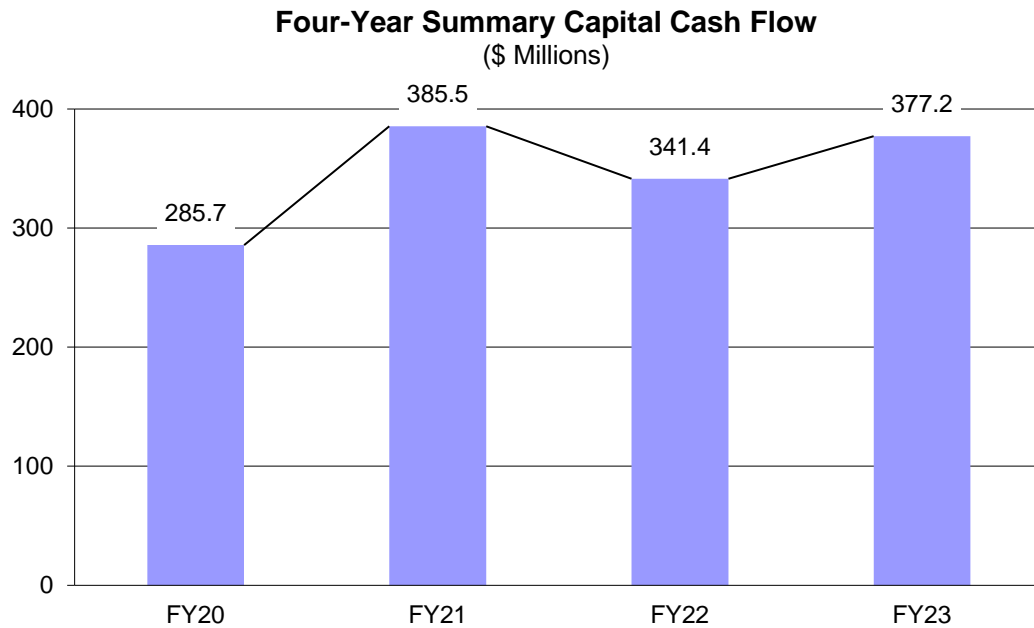
The Maintaining Infrastructure Strategy is the main focus of the CIP and comprises 57 percent of the total appropriations. The Water System appropriations by strategy are shown in the following table.

FY20-24 vs. FY22-26 Appropriation Capital Improvement Program by Strategy (\$ Thousands)				
Strategy	Appropriation		\$ Chg	% Chg
	FY20-24	FY22-26		
Extensions & Improvements	497,676	17,887	(479,789)	-96%
Facilities, Services & Equipment	78,053	164,402	86,349	111%
Maintaining Infrastructure	970,057	1,268,837	298,780	31%
Regulatory Compliance	46,266	84,948	38,682	84%
Resource Management	9,294	6,255	(3,039)	-33%
Water Quality	186,217	199,988	13,771	7%
Water Supply	218,503	211,530	(6,973)	-3%
Non-Program Specific	<u>31,564</u>	<u>3,568</u>	<u>(27,996)</u>	-89%
Strategy Subtotal	2,037,630	1,957,415	(80,215)	-4%
Capital Support	<u>207,970</u>	<u>265,324</u>	<u>57,354</u>	28%
Total Water	2,245,600	2,222,739	(22,861)	-1%

Capital Cash Flow

Capital cash flows are the amounts projected to be spent each fiscal year on projects in the CIP. Cash flow spending varies each year as projects progress from one phase to another, such as from planning to design and then construction, and as projects are completed and new ones started.

The Water System's FY22 cash flow is decreasing by \$44.1 million or 11.4 percent from FY21. In FY23, the cash flow is increasing by \$35.8 million or 10.5 percent from FY22. The cash flows for FY22 and FY23 and the prior two years are shown below.



The FY22-26 CIP identifies \$2.02 billion in projected cash flow spending, an increase of \$126.0 million or 6.6 percent compared to the FY20-24 CIP. The increase is primarily attributable to the Maintaining Infrastructure Strategy for replacing deteriorated water distribution pipelines, and the Water Quality Strategy for water treatment plant upgrades. Also, Capital Support is increasing to be more in line with projected spending.

The Water System cash flows by strategy are summarized below.

FY20-24 vs. FY22-26 Cash Flows Capital Improvement Program by Strategy (\$ Thousands)				
Strategy	Cash Flows		\$ Chg	% Chg
	FY20-24	FY22-26		
Extensions & Improvements	218,211	28,222	(189,990)	-87%
Facilities, Services & Equipment	113,561	144,422	30,862	27%
Maintaining Infrastructure	847,980	915,847	67,868	8%
Regulatory Compliance	61,641	90,280	28,639	46%
Resource Management	11,462	10,819	(643)	-6%
Water Quality	226,463	343,150	116,687	0%
Water Supply	208,620	223,863	15,243	7%
Non-Program Specific	<u>0</u>	<u>0</u>	<u>0</u>	0%
Strategy Subtotal	1,687,938	1,756,604	68,666	4%
Capital Support	<u>207,970</u>	<u>265,324</u>	<u>57,354</u>	28%
Total Water	1,895,908	2,021,928	126,020	7%

Based on a ten-year capital planning horizon, \$2.4 billion of work has been tentatively identified for FY27-31. These estimates will be revised as studies are completed, priorities are redefined, and new needs emerge. Therefore, the focus is on the first five years of the CIP.

Select programs and projects are discussed in more detail in the following pages. In addition, a description of each project including recent accomplishments and future work is provided in a supplemental volume of this budget book for each project that has work planned in FY22-26.

Capital Labor

The capital labor component of the CIP totals over \$100 million per fiscal year. The following table shows the capital labor and benefits budget by department.

Capital Labor By Department (\$ Thousands)						
	FY20 Actuals	FY21 Budget	FY22 Budget	% Chg	FY23 Budget	% Chg
Administration	0	0	0	0.0%	0	0.0%
Customer & Community Services	614	349	425	21.9%	438	3.1%
Engineering & Construction	40,050	41,068	43,052	4.8%	43,271	0.5%
Finance	1,834	1,969	2,087	6.0%	1,755	-15.9%
Human Resources	212	615	764	24.3%	182	-76.1%
Information Systems	450	0	474	0.0%	0	-100.0%
Maintenance & Construction	40,403	48,555	46,502	-4.2%	47,487	2.1%
Natural Resources	105	72	72	0.1%	72	0.9%
Office of General Counsel	0	0	0	0.0%	0	0.0%
Office of the General Manager	0	0	0	0.0%	0	0.0%
Operations & Maintenance Support	713	401	601	50.0%	618	2.9%
Water Operations	5,410	5,760	4,790	-16.8%	4,839	1.0%
Water Recycling Program	61	4	57	1222.9%	57	0.0%
Water Resources	2,126	2,024	1,839	-9.1%	1,890	2.8%
Total Departments	91,977	100,816	100,664	-0.2%	100,611	-0.1%

The Water System capital labor budget is decreasing slightly, by less than \$0.2 million in FY22 and less than \$0.1 million in FY23 due to a small shift in labor from capital to operating, less use of negotiated premium pay for eligible employees that report to a job site lacking the basic facilities provided at District locations, and overall lower salaries due to the number of new employees with salaries lower than the employees they replaced.

Capital Program Highlights

The Water System FY22-26 appropriations are shown below by strategy and program, with select programs and projects discussed in more detail to provide a sense of the work that is projected to take place over the next ten years.

EXTENSIONS & IMPROVEMENTS TO THE SYSTEM STRATEGY

This strategy furthers the District's objectives to improve the infrastructure to ensure reliable, high quality service by performing water demand studies, environmental reviews, hydraulic modeling and pressure zone planning studies to optimize service levels. The strategy also updates the District's drafting, mapping and control systems to enhance modeling capabilities and remote water system operations. Work under this strategy focuses on planning for improvements to various components of pressure zones such as pipelines, reservoirs, pumping plants and water treatment plants (WTPs) to improve system reliability for existing customers, and to provide service to new customers. The five-year program strategy appropriations are as follows:

Appropriations (\$ Thousands)						
Programs	FY22	FY23	FY24	FY25	FY26	Total
Mapping	2,504	2,446	2,341	2,499	2,571	12,361
OP/NET	0	1,543	1,169	1,079	1,097	4,888
Pressure Zone Improvements	638	0	0	0	0	638
Total	3,142	3,989	3,510	3,578	3,668	17,887

Pressure Zone Improvement Program

The Pressure Zone Improvements (PZI) Program includes studying individual pressure zones to provide data to aid in planning for water distribution system projects, such as upgrading or replacing reservoirs, pumping plants or pipelines to optimize storage capacity and improve water quality. The studies are compiled into the various master plans to prioritize future work. Planned work for FY22-26 includes completion of the Maloney Pressure Zone (PZ) Planning Study, Colorados PZI Update, Swainland Reservoir Study, East of Hills System Study, and the Lake Chabot Golf Course service relocation.

Distribution system valve studies are conducted to improve existing practices for valves, spacing, inspection, installation, maintenance, and asset management. The design and installation of remote control Dual Tank Isolation Valves are part of this program.

This program also includes completing environmental documentation to implement the recommended improvements. Individual projects are grouped together into several Environmental Impact Reports (EIR), Mitigated Negative Declarations (MND), and Notice of Exemptions (NOE). In FY20-21, planning started on the Wildcat Pumping Plant MND, Fontaine Pumping Plant MND, Sobrante Water Treatment Plant EIR, and West of Hills (WHO) Central Pipelines EIR. Planned work for FY22-26 includes completing the projects started in FY20-21 and starting the WOH Southern Pipelines EIR in FY25.

Mapping Program

This program develops and upgrades the Computer-Aided Drafting and Mapping System (CAD/CAM) and Geographic Information System (GIS) which are integral for providing data, engineering drawings, and maps required for infrastructure planning, emergency response, and

maintenance. In FY21, CAD systems were modernized and Building Information Modeling was implemented to improve project coordination, utilize 3-D modeling, and streamline workflow process. In FY22-26, work includes GIS database and desktop software upgrades, water network data model migration, and major software updates to improve functionality and increase productivity.

OP/Net Program

The OP/NET System is used by operators, engineers and planners to provide operations staff with the ability to control and monitor water production, treatment, distribution, hydroelectric power generation and field facilities. The system consists of the Industrial Control System (ICS), the Supervisory Control and Data Acquisition (SCADA) system, and Remote Terminal Units (RTU). In FY22-26, upgrade of the SCADA system and ICS infrastructure will continue, and deployment of additional wireless communication and security/network equipment will coincide with RTU replacement. Also, an ICS cyber security assessment will be performed and recommendations evaluated and implemented.

FACILITIES, SERVICES & EQUIPMENT STRATEGY

This strategy furthers the District's objectives to ensure the security of the water supply system; to evaluate facilities and implement corrective maintenance programs; to implement changes in technology; and to maintain a safe, well equipped workplace. Work associated with this strategy includes making improvements to District facilities and constructing new service centers, making security improvements at various facilities, implementing new computer systems, and replacing vehicles and equipment as needed. The five-year program strategy appropriations are as follows:

Appropriations (\$ Thousands)						
Programs	FY22	FY23	FY24	FY25	FY26	Total
Area Service Center / Building	1,350	3,590	12,475	39,950	30,283	87,648
Communications	11,070	799	3,139	1,940	3,469	20,417
Security	0	0	2,229	2,635	5,167	10,031
Vehicle / Equipment	15,894	9,126	7,872	6,615	6,800	46,307
Total	28,314	13,515	25,715	51,140	45,719	164,403

Area Service Center / Building Program

The Area Service Center/Building Program is comprised of various projects to upgrade District buildings. Elevator upgrades, LED lighting installations, HVAC systems, and data center reliability improvements at the Administration Building (AB) in Oakland were recently completed.

FY22-26 work includes HVAC and lighting upgrades at the Adeline Maintenance Center (AMC) in Oakland; electrical modifications at the East Area Service Center in Walnut Creek to enable operation as an incident command base; and the expansion of the Fleet Maintenance East facility in Walnut Creek. Planning and community outreach for a new service center in West Oakland will be completed and the site will be used for equipment and materials storage and staging operations.

FY27-31 projects include new warehouse and storage facilities at the Oakport Storage Center in Oakland; renovation of a service center at AMC; expansion of the Castenada Service Center in San Ramon; and re-sealing the joints and pre-cast concrete panels on the exterior of the AB.

Communications Program

The Communications Program is comprised of projects that replace and upgrade computer and communication systems. Replacement of the Materials Management Information System (MMIS) used for purchasing and the Financial Information System (FIS) used for accounting purposes will be completed in FY22, along with replacing the budget system. Various modules of the Human Resource Information System (HRIS) will be replaced in FY22-23. Replacement of various work management systems including general work orders, concrete orders, and paving orders will take place in FY22-24. This program also provides for the periodic replacement of personal computers, laptops, servers, and network and data security equipment.

Vehicles / Equipment Program

The Vehicle / Equipment Program is ongoing and involves the periodic replacement of vehicles and construction equipment as needed. It also involves procuring additional vehicles and equipment for new staff and crews, and upgrading fuel facilities. In FY22-23, equipment will be purchased to outfit additional staff, replace long-term leased vehicles, and decrease the reliance on fully-manned and operated contracts. In FY22-23, improvements will be made to fueling facilities including the replacement of fuel dispensers at 16 sites, and the installation of enhanced vapor recovery equipment for the above ground storage tanks.

MAINTAINING INFRASTRUCTURE STRATEGY

This strategy furthers the District's objectives to improve, rehabilitate and replace aging infrastructure in a cost-effective manner to ensure the sustainable delivery of reliable, high quality water service now and in the future. Work under this strategy focuses on pipeline projects to improve system reliability for existing customers and to provide service to new customers; rehabilitating and replacing pumping plants; and rehabilitating water treatment plants and storage reservoirs to improve water quality. The five-year program strategy appropriations are as follows:

Appropriations (\$ Thousands)						
Programs	FY22	FY23	FY24	FY25	FY26	Total
Corrosion	215	2,413	6,759	4,875	8,196	22,458
Electrical Hazard Prevention	0	0	150	150	150	450
Pipelines / Appurtenances	22,541	23,265	24,016	24,787	25,586	120,195
Pipelines / Regulators	70,321	90,073	95,431	112,916	114,884	483,625
Polybutylene Lateral Replacement	0	14,992	15,479	15,982	16,501	62,954
Pumping Plant Rehabilitation	2,913	38,408	60,145	41,806	73,971	217,243
Reservoir Rehabilitation	32,736	113,571	71,921	67,144	76,540	361,912
Total	128,726	282,722	273,901	267,660	315,828	1,268,837

Pipelines / Appurtenances Program

This program maintains efficient pipeline operations by replacing appurtenances such as valves, hydrants and meters at the end of their useful life and installing services for new customers. The New Service Installations Project installs taps on the main, laterals, and meter sets for new customers. The need for new services has increased. In FY18-21, 600 to 700 new services were installed each year, and this rate is expected to continue in FY22 and beyond. In addition to new services, approximately 100 hydrants are expected to be installed each year to service new developments.

Water meters are routinely replaced at the end of their useful life, as are meters that are believed to be reading inaccurately. In FY21, approximately 18,000 meters were replaced, and the number of annual replacements is expected to increase to over 20,000 starting in FY22.

Pipelines / Regulators Program

Pipelines/Regulators is an ongoing program to replace deteriorated pipelines and expand the distribution system. This is the District's largest capital program.

The Pipeline Infrastructure Renewals project replaces deteriorating water distribution pipelines to help maintain the reliability of the distribution infrastructure. In FY20, pipeline replacements totaled 17.5 miles and are on track to meet the goal of replacing 20 miles per year in FY21-22. Pipeline replacement will increase to 22.5 miles per year in FY23-24, and 25 miles in FY25-26. Production is expected to increase as more efficient replacement installation methods and materials are used.

The Large Diameter Pipelines project replaces the large transmission pipes that form the backbone of the distribution system and installs new pipelines to improve the distribution system. FY22-26 work includes completing design for Summit Pressure Zone (PZ) Phase 2 and Alameda Crossing #2 and #3; completing construction on Wildcat Berkeley, Wildcat El Cerrito, Summit PZ Phase 1 and Alameda Crossing #1; and starting construction on D Street, East 15th Street, Alameda Crossing #2, and Summit PZ Phase 2.

Pumping Plant Rehabilitation Program

The Distribution Pumping Plant (PP) Infrastructure Rehabilitation Plan was updated in 2020 and identifies the highest priority pumping plants for rehabilitation, replacement, or demolition. FY22-26 work includes planning, design and/or construction at 31 of the 130 distribution pumping plants. FY27-31 work includes the existing Larkey (Walnut Creek), Summit North (El Cerrito), Pearl (Richmond), Stott (Pinole), Quarry (Hayward) and Summit South (Berkeley) PP, and a new Withers PP (Lafayette).

Reservoir Rehabilitation Program

This program includes the rehabilitation, replacement, and demolition of steel and concrete distribution reservoirs, along with open-cut reservoirs. The Reservoir Rehabilitation and Maintenance Project extends the service lives of the steel and reinforced concrete distribution tanks by replacing coating systems, repairing or replacing roofs, and performing structural upgrades to improve water quality and enhance worker safety. Work is prioritized through the Infrastructure Rehabilitation Plan.

FY22-26 work includes completing construction at 13 reservoirs throughout the District. Design and construction work is expected to commence at 18 other reservoirs. The reservoir roof safety program to improve reservoir roofs and ladders will continue.

The Open-Cut Reservoir Rehabilitation project includes the rehabilitation and replacement of large open-cut reservoirs and clearwells. FY22-26 work includes completing construction of the San Pablo Clearwell replacement, demolition of Seneca Reservoir in Oakland, planning and design for the replacement of Central Reservoir in Oakland, and the commencement of two major open-cut design projects: replacement of Leland Reservoir in Lafayette and Almond Reservoir in Castro Valley. FY27-31 work includes construction of the replacement reservoirs for Central, Leland, and Almond.

REGULATORY COMPLIANCE STRATEGY

This strategy furthers the District's objectives to operate and maintain facilities to meet all air, land and water discharge requirements; implement preventative and corrective maintenance programs; and improve the infrastructure to ensure delivery of reliable, high quality service. The work under this strategy focuses on modifications to reservoir towers, trench soils management, and upcountry wastewater treatment. The five-year program strategy appropriations are as follows:

Appropriations (\$ Thousands)						
Programs	FY22	FY23	FY24	FY25	FY26	Total
Dam Safety	2,000	5,000	500	200	200	7,900
Penn Mine	0	0	73	73	80	226
Remediation	9,600	0	10,350	0	8,000	27,950
Trench Spoils	9,326	20,909	2,050	16,586	0	48,871
Total	20,926	25,909	12,973	16,859	8,280	84,947

Dam Safety Program

This program upgrades dams, reservoir outlet towers, clearwells and spillways to meet flood and earthquake safety requirements. The Reservoir Tower Modifications Project encompasses the seismic retrofit of six reservoir towers. Retrofits to Chabot Tower were completed in FY18 as part of the Chabot Dam seismic upgrades. Retrofits to the Upper San Leandro and San Pablo Towers were completed in FY19.

Upcoming work is planned at Briones and Lafayette Reservoir Towers, which require upgrades to resist earthquake loads. Construction of the Briones Tower upgrades is planned for FY22-23, along with improvements to the tower's mechanical components and controls. The isolation valve of the Briones Tower is at the bottom of a 250 feet deep shaft and access to it is difficult and unsafe. The valve will be relocated to a more accessible location.

Lafayette Tower modifications include seismic and gate control upgrades, and modifications to the tower to act as a spillway capable of handling the revised Probable Maximum Flood. Planning, permitting, and design studies are underway. Completion of California Environmental Quality Act and design work will occur in FY22-23, with construction planned for FY23-24.

Remediation Program

The Upcountry Wastewater Improvement Project will upgrade the wastewater collection, treatment, and disposal systems that serve the Pardee and Camanche facilities to protect the environment from potential spills and overflows. The improvements will reconnect the mobile homes to the wastewater collection system, correct system layout deficiencies, and increased system dependability with the installation of backup power to crucial lift stations.

FY21-22 priorities include design and construction of the sewer collection system improvements for all remaining areas at Camanche South Shore. Design and construction for improvements to the collection system at Camanche North Shore will take place in FY23-24. Design and construction for the remainder of the collection systems at Pardee Center and Pardee Recreation Area will take place in FY24-25.

Trench Spoils Program

Trench soils are generated from pipeline installations and repairs and are temporarily stockpiled at three sites for reuse or disposal: Miller Road in Castro Valley, Briones in Orinda, and Amador in San

Ramon. The project includes site management in accordance with regulatory requirements, periodic removal of the trench soils, and evaluation of soils reduction and disposal alternatives.

FY22-26 priorities include environmental review and potential purchase of the quarry site for additional trench soils purposes, and implementing master plan recommendations including long-term solutions for slurry waste and development of contracts for more frequent off-hauls. FY27-31 efforts will focus on the development of the quarry site.

RESOURCE MANAGEMENT STRATEGY

This strategy furthers the District's objectives to manage the Mokelumne and East Bay watersheds to ensure a high-quality water supply; protect natural resources; and provide public access and recreational opportunities compatible with water quality and natural resource protection. Work under this strategy focuses on making improvements to recreational facilities at Camanche, Pardee and East Bay Reservoirs, and the Mokelumne fish hatchery. The five-year program strategy appropriations are as follows:

Appropriations (\$ Thousands)						
Programs	FY22	FY23	FY24	FY25	FY26	Total
Recreation Areas	300	260	210	10	10	790
Watershed Recreation	925	1,050	1,285	1,245	960	5,465
Total	1,225	1,310	1,495	1,255	970	6,255

Recreation Areas Program

The Pardee and Camanche Recreation Area facilities require periodic replacements and upgrades to the roads, parking lots, fuel docks, launch ramps, docks, boat berths, stores, campgrounds, and bathroom and shower buildings.

In FY22-26, a new restroom/shower facility in the Oaks campground at the Pardee Recreation area will be constructed and an environmental enhancement program initiated at the Camanche Hills Hunting Preserve. At the Mokelumne River Day Use Area projects include design and construction of a new ADA interpretive trail, improvements to the access roads and public parking areas, and a new restroom facility installed.

Watershed Recreation Program

This program provides for protecting and enhancing the District's watershed lands including trails and recreation facilities in accordance with master plans and regulatory requirements.

Projects planned for FY22-26 include upgrading the sewer force main and lift station, rental boat dock, and crew locker room/shop at the Lafayette Reservoir Recreation Area; and upgrading the sewer force main, all-access dock, and roadway paving at the San Pablo Reservoir Recreation Area. Watershed projects include staging area upgrades and implementation of watershed fire management strategies. At the Orinda Watershed Headquarters, new roofs will be installed on the administrative, warehouse, and vehicle storage buildings; conference room technology will be upgraded; and parking lots repaved.

In FY22-23, work at the Mokelumne Watershed Headquarters includes a back-up generator, construction of a modular warehouse/shop building, and vehicle access improvements.

WATER QUALITY STRATEGY

This strategy furthers the District's objectives to operate and maintain facilities to surpass federal and state drinking water regulations, and to make system improvements that meet or surpass regulatory requirements. Work under this strategy focuses on making improvements to Water Treatment Plants (WTPs) to improve water quality. The five-year program strategy appropriations are as follows:

Appropriations (\$ Thousands)						
Programs	FY22	FY23	FY24	FY25	FY26	Total
Water Quality Improvement	2,750	0	3,250	570	50	6,620
Water Treatment Upgrade	128,730	652	26,228	37,035	723	193,368
Total	131,480	652	29,478	37,605	773	199,988

Water Treatment Upgrade Program

The Treatment Plant Upgrades Project addresses compliance with water quality regulations and improves the safety, operation and reliability of the five Water Treatment Plants (WTPs). In FY22-26, planned work includes:

- All WTPs (except San Pablo) – complete chemical system safety improvements.
- Orinda WTP – complete the installation of a filter air scour system and the ultraviolet (UV) disinfection facility and chlorine contact basin to improve disinfection reliability, minimize disinfection by-products and improve chemical dosing.
- Upper San Leandro WTP – modernize the control systems and complete the reliability improvements.
- Sobrante WTP – modernize the control systems and complete design of the reliability improvements.
- Walnut Creek WTP – rehabilitate the old filters and design new pretreatment and ozone system improvements.
- Lafayette WTP – upgrade the control systems.

San Pablo WTP is only operated during Orinda WTP/Claremont Tunnel outages or to support drought operations. In support of the Orinda WTP shutdown control system improvements will be made and minor mechanical and structural issues addressed.

At San Pablo Reservoir, a hypolimnetic oxygenation system will be installed to improve water quality and reduce taste and odor issues.

At Briones and Pardee Reservoirs, the causes of water quality degradation will be studied and alternatives developed to improve the water quality.

In FY27-31 planned work includes constructing the new Walnut Creek WTP pretreatment system for particulate and microbial removal, and an ozone system to remove taste and odor compounds.

WATER SUPPLY STRATEGY

This strategy furthers the District's objectives to ensure a reliable, high quality water supply for the future; preserve current entitlements; augment the water supply; and reduce the demand for potable water through conservation and recycling. The immediate focus of this strategy is on maintaining the raw water aqueducts and water recycling projects. The five-year program strategy appropriations are as follows:

Appropriations (\$ Thousands)						
Programs	FY22	FY23	FY24	FY25	FY26	Total
Aqueduct	25,208	8,499	4,641	4,214	35,044	77,606
Supply Reservoirs	3,375	4,401	1,440	2,300	2,158	13,674
Water Conservation	0	2,372	2,402	1,947	2,010	8,731
Water Recycling	685	11,893	11,407	5,716	10,917	40,618
Water Supply Management	7,635	10,624	8,275	4,752	39,617	70,903
Total	36,903	37,789	28,165	18,929	89,746	211,532

Aqueduct Program

This program evaluates and makes improvements to the raw water aqueduct system. Various Mokelumne Aqueduct gully crossings will be recoated in FY22-31 to provide protection from the corrosive Delta environment.

The program also includes replacing the deteriorated cement motor lining in the Mokelumne Aqueducts that protects the steel pipeline from internal corrosion. Inspections of the elevated Delta reach revealed that 10 miles of the lining in aqueduct #2 and #3 need replacement. Inspections of the below ground pipeline indicate that an additional 65 miles of lining in aqueduct #2 requires replacement. Prior to relining, it is necessary to construct a raw water treatment facility to minimize corrosion.

FY22-26 work includes design and construction of the Raw Water Treatment Facility, Phase 1 of the Mokelumne Aqueduct #2 relining, and design of the aqueduct #3 relining of the above-ground portion. FY27-31 work includes construction of the aqueduct #3 above-ground relining, and design and construction of the aqueduct #2 below-ground relining.

The Raw Water Infrastructure Project maintains the integrity of the raw water system. FY22-26 work includes design of the Lafayette Aqueduct #1 relining; planning and design of Pardee Tunnel Access Improvements; continuing design of temperature anchors on Mokelumne Aqueduct #1; completing the inspection of San Pablo and Upper San Leandro Raw Water (RW) Tunnels; planning for Moraga RW PP upgrades; planning, design, and construction of Briones PP improvements; and design and construction of the Pardee Center RW Tank Replacement.

FY27-31 work includes completing the Pardee Tunnel Access improvements and the Mokelumne Aqueduct #3 base isolator improvements, and completing the 2030 Raw Water Master Plan.

Supply Reservoirs Program

Under this program, efforts will be pursued to develop a five-megawatt photovoltaic project on the watershed lands in Orinda in FY22-23. The program will also upgrade a generator, overhaul a turbine, and make other improvements to the hydro-electric powerhouses at Pardee and Camanche Reservoirs.

Water Conservation Program

This program includes implementing activities to help meet water savings goals and to comply with state water use efficiency regulations. In FY21, the Water Conservation Master Plan was updated which provides a roadmap for meeting these goals.

Over the next five years, the Water Conservation Program will continue to offer traditional rebates, incentives, and education programs, while increasing its focus on providing digital tools to help customers manage their water use. The program will expand the use of its web portal, home water reports, leak alerts, and other communication tools.

Water Recycling Program

To help reduce potable water demand, the District has undertaken a variety of recycled water projects. The East Bayshore Recycled Water Project is planned to provide 2.3 MGD of recycled water to customers in Albany, Berkeley, Emeryville, Oakland, and Alameda. Phase 1A began operating in 2008 and currently delivers 0.2 MGD to customers in Oakland and Emeryville. Phase 1B will expand service by an additional 0.25 MGD, for a total of 0.65 MGD. Phase 2, estimated at 1.7 MGD, is planned for implementation after FY31. The crossing of the estuary to Alameda (slip lining of existing pipe) will take place in FY25-30.

EBMUD's portion of the San Ramon Valley Recycled Water Program includes customer retrofits and connecting customers to the distribution system in San Ramon, Danville and Blackhawk. Phase 1 began operating in 2006 and delivers up to 0.7 MGD of recycled water to EBMUD customers in San Ramon. Phase 2 distribution pipelines have been completed, and customer retrofits completed. The Phase 3 pump station on the border between San Ramon and Danville will be completed in FY26 with distribution pipelines constructed in FY27, and site retrofits completed in FY28.

Water Supply Management Program

As part of the Water Supply Management Program (WSMP 2040), water supply efforts are being pursued to ensure the reliability of the water supply into the future, particularly during dry years, emergencies, and in response to changing climate and legislation.

Key projects in FY22-26 include evaluating the expansion of Los Vaqueros Reservoir in Contra Costa County, developing and implementing water transfer and exchange opportunities, participating in the Upper Mokelumne Regional Water Authority and the Bay Area Regional Reliability partnership, investigating groundwater banking opportunities in both San Joaquin and Sacramento County, and developing and protecting the East Bay Plain Sub-basin.

To comply with measures associated with California Senate Bill 555, a Water Loss Control project has been created to reduce apparent and real water losses through meter replacement, leak detection, and pressure management. In FY20-21, the size of the automated acoustic leak detection network was doubled. Planned work in FY22-26 includes completing improvements to flow meters for water treatment plants and large customers, the water loss control master plan, two manual leak detection surveys, and annual verification of water treatment plant flow rates to improve the accuracy of the water audit. Planned work in FY27-31 includes completing improvements to flow meters for additional large customers and compliance with the State Water Resources Control Board's regulatory limit for water loss.

NON-PROGRAM SPECIFIC STRATEGY

This strategy furthers the District's objective to maintain a strong financial position to meet both short and long-term needs. The Contingency Program focuses on making funds available for unanticipated needs, and for projects that are seeking grants to pay for a substantial portion of the project's cost. The five-year program strategy appropriations are as follows:

Appropriations (\$ Thousands)						
Programs	FY22	FY23	FY24	FY25	FY26	Total
Contingency	3,068	500	0	0	0	3,568
Total	3,068	500	0	0	0	3,568

Contingency Program

Contingency provides funding for unanticipated needs that may arise before the next budget cycle, such as replacement or repairs to facilities and equipment as a result of failures or safety deficiencies, and new projects or the acceleration of planned projects requiring funding before the next budget cycle. Funds may also be set aside for projects where grants are being sought in the event that the grant application is successful as most grants require the District to fund the project and then apply for reimbursement of allowable costs.

In FY22, funds have been set aside for possible costs related to grant awards to cover Mokelumne River restoration projects for salmon spawning, nine miles of new Mokelumne Coast to Crest Trails, and water loss control acoustic leak detection surveys.

Capital Appropriation Summary

This section shows the five-year appropriations for the Water System projects contained in the CIP, sorted by strategy and program. The Board of Directors approves the overall five-year CIP but adopts just the first two years. The remaining three years are for planning purposes only and are subject to revision.

Department Abbreviations

The abbreviation for the Lead Department responsible for each capital project is as follows:

CUS	–	Customer and Community Services Department
ENG	–	Engineering Department
FIN	–	Finance Department
ISD	–	Information Systems Department
MCD	–	Maintenance & Construction Department
NRD	–	Natural Resources Department
OSD	–	Operations & Maintenance Support Department
WOD	–	Water Operations Department
WRD	–	Water Resources Department
WRP	–	Water Recycling Program

Capital Improvement Projects			Dept	Prior Approp	FY22-26 APPROPRIATIONS (IN 000's)					
		FY 2022			FY 2023	FY 2024	FY 2025	FY 2026	5 YR TOTAL	
EXTENSIONS AND IMPROVEMENTS										
Mapping										
Engineering IT		ENG	39,329	2,504	2,446	2,341	2,499	2,571	12,361	
	Mapping Total		39,329	2,504	2,446	2,341	2,499	2,571	12,361	
OP/NET										
OP/NET System		WOD	33,478	0	1,543	1,169	1,079	1,097	4,888	
	OP/NET Total		33,478	0	1,543	1,169	1,079	1,097	4,888	
Pressure Zone Improvements										
Distribution System Upgrades		ENG	9,127	0	0	0	0	0	0	
Miscellaneous Planning Studies		ENG	4,184	638	0	0	0	0	638	
Pressure Zone Improvements		ENG	37,349	0	0	0	0	0	0	
West of Hills Master Plan		ENG	24,366	0	0	0	0	0	0	
	Pressure Zone Improvements Total		75,026	638	0	0	0	0	638	
EXTENSIONS AND IMPROVEMENTS TOTAL			147,833	3,142	3,988	3,510	3,578	3,668	17,887	
FACILITIES, SERVC AND EQUIP										
Area Service Center/Bldg Prog										
Building Facilities Improve		ENG	82,143	0	0	11,819	39,477	29,783	81,079	
Minor Facility Improvements		WOD	9,927	1,350	3,590	656	473	500	6,569	
	Area Service Center/Bldg Prog Total		92,070	1,350	3,590	12,475	39,950	30,283	87,648	
Communications										
ERF Purchases for Copiers		FIN	240	0	0	0	0	50	50	
Data & Telecom Infrastructure		ISD	3,603	0	0	150	80	100	330	
ERF Current DSS/Server/Network		ISD	1,320	2,945	799	895	1,720	2,494	8,852	
ERF Current PCs/Desktop/Laptop		ISD	778	0	0	0	140	185	325	
ERF Smoothing DSS/Server/Network		ISD	623	0	0	272	0	640	912	
ERF Smoothing PCs/Desktop/Laptop		ISD	1,148	0	0	1,822	0	0	1,822	
FIS / MMIS Replacement		ISD	16,459	0	0	0	0	0	0	
HRIS Replacement		ISD	8,700	875	0	0	0	0	875	
Work Mgmt Systems Replacement		ISD	4,750	7,250	0	0	0	0	7,250	
	Communications Total		37,620	11,070	799	3,139	1,940	3,469	20,416	
Security										
Security Improvements		ENG	28,114	0	0	2,229	2,635	5,167	10,031	
	Security Total		28,114	0	0	2,229	2,635	5,167	10,031	
Vehicle/Equipment										
Veh & Hvy Equip Additions, Wtr		MCD	30,249	1,944	1,699	1,000	1,000	1,000	6,643	
Vehicle Replacements		MCD	111,689	8,300	6,700	6,098	5,615	5,800	32,513	

Capital Improvement Projects		Dept	Prior Approp	FY22-26 APPROPRIATIONS (IN 000's)					
				FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	5 YR TOTAL
Diesel Engine Retrofit		WOD	10,528	2,650	727	774	0	0	4,151
Fueling Facility Upgrades		WOD	16,046	3,000	0	0	0	0	3,000
Vehicle/Equipment Total			168,512	15,894	9,126	7,872	6,615	6,800	46,307
FACILITIES, SERVC AND EQUIP TOTAL			326,316	28,314	13,515	25,715	51,140	45,719	164,402
MAINTAINING INFRASTRUCTURE									
Corrosion									
Aqueduct Cathodic Protection		ENG	4,168	0	497	513	531	548	2,089
Distr Sys Cathodic Protection		ENG	18,644	0	1,839	5,353	4,262	5,709	17,163
Facilities Cathodic Protection		ENG	0	215	77	893	82	951	2,218
Trans Main Cathodic Protection		ENG	4,796	0	0	0	0	988	988
Corrosion Total			27,608	215	2,413	6,759	4,875	8,196	22,458
Electrical Hazard Prevent Pgm									
Arc Flash, Mitigate, Proj. Mgn		WOD	3,136	0	0	150	150	150	450
Electrical Hazard Prevent Pgm Total			3,136	0	0	150	150	150	450
Pipelines/Appurtenances									
Hydrants Installed by DF		ENG	28,118	1,815	1,874	1,935	1,998	2,063	9,685
New Service Installations		ENG	250,578	15,000	15,488	15,991	16,511	17,047	80,037
Meter Replacements		MCD	58,205	4,394	4,524	4,663	4,801	4,947	23,329
Pipeline Appurtenances		MCD	18,290	1,332	1,379	1,427	1,477	1,529	7,144
Pipelines/Appurtenances Total			355,191	22,541	23,265	24,016	24,787	25,586	120,195
Pipelines/Regulators									
Large Diameter Pipelines		ENG	267,881	0	0	0	0	0	0
Pipeline Rebuild		ENG	366,961	60,525	70,232	72,514	83,122	85,823	372,216
Pipeline Relocations		ENG	71,337	0	5,473	5,650	5,834	6,024	22,981
Pipeline System Extensions		ENG	62,634	9,796	10,115	10,443	10,783	11,133	52,270
Pipeline System Improvements		ENG	77,409	0	4,253	4,649	10,142	7,009	26,053
Rate Control Station Rehab		ENG	9,488	0	0	2,175	647	3,625	6,447
Regulator Rehabilitation		ENG	20,108	0	0	0	2,388	1,270	3,658
Pipelines/Regulators Total			875,817	70,321	90,073	95,431	112,916	114,884	483,625
Polybutylene Lateral Replcmt									
Service Lateral Replacements		ENG	240,691	0	14,992	15,479	15,982	16,501	62,954
Polybutylene Lateral Replcmt Total			240,691	0	14,992	15,479	15,982	16,501	62,954
Pumping Plant Rehabilitation									
Maloney PP & WTP Improvements		ENG	49,751	0	0	0	0	0	0
Pumping Plant Rehabilitation		ENG	212,073	0	35,400	57,040	38,600	70,660	201,700

Capital Improvement Projects		Dept	Prior Approp	FY22-26 APPROPRIATIONS (IN 000's)					
				FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	5 YR TOTAL
Small Capital Improvements		WOD	17,039	2,913	3,008	3,105	3,206	3,311	15,543
	Pumping Plant Rehabilitation Total		278,863	2,913	38,408	60,145	41,806	73,971	217,243
Reservoir Rehab Program									
Open-Cut Reservoir Program		ENG	241,635	0	81,956	55,921	46,724	36,125	220,726
Reservoir Rehab/Maintenance		ENG	197,877	32,158	30,700	15,055	19,445	39,408	136,766
Facility Paving Project		WOD	3,830	578	915	945	975	1,007	4,420
	Reservoir Rehab Program Total		443,342	32,736	113,571	71,921	67,144	76,540	361,912
	MAINTAINING INFRASTRUCTURE TOTAL		2,224,648	128,726	282,722	273,901	267,660	315,828	1,268,837
NON-PROGRAM SPECIFIC									
Non-Program Specific									
Contingency Project Water		FIN	37,644	3,068	500	0	0	0	3,568
	Non-Program Specific Total		37,644	3,068	500	0	0	0	3,568
	NON-PROGRAM SPECIFIC TOTAL		37,644	3,068	500	0	0	0	3,568
REGULATORY COMPLIANCE									
Dam Safety									
Dam Operational Upgrades		ENG	21,273	0	0	0	0	0	0
Dam Seismic Upgrades		ENG	119,612	0	3,000	500	200	200	3,900
Dam Surveillance Improvements		ENG	12,483	0	0	0	0	0	0
Reservoir Tower Modifications		ENG	34,532	2,000	2,000	0	0	0	4,000
	Dam Safety Total		187,900	2,000	5,000	500	200	200	7,900
Penn Mine									
Penn Mine Remediation		OSD	18,221	0	0	73	73	80	227
	Penn Mine Total		18,221	0	0	73	73	80	227
Remediation									
Upcountry WW Trmt Imprvmts		WOD	32,057	9,600	0	10,350	0	8,000	27,950
	Remediation Total		32,057	9,600	0	10,350	0	8,000	27,950
Trench Spoils									
Trench Soils Management		ENG	45,222	9,326	20,909	2,050	16,586	0	48,871
	Trench Spoils Total		45,222	9,326	20,909	2,050	16,586	0	48,871
	REGULATORY COMPLIANCE TOTAL		283,400	20,926	25,909	12,973	16,859	8,280	84,948
RESOURCE MANAGEMENT									
Recreation Areas									
Pardee/Cam Rec Areas Impr Plan		NRD	10,204	300	260	210	10	10	790
	Recreation Areas Total		10,204	300	260	210	10	10	790
Watershed Recreation									

Capital Improvement Projects		Dept	Prior Approp	FY22-26 APPROPRIATIONS (IN 000's)					
				FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	5 YR TOTAL
East Bay Watershed Rec Projs		NRD	14,673	350	350	400	575	325	2,000
F&W Projects and Mok Hatchery		NRD	5,811	0	350	500	450	400	1,700
Mokelumne Watershed Rec HQ		NRD	6,760	0	0	0	0	0	0
Mokelumne Watershed Rec Projs		NRD	6,266	575	350	385	220	235	1,765
Watershed Recreation Total			33,510	925	1,050	1,285	1,245	960	5,465
RESOURCE MANAGEMENT TOTAL			43,714	1,225	1,310	1,495	1,255	970	6,255
WATER QUALITY									
Water Quality Improvement									
Distrib Sys Wtr Quality Imprv		WOD	22,520	2,750	0	3,250	570	50	6,620
Water Quality Improvement Total			22,520	2,750	0	3,250	570	50	6,620
Water Treatment Upgrade									
Treatment Plant Upgrades		ENG	456,479	128,100	0	25,553	36,336	0	189,989
Minor WTP Capital Work		WOD	5,152	630	652	675	699	723	3,379
Water Treatment Upgrade Total			461,631	128,730	652	26,228	37,035	723	193,368
WATER QUALITY TOTAL			484,151	131,480	652	29,478	37,605	773	199,988
WATER SUPPLY									
Aqueduct Program									
Delta Tunnel		ENG	0	4,400	7,275	0	0	0	11,675
Mok Aqueduct No 2 & 3 Relining		ENG	48,796	19,255	0	3,200	0	0	22,455
Mokelumne Aqueducts Recoating		ENG	45,025	0	0	0	0	0	0
Raw Water Infrastructure		ENG	88,688	0	0	0	2,617	33,522	36,139
Raw Wtr Aq O&M Imprvmts		WOD	48,968	1,553	1,224	1,441	1,597	1,522	7,337
Aqueduct Program Total			231,477	25,208	8,499	4,641	4,214	35,044	77,606
Supply Reservoirs									
Enhanced Power Revenue		WOD	11,418	0	0	0	0	0	0
Pardee Ctr Cap Maint & Imprvmt		WOD	2,196	1,208	1,102	373	320	213	3,216
Powerhouse Improvements		WOD	14,412	1,296	1,496	618	607	1,327	5,345
Rec Area Cap Maint & Imprvmt		WOD	4,160	751	1,715	346	1,193	471	4,475
Wtr Supply Monitoring System		WOD	2,081	120	88	103	180	147	638
Supply Reservoirs Total			34,266	3,375	4,401	1,441	2,300	2,158	13,674
Water Conservation									
Water Conservation Project		CUS	74,759	0	2,372	2,402	1,947	2,010	8,731
Water Conservation Total			74,759	0	2,372	2,402	1,947	2,010	8,731
Water Recycling									
East Bayshore		WRD	73,754	0	3,042	8,892	3,545	3,661	19,139

Capital Improvement Projects	Dept	Prior Approp	FY22-26 APPROPRIATIONS (IN 000's)					
			FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	5 YR TOTAL
RARE Water Project	WRD	64,937	224	568	1,169	1,082	455	3,497
SRV Recycled Water Program	WRD	88,392	0	5,872	0	500	278	6,651
Water Recycling WSMP	WRD	17,588	0	0	0	0	5,943	5,943
No Richmond Recy Wtr Fac Impr	WRP	17,624	461	2,411	1,346	589	580	5,386
Water Recycling Total		262,295	685	11,892	11,406	5,716	10,916	40,616
Water Supply Mgmt Program								
Water Loss Control	OSD	13,202	5,308	2,160	5,587	2,000	2,000	17,055
Sup Supply and Regional Plng	WRD	140,407	1,977	8,214	1,988	1,902	36,617	50,698
Water Rights, Licenses & Plans	WRD	0	350	250	700	850	1,000	3,150
Water Supply Mgmt Program Total		153,609	7,635	10,624	8,275	4,752	39,617	70,903
WATER SUPPLY TOTAL		756,406	36,902	37,788	28,165	18,929	89,745	211,529

APPROPRIATIONS SUMMARY (IN 000'S)						
Prior	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	5 YR TOTAL
4,304,112	353,783	366,384	375,237	397,026	464,984	1,957,414

Operating Budget Impact of Capital Investments

The FY22-26 CIP includes various significant nonrecurring capital projects that will affect the operating budget and the services that the District provides. Such projects and their potential impacts include:

Adeline Maintenance Center (AMC) HVAC System and Parking Lot Improvements

Two projects at the AMC Administration Building will replace aging equipment and provide facilities that further the District's 2030 carbon neutral goal. Facilities include energy-efficient LED lights and HVAC systems in the building, and electric vehicle (EV) charging stations and photovoltaic carports in the parking lot. Increased maintenance costs for EV and solar systems are expected to be offset by cost savings resulting from reduced energy use of the new lighting and HVAC systems.

Briones / Lafayette Tower Modifications

The Briones Tower requires upgrades to safely resist seismic loads. The project also includes Lafayette Reservoir Tower modifications which include seismic and gate control upgrades, and modification of the tower to act as a spillway capable of handling the revised Probable Maximum Flood. Both retrofit projects are required by the California Division of Safety of Dams. While these tower modifications will not result in any significant cost savings or revenues, they will increase public safety in the event of an earthquake.

Water Treatment Plant Chemical System Safety Improvements

The Chemical System Safety Improvements Project will replace piping with double-contained piping and improve monitoring and spill containment. The project will replace piping nearing the end of its useful life and reduce leaks. It is anticipated that these improvements will reduce maintenance needs at each of the Water Treatment Plants (Upper San Leandro, Sobrante, Lafayette, and Walnut Creek) related to chemical pipe replacement, chemical system rebuilds, and tank relining costs. Replacement of these systems will reduce maintenance costs by an estimated \$200,000 to \$300,000 across all the water treatment plants.

Fleet Maintenance East

The project includes a new fleet facility with three bays for vehicle maintenance, a new energy-efficient administration building, a tire storage and replacement shop, and three electric vehicle charging stations at the Fleet Maintenance East site in Walnut Creek. The project provides an additional East of Hills fleet facility to minimize travel distances for equipment maintenance. The improvements support the District's efforts to become carbon neutral by 2030.

Happy Valley/Sunnyside Pumping Plants (PP)

Work includes a new 3.2 MGD Happy Valley PP in Orinda, and 3,300 feet of 16-inch pipeline. The Las Aromas PZ has a deficit of 2.9 MGD in pumping capacity. This project will resolve the deficiency and can be expanded to 4.2 MGD to meet future demands. The project also includes a new 1.5 MGD Sunnyside PP in Lafayette to resolve an existing 0.7 MGD pumping capacity deficit and improve hydraulic connectivity in the Valley View PZ. Annual maintenance and electricity costs are estimated to be \$85,000 for each PP.

