

ZONE 7

WATER AGENCY

Treated Water Rate Study

Final Report / November 2022



This page intentionally left blank to facilitate two-sided printing.

Table of Contents

1 Executive Summary	1
Agency Background.....	1
Study Background	1
Current Rates	1
Reserve Policy.....	2
Financial Plan Results	3
Proposed Rates	3
2 Financial Plan	4
Financial Plan Scenarios	4
Key Assumptions.....	5
Current Rates	5
Projected Water Demand	6
Projected Revenues and Expenses.....	6
Debt Service	6
Capital Project Funding	7
Reserve Policy.....	7
Financial Plan Without Rate Revenue Adjustments.....	7
Proposed Financial Plan.....	9
3 Treated Water Rates	12
Revenue Requirement.....	12
Units of Service.....	12
Proposed Rates.....	13
Customer Impacts.....	13

List of Tables

Table 1-1: Current Treated Water Rates	2
Table 1-2: Proposed Revenue Adjustments (Scenario 4).....	3
Table 1-3: Proposed Treated Water Rates	3
Table 2-1: Key Assumptions.....	5
Table 2-2: Current Treated Water Rates	5
Table 2-3: Projected Water Demand	6
Table 2-4: Existing and Proposed Debt Service	6
Table 2-5: Capital Project Funding	7
Table 2-6: Financial Plan Without Rate Revenue Adjustments	8
Table 2-7: Proposed Rate Revenue Adjustments (Scenario 4)	9
Table 2-8: Proposed Financial Plan.....	10
Table 3-1: Treated Water Revenue Requirement.....	12
Table 3-2: Units of Service by Calendar Year.....	12
Table 3-3: Proposed Treated Water Rates	13
Table 3-4: Monthly Customer Impacts.....	13

List of Figures

Figure 2-1: Projected Fund 100 Ending Balances Without Rate Revenue Adjustments.....	9
Figure 2-2: Projected Fund 120 Ending Balances Without Rate Revenue Adjustments.....	9
Figure 2-3: Proposed Fund 100 Ending Balances	11
Figure 2-4: Proposed Fund 120 Ending Balances	11

This page intentionally left blank to facilitate two-sided printing.

1 Executive Summary

Agency Background

The Zone 7 Water Agency (Agency) was established in 1957 to provide untreated water to support agriculture and treated wholesale water to the Livermore-Amador Valley area. In 1961, the Agency contracted for State Water Project (SWP) water deliveries through the South Bay Aqueduct.

The Agency's water resources include imported water from the SWP, local groundwater storage, surface water captured in the Del Valle Reservoir, and offsite groundwater banking in Kern County. The majority of the Agency's water demand is met by imported water from the SWP.

The Agency provides treated water service through its four retail water suppliers (retailers) – the City of Pleasanton, Dublin San Ramon Services District, California Water Service Company, and the City of Livermore – to a population of over 266,000 people. The Agency also provides treated water service to six direct customers – Lawrence Livermore Lab, Livermore Area Recreation and Park District (LARPD), Veterans Hospital, Wentz Brothers Vineyard, the State of California Department of Water Resources (California DWR), and the East Bay Regional Park District.

Study Background

In 2022, the Agency engaged Raffelis to conduct a Treated Water Rate Study, which involved analyzing various financial plan scenarios and developing wholesale treated water rates. The financial plan portion of the study involves fiscal years (FYs) 2023 through 2026. FY 2023 is the year starting July 1, 2022 and ending June 30, 2023.

The major objectives of the study include the following:

- Ensure financial sufficiency of the treated water enterprise to meet operations and maintenance (O&M) costs, fund capital projects, and sustain sufficient reserve balances
- Develop a four-year treated water rate structure for calendar years (CYs) 2023 through 2026
- Design treated water rates that maintain revenue stability, minimize customer impacts to the extent possible, and maintain fairness and equitability of rates

Current Rates

Table 1-1 shows the Agency's current treated water rates, which consist of a fixed charge for each customer (based on a two-year rolling average allocation of historical water usage) and a uniform volume-based charge for all customers based on hundred cubic feet (ccf) of water usage.

Table 1-1: Current Treated Water Rates

Line	Treated Water Rates	Current 2022
1	Annual Fixed Charge	
2	City of Pleasanton	\$7,785,058
3	Dublin San Ramon Services District	\$7,289,631
4	California Water Service Company	\$5,799,857
5	City of Livermore	\$4,356,809
6	Lawrence Livermore Lab	\$405,826
7	L.A.R.P.D.	\$1,102
8	Veterans Hospital	\$62,156
9	Wente Brothers	\$5,278
10	State of California DWR	\$24
11	East Bay Regional Park District	\$10,964
12	Total Fixed Charge	\$25,716,705
13		
14	Volume-Based Charge (\$/ccf)	
15	All Customers	\$2.06

Reserve Policy

The Agency has a current reserve policy for Fund 100 – Water Enterprise Operations (Fund 100) that includes minimum, target, and maximum reserve levels. Fund 100 has three reserves: Operating Reserve, Emergency Reserve, and Reserve for Economic Uncertainties. The Operating Reserve mitigates against cash flow risks and unanticipated O&M expenses. The Emergency Reserve helps protect the Agency from asset failures, emergencies, and catastrophic events. The Reserve for Economic Uncertainties is prudent to maintain a high bond rating and to protect the Agency from the effects of fluctuations in water usage and the cost of imported water to which the Agency is vulnerable, and other unforeseen events such as a natural disaster, water shortage emergency, or other unanticipated adverse situations.

The current reserve policy in effect is as follows:

Operating Reserve (Fund 100)

- Minimum: 60 days of O&M expenses
- Target: 90 days of O&M expenses
- Maximum: 120 days of O&M expenses

Emergency Reserve (Fund 100)

- Minimum: 2 percent of capital assets
- Target: 2.5 percent of capital assets
- Maximum: 3 percent of capital assets

Reserve for Economic Uncertainties (Fund 100)

- Minimum: 10 percent of volume-based water sales revenue
- Target: 15 percent of volume-based water sales revenue
- Maximum: 20 percent of volume-based water sales revenue

Capital Reserve (Fund 120)

- Minimum: 100 percent of PAYGO CIP for following year

Financial Plan Results

As part of the Treated Water Rate Study, Raftelis worked with Agency staff to analyze various financial plan scenarios to determine the rate impacts of certain policy decisions. Based on direction provided by the Agency’s Board of Directors, the financial plan scenario presented in this report includes additional water reliability project funding for the Los Vaqueros Expansion (LVE) and the Delta Conveyance project. Additionally, the Agency will plan to fund the Chain of Lakes Well PFAS Project using State Revolving Fund (SRF) Loans, with a \$12 million drawdown in FY 2024 and FY 2025 (total of \$24 million). The Agency will also fund through water rates, capital improvement projects in Fund 120 – Renewal, Replacement and System-Wide Improvements (Fund 120) over four years, from FY 2023 to FY 2026 and partially replenish reserves (\$2.9 million over four years) that are depleted due to funding the \$16.3 million Stoneridge PFAS pay-as-you-go project in FY 2023.

Based on the financial plan scenario described above, the Agency needs the revenue adjustments shown in **Table 1-2** to fund O&M expenses, capital projects, and debt service, and maintain adequate reserve balances in Funds 100 and 120.

Table 1-2: Proposed Revenue Adjustments (Scenario 4)

Line	Year	Month Effective	Rate Revenue Adjustment
1	CY 2023	February	5.5%
2	CY 2024	January	5.5%
3	CY 2025	January	5.5%
4	CY 2026	January	5.5%

Proposed Rates

The proposed rates developed in this study incorporate the updated financial plan results, while maintaining a similar treated water rate structure as the Agency’s current rates. **Table 1-3** shows the current and proposed treated water rates. The annual fixed charge is allocated based on a rolling two-year average of historical water use by customer, and the volume-based charge is a uniform rate charged by ccf of water usage. The annual fixed charge by customer for CY 2024 and beyond will be calculated annually based on an updated rolling two-year average of historical water.