Orinda Water Treatment Plant Scouring Air Project

The Orinda WTP Scouring Air Project is estimated to save 200 to 300 hours of operator's time annually that is spent manually hosing filters and reduce water usage during back washing. In addition, waste basin repairs will reduce plant leakage and improve discharge compliance.

Orinda Water Treatment Plant Disinfection and Chemical System Safety Improvements

This project will improve disinfection reliability and allow operations to discontinue in-plant chemical tanks for compliance, and reduce disinfection by-products. In addition, the project will improve plant safety and chemical systems. Some maintenance costs can be reduced by the replacement of chemical tanks with more compatible materials that do not corrode. The system should also result in a reduction in the use of chlorine. However, the overall operations and maintenance costs will increase by approximately \$180,000 annually for additional cleaning of UV light sleeves, cleaning costs, and energy cost for the UV reactor, starting in FY26.

Raw Water Treatment Facilities Improvement

The Pardee Chemical Project and the Inline WTP Carbonic Acid Injection System Project will improve water chemistry to protect aqueduct lining materials.

The Pardee Chemical Improvements Project includes installation of a new lime storage and slaker facility, a new carbon dioxide (CO₂) system, and a new operations and maintenance building to inject chemicals into the Pardee Tunnel at the Pardee Chemical Plant. The Inline WTP CO₂ Injection System Improvements Project includes installation of a new CO₂ storage, dissolution and injection system at Lafayette, Orinda, and Walnut Creek WTPs.

These projects are anticipated to increase upcountry operations utility costs by \$2.5 million annually starting in FY26, and require an additional 1.5 FTE to operate and maintain the upcountry facility. The improved water chemistry will protect over \$1 billion dollars of raw water infrastructure from corrosion and support future aqueduct relining projects, and may reduce pipe breakage in the distribution system.

San Pablo Clearwell Replacement

San Pablo Clearwell, a 5.4 million gallon (MG) open-cut reservoir located in Kensington will be demolished and replaced with two 3.5 MG concrete reservoirs, along with replacement of the rate control station, pipelines, and chlorine contact baffles. The pre-cast concrete roof of the San Pablo Clearwell is structurally unsafe and the lining, outlet tower, valves, and extension stems need replacement. The new facilities will improve safety access and require less maintenance.

San Pablo Reservoir Hypolimnetic Oxygenation System

The San Pablo Reservoir Hypolimnetic Oxygenation System includes installing facilities to add oxygen to the bottom of the reservoir to reduce taste and odor causing compounds and soluble manganese levels. The operation of this system is also expected to improve conditions for fish and other wildlife in the reservoir by increasing oxygen levels, mitigating harmful algae blooms, and reducing mercury levels bio-accumulated in the reservoir. The project includes installing a liquid oxygen storage tank, two vaporizers, an underwater Speece cone assembly with an intake screen, submersible circulating pump, submarine electrical cables, piping, and diffusers to add oxygen to the bottom of the reservoir.

This project's operating cost is estimated to be \$600,000 to \$700,000 in the first three years of operation, starting in FY24, mainly due to liquid oxygen and electrical costs. Operating costs are expected to decrease after the third year of operation by up to \$500,000 per year. After the system operates for three years the reservoir's water quality is expected to improve and can potentially reduce the Sobra WTP's ozone operation cost by 10 percent.

Seneca Reservoir Demolition

Seneca Reservoir, a 30 MG open-cut reservoir located in Oakland will be demolished and the property offered for sale at an estimated price of \$3.7 million.

Upper San Leandro (USL), Sobrante, and Lafayette WTP Control System Upgrades

This project will replace the antiquated WTP controls systems with modern systems at the USL, Sobrante, and Lafayette WTPs to resolve reliability issues. Improvements will include the addition of local indication and controls to support manual operation, as well as Phase II upgrades at both Sobrante and USL WTPs. The project is anticipated to reduce unexpected plant outages associated with the antiquated controllers.

Upper San Leandro WTP Maintenance and Reliability Project

Improvements to the USL WTP include replacement of the unreliable cable-vac solids collection system; rehabilitation of the reclaim and solids handling systems; installation of a filter-to-waste basin; replacement of the seismically deficient clearwell roof; installation of a fifth flocculation stage; and replacement of failing flocculation baffles. The overall plant improvements should reduce maintenance needs for the facility and reduce the amount of residuals water sent to the sewer, thus reducing sewer capacity charges by up to \$200,000 per year starting in FY24.

Willow Service Center

This project provides a new 1.5 acre service center in west Oakland, including new offices and locker room facilities, a staging area for construction equipment and materials, loading docks, and parking. The site will include space designated for electric vehicle charging stations to be installed as the District converts its service vehicle fleet from gas powered to electric. This new maintenance service center will provide facilities for staff that perform maintenance, repair, and construction of pipelines and appurtenances in Oakland and Berkeley. The new service center will assist crews to keep pace with pipeline maintenance needs in the area of the District with the oldest pipe and largest number of pipe breaks. The energy-efficient building and the EV charging stations support the District's drive for carbon neutrality by 2030.

Financial / Materials Management Information System (FIS / MMIS)

This project will replace the 25-year-old MMIS that is supported by a one-person consulting firm with a new procurement and vendor management system, and the FIS that is over 20 years old and no longer meets business needs. In addition, a new budget module will be implemented. A new purchasing, accounting, inventory and budget system will reduce the risk of system failure, reduce vendor dependence, and greatly improve system integration. Replacement of these systems requires funding additional new positions on a limited-term basis for two to three years to implement the new systems and conduct extensive testing and training. Implementation of the Oracle Enterprise Resource Planning (ERP) Financial, Procurement and Budget modules will provide expanded functionality and self-service functionality to staff.

Human Resource Information System (HRIS)

This project will replace the 20-year-old HRIS to improve systems regarding employee data, retirement, and payroll. Replacement of this system requires funding temporary construction positions to assess needs, select a solution, implement the new solution and conduct extensive testing. The project will be completed in two phases: implementation of a Retirement Management system, followed by the core Human Resources functionality and Payroll system.

East Bayshore Recycled Water Project (EBRWP) Phase 1A

EBRWP provides recycled water to offset the District's potable water demand. To meet the 2.3 MGD offset goal by 2040, recycled water quality must be improved and new pipelines constructed to reach additional customers. Phase 1A treatment facility upgrades and pipeline extensions to distribute recycled water from the treatment plant to new customers will be implemented by FY25. A pilot study is underway to identify the preferred treatment method for full-scale implementation. Annual operating costs for the treatment upgrades are anticipated to range from \$0.5 million to \$1.5 million depending on the treatment technologies selected.

FIVE-YEAR FINANCIAL FORECAST

SUMMARY

The five-year financial forecast presents the estimated impact of operations, debt service requirements and reserve balances on rate projections over the five-year period.

This forecast is built upon:

- Adopted financial policies
- Capital investments in the FY22-FY26 CIP

This forecast identifies a series of rate increases for the Water System based on estimated increases in operating and capital expenditures to maintain service levels, meet mandated program requirements, and pay increased debt service to fund capital expenditures.

On average over the five-year period, revenues are forecast to increase 4.5 percent per year to cover the increases in operating and capital expenses and maintain a minimum of 1.6 times coverage on revenue bond debt service. Forecasted operating expenses are expected to grow by 4.0 percent per year over the five-year period, while debt service grows 4.6 percent per year.

The key factors driving the need for increased Water System revenues are:

- Increasing labor and benefit costs
- Inflation on non-labor products and services
- An increase in funding the capital program from revenue rather than debt

For all five years, the cash reserves exceed the cash reserve targets. Reserves in excess of those needed to meet financial reserve targets are available to pay for a significant portion of the capital program expenses with cash, a positive financial metric.

Capital cash flow spending, including capital support is projected at \$2.0 billion over the five-year period. Major projects to be undertaken during this period include Treatment Plant Upgrades, Pipeline Rebuild, Large Diameter Pipelines, Reservoir Rehabilitation, and Pumping Plant Rehabilitation.

The projected average percentage of capital funded from debt will be 42.2 percent over the five-year period, significantly lower than the financial policy target maximum of 65 percent. In FY22 and FY23, the debt coverage ratio is projected at 2.02 and 2.02, respectively, and for all five years the ratio exceeds the target coverage ratio of 1.60.

OPERATIONS

The following table shows the financial forecast for the Water System operating budget based on projected operations and maintenance expenses and debt service requirements.

Water System Operating Budget Five-Year Financial Forecast (\$ Millions)							
	FY20 Actuals	FY21 Budget	Forecast				
			FY22	FY23	FY24	FY25	FY26
Beginning Balance	-	-	436.0	458.3	451.9	450.7	456.4
Water Charges	567.4	582.5	610.2	640.0	671.4	704.3	738.9
Property Taxes	40.3	35.8	40.0	40.0	40.0	40.0	40.0
Power Sales	6.8	5.0	5.0	5.0	5.0	5.0	5.0
Interest Income	11.6	9.6	1.2	2.5	2.5	3.7	4.9
SCC Revenue	53.3	40.0	25.0	25.7	26.5	27.3	28.1
Reimbursements	12.7	12.6	13.0	13.4	13.8	14.2	14.6
All Other Revenue	<u>18.8</u>	<u>18.4</u>	<u>18.6</u>	<u>18.8</u>	<u>19.0</u>	<u>19.2</u>	<u>19.4</u>
Total Operating Revenues	710.9	703.9	713.0	745.4	778.2	813.7	850.9
Revenue Funded Capital	67.1	197.0	164.1	200.8	207.4	209.8	234.8
Operations	274.4	313.8	314.7	328.7	341.6	354.9	368.8
Debt Service	<u>219.4</u>	<u>217.7</u>	<u>211.9</u>	<u>222.4</u>	<u>230.4</u>	<u>243.2</u>	<u>253.8</u>
Total Expenses	560.9	728.5	690.7	751.8	779.4	807.9	857.4
Ending Balance	-	-	458.3	451.9	450.7	456.4	449.9
Policy Reserves	-	-	187.5	191.0	194.2	197.6	201.0
Capital Projects Reserve	-	-	270.8	260.8	256.4	258.9	248.9

The following table shows the key assumptions used to create the revenue forecast. The debt service coverage ratio is projected to exceed the policy target of 1.60 by over 25 percent every year.

Water System Key Assumptions Five-Year Financial Forecast							
	FY20 Actuals	FY21 Budget	Forecast				
			FY22	FY23	FY24	FY25	FY26
Water Sales Volume (mgd)	147.8	142.9	144.3	145.8	147.3	148.8	150.3
% Rate Increase	6.50%	6.25%	4.00%	4.00%	4.00%	4.00%	4.00%
Average monthly single family residential bill based on 8 ccf/month	\$59.74	\$63.47	\$66.00	\$68.66	\$71.41	\$74.27	\$77.24
Debt Service Coverage Ratio	2.28	1.89	2.02	2.02	2.04	2.03	2.04

Five-Year Projection of Revenue

The key factors driving the need for increased Water System revenues are:

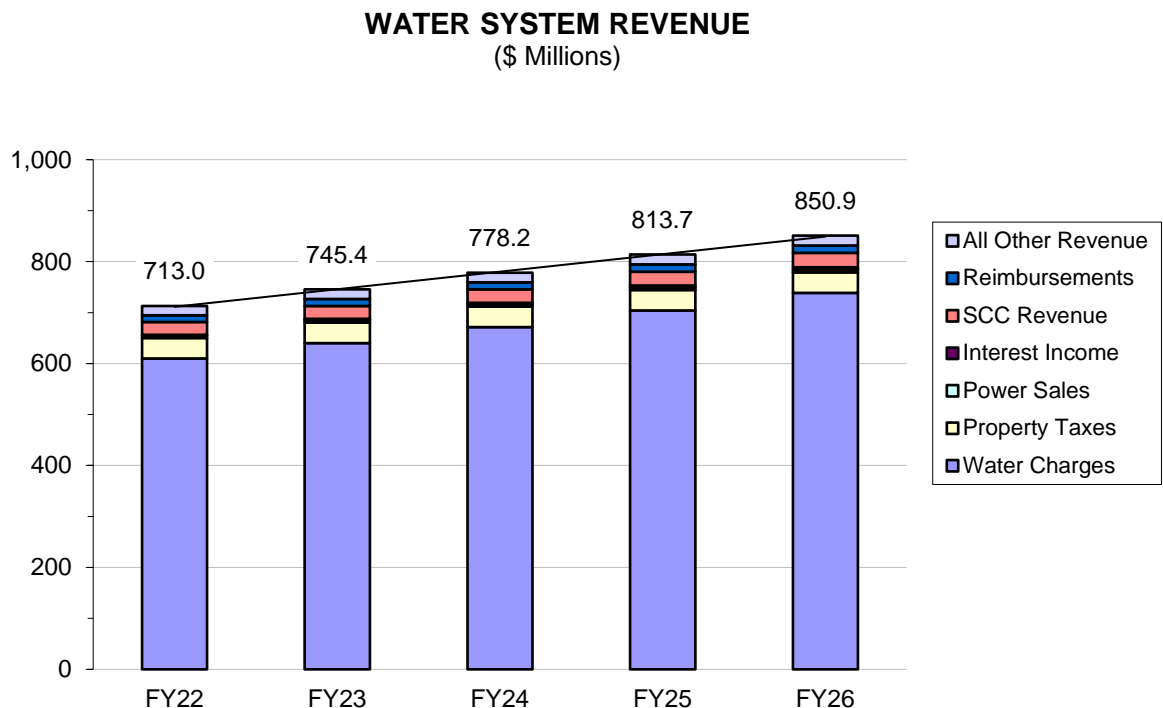
- Increasing labor and benefit costs,
- Inflation on non-labor products and services,
- An increase in funding the capital program from revenue rather than debt.

Water System revenues will be used to pay for an increasing amount of capital expenditures on a pay-as-you-go basis.

Projected annual operating revenues are expected to increase from \$713 million in FY22 to \$850.9 million by FY26, an increase of \$137.9 million or 4.5 percent per year. The increase in revenue over the five-year period is to cover increased costs in operations and maintenance, debt service requirements, and revenue funding for capital projects.

The major components of the increases in operating revenue over the five-year period are revenue from Water Charges which is projected to increase from \$610.2 million in FY22 to \$738.9 million in FY26 based on water rate increases and a reduction from FY21 to FY22 for decreased interest earnings and SCC revenue.

The following chart shows projected Water System operating revenue by category for the next five years.



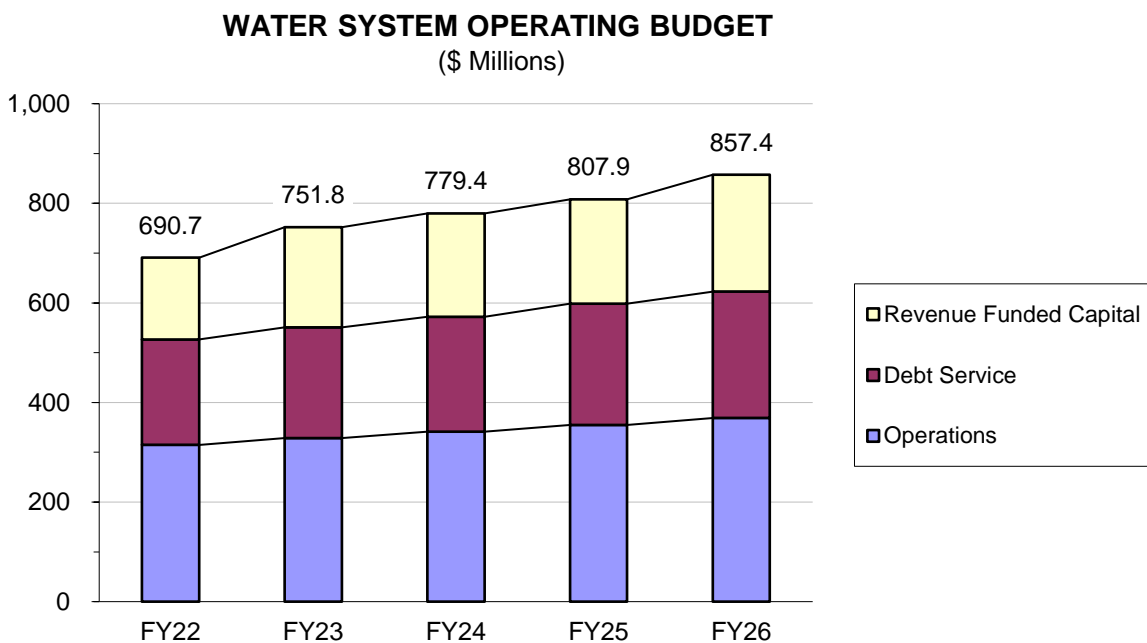
Five-Year Projection of Operating Budget

The Water System operations expenses are projected to increase from \$314.7 million in FY22 to \$368.8 million in FY26, an increase of 4.0 percent per year.

Debt service requirements are expected to increase from \$211.9 million in FY22 to \$253.8 million by FY26, an increase of 4.6 percent per year. The five-year increase results in \$870 million of new debt that will be issued to finance the Water System CIP.

The District uses rate revenue to cash fund a portion of its annual CIP expenses. The amount of revenue funded capital increases over the five-year period from \$164.1 million in FY22 to \$234.8 million in FY26, an increase of 43.1 percent.

This chart summarizes projected Water System budget by category for the next five years.



Five-Year Projection of Reserves

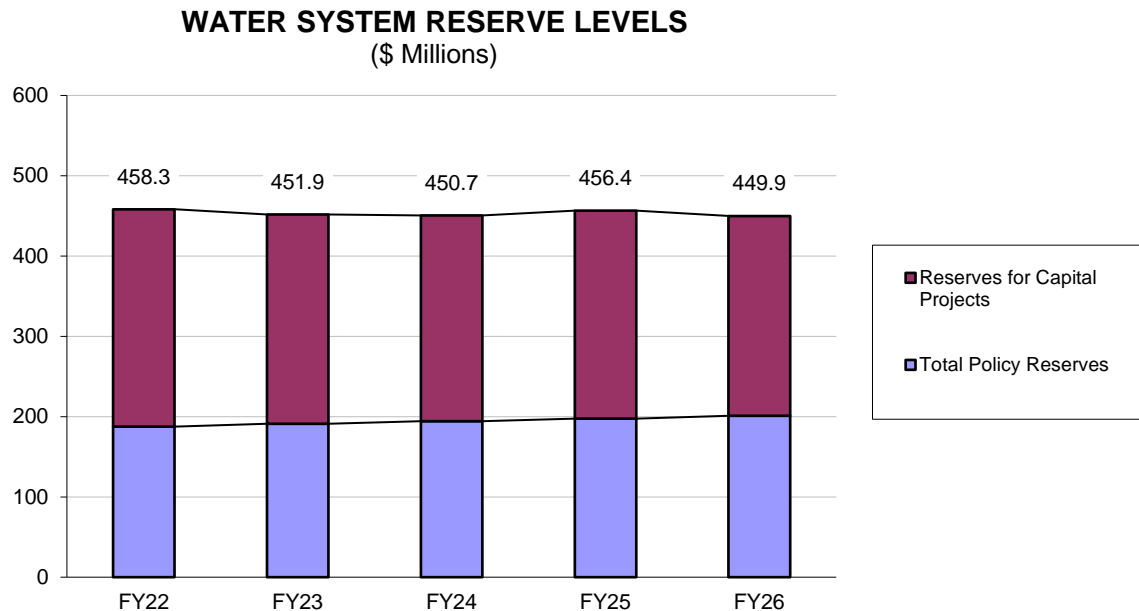
The operating reserves consist of:

- Working capital reserves equal to three months operating and maintenance expenses
- Self-Insured Liability reserve based on the actuarial Self-Insured Retention (SIR) funding recommendation
- Workers' Compensation reserve based on the actuarial SIR funding recommendation
- Rate stabilization reserve of a minimum of 20 percent of projected annual water volume revenues

The table below shows the changes to reserve components over the five-year period. Reserve balances meet or exceed the policy reserve levels for the entire period.

Water System Reserve Components (\$ Millions)					
	Forecast				
	FY22	FY23	FY24	FY25	FY26
Projected Operating Budget Reserves	458.3	451.9	450.7	456.4	449.9
Policy Reserves					
Working Capital	78.7	82.2	85.4	88.7	92.2
Self-Insured Liability Reserve	7.8	7.8	7.8	7.8	7.8
Workers' Compensation Reserves	6.1	6.1	6.1	6.1	6.1
Rate Stabilization Reserve	<u>95.0</u>	<u>95.0</u>	<u>95.0</u>	<u>95.0</u>	<u>95.0</u>
Total Policy Reserves	187.5	191.0	194.2	197.6	201.0
Reserves Available for Capital Projects	270.8	260.8	256.4	258.9	248.9

The following chart shows Water System reserve levels projected at the end of each fiscal year.



CAPITAL INVESTMENTS AND FINANCING

The Five-Year CIP outlines Water System capital investment plans, the estimated cost of these investments, and the sources of funds. Appropriations reflect the amount that is authorized and budgeted over a multi-year period for each program. Cash flows are the amounts estimated to be spent on each program in a given year. The five-year program for the Water System includes \$2.2 billion in capital project appropriations and \$2.0 billion in projected cash flow spending, inclusive of capital support expenses.

The focus of the CIP is the five-year period from FY22-26. Capital needs have been estimated for a second five-year period from FY27-31, but given the long-term nature of these capital improvement plans, by necessity they are preliminary estimates only and will be revised as studies are completed, priorities are redefined, and as new needs emerge. Therefore, the budget focuses on the first five years of the CIP.

Funding for the CIP is drawn from the proceeds of revenue bond issues, commercial paper, grants, reimbursements from developers and other agencies, and current reserves and revenues.

For the FY22-26 CIP, an increasing amount of capital expenditures will be funded on a pay-as-you-go basis in accordance with the District's financial policies. Over the five-year period, the percentage of capital funded from debt will average 42.2 percent, under the target maximum of 65 percent contained in the District's debt policy, and debt service will grow by 4.6 percent per year. Water System total outstanding debt will increase \$315.3 million during the period. Total debt outstanding at the end of the five-year period will total \$3.1 billion.

In FY22 and FY23, the debt coverage ratio is projected at 2.02 and 2.02, respectively, and for all five years the ratio exceeds the target coverage ratio of 1.60.

The following table shows the cash flow spending on capital improvements anticipated for the next five years, along with the financial resources anticipated to fund the capital program. Debt over the five-year planning period is below the financial target maximum of 65 percent.

Water System Capital Budget Five-Year Financial Forecast (\$ Millions)						
	FY22	Forecast FY23	FY24	FY25	FY26	Total
Beginning Balance	0.0	0.0	0.0	0.0	0.0	0.0
Resources						
Revenue Funded Capital	164.1	200.8	207.4	209.8	234.8	1,016.9
New Bond Proceeds	147.0	147.0	147.0	205.8	205.8	852.6
Reimbursements	<u>30.3</u>	<u>29.4</u>	<u>31.2</u>	<u>30.4</u>	<u>31.1</u>	<u>152.4</u>
Total Resources	341.4	377.2	385.6	446.0	471.7	2,021.9
Expenditures						
Capital Cash Flow	290.4	325.2	332.6	391.9	416.5	1,756.6
Capital Support	<u>51.0</u>	<u>52.0</u>	<u>53.0</u>	<u>54.1</u>	<u>55.2</u>	<u>265.3</u>
Total Expenditures	341.4	377.2	385.6	446.0	471.7	2,021.9
Ending Balance	0.0	0.0	0.0	0.0	0.0	0.0
Debt Percentage of Funding	43.1%	39.0%	38.1%	46.1%	43.6%	42.2%

Projected new bond issues, outstanding debt, and debt service are shown in the following table.

Outstanding Debt and Debt Service at End of Fiscal Year (\$ Millions)					
	FY22	Forecast FY23	FY24	FY25	FY26
Beginning of Year Outstanding Debt	2,682.8	2,747.9	2,806.8	2,859.5	2,964.3
Debt Retired	84.9	91.1	97.3	105.2	111.1
New Bond Issues and Commercial Paper	<u>150.0</u>	<u>150.0</u>	<u>150.0</u>	<u>210.0</u>	<u>210.0</u>
Total Outstanding Debt	2,747.9	2,806.8	2,859.5	2,964.3	3,063.2
Debt Service, Existing Debt	199.6	201.2	200.8	201.4	199.8
Debt Service, New Debt	8.7	17.3	26.0	38.2	50.3
Debt Servicing Costs	<u>3.6</u>	<u>3.8</u>	<u>3.6</u>	<u>3.7</u>	<u>3.7</u>
Total Debt Service	211.9	222.4	230.4	243.2	253.8

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CHAPTER 4: WASTEWATER SYSTEM

This chapter provides a detailed description of the Wastewater System and includes the following topics:

- Fund Summary
- Sources of Funds
- Use of Funds
- Staffed Department Operations
- Debt Service and Financing
- Capital Improvement Program
- Five-Year Financial Forecast

The Wastewater System is an enterprise fund consisting of an operating and a capital budget. The Wastewater System treats wastewater discharged from residences and industries in the communities of Alameda, Albany, Berkeley, Emeryville, Oakland, Piedmont, and the Stege Sanitary District. The Wastewater System receives and pays for administrative, financial, and other support services provided by the Water System.



Digester – Oakland, CA

The following are key projections and assumptions used in the FY22 and FY23 budget.

Wastewater System Fund – Key Assumptions		
	FY22	FY23
% Rate Increase	4.0%	4.0%
Average monthly single family residential bill based on 6 ccf/month	\$23.91	\$24.89



Main Wastewater Treatment Plant – Oakland, CA

FUND SUMMARY

The following fund summary table shows the Wastewater System beginning and ending fund balance, and projected revenue and expenditure budgets for FY22 and FY23.

WASTEWATER SYSTEM DETAILED FUND SUMMARY			
SOURCES & USES (\$ Millions)			
	FY22 Balance	FY23 Balance	% Change
Beginning Balance (Projected)	103.7	99.3	-4.2%
Source of Funds - Operating			
Treatment Charges	84.8	88.5	4.3%
Wet Weather Facilities Charge	29.7	30.9	4.0%
Resource Recovery	9.0	8.0	-11.1%
Property Taxes	6.3	6.3	0.0%
Interest Income	0.3	0.5	95.4%
Laboratory Services	4.6	4.8	3.0%
Reimbursements	1.7	1.8	3.0%
Permit Fees	1.7	1.7	0.0%
Capacity Charges	3.0	3.1	3.0%
All Other Revenue	<u>6.7</u>	<u>6.4</u>	-3.8%
Operating Sources	147.7	151.9	2.8%
Less: Revenue Funded Capital	<u>(36.0)</u>	<u>(30.2)</u>	-16.0%
Net Operating Sources	111.7	121.6	8.9%
Source of Funds - Capital			
New Bond Proceeds	9.8	19.6	100.0%
Revenue Funded Capital	<u>36.0</u>	<u>30.2</u>	-16.0%
Net Capital Sources	45.8	49.8	8.8%
Net Sources of Funds	157.5	171.5	8.8%
Use of Funds - Operating			
Labor	48.6	49.2	1.3%
Contract Services	4.9	4.9	-0.7%
Other	34.3	36.8	7.2%
Contingency	1.4	2.7	101.2%
Debt Service	30.7	31.9	3.8%
Less: Capital Support	<u>(3.8)</u>	<u>(3.9)</u>	2.6%
Net Operating Uses	116.1	121.6	4.7%
Use of Funds - Capital			
Project Cash Flows	42.0	45.9	9.3%
Plus: Capital Support	<u>3.8</u>	<u>3.9</u>	2.6%
Net Capital Uses	45.8	49.8	8.8%
Net Uses of Funds	161.9	171.5	5.9%
Total Sources	157.5	171.5	8.8%
Total Uses	161.9	171.5	5.9%
Total Sources less Uses	(4.4)	(0.0)	-99.9%
Ending Balance *	99.3	99.3	0.0%

* Ending Balance includes all policy reserves and reserves for capital projects.

SOURCES OF FUNDS

The Wastewater System has a variety of revenue sources to fund operations, and a portion of the capital expense. The remaining capital expense is funded primarily by new bond proceeds and reimbursements.

The table below shows actuals and budgets for operating revenues and capital funding sources.



New Digester Roof Construction – Oakland, CA

Wastewater System Sources of Funds (\$ Millions)					
	FY19 Actuals	FY20 Actuals	FY21 Budget	FY22 Budget	FY23 Budget
Operating Revenues					
Treatment Charges	76.5	78.2	80.9	84.8	88.5
Wet Weather Facilities Charge	25.1	27.1	28.5	29.7	30.9
Resource Recovery	12.2	12.1	10.0	9.0	8.0
Property Taxes	5.9	6.3	5.6	6.3	6.3
Interest Income	1.6	1.3	2.1	0.3	0.5
Laboratory Services	4.5	4.7	4.5	4.6	4.8
Reimbursements	1.6	1.9	1.5	1.7	1.8
Permit Fees	1.6	1.7	1.6	1.7	1.7
Capacity Charges	13.3	5.7	4.0	3.0	3.1
All Other Revenue	<u>4.7</u>	<u>5.3</u>	<u>5.7</u>	<u>6.7</u>	<u>6.4</u>
Total Operating Revenues	146.9	144.2	144.4	147.7	151.9
Revenue Funded Capital	(49.1)	(41.8)	(46.0)	(36.0)	(30.2)
Capital Funding Sources					
Revenue Funded Capital	49.1	41.8	46.0	36.0	30.2
New Bond Proceeds	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>9.8</u>	<u>19.6</u>
Total Capital Funding Sources	49.1	41.8	46.0	45.8	49.8
Total Wastewater Sources of Funds	146.9	144.2	144.4	157.5	171.5

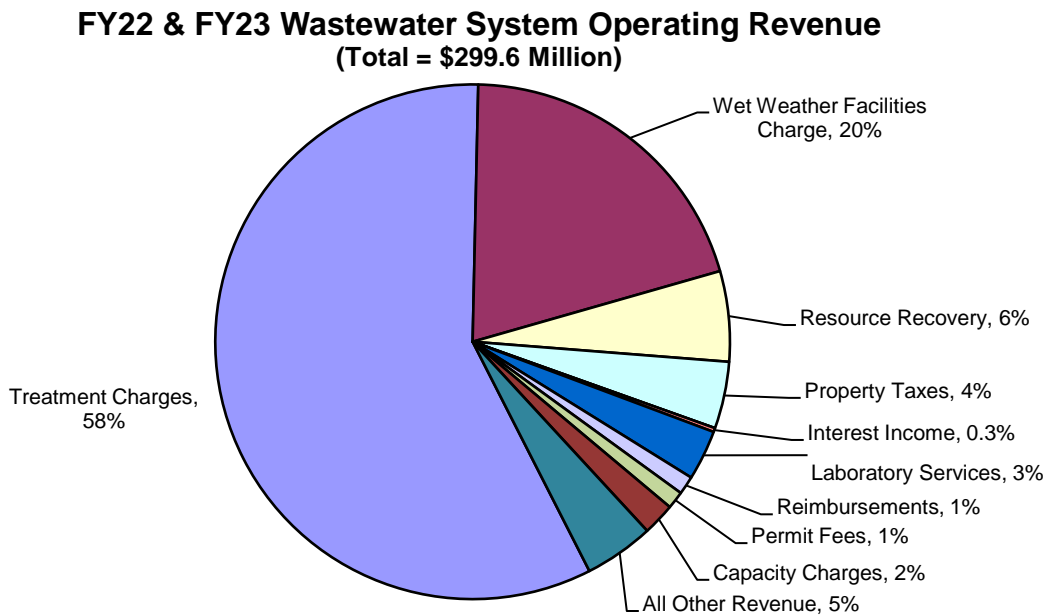
There are no other sources for capital funding sources planned.

Operating Revenue

Wastewater System operating revenues for FY22 are budgeted to increase \$3.3 million or 2.3 percent compared to FY21, for a total of \$147.7 million. The Treatment Charges total \$84.8 million, an increase of \$3.9 million compared to the FY21 budget. Resource Recovery revenue is decreasing \$1.0 million to reflect projections. Wet Weather Facilities Charge revenue in FY22 is projected to increase \$1.2 million from the FY21 budgeted amount. Property Tax revenue is increasing \$0.7 million to reflect projected collections. Interest Income is decreasing \$1.8 million due to lower projected interest rates. Reimbursement income from the Water System is increasing \$0.2 million due to work done by Wastewater staff on the recycled water programs that benefit water system customers. Capacity Charge revenue is decreasing \$1.0 million compared to FY21 due to anticipated decrease in building activity in the service area and an anticipated decrease in capacity charge based on the SCC update.

In FY23, Wastewater System operating revenues are budgeted to increase \$4.1 million, or 2.8 percent for a total of \$151.9 million. This increase is comprised primarily of the additional \$3.7 million from rate increases in the Treatment Charges.

The figure below illustrates the various sources of revenue and the percentage of each source. Wastewater Treatment Charges is the largest source of revenue comprising 58 percent of FY22 and FY23 total operating revenues, followed by the Wet Weather Facilities Charge at 20 percent.



Operating Revenue Descriptions

The following are descriptions of the sources of operating revenue, including information about the projected revenues for FY22 and FY23.

Treatment Charges

The District provides treatment for discharges collected through city-owned sewers and transported through District interceptors and pump stations to the Main Wastewater Treatment Plant (MWWTP). Treatment Charges for all customers are based on the volume and strength of the wastewater discharged plus a service charge, and are collected on the water service bill. The revenue generated by the various Treatment Charges is projected to increase in FY22 by \$3.9 million or 4.8 percent to \$84.8 million from the FY21 budgeted revenue. For FY23, the Treatment Charge will be \$88.5 million, an increase of \$3.7 million or 4.3 percent.

Wet Weather Facilities Charge

In June 1987, the Board of Directors established the Wet Weather Facilities Charge to pay for the costs associated with the District wet weather facilities. This charge is assessed on a per parcel basis and, while it is not a tax, the charge is collected on the county property tax bill. The charge is projected to collect approximately \$29.7 million in FY22, a 4.2 percent increase above the FY21 budget. In FY23, the projected revenue is \$30.9 million, a 4.0 percent increase.

Resource Recovery

Excess capacity at the MWWTP is utilized by accepting trucked waste. The Resource Recovery Program is projected to generate \$9 million in FY22 and \$8 million in FY23 which represents a decrease of \$1 million when compared to the prior fiscal year based on anticipated reduced deliveries.

Property Taxes

The District receives a portion of the one percent county levy on properties within District boundaries. For FY22 and FY23, revenues are projected to be \$6.3 million, an increase of 12.5 percent or \$0.7 million above the FY21 budget and uncertainty about COVID-19 recovery to the local economy.

Interest Income

The District places funds not needed for current expenditures in short-term investments, following the same procedures as the Water System. Interest Income in FY22 is projected to be \$0.3 million, a decrease of \$1.8 million from the FY21 budgeted amount due to the decrease in the short-term interest rates. Interest Income in FY23 is projected to be \$0.5 million. Interest earned is assumed to be 0.25 percent in FY22 and 0.5 percent in FY23 reflecting current conditions.

Laboratory Services

The Wastewater laboratory provides testing and analysis services for the Water and Wastewater Systems and several outside agencies. The Water and Wastewater Systems share in the joint costs of operating the lab. Revenues from the Water System and outside agencies are projected to be \$4.6 million for FY22 and \$4.8 million for FY23.

Reimbursements

The Wastewater System is reimbursed from the Water System for work performed by Wastewater staff on the recycled water programs. The estimated revenue from reimbursements is \$1.7 million for FY22 and \$1.8 million for FY23.

Permit Fees

The District collects fees to fund its pollution prevention programs and the discharge permit programs. In FY22 and in FY23, the estimated revenue from these permit fees will be \$1.7 million.

Capacity Charges

Wastewater Capacity Fees (WCF) are collected from customers requesting new wastewater service. Due to the increase in building activity in the service area, the WCF revenue collected has been over \$5 million in each of the past four years. In FY21, the District updated the water consumption analysis for capacity charges which results in a reduction in the WCF proposed for FY22. WCF revenue is projected to be \$3 million for FY22, which is a \$1 million decrease from the amount budgeted for FY21, and \$3.1 million for FY23. The budgeted WCF revenue of \$3 million for FY22 assumes the lower WCF proposed in the updated calculations are implemented and that the level of building activity slows.

All Other Revenue

Included in this category are lease revenue of District properties, reimbursements from the U.S. Treasury under the Build America Bonds program, revenue from energy sales at the Power Generation Station (PGS), property leases, and private sewer lateral fees. All Other Revenue is expected to increase \$1 million to \$6.7 million for FY22 due to increased property lease revenues and then reduces to \$6.4 million in FY23 as energy sales are projected to decrease.

Capital Funding

The following are descriptions of the sources of capital funding. The Capital Improvement Program (CIP) will be funded with bond proceeds, wastewater revenue, and reserves. It is anticipated that the District will receive \$9.8 million in new revenue bond proceeds in FY22 and \$19.6 million in FY23, combined with revenue funded capital of \$36 million in FY22 and \$30.2 million in FY23.

New Bond Proceeds

The District has the ability to issue long-term bonds to fund its capital program. The proceeds of the bond sales can be used to pay for capital expenses over several years. The repayment of the bonds is generally over 30 years and is paid from wastewater rate revenues.

Commercial Paper Issues

In addition to issuing long-term bonds to fund its capital program, the District has used short-term borrowing in the form of CP to raise revenues for capital expenses. The term of CP can be up to 270 days. The repayment of CP is paid from wastewater rate revenues.

Grants and Loans Proceeds

The District pursues federal and state grants and low-interest loans to fund some of its capital projects when they meet the conditions of the grant and loan programs.

Reimbursements

Some of the capital projects in the Wastewater System are performed at the request of other agencies, and the District is reimbursed for its expenses. An example would be the relocation of a portion of the sewer interceptor at the request of a city or state agency.

Revenue Funded Capital

Annual capital expenses that are not paid from debt funding, grants, loans or reimbursements must be paid from revenues, either from current year revenues or from reserves.

Please refer to the section Debt Service and Financing for additional details on debt funding of capital projects.

USE OF FUNDS

The Wastewater System has three types of expenditures:

Operations – the annual costs of providing all wastewater services;

Debt Service – the repayment of bonds for making capital investments along with other debt-related expenses; and

Capital Cash Flow – the annual costs of the CIP for long-term projects.

The following table shows the breakdown of expenses by the type of expenditure.

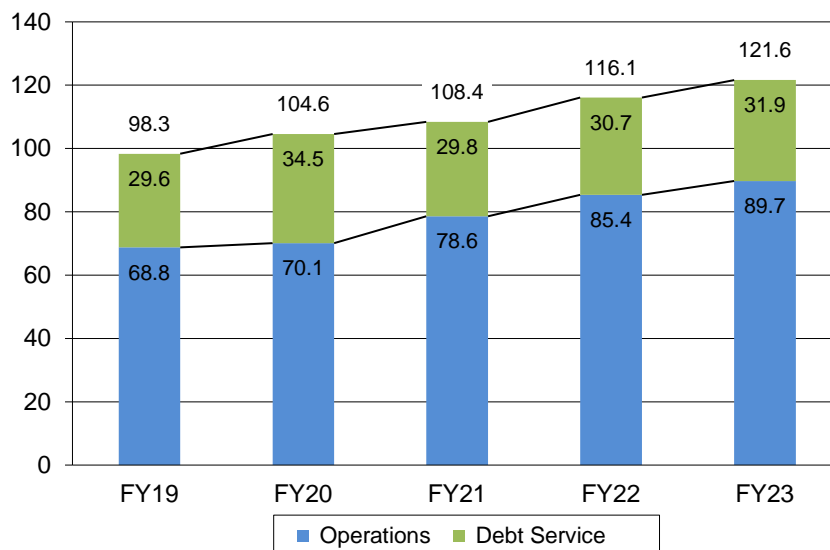
Use of Funds (\$ Millions)					
Expenditure Type	FY19 Actuals	FY20 Actuals	FY21 Budget	FY22 Budget	FY23 Budget
Operations	68.8	70.1	78.6	85.4	89.7
Debt Service	29.6	34.5	29.8	30.7	31.9
Capital Cash Flow	<u>49.1</u>	<u>41.8</u>	<u>46.0</u>	<u>45.8</u>	<u>49.8</u>
Total Expenditures	147.4	146.4	154.4	161.9	171.5

Operating Budget

This section describes the major components of the Wastewater System operations budget. Typical expenditures include, but are not limited to labor, benefits, chemicals, energy, spoils/sludge disposal, parts, materials, and fees and licenses.

In FY22, the operations and debt service budget is increasing \$7.7 million or 7.1 percent over the FY21 budget, and in FY23 will increase \$5.5 million or 4.7 percent as shown below.

FY19-FY23 Operations and Debt Service
(\$ Millions)



Department Operating Budget

The operations portion of the Wastewater System budget is divided into three departments which are staffed, contingency, and capital support. The staffed department includes all employees assigned to work in the Wastewater department. The staffed department budget funds the day-to-day operations of the Wastewater System, and includes funding for labor, benefits, outside contract services and other non-labor expenses such as chemicals, energy, spoils and sludge disposal, parts, materials, fees, and licenses. A detailed description of the staffed department is included later in this chapter.

A small number of departments do not have personnel assigned to them and are referred to as non-staffed departments described as follows:

Contingency – Funds are budgeted each fiscal year to cover projected labor-related expenses such as the employee cost of living adjustment which is based upon each year’s February Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) in the San Francisco-Oakland-Hayward area. The budget funds a cost of living adjustment for each fiscal year. In FY23, contingency increases to account for the combination of the cost of living adjustments paid in the prior year and the current year. The contingency budget also includes funding for unanticipated needs which may arise before the next budget cycle.

Capital Support – Costs that are not directly attributable to specific capital projects, but indirectly support the CIP. Capital support costs in the operations budget are reallocated to the capital budget and will decrease operating expenses by a like amount.

The following table shows the FY22 and FY23 Wastewater System operating budget by department.

Operating Budget by Department (\$ Millions)							
Departments	FY19 Actuals	FY20 Actuals	FY21 Budget	FY22 Budget	% Chg	FY23 Budget	% Chg
Wastewater	<u>72.4</u>	<u>73.9</u>	<u>80.5</u>	<u>87.8</u>	9.1%	<u>90.9</u>	3.5%
Staffed Department	72.4	73.9	80.5	87.8	9.1%	90.9	3.5%
Contingency	0.2	0.2	1.1	1.4	26.8%	2.7	101.2%
Capital Support	<u>(3.9)</u>	<u>(4.0)</u>	<u>(3.0)</u>	<u>(3.8)</u>	26.7%	<u>(3.9)</u>	2.6%
Operations	68.8	70.1	78.6	85.4	8.7%	89.7	5.1%
Debt Service	<u>29.6</u>	<u>34.5</u>	<u>29.8</u>	<u>30.7</u>	2.9%	<u>31.9</u>	3.8%
Total Operating	98.3	104.6	108.4	116.1	7.1%	121.6	4.7%

Department Operations Budget Highlights

The Wastewater System is comprised of one staffed department that performs all aspects of wastewater system operations. This section details the department's labor and non-labor budget, department goals and staffing.

Labor and Benefits

Labor and benefits are allocated between the staffed department and contingency for cost of living adjustments. Cost of living adjustments are not shown in the staffed department's labor and benefits budget since it is based on the CPI-W index and the amount is not known until the index is published annually. Once the index is published, and if funds are needed, contingency would be transferred to the department.

A limited number of additional FTEs have been funded in this biennial budget. A number of complex drivers impact the labor and benefits budget beyond funding additional FTEs. In FY22, total labor and benefits compared to FY21 will increase 0.5 percent. This increase is primarily driven by an increase in overtime and a rise in retirement and health care costs which are offset by decreases in standby pay and overall lower salaries due to the number of new employees with salaries lower than the employees they replaced. In FY23, total labor and benefit costs rise by 1.3 percent compared to FY22 primarily for scheduled step increases and overtime.

Unlike the Water System, the Wastewater System has only one staffed department. Therefore, the department's labor and benefits are explained in greater detail in the budget highlights later in this chapter.

Non-labor

The Wastewater staffed department non-labor costs are increasing by \$6.7 million or 20.7 percent in FY22 and will increase \$2.4 million or 6.2 percent in FY23 compared to the prior fiscal year due to operational cost increases for wastewater treatment. A detailed explanation of the significant changes is shown in the department budget highlights section later in this chapter.

Department Operations by Budget Category

The table below depicts the Wastewater System staffed department operations by expense category. It excludes capital labor which is shown later in this chapter. Operating labor is the largest cost at almost 55 percent of the operations budget.

FY22 & FY23 Department Operations by Categories (\$ Millions)								
Department	FY22				FY23			
	Labor	Contracts	Other	Total	Labor	Contracts	Other	Total
Wastewater	<u>48.6</u>	<u>4.9</u>	<u>34.3</u>	<u>87.8</u>	<u>49.2</u>	<u>4.9</u>	<u>36.8</u>	<u>90.9</u>
Total	48.6	4.9	34.3	87.8	49.2	4.9	36.8	90.9

STAFFED DEPARTMENT OPERATIONS

This section describes the staffed department and includes the following topics:

Overview provides an overall statement about the key responsibilities of the department within the larger mission of the District as a whole.

Description of Services Provided describes the responsibilities of the department, by unit (division) or by function, including services required to meet regulatory or legal requirements.

FY22 & FY23 Goals highlight the highest priority tasks or projects related to the budget, and the District Strategic Plan.

Department Budget Summary is a table that shows the Department's operating budget expenditures by category (Labor and Benefits, Contract Services, Other Costs). It also includes capital labor to detail a more comprehensive view of the departmental budgets.

Budget Highlights shows changes in cost relative to the previous fiscal year and describes reasons for those changes. This section focuses on the significant budget change.

Staffing Summary is a table that shows the Full-Time Equivalency (FTE) for the department by appointment type (full-time, part-time, etc.).

Staffing Changes is a section included only if the department has position changes that require Board approval. It includes a table that enumerates position changes, followed by a brief description of the changes. The change in cost is determined by comparing the annual cost of the salaries and benefits of the top step of the current classification with the new classification at the top salary step.

WASTEWATER DEPARTMENT (WAS)

OVERVIEW

The Wastewater Department operates and maintains District wastewater treatment facilities to comply with environmental and public health requirements. The primary goal of the department is to ensure public health and safety by meeting or surpassing federal, state and local regulations regarding air, biosolids and water quality. The department strives to protect the environment by reducing or eliminating the discharge of pollutants into the air, land and San Francisco Bay and recovering water, energy and nutrients from wastes.

DESCRIPTION OF SERVICES PROVIDED

The department includes the Wastewater Treatment, Wastewater Engineering, Laboratory & Technical Services, and Environmental Services divisions, as well as Infiltration/Inflow Control and Nutrient Management. These groups work together to operate and maintain the wastewater interceptor system, Main Wastewater Treatment Plant (MWWTP), water recycling facilities, and three wet weather facilities. The department plans for future regulatory changes, such as those related to nutrient and biosolids management; manages the Integrated MWWTP Master Plan; plans, designs and manages the construction of capital projects; monitors discharges from all wastewater customers; issues commercial and industrial discharge permits; manages the Regional Private Sewer Lateral Program and implements projects to reduce infiltration and inflow; and tests water and wastewater samples and reports analytical results.