Table 1-3: Proposed Treated Water Rates

Line	Treated Water Rates	Current CY 2022	Proposed CY 2023	Proposed CY 2024	Proposed CY 2025	Proposed CY 2026
1	Annual Fixed Charge					
2	City of Pleasanton	\$7,785,058	\$9,107,878			
3	Dublin San Ramon Services District	\$7,289,631	\$8,444,518			
4	California Water Service Company	\$5,799,857	\$4,771,322			
5	City of Livermore	\$4,356,809	\$4,807,562			
6	Lawrence Livermore Lab	\$405,826	\$142,620			
7	L.A.R.P.D.	\$1,102	\$2,147			
8	Veterans Hospital	\$62,156	\$84,349			
9	Wente Brothers	\$5,278	\$23,050			
10	State of California DWR	\$24	\$0			
11	East Bay Regional Park District	\$10,964	\$11,994			
12	Total Fixed Charge	\$25,716,705	\$27,395,440	\$29,703,607	\$31,805,889	\$33,286,846
13						
14	Volume-Based Charge (\$/ccf)					
15	All Customers	\$2.06	\$2.27	\$2.34	\$2.44	\$2.47

2 Financial Plan

Financial Plan Scenarios

As part of the Treated Water Rate Study, Raftelis worked closely with Agency staff to analyze various financial plan scenarios to determine the rate impacts of certain policy decisions. The Agency evaluated the impacts of six different scenarios, which include:

Scenario 1: Baseline (Status Quo)

- No additional revenue adjustments
- Water supply reliability costs (Los Vaqueros Expansion (LVE) and Delta Conveyance) are based on the approved FY 2022-2024 Budget
- Stoneridge PFAS Project is funded in FY 2023 using \$2.6 million from Fund 100 (capital funding) and approximately \$13.7 million from Fund 120 reserves and deferred projects.
- Reserves fall below target in FY 2023-24

Scenario 2: Meets Reserve Targets

- Incorporates all of Scenario 1
- Meets reserve targets by FY 2026

Scenario 3: Additional Water Supply Reliability Projects

- Incorporates all of Scenario 2
- Funds continued participation in LVE and Delta Conveyance at \$2.8 million per year starting in FY 2025. Does not include debt payments or O&M for these projects.

Scenario 4: Chain of Lakes PFAS Project – SRF Loan Funding

- Incorporates Scenario 3
- \$25.8 million total project cost - \$24 million in SRF loan funding in FY 2024 and FY 2025
- \$1.4 million annual debt service and \$2 million O&M for the project
- Partially replenish reserves (\$2.9 million over four years) that are depleted due to funding the \$16.3 million Stoneridge PFAS pay-as-you-go project in FY 2023

Scenario 5: Stoneridge PFAS Project – Reserve Replenishment

- Incorporates Scenario 4
- Fully replenishing reserves used in Fund 120 to fund deferred projects

Scenario 6: Continued Water Conservation

- Incorporates Scenario 5
- Reduced water sales assumptions to 33,000 acre-feet (AF) per year

Based on direction provided the Board of Directors, the resulting treated water rates shown in this report reflect financial plan Scenario 4.

Key Assumptions

Table 2-1 shows the revenue and expense escalation factors and proposed debt terms used in the study. These assumptions were developed based on industry trends, the Consumer Price Index (CPI), the Construction Cost Index (CCI), and guidance from Agency staff.