FY22 & FY23 GOALS

The department has a key role in the Water Quality and Environmental Protection, Long-Term Infrastructure Investment, and Long-Term Financial Stability Strategic Plan goals. Key department goals include:

- Implementing projects recommended from the Integrated MWWTP Master Plan to cost-effectively balance long-term infrastructure renewal needs with future regulatory requirements, improving resiliency, and meeting District's sustainability goal;
- Continuing to operate and maintain the District's Wastewater facilities to meet regulatory requirements and protect public health and San Francisco Bay;
- Rehabilitating infrastructure to maximize utilization of existing capital investments and to ensure operational reliability for protecting public health and the environment;
- Reducing environmental impacts to the San Francisco Bay during wet weather events through reducing inflow and infiltration, maintaining, operating, and constructing facilities to improve wet weather flow management;
- Continuing a regional leadership role to ensure a collaborative, science-based approach to address potential nutrient impairment in San Francisco Bay; and
- Optimizing the Resource Recovery Program to recover energy from wastes.

DEPARTMENT BUDGET SUMMARY (WAS)

The department's projected spending is compared to prior years in the table below.

Category (\$ Millions)	FY19 Actuals	FY20 Actuals	FY21 Budget	FY22 Budget % Chg	FY23 Budget % Chg
Total Labor and Benefits	51.4	52.7	59.3	59.6 0.5%	60.4 1.3%
Less: Capital Labor and Benefits	<u>9.8</u>	<u>10.2</u>	<u>11.3</u>	<u>11.0</u> -2.5%	<u>11.2</u> 1.2%
Operating Labor and Benefits	41.5	42.5	48.0	48.6 1.2%	49.2 1.3%
Contract Services	4.4	2.7	4.5	4.9 9.1%	4.9 -0.7%
Other Costs	<u>26.5</u>	<u>28.7</u>	<u>28.0</u>	<u>34.3</u> 22.6%	<u>36.8</u> 7.2%
Operating Total	72.4	73.9	80.5	87.8 9.1%	90.9 3.5%

BUDGET HIGHLIGHTS

The department's total operating budget in FY22 is increasing \$7.3 million or 9.1 percent compared to FY21. In FY23, the budget will increase \$3.1 million or 3.5 percent compared to the prior fiscal year. Significant budget changes include:

FY22

Total labor and benefits are increasing \$0.3 million. Of this amount, operating labor and benefits are increasing \$0.6 million primarily due to rise in retirement, health care, and overtime, offset by decreases in standby pay and lower salaries due to vacancies, new employees at lower salary steps than the employees they replaced, and lower actual cost of living increase than budgeted. Capital labor is decreasing \$0.3 million due to lower salaries, shifting some labor to operating, and reduced overtime. Contract services are increasing \$0.4 million primarily to support the Electrical Integrity Program (EIP), turbine, and machine equipment. Other costs are increasing \$6.3 million primarily due to chemicals costs, spoils/sludge disposal, reimbursable costs to the Water System, insurance premiums/fees, and fees/licenses.

FY23

Total labor and benefits costs are increasing \$0.8 million primarily due to scheduled salary step increases, overtime, and standby. Other costs will increase \$2.5 million primarily due to chemical costs, spoils/sludge disposal, reimbursable expense to the Water System, and insurance premiums/fees.

STAFFING SUMMARY

The table below summarizes the staffing changes including transfers among departments. In FY22, two full-time FTE have been added, two limited-term FTE have been deleted, and one full-time FTE Senior Wastewater Control Inspector has been transferred back from the Water System.

Position Type	FY19	FY20	FY21	FY22	FTE Chg	FY23	FTE Chg
Full-Time	284.0	283.0	283.0	286.0	3.0	286.0	0.0
Limited-Term / Temp Construction	5.0	5.0	5.0	3.0	(2.0)	3.0	0.0
Intermittent	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temporary / Part-Time	0.5	0.5	0.5	0.5	0.0	0.5	0.0
Total FTE	289.5	288.5	288.5	289.5	1.0	289.5	0.0

STAFFING CHANGES

The net change in cost represents the difference between the annual salary at the top step including benefits for the existing highest job classification versus the highest classification for the change.

FY	Action	From Classification(s)	To Classification(s)	Cost Chg	FTE Chg	Project/Program
2022	Add		Manager of Wastewater Technical and Emerging Issues (Classification under development)	337,034	1.0	Top priority wastewater issues
2022	Add		Associate Electrical Engineer	249,056	1.0	Cybersecurity and control systems oversight
2022	Delete	(LT) Information Services Supervisor		(281,629)	(1.0)	LT expired
2022	Delete	LT Special Employment Program Trainee		(84,655)	(1.0)	Special Employment Program
FY22 TOTAL				219,807	0.0	

In FY22, the department is adding two full-time FTEs, which includes a Manager of Wastewater Technical and Emerging Issues to focus on top priority wastewater issues such as biosolids, nutrients, contaminants of emerging concerns (including per- and polyfluoroalkyl substances and microplastics), and other high-level technical emerging issues, and an Electrical Engineer to support cybersecurity and manage and maintain the control system network of wastewater facilities to ensure regulatory compliance. The department is deleting a limited-term Information Services Supervisor since the Laboratory Information Systems Replacement Project will be completed, and a LT Special Employment Program (SEP) Trainee since the SEP Program is no longer operational.

STAFFING

Appointment Types

The majority of the workforce is comprised of full-time civil service or full-time civil service exempt positions. Limited-term positions are intended to augment regular staff to accomplish extra work or other operational programs or activities of a limited duration, with appointments for a maximum of four years. Temporary construction positions are also of a limited and specified duration typically associated with capital projects. Intermittent positions represent the smallest number of appointment types and typically work 32 hours instead of 40 hours per week. Part-time positions are normally restricted to 832 hours per year. Temporary positions are limited to a 6-month duration, and are full-time during that duration.

The table below provides the full-time equivalent (FTE) for the Wastewater department and compares the changes from year-to-year. The FTE value varies by appointment type.

- Full-time, limited-term and temporary construction appointment types equal 1.0 FTE;
- Intermittent appointment types equal 0.75 FTE; and
- Part-time and temporary appointment types equal 0.5 FTE.

FY22 & FY23 Department Staffing					
	FY21 Budget	FY22 Budget	FTE Chg	FY23 Budget	FTE Chg
Wastewater System Total	288.5	289.5	1.0	289.5	0.0

In FY22, the Wastewater System has one more FTE than in FY21 due to a position transferred back from the Water System. In FY23, there are no changes in FTE.

Bargaining Unit Changes

Tables below show the net change in bargaining unit status of authorized FTEs represented by different unions, management/confidential, non-represented groups, and civil service exempt positions. The tables reflect Board of Directors authorized additions and deletions in FY22 and FY23 and correspond to the staffing changes table in each department.

FY22 vs. FY21 Net Change in Bargaining Unit Status							
Department	Local 2019	Local 444	Local 21	Local 39	MGR/ CNF	NRP	EXMPT
Wastewater	1		(1)		1	(1)	
Total Net Change	1	0	(1)	0	1	(1)	0

FY23 vs. FY22 Net Change in Bargaining Unit Status							
Department	Local 2019	Local 444	Local 21	Local 39	MGR/ CNF	NRP	EXMPT
Wastewater							
Total Net Change	0	0	0	0	0	0	0

DEBT SERVICE AND FINANCING

This section describes the Wastewater System's current and projected debt obligations, current credit ratings, and adherence to the District's debt financing policies.

Debt is incurred to finance projects or purchase, repair or replace assets which will have useful lives equal to or greater than the related debt. Issuance of revenue supported debt is authorized by the Board of Directors, subject to a referendum process. Individual revenue bond issues are authorized by the Board of Directors.

The annual debt service principal and interest payments are charged to the operating budget. However, debt is only issued to finance capital investment activities.

Outstanding Debt

The Wastewater System's total outstanding debt is projected to be \$357.4 million as of June 30, 2021. This figure incorporates an anticipated partial pay down of Wastewater System commercial paper in FY21. The District's debt issues are summarized below and discussed in detail thereafter.

Outstanding Debt (\$ Millions) As of June 30, 2021				
Issue	Date of Issue	Last Maturity	Amount Issued	Principal Outstanding
LONG-TERM DEBT				
Revenue Bond				
Series 2010B (Build America Bonds)	10/20/2010	6/1/2040	150.0	150.0
Series 2012A	10/10/2012	6/1/2037	20.0	20.0
Series 2014A	8/28/2014	6/1/2031	82.2	50.4
Series 2015A	3/3/2015	6/1/2038	68.4	68.4
Series 2015B	3/3/2015	6/1/2030	2.8	1.8
Series 2017A	6/14/2017	6/1/2045	69.4	57.3
Total Revenue Bonds			392.7	347.9
% of Total Outstanding Debt				97%
Total Long-Term Debt			392.7	347.9
SHORT-TERM DEBT				
Extendable Commercial Paper	Various	Various	N/A	9.5
% of Total Outstanding Debt				3%
TOTAL OUTSTANDING DEBT				357.4

The District plans to issue \$10 million in revenue bonds in FY22 and \$20 million in FY23 to support capital investment activities. The \$10 million and \$20 million bond issues generate \$9.8 million and \$19.6 million in proceeds, respectively, after the assumed cost of issuance.

Debt Service

The Wastewater System's total outstanding debt will cost approximately \$202.6 million in interest payments over the next 24 years, as detailed in the table below. The principal payments below include the anticipated annual pay down of extendable commercial paper (ECP) principal. However, ECP has no final maturity and the actual ECP principal pay down schedule could differ. Interest rates on ECP are assumed to be 0.5 percent in FY22, rising to 3.0 percent by 2032.

Projected Debt Service on Current Outstanding Debt (\$ Thousands)			
Fiscal Year	Principal	Interest	Debt Service
2022	12,480	17,424	29,904
2023	13,010	16,892	29,902
2024	13,575	16,285	29,860
2025	14,155	15,667	29,822
2026	14,760	15,015	29,775
2027	15,220	14,338	29,558
2028	15,925	13,610	29,535
2029	16,670	12,847	29,517
2030	17,445	12,055	29,500
2031	17,755	11,221	28,976
2032	18,115	10,355	28,470
2033	19,010	9,459	28,469
2034	19,955	8,513	28,468
2035	20,945	7,522	28,467
2036	21,985	6,483	28,468
2037	23,075	5,392	28,467
2038	24,365	4,247	28,612
2039	26,250	2,991	29,241
2040	27,610	1,632	29,242
2041	940	203	1,143
2042	975	166	1,141
2043	1,015	127	1,142
2044	1,055	86	1,141
2045	1,100	44	1,144
TOTAL	357,390	202,573	559,963

The debt service in the table is less than the budgeted debt service because the latter includes:

- Payments on new debt issues in FY22 and FY23, and
- Costs for remarketing fees, basis spread, and debt service administration.

Debt Ratings

Credit risk is the risk that the issuer of an investment, such as a revenue bond, will not fulfill its payment obligations to the holder of the investment. Credit ratings are assigned to bonds by Nationally Recognized Statistical Credit Rating Organizations based on published methodologies. The ratings reflect the organizations' opinions about the issuer's ability and willingness to meet its financial obligations on time and in full.

The Wastewater System's strong credit ratings provide tangible benefits to ratepayers in the form of reduced debt service cost. A strong credit rating provides better access to capital markets, lower interest rates, better terms on debt, and access to a greater variety of debt products. Prudent financial management policies have contributed to the Wastewater System's strong ratings shown in the table below.

As of January 1, 2021, ratings on the Wastewater System's debt were as follows:

Wastewater System Debt Ratings			
Debt by Type	Standard & Poor's	Moody's Investors Service	Fitch
Fixed Rate Revenue Bonds	AAA	Aa1	AA+
Extendable Commercial Paper	A-1+	P-1	F1+

Definitions of the District's fixed rate and long-term debt ratings are shown below.

Standard & Poor's

An obligation rated 'AAA' has the highest rating assigned by S&P Global Ratings. The obligor's capacity to meet its financial commitments on the obligation is extremely strong.

Moody's Investors Service

Obligations rated 'Aa' are judged to be of high quality and are subject to very low credit risk. The modifier 1 indicates that the obligation ranks in the higher end of its generic rating category.

Fitch

'AA' ratings denote expectations of very low default risk. They indicate very strong capacity for payment of financial commitments. This capacity is not significantly vulnerable to foreseeable events. The modifiers "+" or "-" may be appended to a rating to denote relative status within major rating categories.

Debt Management Policy and Debt Service Coverage

The District is subject to legal debt limits prescribed in the Municipal Utility District (MUD) Act regarding general debt limits, revenue bond limits, and short-term borrowing limits.

The District's general debt indebtedness cannot exceed the ordinary annual income and revenue of the District without a two-thirds approval of the voters. However, revenue bonds are not included in general debt limits.

The District is authorized to issue revenue bonds with the approval of a resolution from the Board of Directors, subject to a 60-day referendum period. The resolution specifies the maximum principal amount of bonds that may be issued pursuant to the authorization. The Board of Directors also approves individual series of revenue bonds issued under the broader authorization.

The MUD Act authorizes the District to issue short-term indebtedness without an election of the voters. The amount of short-term borrowing cannot exceed the lesser of 1) the annual average total revenue of the three preceding years or 2) 25 percent of the District's total outstanding bonds. This provision is substantially the same as the District's internal policy discussed below.

The District has also established its own policy regarding debt management (Policy 4.27: Debt Management – see Appendix). The purpose of the debt policy is to maintain a balance between current funding sources and debt financing over each five-year plan horizon in order to retain the District's financing flexibility and achieve the lowest cost of financing.

The District's debt management policy is to:

- a) maintain an annual revenue bond debt service coverage ratio of at least 1.6 times;
- b) limit debt-funded capital to no more than 65 percent of the total capital program over each five-year planning period; and
- c) limit commercial paper/variable rate debt to 25 percent of outstanding long-term debt.

Debt Service Coverage Ratio

The debt service coverage policy ensures that the District has sufficient annual operating revenues to pay its operating expenses and meet its debt service obligations on its revenue bonds and other parity debt. The revenue bond debt service coverage ratio is defined as the District's net operating revenue (current year's operating revenue less the current year's operating expenses) divided by the current year's debt service on all revenue bonds and other parity debt. Net revenues are reduced by any Rate Stabilization Fund deposits and increased by any withdrawals. For the Wastewater System, Build America Bonds subsidies are treated as an offset to debt service and are excluded from the net operating revenue for the purpose of the ratio calculation. In FY22 and FY23, the projected debt coverage ratios are 2.22 and 2.13, respectively.

Debt-Funded Capital

The percentage of the capital program that is funded by debt over the five-year planning period FY22-26 is projected at 40.3 percent, which is below the financial policy maximum target of 65 percent. The debt percentage funding levels for FY22 and FY23 are shown in the table below.

Projected Debt Percentage of Funding (\$ Millions)		
	FY22	FY23
Expenditures		
Capital Cash Flow	42.0	45.9
Capital Support	<u>3.8</u>	<u>3.9</u>
Total Expenditures	45.8	49.8
Project Funding		
New Bond Proceeds	<u>9.8</u>	<u>19.6</u>
Total Resources	9.8	19.6
Debt Percentage of Funding	21.4%	39.3%

Commercial Paper and Variable Rate Debt Ratio

The District has authorized a short-term ECP borrowing program consistent with the MUD Act and the District's debt management policy. Under this program, the District may issue ECP notes at prevailing interest rates for periods of not more than 120 days from the date of issuance with the option by the District to extend the maturity for another 150 days. The program is not supported by any liquidity or revolving credit agreements. The Wastewater System ECP is subordinate to the System's revenue bonds.

As of June 30, 2021, \$9.5 million of Wastewater ECP is projected to be outstanding under the program after an anticipated partial pay down of principal in FY21. Wastewater System ECP will comprise nearly 3 percent of the approximately \$357.4 million in total outstanding debt.

Other than the ECP, the Wastewater System has no additional variable rate debt outstanding.

CAPITAL IMPROVEMENT PROGRAM

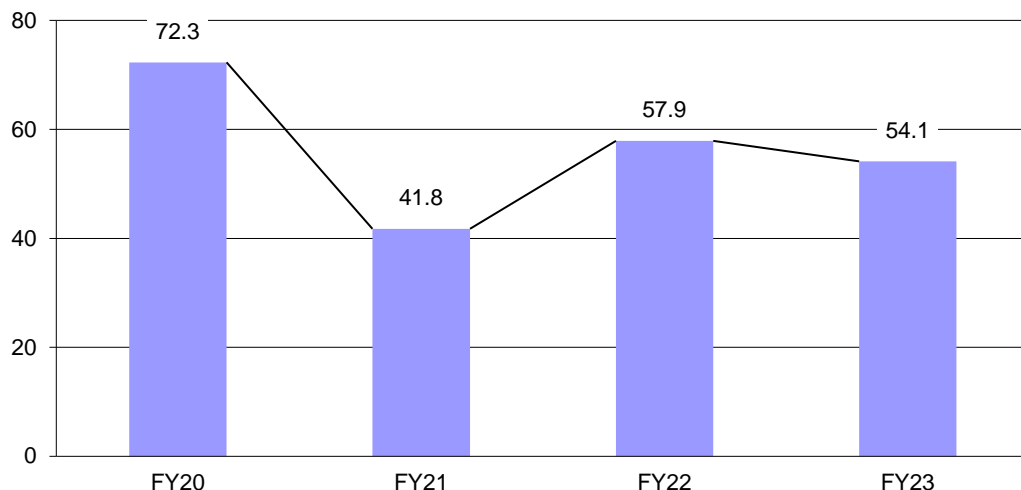
The CIP consists of projects that typically result in the construction of new facilities, or the rehabilitation or upgrade of existing facilities. Project costs include all expenditures required to study, plan, design, construct or upgrade new or existing facilities. Projects can also include large equipment purchases and the creation or replacement of computer systems.

Capital Appropriation

Capital appropriations are the amounts approved by the Board to be spent on projects in the CIP. Since these appropriations are often spent over multiple years, the amounts appropriated for each fiscal year will vary depending upon project scope and timing, and any unspent appropriation a project may already have.

The Wastewater System's FY22 appropriation is increasing by \$16.2 million or 38.7 percent from FY21. In FY23, the appropriation is decreasing by \$3.8 million or 6.6 percent from FY22. The appropriations for FY22 and FY23 and the prior two years are summarized below.

Four-Year Summary Capital Appropriation
(\$ Millions)



The FY22-26 Wastewater System CIP requires \$396.6 million in project appropriations, an increase of \$110.3 million or 39 percent from the FY20-24 CIP. The increase is primarily due to increased appropriation needs in the Maintaining Infrastructure Strategy for improving the infrastructure at the MWWTP.

The Maintaining Infrastructure Strategy is the main focus of the CIP and comprises 88 percent of the total appropriations. The Wastewater System appropriations by strategy are in the following table.

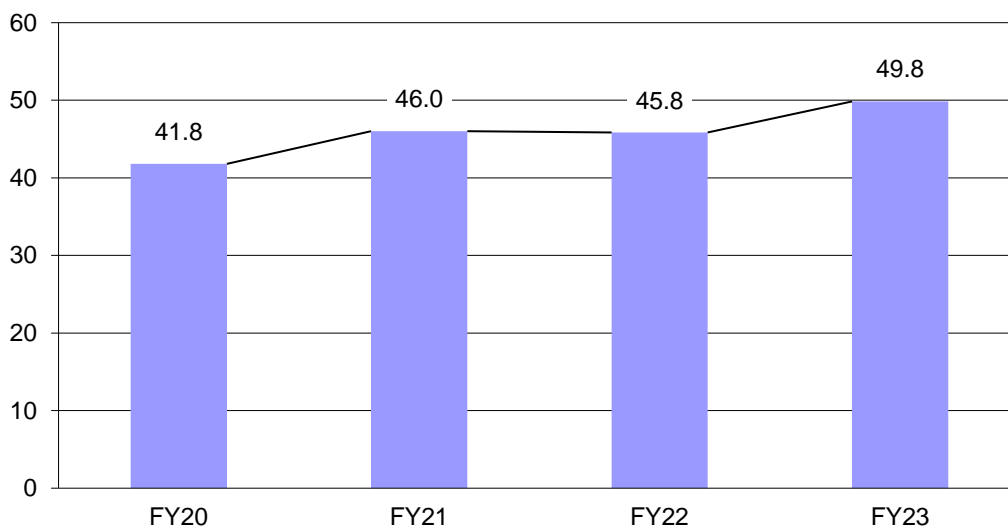
FY20-24 vs. FY22-26 Appropriation Capital Improvement Program by Strategy (\$ Thousands)				
Strategy	Appropriation		\$ Chg	% Chg
	FY20-24	FY22-26		
Maintaining Infrastructure	254,538	348,796	94,258	37%
Regulatory Compliance	16,068	27,909	11,841	74%
Non-Program Specific	<u>0</u>	<u>0</u>	<u>0</u>	0%
Strategy Subtotal	270,606	376,705	106,099	39%
Capital Support	<u>15,598</u>	<u>19,874</u>	<u>4,276</u>	27%
Total Wastewater	286,204	396,579	110,375	39%

Capital Cash Flow

Capital cash flows are the amounts projected to be spent each fiscal year on projects in the CIP. Cash flow spending varies each year as projects progress from one phase to another, such as from planning to design and then construction, and as projects are completed and new ones started.

The Wastewater System's FY22 cash flow is decreasing slightly by \$0.2 million or 0.4 percent from FY21. In FY23, the cash flow is increasing by \$4.0 million or 8.8 percent from FY22. The cash flows for FY22 and FY23 and the prior two years are shown below.

Four-Year Summary Capital Cash Flow
(\$ Millions)



The FY22-26 CIP identifies \$243.2 million in projected cash flow spending, an increase of \$8.8 million or 4 percent compared to the FY20-24 CIP. The increase is attributable to both the Maintaining Infrastructure Strategy for improving the infrastructure at the MWWTP including rehabilitation of concrete basins, power generation and electrical system, first generation digesters, and the administration building and laboratory. Under the Regulatory Compliance Strategy, increases are associated with deferring the Nutrient Management Project to evaluate a range of nutrient reduction alternatives, as part of an integrated master planning effort to proactively address increasingly stringent environmental regulations and aging infrastructures.

The Wastewater System cash flows by strategy are summarized below.

FY20-24 vs. FY22-26 Cash Flows				
Capital Improvement Program by Strategy (\$ Thousands)				
Strategy	Cash Flows		\$ Chg	% Chg
	FY20-24	FY22-26		
Maintaining Infrastructure	205,868	207,852	1,984	1%
Regulatory Compliance	13,003	15,521	2,518	19%
Non-Program Specific	0	0	0	0%
Strategy Subtotal	218,872	223,373	4,501	2%
Capital Support	15,598	19,874	4,276	27%
Total Wastewater	234,470	243,247	8,777	4%

Based on a ten-year capital planning horizon, \$365.0 million of work has been tentatively identified for FY27-31. These estimates will be revised as studies are completed, priorities are redefined, and new needs emerge. Therefore, the focus is on the first five years of the CIP.

Select programs and projects are discussed in more detail in the following pages. In addition, a description of each project including recent accomplishments and future work is provided in a supplemental volume of this budget book for each project that has work planned in FY22-26.

Capital Labor

The capital labor component of the CIP totals over \$11 million per fiscal year. The following table shows the capital labor and benefits budget.

Capital Labor By Department (\$ Thousands)						
	FY20 Actuals	FY21 Budget	FY22 Budget	% Chg	FY23 Budget	% Chg
Wastewater	10,174	11,315	11,034	-2.5%	11,162	1.2%
Total Department	10,174	11,315	11,034	-2.5%	11,162	1.2%

The Wastewater Department capital labor budget is decreasing \$0.3 million in FY22 primarily due to lower salaries, shifting some labor to operating, and reduced overtime. In FY23, the capital labor budget will increase by \$0.1 million primarily due to scheduled salary step increases.

Capital Program Highlights

The Wastewater System FY22-26 appropriations are shown below by strategy and program, with select programs and projects discussed in more detail to provide a sense of the work that is projected to take place over the next ten years.

MAINTAINING INFRASTRUCTURE STRATEGY

This strategy furthers the District's objectives to improve the infrastructure at both the Main Wastewater Treatment Plant (MWWTP) and remote facilities to ensure reliable, high quality service. Work under this strategy focuses on rehabilitating the digesters, concrete structures, and treatment process facilities; upgrading the resource recovery receiving station; rehabilitating sections of the sewer interceptors; expanding and improving the PGS; and retrofitting various structures at the MWWTP. The five-year program appropriations are as follows:

Appropriations (\$ Thousands)						
Program	FY22	FY23	FY24	FY25	FY26	Total
Wastewater Infrastructure Program	43,793	35,693	28,170	77,530	163,610	348,796
Total	43,793	35,693	28,170	77,530	163,610	348,796

Wastewater Infrastructure Program

The General Wastewater Project includes work that is vital to wastewater conveyance and treatment, but is not limited to a single treatment process. Tasks include work on buildings that serve multiple treatment processes such as the periodic replacement of capital equipment, applying protective coatings plant-wide, replacing hardware and software, and procuring additional vehicles.

Two of the larger tasks in this project are the seismic retrofits of the Maintenance Building and the Operations Center, two buildings that are heavily used and were prioritized in the MWWTP seismic evaluation. Those efforts are scheduled to occur between FY22 and FY26. Other seismic tasks include retrofit of various concrete masonry buildings at the MWWTP, the Field Services Building and the Administration Building.

The Interceptors and Pump Stations Project includes work to rehabilitate gravity interceptors, force mains, and pump stations that convey wastewater from the satellite agencies to the MWWTP, and to improve access to these facilities for maintenance and repairs.

Interceptor rehabilitation includes the underground piping, select manholes and tie-in structures. Pipe rehabilitation will be conducted on the older interceptors that have not been addressed recently. Locations include Second Street and the Embarcadero in Oakland, Buena Vista Avenue and other locations in Alameda, and crossings of the Alameda Channel.

Pump Station rehabilitation includes the equipment and piping, as well as access improvements to several stations. In FY22, the 40-year-old Pump Station M in Alameda will be rehabilitated, and access will be improved for making bypass connections during an emergency. Other work includes construction for the Special Structures Rehabilitation Phase 1, rehabilitation of Pump Station L in Oakland, and access improvements to Force Mains. Work planned in later years includes the Second Street and Embarcadero Interceptors in Oakland, the second phase of the Special Structures Rehabilitation, and Pump Station A in Albany, C in Alameda, and H in Oakland.

The Secondary Treatment Project includes work to rehabilitate and upgrade structures associated with wastewater treatment including the Oxygen Production Plant where liquid oxygen is produced, the Oxygen Reactors where oxygen is mixed with the wastewater, and the Secondary Clarifiers. These facilities need to be rehabilitated in phases to keep the MWWTP operational as the work takes place.

Rehabilitation of the Oxygen Production Plant includes upgrading the 40-year-old control system. Planning and design will take place in FY21-22, and construction in FY23-24.

Rehabilitation of the Oxygen Reactors includes concrete resurfacing of the interior walls and columns, coating of the roof slabs, strengthening the interior support columns, recoating or replacing sections of piping, and refurbishing the aerator gear boxes. Design for the first of four phases was completed in FY21, and construction will be completed in FY22.

Rehabilitation of the Secondary Clarifiers includes concrete work, replacement of the clarifier mechanisms, resurfacing or replacing other mechanical components, and replacing the baffles to improve performance. Three of the twelve clarifiers have been rehabilitated. The design for Phase 2 was completed in FY21 and construction will be completed in FY22.

The Dewatering Project includes work to upgrade the solids dewatering capability which produces beneficial use biosolids from the byproducts of the wastewater treatment process.

Replacement of the Dewatering Building is one of the largest capital projects in the Wastewater Department. In recent years, the dewatering process has required a great deal of maintenance due to aging equipment, limited capacity, and impacts from Resource Recovery trucked wastes. A new Dewatering Building will replace the existing structure and include new feed pumps, dewatering equipment, cake storage hoppers, polymer feed equipment, and odor control facilities. In FY23, the planning phase will begin, followed in FY24 by design, which is expected to take two years. The construction phase is expected to take four years, with completion scheduled for FY29.

The existing Dewatering Building will continue to be used for the secondary solids thickening process and improvements will be made including upgrades to the building's odor control system and seismic retrofits to protect life safety.

The Preliminary Treatment Project includes work to rehabilitate and upgrade assets associated with wastewater receiving, screening, pumping, and trash and grit removal to keep wastewater flowing from the interceptor system into the MWWTP before primary treatment.

Recently, the grit screws were replaced and work was performed at the Aerated Grit Tanks. Partial replacement of de-gritting equipment at the Grit Handling Facility is planned for completion in FY22. Work starting in FY23 includes seismic retrofit of the Influent Pump Station built in 1950 through which all wastewater passes. The retrofits will be coupled with upgrades to the large pumps, electrical system, and other equipment. The work will be carefully sequenced since the Influent Pump Station cannot be taken offline as these improvements are made.

The Utilities and Site Work Project includes work to rehabilitate and improve utility systems at the MWWTP including chemical piping, compressed air, wash-down water, potable water, natural gas, and drains; and site work, including landscaping and paving.

A multi-phase project to improve and replace hypochlorite piping around the plant has begun, with Phase 2 to be completed in FY22, and Phase 3 beginning in FY23. Design for the Process Piping Replacement Project was completed in FY21, and construction will be completed in FY22.

The wash down water pumps and piping will be assessed and improved, including the surge and cathodic protection systems. A new connection to the recycled water system will be included as a back-up supply. Portions of the piping will be assessed starting in FY22 and construction is planned to take place through FY25. Improvements to the Plant Gallery Drains will address ponding in the galleries and make it easier to empty the tanks and basins when maintenance is needed. Phase 1 improvements were recently completed. The design for Phase 2 improvements will begin in FY22.

The Electrical and Controls Project includes work to replace aging equipment and improve the seismic performance and reliability of the electrical power distribution and control systems to help prevent outages and optimize processes to meet regulations.

Four of the large variable frequency drives (VFD) need to be replaced and are associated with the return activated sludge pump drives and the digester hot water recirculation pump drives for the anaerobic digesters. Aging motor control centers will also be replaced for the aerated grit removal process and the oxygen reactors. This work will occur in FY22. The Ovation control system will also be replaced synchronized with the replacement of computers, workstations, servers, network equipment, and related software.

Based on seismic evaluations, two phases of seismic improvements have been identified for the electrical system at the MWWTP. Phase 1 will address immediate needs, such as improved bracing and supports for electrical distribution lines between the main substation and the PGS, and improved unit anchorage for substations. Phase 2 will address reliability needs following completion of an Electrical Master Plan in FY23.

The Power Generation and Biogas Project includes work to rehabilitate the biogas and PGS equipment, flares, piping, and related components to best utilize biogas produced in the digesters to generate renewable electricity and produce heat for the digesters. Maintaining these aging facilities provides a source of renewable electricity and reduces the need to flare biogas.

This project is intended to increase the reliability of the power generation components in both normal operation and during grid power outages to improve overall plant reliability. PGS Reliability Improvements Phase 3 is ongoing with construction planned to begin in FY22, followed by Phase 4 starting in FY24. The design for upgrades to the original flares was completed in FY21, and construction is planned for FY22.

The Primary Treatment Project includes work to rehabilitate and begin seismic retrofit of the Primary Sedimentation Tanks (PST), channels, and galleries to extend the life of concrete assets.

The concrete rehabilitation work to the PST includes replacing three primary influent channel control gates (large rectangular butterfly valves); and rehabilitating and coating concrete roof and walls in the influent channel adjacent to the gates, and in upstream areas that were not addressed in previous phases. The PST will be seismically retrofitted beginning in FY24. Phase 1 will encompass tanks 1 to 10, the adjoining influent channels and gallery and effluent channel. The Blower Building will be relocated; the influent channel and gallery joints retrofitted at various locations; channel, roof slab and tank walls strengthened; and exterior pile foundations added at four expansion joints. Phase 2 will begin in FY26 and address the influent channels, gallery and vortex grit facilities.

The Digesters Project includes work to upgrade the digestion process at the MWWTP to convert sludge from primary and secondary treatment, as well as high strength waste, into biogas and biosolids for beneficial use.

The District has eleven digesters operating at elevated temperatures along with various support equipment including blend tanks, pumps, mixers, heat exchangers, and biogas storage covers that

work together to provide the appropriate conditions to convert sludge into biogas and biosolids. In recent years, the digesters have been upgraded with improved covers and mixers. Under Phase 3 of the upgrades, two digesters are scheduled for new covers and mixing systems with construction having begun in FY21. These digesters will also be seismically retrofitted to prevent catastrophic collapse in the event of an earthquake. Construction will be completed in FY22. Phase 4 of the work to upgrade the remaining three digesters is planned to start in FY28.

The Resource Recovery Project includes work to rehabilitate and upgrade facilities associated with trucked waste which provides additional feedstock to produce biogas, and revenue for the Wastewater Department.

Odor control improvements will be implemented that include a new three-stage treatment system serving the Fats, Oils, and Grease (FOG) and High Strength Waste (HSL) receiving stations and blend tanks. This project also involves safety improvements and improved drainage to prevent odors and plugging of drains. The design for this project was completed in FY21, and construction is planned to start in FY22.

Another task is creating a new de-gritting facility for trucked waste. This project follows the successful pilot testing performed in FY20 and involves construction of a new building and hydrocyclone-classifiers, a local odor control unit, pumps, and associated piping. Temporary improvements will be made in FY22, with the main project starting after FY28.

REGULATORY COMPLIANCE STRATEGY

This strategy furthers the District's objectives to operate and maintain facilities to meet all water discharge, air emission, and land disposal requirements; ensure protection and stewardship of San Francisco Bay; and implement preventative and corrective maintenance programs. Work under this strategy focuses on upgrading the Wet Weather Treatment Facilities to maintain reliable operations; developing strategic nutrient management solutions to address future regulatory requirements; and upgrading the dechlorination facilities to protect the San Francisco Bay. The five-year program appropriations are as follows:

Appropriations (\$ Thousands)						
Program	FY22	FY23	FY24	FY25	FY26	Total
Regulatory Compliance Program	10,314	14,515	700	1,980	400	27,909
Total	10,314	14,515	700	1,980	400	27,909

Regulatory Compliance Program

The Nutrients Project includes work to prepare to meet stricter effluent limits for nitrogen discharged into San Francisco Bay anticipated in the upcoming San Francisco Regional Water Quality Control Board Watershed Permit.

The current nutrient watershed permit will expire in mid-2024, and the next five-year permit is expected to impose a nutrient discharge load cap. To meet this effluent load cap, it is expected that a process to treat high ammonia in the centrate generated in the dewatering process will be required. However, other studies are planned to determine the feasibility of other nutrient reduction improvements that can be made with existing facilities at the MWWTP. These studies will include pilot and full-scale testing to evaluate sidestream nutrient treatment/recovery technologies and explore innovative approaches to nitrogen reduction. Nutrient studies will start in FY22, and the planning phase of the sidestream treatment project will start in FY23.

The Wet Weather Facilities Project includes conducting mandated work related to the Inflow and Infiltration Program and maintaining the Wet Weather Facilities (WWF) for reliable performance during wet weather events.

This project includes ongoing implementation of the regional private sewer lateral ordinance, flow modeling, and reporting, as required by the Consent Decree issued by United States Environmental Protection Agency and Regional Water Quality Control Board. Work also includes studies to identify additional wet weather flow reductions.

Tasks also include addressing the large diameter influent magnetic flow meters at the Oakport WWF in Oakland and the Point Isabel WWF in Richmond. Compliance with increasingly stringent regulations requires accurate flow metering. Many of the meters at these locations are over 30 years old, and their reliability and accuracy have deteriorated. The Parshall flumes at Oakport and Point Isabel WWFs, and the San Antonio Creek WWF in Oakland will be inspected for physical deficiencies, such as damage to liners and concrete and rehabilitated. Design is scheduled to start in FY22 with construction completed in FY24. This project also includes rehabilitation of chemical tanks, wet well liner repair, and concrete restoration at the WWFs which is scheduled to start FY23.

The Effluent Discharge Project includes work to maintain and upgrade infrastructure necessary for disinfection and dechlorination of MWWTP effluent and conveyance to its final discharge in the San Francisco Bay. This infrastructure is critical for meeting permit requirements and for maintaining flow-through capacity at the plant.

As the final stage of liquid-stream treatment at the MWWTP, treated wastewater is dosed with chlorine or sodium hypochlorite and conveyed through a 9,000-foot long land section of the effluent outfall pipe to the Dechlorination Facility. At the Dechlorination Facility, sodium bisulfite is added to react with any remaining chlorine, and water quality samples are collected to ensure a chlorine-free discharge to the San Francisco Bay. The final conveyance is through 7,500-foot long section of subaqueous outfall pipe.

Tasks over the next five years include a hydraulic study and rehabilitation of pumps at the Effluent Pump Station, as well as rehabilitation of the Dechlorination Facility. Seismic improvements will also be made at the Effluent Pump Station and the outfall later in the ten-year Capital Improvement Program.

NON-PROGRAM SPECIFIC STRATEGY

This strategy, when used, furthers the District's objective to maintain a strong financial position to meet both short and long-term needs. The Contingency Program focuses on making funds available for unanticipated needs, and for projects that are seeking grants to pay for a substantial portion of the project's cost. The five year program appropriations are as follows:

Appropriations (\$ Thousands)						
Program	FY22	FY23	FY24	FY25	FY26	Total
Contingency Program	0	0	0	0	0	0
Total	0	0	0	0	0	0

Contingency Program

Contingency provides funding for unanticipated needs that may arise before the next budget cycle, such as replacement or repairs to facilities and equipment as a result of failures or safety deficiencies, and new projects or the acceleration of planned projects requiring funding before the next budget cycle. Funds may also be set aside for projects where grants are being sought in the event that the grant application is successful as most grants require the District to fund the project and then apply for reimbursement of allowable costs.

At this time, no additional appropriations are needed as available appropriations are sufficient to meet the needs of the Wastewater Department.

Capital Appropriation Summary

This section provides a summary of the five-year appropriation for the Wastewater System projects contained in the CIP, sorted by strategy and program. The Board of Directors approves the overall five-year CIP, but adopts just the first two years. The remaining three years are for planning purposes only and are subject to revision.

Department Abbreviations

The abbreviation for the Lead Department responsible for each capital project is as follows:

WAS – Wastewater Department

Capital Improvement Projects			Dept	Prior Approp	FY22-26 APPROPRIATIONS (IN 000's)							
FY 2022						FY 2023	FY 2024	FY 2025	FY 2026	5 YR TOTAL		
MAINTAINING INFRASTRUCTURE												
WW Infrastructure Program												
Dewatering	WAS	3,043	0	13,117	0	0	75,310	88,427				
Digesters	WAS	36,322	0	0	0	0	0	0				
Electricals and Controls	WAS	34,673	0	7,931	250	250	250	8,681				
General Wastewater	WAS	82,668	21,733	6,739	8,546	14,940	6,799	58,757				
Interceptors and Pump Stations	WAS	55,390	11,794	4,319	4,890	14,446	17,127	52,576				
Power Generation and Biogas	WAS	29,852	208	0	5,000	0	0	5,208				
Preliminary Treatment	WAS	29,232	1,200	3,387	200	42,230	0	47,017				
Primary Treatment	WAS	22,591	2,130	0	5,107	0	50,424	57,661				
Resource Recovery	WAS	18,413	1,000	0	0	1,376	0	2,376				
Secondary Treatment	WAS	37,756	0	0	0	4,288	10,500	14,788				
Utilities and Sitework	WAS	38,799	5,728	200	4,177	0	3,200	13,305				
WW Infrastructure Program Total		388,739	43,793	35,693	28,170	77,530	163,610	348,796				
MAINTAINING INFRASTRUCTURE TOTAL		388,739	43,793	35,693	28,170	77,530	163,610	348,796				
NON-PROGRAM SPECIFIC												
WW Non-Program Specific												
Contingency Project Wastewater	WAS	18,719	0	0	0	0	0	0				
WW Non-Program Specific Total		18,719	0	0	0	0	0	0				
NON-PROGRAM SPECIFIC TOTAL		18,719	0	0	0	0	0	0				
REGULATORY COMPLIANCE												
WW Regulatory Compliance												
Effluent Discharge	WAS	13,313	1,857	0	400	1,580	0	3,837				
Nutrients	WAS	2,751	200	13,720	300	400	400	15,020				
Wet Weather Facilities	WAS	28,579	8,257	795	0	0	0	9,052				
WW Regulatory Compliance Total		44,643	10,314	14,515	700	1,980	400	27,909				
REGULATORY COMPLIANCE TOTAL		44,643	10,314	14,515	700	1,980	400	27,909				
APPROPRIATIONS SUMMARY (IN 000'S)												
Prior	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	5 YR TOTAL						
452,100	54,107	50,208	28,870	79,510	164,010	376,705						

Operating Budget Impact of Capital Investments

The FY22-26 CIP includes various significant nonrecurring capital projects that will affect the operating budget and the services that the District provides. Such projects and their potential impacts include:

Digester Upgrades - Phase 3

This project will rehabilitate and make improvements to Digesters 2, 3, and 4. Floating covers on Digester 3 and 4 will be replaced with new fixed covers and the existing cover on Digester 2 will be replaced. These digesters will also be seismically upgraded to restrain the walls at the base. Other work includes piping upgrades, improved mixing, and associated electrical and controls upgrades. Digester coatings will be repaired for Digester 7.

The new fixed covers will increase gas storage for energy production which will increase the amount of biogas available for electricity generation and reduce flaring of unused biogas. This will increase electricity generation and potentially electricity sales while reducing environmental impacts. In addition, operational labor costs are expected to decrease once the improved piping and mixing systems are operational due to the reduced likelihood of equipment failure due to grit slugs, and better access for maintenance.

Main Wastewater Treatment Plant Administrative Building Improvements, Phases 1 and 2

This project includes improvements to the heating, ventilation and air conditioning systems (HVAC), and roofing and fire protection improvements for the Administration Building and Laboratory at the MWWTP. Phase 1 includes replacement of the main chiller for the cooling system. Phase 2 includes roof replacement, HVAC air handler replacement/rehabilitation, water distribution piping replacement, HVAC management system upgrades, and fire protection system upgrades.

Once implemented, these improvements will decrease operating costs due to an anticipated 15 to 20 percent reduction in power demand. Maintenance costs for roof repairs will also be reduced since the roof is at the end of its useful life.

Power Generation Station Reliability Improvements - Phase 3

This project includes piping replacements and improvements to the gas conditioning system to provide redundancy in order to reduce unplanned outages of the PGS. These improvements will reduce downtime for PGS equipment, and therefore increase electricity generation and potentially electricity sales.

MWWTP Oxygen (O₂) Plant Improvements

This project will make improvements to the O₂ plant built in 1973 which is critical for meeting our water quality discharge permit requirements. The project will replace the existing analog control system with a new state-of-the-industry digital system. The project also includes a condition assessment of the Plant No. 1 and No. 2 reversing heat exchangers, control systems, and reactor feed control system. The scope of the design and construction will be defined based on risk of failure and improvements to reliability. Operating costs will be reduced substantially due to the new control system, which will allow finer tuning of oxygen dosing to the oxygen reactors, greatly reducing the production of pure oxygen and thus reducing electricity demand. The project should also reduce the risk of failure due to obsolescence of key infrastructure, and increase plant safety and reliability.

MWWTP Lighting Improvements

This project will replace aging, inefficient lighting systems with improved technology that reduces energy use and improves worker safety. Lighting installations at the primary sedimentation tanks, grit tanks, oxygen reactor decks, and secondary clarifier area will be replaced. The lighting proposed for replacement has a projected payback of five years due to savings from reduced energy use.

FIVE-YEAR FINANCIAL FORECAST

SUMMARY

The five-year financial forecast presents the estimated impact of operations, debt service requirements and reserve balances on rate projections over the five-year period.

This forecast is built upon:

- Adopted financial policies
- Capital investments in the FY22-FY26 CIP

This forecast identifies rate increases for the Wastewater System based on estimated increases in operating and capital expenditures to maintain service levels, meet mandated program requirements, and fund increased capital expenditures.

On average over the five-year period, revenues are forecast to increase by 3.3 percent per year to cover the increases in operating and capital expenses, and maintain a minimum of 1.6 times coverage on revenue bond debt service. Forecasted operating expenses are expected to grow by 3.8 percent per year over the five-year period. Debt service increases by 3.9 percent per year over the five-year period.

The key factors driving the need for increased Wastewater System revenues are:

- Increasing labor and benefit costs
- Inflation on non-labor products and services
- Increasing capital expenditures

For all five years, the cash reserves exceed the cash reserve targets. Reserves in excess of those needed to meet financial reserve targets are available to pay for a significant portion of the capital program expenses with cash, a positive financial metric.

Capital cash flow spending, including capital support expenses, is projected at \$243.2 million over the five-year period. Major projects to be undertaken during this period include: General Wastewater Improvements, Interceptor and Pump Station Improvements, Secondary Treatment Improvements, Dewatering Building and Equipment, and Preliminary Treatment Improvements.

The projected average percentage of capital funded from debt will be 40.3 percent over the five-year period significantly lower than the financial policy maximum target of 65 percent. In FY22 and FY23, the debt coverage ratio is projected at 2.22 and 2.13, respectively, and for FY22 through FY26, the ratio exceeds the target coverage ratio of 1.60.

OPERATIONS

The following table shows the financial forecast for the Wastewater System operating budget based on projected operations and maintenance expenses and debt service requirements.

Wastewater System Operating Budget Five-Year Financial Forecast (\$ Millions)							
	FY20	FY21	Forecast				
	Actuals	Budget	FY22	FY23	FY24	FY25	FY26
Beginning Balance	-	-	103.7	99.3	99.3	109.0	114.7
Treatment Charges	78.2	80.9	84.8	88.5	92.3	96.3	100.4
Wet Weather Facilities Charge	27.1	28.5	29.7	30.9	32.1	33.4	34.8
Resource Recovery	12.1	10.0	9.0	8.0	7.8	7.6	7.4
Property Taxes	6.3	5.6	6.3	6.3	6.3	6.3	6.3
Interest Income	1.3	2.1	0.3	0.5	0.5	0.8	1.1
Laboratory Services	4.7	4.5	4.6	4.8	4.9	5.1	5.2
Reimbursements	1.9	1.5	1.7	1.8	1.8	1.9	1.9
Permit Fees	1.7	1.6	1.7	1.7	1.7	1.7	1.7
Capacity Charges	5.7	4.0	3.0	3.1	3.2	3.3	3.4
All Other Revenue	<u>5.3</u>	<u>5.7</u>	<u>6.7</u>	<u>6.4</u>	<u>6.2</u>	<u>5.9</u>	<u>5.9</u>
Total Operating Revenues	144.2	144.4	147.7	151.9	156.8	162.2	168.1
Revenue Funded Capital	41.8	46.0	36.0	30.2	21.1	26.3	31.5
Operations	70.1	78.6	85.4	89.7	92.7	95.8	99.2
Debt Service	<u>34.5</u>	<u>29.8</u>	<u>30.7</u>	<u>31.9</u>	<u>33.3</u>	<u>34.4</u>	<u>35.8</u>
Total Expenses	146.4	154.4	152.1	151.9	147.0	156.5	166.6
Ending Balance	-	-	99.3	99.3	109.0	114.7	116.2
Policy Reserves	-	-	47.6	48.7	49.4	50.2	51.0
Capital Projects Reserve	-	-	51.7	50.6	59.6	64.5	65.2

The following table shows the key assumptions used to create the revenue forecast. The debt service coverage ratio is projected to exceed the policy target of 1.60 by at least 30 percent every year.