Table 2-1: Key Assumptions

Line	Key Assumptions	FY 2023	FY 2024	FY 2025	FY 2026
1	Revenue Escalation Factors				
2	Miscellaneous Revenues	0%	0%	0%	0%
3	Reserve Interest Rate	1%	1%	1%	1%
4					
5	Expense Escalation Factors				
6	General	5%	5%	4%	4%
7	Salary	3%	3%	4%	4%
8	Benefits	3%	3%	4%	4%
9	Utilities	5%	5%	5%	5%
10	Supplies	3%	3%	4%	4%
11	Capital	5%	4%	3%	3%
12	Energy	5%	5%	5%	5%
13					
14	Proposed Debt Terms				
15	Interest Rate	4%	4%	4%	4%
16	Term (Years)	30	30	30	30
17	Issuance Cost	0%	0%	0%	0%

Current Rates

Table 2-2 shows the Agency's current treated water rates, which includes a fixed charge by customer (based on a two-year rolling average allocation of historical water usage) and a uniform volume-based charge based on ccf of water usage.

Table 2-2: Current Treated Water Rates

Line	Treated Water Rates	Current 2022
1	Annual Fixed Charge	
2	City of Pleasanton	\$7,785,058
3	Dublin San Ramon Services District	\$7,289,631
4	California Water Service Company	\$5,799,857
5	City of Livermore	\$4,356,809
6	Lawrence Livermore Lab	\$405,826
7	L.A.R.P.D.	\$1,102
8	Veterans Hospital	\$62,156
9	Wente Brothers	\$5,278
10	State of California DWR	\$24
11	East Bay Regional Park District	\$10,964
12	Total Fixed Charge	\$25,716,705
13		
14	Volume-Based Charge (\$/ccf)	
15	All Customers	\$2.06

Projected Water Demand

Table 2-3 shows the projected water demand by customer. The water demand projections were developed based on forecasts provided by each customer and the Agency’s forecast of overall water demand. Projected usage in FY 2023 is lower due to drought, but the Agency expects a modest increase in subsequent years to reflect “new normal” demand.

Table 2-3: Projected Water Demand

Line	Customer	FY 2023	FY 2024	FY 2025	FY 2026
1	City of Pleasanton	4,794,067	5,205,198	5,445,653	5,500,757
2	Dublin San Ramon Services District	4,415,980	4,771,307	5,005,044	5,077,354
3	California Water Service Company	2,488,711	2,443,364	2,541,726	2,574,832
4	City of Livermore	2,515,231	2,637,861	2,723,153	2,731,430
5	Lawrence Livermore Lab	68,859	62,487	74,923	84,942
6	L.A.R.P.D.	1,106	1,206	1,241	1,241
7	Veterans Hospital	43,169	48,247	49,658	49,658
8	Wente Brothers	11,908	12,866	13,242	13,242
9	State of California DWR	0	0	0	0
10	East Bay Regional Park District	6,147	6,835	7,035	7,035
11	Total Usage (ccf)	14,345,179	15,189,372	15,861,677	16,040,491
12	<i>Total Usage (AF)</i>	<i>32,932</i>	<i>34,870</i>	<i>36,413</i>	<i>36,824</i>

Projected Revenues and Expenses

The projected revenues and expenses used in the study are based on the Agency’s adopted FY 2022-2024 Budget and escalated in future years using the factors in Table 2-1. This report details financial plan Scenario 5, which includes additional water supply reliability projects, funding the Chain of Lakes Well PFAS Project, and the Stoneridge Well PFAS Project.

Debt Service

Table 2-4 shows the annual debt service payments for the Agency’s existing and proposed debt. The proposed debt issuance includes an SRF Loan of \$24 million to fund the Chain of Lakes Well PFAS Project.