Wastewater System Key Assumptions Five-Year Financial Forecast							
	FY20	FY21	Forecast				
	Actuals	Budget	FY22	FY23	FY24	FY25	FY26
% Rate Increase	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Average monthly single family residential bill based on 6 ccf/month	\$22.15	\$23.02	\$23.91	\$24.89	\$26.09	\$27.13	\$28.21
Debt Service Coverage Ratio	2.59	2.40	2.22	2.13	2.09	2.09	2.08

Excludes Wet Weather Facilities Charge

Five-Year Projection of Revenue

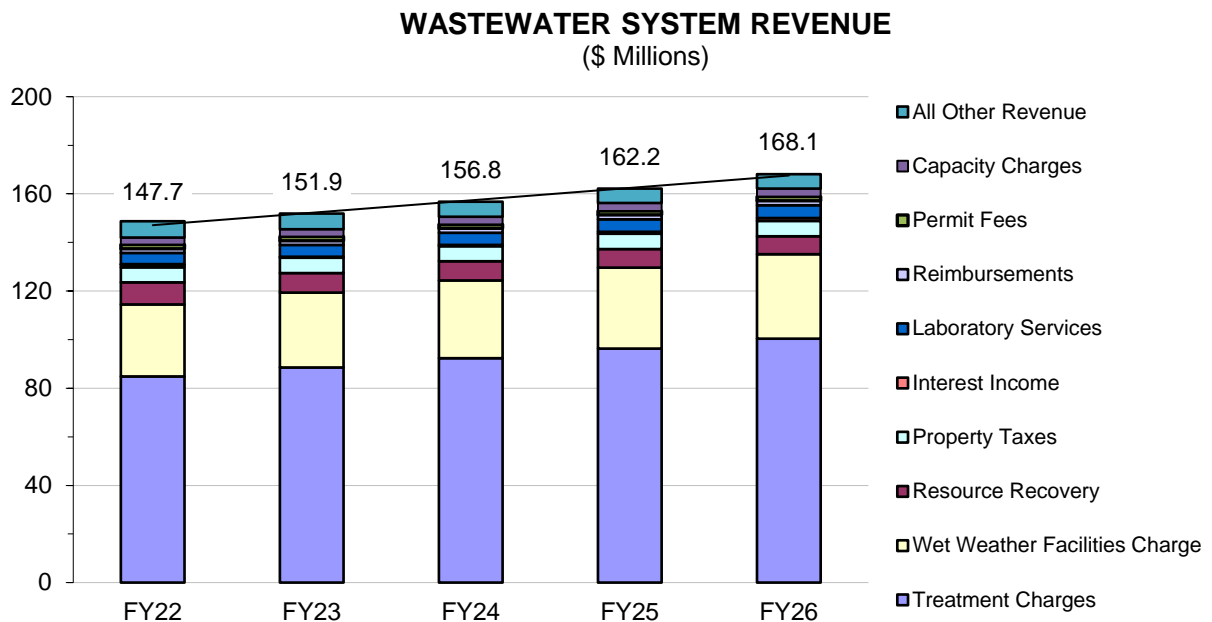
The key factors driving the need for increased Wastewater System revenues are:

- Increasing labor and benefit costs,
- Inflation on non-labor products and services, and
- Increasing capital expenditures.

Projected annual operating revenues are expected to increase from \$147.7 million in FY22 to \$168.1 million by FY26, an increase of \$20.4 million or 3.3 percent per year. The increase in revenue over the five-year period is to cover increased costs in operations and maintenance, debt service requirements, and revenue funding for capital projects.

The major components of the increases in operating revenue over the five-year period are Treatment Charges which are projected to increase from \$84.8 million in FY22 to \$100.4 million in FY26 and increases in revenue from the Wet Weather Facilities Charge from \$29.7 million in FY22 to \$34.8 million in FY26.

The following chart shows projected Wastewater System operating revenue by category for the next five years.



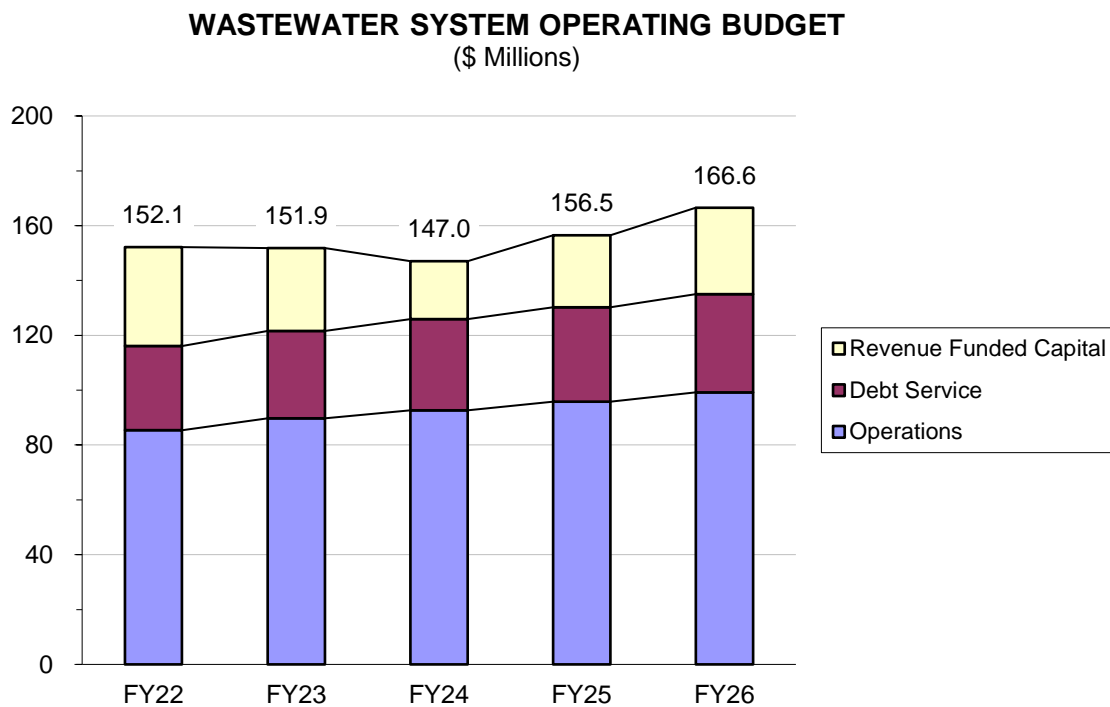
Five-Year Projection of Operating Budget

The Wastewater System operations expenses are projected to increase from \$85.4 million in FY22 to \$99.2 million in FY26, an increase of 3.8 percent per year.

Debt service requirements are projected to increase from \$30.7 million in FY22 to \$35.8 million by FY26, an increase of 3.9 percent per year.

The District uses rate revenue to cash fund a portion of the annual capital improvement expenses. The amount of revenue funded capital decreases over the five-year period from \$36.0 million in FY22 to \$31.5 million in FY26, a decrease of 3.3 percent per year.

This chart summarizes projected Wastewater System budget by category for the next five years.



Five-Year Projection of Reserves

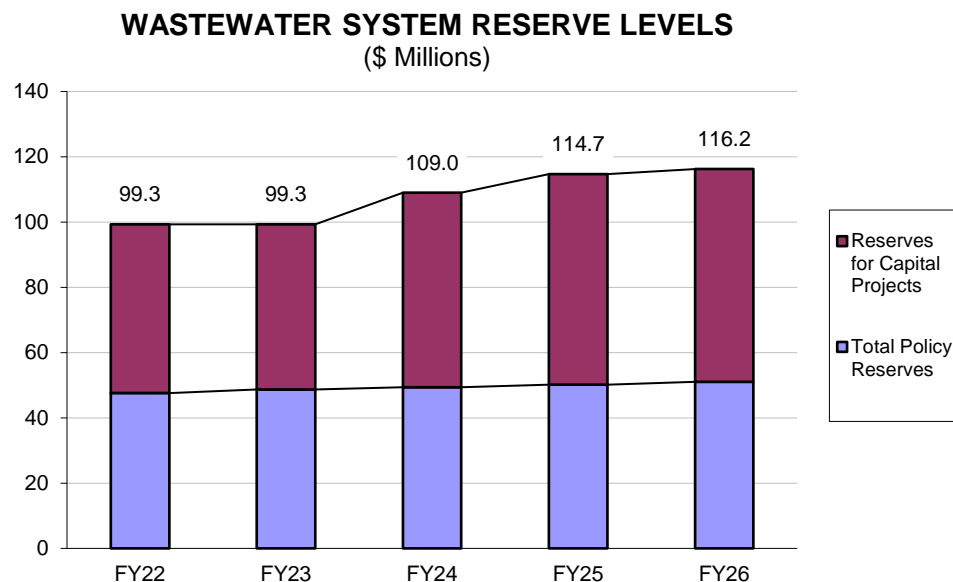
The operating reserves consist of:

- Working capital reserves equal to three months operating and maintenance expenses
- Self-Insured Liability reserve based on the actuarial Self-Insured Retention (SIR) funding recommendation
- Workers' Compensation reserve based on the actuarial SIR funding recommendation
- Rate stabilization reserve of a minimum of 5 percent of operating and maintenance expenses

The table below shows the changes to reserve components over the five-year period. Reserve balances meet or exceed the policy reserve levels for the entire period.

Wastewater System Reserve Components (\$ Millions)					
	Forecast				
	FY22	FY23	FY24	FY25	FY26
Projected Operating Budget Reserves	99.3	99.3	109.0	114.7	116.2
Policy Reserves					
Working Capital	21.3	22.4	23.2	24.0	24.8
Self-Insured Liability Reserve	1.2	1.2	1.2	1.2	1.2
Workers' Compensation Reserves	0.9	0.9	0.9	0.9	0.9
Rate Stabilization Reserve	<u>24.1</u>	<u>24.1</u>	<u>24.1</u>	<u>24.1</u>	<u>24.1</u>
Total Policy Reserves	47.6	48.7	49.4	50.2	51.0
Reserves Available for Capital Projects	51.7	50.6	59.6	64.5	65.2

The following chart shows Wastewater System reserve levels projected at the end of each fiscal year.



CAPITAL INVESTMENTS AND FINANCING

The Five-Year CIP outlines the Wastewater System capital investment plan for the next five-year period, the estimated cost of these investments and the sources of funds. Appropriations reflect the amount that is authorized and budgeted over a multi-year period for each program. Cash flows are the amounts estimated to be spent on each program in a given year. The five-year program for the Wastewater System includes \$396.6 million in capital project appropriations, including capital support expenses, and \$243.2 million in projected cash flow spending.

The focus of the CIP is the five-year period from FY22-26. Capital needs have been estimated for a second five-year period from FY27-31, but given the long-term nature of these capital improvement plans, by necessity they are preliminary estimates only and will be revised as studies are completed, priorities are redefined, and as new needs emerge. Therefore, the budget focuses on the first five years of the CIP.

Funding for these projects is drawn from the proceeds of revenue bond issues, commercial paper, grants, and current reserves and revenues.

For the FY22-26 CIP, an increasing amount of capital expenditures will be funded on a pay-as-you-go basis in accordance with the District's financial policies. Over the five-year period, the percentage of capital funded from debt will average 40.3 percent, less than the target maximum of 65 percent contained in the District's debt policy, and debt service will increase \$5.9 million as additional revenue bonds are issued. Wastewater System total outstanding debt will increase \$27.0 million during the period. Total debt outstanding at the end of the five-year period will total \$384.4 million.

In FY22 and FY23, the debt coverage ratio is projected at 2.22 and 2.13, respectively, and for FY24 through FY26, the ratio exceeds the target coverage ratio of 1.60.

The following table shows the cash flow spending on capital improvements anticipated for the next five years, along with the financial resources anticipated to fund the capital program. Debt over the five-year planning period is below the financial target maximum of 65 percent.

Wastewater System Capital Budget Five-Year Financial Forecast (\$ Millions)						
	Forecast					
	FY22	FY23	FY24	FY25	FY26	Totals
Beginning Balance	0.0	0.0	0.0	0.0	0.0	0.0
Resources						
Revenue Funded Capital	36.0	30.2	21.1	26.3	31.5	145.2
New Bond Proceeds	<u>9.8</u>	<u>19.6</u>	<u>24.5</u>	<u>19.6</u>	<u>24.5</u>	<u>98.0</u>
Total Resources	45.8	49.8	45.6	45.9	56.0	243.2
Expenditures						
Capital Cash Flow	42.0	45.9	41.6	41.9	51.9	223.4
Capital Support	<u>3.8</u>	<u>3.9</u>	<u>4.0</u>	<u>4.1</u>	<u>4.1</u>	<u>19.9</u>
Total Expenditures	45.8	49.8	45.6	45.9	56.0	243.2
Ending Balance	0.0	0.0	0.0	0.0	0.0	0.0
Debt Percentage of Funding	21.4%	39.3%	53.7%	42.7%	43.7%	40.3%

Projected new bond issues, outstanding debt, and debt service are shown in the following table.

Outstanding Debt and Debt Service at End of Fiscal Year (\$ Millions)					
	Forecast				
	FY22	FY23	FY24	FY25	FY26
Beginning of Year Outstanding Debt	357.4	354.7	361.2	371.6	376.0
Debt Retired	12.7	13.6	14.6	15.6	16.7
New Bond Issues and Commercial Paper	<u>10.0</u>	<u>20.0</u>	<u>25.0</u>	<u>20.0</u>	<u>25.0</u>
Total Outstanding Debt	354.7	361.2	371.6	376.0	384.4
Debt Service, Existing Debt	29.9	29.9	29.9	29.8	29.8
Debt Service, New Debt	0.6	1.7	3.2	4.3	5.8
Debt Servicing Costs	<u>0.2</u>	<u>0.2</u>	<u>0.2</u>	<u>0.2</u>	<u>0.3</u>
Total Debt Service	30.7	31.9	33.3	34.4	35.8



Main Wastewater Treatment Plant Then and Now



Proposed Biennial Budget

Fiscal Years 2022 & 2023

Supplemental Material

Capital Project Summaries



***East Bay Municipal Utility District
Oakland, California***

East Bay Municipal Utility District

Biennial Budget

Fiscal Years 2022 and 2023

Volume 1 District Overview
 Water System
 Wastewater System

Volume 2 Supplemental Material:
Capital Project Summaries

Presented to the Board of Directors
March 23, 2021

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FY22-26 CAPITAL PROJECTS SUMMARY

This chapter contains a Project Summary for each project that has work planned in FY22-26, and an alphabetical project listing.

- **Project Summary**

The project summaries are presented in alphabetical order first by Lead Department and then by Project title, and provide a description of the project including recent accomplishments and future plans, as well as previously adopted and planned appropriations.

- **Project Index**

The projects are listed in alphabetical order by title to facilitate locating a Project Summary.

- **Department Abbreviations**

The abbreviation for the Lead Department responsible for each capital project is as follows:

CUS – Customer and Community Services Department
ENG – Engineering Department
FIN – Finance Department
ISD – Information Systems Department
MCD – Maintenance & Construction Department
NRD – Natural Resources Department
OSD – Operations & Maintenance Support Department
WAS – Wastewater Department
WOD – Water Operations Department
WRD – Water Resources Department
WRP – Water Recycling Program

- **Recurring Projects**

Projects that perform similar work each year are considered recurring projects, such as Meter Replacements. For recurring projects only the FY22-26 appropriations are shown on the Project Summary page since such projects do not have a definitive total project cost.

- **Funding Sources**

Funding for the CIP is drawn from multiple sources, the abbreviations are as follows:

APPL – Applicant
BOND/REV – Bond or Revenue
ERF – Equipment Replacement Fund
GRANTS – Grants
OAG – Other Agencies
SCC – System Capacity Charges
VRF – Vehicle Replacement Fund

- **Active Segment Appropriations**

The District is preparing for the implementation of a new financial system which has led to a restructuring of capital work whereby:

- Most capital projects now contain just one segment,
- Project appropriations include segments that are completed and no longer active, and
- Strategies and programs for grouping projects will be redefined.

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Capital Improvement Program - Project Summary

Project: Water Conservation Project

Project Number: 000894

Strategy: Water Supply

Program: Water Conservation

Justification:

Demand management is a key component of the water management policy to promote the efficient use of the District's limited water supply. In addition, the 2018 water conservation legislation (Assembly Bill 1668 and Senate Bill 606) requires the District to meet water use efficiency goals.

Description:

As part of the 2050 Demand Study, the goal was revised to achieve 70 million gallons per day of water conservation by the year 2050. This project covers implementation of activities to help meet that goal and to comply with state water use efficiency regulations. In FY21, the update to the Water Conservation Master Plan was completed, which will provide a roadmap for meeting this target.

In FY20-21, ongoing rebates and incentives were offered to customers and a pilot flow meter rebate program was launched. In FY21, two pilots studying the potential for Advanced Metering Infrastructure (AMI) to help customers save water and energy were completed. While the global pandemic impacted activities such as in-person water audits and community events, the program pivoted to offering more services remotely including hosting a highly successful Water-Wise Gardening webinar series. Staff conducted extensive phone outreach to customers with leaks and high water use to minimize financial impacts to customers.

Over the next five years, the Water Conservation Program will continue to offer traditional rebates, incentives, and education programs, while increasing its focus on providing digital tools to help customers manage their water use. The program will look to expand the use of its web portal, home water reports, leak alerts, and other communication tools. The District is also participating in a Proposition 1 Regional Water Conservation grant that funds rebates, training, AMI, and other activities.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
Water Conservation Services	67,306,924	8,730,696	11,075,000	87,112,620

Project Appropriations		Lead Dept:	CUS
Prior Years	\$ 74,759,124	Recurring:	No
2022	\$ 0	Funding:	BOND/REV 89%
2023	\$ 2,371,714		GRANTS 1%
2024	\$ 2,402,144		OAG 10%
2025	\$ 1,946,784		
2026	\$ 2,010,054		
Future Years	\$ 11,075,000	In Service Date: 30-Jun-42	
Total Cost	\$ 94,564,820		

Capital Improvement Program - Project Summary

Project: Aqueduct Cathodic Protection

Project Number: 001210

Strategy: Maintaining Infrastructure

Program: Corrosion

Justification:

Cathodic protection along the aqueducts enhances the reliability of the raw water delivery system by reducing external corrosion of the steel pipelines, thus reducing aqueduct outages caused by leaks. The cathodic protection for Mokelumne Aqueduct No. 1 has been maintained since 1934.

Description:

This recurring project includes annual investigations and periodic renewal of the Mokelumne Aqueducts' 44 cathodic protection systems (CPSs). These systems prevent the corrosion of steel pipelines that come into contact with soil and require periodic replacement of expendable components, such as anode beds and power supplies.

FY21-22 work includes site evaluations to determine the status of each CPS and prioritization of improvement projects. FY23-26 work includes replacing obsolete and inefficient rectifier power supplies and improving obsolete deep well anode beds.

FY27-31 work will continue to evaluate, repair, replace, and improve CPSs as necessary to maintain aqueduct cathodic protection.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
Aqueduct Cathodic Protection	4,168,000	2,089,000	2,375,000	8,632,000

Project Appropriations		Lead Dept: ENG Recurring: Yes	
Prior Years	-		
2022	\$ 0	Funding: BOND/REV 100%	
2023	\$ 497,000		
2024	\$ 513,000		
2025	\$ 531,000		
2026	\$ 548,000		
Future Years	-	In Service Date: Recurring	
Total Cost	-		

Capital Improvement Program - Project Summary					
Project: Building Facilities Improve		Project Number: 003033			
Strategy: Facilities, Servc and Equip		Program: Area Service Center/Bldg Prog			
Justification: As systems, equipment, and finishes at District-occupied buildings reach the end of their useful service life, higher than normal energy consumption and operating and maintenance costs can be incurred. Upgrading and expanding building facilities will improve sustainability and reduce costs.					
Description: Improvements to building systems and equipment serve to maintain safe work spaces, reduce operating and maintenance costs, minimize energy use, and reduce the carbon footprint. During FY20-21 work included the elevator upgrades, LED light installations, HVAC systems and Data Center reliability improvements, and roofing renovation designs at the Administration Building (AB). Planning and design for improvements at service centers, a vehicle maintenance facility, and the Adeline Maintenance Center (AMC) moved forward. FY22-26 work includes HVAC and lighting upgrades at the AMC, Oakport office and warehouse upgrades, electrical modifications at the East Area Service Center to enable operation as an incident command base, and the expansion of facilities at the Fleet Maintenance East facility in Walnut Creek to improve safety, reliability, and energy efficiency. Planning and community outreach for a new service center in West Oakland will be completed and the site will be used for equipment and materials storage and staging operations. FY27-31 projects include new warehousing and storage facilities at the Oakport Storage Center, renovation of the Central Area Service Center at AMC, expansion of the Castenada Service Center in San Ramon, and re-sealing of joints and pre-cast concrete panels on the exterior of the AB. These projects support pipeline repair and replacement operations and preserve existing infrastructure assets.					
Active Segment Appropriations		Prior Yrs	FY22-26	Future Yrs	Total
Building Facilities Improve		80,007,811	81,079,000	36,472,000	197,558,811
Project Appropriations		Lead Dept: ENG Recurring: No			
Prior Years	\$ 82,142,930				
2022	\$ 0	Funding: BOND/REV 100%			
2023	\$ 0				
2024	\$ 11,819,000				
2025	\$ 39,477,000				
2026	\$ 29,783,000				
Future Years	\$ 36,472,000	In Service Date: 30-Jun-35			
Total Cost	\$ 199,693,930				

Capital Improvement Program - Project Summary									
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Project: Dam Operational Upgrades	Project Number: 1002574
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Project: Dam Operational Upgrades	Project Number: 1002574
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Strategy: Regulatory Compliance	Program:	Dam Safety
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Strategy: Regulatory Compliance	Program:	Dam Safety
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Justification:

Upgrades to dams, spillways, channels, embankment slopes, reservoir roofs/linings, drain lines, valves and other features are required by the California Division of Safety of Dams and Federal Energy Regulatory Commission to safely operate reservoirs and dam facilities.

Description:

This project involves improvements to various dams and reservoirs to allow continued safe operation of the facilities. FY20-21 accomplishments include: 1) formal spillway condition assessments at Camanche and terminal dams at Briones, Chabot, San Pablo, and Upper San Leandro; 2) inundation maps for jurisdictional open-cut and terminal reservoirs; and 3) inspections of Maloney Reservoir's lining.

FY22-26 work includes: 1) sunny-day inundation modeling and mapping for Mokelumne and non-jurisdictional reservoirs per the California Division of Safety of Dams; 2) lining and roof repairs at Maloney and Dunsmuir Reservoirs; 3) terminal reservoir tunnel and outlet conduit inspections; 4) phase 2 terminal reservoir spillway evaluations; 5) stilling basin evaluations and improvement plans; and 6) spillway drain evaluations.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
Dam Operational Upgrades	19,149,000	0	0	19,149,000

Project Appropriations		Lead Dept: ENG Recurring: No		
Prior Years	\$ 21,273,000			
2022	\$ 0	Funding:	BOND/REV	100%
2023	\$ 0			
2024	\$ 0			
2025	\$ 0			
2026	\$ 0			
Future Years	\$ 0	In Service Date: 30-Jun-26		
Total Cost	\$ 21,273,000			

Capital Improvement Program - Project Summary

Project: Dam Seismic Upgrades

Project Number: 000861

Strategy: Regulatory Compliance

Program: Dam Safety

Justification:

This project includes seismic safety evaluations to improve seismic safety as required by the California Division of Safety of Dams (DSOD).

Description:

DSOD and the District require that embankments have an acceptable factor of safety to withstand the maximum considered earthquake without an uncontrolled release of reservoir water.

Evaluations and/or safety reviews were completed at all dams in FY18. A new cycle of review will account for accumulated changes in seismic evaluation standards and safety requirements and respond to portions of the 2017 Federal Energy Regulatory Commission (FERC) Potential Failure Mode Analysis and Independent Consultant Safety Inspection.

Seismic upgrades to the soils at the toe of Camanche Dam are planned to begin in FY22 and are dependent on FERC review, approval, and subsequent directive. Updated seismic reviews using current engineering standards are planned for FY22-23 at Danville Reservoir and at Leland Reservoir in Lafayette to meet DSOD requirements.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
Dam Seismic Upgrades	113,261,243	3,900,000	1,135,500	118,296,743

Project Appropriations			
Prior Years	\$ 119,611,680	Lead Dept:	ENG
2022	\$ 0	Recurring:	No
2023	\$ 3,000,000	Funding:	BOND/REV100%
2024	\$ 500,000		
2025	\$ 200,000		
2026	\$ 200,000		
Future Years	\$ 1,135,500		
Total Cost	\$ 124,647,180	In Service Date:	30-Jun-31

Capital Improvement Program - Project Summary

Project: Dam Surveillance Improvements **Project Number:** 000748

Strategy: Regulatory Compliance **Program:** Dam Safety

Justification:

Ongoing dam surveillance is required per the District's Dam Safety Program, the California Division of Safety of Dams (DSOD), and Federal Energy Regulatory Commission (FERC) license requirements. Dam instrumentation must be upgraded and replaced as needed to provide early warning of potential safety issues.

Description:

Staff regularly monitors the performance and safety of dams with routine inspections and measurements using over 2,000 instruments to measure water levels below the dams, flow through the dams and foundation, dam settlement and displacement, spillway crest tie-down loads, and earthquake ground motions.

In recent years, seismographs have been installed at Pardee and Camanche Reservoirs; seepage monitoring devices have been upgraded at multiple open-cut reservoirs; the collection and monitoring systems at the Camanche Dike two relief wells; the automated GPS topographic survey systems at Pardee and Camanche Dams; and replaced vibrating wire piezometer equipment.

FY22-26 work includes: 1) cleaning of the Camanche Main Dam relief wells; 2) design and construction of field drains below Camanche Dam; 3) evaluation of the Pardee concrete spillway tie-down anchors; 4) evaluation of erosion of unlined Pardee spillway; 5) installation of seismographs at Lafayette Reservoir; 6) operation and maintenance of an automated GPS survey system at Camanche and Pardee Dams; 7) replacement, repair, or acquisition of new instruments to monitor dam safety; 8) design and installation of a pilot automated GPS survey system at San Pablo Reservoir and evaluation of its use at Briones, Chabot, Lafayette, and Upper San Leandro Reservoirs; and 9) design and implementation of a GIS-based dam monitoring program for centralized assessment of dam surveillance parameters.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
Dam Surveillance Improvements	10,736,068	0	0	10,736,068

Project Appropriations		Lead Dept: ENG	
Prior Years	\$ 12,483,322	Recurring:	No
2022	\$ 0	Funding:	BOND/REV 100%
2023	\$ 0		
2024	\$ 0		
2025	\$ 0		
2026	\$ 0		
Future Years	\$ 0	In Service Date: 30-Jun-29	
Total Cost	\$ 12,483,322		

Capital Improvement Program - Project Summary					
Project: Delta Tunnel		Project Number: 2014358			
Strategy: Water Supply		Program: Aqueduct Program			
Justification: The Mokelumne Aqueducts sections located in the Delta are vulnerable to damage from floods and seismic events. The long-term strategy for protecting the raw water supply is to construct a new tunnel across the Delta to replace the vulnerable aqueducts section. Design of the Delta Tunnel is identified in the Raw Water Master Plan as a priority project.					
Description: The Delta Tunnel (a 16.5 mile tunnel from Stockton to Bixler) will be designed to convey the full flow capacity of all three Mokelumne Aqueducts to mitigate flood and seismic hazard risks in the Delta. Work includes planning, studies, California Environmental Quality Act (CEQA) permitting, public outreach, land acquisition, design, and construction of the Delta Tunnel. FY16-19 work included extensive geotechnical investigations to characterize the underlying geology for future tunnel construction and analysis of the existing pile-supported Mokelumne Aqueducts. FY20-22 work includes planning, environmental studies, alternative analysis, and conceptual engineering and design. FY23-26 work will include conducting the CEQA environmental review process, agency consultation, and public outreach. Planned FY27-31 work includes additional geotechnical investigations, environmental studies, permitting, land acquisition, and design.					
Active Segment Appropriations		Prior Yrs	FY22-26	Future Yrs	Total
Delta Tunnel		0	11,675,000	71,012,000	82,687,000
Project Appropriations		Lead Dept: ENG			
Prior Years	\$ 0	Recurring: No			
2022	\$ 4,400,000	Funding: BOND/REV 100%			
2023	\$ 7,275,000				
2024	\$ 0				
2025	\$ 0				
2026	\$ 0				
Future Years	\$ 71,012,000	In Service Date: 30-Jun-32			
Total Cost	\$ 82,687,000				

Capital Improvement Program - Project Summary					
Project: Distr Sys Cathodic Protection		Project Number: 000711			
Strategy: Maintaining Infrastructure		Program: Corrosion			
Justification: Regular upgrades to cathodic protection systems (CPS) are needed to reduce maintenance costs and extend the useful life of the water mains.					
Description: This recurring project is to repair or replace cathodic protection units for Mortar Lined & Coated Steel (ML&CS) or Mortar Lined & Plastic Coated Steel (ML&PCS) distribution water mains. The ML&PCS pipelines are protected by approximately 1,300 galvanic anode systems, which total 3,000 individual anodes. The ML&CS pipelines are protected by approximately 60 impressed current CPS. FY21-26 work will include improving approximately 40 galvanic anode test stations annually, 20 CPSs biannually, and moving towards installing approximately 4,400 zinc anodes annually for the Copper Lateral Cathodic Protection Program.					
Active Segment Appropriations		Prior Yrs	FY22-26	Future Yrs	Total
Distr Sys Cathodic Protection		18,644,000	17,162,929	27,108,000	62,914,929
Project Appropriations		Lead Dept: ENG Recurring: Yes			
Prior Years	-				
2022	\$ 0	Funding: BOND/REV 100%			
2023	\$ 1,838,929				
2024	\$ 5,353,000				
2025	\$ 4,262,000				
2026	\$ 5,709,000				
Future Years	-	In Service Date: Recurring			
Total Cost	-				

Capital Improvement Program - Project Summary					
Project: Distribution System Upgrades		Project Number: 000130			
Strategy: Extensions and Improvements		Program: Pressure Zone Improvements			
Justification: Work including rezoning of existing pressure zones (PZ), valve studies, and on-call cultural resources consultants are needed to commonly restore system service levels, improve distribution system redundancy and capacity. Work is prioritized annually based on level of service and operating efficiency.					
Description: New PZ studies provide data for planning water distribution system projects, such as new reservoirs or pipelines. PZ rezonings cover projects that rezone customers to a higher pressure zone. Projects come from a prioritized list of potential rezonings resulting from distribution system operational issues and/or verified customer complaints. Cultural resources consultants provide on-call cultural and paleontological resource management support for planned and unplanned work, including site studies and unanticipated discoveries. Valve studies include the design and installation of remote control Dual Tank Isolation Valves and completion of the Distribution System Valve Study to document and improve existing practices for valves, spacing, inspection, installation, maintenance, and asset management. FY22-26 planned milestones include completion of the Distribution System Valve Study and three or more rezonings.					
Active Segment Appropriations		Prior Yrs	FY22-26	Future Yrs	Total
Distribution System Upgrades		6,119,936	0	0	6,119,936
Project Appropriations		Lead Dept: ENG Recurring: No			
Prior Years	\$ 9,126,808				
2022	\$ 0	Funding: BOND/REV 100%			
2023	\$ 0				
2024	\$ 0				
2025	\$ 0				
2026	\$ 0				
Future Years	\$ 0	In Service Date: 30-Jun-35			
Total Cost	\$ 9,126,808				

Capital Improvement Program - Project Summary

Project: Engineering IT

Project Number: 000112

Strategy: Extensions and Improvements

Program: Mapping

Justification:

This is a recurring project to develop and maintain the Computer-Aided Drafting and Mapping System (CAD/CAM) and Geographic Information System (GIS). These systems are integral to the information infrastructure by providing data, engineering drawings, and maps required for infrastructure planning, emergency response, and maintenance.

Description:

This project provides maintenance and upgrades to the CAD/CAM and GIS and updates to distribution system maps and associated data. Mapping and GIS data is used District-wide and by other public agencies. CAD/CAM is also used to create design and construction drawings for all facilities and distribution system pipelines.

In FY20-21, the Geospatial Strategic Plan was implemented by making additional pipeline information electronically available, efficiently harvesting asset data from other work groups, improving database design and data quality, and automating data replication from Mapping to Information Systems department's geodatabases. In FY21, CAD systems modernization and BIM (Building Information Modeling) implementation was added to improve project coordination and collaboration, utilize 3-D modeling, and streamline workflow process.

In FY22-26, work includes GIS database and desktop software upgrades, water network data model migration, and periodic major software updates to take advantage of new functionality to ensure system integrity and increase productivity.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
Engineering IT	39,279,860	12,360,672	12,414,000	64,054,532

Project Appropriations		Lead Dept: ENG Recurring: Yes	
Prior Years	-		
2022	\$ 2,503,764	Funding: BOND/REV 100%	
2023	\$ 2,445,589		
2024	\$ 2,341,264		
2025	\$ 2,499,048		
2026	\$ 2,571,007		
Future Years	-	In Service Date: Recurring	
Total Cost	-		

Capital Improvement Program - Project Summary					
Project: Facilities Cathodic Protection		Project Number: 2014360			
Strategy: Maintaining Infrastructure		Program: Corrosion			
Justification: Facilities Cathodic Protection (CP) monitors, maintains, and rehabilitates existing CP systems for steel water storage tanks, outlet towers, water treatment facilities, and pumping plants for effective corrosion protection.					
Description: This project will improve the existing CP systems, which include galvanic anode or impressed current CP systems for steel water storage tanks, outlet towers, water treatment facilities, and pumping plants by documenting the condition of each CP system and adjusting the CP systems when possible for effective corrosion protection. FY21-22 work will include field reconnaissance to evaluate each facility's existing cathodic protection system and develop a master plan to perform future improvements. FY23-26 work will include biannual design and construction projects to focus on improving facility cathodic protection.					
Active Segment Appropriations		Prior Yrs	FY22-26	Future Yrs	Total
Facilities Cathodic Protection		0	2,218,000	2,378,000	4,596,000
Project Appropriations		Lead Dept: ENG Recurring: Yes			
Prior Years	-				
2022	\$ 215,000	Funding: BOND/REV 100%			
2023	\$ 77,000				
2024	\$ 893,000				
2025	\$ 82,000				
2026	\$ 951,000				
Future Years	-	In Service Date: Recurring			
Total Cost	-				

Capital Improvement Program - Project Summary									
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Project: Hydrants Installed by DF **Project Number:** 000099

Project: Hydrants Installed by DF **Project Number:** 000099

Strategy: Maintaining Infrastructure	Program:	Pipelines/Appurtenances
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Strategy: Maintaining Infrastructure	Program:	Pipelines/Appurtenances
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Strategy: Maintaining Infrastructure	Program:	Pipelines/Appurtenances
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Justification:

This project is needed to install hydrants at the request of city and county fire districts for new developments, including urban in-fill projects, and for District projects.

Description:	
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This is a recurring project to install new hydrants in the service area. Most requests for new hydrants come from fire districts or developers.

Development activity has been strong in recent years, with a corresponding increase in the number of hydrants installed. In FY16-17, an average of 85 new hydrants were installed annually. In FY18-19, approximately 90 new hydrants were installed annually. In FY20-21, approximately 65 new hydrants were installed annually.

FY22-26 work will include the installation of approximately 100 hydrants per year.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
Hydrants Installed by DF	27,955,000	9,685,000	6,599,000	44,239,000

Project Appropriations		Lead Dept:	ENG
Prior Years	-		
2022	\$ 1,815,000	Recurring:	Yes
2023	\$ 1,874,000	Funding:	APPL 38%
2024	\$ 1,935,000		BOND/REV 25%
2025	\$ 1,998,000		OAG 37%
2026	\$ 2,063,000		
Future Years	-	In Service Date:	Recurring
Total Cost	-		

Capital Improvement Program - Project Summary

Project: Large Diameter Pipelines

Project Number: 1006298

Strategy: Maintaining Infrastructure

Program: Pipelines/Regulators

Justification:

The replacement of large diameter transmission pipelines is required to maintain infrastructure reliability. Replacement projects are identified by the Large Diameter Pipeline Master Plan (LDPMP) risk model, which is updated every five years.

Description:

Large diameter transmission pipelines form the backbone of the distribution system. This project replaces existing transmission pipelines that are at risk of failure and installs new transmission pipelines to improve the water system.

FY20-21 work included the construction of International Blvd, Estudillo Ave, and Wildcat Berkeley projects, and design of Alameda Crossing #1, D St, East 15th St, Wildcat El Cerrito and Summit Pressure Zone (PZ) Phase 1 projects.

FY22-26 work includes Summit PZ Phase 2 and Alameda Crossing #2 and #3 design completion; Wildcat Berkeley, Wildcat El Cerrito, Summit PZ Phase 1 and Alameda Crossing #1 construction completion; and D St., East 15th St, Alameda Crossing #2, and Summit PZ Phase 2 construction start.

FY27-31 work includes completion of Summit PZ Phase 2, Berryman South Reservoir Pipeline Improvements, Alameda Crossing #2 and #3, Sequoia, Central PZ, Acalanes Aqueduct, D St, East 15th St, and four replacement projects identified in the LDPMP, which will be updated in FY25.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
Large Diameter Pipelines	266,829,225	0	387,920,000	654,749,225

Project Appropriations		Lead Dept: ENG	
Prior Years	\$ 267,880,658	Recurring:	No
2022	\$ 0	Funding:	BOND/REV 100%
2023	\$ 0		
2024	\$ 0		
2025	\$ 0		
2026	\$ 0		
Future Years	\$ 387,920,000	In Service Date: 30-Jun-40	
Total Cost	\$ 655,800,658		

Capital Improvement Program - Project Summary

Project: Maloney PP & WTP Improvements **Project Number:** 2014354

Strategy: Maintaining Infrastructure **Program:** Pumping Plant Rehabilitation

Justification:

Pumping capacity in the Maloney Pressure Zone (PZ) is deficient and the switchgear that distributes power to Maloney Pumping Plant (PP) and Sobrante Water Treatment Plant (WTP) poses maintenance challenges. This project will increase PP capacity, upgrade old equipment, and provide a dedicated electrical power service to Sobrante WTP.

Description:

This project consists of Maloney PP capacity expansion, electrical improvements at Maloney PP and Sobrante WTP, installation of a standby generator, replacement of La Honda Rate Control Station (RCS), and replacement of instrumentation and controls for the Greenridge PP and La Honda RCS.

In FY20-21, staff installed and energized two power buildings, graded the site, installed equipment pads, and completed two critical system shutdowns to install new large diameter valves. Substantial progress was made on the pumping plant rehabilitation scope of work including the installation of medium and low voltage electrical equipment, interior platform, pump units 3 and 4, and ventilation improvements.

FY22-23 work includes expansion of the new Maloney PP and completion of the power cutover from Sobrante WTP to the new power building.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
Maloney PP & WTP Improvements	49,751,084	0	0	49,751,084

Project Appropriations		Lead Dept: ENG	
Prior Years	\$ 49,751,084	Recurring:	No
2022	\$ 0	Funding:	BOND/REV 100%
2023	\$ 0		
2024	\$ 0		
2025	\$ 0		
2026	\$ 0		
Future Years	\$ 0	In Service Date: 01-Jan-22	
Total Cost	\$ 49,751,084		

Capital Improvement Program - Project Summary					
Project: Miscellaneous Planning Studies		Project Number: 2005281			
Strategy: Extensions and Improvements		Program: Pressure Zone Improvements			
Justification: Miscellaneous Planning Studies are projects that are needed to support water supply and infrastructure planning decision making and include the Enterprise Hydraulic Modeling Project and Demand Study.					
Description: This is an ongoing project to improve workflows and support decision making for infrastructure planning and prioritization, and to optimize operations for energy and water quality, and emergency preparedness. This project includes Enterprise Hydraulic Modeling to develop and maintain hydraulic models and the Demand Study to maintain and update demand projections. In FY20-21, all of the enterprise hydraulic models were completed, hydraulic modeling software was upgraded, and the 2050 Demand Study was completed. Planned work for FY22-26 includes ongoing administration of the hydraulic models and demand projections, as-needed updates to the hydraulic models to account for system changes, and a mid-cycle update to the demand projections to account for recent and future development and water consumption trends.					
Active Segment Appropriations		Prior Yrs	FY22-26	Future Yrs	Total
Miscellaneous Planning Studies		4,183,769	638,000	2,590,000	7,411,769
Project Appropriations		Lead Dept: ENG Recurring: No			
Prior Years	\$ 4,183,769				
2022	\$ 638,000	Funding: BOND/REV 100%			
2023	\$ 0				
2024	\$ 0				
2025	\$ 0				
2026	\$ 0				
Future Years	\$ 2,590,000	In Service Date: 30-Jun-32			
Total Cost	\$ 7,411,769				

Capital Improvement Program - Project Summary

Project: Mok Aqueduct No 2 & 3 Relining

Project Number: 2003494

Strategy: Water Supply

Program: Aqueduct Program

Justification:

This project is needed to preserve the integrity of Mokelumne Aqueducts No. 2 and 3. In several areas, the cement mortar lining has failed, the steel pipe wall is corroding, and wall thickness has reduced. The new lining will prevent internal corrosion. Water quality improvements will reduce water corrosivity and extend the life of the mortar linings.

Description:

The Mokelumne Aqueduct System consists of three large diameter pipelines that convey untreated water to the District's Water Treatment Plants. This project will replace the deteriorated cement motor lining (CML) in Mokelumne Aqueducts No. 2 (MOK2) and No. 3 (MOK3) to protect the steel pipelines from internal corrosion. Inspections of the elevated Delta reach revealed that 10 miles of the CML in MOK2 and MOK3 need replacement. Inspections of MOK2 indicate that 65 miles of the below ground pipeline reaches also need CML replacement. Prior to relining, it is necessary to design and construct raw water treatment facilities to minimize corrosion.

FY22-23 work includes design and the start of construction of the raw water treatment facilities and MOK2 Relining Phase 1. FY24-26 work includes construction of the raw water treatment facilities and design of the MOK3 relining above-ground portion.

FY27-31 work includes construction of the MOK3 above-ground relining, and design and construction of the MOK2 below-ground relining.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
Mok Aqueduct No 2 & 3 Relining	48,796,347	22,455,176	291,430,000	362,681,523

Project Appropriations				
Prior Years	\$ 48,796,347	Lead Dept:	ENG	
2022	\$ 19,255,176	Recurring:	No	
2023	\$ 0	Funding:	BOND/REV	100%
2024	\$ 3,200,000			
2025	\$ 0			
2026	\$ 0			
Future Years	\$ 291,430,000			
Total Cost	\$ 362,681,523	In Service Date:	30-Jun-34	

Capital Improvement Program - Project Summary									
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Project: Mokelumne Aqueducts Recoating **Project Number:** 2001487

Strategy: Water Supply	Program:	Aqueduct Program
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Justification:

Recoating the Mokelumne Aqueducts protects them from the corrosive Delta environment, prevents deterioration and breaks, and prolongs their useful life.

Description:	
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This project continues the ongoing removal of existing lead-based paint and recoating above-ground sections of the Mokelumne Aqueducts in the Delta. The work typically takes place during the dry summer season and temporarily shuts down during the wet and cooler winter.

FY22-26 work includes recoating the approximately 60 gully crossings for Aqueduct No. 1 - Phase 13 of the Mokelumne Aqueduct Recoating Project. The remaining gully crossings for Aqueduct No. 1 will be recoated in FY27-31.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
Mokelumne Aqueducts Recoating	25,513,945	0	1,418,823	26,932,768

Project Appropriations		Lead Dept: ENG	
Prior Years	\$ 45,025,153		
2022	\$ 0	Recurring: No	
2023	\$ 0		
2024	\$ 0	Funding: BOND/REV 100%	
2025	\$ 0		
2026	\$ 0		
Future Years	\$ 1,418,823		
Total Cost	\$ 46,443,976	In Service Date: 30-Jun-28	

Capital Improvement Program - Project Summary

Project: New Service Installations

Project Number: 000101

Strategy: Maintaining Infrastructure

Program: Pipelines/Appurtenances

Justification:

New accounts require new services to be installed to furnish water to developments.

Description:

This is an ongoing project to install new services. Services include taps on the main, laterals, and meter sets. Work consists of adding services due to system expansion and urban in-fill projects, and excludes the replacement of old services or service laterals. The need for installing new services has been increasing as housing development trends have elevated demand for new services.

724 new services were installed in FY18. In FY20-21, approximately 600 new services were installed, which was lower than expected due to COVID-19's shelter-in-place order.

In FY22-26, approximately 700 new services are expected to be installed annually.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
New Service Installations	249,085,200	80,037,000	71,551,000	400,673,200

Project Appropriations		Lead Dept: ENG	
Prior Years	-		
2022	\$ 15,000,000	Funding: APPL 100%	
2023	\$ 15,488,000		
2024	\$ 15,991,000		
2025	\$ 16,511,000		
2026	\$ 17,047,000		
Future Years	-	In Service Date: Recurring	
Total Cost	-		

Capital Improvement Program - Project Summary					
Project: Open-Cut Reservoir Program		Project Number: 000241			
Strategy: Maintaining Infrastructure		Program: Reservoir Rehab Program			
Justification: Open-cut reservoir rehabilitation, replacement, and demolition projects are necessary to remove hazardous materials, reduce maintenance costs, improve safety, and improve water quality by optimizing storage in the distribution system.					
Description: The Open-Cut Reservoir Program includes the rehabilitation and replacement of open-cut reservoirs. FY20-21 work included construction completion of South Reservoir in Castro Valley and Summit Reservoir in Berkeley, the commencement of construction of the San Pablo Clearwell Replacement Project, and planning for the replacement of Central Reservoir in Oakland, the District's largest distribution reservoir. FY22-26 work includes construction completion of the San Pablo Clearwell Replacement Project, demolition of Seneca Reservoir in Oakland, planning and design for the Central Reservoir replacement, and the commencement of two major open-cut design projects: replacement of Leland Reservoir in Lafayette and Almond Reservoir in Castro Valley. FY27-31 work includes construction of the replacement reservoirs for Central, Leland, and Almond.					
Active Segment Appropriations		Prior Yrs	FY22-26	Future Yrs	Total
Open-Cut Reservoir Program		231,627,377	220,726,000	128,150,000	580,503,377
Project Appropriations		Lead Dept: ENG Recurring: No			
Prior Years	\$ 241,634,891				
2022	\$ 0	Funding: BOND/REV 100%			
2023	\$ 81,956,000				
2024	\$ 55,921,000				
2025	\$ 46,724,000				
2026	\$ 36,125,000				
Future Years	\$ 128,150,000	In Service Date: 30-Jun-36			
Total Cost	\$ 590,510,891				

Capital Improvement Program - Project Summary					
Project: Pipeline Rebuild		Project Number: 000554			
Strategy: Maintaining Infrastructure		Program: Pipelines/Regulators			
Justification: Planned replacement of deteriorating pipelines is needed to maintain the reliability of the distribution infrastructure. Replacing portions of the 3,800 miles of distribution system piping on an annual basis mitigates the costs and service disruptions associated with emergency repairs and reduces water loss. Plant Inspections verify compliance with District specifications.					
Description: The Pipeline Rebuild Program is focused on the continued replacement and renewal of failing pipelines in the distribution system. This program will ramp up replacement and renewal at a rate sufficient to maintain high system reliability, and continue to evaluate areas for cost reductions through efficiencies. This program also includes inspection of purchased water system components at the manufacturers' facility, including pipe, fittings, mechanical items, various types of valves and hydrants. In FY20, the Pipeline Rebuild Program achieved its goal to replace 17.5 miles of pipeline, and is on track to meet the FY21 goal of 20 miles. The annual replacement mileage goal will increase to 22.5 miles in FY23-24 and 25 miles in FY25-26. The mileage replacement goal will be reviewed and reassessed in FY22-26 but the current projection is that the goal will increase annually by 2.5 miles up to 40 miles in FY32.					
Active Segment Appropriations		Prior Yrs	FY22-26	Future Yrs	Total
Pipeline Rebuild		366,887,745	372,215,856	660,052,061	1,399,155,662
Project Appropriations		Lead Dept: ENG Recurring: Yes			
Prior Years	-				
2022	\$ 60,525,018	Funding: BOND/REV 100%			
2023	\$ 70,231,685				
2024	\$ 72,514,214				
2025	\$ 83,121,741				
2026	\$ 85,823,198				
Future Years	-	In Service Date: Recurring			
Total Cost	-				

Capital Improvement Program - Project Summary					
Project: Pipeline Relocations		Project Number: 000108			
Strategy: Maintaining Infrastructure		Program: Pipelines/Regulators			
Justification: The project is needed to relocate distribution system pipelines as required due to various projects by public agencies (cities, counties, Caltrans, BART, etc.) and private applicants.					
Description: This is an ongoing project to relocate pipelines to accommodate projects from other agencies, such as roadway improvements, bridge replacements, or rail system expansions. The work is non-discretionary and difficult to forecast since it is dependent on the schedule of other agencies. The District is obligated to bear the cost of pipeline relocations originating from street improvement projects of most cities and counties. Costs for pipeline relocations driven by private applicants and agencies, such as Caltrans and BART, are typically reimbursable. FY22-26 anticipated work includes the design and construction of approximately 1.5 miles of pipeline relocations per year, which includes 0.5 mile of reimbursable and 1.0 mile of non-reimbursable work.					
Active Segment Appropriations		Prior Yrs	FY22-26	Future Yrs	Total
Pipeline Relocations		69,674,416	22,981,000	33,191,000	125,846,416
Project Appropriations		Lead Dept: ENG Recurring: Yes			
Prior Years	-				
2022	\$ 0	Funding: APPL 10% BOND/REV 73% OAG 17%			
2023	\$ 5,473,000				
2024	\$ 5,650,000				
2025	\$ 5,834,000				
2026	\$ 6,024,000				
Future Years	-	In Service Date: Recurring			
Total Cost	-				

Capital Improvement Program - Project Summary					
Project: Pipeline System Extensions		Project Number: 000104			
Strategy: Maintaining Infrastructure		Program: Pipelines/Regulators			
Justification: This project is needed to satisfy the District's obligation to provide service to new customers within the service area.					
Description: This is an ongoing project for pipelines to serve new customers via Applicant Extension Agreements. Annual workload is estimated from projections of land development activity and recent trends in the Water Service Estimate activity from the New Business Office. FY22-26 work will include approximately 8-10 miles per year of system extensions.					
Active Segment Appropriations		Prior Yrs	FY22-26	Future Yrs	Total
Pipeline System Extensions		62,633,567	52,270,000	35,617,000	150,520,567
Project Appropriations		Lead Dept: ENG Recurring: Yes			
Prior Years	-				
2022	\$ 9,796,000	Funding: APPL 100%			
2023	\$ 10,115,000				
2024	\$ 10,443,000				
2025	\$ 10,783,000				
2026	\$ 11,133,000				
Future Years	-	In Service Date: Recurring			
Total Cost	-				

Capital Improvement Program - Project Summary					
Project: Pipeline System Improvements		Project Number: 000110			
Strategy: Maintaining Infrastructure		Program: Pipelines/Regulators			
Justification: This program is needed to maintain reliable potable water service to customers by improving various components of the distribution system and addressing areas such as water quality, capacity, maintainability, and reliability.					
Description: This is an ongoing program that focuses on projects to improve water quality, system performance, capacity, reliability, and maintainability of the distribution system. FY21 accomplishments include design and construction of the Glen Pipeline and Southern Skyline Pipeline Improvement Projects, design start construction of the pipeline improvements in Orinda, and design and construction of approximately 1.5 miles of pipeline system improvement and 4-inch reliability replacements projects. FY22-26 work will include design and construction of Grand Ave Phase 2 Pipeline, 2,000 feet of 24-inch pipeline for the Alcosta Rate Control Station, one mile per year of pipeline system improvements, and 0.5 miles of 4-inch reliability replacements. FY27-31 work will include the design and construction of one mile per year of pipeline system improvements and 0.5 miles of 4-inch reliability replacements.					
Active Segment Appropriations		Prior Yrs	FY22-26	Future Yrs	Total
Pipeline System Improvements		58,355,644	26,053,000	19,550,000	103,958,644
Project Appropriations		Lead Dept: ENG Recurring: Yes			
Prior Years	-				
2022	\$ 0	Funding: BOND/REV 100%			
2023	\$ 4,253,000				
2024	\$ 4,649,000				
2025	\$ 10,142,000				
2026	\$ 7,009,000				
Future Years	-	In Service Date: Recurring			
Total Cost	-				

Capital Improvement Program - Project Summary					
Project: Pressure Zone Improvements		Project Number: 001424			
Strategy: Extensions and Improvements		Program: Pressure Zone Improvements			
Justification: Pressure Zone Improvements identify, schedule, and coordinate improvements to Distribution System facilities and pipelines to meet level of service standards, improve system reliability, improve water quality, minimize maintenance, and replace or rehabilitate aging infrastructure.					
Description: This is an ongoing project to develop and prioritize infrastructure improvement recommendations to address Pressure Zone (PZ) operations. The project includes the Pumping Plant Criticality Study to determine the relative criticality of pumping plants, the Distribution System Master Plan (DSMP) to prioritize and schedule all PZ recommendations, the Collaborative and Holistic Pipeline Plan (CHPP) to develop a blueprint to inform the selection and sizing of pipeline replacements, and PZ Studies to recommend improvements to address pressure zone and regional operations. FY20-21 accomplishments include the Faria PZ customer rezoning, Pumping Plant Criticality Study, and CHPP pilot studies and procedures. Planned work for FY22-26 include completion of the Maloney PZ Planning Study, Colorados PZI Update, Swainland Reservoir Study, East of Hills System Study, Lake Chabot Golf Course service relocation, biennial updates to the DSMP, and CHPP blueprints for each PZ.					
Active Segment Appropriations		Prior Yrs	FY22-26	Future Yrs	Total
Pressure Zone Improvements		36,276,874	0	0	36,276,874
Project Appropriations		Lead Dept: ENG Recurring: No			
Prior Years	\$ 37,348,804				
2022	\$ 0	Funding: BOND/REV 80% SCC 20%			
2023	\$ 0				
2024	\$ 0				
2025	\$ 0				
2026	\$ 0				
Future Years	\$ 0	In Service Date: 30-Jun-40			
Total Cost	\$ 37,348,804				

Capital Improvement Program - Project Summary

Project: Pumping Plant Rehabilitation

Project Number: 001252

Strategy: Maintaining Infrastructure

Program: Pumping Plant Rehabilitation

Justification:

This project is needed to upgrade pumping plants to conform with current District standards to ensure efficient, reliable, and safe operation.

Description:

The Distribution Pumping Plant Infrastructure Rehabilitation Plan (IRP) was updated in 2020 and identifies the highest priority pumping plants (PP) for rehabilitation, replacement, or demolition.

In FY20, construction contracts were awarded for the replacement of University and Bayfair PP; rehabilitation of Fire Trail, Jensen No. 1, Maloney, and Greenridge PP; and demolition of Peralta and May PP. In FY21, construction contracts were awarded for replacement of Westside PP, demolition of Encinal PP, and rehabilitation of San Ramon and Los Altos PP.

FY22-26 work includes planning, design and/or construction at 31 of the 130 distribution PP, including: Bayfair, Peralta, May, University, San Ramon, Los Altos, Westside, Encinal, Madrone, Palo Seco, Fay Hill, Ridgewood, Crest, Hill Mutual, Bryant PP Complex (Bryant No. 1, Bryant No. 2, Colorados, and Leland), Montclair, Summit West, Aqueduct, Berryman West, Castenada, Welle, Rolph, Donald, Castle Hill, Fontaine, Proctor, Valory, Echo Springs, and Crockett PP. New facilities that include planning, design, and/or construction in FY22-26 include Happy Valley, Sunnyside, Wildcat, and Tice PP and a new Southern Loop PP and Rate Control Station.

FY27-31 will include work at existing Larkey, Summit North, Pearl, Stott, Quarry and Summit South PP and a new Withers PP.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
Pumping Plant Rehabilitation	162,591,981	201,700,000	87,740,000	452,031,981

Project Appropriations		Lead Dept: ENG	
Prior Years	\$ 212,073,034	Recurring: No	
2022	\$ 0	Funding: BOND/REV 100%	
2023	\$ 35,400,000		
2024	\$ 57,040,000		
2025	\$ 38,600,000		
2026	\$ 70,660,000		
Future Years	\$ 87,740,000	In Service Date: 30-Jun-35	
Total Cost	\$ 501,513,034		

Capital Improvement Program - Project Summary

Project: Rate Control Station Rehab

Project Number: 1002590

Strategy: Maintaining Infrastructure

Program: Pipelines/Regulators

Justification:

This project is needed to rehabilitate rate control stations (RCS) that present safety hazards, corrosion damage, flooding, poor ventilation, and remote-monitoring malfunctions.

Description:

Currently, there are 37 RCS facilities in operation with many older than 50 years. This project involves the planning, rehabilitation, and long-term maintenance work needed to support distribution operations. Elements include pressure zone improvement work such as installing new facilities and demolishing obsolete facilities to improve flow control within and between pressure zones; and rehabilitation improvements such as major repairs and equipment upgrades.

FY20-21 work included planning and initiating design for the 82nd Avenue RCS.

In FY22-26, work continues with design and construction at 82nd Avenue; initiation of planning of Alcosta, Dunsmuir, and Webster; and planning, design, and construction of Golf Links, Ney, and Victoria RCSs.

FY27-31 work includes design and/or construction for Alcosta, Bollinger, Castro Valley, Dunsmuir and Webster RCS.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
Rate Control Station Rehab	9,326,000	6,447,000	7,765,000	23,538,000

Project Appropriations		Lead Dept: ENG	
Prior Years	\$ 9,488,000	Recurring: No	
2022	\$ 0	Funding: BOND/REV 100%	
2023	\$ 0		
2024	\$ 2,175,000		
2025	\$ 647,000		
2026	\$ 3,625,000		
Future Years	\$ 7,765,000	In Service Date: 30-Jun-35	
Total Cost	\$ 23,700,000		

Capital Improvement Program - Project Summary					
Project: Raw Water Infrastructure		Project Number: 1000810			
Strategy: Water Supply		Program: Aqueduct Program			
Justification: The project is needed to maintain the integrity of the raw water system, facilitate effective and rapid response following an emergency, and improve the function of the system.					
Description: This project consists of evaluating and improving the untreated raw water system to reliably meet operational requirements. In FY20-21, the District completed the Notice of Exemption and initiated design for Lafayette 1 (LAF1) Relining and the planning phase of Briones Pumping Plant (PP) Upgrades; and completed the FY20 Aqueduct Temperature Anchor Survey. FY22-26 work includes: design of LAF1 relining; planning and design of Pardee Tunnel Access Improvements; continuing to monitor and retrofit the temperature anchors on Mokelumne Aqueduct #1; completing the inspection of San Pablo and Upper San Leandro (USL) Raw Water (RW) Tunnels; design of Jones Tract scour protection; planning for Moraga RW PP Rehab/Upgrades; planning for the protection of exposed aqueducts at the Old River Crossing; planning, design, and construction of Briones PP improvements; the Concord Fault Crossing Plan; and design and construction of the Pardee Center RW Tank Replacement. FY27-31 work includes Pardee Tunnel Access Improvements construction, Mokelumne Aqueduct #3 base isolator improvements, and the 2030 Raw Water Master Plan.					
Active Segment Appropriations		Prior Yrs	FY22-26	Future Yrs	Total
Raw Water Infrastructure		70,501,463	36,138,709	126,437,000	233,077,172
Project Appropriations		Lead Dept: ENG			
Prior Years	\$ 88,687,610	Recurring: No			
2022	\$ 0	Funding: BOND/REV 100%			
2023	\$ 0				
2024	\$ 0				
2025	\$ 2,616,709				
2026	\$ 33,522,000				
Future Years	\$ 126,437,000	In Service Date: 30-Jun-31			
Total Cost	\$ 251,263,319				

Capital Improvement Program - Project Summary

Project: Regulator Rehabilitation

Project Number: 000398

Strategy: Maintaining Infrastructure

Program: Pipelines/Regulators

Justification:

This project is needed to repair and/or replace deteriorated and obsolete equipment to address safety hazards and restore operational reliability; construct new facilities and upgrade existing facilities to increase flow capacity, meet fire flow requirements, and improve operational flexibility; and to decommission or remove existing facilities that are no longer needed.

Description:

Currently, there are 76 regulator facilities in operation with many older than 50 years. This project involves the planning, rehabilitation, and long-term maintenance responsibilities to support distribution operations. Elements include pressure zone improvement work, such as installing new facilities and demolishing obsolete facilities to improve flow control within and between pressure zones; and rehabilitation improvements, such as major repairs and equipment upgrades.

FY20-21 work included completing the rehabilitation of Black Feather Regulator, initiating construction for Painted Pony Regulator and planning for Campus, Circle, Crockett, Cull Creek, Keller, Orion, and Redwood Regulators.

FY22-26 work involves planning, design, and/or construction at the following regulator facilities: Ascot, Campus, Circle, Columbia, Crockett, Cull Creek, Girvin, Gramercy, Henry, Keller, La Loma, Orion, Painted Pony, Pinehaven, Redwood, and Villareal.

FY27-31 work involves construction at Girvin, La Loma, and Oakmont Regulators.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
Regulator Rehabilitation	13,650,014	3,658,000	9,401,000	26,709,014

Project Appropriations				
Prior Years	\$ 20,108,000	Lead Dept:	ENG	
2022	\$ 0	Recurring:	No	
2023	\$ 0	Funding:	SCC	10%
2024	\$ 0		BOND/REV	90%
2025	\$ 2,388,000			
2026	\$ 1,270,000			
Future Years	\$ 9,401,000	In Service Date:	30-Jun-32	
Total Cost	\$ 33,167,000			

Capital Improvement Program - Project Summary					
Project: Reservoir Rehab/Maintenance		Project Number: 000716			
Strategy: Maintaining Infrastructure		Program: Reservoir Rehab Program			
Justification: This project is needed to rehabilitate, replace, and decommission reservoirs to maximize the utility of the distribution reservoirs and improve water quality.					
Description: This project includes the rehabilitation and replacement of the 165 steel, concrete, and redwood reservoirs and pressure vessels to maintain the existing infrastructure, improve roof safety, improve water quality, and prioritize work through the Infrastructure Rehabilitation Plan (IRP). In FY20-21, construction was completed on projects at Arcadian, Larkey, Rheem, Bacon, Mendocino, Pearl, Carisbrook, Faria No. 1, and Faria No. 2 reservoirs. Construction work began at University No. 2, Birch No. 1 and No. 2, Cull Creek, Sherwick, Acorn No. 1, Derby, Scenic, and Scenic East reservoirs. Design work for Castenada No. 1 and No. 2, Glen, and Mulholland reservoirs was completed in FY21. In addition, the reservoir roof fall protection program addressed roof safety issues at six reservoirs in the Pardee Reservoir area. FY22-26 work includes construction completion at University No. 2, Birch No. 1 and No. 2, Cull Creek, Sherwick, Acorn No. 1, Derby, Scenic, Scenic East, Castenada No. 1 and No. 2, Glen, and Mulholland reservoirs. Design and construction work will commence for Encinal, Crest, Hill Mutual, Country Club, Madison, Norris, Grizzly, Castle Hill, Arroyo, Carter, City Line, Holly, Woods, Verde, Luzon, Dos Osos, Welle, and Rolph reservoirs. Planning work to support upcoming projects and the reservoir roof safety program will continue.					
Active Segment Appropriations		Prior Yrs	FY22-26	Future Yrs	Total
Reservoir Rehab/Maintenance		190,364,927	136,766,000	92,412,000	419,542,927
Project Appropriations		Lead Dept: ENG			
Prior Years	\$ 197,877,146	Recurring: No			
2022	\$ 32,158,000	Funding: BOND/REV 100%			
2023	\$ 30,700,000				
2024	\$ 15,055,000				
2025	\$ 19,445,000				
2026	\$ 39,408,000				
Future Years	\$ 92,412,000	In Service Date: 30-Jun-32			
Total Cost	\$ 427,055,146				

Capital Improvement Program - Project Summary

Project: Reservoir Tower Modifications

Project Number: 000672

Strategy: Regulatory Compliance

Program: Dam Safety

Justification:

The California Division of Safety of Dams requires outlet works to remain functional after a major earthquake; failure of a reservoir tower could cause an uncontrolled release of water or prevent the withdrawal of water from the reservoir.

Description:

This project includes the seismic retrofit of six reservoir towers: Pardee Reservoir and the five Terminal Reservoirs.

Seismic evaluation of Pardee Tower in prior years identified leakage in Pardee Tunnel, which was then inspected in FY18 and found to be in satisfactory condition. Retrofits to Chabot Tower were completed in FY18 as part of the Chabot Dam Seismic Upgrade Project. Retrofits to the Upper San Leandro and San Pablo Towers were completed in FY19.

Upcoming work is planned at Briones and Lafayette Reservoir Towers, which require upgrades to resist earthquake loads. Planning and design of the Briones Tower upgrades started in FY16, with construction planned for FY22-23. Improvements to the mechanical components and their controls are also being designed. The isolation valve of the Briones Tower is currently at the bottom of a 250 feet deep shaft and access to it is difficult and unsafe. The isolation valve will be relocated to a more accessible location.

Lafayette Tower modifications include seismic and gate control upgrades, and modifications to the tower to act as a spillway capable of handling the revised Probable Maximum Flood. Planning, permitting, and design studies are underway. Completion of California Environmental Quality Act and design work will occur in FY22-23, with construction planned for FY23-24.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
Reservoir Tower Modifications	33,636,276	4,000,000	0	37,636,276

Project Appropriations			
Prior Years	\$ 34,532,000	Lead Dept:	ENG
2022	\$ 2,000,000	Recurring:	No
2023	\$ 2,000,000	Funding:	BOND/REV100%
2024	\$ 0		
2025	\$ 0		
2026	\$ 0		
Future Years	\$ 0		
Total Cost	\$ 38,532,000	In Service Date:	30-Jun-24

Capital Improvement Program - Project Summary					
Project: Security Improvements		Project Number: 1005899			
Strategy: Facilities, Servc and Equip		Program: Security			
Justification: This project includes design and construction of critical security improvements recommended in the Security Vulnerability Assessment. In addition, to provide secure workplaces; maintain safe and reliable water and wastewater services.					
Description: FY21 work includes the upgrade of the Centralized Security System, and miscellaneous security improvements to various facilities to increase personnel safety and deter vandalism. In FY21, a five-year security consultant contract was awarded to develop security standards. FY22-26 work includes security improvements for service centers and yards, key pumping plants and reservoirs, aqueduct facilities, upcountry facilities, and water treatment plants. Funding is also included for miscellaneous security improvements to various facilities as needed to address regulatory requirements and personnel safety concerns.					
Active Segment Appropriations		Prior Yrs	FY22-26	Future Yrs	Total
Security Improvements		10,062,021	10,030,862	23,182,000	43,274,883
Project Appropriations		Lead Dept: ENG Recurring: No			
Prior Years	\$ 28,113,800				
2022	\$ 0	Funding: BOND/REV 100%			
2023	\$ 0				
2024	\$ 2,228,862				
2025	\$ 2,635,000				
2026	\$ 5,167,000				
Future Years	\$ 23,182,000	In Service Date: 30-Jun-32			
Total Cost	\$ 61,326,662				

Capital Improvement Program - Project Summary					
Project: Service Lateral Replacements		Project Number: 000654			
Strategy: Maintaining Infrastructure		Program: Polybutylene Lateral Replcmt			
Justification: This project is needed to manage the cost-effective replacement of defective and/or failed service laterals.					
Description: This project manages all lateral replacements under one program, and includes the planned replacements of polybutylene laterals and copper laterals, and unplanned replacements for all lateral material types. The District recognizes the need to identify and replace laterals within areas that have suffered high failure rates. This program continues the practice of pre-emptively replacing polybutylene and copper service laterals where cost-effective opportunities arise. FY22-26 work includes replacement of approximately 130 planned copper service laterals and 1,100 unplanned service lateral replacements per year. In FY22, approximately 100 planned polybutylene service laterals will be replaced and then the planned polybutylene service lateral replacements project will be discontinued.					
Active Segment Appropriations		Prior Yrs	FY22-26	Future Yrs	Total
Service Lateral Replacements		227,024,500	62,954,000	71,546,000	361,524,500
Project Appropriations		Lead Dept: ENG			
Prior Years	\$ 240,691,000	Recurring: No			
2022	\$ 0	Funding: BOND/REV 100%			
2023	\$ 14,992,000				
2024	\$ 15,479,000				
2025	\$ 15,982,000				
2026	\$ 16,501,000				
Future Years	\$ 71,546,000	In Service Date: 30-Jun-30			
Total Cost	\$ 375,191,000				

Capital Improvement Program - Project Summary									
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Project: Trans Main Cathodic Protection **Project Number:** 003026

Project: Trans Main Cathodic Protection **Project Number:** 003026

Strategy: Maintaining Infrastructure	Program:	Corrosion
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Strategy: Maintaining Infrastructure	Program:	Corrosion
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Strategy: Maintaining Infrastructure	Program:	Corrosion
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Justification:

Transmission mains make up the highest likelihood of failure pipelines and would have the highest cost for replacement and repair if damaged. Many cathodic protection (CP) systems have reached the end of their useful life and need rehabilitation to continue to control pipeline corrosion and prevent leaks and breaks.

Description:

This project will investigate and prioritize CP upgrades for transmission mains and large diameter pipelines, and reconfigure obsolete CP systems.

FY22-26 work includes improvements to the CP systems for the Upper San Leandro Raw Water Pipeline and the South 30 Aqueduct. Transmission main improvements will include design and installation of remote monitoring for each of the transmission main CP rectifier power supplies.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
Trans Main Cathodic Protection	4,796,000	988,429	4,161,000	9,945,429

Project Appropriations		Lead Dept:	ENG	
Prior Years	-			Recurring:
2022	\$ 0	Funding:	BOND/REV	
2023	\$ 0			
2024	\$ 0			
2025	\$ 0			
2026	\$ 988,429			
Future Years	-	In Service Date:	Recurring	
Total Cost	-			

Capital Improvement Program - Project Summary					
Project: Treatment Plant Upgrades		Project Number: 000437			
Strategy: Water Quality		Program: Water Treatment Upgrade			
Justification: The project is needed to comply with water quality regulations and improve the safety, reliability, and operation of the water treatment plants (WTP).					
Description: FY20-21 work included design completion and the start of construction of Orinda WTP filter air scour, Sobrante WTP (SOWTP) control system modernization, and maintenance and safety improvements. It also included design of San Pablo Reservoir water quality (HOS), chemical safety, Orinda WTP disinfection (UV/CCB), Upper San Leandro (USL) WTP reliability and control system improvements. FY22-23 work includes construction of Orinda WTP disinfection, USL WTP reliability, USL WTP control system modernization, San Pablo Reservoir HOS, and chemical system safety improvements; design of Walnut Creek (WC) WTP filters 1-4 and Lafayette WTP control system improvements; planning for WCWTP pretreatment and ozone; and Briones and Pardee Reservoirs water quality improvements. FY24-26 improvements include construction of Orinda WTP disinfection, USL WTP reliability improvements; design of SOWTP reliability and WCWTP pretreatment and ozone improvements; design and construction of Lafayette WTP control system improvements; construction of WCWTP filters 1-4; and completion of chemical system safety improvements. FY27-31 work includes SOWTP reliability improvements construction and WCWTP pretreatment and ozone design and construction.					
Active Segment Appropriations		Prior Yrs	FY22-26	Future Yrs	Total
Treatment Plant Upgrades		411,981,202	189,989,000	475,000,000	1,076,970,202
Project Appropriations		Lead Dept: ENG Recurring: No			
Prior Years	\$ 456,479,032				
2022	\$ 128,100,000	Funding: BOND/REV 100%			
2023	\$ 0				
2024	\$ 25,553,000				
2025	\$ 36,336,000				
2026	\$ 0				
Future Years	\$ 475,000,000	In Service Date: 30-Jun-34			
Total Cost	\$				

Capital Improvement Program - Project Summary					
Project: Trench Soils Management		Project Number: 000652			
Strategy: Regulatory Compliance		Program: Trench Spoils			
Justification: The project is needed to ensure adequate capacity for ongoing and future operations at District-Owned Storage Sites (DOSS), continued regulatory compliance, and cost-effective and sustainable practices to manage trench soils.					
Description: Trench soils are generally stockpiled for future reuse or disposal at three DOSS: Briones in Orinda, Miller Road in Castro Valley, and Amador in San Ramon. Trench soils production has been increasing under the Pipeline Rebuild Program. This project includes coordination between multiple stakeholders on the generation, management, and final end use of all trench soils, operation and regulatory compliance at the DOSS, and implementation of recommendations from the Trench Soils Management Plan (TSMP) to more efficiently and sustainably manage trench soils. FY20-21 accomplishments include: off-haul and reuse of 116,000 cubic yards of trench soils from Miller Road; initiation of a pilot project to manage vacuum excavation slurry; completion of the TSMP; and entering into a purchase option agreement for an old quarry site for permanent placement of trench soils. FY22-26 program priorities include environmental review and potential purchase of the quarry site and continuing ongoing efforts and implementing TSMP recommendations, including long-term solutions for slurry waste, management of the DOSS, and development of contracts for more frequent off-hauls. FY27-31 efforts will focus on the development of the quarry site and ongoing operation and maintenance of the DOSS.					
Active Segment Appropriations		Prior Yrs	FY22-26	Future Yrs	Total
Trench Soils Management		41,980,449	48,871,000	45,527,000	136,378,449
Project Appropriations		Lead Dept: ENG Recurring: No			
Prior Years	\$ 45,221,786				
2022	\$ 9,326,000	Funding: BOND/REV 100%			
2023	\$ 20,909,000				
2024	\$ 2,050,000				
2025	\$ 16,586,000				
2026	\$ 0				
Future Years	\$ 45,527,000	In Service Date: 30-Jun-40			
Total Cost	\$ 139,619,786				

Capital Improvement Program - Project Summary					
Project: West of Hills Master Plan		Project Number: 2001475			
Strategy: Extensions and Improvements		Program: Pressure Zone Improvements			
Justification: The project is needed to improve water transmission and water treatment plant capacities to address deficiencies and meet future water demands in the West of Hills (WOH) distribution system, decommission the San Pablo Water Treatment Plant (WTP), and relocate the Fontaine Pumping Plant (PP) in Oakland away from the Hayward Fault.					
Description: The WOH Master Plan is a comprehensive regional plan that addresses water treatment plant storage and transmission capacity for the WOH area, focusing on the Central, Aqueduct, and Upper San Leandro Pressure Zones. The WOH Master Plan recommended improvements at three water treatment plants; two pumping plants; five water storage reservoirs; and approximately 120,000 feet of transmission pipelines. In FY19, an additional project was recommended to decommission the San Pablo WTP. This project includes completing the environmental documentation for the recommended improvements. Individual projects will be grouped together into several Environmental Impact Reports (EIR), Mitigated Negative Declarations (MND), and Notice of Exemptions (NOE). In FY20-21, planning started on the Wildcat PP MND, Fontaine PP MND, Sobrante WTP EIR, and WOH Central Pipelines EIR. Planned work for FY22-26 includes completing the projects started in FY20-21 and starting the WOH Southern Pipelines EIR in FY25.					
Active Segment Appropriations		Prior Yrs	FY22-26	Future Yrs	Total
West of Hills Master Plan		23,381,430	0	0	23,381,430
Project Appropriations		Lead Dept: ENG Recurring: No			
Prior Years	\$ 24,366,430				
2022	\$ 0	Funding: BOND/REV 100%			
2023	\$ 0				
2024	\$ 0				
2025	\$ 0				
2026	\$ 0				
Future Years	\$ 0	In Service Date: 30-Jun-28			
Total Cost	\$ 24,366,430				

Capital Improvement Program - Project Summary

Project: Contingency Project Water

Project Number: 001300

Strategy: Non-Program Specific

Program: Non-Program Specific

Justification:

This project is required to ensure timely response to unanticipated critical work, as well as specific projects that are contingent upon the receipt of grants or other outside funding. Rapid response is critical for maintaining regulatory compliance, public safety, employee safety or addressing other unanticipated essential needs.

Description:

This is an ongoing project to address unanticipated needs that may arise before the next budget preparation cycle. Typical examples include replacement or repairs to facilities and equipment as a result of failures or safety deficiencies, new projects, or the acceleration of planned projects requiring funding before the next budget cycle.

Funds are also set aside for projects where grants are being sought in the event that the grant application is successful and funding is received, such as habitat enhancement and restoration, watershed fencing and trails, Bay Area Regional Desalination Project, water conservation projects, and East Bayshore recycled water.

In FY22, funds have been set aside for possible grant funding for Mokelumne River restoration work, and for leak detection surveys to prepare for water loss performance standards in compliance with Senate Bill 555. In FY23, funds have been set aside for extending trails at the Camanche Recreation Area.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
Contingency Earmark - Water	12,948,500	3,568,000	0	16,516,500

Project Appropriations			
Prior Years	\$ 37,643,611	Lead Dept:	FIN
2022	\$ 3,068,000	Recurring:	No
2023	\$ 500,000	Funding:	BOND/REV100%
2024	\$ 0		
2025	\$ 0		
2026	\$ 0		
Future Years	\$ 0		
Total Cost	\$ 41,211,611	In Service Date:	30-Jun-40

Capital Improvement Program - Project Summary									
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Project: ERF Purchases for Copiers	Project Number: 2014193
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Project: ERF Purchases for Copiers	Project Number: 2014193
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Strategy: Facilities, Servc and Equip	Program:	Communications
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Strategy: Facilities, Servc and Equip	Program:	Communications
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Justification:

Effective FY21, based on converting to a new financial system, Equipment Replacement Fund (ERF) purchases will be funded in capital as they often result in assets.

Description:

The ERF was established to address planning and funding for the replacement of specified equipment on a regular, predictable replacement schedule. This project is for the purchase of new and replacement copiers throughout the District.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
ERF Purchases for Copiers	239,754	50,000	250,000	539,754

Project Appropriations		Lead Dept: FIN Recurring: Yes		
Prior Years	-			
2022	\$ 0	Funding: ERF 80% BOND/REV 20%		
2023	\$ 0			
2024	\$ 0			
2025	\$ 0			
2026	\$ 50,000			
Future Years	-	In Service Date: Recurring		
Total Cost	-			

Capital Improvement Program - Project Summary					
Project: Data & Telecom Infrastructure		Project Number: 000363			
Strategy: Facilities, Servc and Equip		Program: Communications			
Justification: The District supports a myriad of disparate, older phone systems interconnected via a Centrex-Mate service offering. This project provides a single, geographically redundant and manageable telecommunications service.					
Description: This project upgrades the networking cables, equipment, and telephony circuits at office locations outside of the Oakland Administration Building to implement a Voice over IP (VoIP) phone system. Currently, many District facilities are utilizing VoIP phone technology. In FY20-21, the telephony work at the Adeline Maintenance Complex was completed as was installation of five SIP Telephony trunks at various locations for inbound/outbound call geographic diversity. The goals for FY22 are the migration of the Wastewater Treatment plant, and the Reclamation and Wet Weather facilities. The FY23 goal is to complete the migration of the remaining facilities. The VoIP phone system implementation requires the existing network cabling to be brought up to specification, and the replacement of telephones, network switches, voice gateways, telephony circuits and porting of telephone numbers.					
Active Segment Appropriations		Prior Yrs	FY22-26	Future Yrs	Total
Data & Telecom Infrastructure		853,757	330,000	500,000	1,683,757
Project Appropriations		Lead Dept: ISD Recurring: No			
Prior Years	\$ 3,602,756				
2022	\$ 0	Funding: BOND/REV 100%			
2023	\$ 0				
2024	\$ 150,000				
2025	\$ 80,000				
2026	\$ 100,000				
Future Years	\$ 500,000	In Service Date: 30-Jun-30			
Total Cost	\$ 4,432,756				

Capital Improvement Program - Project Summary									
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Project: ERF Current DSS/Server/Network **Project Number:** 2014182

Strategy: Facilities, Servc and Equip	Program:	Communications
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Justification:

Effective FY21, based on converting to a new financial system, Equipment Replacement Fund (ERF) purchases will be funded in capital as they often result in assets.

Description:	
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The ERF was established to address planning and funding for the replacement of specified equipment on a regular, predictable replacement schedule. This project is for annual purchases of a limited amount of Data Security Standard (DSS), server and network equipment.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
ERF Current DSS/Server/Network	1,319,619	8,852,260	3,623,630	13,795,509

Project Appropriations		Lead Dept: ISD Recurring: Yes		
Prior Years	-			
2022	\$ 2,945,000	Funding:	BOND/REV	100%
2023	\$ 798,630			
2024	\$ 895,000			
2025	\$ 1,720,000			
2026	\$ 2,493,630			
Future Years	-	In Service Date: Recurring		
Total Cost	-			

Capital Improvement Program - Project Summary

Project: ERF Current PCs/Desktop/Laptop **Project Number:** 2014179

Strategy: Facilities, Servc and Equip **Program:** Communications

Justification:

Effective FY21, based on converting to a new financial system, Equipment Replacement Fund (ERF) purchases will be funded in capital as they often result in assets.

Description:

The ERF was established to address planning and funding for the replacement of specified equipment on a regular, predictable replacement schedule. This project is for annual purchases of a limited amount of personal computers and laptops.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
ERF Current PCs/Desktop/Laptop	777,901	325,000	935,000	2,037,901

Project Appropriations				
Prior Years	-	Lead Dept:	ISD	
2022	\$ 0	Recurring:	Yes	
2023	\$ 0	Funding:	BOND/REV	40%
2024	\$ 0		ERF	60%
2025	\$ 140,000			
2026	\$ 185,000			
Future Years	-	In Service Date:	Recurring	
Total Cost	-			

Capital Improvement Program - Project Summary

Project: ERF Smoothg DSS/Server/Network **Project Number:** 2014186

Strategy: Facilities, Servc and Equip **Program:** Communications

Justification:

Effective FY21, based on converting to a new financial system, Equipment Replacement Fund (ERF) purchases will be funded in capital as they often result in assets.

Description:

The ERF was established to address planning and funding for the replacement of specified equipment on a regular, predictable replacement schedule. This project is for periodic large purchases of Data Security Standard (DSS), server and network equipment.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
ERF Smoothg DSS/Server/Network	623,000	912,000	1,110,000	2,645,000

Project Appropriations				
Prior Years	-	Lead Dept:	ISD	
2022	\$ 0	Recurring:	Yes	
2023	\$ 0	Funding:	BOND/REV	60%
2024	\$ 272,000		ERF	40%
2025	\$ 0			
2026	\$ 640,000			
Future Years	-	In Service Date:	Recurring	
Total Cost	-			

Capital Improvement Program - Project Summary

Project: ERF Smoothg PCs/Desktop/Laptop **Project Number:** 2014184

Strategy: Facilities, Servc and Equip **Program:** Communications

Justification:

Effective FY21, based on converting to a new financial system, Equipment Replacement Fund (ERF) purchases will be funded in capital as they often result in assets.

Description:

The ERF was established to address planning and funding for the replacement of specified equipment on a regular, predictable replacement schedule. This project is for periodic large purchases of personal computers and laptops.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
ERF Smoothg PCs/Desktop/Laptop	1,148,000	1,822,000	3,000,000	5,970,000

Project Appropriations				
Prior Years	-	Lead Dept:	ISD	
2022	\$ 0	Recurring:	Yes	
2023	\$ 0	Funding:	BOND/REV	60%
2024	\$ 1,822,000		ERF	40%
2025	\$ 0			
2026	\$ 0			
Future Years	-		In Service Date:	Recurring
Total Cost	-			

Capital Improvement Program - Project Summary

Project: FIS / MMIS Replacement

Project Number: 2003539

Strategy: Facilities, Servc and Equip

Program: Communications

Justification:

The Financial Information System is a PeopleSoft product that is no longer supported and is difficult to maintain. A new purchasing/accounting/inventory system will reduce the risk of system failure, reduce vendor dependence, and improve system integration with other applications.

Description:

This project is a joint effort of the Finance, Information Systems, and user departments to replace both the Financial Information System (FIS) and the Materials Management Information System (MMIS) with a new financial, budget, procurement and vendor management system to reduce risks associated with vendor dependence. Evaluating and selecting a replacement alternative and vendor was completed in FY19, along with an implementation plan. The FIS replacement alternative was evaluated along with the MMIS replacement to ensure the necessary functionality between the systems is addressed. Implementation of the new system is underway and is scheduled for completion in FY22.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
FIS/MMIS Implementation	13,642,084	0	0	13,642,084

Project Appropriations			
Prior Years	\$ 16,459,155	Lead Dept:	ISD
2022	\$ 0	Recurring:	No
2023	\$ 0	Funding:	BOND/REV 100%
2024	\$ 0		
2025	\$ 0		
2026	\$ 0		
Future Years	\$ 0		
Total Cost	\$ 16,459,155	In Service Date:	30-Jun-22

Capital Improvement Program - Project Summary

Project: HRIS Replacement

Project Number: 2003543

Strategy: Facilities, Servc and Equip

Program: Communications

Justification:

The PeopleSoft Human Resources Information System (HRIS) is reaching the end of its useful life and support for the product is winding down. Loss of support would increase the risk of failure of Human Resource functions and make it difficult to implement required tax and regulatory updates.

Description:

This project is a joint effort of the Information Systems, Human Resources and user departments to replace HRIS. Documenting high-level requirements for all modules was completed in FY21 and will facilitate the Requests for Proposals and selection process for the system replacement. Preparing a Requests for Proposals, evaluating and selecting alternatives is underway, and continue implementing of the new system modules is anticipated in FY24.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
HRIS Replacement	8,700,000	875,000	0	9,575,000

Project Appropriations		Lead Dept: ISD	
Prior Years	\$ 8,700,000	Recurring: No	
2022	\$ 875,000	Funding: BOND/REV 100%	
2023	\$ 0		
2024	\$ 0		
2025	\$ 0		
2026	\$ 0		
Future Years	\$ 0	In Service Date: 30-Jun-23	
Total Cost	\$ 9,575,000		

Capital Improvement Program - Project Summary

Project: Work Mgmt Systems Replacement **Project Number:** 2009564

Strategy: Facilities, Servc and Equip **Program:** Communications

Justification:

The existing work management systems (WMS) consists of multiple standalone applications written in outdated languages and provide overlapping functionality. This project consolidates the functionality into a single application to minimize maintenance and improve the ability to leverage information between work groups to ensure a reliable system for field maintenance work.

Description:

This project is a joint effort of Information Systems, Operation Maintenance and user departments to replace the group of WMS which include the general work order system, concrete order system, paving order system and the asset and infrastructure management system. Evaluating and selecting replacement alternatives is scheduled for FY21-FY22, followed by creating an implementation plan, selecting a vendor and implementing a new WMS in FY22-23.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
Work Mgmt Systems Replacement	4,750,000	7,250,000	0	12,000,000

Project Appropriations			
Prior Years	\$ 4,750,000	Lead Dept:	ISD
2022	\$ 7,250,000	Recurring:	No
2023	\$ 0	Funding:	BOND/REV 100%
2024	\$ 0		
2025	\$ 0		
2026	\$ 0		
Future Years	\$ 0		
Total Cost	\$ 12,000,000	In Service Date:	30-Jun-25

Capital Improvement Program - Project Summary

Project: Meter Replacements

Project Number: 000738

Strategy: Maintaining Infrastructure

Program: Pipelines/Appurtenances

Justification:

Meters need to be replaced periodically to accurately record water use and bill customers, and meter boxes need to be replaced periodically to eliminate tripping liability. New meter installations are included as part of the new service installation cost.

Description:

This is an ongoing project to replace water meters and meter boxes at the end of their useful life, and to replace meters that are believed to be reading inaccurately. In FY20, approximately 11,900 residential meters, 1,240 small commercial meters and 11 large commercial meters were replaced. Approximately 18,000 meters were replaced in FY21. In future years, replacements are planned to total 20,500 meters per year to improve reading accuracy.

In FY19, a grant was received and 10,000 meters were replaced with an integrated system of smart meters under the new Advanced Metering Infrastructure (AMI) pilot project. The project also includes equipment to collect data from these automated meters as the District considers replacing the current meters with AMI meters.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
Planned Meter Replacements	41,022,357	23,329,000	27,100,000	91,451,357

Project Appropriations				
Prior Years	-	Lead Dept:	MCD	
2022	\$ 4,394,000	Recurring:	Yes	
2023	\$ 4,524,000	Funding:	GRANTS	7%
2024	\$ 4,663,000		BOND/REV	93%
2025	\$ 4,801,000			
2026	\$ 4,947,000			
Future Years	-	In Service Date:	Recurring	
Total Cost	-			

Capital Improvement Program - Project Summary					
Project: Pipeline Appurtenances		Project Number: 000218			
Strategy: Maintaining Infrastructure		Program: Pipelines/Appurtenances			
Justification: Inoperable water main appurtenances can cause distribution system outages or extend the duration of system outages, adversely affecting customers. Replacement of these appurtenances improves system reliability. This project also includes corrective maintenance on the valves and appurtenances throughout the distribution system.					
Description: This is an ongoing project to replace distribution system isolation valves, blow-off assemblies, air valves and other appurtenances that have reached the end of their useful lives, or no longer meet current installation practices. The goal is to inspect and operate 10 percent of distribution valves annually. The Large Valve Master Plan has identified a number of appurtenances that need to be upgraded to ensure system reliability. Due to increased funding within cities and counties for paving restoration and street reconstruction, gate valve pots were upgraded to G-5's in FY19-21, and upgrades will continue into FY22-23. These upgrades improve access during emergency and routine valve operation, and while performing maintenance activities.					
Active Segment Appropriations		Prior Yrs	FY22-26	Future Yrs	Total
Annual Appurtenance Work		15,158,970	7,144,000	29,502,000	51,804,970
Project Appropriations		Lead Dept: MCD			
Prior Years	-	Recurring: Yes			
2022	\$ 1,332,000	Funding: BOND/REV 100%			
2023	\$ 1,379,000				
2024	\$ 1,427,000				
2025	\$ 1,477,000				
2026	\$ 1,529,000				
Future Years	-	In Service Date: Recurring			
Total Cost	-				

Capital Improvement Program - Project Summary					
Project: Veh & Hvy Equip Additions, Wtr		Project Number: 000528			
Strategy: Facilities, Servc and Equip		Program: Vehicle/Equipment			
Justification: Provide staff with the necessary equipment to ensure field productivity and reduce operating costs by limiting the need to rent equipment.					
Description: This is an ongoing project to acquire additions to the fleet resulting from new positions that require a vehicle to perform necessary job responsibilities, or changing demands on the existing work force and redirection of priorities. Vehicles and equipment includes backhoes, dump trucks, trailers, utility trucks, sedans or SUVs, and saw trucks and water truck. In FY20-23, necessary equipment will be purchased to outfit additional staff including new pipeline rebuild crews, replace long-term leased vehicles and decrease the reliance on fully manned and operated contracts.					
Active Segment Appropriations		Prior Yrs	FY22-26	Future Yrs	Total
Fleet & Equip Additions		30,248,564	6,643,000	5,000,000	41,891,564
Project Appropriations		Lead Dept: MCD Recurring: Yes			
Prior Years	-				
2022	\$ 1,944,000	Funding: BOND/REV 100%			
2023	\$ 1,699,000				
2024	\$ 1,000,000				
2025	\$ 1,000,000				
2026	\$ 1,000,000				
Future Years	-	In Service Date: Recurring			
Total Cost	-				

Capital Improvement Program - Project Summary					
Project: Vehicle Replacements		Project Number: 000526			
Strategy: Facilities, Servc and Equip		Program: Vehicle/Equipment			
Justification: This is an ongoing project to replace existing vehicles and construction equipment. Under the replacement policy, all vehicles that meet or exceed specific thresholds of age, mileage, engine run hours and cost per mile are systematically evaluated. A major consideration is the impact of equipment failure on productivity.					
Description: The District's Vehicle Study indicates that the criteria used for evaluating replacement needs provides the best means of fleet management for replacing vehicles and equipment in a timely and cost effective manner. In FY22-23, 87 vehicles and pieces of equipment need to be replaced including 28 construction trucks, 10 dump trucks, and 11 service/vector/utility trucks. In addition, 13 backhoes need to be replaced due to regulatory compliance requirements, and the California Air Resources Board requires 14 vehicles/equipment to be replaced.					
Active Segment Appropriations		Prior Yrs	FY22-26	Future Yrs	Total
Fleet & Equip Repl/Purchases		111,689,369	32,013,000	30,000,000	173,702,369
Fleet Telematics System		0	500,000	0	500,000
Project Appropriations		Lead Dept: MCD Recurring: Yes			
Prior Years	-				
2022	\$ 8,300,000	Funding: VRF 100%			
2023	\$ 6,700,000				
2024	\$ 6,098,000				
2025	\$ 5,615,000				
2026	\$ 5,800,000				
Future Years	-	In Service Date: Recurring			
Total Cost	-				

Capital Improvement Program - Project Summary

Project: East Bay Watershed Rec Projs

Project Number: 000198

Strategy: Resource Management

Program: Watershed Recreation

Justification:

Public recreation facilities and watershed lands need to be managed to ensure public health and safety, environmental protection and availability of a clean water supply for customers.

Description:

Work is prioritized in accordance with the East Bay Watershed Master Plan, Range Resource Management Plan, Fire Management Plan, and regulatory requirements. Projects include upgrades and enhancements to facilities, and watersheds at San Pablo Reservoir Recreation Area, Lafayette Reservoir Recreation Area, Orinda Watershed Headquarters, and East Bay terminal reservoir dams and watershed lands.

Projects completed in FY20-21 include: paving upgrades, hazard tree reduction, and picnic area renovations at Lafayette and San Pablo Reservoir Recreation Areas; upgraded signage at Lafayette Recreation Area and at Watershed Staging Areas; and upgraded restrooms at Lafayette. Watershed boundary fence was upgraded, habitat protection fencing was installed and habitat ponds supporting sensitive resources were upgraded.

Projects planned for FY22-26 include: upgrading the sewer force main and lift station, rental boat dock, and crew locker room/shop at Lafayette Reservoir Recreation Area; and upgrading the sewer force main, all-access dock, and roadway paving at San Pablo Reservoir Recreation Area. Watershed projects include staging area upgrades; implementation of watershed fire management strategies; a new roof on Orinda Watershed Headquarters administrative, warehouse, and vehicle storage buildings; conference room technology upgrades; and parking lot paving upgrades.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
Lafayette Rec Infrastructure	5,887,000	0	0	5,887,000
East Bay Watershed Mgmt	3,029,713	1,850,000	0	4,879,713
San Pablo Rec Infrastructure	2,334,993	150,000	0	2,484,993
Orinda Watershed HQ	723,500	0	0	723,500

Project Appropriations			
Prior Years	\$ 14,673,202	Lead Dept:	NRD
2022	\$ 350,000	Recurring:	No
2023	\$ 350,000	Funding:	BOND/REV 100%
2024	\$ 400,000		
2025	\$ 575,000		
2026	\$ 325,000		
Future Years	\$ 0		
Total Cost	\$ 16,673,202	In Service Date:	30-Jun-26

Capital Improvement Program - Project Summary

Project: F&W Projects and Mok Hatchery

Project Number: 1002592

Strategy: Resource Management

Program: Watershed Recreation

Justification:

This project is required to comply with agreements with regulatory agencies to maximize hatchery fish production, to protect and enhance the natural in-river production of anadromous fish, and implement habitat and species protection and enhancement measures required by the East Bay Habitat Conservation Plan (HCP).