Table 2-4: Existing and Proposed Debt Service

Line	Debt Service	FY 2023	FY 2024	FY 2025	FY 2026
1	Existing Debt				
2	LVWFA 2018 Series A	\$3,123,838	\$3,126,088	\$3,125,838	\$3,123,088
3	Total Existing Debt	\$3,123,838	\$3,126,088	\$3,125,838	\$3,123,088
4					
5	Proposed Debt				
6	Chain of Lakes PFAS Project SRF Loan	\$0	\$480,000	\$1,415,681	\$1,415,681
7	Total Proposed Debt	\$0	\$480,000	\$1,415,681	\$1,415,681
8					
9	Total Debt Service	\$3,123,838	\$3,606,088	\$4,541,518	\$4,538,768

Capital Project Funding

Table 2-5 shows the Agency’s capital project funding plan. The cash funded projects are funded via a mix of the capital funding from Fund 100 and reserves from Fund 120. Debt funded projects include the Chain of Lakes Well PFAS Project, which will be funded by an SRF Loan.

Table 2-5: Capital Project Funding

Line	Capital Project Funding	FY 2023	FY 2024	FY 2025	FY 2026
1	Cash Funded Projects				
2	Buildings & Grounds	\$46,000	\$46,000	\$46,000	\$46,000
3	Groundwater Basin Management	\$200,000	\$200,000	\$0	\$70,000
4	Program Management	\$890,000	\$1,150,000	\$860,000	\$900,000
5	Regulatory Compliance Monitoring	\$160,000	\$165,000	\$170,000	\$180,000
6	Transmission & Distribution	\$4,048,000	\$5,078,000	\$940,000	\$1,730,000
7	Water Treatment Facilities	\$1,300,000	\$3,010,000	\$3,987,520	\$12,669,968
8	Wells	\$22,390,000	\$4,900,000	\$2,800,000	\$9,710,000
9	Water Supply & Conveyance	\$33,000	\$303,000	\$390,000	\$2,180,000
10	Total Cash Funded Projects	\$29,067,000	\$14,852,000	\$9,193,520	\$27,485,968
11					
12	Debt Funded Projects				
13	Chain of Lakes PFAS Project	\$0	\$12,000,000	\$12,000,000	\$0
14	Total Debt Funded Projects	\$0	\$12,000,000	\$12,000,000	\$0
15					
16	Total Capital Projects	\$29,067,000	\$26,852,000	\$21,193,520	\$27,485,968

Reserve Policy

The Agency has a current reserve policy for Fund 100 (Operating Fund) that includes minimum, target, and maximum reserve levels. Fund 100 has three reserves: Operating Reserve, Emergency Reserve, and Reserve for Economic Uncertainties. Fund 100 includes the Capital Reserve.

Financial Plan Without Rate Revenue Adjustments

Table 2-6 shows the Agency’s financial plan without additional rate revenue adjustments to meet financial targets. Revenues and expenses are based on the Agency’s adopted FY 2022-2024 Budget and escalated in future years based on the factors in **Table 2-1**. Debt service is from **Table 2-4**. Agency staff provided the capital funding amount (Line 14). Debt coverage (Line 18) is calculated by dividing revenues (Line 6) less expenses (Line 9) by debt service (Lines 10-11). Without revenue adjustments, the Agency will still meet debt coverage in each year. However, Fund 100 will be below target starting in FY 2024.