Description:

This project includes the purchase and installation of equipment needed to: 1) operate the Mokelumne River Fish Hatchery (MRFH) to ensure compliance with the California Department of Fish and Wildlife operation agreement, and 2) meet the fisheries monitoring and assessment requirements in the Mokelumne River Endangered Species Act listings (ESA), and the Sacramento-San Joaquin Delta operations. The project also includes species and habitat protection and enhancement measures as required by the HCP and development of the San Leandro Creek Fish Management Plan.

FY22-26 planned work in the Mokelumne Watershed includes implementing habitat enhancement and construction activities related to the Water Quality Control Plan Voluntary Agreement and improved infrastructure at the MRFH and the hatchery staff residences. Feasibility studies to improve hatchery and river water quality will also be conducted. In the East Bay Watershed planned work includes habitat enhancements for the California red-legged frog; monitoring of the Alameda whipsnake; invasive species control; and San Leandro Fish Management Plan development.

Future work plans include a fish transport barge, upgrades to MRFH to meet new regulatory requirements, and installation of a passive integrated transponder tag reader to support fish monitoring requirements.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
River and Watershed	2,075,331	1,350,000	0	3,425,331
Moke River Hatchery	2,869,673	350,000	0	3,219,673

Project Appropriations		Lead Dept: NRD	
Prior Years	\$ 5,811,332	Recurring: No	
2022	\$ 0	Funding: BOND/REV 100%	
2023	\$ 350,000		
2024	\$ 500,000		
2025	\$ 450,000		
2026	\$ 400,000		
Future Years	\$ 0	In Service Date: 30-Jun-26	
Total Cost	\$ 7,511,332		

Capital Improvement Program - Project Summary					
Project: Mokelumne Watershed Rec HQ		Project Number: 000158			
Strategy: Resource Management		Program: Watershed Recreation			
Justification: Warehouse and office facilities are needed due to the condition, size, and lack of critical office and crew facilities in the current headquarters.					
Description: This project replaced the Mokelumne headquarters that accommodates 22 staff with a pre-engineered modular administration building with energy efficient and sustainable features. Phase 2 consists of a back-up generator, construction of a modular warehouse/shop building, site improvements and vehicle access improvements. Planning, design, and construction of these improvements are planned for FY22-23.					
Active Segment Appropriations		Prior Yrs	FY22-26	Future Yrs	Total
Mok Watershed HQ - Phase 2		3,648,500	0	0	3,648,500
Project Appropriations		Lead Dept: NRD Recurring: No			
Prior Years	\$ 6,759,500				
2022	\$ 0	Funding: BOND/REV 100%			
2023	\$ 0				
2024	\$ 0				
2025	\$ 0				
2026	\$ 0				
Future Years	\$ 0	In Service Date: 31-Jan-24			
Total Cost	\$ 6,759,500				

Capital Improvement Program - Project Summary					
Project: Mokelumne Watershed Rec Projs		Project Number: 2008687			
Strategy: Resource Management		Program: Watershed Recreation			
Justification: Planned improvements address public safety issues and regulatory requirements for the public, and staff facilities in the Mokelumne Watershed.					
Description: In accordance with the Mokelumne Watershed Master Plan, Range and Fire plans, and regulatory requirements, work includes upgrades and enhancements to watershed land, facilities and recreation areas. In FY22-26, watershed projects include replacement of non-fleet supported marine equipment and regulatory buoy lines, upgrade and replacement of trail sanitation facilities, replacement of watershed boundary fencing, and repair of storm damaged roads and trails. Watershed headquarters projects include safety improvements and paving of the vehicle entrance, improving access for emergency vehicles, and security fencing installation.					
Active Segment Appropriations		Prior Yrs	FY22-26	Future Yrs	Total
Mokelumne Watershed Mgmt		1,468,960	1,765,000	0	3,233,960
Mokelumne Watershed Headqtrs		1,430,301	0	0	1,430,301
Project Appropriations		Lead Dept: NRD Recurring: No			
Prior Years	\$ 6,266,284				
2022	\$ 575,000	Funding: BOND/REV 100%			
2023	\$ 350,000				
2024	\$ 385,000				
2025	\$ 220,000				
2026	\$ 235,000				
Future Years	\$ 0	In Service Date: 30-Jun-40			
Total Cost	\$ 8,031,284				

Capital Improvement Program - Project Summary

Project: Pardee/Cam Rec Areas Impr Plan **Project Number:** 2003500

Strategy: Resource Management **Program:** Recreation Areas

Justification:

The Camanche and Pardee Recreation Areas are over 50 years old and require upgrades to the utilities, structures and traffic circulation for continued safe operations.

Description:

The Pardee and Camanche Recreation Area facilities require periodic upgrades and replacements. This project includes improvements to the roads, parking lots, fuel docks, launch ramps and docks, covered boat berths, stores, recreation halls, maintenance facilities, campgrounds, concession structures, and bathroom and shower buildings.

In FY22-26, recreation improvement projects include ongoing maintenance and improvement of recreation area facilities not covered under Maintenance and Capital Improvement Funds, including design and construction of a new restroom/shower facility in the Oaks campground at Pardee Recreation area, a feasibility study of a lead reclamation effort at the Camanche Hills Hunting Preserve, and a habitat enhancement program also at the Hunting Preserve.

In FY22-26, Mokelumne River Day Use Area projects include design and construction of a new ADA interpretive trail, improvement of access roads and public parking areas, installation of electronic entrance gate, and the installation of a new restroom facility.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
Pardee Recreation Area	6,947,312	0	0	6,947,312
Mokelumne River Day Use Area	0	575,000	0	575,000
Camanche Hills Hunting Preserv	0	215,000	0	215,000

Project Appropriations			
Prior Years	\$ 10,204,000	Lead Dept:	NRD
2022	\$ 300,000	Recurring:	No
2023	\$ 260,000	Funding:	BOND/REV100%
2024	\$ 210,000		
2025	\$ 10,000		
2026	\$ 10,000		
Future Years	\$ 0		
Total Cost	\$ 10,994,000	In Service Date:	30-Jun-40

Capital Improvement Program - Project Summary

Project: Penn Mine Remediation

Project Number: 001337

Strategy: Regulatory Compliance

Program: Penn Mine

Justification:

Remediation work at Penn Mine landfill was required per a now-rescinded Environmental Protection Agency Order, and a settlement agreement with the State Water Resources Control Board. The Regional Water Quality Control Board (RWQCB) has directed the District to conduct an environmental assessment and remediation of the three mine tailing ponds.

Description:

This project evaluates and implements long-term remedial solutions for two sites: former Penn Mine and Poison Lake, with the goal of restoring the Penn Mine site to pre-mining conditions.

Recent accomplishments for Penn Mine include continued leachate removal, and the bi-annual groundwater monitoring was conducted and the report delivered to the RWQCB. The report documents a downward trend in leachate production since the landfill cap was repaired in 2013.

Planned activities for FY22-26 include continued leachate removal and bi-annual reporting of groundwater conditions, site visits and removal of a weir from an onsite stream.

Recent accomplishments for Poison Lake include completion of the remediation project which involved scraping and capping surface mine waste and armoring the drainage channels with boulders and re-seeding bare areas which have now filled in with grasses. The annual surface water quality monitoring was conducted and the report delivered to the RWQCB.

Planned activities for FY22-26 include post-remediation monitoring and surface water quality monitoring and reporting to evaluate any potential impacts from the site to the reservoir.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
Mine Restorations	15,486,820	227,000	0	15,713,820

Project Appropriations			
Prior Years	\$ 18,221,472	Lead Dept:	OSD
2022	\$ 0	Recurring:	No
2023	\$ 0	Funding:	OAG100%
2024	\$ 73,300		
2025	\$ 73,300		
2026	\$ 80,400		
Future Years	\$ 0		
Total Cost	\$ 18,448,472	In Service Date:	30-Jun-33

Capital Improvement Program - Project Summary					
Project: Water Loss Control		Project Number: 2012651			
Strategy: Water Supply		Program: Water Supply Mgmt Program			
Justification: This project prepares for compliance with California Senate Bill 555, Water Loss Management.					
Description: This project implements compliance measures associated with California Senate Bill 555, Water Loss Management. The project is composed of activities to reduce apparent and real water losses through meter replacement, leak detection, and pressure management. Accomplishments in FY20-21 include doubling the size of the automated acoustic leak detection network, meeting the key performance indicator for the infrastructure leakage index, completion of a Metering Improvements Plan, and commencement of the first water loss control master plan. Planned work in FY22-26 includes completion of the design and construction phases of improvements to flow meters for water treatment plants and large customers, completion of the water loss control master plan, completion of two manual leak detection surveys, and annual verification of water treatment plant flow rates to improve the accuracy of the water audit. Planned work in FY27-31 includes completion of construction of improvements to flow meters for additional large customers and compliance with the State Water Resources Control Board's regulatory limit for water loss.					
Active Segment Appropriations		Prior Yrs	FY22-26	Future Yrs	Total
Water Loss Control		13,202,000	17,055,000	5,000,000	35,257,000
Project Appropriations		Lead Dept: OSD Recurring: No			
Prior Years	\$ 13,202,000				
2022	\$ 5,308,000	Funding: BOND/REV 100%			
2023	\$ 2,160,000				
2024	\$ 5,587,000				
2025	\$ 2,000,000				
2026	\$ 2,000,000				
Future Years	\$ 5,000,000	In Service Date: 30-Jun-40			
Total Cost	\$ 35,257,000				

Capital Improvement Program - Project Summary

Project: Contingency Project Wastewater

Project Number: 000477

Strategy: Non-Program Specific

Program: WW Non-Program Specific

Justification:

This project is required to ensure timely response to unanticipated critical work, as well as specific projects that are contingent upon the receipt of grants or other outside funding. Rapid response is critical for maintaining regulatory compliance, public safety, employee safety or addressing other unanticipated essential needs.

Description:

This is an ongoing project to provide funding for unanticipated needs that may arise before the next budget preparation cycle. Typical examples include replacement or repairs to facilities and equipment as a result of failures or safety deficiencies, new projects, or the acceleration of planned projects requiring funding before the next budget cycle.

Funds can also be set aside for projects where grants are being sought in the event that the grant application is successful and funding is received, such as a pending grant application for design of a renewable natural gas facility. Prior appropriations might also be used for temporary dewatering expansion to accommodate food waste deliveries and long-term contracting.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
Contingency General - WW	12,009,000	0	0	12,009,000

Project Appropriations			
Prior Years	\$ 18,719,000	Lead Dept:	WAS
2022	\$ 0	Recurring:	No
2023	\$ 0	Funding:	BOND/REV100%
2024	\$ 0		
2025	\$ 0		
2026	\$ 0		
Future Years	\$ 0		
Total Cost	\$ 18,719,000	In Service Date:	30-Jun-40

Capital Improvement Program - Project Summary

Project: Dewatering	Project Number: 2014083
Strategy: Maintaining Infrastructure	Program: WW Infrastructure Program

Justification:

To maintain and upgrade the solids dewatering process at the Main Wastewater Treatment Plant (MWWTP), which is necessary to produce beneficial use biosolids from the wastewater treatment process. The Dewatering Building requires significant improvements to remedy a myriad of issues related to this aging facility and equipment.

Description:

Replacement of the Dewatering Building is one of the largest projects in the Wastewater Department Capital Improvement Program. In recent years the dewatering process has required a great deal of staff time due to aging equipment, limited capacity, and impacts from Resource Recovery trucked wastes.

The New Dewatering Building will replace the existing building and include new feed pumps, dewatering equipment, cake storage hoppers, polymer feed equipment, and odor control facilities, all designed to meet the latest seismic codes. In FY23, the planning phase of the new Dewatering Building will begin, followed in FY24 by design, which is expected to take two years. The construction phase is expected to take four years, with completion scheduled for FY29.

The existing Dewatering Building will continue to be used for the secondary solids thickening process. and improvements will be made including upgrades to the building's odor control system and seismic retrofits to protect life safety.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
Dewatering	3,043,000	88,427,000	11,409,000	102,879,000

Project Appropriations		Lead Dept: WAS	
Prior Years	\$ 3,043,000	Recurring: No	
2022	\$ 0	Funding: BOND/REV 100%	
2023	\$ 13,117,000		
2024	\$ 0		
2025	\$ 0		
2026	\$ 75,310,000		
Future Years	\$ 11,409,000	In Service Date: 01-Jan-33	
Total Cost	\$ 102,879,000		

Capital Improvement Program - Project Summary

Project: Digesters

Project Number: 2014082

Strategy: Maintaining Infrastructure

Program: WW Infrastructure Program

Justification:

To maintain and upgrade the digestion process at the Main Wastewater Treatment Plant (MWWTP) to convert sludge from primary and secondary treatment, as well as high strength waste, into biogas and biosolids for beneficial use.

Description:

The District has eleven digesters, two blend tanks, and numerous pieces of support equipment including pumps, mixers, heat exchangers, and biogas storage covers that work together to provide the appropriate conditions to convert sludge from the wastewater treatment process and trucked high strength waste into biogas and biosolids fit for beneficial use. The digester system operates at an elevated temperature and can include abrasive and damaging materials from sludge and high strength wastes, which result in the need for capital improvements.

In recent years, the digesters have been upgraded with improved covers and mixers. Under Phase 3 of the upgrades, two digesters are scheduled for new covers and mixing systems with construction having begun in FY21. These digesters will also be seismically retrofitted to prevent catastrophic collapse in the event of an earthquake. Construction will be completed in FY22. Phase 4 of the work to upgrade the remaining three digesters is planned to start in FY28.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
Digesters	36,322,404	0	18,200,000	54,522,404

Project Appropriations		Lead Dept: WAS Recurring: No	
Prior Years	\$ 36,322,404		
2022	\$ 0	Funding: BOND/REV 100%	
2023	\$ 0		
2024	\$ 0		
2025	\$ 0		
2026	\$ 0		
Future Years	\$ 18,200,000	In Service Date: 30-Jun-31	
Total Cost	\$ 54,522,404		

Capital Improvement Program - Project Summary

Project: Effluent Discharge

Project Number: 2014079

Strategy: Regulatory Compliance

Program: WW Regulatory Compliance

Justification:

To maintain and upgrade infrastructure necessary for disinfection and dechlorination of Main Wastewater Treatment Plant (MWWTP) effluent and conveyance to its final discharge in the San Francisco Bay. This infrastructure is critical for meeting strict permit requirements and for maintaining flow-through capacity at the MWWTP.

Description:

As the final stage of liquid-stream treatment at the MWWTP, treated wastewater is dosed with chlorine (or sodium hypochlorite) and conveyed through the 9,000-foot long land section of the effluent outfall pipe to the Dechlorination Facility. At the Dechlorination Facility, sodium bisulfite is added to react with any remaining chlorine, and water quality samples are collected to ensure a chlorine-free discharge to the San Francisco Bay. The final conveyance is through 7,500-foot long section of subaqueous outfall pipe.

Tasks over the next five years include a hydraulic study and rehabilitation of pumps at the Effluent Pump Station, as well as rehabilitation and improvements to the Dechlorination Facility. Seismic improvement projects are also within this task for the Effluent Pump Station and the outfall later in the 10-year Capital Improvement Program.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
Effluent Discharge	13,312,500	3,837,000	27,730,000	44,879,500

Project Appropriations			
Prior Years	\$ 13,312,500	Lead Dept:	WAS
2022	\$ 1,857,000	Recurring:	No
2023	\$ 0	Funding:	BOND/REV 100%
2024	\$ 400,000		
2025	\$ 1,580,000		
2026	\$ 0		
Future Years	\$ 27,730,000		
Total Cost	\$ 44,879,500	In Service Date:	01-Jan-31

Capital Improvement Program - Project Summary

Project: Electricals and Controls

Project Number: 2014084

Strategy: Maintaining Infrastructure

Program: WW Infrastructure Program

Justification:

To replace aging equipment and improve the seismic performance and reliability of the electrical power distribution and control systems to prevent outages and support business continuity. The power distribution system is critical to operating all equipment at the Main Wastewater Treatment Plant (MWWTP). The distributed control system is critical to process optimization.

Description:

Several large variable frequency drives (VFD) greater than 100 hp have reached the end of their useful service life. Some of the VFD that will be replaced are the four return activated sludge pump drives and the digester hot water recirculation pump drives for the anaerobic digesters. Aging motor control centers will be replaced for the aerated grit removal process and the oxygen reactors. This work will occur within FY22.

Another task is to replace the Ovation control system. This will be synchronized with replacements of computers and servers, which typically need replacement at five-year intervals. These will include operations and engineering workstations, servers, network equipment, and associated software.

Based on seismic evaluations, two phases of seismic improvements have been identified for the electrical system at the MWWTP. Phase 1 will address immediate needs, such as improved bracing and supports for electrical distribution lines between the main substation and the power generation station, and improved unit anchorage for substations throughout the MWWTP. Phase 2 will address reliability needs following completion of an Electrical Master Plan in FY23.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
Electricals and Controls	34,672,662	8,681,000	3,750,000	47,103,662

Project Appropriations			
Prior Years	\$ 34,672,662	Lead Dept:	WAS
2022	\$ 0	Recurring:	No
2023	\$ 7,931,000	Funding:	BOND/REV 100%
2024	\$ 250,000		
2025	\$ 250,000		
2026	\$ 250,000		
Future Years	\$ 3,750,000	In Service Date: 01-Jan-28	
Total Cost	\$ 47,103,662		

Capital Improvement Program - Project Summary					
Project: General Wastewater		Project Number: 2014086			
Strategy: Maintaining Infrastructure		Program: WW Infrastructure Program			
Justification: To conduct needed maintenance on facilities vital to wastewater conveyance and treatment, but are not limited to a single treatment process category.					
Description: Project tasks include efforts related to management and construction of work on buildings that serve multiple treatment processes. This project features the periodic replacement of capital equipment, major projects for protective coatings plant-wide, and software and vehicle additions. Two of the larger tasks in this project are seismic retrofits of the Maintenance Building and the Operations Center, two buildings that are heavily used and were prioritized in the Main Wastewater Treatment Plant (MWWTP) seismic evaluation. Those efforts are scheduled to occur between FY22 and FY26. Other seismic tasks include retrofit of various concrete masonry buildings at the MWWTP, the Field Services Building, and the Administration Building.					
Active Segment Appropriations		Prior Yrs	FY22-26	Future Yrs	Total
General Wastewater		82,668,144	58,757,000	24,450,000	165,875,144
Project Appropriations		Lead Dept: WAS			
Prior Years	-	Recurring: Yes			
2022	\$ 21,733,000	Funding: ERF 19% BOND/REV 81%			
2023	\$ 6,739,000				
2024	\$ 8,546,000				
2025	\$ 14,940,000				
2026	\$ 6,799,000				
Future Years	-	In Service Date: Recurring			
Total Cost	-				

Capital Improvement Program - Project Summary

Project: Interceptors and Pump Stations

Project Number: 2014073

Strategy: Maintaining Infrastructure

Program: WW Infrastructure Program

Justification:

To rehabilitate aging gravity interceptors, force mains, and pump stations that convey wastewater from the satellite agencies to the Main Wastewater Treatment Plant (MWWTP), as well as improve emergency access and response for such facilities.

Description:

Interceptor tasks include rehabilitation of underground piping, select manholes and tie-in structures. Pipe rehabilitation efforts will be conducted for the older interceptors that have not been addressed in recent projects. Locations include Second Street and the Embarcadero in Oakland, Buena Vista Avenue and other locations in Alameda, and crossings of the Alameda Channel.

Pump Station tasks include rehabilitation of equipment and piping, as well as improvement of emergency access and functions at several stations. In FY22, the 40-year-old Pump Station M in Alameda will be rehabilitated, and access will be improved for making bypass connections during an emergency. Other projects include construction for the Special Structures Rehabilitation Phase 1, rehabilitation of Pump Stations L in Oakland, and Force Main Access Improvements. Work planned in later years includes the Second Street and Embarcadero Interceptors, Special Structures Rehab Phase 2, and Pump Station A in Albany, C in Alameda, and H in Oakland.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
Interceptors and Pump Stations	58,889,779	52,576,000	31,685,000	143,150,779

Project Appropriations				
Prior Years	\$ 58,889,779	Lead Dept:	WAS	
2022	\$ 11,794,000	Recurring:	No	
2023	\$ 4,319,000	Funding:	BOND/REV	84%
2024	\$ 4,890,000		ERF	16%
2025	\$ 14,446,000			
2026	\$ 17,127,000			
Future Years	\$ 31,685,000	In Service Date:	01-Jan-31	
Total Cost	\$ 143,150,779			

Capital Improvement Program - Project Summary					
Project: Nutrients		Project Number: 2014080			
Strategy: Regulatory Compliance		Program: WW Regulatory Compliance			
Justification: A nutrient loadcap for nitrogen is anticipated in the upcoming San Francisco Regional Water Quality Control Board Watershed Permit, expected in 2024, which will require the District to meet stricter effluent limits for nitrogen.					
Description: The current nutrient watershed permit will expire in mid-2024, and the next five-year permit is expected to impose a nutrient discharge load cap. To meet this effluent load cap, it is expected that the District will be required to implement a process to treat high ammonia in the centrate generated in the dewatering process. However, other studies are planned to determine the feasibility of other nutrient reduction improvements that can be made with existing facilities at the Main Wastewater Treatment Plant (MWWTP). These studies will include pilot and full-scale testing to evaluate sidestream nutrient treatment/recovery technologies and explore innovative approaches to nitrogen reduction. Nutrient studies will start in FY22, and the planning phase of the sidestream treatment project will start in FY23.					
Active Segment Appropriations		Prior Yrs	FY22-26	Future Yrs	Total
Nutrients		2,751,000	15,020,000	78,900,000	96,671,000
Project Appropriations		Lead Dept: WAS			
Prior Years	\$ 2,751,000	Recurring: No			
2022	\$ 200,000	Funding: BOND/REV 100%			
2023	\$ 13,720,000				
2024	\$ 300,000				
2025	\$ 400,000				
2026	\$ 400,000				
Future Years	\$ 78,900,000	In Service Date: 01-Jan-32			
Total Cost	\$ 96,671,000				

Capital Improvement Program - Project Summary

Project: Power Generation and Biogas

Project Number: 2014078

Strategy: Maintaining Infrastructure

Program: WW Infrastructure Program

Justification:

The Power Generation Station (PGS) and biogas system provides a means to utilize biogas produced in the digesters to generate renewable electricity and produce heat for the digesters. Maintaining these aging facilities provides a source of renewable electricity and reduces the need to flare biogas.

Description:

This project is to rehabilitate and maintain the biogas and power generation equipment, flares, piping, and related components to maximize renewable energy generation and minimize flaring of biogas in a safe manner. Much of PGS and the biogas piping were installed in the 1980s, and the newer components, the turbine, support equipment, and piping, are sensitive to adverse conditions and require more maintenance attention to prevent downtime.

This project is intended to minimize downtime by increasing reliability of the power generation components in both normal operation and during grid power outages to improve overall plant reliability. PGS Reliability Improvements Phase 3 is ongoing with construction planned to begin in FY22. Phase 4 will follow starting in FY24. The design for upgrades to the original flares will be complete in FY21, and construction is planned for FY22.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
Power Generation and Biogas	29,851,849	5,208,000	0	35,059,849

Project Appropriations			
Prior Years	\$ 29,851,849	Lead Dept:	WAS
2022	\$ 208,000	Recurring:	No
2023	\$ 0	Funding:	BOND/REV 100%
2024	\$ 5,000,000		
2025	\$ 0		
2026	\$ 0		
Future Years	\$ 0		
Total Cost	\$ 35,059,849	In Service Date:	01-Jan-26

Capital Improvement Program - Project Summary									
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Project: Preliminary Treatment	Project Number: 2014075
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Project: Preliminary Treatment	Project Number: 2014075
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Strategy: Maintaining Infrastructure	Program:	WW Infrastructure Program
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Strategy: Maintaining Infrastructure	Program:	WW Infrastructure Program
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Strategy: Maintaining Infrastructure	Program:	WW Infrastructure Program
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Justification:

To rehabilitate and begin seismic retrofit of the Primary Sedimentation Tanks (PST), channels, and galleries to extend the life of concrete assets, many of which are original to the Main Wastewater Treatment Plant (MWWTP) construction in 1950.

Description:

This project includes the final phase of concrete rehabilitation for the PST followed by seismic retrofits. The rehabilitation work includes replacing three primary influent channel control gates (large rectangular butterfly valves); and rehabilitating and coating concrete roof and walls in the influent channel adjacent to the gates, and in upstream areas that were not addressed in previous phases.

The PST will be seismically retrofitted beginning in FY24. Phase 1 will encompass tanks 1-10 and the adjoining influent channels and gallery and effluent channel. The project will include relocating the Blower Building, retrofitting the influent channel and gallery joints at various locations, strengthening the south wall of the influent channel and gallery, strengthening or bracing tank walls, strengthening the roof slab of the effluent channel and its connection to the sed tanks, and adding exterior pile foundations at four expansion joints. Phase 2 will begin in FY26 and addresses the Influent Channels and Gallery with Vortex Grit facilities.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
Preliminary Treatment	29,232,000	47,017,000	2,400,000	78,649,000

Project Appropriations		Lead Dept: WAS Recurring: No	
Prior Years	\$ 29,232,000		
2022	\$ 1,200,000	Funding: BOND/REV 100%	
2023	\$ 3,387,000		
2024	\$ 200,000		
2025	\$ 42,230,000		
2026	\$ 0		
Future Years	\$ 2,400,000	In Service Date: 01-Jan-30	
Total Cost	\$ 78,649,000		

Capital Improvement Program - Project Summary									
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Project: Primary Treatment	Project Number: 2014076
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Project: Primary Treatment	Project Number: 2014076
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Strategy: Maintaining Infrastructure	Program:	WW Infrastructure Program
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Strategy: Maintaining Infrastructure	Program:	WW Infrastructure Program
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Strategy: Maintaining Infrastructure	Program:	WW Infrastructure Program
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Justification:

To rehabilitate and begin seismic retrofit of the Primary Sedimentation Tanks (PST), channels, and galleries to extend the life of concrete assets, many of which are original to the Main Wastewater Treatment Plant (MWWTP) construction in 1950.

Description:

This project includes the final phase of concrete rehabilitation for the PST followed by seismic retrofits. The rehabilitation work includes replacing three primary influent channel control gates (large rectangular butterfly valves); and rehabilitating and coating concrete roof and walls in the influent channel adjacent to the gates, and in upstream areas that were not addressed in previous phases.

The PST will be seismically retrofitted beginning in FY24. Phase 1 will encompass tanks 1-10 and the adjoining influent channels and gallery and effluent channel. The project will include relocating the Blower Building, retrofitting the influent channel and gallery joints at various locations, strengthening the south wall of the influent channel and gallery, strengthening or bracing tank walls, strengthening the roof slab of the effluent channel and its connection to the sed tanks, and adding exterior pile foundations at four expansion joints. Phase 2 will begin in FY26 and addresses the Influent Channels and Gallery with Vortex Grit facilities.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
Primary Treatment	22,591,100	57,661,000	0	80,252,100

Project Appropriations		Lead Dept: WAS Recurring: No	
Prior Years	\$ 22,591,100		
2022	\$ 2,130,000	Funding: BOND/REV 100%	
2023	\$ 0		
2024	\$ 5,107,000		
2025	\$ 0		
2026	\$ 50,424,000		
Future Years	\$ 0	In Service Date: 01-Jan-31	
Total Cost	\$ 80,252,100		

Capital Improvement Program - Project Summary

Project: Resource Recovery

Project Number: 2014081

Strategy: Maintaining Infrastructure

Program: WW Infrastructure Program

Justification:

To rehabilitate and upgrade facilities associated with trucked waste receiving from the Resource Recovery Program. Trucked waste provides additional feedstock to produce biogas, and revenue for the Wastewater Department.

Description:

An initial project task is to implement odor control improvements that include a new three-stage treatment system serving the Fats, Oils, and Grease (FOG) and High Strength Waste (HSL) receiving stations and blend tanks. This project also involves safety improvements and improved drainage to prevent odors and plugging of drains. The design for this project was completed in FY21, and construction is planned to start in FY22.

Another task is creating a new degritting facility for trucked waste. This project follows the successful pilot testing performed in FY20 and involves design and construction of a new building and hydrocyclone-classifiers, a local odor control unit, pumps, and associated piping. Temporary improvements will be made in FY22, with the main project starting after FY28.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
Resource Recovery	18,413,000	2,376,000	8,403,000	29,192,000

Project Appropriations		Lead Dept: WAS	
Prior Years	\$ 18,413,000	Recurring:	No
2022	\$ 1,000,000	Funding:	BOND/REV 100%
2023	\$ 0		
2024	\$ 0		
2025	\$ 1,376,000		
2026	\$ 0		
Future Years	\$ 8,403,000	In Service Date: 01-Jan-32	
Total Cost	\$ 29,192,000		

Capital Improvement Program - Project Summary

Project: Secondary Treatment

Project Number: 2014077

Strategy: Maintaining Infrastructure

Program: WW Infrastructure Program

Justification:

To rehabilitate and upgrade structures associated with Secondary Treatment, all of which were constructed in the 1970s and are showing their advanced age and evidence of deterioration. The facilities include the Oxygen Production Plant where liquid oxygen is produced, the Oxygen Reactors where oxygen is mixed with the wastewater, and the Secondary Clarifiers.

Description:

Major project tasks are to rehabilitate the Oxygen Production Plant, Reactors and Secondary Clarifiers in multiple phases to keep some units in service while the others are rehabilitated.

Rehabilitation of the Oxygen Production Plant includes upgrading the control system which is over 40 years old. Planning and design will take place in FY21-22, and construction in FY23-24.

Rehabilitation of the Oxygen Reactors includes concrete resurfacing of interior walls and columns, coating of the roof slabs, strengthening the interior support columns, recoating or replacing sections of piping, and refurbishing the aerator gear boxes. The design for the first of four phases was completed in FY21, and construction should be completed in FY22.

Rehabilitation of the Secondary Clarifiers includes concrete work, replacement of the clarifier mechanisms, resurfacing or replacing other mechanical components, and replacing the baffles to improve performance. Phase 1 of the project previously rehabilitated three of the twelve clarifiers. The design for Phase 2 was completed in FY21 and construction should be completed in FY22.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
Secondary Treatment	37,756,000	14,788,000	37,337,000	89,881,000

Project Appropriations			
Prior Years	\$ 37,756,000	Lead Dept:	WAS
2022	\$ 0	Recurring:	No
2023	\$ 0	Funding:	BOND/REV 100%
2024	\$ 0		
2025	\$ 4,288,000		
2026	\$ 10,500,000		
Future Years	\$ 37,337,000	In Service Date: 01-Jan-32	
Total Cost	\$ 89,881,000		

Capital Improvement Program - Project Summary

Project: Utilities and Sitework

Project Number: 2014085

Strategy: Maintaining Infrastructure

Program: WW Infrastructure Program

Justification:

To rehabilitate and improve utility systems at the Main Wastewater Treatment Plant (MWWTP), including chemical piping, compressed air (plant air), washdown water, potable water, natural gas, and drains; and sitework. These pipes are 50 to 70 years old, or convey corrosive chemicals, such as hypochlorite, that contribute to shorter useful lives and require replacement.

Description:

This project includes tasks related to rehabilitating and constructing piping for all utilities located at the MWWTP including process piping, hypochlorite and other chemicals, compressed air (plant air), washdown water (3W), potable water, natural gas, drain pipes, and other underground piping. This project also includes sitework, such as landscaping, paving, and grading projects. A multi-phase project to improve and replace hypochlorite piping around the plant has begun, with Phase 2 to be completed in FY22, and Phase 3 beginning in FY22. Design for the Process Piping Replacement Project was completed in FY21, and construction will be completed in FY22.

The 3W pumps and piping will be assessed and improved, including the surge and cathodic protection systems. A new connection to the recycled water system will be included as back-up supply. Construction is planned through FY25. Portions of the 3W piping will be assessed starting in FY22.

The Plant Gallery Drains project will address ponding in the galleries and difficulty emptying tanks and basins when necessary for maintenance. Phase 1 improvements were recently completed. The design for Phase 2 improvements will begin in FY22.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
Utilities and Sitework	35,298,592	13,305,000	0	48,603,592

Project Appropriations		Lead Dept: WAS	
Prior Years	\$ 35,298,592	Recurring: No	
2022	\$ 5,728,000	Funding: BOND/REV 100%	
2023	\$ 200,000		
2024	\$ 4,177,000		
2025	\$ 0		
2026	\$ 3,200,000		
Future Years	\$ 0	In Service Date: 01-Jan-28	
Total Cost	\$ 48,603,592		

Capital Improvement Program - Project Summary					
Project: Wet Weather Facilities		Project Number: 2014074			
Strategy: Regulatory Compliance		Program: WW Regulatory Compliance			
Justification: To conduct mandated work required under the Inflow and Infiltration Program and to maintain Wet Weather Facilities (WWF) for reliable performance during wet weather events.					
Description: This project includes ongoing, annual implementation of the regional private sewer lateral ordinance, flow modeling, and reporting, as required by the Consent Decree issued by United States Environmental Protection Agency and Regional Water Quality Control Board. Work also includes studies to identify additional wet weather flow reductions. Tasks also include assessing and correct deficiencies in the large diameter influent magnetic flow meters at the Oakport WWF and Point Isabel WWF. Compliance with increasingly stringent regulations requires accurate flow metering. Many of the flow meters at these locations are more than 30 years old, and their reliability and accuracy have deteriorated. In some cases, the meter manufacturer no longer exists, which makes calibration and repair difficult. The Parshall flumes at Oakport, Point Isabel, and San Antonio Creek WWF will be inspected for physical deficiencies (such as damage to liner and concrete) and rehabilitated. Design is scheduled to start for this work in FY22 with construction completed in FY24. This project also includes tasks for chemical tank rehabilitation, wet well liner repair, and concrete restoration at the WWFs. This work is scheduled to start FY23.					
Active Segment Appropriations		Prior Yrs	FY22-26	Future Yrs	Total
Wet Weather Facilities		28,579,000	9,052,000	300,000	37,931,000
Project Appropriations		Lead Dept: WAS			
Prior Years	\$ 28,579,000	Recurring: No			
2022	\$ 8,257,000	Funding: BOND/REV 100%			
2023	\$ 795,000				
2024	\$ 0				
2025	\$ 0				
2026	\$ 0				
Future Years	\$ 300,000	In Service Date: 01-Jan-31			
Total Cost	\$ 37,931,000				

Capital Improvement Program - Project Summary

Project: Arc Flash, Mitigate, Proj. Mgn

Project Number: 2001485

Strategy: Maintaining Infrastructure

Program: Electrical Hazard Prevent Pgm

Justification:

To comply with the Occupational Safety and Health Administration (OSHA) standard for electrical safety in the workplace. The standard involves identifying and analyzing electrical hazards, educating the workforce on those hazards, and implementing safeguards to protect the workers.

Description:

This project performs studies and remediation work at various facilities to reduce arc flash hazards.

Work has been completed at the Oakland Administration Building, the Adeline Maintenance Center buildings, the hydro electric plants, water treatment plants, and various pumping plants. Work in FY22-26 includes completing in-progress studies and remediating conditions at additional pumping plants, lift stations and other facilities.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
Arc Flash, Mitigate, Proj. Mgn	1,616,566	450,000	900,000	2,966,566

Project Appropriations		Lead Dept: WOD	
Prior Years	\$ 3,136,000	Recurring: No	
2022	\$ 0	Funding: BOND/REV 100%	
2023	\$ 0		
2024	\$ 150,000		
2025	\$ 150,000		
2026	\$ 150,000		
Future Years	\$ 900,000	In Service Date: 30-Jun-32	
Total Cost	\$ 4,486,000		

Capital Improvement Program - Project Summary					
Project: Diesel Engine Retrofit		Project Number: 1002588			
Strategy: Facilities, Servc and Equip		Program: Vehicle/Equipment			
Justification: The California Air Resources Board (CARB) establishes and enforces regulations for air emissions. Fines and civil actions can result from noncompliance with established deadlines. These projects are required to comply with CARB.					
Description: This project will install Best Available Control Technology on off-road, on-road, portable and stationary diesel engines to comply with air quality regulations. All portable diesel engines greater than 50 HP must meet regulations for diesel particulate matter. FY22-23 purchases include ten portable generators to meet backup power requirements to address PG&E Public Safety Power Shutoffs in response to severe weather.					
Active Segment Appropriations		Prior Yrs	FY22-26	Future Yrs	Total
Diesel Engine Retrofit		10,528,000	4,151,000	3,925,000	18,604,000
Project Appropriations		Lead Dept: WOD Recurring: No			
Prior Years	\$ 10,528,000				
2022	\$ 2,650,000	Funding: BOND/REV 100%			
2023	\$ 727,000				
2024	\$ 774,000				
2025	\$ 0				
2026	\$ 0				
Future Years	\$ 3,925,000	In Service Date: 30-Jun-28			
Total Cost	\$ 18,604,000				

Capital Improvement Program - Project Summary

Project: Distrib Sys Wtr Quality Imprv

Project Number: 000919

Strategy: Water Quality

Program: Water Quality Improvement

Justification:

Improvements to the distribution system are necessary to address water quality issues.

Description:

This project provides ongoing improvements related to water quality in the distribution system which is composed of over 4,100 miles of pipeline and 165 reservoirs.

In FY22-23, a chloramine boosting station will be relocated from Tice Reservoir to Summit North in El Cerrito, and a new station will be installed at Welle Reservoir in Crockett. Also, electrical or hydraulic mixers will be installed at reservoirs where needed and practical to improve water quality.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
Distrib Sys Wtr Quality Imprv	9,074,825	6,620,000	0	15,694,825
Chloramine Boosting Stations	2,528,000	0	0	2,528,000
Reservoir Mixing System	720,000	0	0	720,000

Project Appropriations		Lead Dept: WOD Recurring: Yes	
Prior Years	-		
2022	\$ 2,750,000	Funding: BOND/REV 100%	
2023	\$ 0		
2024	\$ 3,250,000		
2025	\$ 570,000		
2026	\$ 50,000		
Future Years	-	In Service Date: Recurring	
Total Cost	-		

Capital Improvement Program - Project Summary					
Project: Enhanced Power Revenue		Project Number: 1002593			
Strategy: Water Supply		Program: Supply Reservoirs			
Justification: Developing cost-effective renewable generation and improving energy efficiency to reduce the reliance on energy purchases and greenhouse gas emissions supports the District's Energy Policy.					
Description: This project provides ongoing funding for the development of renewable generation projects or purchase of renewable energy to support the Energy Policy goal to reduce indirect greenhouse gas emissions to zero by 2030. The project also supports efforts to fund projects that directly reduce energy consumption. In FY22-23 efforts to develop a five megawatt photovoltaic project on the watershed lands in Orinda continue with a focus on PG&E interconnection, environmental permitting, approvals from the City and construction.					
Active Segment Appropriations		Prior Yrs	FY22-26	Future Yrs	Total
Enhanced Power Revenue		3,432,866	0	0	3,432,866
Project Appropriations		Lead Dept: WOD Recurring: Yes			
Prior Years	-				
2022	\$ 0	Funding: BOND/REV 81% GRANTS 19%			
2023	\$ 0				
2024	\$ 0				
2025	\$ 0				
2026	\$ 0				
Future Years	-	In Service Date: Recurring			
Total Cost	-				

Capital Improvement Program - Project Summary									
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Project: Facility Paving Project	Project Number: 000089
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Project: Facility Paving Project	Project Number: 000089
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Strategy: Maintaining Infrastructure	Program:	Reservoir Rehab Program
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Strategy: Maintaining Infrastructure	Program:	Reservoir Rehab Program
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Strategy: Maintaining Infrastructure	Program:	Reservoir Rehab Program
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Justification:

Aging paving at local facilities are in need of restoration and this project provides a systematic and long-term approach to optimizing pavement maintenance.

Description:	
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This project maintains and replaces distribution reservoir access roads, other facility roads, and parking areas.

Planned work in FY22-26 includes paving repairs and replacements for reservoir access roads, Adeline Maintenance Center facilities, and Service Yards.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
Facility Paving	2,513,874	4,420,000	0	6,933,874

Project Appropriations		Lead Dept:	WOD
Prior Years	\$ 3,829,909		
2022	\$ 578,000	Recurring:	No
2023	\$ 915,000		
2024	\$ 945,000	Funding:	BOND/REV
2025	\$ 975,000		
2026	\$ 1,007,000		
Future Years	\$ 0		
Total Cost	\$ 8,249,909	In Service Date:	30-Jun-30

Capital Improvement Program - Project Summary

Project: Fueling Facility Upgrades

Project Number: 1002589

Strategy: Facilities, Servc and Equip

Program: Vehicle/Equipment

Justification:

This project is required to replace equipment that is at the end of its useful life. Most of the fuel dispenser units that will be replaced are over 30 years old and require frequent repairs.

Description:

This project includes planning, design and construction to upgrade fueling facilities. Improvements scheduled for FY22-23 include replacing fuel dispensers at 16 sites, and installing the Enhanced Vapor Recovery Phase II equipment for the above ground storage tanks.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
Fuel Facility Improvements	14,577,404	3,000,000	0	17,577,404

Project Appropriations		Lead Dept: WOD Recurring: No	
Prior Years	\$ 16,046,000		
2022	\$ 3,000,000	Funding: BOND/REV 100%	
2023	\$ 0		
2024	\$ 0		
2025	\$ 0		
2026	\$ 0		
Future Years	\$ 0	In Service Date: 31-Dec-23	
Total Cost	\$ 19,046,000		

Capital Improvement Program - Project Summary									
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Project: Minor Facility Improvements	Project Number: 1002676
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Project: Minor Facility Improvements	Project Number: 1002676
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Strategy: Facilities, Servc and Equip	Program:	Area Service Center/Bldg Prog
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Strategy: Facilities, Servc and Equip	Program:	Area Service Center/Bldg Prog
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Strategy: Facilities, Servc and Equip	Program:	Area Service Center/Bldg Prog
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Justification:

Each year various relatively low-cost improvements and modifications to facilities are required. Most involve equipment or structural issues impacting facility integrity, or health and safety issues.

Description:

This project consists of low-cost capital improvements to facilities that do not require extensive planning or design, or justify a stand alone project. The project also includes cost sharing with the Wastewater System for laboratory upgrades and equipment.

In FY22, projects include replacing HVAC equipment at the Adeline Maintenance Center (AMC) Shops building; LED lighting upgrades at the Administration Building (AB) garage; AB elevator lighting upgrades for four cars; slab reinforcements and replacement of a standard milling machine with a computer controlled milling machine for the Central Machine Shop (CMS); and the rehabilitation of one kitchenette at the main AB.

In FY23, projects include replacement of a standard lathe with a computer controlled lathe at CMS; AB elevator lighting upgrades for three cars; window film replacement and painting of the building exterior at the AMC Campus; and the rehabilitation of two kitchenettes at the AB.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
Minor Facilities Work	9,143,389	6,569,000	0	15,712,389

Project Appropriations		Lead Dept: WOD Recurring: Yes	
Prior Years	-		
2022	\$ 1,350,000	Funding: BOND/REV 100%	
2023	\$ 3,590,000		
2024	\$ 656,000		
2025	\$ 473,000		
2026	\$ 500,000		
Future Years	-	In Service Date: Recurring	
Total Cost	-		

Capital Improvement Program - Project Summary					
Project: Minor WTP Capital Work		Project Number: 2003502			
Strategy: Water Quality		Program: Water Treatment Upgrade			
Justification: Each year various relatively low-cost improvements and modifications to existing Water Treatment Plants (WTP) are required. Most involve equipment or structural problems impacting facility integrity, or health and safety issues.					
Description: This project consists of low-cost capital improvements to facilities that do not require extensive planning or design, or justify a stand alone project. This project may also address small infrastructure improvements that were unanticipated but are critical for WTP operations. Work in FY20-24 includes replacement of two 36-inch butterfly valves at the wash water basins, re-coating of the solids handling ponds, purchase of new filter valves, and improvements to the ammonia feed system at Orinda WTP; purchase of new variable frequency drive controllers for all chemical pumps at Sobrante WTP; replacement of both sedimentation isolation gates at Sobrante WTP; replenishment of filter media at Upper San Leandro WTP; and purchase of new chemical metering pumps and equipment at various WTPs.					
Active Segment Appropriations		Prior Yrs	FY22-26	Future Yrs	Total
WTP Capital Improvements		5,151,931	3,379,000	0	8,530,931
Project Appropriations		Lead Dept: WOD Recurring: Yes			
Prior Years	-				
2022	\$ 630,000	Funding: BOND/REV 100%			
2023	\$ 652,000				
2024	\$ 675,000				
2025	\$ 699,000				
2026	\$ 723,000				
Future Years	-	In Service Date: Recurring			
Total Cost	-				

Capital Improvement Program - Project Summary									
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Project: OP/NET System	Project Number: 000628
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Project: OP/NET System	Project Number: 000628
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Strategy: Extensions and Improvements	Program:	OP/NET
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Strategy: Extensions and Improvements	Program:	OP/NET
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Justification:	
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The OP/NET System, consisting of the Industrial Control System (ICS), the Supervisory Control and Data Acquisition (SCADA) system, and Remote Terminal Units (RTU) is necessary for the operation of the water system. Hardware, software and components need replacement and upgrades to ensure system reliability and security.

[illegible]

This project consists of ongoing component upgrades and replacements for the OP/NET System to ensure that it reliably and securely obtains water system information and reports process data to system operators, engineers and planners. The OP/NET System includes the Security System, SCADA system at more than 20 locations, wired and wireless communication networks, monitoring and control equipment at over 300 facilities, and distributed control systems to provide operations staff with the ability to control and monitor water production, treatment, distribution, hydroelectric power generation and field facilities.

In FY20-21, the SCADA system was upgraded with new software and hardware; high speed SCADA communication lines and industrial network routers were added; the wireless broadband communications network was expanded; and over 40 RTUs were replaced. The Distributed Control Systems at Orinda and Walnut Creek Water Treatment Plants were upgraded. In addition, cybersecurity vulnerability mitigations were completed to secure the ICS that includes water control, building management control, centralized security, and wastewater control systems.

In FY22-26, upgrade of the SCADA system and ICS infrastructure will continue, and deployment of additional wireless communication and security/network equipment will coincide with the RTU replacement project. Also, another ICS cybersecurity assessment will be performed followed by any mitigations recommended by the assessment.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
Op/Net Sys Improvements	16,050,733	4,888,200	5,950,000	26,888,933

Project Appropriations		Lead Dept:	WOD	
Prior Years	-			Recurring:
2022	\$ 0	Funding:	BOND/REV	
2023	\$ 1,542,800			
2024	\$ 1,168,800			
2025	\$ 1,079,400			
2026	\$ 1,097,200			
Future Years	-	In Service Date:	Recurring	
Total Cost	-			

Capital Improvement Program - Project Summary					
Project: Pardee Ctr Cap Maint & Imprvmt		Project Number: 2001367			
Strategy: Water Supply		Program: Supply Reservoirs			
Justification: This project is needed to rehabilitate or replace infrastructure and equipment to improve operating efficiency and reliability and meet regulatory compliance with water and wastewater systems and facilities.					
Description: This project provides for replacement and improvements to the Pardee Center Water Treatment Plant, Wastewater Treatment Plant, potable water system, collection system, buildings and grounds, roads, conference center, chemical plant and aqueduct flow control infrastructure to ensure safe and reliable systems that comply with operational and regulatory requirements. FY22-31 work includes replacement of power poles; replacement of siding, flooring, HVAC systems, etc. on several buildings; purchase of a storage building; exterior painting of the warehouse and shops; rehabilitation of the elevated fire water tank; replacement of the Pardee Ridge emergency generator; and replacement of the 800MHz radio system.					
Active Segment Appropriations		Prior Yrs	FY22-26	Future Yrs	Total
Pardee Ctr Cap Maint & Imprvmt		1,234,352	3,216,236	1,346,795	5,797,383
Project Appropriations		Lead Dept: WOD Recurring: Yes			
Prior Years	-				
2022	\$ 1,208,054	Funding: BOND/REV 100%			
2023	\$ 1,102,030				
2024	\$ 373,488				
2025	\$ 319,885				
2026	\$ 212,779				
Future Years	-	In Service Date: Recurring			
Total Cost	-				

Capital Improvement Program - Project Summary									
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Project: Powerhouse Improvements	Project Number: 2001368
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Project: Powerhouse Improvements	Project Number: 2001368
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Strategy: Water Supply	Program:	Supply Reservoirs
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Strategy: Water Supply	Program:	Supply Reservoirs
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Strategy: Water Supply	Program:	Supply Reservoirs
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Justification:

This project is needed to rehabilitate or replace aging powerhouse infrastructure and equipment to improve operating efficiency and reliability and meet river flow commitments set forth by hydrology, water rights priorities, agreements, decrees and directives from state and federal regulatory agencies.

Description:

This project provides for replacement and improvements of electrical and mechanical equipment such as turbines, generators, breakers, protective relays, valves, pipeline and conduits to ensure reliable power production, management of river flows, and remote operation and monitoring of critical systems.

FY22-31 work consists of purchasing a Vanguard timing test set and time travel analyzer; upgrading a generator and programmable logic controller; replacing piping and valves; overhauling a turbine; upgrading a lube oil system and transformer; replacing relays, disconnect switches, and oil-filled circuit breakers; installing digital fault recorders; and upgrading instrumentation.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
Powerhouse Improvements	11,470,708	4,394,877	4,203,166	20,068,751
FSCC Capital Improvements	0	949,699	120,562	1,070,261

Project Appropriations		Lead Dept:	WOD
Prior Years	-		
2022	\$ 1,295,700	Recurring:	Yes
2023	\$ 1,496,357	Funding:	BOND/REV 100%
2024	\$ 618,465		
2025	\$ 607,231		
2026	\$ 1,326,823		
Future Years	-	In Service Date:	Recurring
Total Cost	-		

Capital Improvement Program - Project Summary					
Project: Raw Wtr Aq O&M Imprvmts		Project Number: 001316			
Strategy: Water Supply		Program: Aqueduct Program			
Justification: This project is needed to improve or replace aging raw water conveyance system infrastructure, and improve operating efficiency and reliability to meet water supply demands and regulatory requirements.					
Description: This project provides infrastructure improvements to facilitate the safe and reliable operation of the raw water aqueducts, pipelines, pumping plants and other facilities. In FY22-26, plans include improvements to raw water pipeline appurtenances, support cradles, culvert replacement, fencing, and structure rehabilitation. This project also provides for improvements of Delta levees and Freeport Regional Water Authority facilities and equipment.					
Active Segment Appropriations		Prior Yrs	FY22-26	Future Yrs	Total
Raw Wtr Aqueduct Imprvmts		24,406,184	7,336,882	7,444,487	39,187,553
Project Appropriations		Lead Dept: WOD Recurring: Yes			
Prior Years	-				
2022	\$ 1,552,725	Funding: BOND/REV 100%			
2023	\$ 1,223,563				
2024	\$ 1,440,947				
2025	\$ 1,597,440				
2026	\$ 1,522,207				
Future Years	-	In Service Date: Recurring			
Total Cost	-				

Capital Improvement Program - Project Summary					
Project: Rec Area Cap Maint & Imprvmt		Project Number: 2001369			
Strategy: Water Supply		Program: Supply Reservoirs			
Justification: This project ensures compliance with regulatory agency requirements and maintains recreation facilities in safe condition.					
Description: This project provides for replacement and improvements to the water and wastewater treatment plants, potable water systems, waste collection systems, dams, dikes and watershed lands at the Pardee and Camanche recreation areas. Much of the work is required to maintain regulatory compliance. FY20-31 work includes replacing the Pardee Recreation Area Water Treatment Plant (WTP); connecting the cross lake pipeline to the Camanche North Shore system at China Gulch, along with replacing a steel bolted water tank, paving and piping; and upgrading the motor control center and replacing potable water isolation valves at the Camanche South Shore WTP.					
Active Segment Appropriations		Prior Yrs	FY22-26	Future Yrs	Total
Rec Area Cap Maint & Imprvmt		2,607,049	4,475,139	1,749,486	8,831,674
Project Appropriations		Lead Dept: WOD Recurring: Yes			
Prior Years	-				
2022	\$ 750,942	Funding: BOND/REV 100%			
2023	\$ 1,714,687				
2024	\$ 345,900				
2025	\$ 1,192,501				
2026	\$ 471,109				
Future Years	-	In Service Date: Recurring			
Total Cost	-				

Capital Improvement Program - Project Summary

Project: Small Capital Improvements

Project Number: 2006310

Strategy: Maintaining Infrastructure

Program: Pumping Plant Rehabilitation

Justification:

This project replaces critical electrical, mechanical, instrument, and structural components at distribution and treatment facilities that have reached the end of their useful life. Failure of the components can affect water service to customers, fire suppression capability and water quality.

Description:

This project provides small and urgent capital improvements to maintain the reliability and safety of pumping plants, reservoirs, regulators, treatment plants, rate control stations, and administration buildings. There are 425 of these facilities, of which 66 have improvements scheduled in the Infrastructure Rehabilitation Plan (IRP) in the next 10 years. This project provides improvements and the accelerated replacement of failed or unreliable components in some of the 66 facilities slated for eventual rehabilitation. Such improvements are smaller in scale than the typical project under the IRP.

Projects completed in FY20-21 include installation of soft starters at seven pumping plants; replacement of roofs at seven pumping plants and small facilities; replacement of controls at two pumping plants; installation of generator transfer switches and signals at 32 pumping plants; and repair or replacement of motors at Summit North (El Cerrito), Colorados (Lafayette), Oak Knoll (El Cerrito), Nicholl Knob (Richmond), and several other smaller pumping plants.

Planned projects for FY22-23 include replacement of electrical and control components at 10 or more pumping plants as well as the replacement of 150 turbidimeters at water treatment plants. Other work includes repair and replacement of motors, valves, piping, instrumentation, retaining walls and roofs at various pumping plants, water treatment plants, regulators and rate control stations.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
Small Capital Improvements	14,359,126	15,542,700	18,350,000	48,251,826

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Project Appropriations		Lead Dept: WOD		
Prior Years	\$ 17,038,620	Recurring: No		
2022	\$ 2,913,000	Funding: BOND/REV 100%		
2023	\$ 3,008,000			
2024	\$ 3,105,000			
2025	\$ 3,206,000			
2026	\$ 3,310,700			
Future Years	\$ 18,350,000	In Service Date: 30-Jun-40		
Total Cost	\$ 50,931,320			

Capital Improvement Program - Project Summary									
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Project: Upcountry WW Trmt Imprvmts	Project Number: 1000816
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Project: Upcountry WW Trmt Imprvmts	Project Number: 1000816
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Strategy: Regulatory Compliance	Program:	Remediation
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Strategy: Regulatory Compliance	Program:	Remediation
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Strategy: Regulatory Compliance	Program:	Remediation
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Justification:

Improvements to the upcountry wastewater systems are needed to protect the environment from spills and overflows, and to maintain permit requirements issued by the CA Regional Water Quality Control Board.

Description:	
1	1. The first step in the process of the scientific method is to ask a question.

The Upcountry Wastewater Improvement Program includes multiple projects to upgrade the wastewater collection, treatment and disposal systems serving the Pardee and Camanche facilities. An Upcountry Utility Infrastructure Master Plan recommends upgrading the collection facilities to meet new regulatory requirements.

FY21-22 priorities include completing design and construction of the sewer collection system improvements at Camanche South Shore (CASS). Design and construction for improvements to the collection system at Camanche North Shore (CANS) will take place in FY23-24. Design and construction for the collection systems at Pardee Center (PACT) and Pardee Recreation Area (PARA) will take place in FY24-25.

The objectives of these improvement projects are to meet District and State of California standards; reconnect the mobile homes to the wastewater collection system; correct system layout deficiencies; and increased system dependability with the installation of backup power to crucial lift stations.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
Upcountry WW Trmt Imprvmts	20,358,449	27,950,000	8,000,000	56,308,449

Project Appropriations		Lead Dept:	WOD	
Prior Years	\$ 32,057,000			Recurring:
2022	\$ 9,600,000	Funding:	BOND/REV	
2023	\$ 0			
2024	\$ 10,350,000			
2025	\$ 0			
2026	\$ 8,000,000			
Future Years	\$ 8,000,000	In Service Date:	30-Jun-29	
Total Cost	\$ 68,007,000			

Capital Improvement Program - Project Summary					
Project: Wtr Supply Monitoring System		Project Number: 000065			
Strategy: Water Supply		Program: Supply Reservoirs			
Justification: Reliable and timely hydrologic, meteorologic, flow and water quality data is required to meet operational needs. Improved data quality, reliability and water supply forecasting is needed for expanded hydrologic monitoring in the East Bay and Mokelumne watersheds.					
Description: This project provides for the development and improvement of a system for monitoring the Mokelumne and East Bay Watersheds for precipitation, diversion, water flow and storage level. This monitoring system provides near real-time information for operation and forecasting plans. Work includes monitoring on the Upper and Lower Mokelumne, Pardee, Camanche and East Bay watersheds and reservoirs. FY22-FY32 plans include equipment and telemetry upgrades, new monitoring stations, station rehabilitation/relocations, station safety improvements and improved flow measurement capabilities during high flow events.					
Active Segment Appropriations		Prior Yrs	FY22-26	Future Yrs	Total
Wtr Supply Monitoring System		867,649	638,000	451,000	1,956,649
Project Appropriations		Lead Dept: WOD			
Prior Years	\$ 2,081,000	Recurring: No			
2022	\$ 120,000	Funding: BOND/REV 100%			
2023	\$ 88,000				
2024	\$ 103,000				
2025	\$ 180,000				
2026	\$ 147,000				
Future Years	\$ 451,000	In Service Date: 30-Jun-32			
Total Cost	\$ 3,170,000				

Capital Improvement Program - Project Summary									
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Project: East Bayshore	Project Number: 1005395
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Project: East Bayshore	Project Number: 1005395
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Strategy: Water Supply	Program:	Water Recycling
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Strategy: Water Supply	Program:	Water Recycling
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Strategy: Water Supply	Program:	Water Recycling
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Justification:

The District has set a goal of providing 20 MGD of recycled water by the year 2040, thereby offsetting the demand for potable water. This project will contribute to that goal and supports the Strategic Plan goal of Long-Term Water Supply through water recycling.

Description:

The East Bayshore Recycled Water Project will ultimately provide 2.3 MGD of recycled water to customers in Albany, Berkeley, Emeryville, Oakland, and Alameda. The project includes Phases 1A (0.4MGD), 1B (0.25 MGD), and 2 (1.7MGD). Phase 1A began operating in 2008 and currently delivers 0.2 MGD to customers in Oakland and Emeryville. A water quality improvements pilot study will be conducted to develop design criteria and operations parameters for treatment improvements which may be implemented in FY24-25.

Phase 1B will expand service by an additional 0.25 MGD, for total estimated Phases 1A and 1B supply of 0.65 MGD. The planned timeframe for implementation is FY30-34.

Phase 2, estimated at 1.7 MGD, is planned for implementation in FY35-40. Recycled water will be provided to Alameda, Emeryville, Berkeley, and Oakland. The crossing of the estuary (slip lining of existing pipe) will be completed in FY25-30. The remainder of the facilities including expansion through Alameda, Berkeley, Emeryville, and Oakland would be completed by FY40 and include pipelines, treatment expansion, a possible booster pump station, and customer retrofits.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
East Bayshore	73,753,768	19,139,431	100,000,000	192,893,199

Project Appropriations				
Prior Years	\$ 73,753,768	Lead Dept:	WRD	
2022	\$ 0	Recurring:	No	
2023	\$ 3,041,634	Funding:	BOND/REV	30%
2024	\$ 8,891,843		SCC	70%
2025	\$ 3,545,365			
2026	\$ 3,660,589			
Future Years	\$ 100,000,000	In Service Date:	30-Jun-40	
Total Cost	\$ 192,893,199			

Capital Improvement Program - Project Summary

Project: RARE Water Project

Project Number: 2004604

Strategy: Water Supply

Program: Water Recycling

Justification:

This project is required to meet the District's contractual obligation to provide high-purity recycled water to the Chevron refinery in Richmond for use as boiler feedwater. In addition, this project helps the District to meet its water recycling goal of providing 20 MGD of recycled water by the year 2040 and supports the District's Strategic Plan Long-Term Water Supply goal.

Description:

Phase 1 of the Richmond Advanced Recycled Expansion (RARE) Water Project was completed in 2010 and provides 3.5 MGD of recycled water to Chevron for boiler feedwater applications to conserve the use of potable water. Facilities consist of a high-purity recycled water treatment plant at Chevron, an influent pump station, flow equalization, and a standby generator at the West County Wastewater District treatment plant.

In FY22 and beyond, equipment will be replaced at the RARE high-purity recycled water treatment plant including the microfiltration modules, reverse osmosis feed pumps, and reverse osmosis membranes. These replacements are to be funded by Chevron.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
RARE - Chevron Funded	56,612,514	3,497,248	5,100,000	65,209,762
RARE - EBMUD Funded	4,936,551	0	0	4,936,551

Project Appropriations		Lead Dept:	WRD	
Prior Years	\$ 64,937,000	Recurring:	No	
2022	\$ 224,401	Funding:	SCC	6%
2023	\$ 567,875		OAG	94%
2024	\$ 1,168,611			
2025	\$ 1,081,771			
2026	\$ 454,590			
Future Years	\$ 5,100,000	In Service Date:	30-Jun-36	
Total Cost	\$ 73,534,248			

Capital Improvement Program - Project Summary

Project: SRV Recycled Water Program

Project Number: 1005224

Strategy: Water Supply

Program: Water Recycling

Justification:

The District has set a goal of providing 20 MGD of recycled water by the year 2040, thereby offsetting the demand for potable water. This project will contribute to that goal and supports the Strategic Plan goal of Long-Term Water Supply.

Description:

Expansion of the Dublin San Ramon-EBMUD Recycled Water Authority (DERWA) tertiary treatment facilities from 9.7 MGD to 16.2 MGD was completed in FY20 to provide capacity as the distribution system is expanded and additional customers are connected. Ongoing treatment plant capital replacement costs are needed for operations and maintenance. Additional supplemental supplies will need to be secured over the next few years to meet peak demands and future expansions.

EBMUD's portion of the San Ramon Valley Recycled Water Program includes customer retrofits and connecting customers to the distribution system; implementation of distribution systems in San Ramon, Danville and Blackhawk; and planning/property purchase of Pump Stations 3 and 4. Phase 1 began operating in 2006 and delivers up to 0.7 MGD of recycled water to EBMUD customers in San Ramon.

Phase 2 distribution pipelines have been completed, and customer retrofits were completed in FY21. The Phase 3 pump station on the border between San Ramon and Danville will be completed in FY26 with distribution pipelines to be implemented in FY27. Phase 3 site retrofits will be completed in FY27-28.

Phase 5 improvements in Blackhawk West is anticipated to be completed in FY31. The Phase 4 pump station and pipelines in Blackhawk will be completed post FY31. Timing of all phases will be contingent on demand needs and supplemental supplies.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
San Ramon Valley RW	41,117,956	6,650,977	25,500,000	73,268,933
DERWA	47,274,146	0	0	47,274,146

Project Appropriations				
Prior Years	\$ 88,392,102	Lead Dept:	WRD	
2022	\$ 0	Recurring:	No	
2023	\$ 5,872,442	Funding:	BOND/REV	30%
2024	\$ 0		SCC	70%
2025	\$ 500,098			
2026	\$ 278,437			
Future Years	\$ 25,500,000	In Service Date:	30-Jun-40	
Total Cost	\$ 120,543,079			

Capital Improvement Program - Project Summary

Project: Sup Supply and Regional Plng

Project Number: 000460

Strategy: Water Supply

Program: Water Supply Mgmt Program

Justification:

This project is needed to ensure the reliability of the water supply into the future, particularly during dry years, emergencies, and in response to changing climate and legislation. The programs and projects support the Strategic Plan goals for Long-Term Water Supply and Water Quality and Environmental Protection.

Description:

The District continually works to develop programs and projects to help ensure the reliability of its long-term water supply, taking into account droughts and climate change.

Key projects in FY22-26 include evaluating the Los Vaqueros Reservoir Expansion, developing and implementing water transfer and exchange opportunities, participating in the Upper Mokelumne Regional Water Authority and the Bay Area Regional Reliability partnership, investigating groundwater banking opportunities in both San Joaquin and Sacramento County, and developing and protecting the East Bay Plain Subbasin.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
Imported Water Facilities	2,881,185	50,188,654	98,000,000	151,069,839
GroundwaterResourceDevelopment	27,747,500	0	75,000,000	102,747,500
Local Regional Partnerships	19,122,540	0	6,800,000	25,922,540
Water Transfers	12,821,000	0	0	12,821,000
SGMA Compliance	7,983,057	509,135	0	8,492,192

Project Appropriations		Lead Dept: WRD	
Prior Years	\$ 140,406,834	Recurring: No	
2022	\$ 1,976,716	Funding:	BOND/REV 30%
2023	\$ 8,214,238		SCC 14%
2024	\$ 1,987,835		GRANTS 56%
2025	\$ 1,902,000		
2026	\$ 36,617,000		
Future Years	\$ 179,800,000	In Service Date: 31-Dec-40	
Total Cost	\$ 370,904,623		

Capital Improvement Program - Project Summary									
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Project: Water Recycling WSMP	Project Number: 000890
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Project: Water Recycling WSMP	Project Number: 000890
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Strategy: Water Supply	Program:	Water Recycling
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Strategy: Water Supply	Program:	Water Recycling
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Strategy: Water Supply	Program:	Water Recycling
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Justification:	
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The District's Water Supply Management Program (WSMP) has set a goal of providing 20 MGD of recycled water by the year 2040, thereby offsetting the demand for potable water. These projects will contribute to the goal and supports the Strategic Plan goal of Long-Term Water Supply.

Description:	
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The Recycled Water Master Plan was updated in FY18-19. This project consists of: (1) updating the master plan every 5 years; (2) coordinating the implementation of golf course funded satellite treatment plants including potential projects at the Diablo Country Club in FY24 and Sequoyah Country Club; (3) further evaluation and implementation of the first phase of the Phillips 66 recycled water project in Rodeo in FY26-31; (4) rehabilitation of the San Leandro pump station project by FY29; (5) evaluation and development of potential recycled water opportunities in Contra Costa County in the long term; and (6) expansion of the recycled water truck program and residential fill station.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
Water Recycling Planning	10,750,144	5,942,847	0	16,692,991

Project Appropriations		Lead Dept: WRD Recurring: No		
Prior Years	\$ 17,587,909			
2022	\$ 0	Funding: BOND/REV 30% SCC 70%		
2023	\$ 0			
2024	\$ 0			
2025	\$ 0			
2026	\$ 5,942,847			
Future Years	\$ 0	In Service Date: 30-Jun-40		
Total Cost	\$ 23,530,756			

Capital Improvement Program - Project Summary

Project: Water Rights, Licenses & Plans

Project Number: 2014434

Strategy: Water Supply

Program: Water Supply Mgmt Program

Justification:

This project is needed to meet regulatory guidelines to protect the Districts' facilities that are necessary to divert and store water to ensure a reliable high-quality water supply for customers, along with the ability to generate hydropower. The project will also assist the District in qualifying for grant funding from the state.

Description:

The Urban Water Management Plan (UWMP) serves as the District long-term water supply master plan, assessing supply and demand conditions, analyzing future water needs, and identifying capital projects that would improve water supply reliability in the Upper Mokelumne River Watershed and within the East Bay.

The District's Federal Energy Regulatory Commission License 2916 is major asset and is scheduled for renewal in March 2031. Renewal tasks may include investigating biological and cultural resources as well as public safety requirements, and hiring consultants and conducting studies that will need to occur during the relicensing effort.

The District has water right entitlements that are associated with its major storage reservoirs and hydropower facilities. Tasks are related to assessments and improvements that would protect the value of this asset. Water rights related tasks to support specific capital projects are also part of this project such as Los Vaqueros Reservoir expansion or the Demonstration Recharge Extraction and Aquifer Management project in San Joaquin.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
Water Rights, Licenses & Plans	0	3,150,000	5,450,000	8,600,000

Project Appropriations			
Prior Years	\$ 0	Lead Dept:	WRD
2022	\$ 350,000	Recurring:	No
2023	\$ 250,000	Funding:	BOND/REV100%
2024	\$ 700,000		
2025	\$ 850,000		
2026	\$ 1,000,000		
Future Years	\$ 5,450,000		
Total Cost	\$ 8,600,000	In Service Date:	01-Jan-30

Capital Improvement Program - Project Summary

Project: No Richmond Recy Wtr Fac Impr **Project Number:** 000876

Strategy: Water Supply **Program:** Water Recycling

Justification:

This project is required to meet the District's contractual obligations to provide recycled water to the Chevron Richmond refinery. In addition, this project helps the District to meet its water recycling goal of providing 20 MGD of recycled water by the year 2040 and supports the strategic plan goal of long-term water supply.

Description:

This project includes upgrades at the North Richmond Water Recycling Plant (NRWRP) that are needed to maintain the facility and continue to meet the District's contractual obligations to the Chevron Richmond refinery. In FY22-26, this project will include clarifier and thickener drive replacements, air compressor replacements, polymer improvements, process water pipe replacements, and other improvements.

Active Segment Appropriations	Prior Yrs	FY22-26	Future Yrs	Total
NRWRP Routine Capital Maint	5,379,335	2,140,367	3,200,000	10,719,702
No. Richmond Improvements/Exp	6,465,496	3,245,336	0	9,710,832

Project Appropriations				
Prior Years	\$ 17,624,183	Lead Dept:	WRP	
2022	\$ 460,662	Recurring:	No	
2023	\$ 2,410,548	Funding:	BOND/REV	30%
2024	\$ 1,345,683		SCC	70%
2025	\$ 589,207			
2026	\$ 579,603			
Future Years	\$ 3,200,000	In Service Date:	30-Jun-40	
Total Cost	\$ 26,209,886			

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FY22-26 CAPITAL IMPROVEMENT PROJECTS

PROJECT ID	PROJECT TITLE	Page #
001210	Aqueduct Cathodic Protection	3
2001485	Arc Flash, Mitigate, Proj. Mgn	74
003033	Building Facilities Improve	4
000477	Contingency Project Wastewater	59
001300	Contingency Project Water	38
1002574	Dam Operational Upgrades	5
000861	Dam Seismic Upgrades	6
000748	Dam Surveillance Improvements	7
000363	Data & Telecom Infrastructure	40
2014358	Delta Tunnel	8
2014083	Dewatering	60
1002588	Diesel Engine Retrofit	75
2014082	Digesters	61
000711	Distr Sys Cathodic Protection	9
000919	Distrib Sys Wtr Quality Imprv	76
000130	Distribution System Upgrades	10
2014182	ERF Current DSS/Server/Network	41
2014179	ERF Current PCs/Desktop/Laptop	42
2014193	ERF Purchases for Copiers	39
2014186	ERF Smoothg DSS/Server/Network	43
2014184	ERF Smoothg PCs/Desktop/Laptop	44
000198	East Bay Watershed Rec Projs	52
1005395	East Bayshore	90
2014079	Effluent Discharge	62
2014084	Electricals and Controls	63
000112	Engineering IT	11
1002593	Enhanced Power Revenue	77
1002592	F&W Projects and Mok Hatchery	53
2003539	FIS / MMIS Replacement	45
2014360	Facilities Cathodic Protection	12
000089	Facility Paving Project	78

FY22-26 CAPITAL IMPROVEMENT PROJECTS

PROJECT ID	PROJECT TITLE	Page #
1002589	Fueling Facility Upgrades	79
2014086	General Wastewater	64
2003543	HRIS Replacement	46
000099	Hydrants Installed by DF	13
2014073	Interceptors and Pump Stations	65
1006298	Large Diameter Pipelines	14
2014354	Maloney PP & WTP Improvements	15
000738	Meter Replacements	48
1002676	Minor Facility Improvements	80
2003502	Minor WTP Capital Work	81
2005281	Miscellaneous Planning Studies	16
2003494	Mok Aqueduct No 2 & 3 Relining	17
2001487	Mokelumne Aqueducts Recoating	18
000158	Mokelumne Watershed Rec HQ	54
2008687	Mokelumne Watershed Rec Projs	55
000101	New Service Installations	19
000876	No Richmond Recy Wtr Fac Impr	96
2014080	Nutrients	66
000628	OP/NET System	82
000241	Open-Cut Reservoir Program	20
2001367	Pardee Ctr Cap Maint & Imprvmt	83
2003500	Pardee/Cam Rec Areas Impr Plan	56
001337	Penn Mine Remediation	57
000218	Pipeline Appurtenances	49
000554	Pipeline Rebuild	21
000108	Pipeline Relocations	22
000104	Pipeline System Extensions	23
000110	Pipeline System Improvements	24
2014078	Power Generation and Biogas	67
2001368	Powerhouse Improvements	84
2014075	Preliminary Treatment	68

FY22-26 CAPITAL IMPROVEMENT PROJECTS

PROJECT ID	PROJECT TITLE	Page #
001424	Pressure Zone Improvements	25
2014076	Primary Treatment	69
001252	Pumping Plant Rehabilitation	26
2004604	RARE Water Project	91
1002590	Rate Control Station Rehab	27
1000810	Raw Water Infrastructure	28
001316	Raw Wtr Aq O&M Imprvmts	85
2001369	Rec Area Cap Maint & Imprvmt	86
000398	Regulator Rehabilitation	29
000716	Reservoir Rehab/Maintenance	30
000672	Reservoir Tower Modifications	31
2014081	Resource Recovery	70
1005224	SRV Recycled Water Program	92
2014077	Secondary Treatment	71
1005899	Security Improvements	32
000654	Service Lateral Replacements	33
2006310	Small Capital Improvements	87
000460	Sup Supply and Regional Plng	93
003026	Trans Main Cathodic Protection	34
000437	Treatment Plant Upgrades	35
000652	Trench Soils Management	36
1000816	Upcountry WW Trmt Imprvmts	88
2014085	Utilities and Sitework	72
000528	Veh & Hvy Equip Additions, Wtr	50
000526	Vehicle Replacements	51
000894	Water Conservation Project	2
2012651	Water Loss Control	58
000890	Water Recycling WSMP	94
2014434	Water Rights, Licenses & Plans	95
2001475	West of Hills Master Plan	37
2014074	Wet Weather Facilities	73

FY22-26 CAPITAL IMPROVEMENT PROJECTS

PROJECT ID	PROJECT TITLE	Page #
2009564	Work Mgmt Systems Replacement	47
000065	Wtr Supply Monitoring System	89

FY22 & FY23 Budget Workshop #2

Board of Directors

March 23, 2021

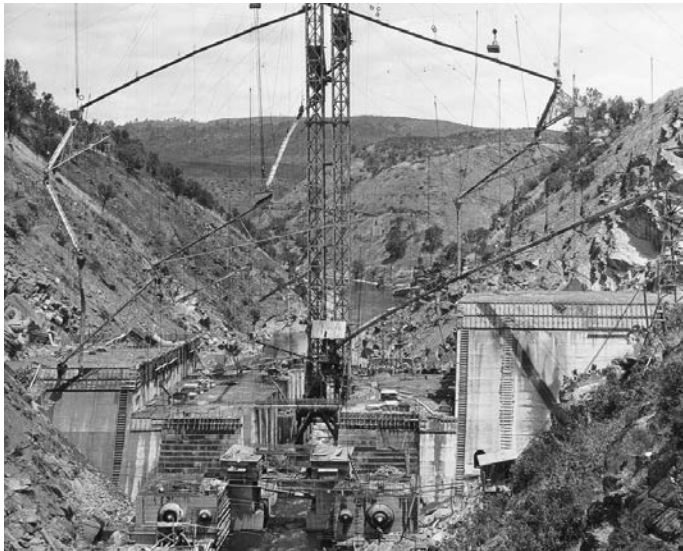
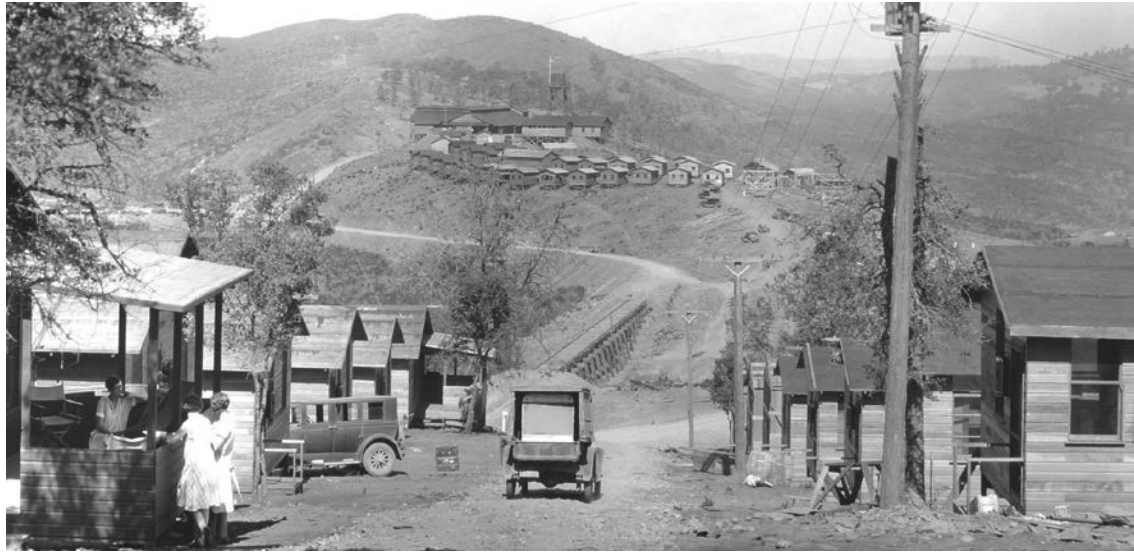
Workshop Agenda



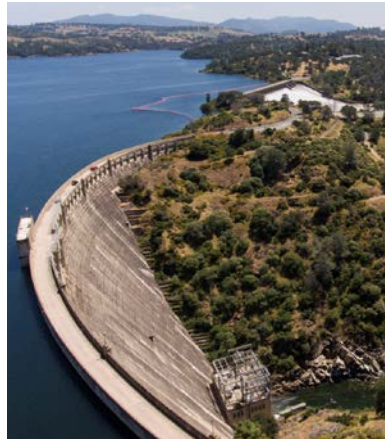
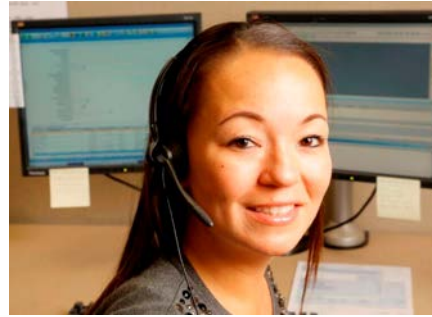
- Introduction
- Budget Priorities
- Workshop #1 Recap & Follow-up
- Recommended Budget
- Break
- Recommended Rates and Charges
- Workshop Conclusion
- Board Discussion

Introduction

1923



Today Celebrating 100 Years of Great Water



Wastewater then Now



SD-1: 1951

Influent and effluent pumping stations; 10 primary tanks; and 3 digesters



Budget Priorities

FY22 & FY23 Biennial Budget



Budget Priorities

- Continue investments in and maintenance of aging infrastructure
- Plan for long-term financial stability



Budget Themes



- **Sustainability** and **resilience** in all aspects of the Strategic Plan
- Need for **cautious, realistic** and **flexible** outlook

Budget Approach



- Cautious
 - Consider pandemic impacts on regional economy, water sales, and collection
- Realistic
 - Recognize financial stress on customers, cities, and local agencies
 - Reevaluate spending, priorities, and strategies
- Flexible
 - Adapt to the current environment
 - Move forward with critical work

Workshop #1

Recap & Follow-up

Workshop Summary

Sustainable and Resilient



- Provided update on the current pandemic impacts at the federal, state, and local level
- Reviewed FY22 & FY23 biennial budget development and assumptions including the:
 - Proposed Capital Improvement Programs, which continue investments and maintenance of infrastructure, and staffing concerns/strategies
 - Preliminary assumptions and rate planning:
 - Water 4%/4% (below previous 5%/5% projection)
 - Wastewater 4%/4%
 - System Capacity Charge workshop follow-up

Recommended Budget

FY22 & FY23 Biennial Budget Overview



- Balances economic realities and struggles of our customers due to the pandemic with our priorities
- Funds key initiatives while maintaining fair and reasonable rates:
 - Water affordability through lower rate increases than previously projected
 - Ongoing maintenance
 - Key infrastructure investments
 - Racial justice and social equity initiatives including the Ranger Internship Program
 - Customer Support Program enhancement
 - Wastewater technical and emerging issues

FY22 & FY23 Biennial Budget Appropriations



The District-wide two-year total appropriations are \$2.25 billion

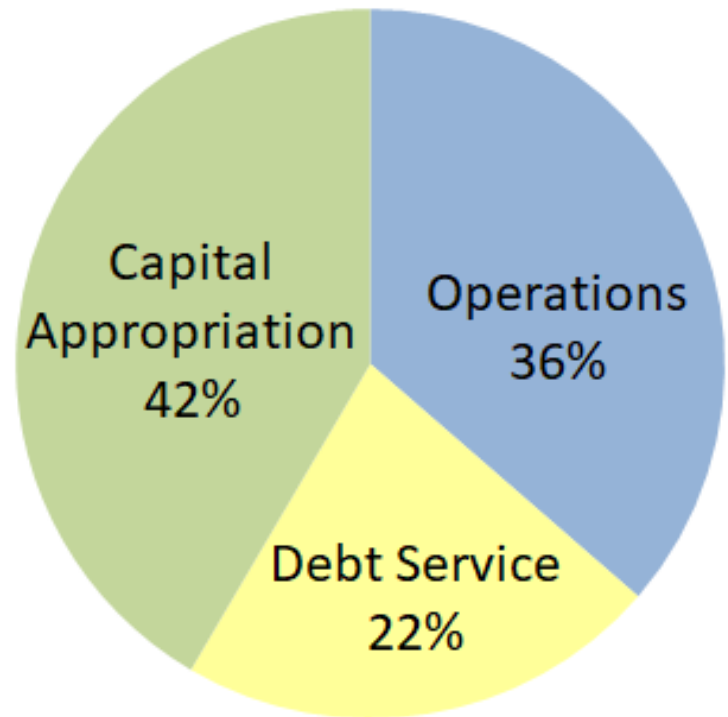
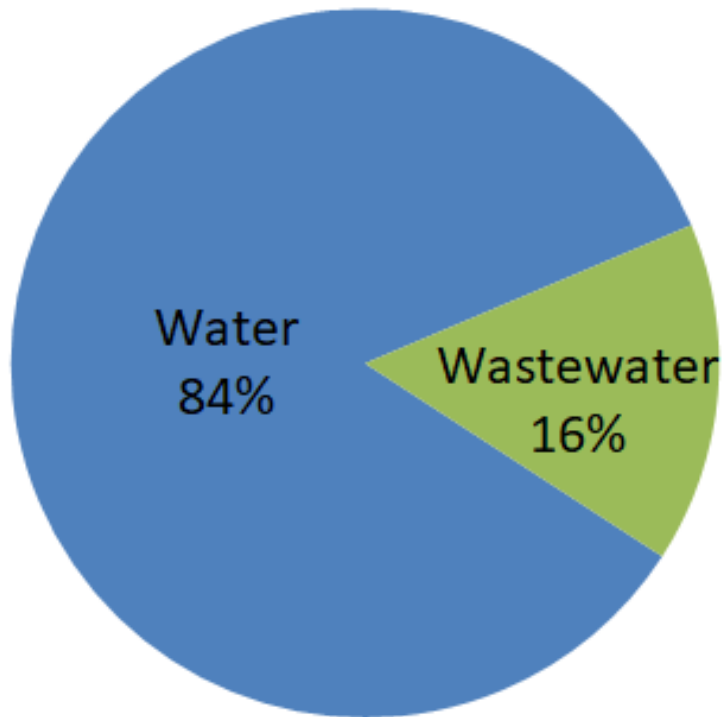
FY22 & FY23 APPROPRIATIONS (\$ Millions)

	FY22			FY23			Grand Total
	Water	Waste-water	Total	Water	Waste-water	Total	
Operations	314.7	85.4	400.1	328.7	89.7	418.4	818.5
Debt Service	211.9	30.7	242.6	222.4	31.9	254.2	496.9
Capital Approp.	<u>404.8</u>	<u>57.9</u>	<u>462.7</u>	<u>418.4</u>	<u>54.1</u>	<u>472.5</u>	<u>935.2</u>
Total	931.4	174.0	1,105.4	969.4	175.7	1,145.1	2,250.5

FY22 & FY23 Biennial Budget



\$2.25 Billion



CIP Drivers and Priorities



- CIP Priorities informed by plans, studies, and O&M experience
- FY22-23 CIP will continue to focus on infrastructure *renewal* versus expansion
- Prioritizes
 1. Safety
 2. Reliability
 3. Water quality
- Continue to support sustainability and resilience goals

Five-Year Capital Improvement Program Cash Flows (\$ Millions)



	FY22	FY23	FY24	FY25	FY26	5-Year Total
Water	\$341.4	\$377.2	\$385.6	\$446.0	\$471.8	\$2,022.0
Wastewater	\$45.8	\$49.8	\$45.6	\$45.9	\$56.0	\$243.1

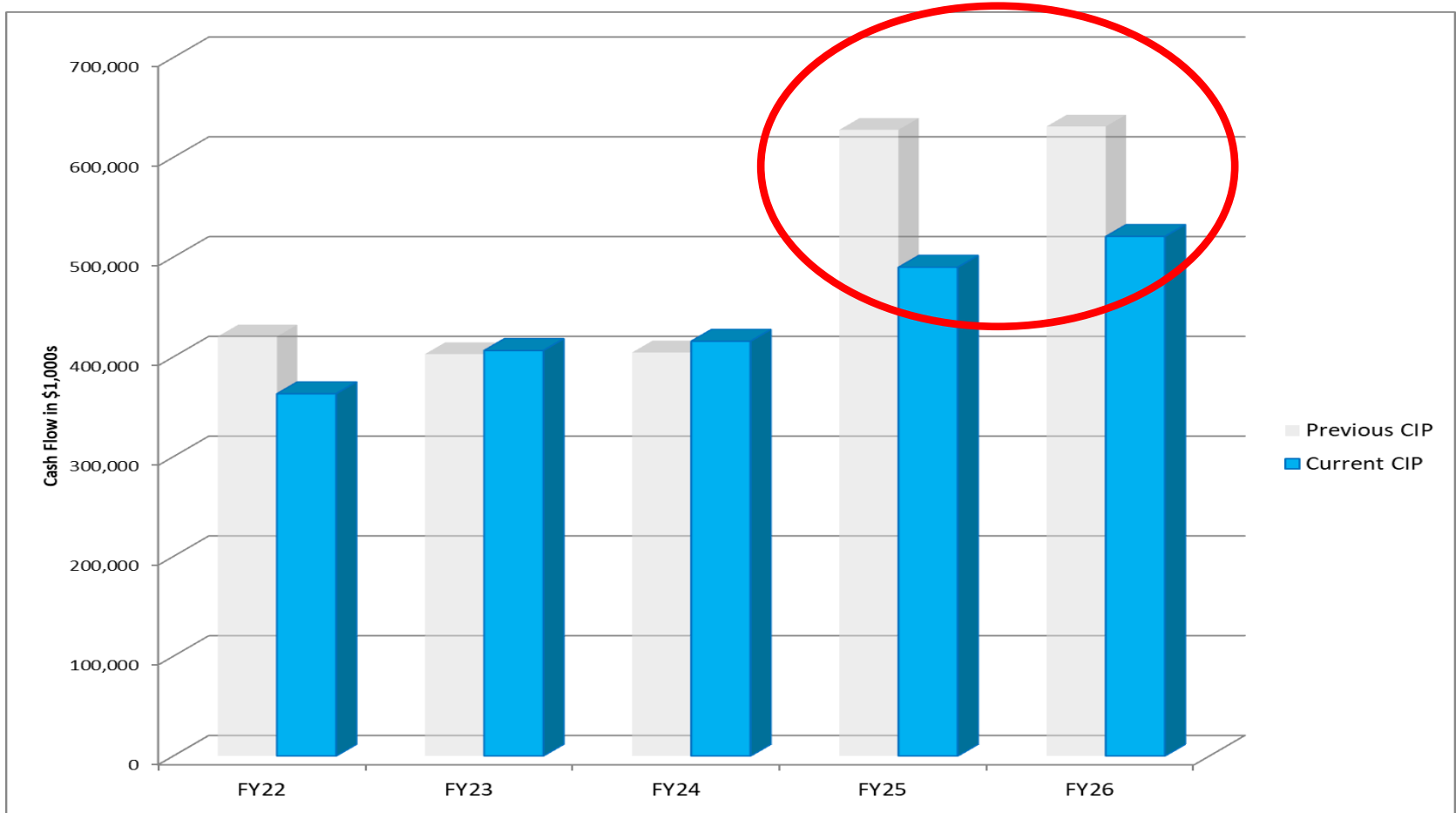
- Cash flows include Capital Support

- Carefully reviewed previous CIP and reprioritized some projects for sustainability
- It is often necessary to reprioritize capital projects during the biennial budget process and to smooth out spending
- The proposed Water System CIP anticipates \$2 billion in spending but defers some work, especially in FY25-26 which increased 50% in those years
- The proposed Wastewater CIP anticipates \$243 million in spending and no key work needed to be deferred to meet the planned 4% rate increase

Water System FY22-26 CIP



Current CIP reduced by \$300M vs. previous CIP,
primarily in FY25-26



Water System Major Projects Deferred



- Orinda WTP Disinfection – 1 yr.

Orinda Disinfection/CSSIP

- USL WTP Reliability – ½ yr.

USL Reliability

- Sobrante WTP Reliability – 4 yrs.

Sobrante Reliability

- WC WTP Pretreatment/Ozone – 1 yr.

Walnut Creek Pretreatment

- CSSIP* at 5 WTPs no longer a separate project

Lafayette/WC CSSIP

- Leland Reservoir – 3 yrs.

Leland Res

- Alameda Crossings – 1 yr.

Alameda Crossings (Three phases)

- Summit South – 1-4 yrs.

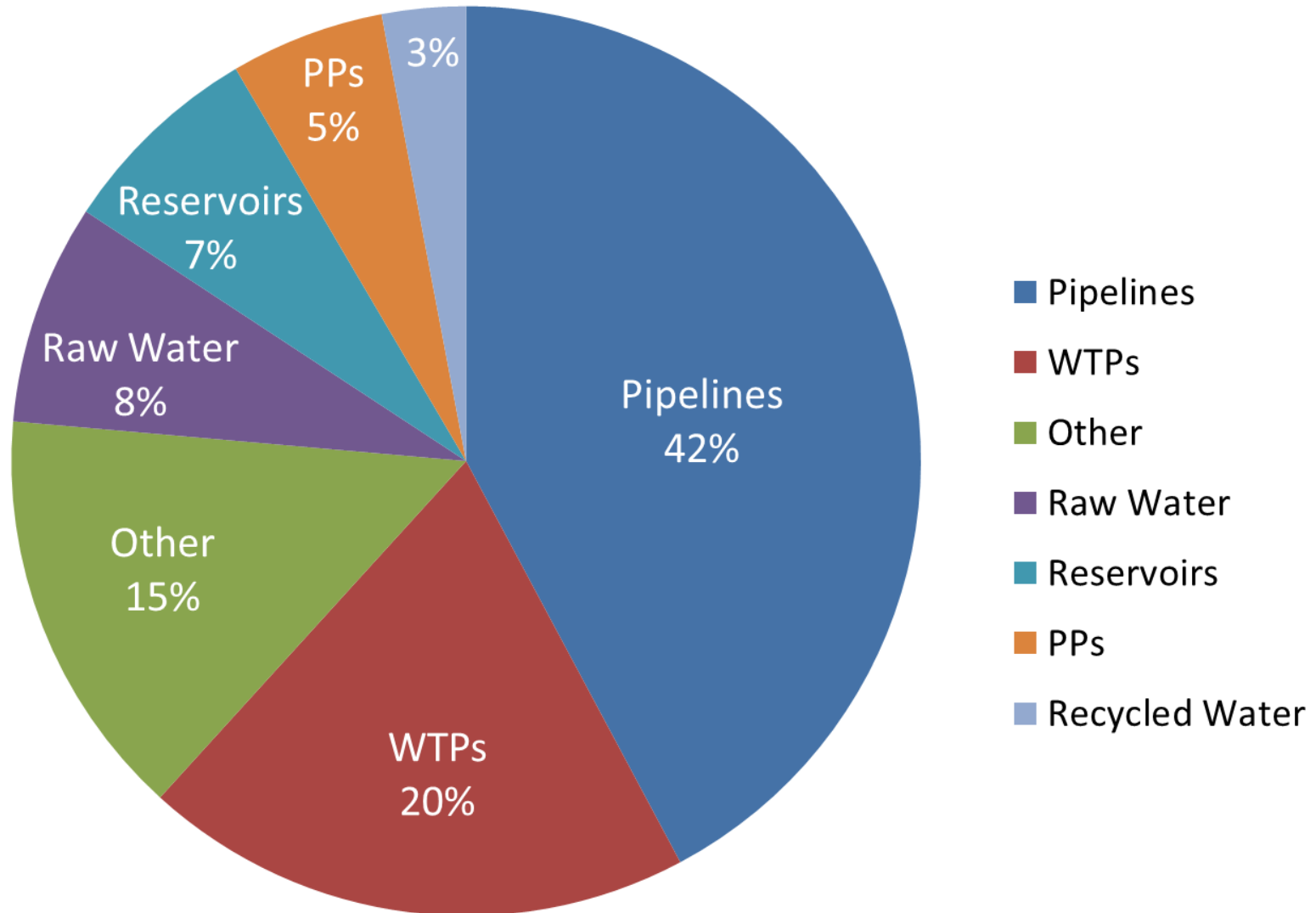
Summit South
Phase 1

Summit South
(Phase 2)

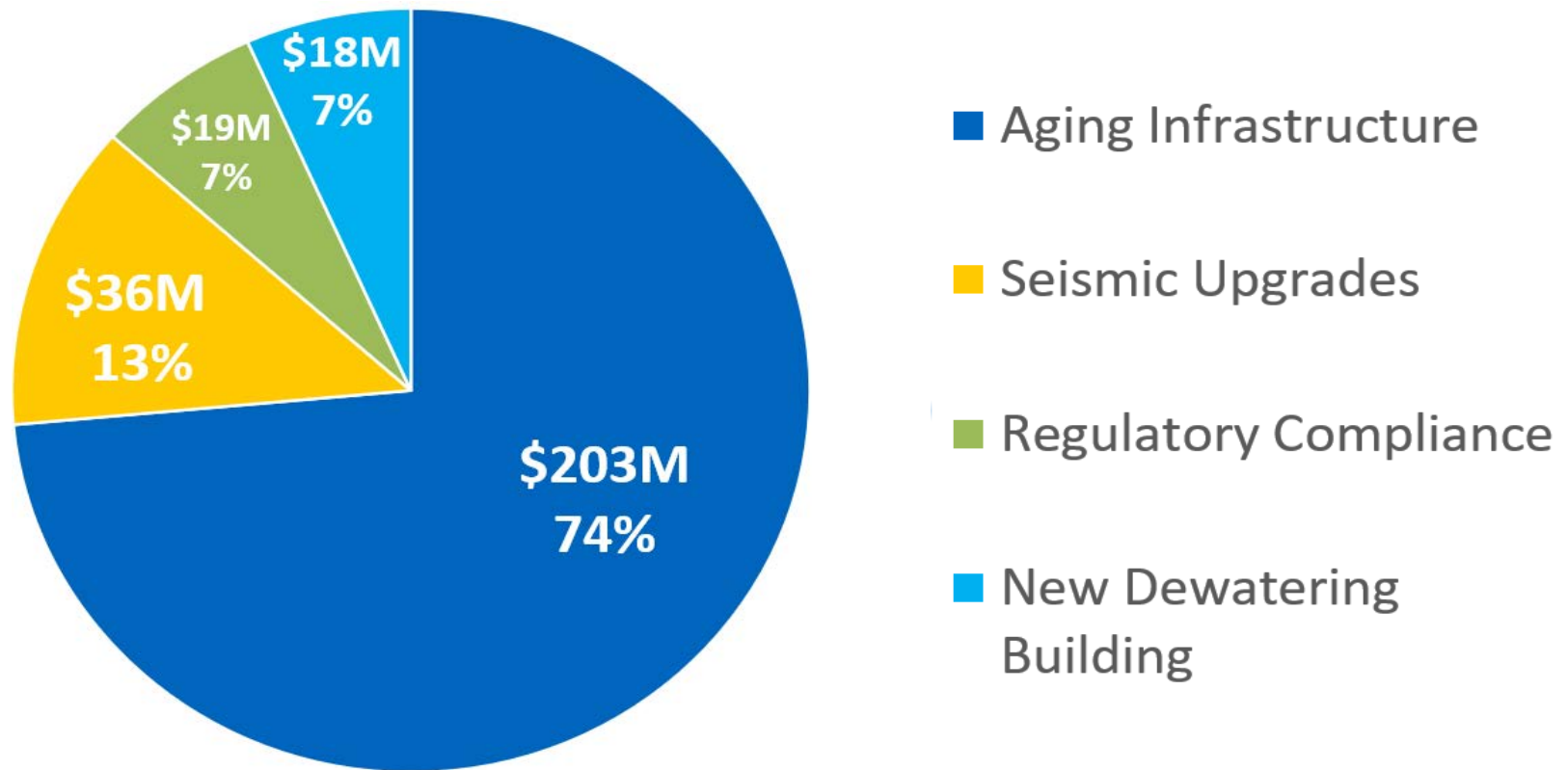
Summit South
(Phase 3)

*Chemical System Safety Improvements Program

Water CIP Budget by Asset Class FY22-26



Wastewater CIP Budget by Category FY22-26



Capital Improvement Program Summary



- Infrastructure investments position EBMUD well to continue fulfilling its mission

Water System	Wastewater System
Pipelines and Regulators Replacement	General Wastewater Improvements
Water Treatment Plant Upgrades	Interceptor and Pump Station Improvements
Reservoir Rehabilitation	Secondary Treatment Improvements
Pumping Plant Rehabilitation	Dewatering Building and Equipment
Raw Water Aqueduct Improvements	Preliminary Treatment Improvements
Pipeline and Appurtenances Replacement	Utilities and Site Work
Service Centers and Buildings	Power Generation System Improvements
Service Lateral Replacements	Electrical and Control Systems

FY22 & FY23 Biennial Budget Recommended Staffing



- Total authorized FTEs will remain flat over the two-year period:
 - 2,156.75 (FY22)
 - 2,155.75 (FY23)

FTEs	FY22	FY23	Total
Additions	9.5	0	9.5
Deletions	(8.5)	(1.0)	(9.5)
Total	1.0	(1.0)	0

- Additional changes proposed, with no net change to authorized FTEs, for FIS/MMIS and HRIS Replacement Projects and meter reading and maintenance

FY22 & FY23 Biennial Budget Recommended Staffing (Cont'd)



<u>FY22 Staffing Changes</u>	<u>FTE</u>
<i>9.5 Additions</i>	
• Applicant Work	2.0
• Customer Support Program	1.5
• Diversity and Equity Strategies	1.0
• HR Employee Services	1.0
• Regulatory Compliance	2.0
• Trench Soils	1.0
• Wastewater Technical & Emerging Issues	1.0
<i>(1.0) Conversion</i>	
• Special Employment Program	(2.0)
• Part-time Ranger Interns	1.0
<i>(7.5) Deletions</i>	
• Housekeeper	(0.5)
• Limited-term Expirations	(2.0)
• Managers	(2.0)
• Special Employment Program	(3.0)
<u>FY23 Staffing Changes</u>	
• Limited-term Expiration	(1.0)

FY22 & FY23 Biennial Budget Water System



- The budget includes resources for:
 - Office of Diversity, Equity, and Development
 - Customer engagement
 - Operations and Maintenance

Office of Diversity, Equity, and Development

Office of Diversity, Equity, and Development



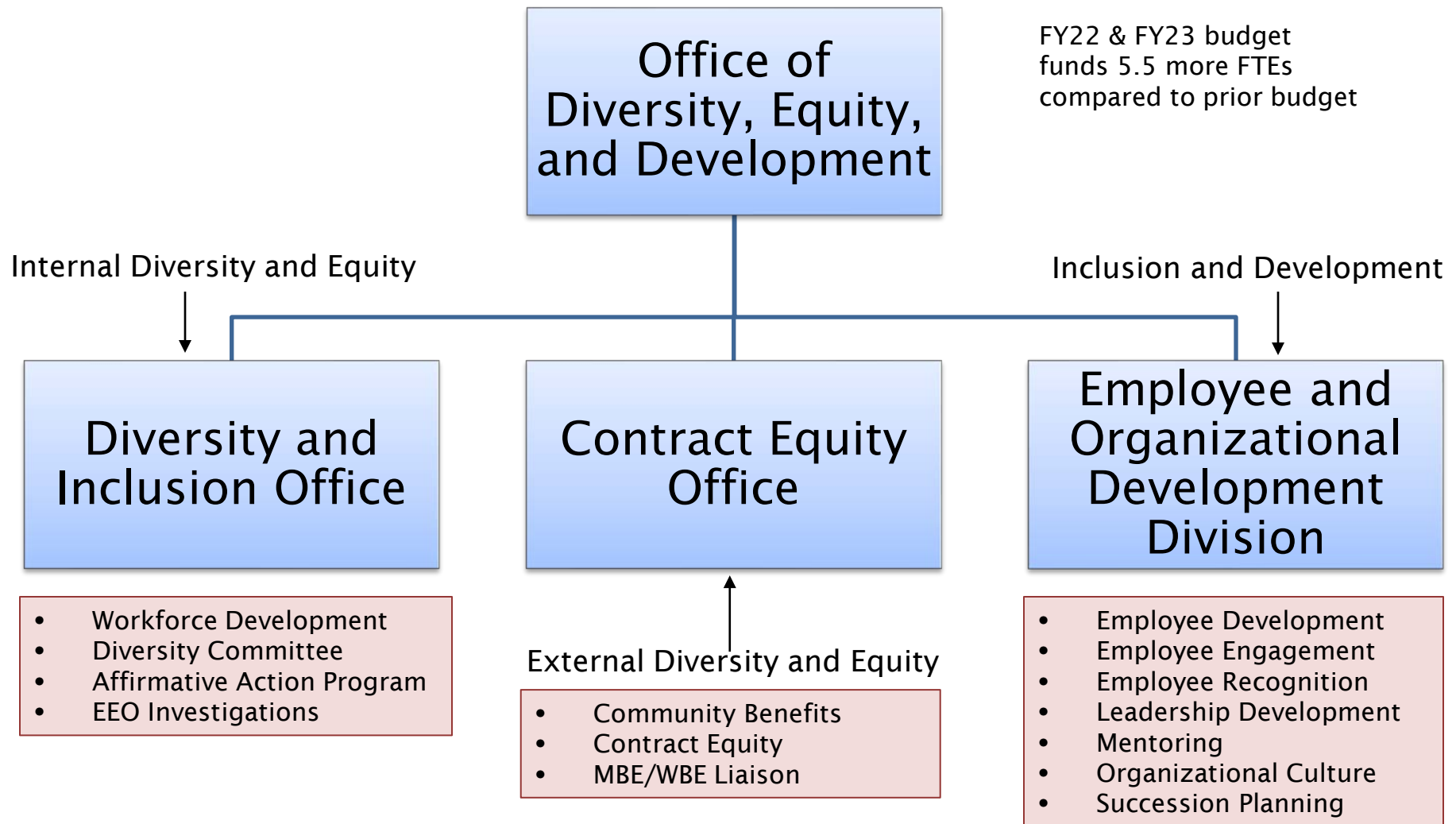
- The Diversity, Equity, and Inclusion Strategic Planning process has identified the need for the District to focus on both internal and external equity in addition to Diversity and Inclusion
- To facilitate a sustainable long-term approach to Diversity, Equity, and Inclusion, the District is creating a new Office of Diversity, Equity, and Development

Office of Diversity, Equity, and Development (Cont'd)



- The new office will support the District's commitment to diversity by emphasizing our Value of Stewardship through the promotion of local economic development and equity through employment, procurement, and contracts that reflect the diversity of the communities we serve.

Office of Diversity, Equity, and Development (Cont'd)



Student Interns (Summer 2020 Virtual Program)

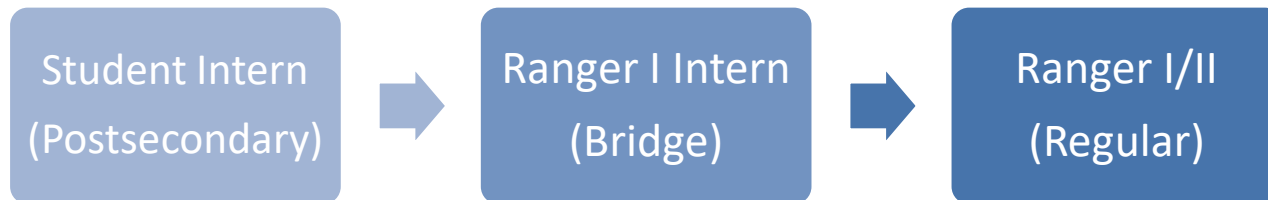


- In FY20 & FY21, the Board authorized funds to pilot postsecondary student internships and a limited-term bridge position
- Program modified in 2020 due to the pandemic
 - Partnered with Peralta Colleges Foundation
 - Hosted three local, postsecondary minority students
- Students developed a workforce report entitled “Strengthening & Diversifying the Ranger Pipeline”
- One recommendation was to expand the Ranger Pipeline by creating an internal pathway to the Ranger I position

Increasing Diversity Rangers Jobs



- Creating a pipeline of diverse candidates
 - Internships are a tool to “grow our own”
 - The Ranger I/II career progression is a three-step process:



- FY22 & FY23 Budget
 - Adds two part-time Ranger I interns for upcountry

Customer Engagement

Education Resources



ebmud.com/education



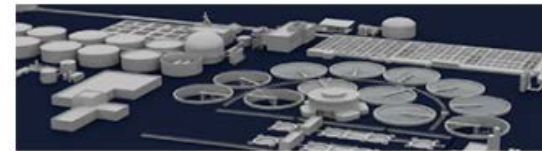
EBMUD offers a variety of educational resources for grades K-12 and beyond, in English and Spanish.

Virtual tours



Tour a Water Treatment Plant - virtual

Use Google Chrome or Microsoft Edge to tour EBMUD's largest treatment plant, which produces 2.5 billion glasses of water per day.



Tour a Wastewater Treatment Plant - virtual

Find out what happens to the dirty water from your toilet after it goes down the drain. Take a tour of EBMUD's Wastewater Treatment Plant. [Sign up.](#)



Flipbook: From Watershed to Bay - virtual

This digital flipbook shows how our water comes from the mountains to your tap. Learn how you can protect environment by making your own rain garden.



Activity books k-12 grades - bilingual and free

Order free student and teacher workbooks in English and Spanish for every grade. Learn about the water cycle, pollution prevention and wise water use. [Order here.](#)

Resources for All Ages

- K-12 curriculum update
- Virtual speaker series
- Increased outreach to underserved communities
- Future: Citizens Academy, a program to develop water-savvy community leadership



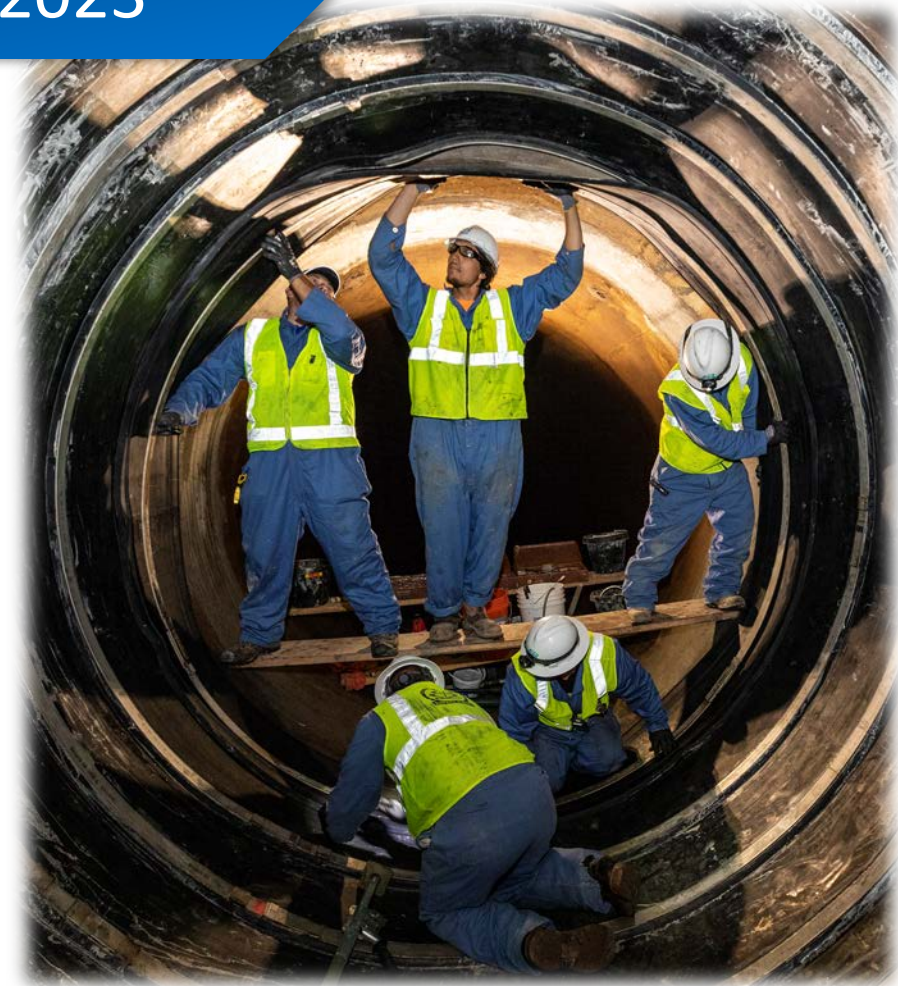
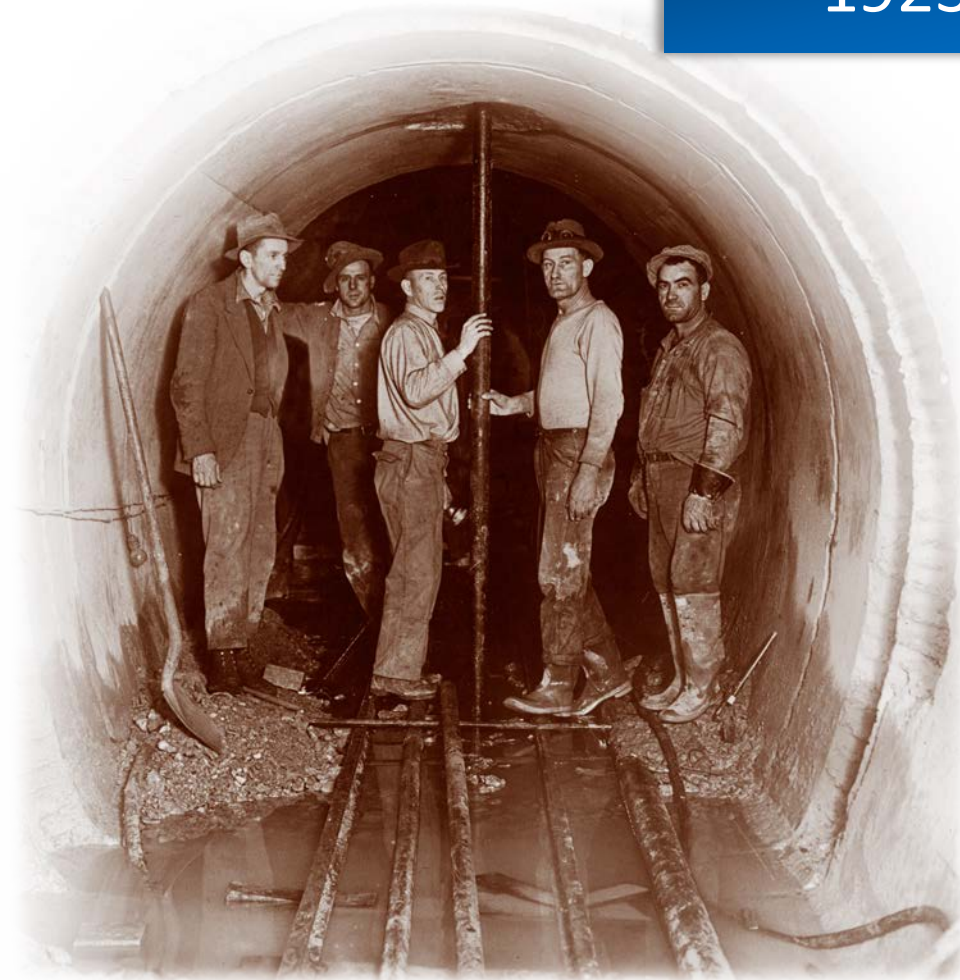
Supporting the future



Centennial Anniversary



1923-2023



Goals



Celebrate our partnership with the East Bay community through activities, tools and outreach that are:

- Engaging
- Sustainable
- Inclusive



Themes for Community Activities



100
HISTORY
EAST BAY
PROTECTING
ENVIRONMENT
SUPPORTING
THE ECONOMY
CONNECTING WITH
DIVERSE
COMMUNITY
INNOVATING
THE FUTURE



Centennial Inspiration



ANNIVERSARY

D DENVER WATER | **100 YEARS**
1918 — 2018

PAST, PRESENT AND FUTURE: WATER CONNECTS US ALL.



Denver Water time capsule unveiling

Centennial Inspiration (Cont'd)



1918

Commission is formed to run the Washington Suburban Sanitary District and enabled to issue bonds to fund water supply, sewerage, storm drainage and trash collection/disposal through incinerator construction. The Commission is also tasked with approving all plumbing and gas fitting in its service areas, and it is permitted to form agreements with D.C. to secure water and sewage disposal.

First three commissioners appointed — William Curtis, Emory Bogley and T. Howard Duckett.



T. Howard Duckett sees the need for WSSC and serves as one of its first commissioners.

1920

WSSC's first water treatment plant is built in Hyattsville — a rapid sand filter plant that draws water from a branch of the Anacostia River.



Early WSSC workers stand on machinery in Hyattsville.

The Sunset Mills Reservoir provided treatment plants from the 1920s to the 1950s.



WSSC workers perform leak detection in 1981.



1986

The Safe Drinking Water Act is amended.

1987

Initiation of WSSC's System Reconstruction Program — marking the first recognition that aging infrastructure will be a challenge in the future.

1988

WSSC uses a concrete pipe supplier for providing defective large diameter concrete cylinder water pipes.

A WSSC crew lowers a pipe into a trench.

Washington Suburban Sanitary Commission timeline



WSSC demonstration with children. WSSC brings students throughout the water treatment and the environment.

Manuel A. Geraldo, WSSC Board of Commissioners.

Consolidated Laboratory Facility — the-art laboratory — providing plant operations, environmental programs and regulatory monitoring.

2001

The first Asian-American, Joshua Kim Wilde, is appointed to the WSSC Board of Commissioners.



Manuel A. Geraldo was the first Latino (Portuguese) appointed to WSSC Board of Commissioners.



Joshua Kim Wilde was the first Asian-American named to WSSC Board of Commissioners.

Operations & Maintenance

Budget Includes O&M Positions and Reduction to FM&O/Contracting



# of Positions	Classification	Projected Yearly Contract Reduction*
2	Heavy Transport Operator	\$438,000
1	Heavy Equipment Operator	\$210,000
2	LT Concrete Finisher I (extended)	\$862,000
2	LT Concrete Finisher II (extended)	
2	Paving Raker A (extended)	\$400,000
2	Ground Maintenance Specialist I (Temp)	\$65,000
Total: 11		\$1,975,000

*Reduction in both capital and operating

Summary of FY20 FM&O



- Contractors used for 14 different types of work, the five largest estimated contract values are:
 - Dump truck \$5.6 million
 - Paving / Striping / Sealing \$4.0 million*
 - Concrete \$2.3 million
 - Flagging \$1.2 million
 - Saw cutting \$1.1 million
- Overall, these activities represent about 10% of District field work
- Proposed budget includes funding for District forces for piloting concrete and saw cutting work to reduce FM&O
- In FY20, the average FY20 PO value was \$52,200 (262 vendors)
- Contract spending is stable year-to-year (FY20 \$14.4 million; FY19 \$14.0 million)

* Includes work the District does not perform and payments to cities as part of joint paving projects

FY20 FM&O Contract Equity Program (CEP) Spend



- Responsible spend distribution:
 - Local Business Enterprises 83%
 - Small Business Enterprises 48%
 - Ethnic Minorities/White Women 38%
- Largest contracts have the highest CEP ratios
- Contractor performance and distribution of work among contractors are monitored and analyzed

FM&O Dollars Contributed to Our Community



- Three-year total dollars contributed to the community:
 - Local Business Enterprises ~\$32 million
 - Small Business Enterprises ~\$18 million
 - Ethnic Minorities/White Women ~\$15 million
- The dollars contributed represents approximately 25% - 30% of our overall awards for each of these categories.
- These dollars are “Prime Contract” awards (not subcontracts) which helps small firms be more competitive on larger contracts.

Break

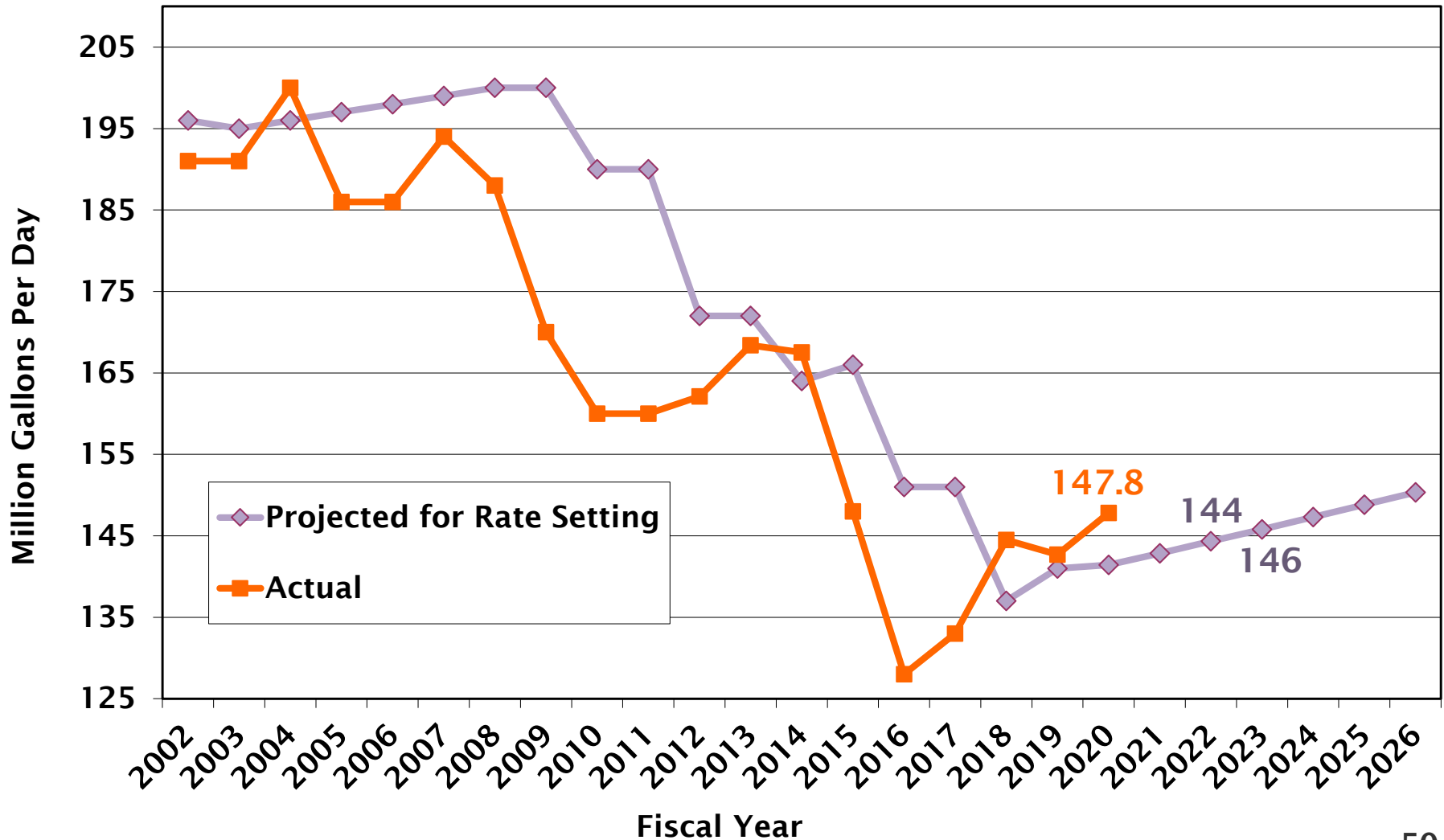
Recommended Rates and Charges

FY22 & FY23 Key Financial Planning Assumptions



- Water
 - Consumption: FY22:144 MGD, FY23:146 MGD
 - Reduced SCC revenue: \$25M down from \$40M
 - Reduced interest earning rate: 0.25%
 - Reduced borrowing rate: 4%
 - CIP deferrals
- Wastewater
 - Reduced Resource Recovery and PGS energy revenue based on anticipated reduced deliveries
 - Reduced capacity fee revenue

Actual vs. Projected Water Sales



Updated Rate Targets



- Given current economic landscape, worked to minimize rate increase
- Lower water rate increases than previous projection requires reductions in planned operating programs and capital projects
- Continue with priorities to maintain and upgrade infrastructure
- Potential issues
 - Labor agreements
 - Recovery from pandemic

Other Agencies Rate Actions – Adopted and Implemented



Agency	Action
SFPUC	Implemented ~ 8% W/WW increase in July 2020 with expanded CAP
Contra Costa Water District	Adopted a 3.75% increase in February 2021
City of Napa Water	Implemented ~ 5% increase in October 2020
DSRSD	Implemented ~ 1.6% water increase in October 2020 (based on June 2020 CPI)

Other Agencies Rate Actions – No Increase and/or Delayed



Agency	Action
Alameda County Water District	Voted no increase in December 2020
Bay Area Water Supply and Conservation Agency	No SFPUC wholesale rate increase this year
City of Hayward	Delayed 3.1% water increase from October 2020 to January 2021; no change to approved 4.4% wastewater
Marin Water	Delayed June 2020 vote on 4% increase until April 2021
North Marin Water	Voted to delay 6% increase from July 2020 to October 2020. Reevaluating FY22-25 recommendations
Palo Alto	No increase in W/WW FY21 or FY22 (as of present)
Pleasanton	No W/WW FY21 increase; delayed rate study due to COVID-19 pandemic
Valley Water	Voted for no increase for July 2020, considering increases for FY22 up to 9.8%
Zone 7 (wholesaler)	Voted to not implement approved 6.7% FY21 increase

City Sewer Collection Charges



- District bills on behalf of Oakland, Berkeley, and Emeryville their sewer collection charge
- Cities pay \$2.3M per year for billing services
- Oakland is implementing first phase of their CAP for their sewer collection charge
- Berkeley and Emeryville have not committed to a CAP for their sewer collection charge
- The District could consider not renewing contracts in 2023
- Loss of revenue would be 0.3% on rates

Previously Projected and Currently Proposed Rates



Water System	FY18	FY19	FY20	FY21	FY22	FY23
Adopted Rates	9.25%	9.00%	6.50%	6.25%		
Previously Projected	5.00%	5.00%	7.00%	7.00%	5.00%	5.00%
FY22/23 Proposed					4.00%	4.00%

Wastewater System	FY18	FY19	FY20	FY21	FY22	FY23
Adopted Rates	5.00%	5.00%	4.00%	4.00%		
Previously Projected	5.00%	5.00%	4.00%	4.00%	4.00%	4.00%
FY22/23 Proposed					4.00%	4.00%

Monthly Single-Family Residential Customer Impacts – Water



	SFR Use (Ccf)	FY21 Bill*	Proposed FY22 Bill*	Change	Proposed FY23 Bill*	Change
25 th Percentile	4	\$44.87	\$46.66	4.0%	\$48.54	4.0%
50 th Percentile	6	\$53.37	\$55.50	4.0%	\$57.74	4.0%
75 th Percentile	10	\$75.17	\$78.16	4.0%	\$81.30	4.0%
95 th Percentile	24	\$172.03	\$178.88	4.0%	\$186.02	4.0%
Average SFR Use**	8	\$63.47	\$66.00	4.0%	\$68.66	4.0%

*Bill does not include elevation surcharge paid by customers at higher elevations

**8 Ccf/month represents recent average single family residential use

Monthly Single-Family Residential Customer Impacts – Wastewater



Wastewater Treatment Charge*	Use (Ccf)	FY21 Bill**	Proposed FY22 Bill**	Change	Proposed FY23 Bill**	Change
Single Family Residential Avg	6	\$23.02	\$23.91	3.9%	\$24.89	4.1%
Single Family Residential Max	9	\$26.98	\$28.02	3.9%	\$29.18	4.1%

*The District also collects an annual Wet Weather Facilities Charge from all properties connected to the wastewater system

**Bill includes \$0.20 per month SF Bay Pollution Prevention Fee for residential customers

Non-Residential Wastewater Treatment Rates



Wastewater Treatment Charge*	FY21 Current per CCF	FY22 Proposed per CCF	Change	FY23 Proposed per CCF	Change
Restaurants	\$6.06	\$6.30	4.0%	\$6.56	4.1%
Hotels	\$4.36	\$4.53	3.9%	\$4.71	4.0%
Hospitals	\$2.68	\$2.78	3.7%	\$2.90	4.3%
Retail/Office	\$2.94	\$3.06	4.1%	\$3.19	4.2%

*The District also collects an annual Wet Weather Facilities Charge from all properties connected to the wastewater system. Bill includes \$5.48 per month SF Bay Pollution Prevention Fee for non-residential customers.

Wet Weather Facilities Charge

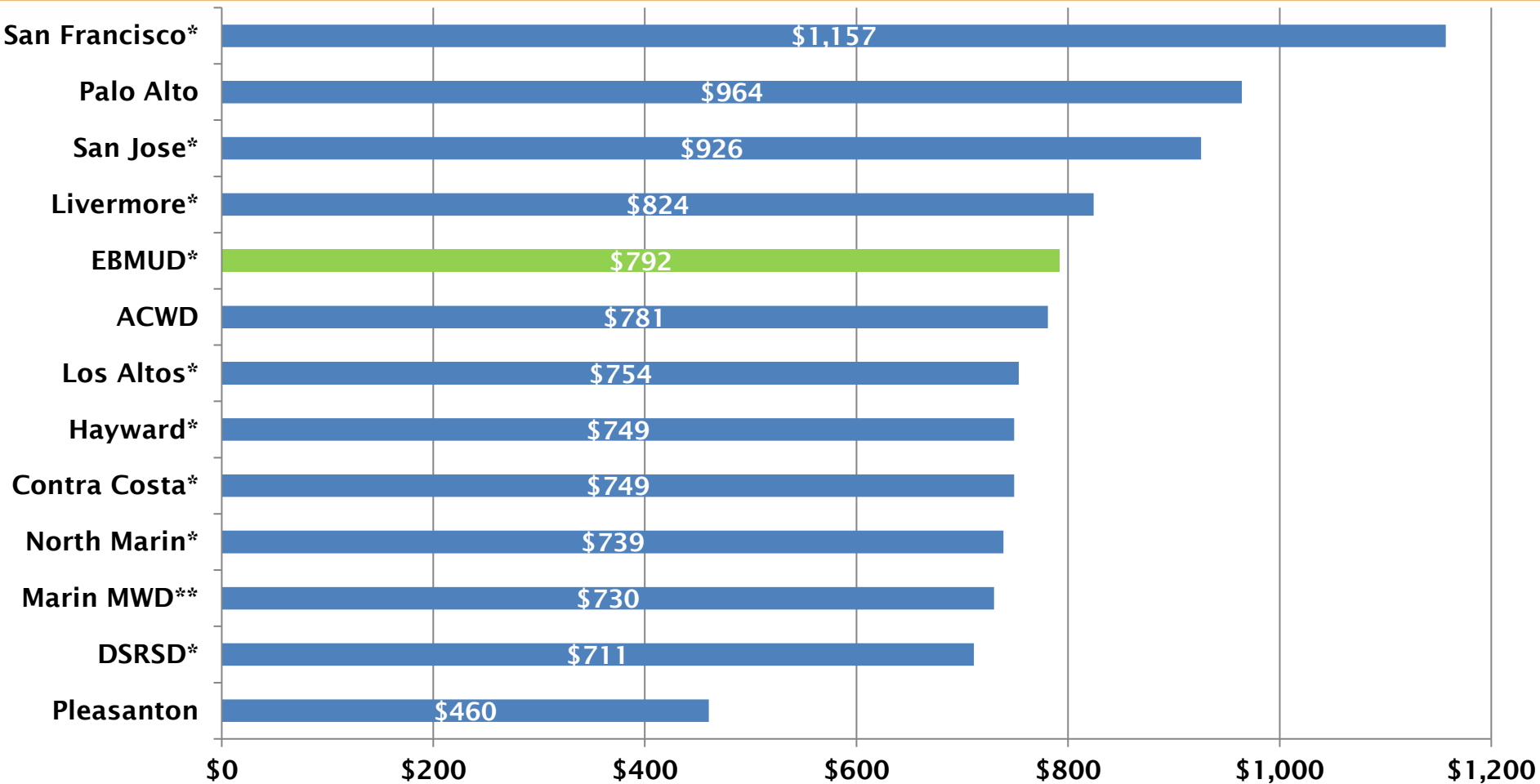


	FY21 Current	FY22 Proposed	Change	FY23 Proposed	Change
Small Lot 0 - 5,000 sq. ft.	\$115.70	\$120.34	4.0%	\$125.16	4.0%
Medium Lot 5,001 - 10,000 sq. ft.	\$180.74	\$187.98	4.0%	\$195.50	4.0%
Large Lot >10,000 sq. ft.	\$413.10	\$429.62	4.0%	\$446.80	4.0%

- Wet Weather Facilities Charge is collected on the property tax bill for residential and non-residential parcels connected to the wastewater system, except for public agencies and other exempt parcels, where it is collected by EBMUD invoice to property owner

Water Bills Calculated for 8 CCF/Mo

Annual Charge for SFR – Effective 7/1/21



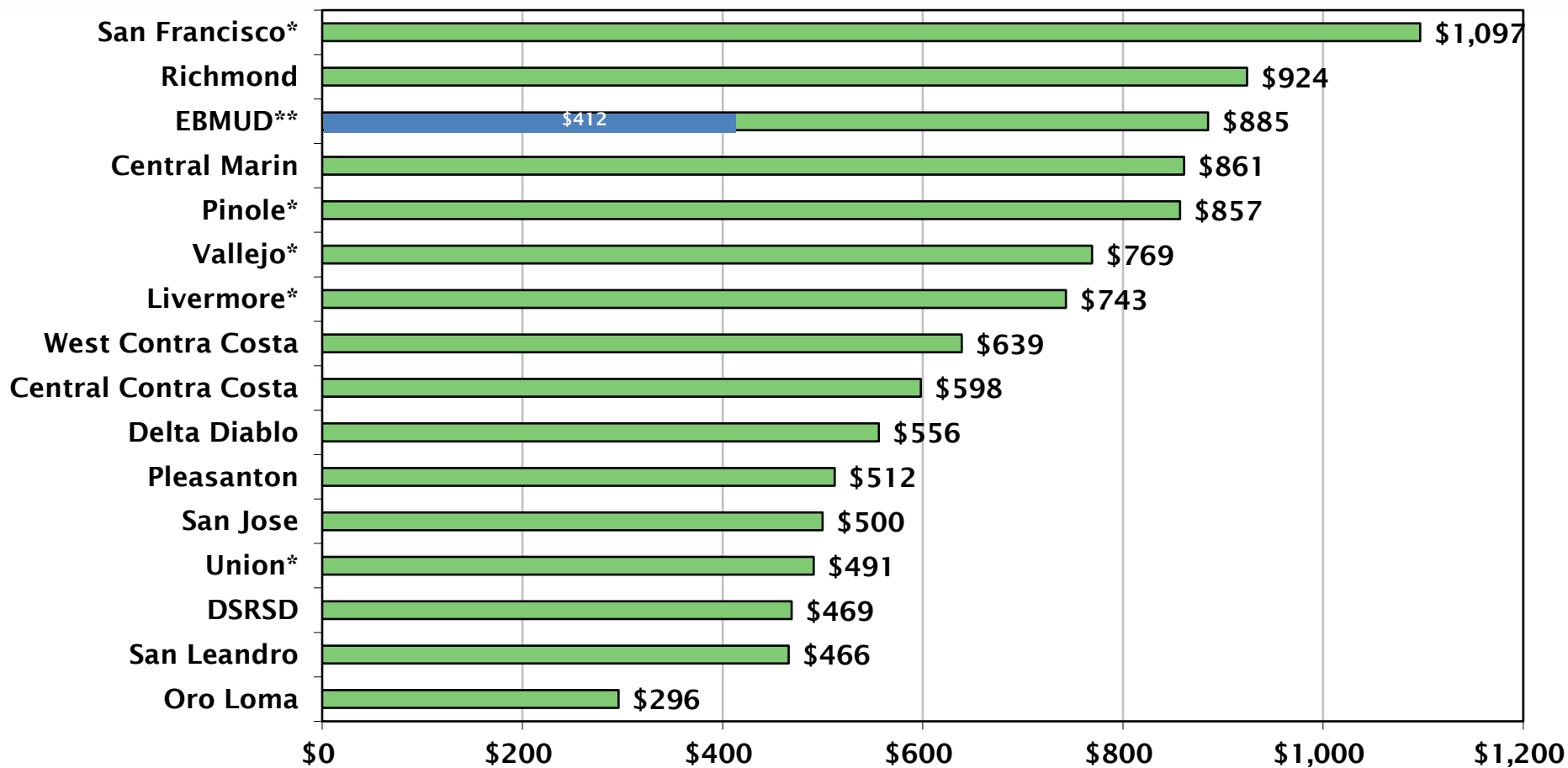
For comparative purposes, the chart displays the average SFR water use based on EBMUD's average SFR water use of 8 ccf/mo. The actual average consumption at other agencies may be lower or higher.

*Rate Increase effective CY21 or FY22

** Rate Increase effective CY21 and does not include Capital Maintenance Fee to be collected on property tax bill

Wastewater Bills Calculated for 6 CCF/Mo Discharge

Annual Charge for SFR – Effective 7/1/21



Includes collection and treatment based on flow of 6 ccf/mo.

*Rate increase effective CY21 or FY22

**EBMUD rate based on proposed FY22 treatment rate, SF Bay Residential Pollution Prevention Fee, and Wet Weather Fee, \$412/year plus average community collection charge of \$473/year.

Draft Prop 218 Notice

Non-Prop 218 Rates: Capacity Fees Other Fee Updates

Proposed Water and Wastewater Capacity Charges



- **Water System Capacity Charge (SCC)**
 - Adopt updated SCC Study recommendations
 - Updated water use decreases the SCC for Single-Family Residential (SFR) and non-residential meters up to 1 ½” and Multi-Family Residential (MFR) per dwelling unit
 - Creates new category for small (under 500 sq. ft.) MFR with lower SCC
 - Overall SCC reduction of about 30%
- **Wastewater Capacity Fee (WCF)**
 - Adjust charges for FY22 update and ENR Construction Cost Index
 - Adopt MFR small dwelling unit category and water use from updated SCC study

SCC SFR Rates by Region and Sub Region



Region	Current SFR Estimated Use* (gpd)	Current SCC	Updated SFR Estimated Use* (gpd)	Proposed FY22 SCC	Change
1	280	\$18,100	190	\$11,705	-35.3%
2	360	\$31,350	210	\$18,811	-40.0%
3	580	\$40,040	490	\$34,754	-13.2%

*Based on assumed water demand for a ¾-inch meter for a new single family residential premises

**Special SCC subregion as part of an agreement with the developer

SCC MFR Rates by Region



Region	Current MFR Estimated Use (gpd)	Current SCC	Updated MFR Estimated Use (gpd)	Proposed FY22 SCC	Change
1	163	\$10,530	120	\$7,392	-29.8%
2	168	\$14,630	120	\$10,749	-26.5%
3	199	\$13,740	120	\$8,511	-38.1%
MFR SMALL DWELLING UNITS (<500 square feet)					Change from Standard
1	N/A	N/A	95	\$5,852	-20.8%
2	N/A	N/A	95	\$8,510	-20.8%
3	N/A	N/A	95	\$6,738	-20.8%

SCC Non-Residential Rates by Region 5/8" meter



Region	Current Non-Residential 5/8" Estimated Use (gpd)	Current SCC	Updated Non-Residential 5/8" Estimated Use (gpd)	Proposed FY22 SCC	Change
1	408	\$25,850	240	\$15,151	-41.4%
2	537	\$48,590	334	\$29,980	-38.3%
3	625	\$43,140	480	\$32,619	-24.4%

Proposed FY22 WCF Updates MFR from SCC Update Study



Category	Current Estimated Use per Dwelling Unit (gpd)	Current WCF per Dwelling Unit	Updated SFR Estimated Use* (gpd)	Proposed FY22 SCC	Change
SFR	172	\$2,810	172	\$2,850	+1.4%
MFR	172	\$2,810	120	\$2,000	-28.8%
MFR Small			95	\$1,560	

Comparison of Proposed SCC for SFR with Other Agencies



	Region 1	Region 2	Region 3	Considerations
EBMUD Current	\$18,100	\$31,350	\$40,040	Highly complex system
EBMUD Proposed	\$11,680 (3/4")	\$18,784 (3/4")	\$34,690 (3/4")	Highly complex system
DSRSD	N/A	N/A	\$43,147 (5/8") \$64,735 (3/4")	Includes Zone 7 charge
CCWD	N/A	N/A	\$21,398 (5/8") \$32,097 (3/4")	Retailer/Wholesaler
Livermore	N/A	N/A	\$34,048 (5/8") \$51,073 (3/4")	Includes Zone 7 charge
ACWD	\$7,358	N/A	N/A	Less complex system Purchased and local water supply
Hayward	\$6,484 (5/8") \$9,730 (3/4")	N/A	N/A	SCC has no supply component High rates
SFPUC	\$1,906 (5/8") \$2,860 (3/4")	N/A	N/A	Retailer/Wholesaler Highest regional rates

SCC Comparison with Other Agencies



- Factors that cause differences in connection charges
 - Growth pays for growth approach
 - Low connection charge may lead to higher water rates
 - Choice of methodology: buy-in or incremental
 - Including supply costs in charge
 - Wholesalers may or may not assess connection charges
 - Complex systems need more facilities per customer
 - Age of facilities
 - Need to build new capacity for new customers
 - Water use per new connection
 - Amount of future growth

SCC Program Modifications– Currently Under Review



Modifications	Consideration
Long-term financing of SCC for qualifying community benefits projects	Under review for extending current 2-year loan program to longer term financing for qualifying projects
Reduced SCC from standard charges for projects with demonstrated ultra water use systems	Future staff review and development to be presented at April Sustainability/Energy Committee meeting

Other Proposed Updates to Rates, Fees & Charges (Non-Prop 218)



- **Ensuring reasonable fees based on cost recovery to be included in GM Rate Report to be presented at the May 11th meeting**
 - Water Account Establishment (Schedule B)
 - Special Services Charges (Schedule C)
 - Installation Charges: Water Service, Private Fire Service, Public Fire Hydrant, Water Main Extension (Schedules D, E, F, and G)
 - Public Records Act and Real Property Use Application Fees
 - Recreation Use Fees
 - Water Service Regulations
 - Wastewater Fees: Industrial Permit, Other Fees, Testing, Resources Recovery, Interceptor Connection Review (Wastewater Schedules C, D, E, F, and H)

Update on Alternative to Shutoffs



- Flow restrictors are a last resort – increased focus on outreach and assisting customer with financial hardship through Customer Support Programs
 - Maintain water service while EBMUD works with customers on financial arrangements and bill management (CAP, payment plans/extensions)
 - Will not be implemented until after emergency order and extensive outreach
 - Customers will still be responsible for water and wastewater charges
- Flow restrictor program costs will be funded as part of customer service costs as with delinquency management currently
- Lien authority will be used for owner occupied homes for the first time
- EBMUD can revisit fixed monthly service charges as part of future a cost of service study

Workshop Conclusions

Biennial Budget – FY22 & FY23



Appropriation

- Total two-year budget of \$2.25 billion
- 64% capital investment-related

Budget Priorities

- Continue investments in and maintenance of aging infrastructure
- Plan for long-term financial stability

Proposed Rates

- Water System: 4.0% (FY22); 4.0% (FY23); 20% less than prior forecast
- Wastewater System: 4.0% (FY22); 4.0% (FY23)

Schedule



<u>Date</u>	<u>Meeting</u>
January 26, 2021	1 st Board Budget Workshop
March 23, 2021	2nd Board Budget Workshop (includes approval to issue Proposition 218 Notice)
April 2-23, 2021	Proposition 218 Notice printing and mailing
April 13, 2021	3 rd Board Budget Workshop (if needed*)
June 8, 2021	Public Hearing, Board considers adoption of budget

*Would require a new Public Hearing date in July and new effective date in the fall.

Board Discussion