Table 2-6: Financial Plan Without Rate Revenue Adjustments

Line	Financial Plan	FY 2023	FY 2024	FY 2025	FY 2026
1	Revenue				
2	Rate Revenues	\$55,267,776	\$57,006,814	\$58,391,763	\$58,760,119
3	Additional Revenue	\$0	\$0	\$0	\$0
4	Investment Earnings	\$406,909	\$362,418	\$303,638	\$204,052
5	Other Revenue	\$1,202,000	\$1,202,000	\$1,202,000	\$1,202,000
6	Total Revenue	\$56,876,685	\$58,571,232	\$59,897,401	\$60,166,171
7					
8	Expenses				
9	O&M Expenses	\$44,994,000	\$43,754,344	\$44,960,025	\$48,699,768
10	Existing Debt Service	\$3,123,838	\$3,126,088	\$3,125,838	\$3,123,088
11	Proposed Debt Service	\$0	\$480,000	\$1,415,681	\$1,415,681
12	Total Expenses	\$48,117,838	\$47,360,432	\$49,501,544	\$53,238,537
13					
14	Total Capital Funding	\$15,704,426	\$16,332,603	\$16,985,907	\$17,665,343
15					
16	Net Cash Flow	(\$6,945,578)	(\$5,121,802)	(\$6,590,050)	(\$10,737,709)
17					
18	Debt Coverage	380%	411%	329%	253%
19	Target Coverage	125%	125%	125%	125%
20					
21	Fund 100 Ending Balance	\$25,393,422	\$20,271,619	\$13,681,569	\$2,943,860
22	Target Balance	\$23,184,078	\$23,368,975	\$24,110,610	\$25,331,691
23					
24	Fund 120				
25	Beginning Balance	\$25,717,000	\$12,456,426	\$14,071,670	\$22,046,648
26	Capital Revenues and Funding	\$15,706,426	\$16,334,603	\$16,987,907	\$17,667,343
27	Bond Proceeds	\$0	\$12,000,000	\$12,000,000	\$0
28	Capital Expenses	(\$29,067,000)	(\$26,852,000)	(\$21,193,520)	(\$27,485,968)
29	Interest	\$100,000	\$132,640	\$180,592	\$172,235
30	Ending Balance	\$12,456,426	\$14,071,670	\$22,046,648	\$12,400,258
31	Target Balance	\$14,852,000	\$9,193,520	\$27,485,968	\$15,340,000

Figure 2-1 shows the projected Fund 100 ending balances based on the results in Table 2-6 and the Agency’s existing reserve policy targets. The Agency is expected to fall below its minimum reserves starting in FY 2024. Figure 2-2 shows the projected Fund 120 ending balances.

Figure 2-1: Projected Fund 100 Ending Balances Without Rate Revenue Adjustments

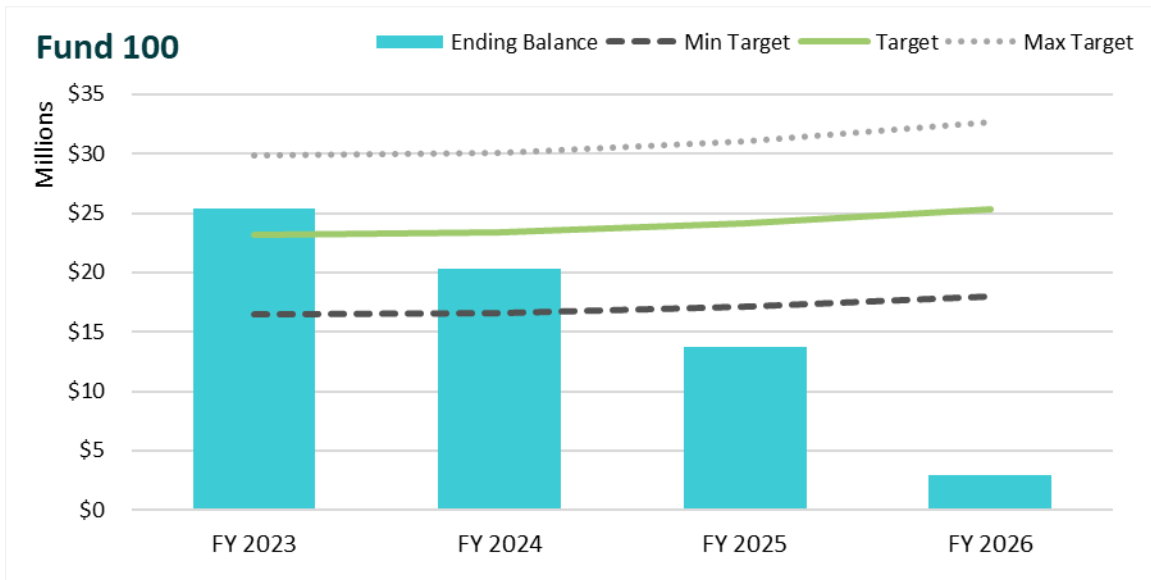
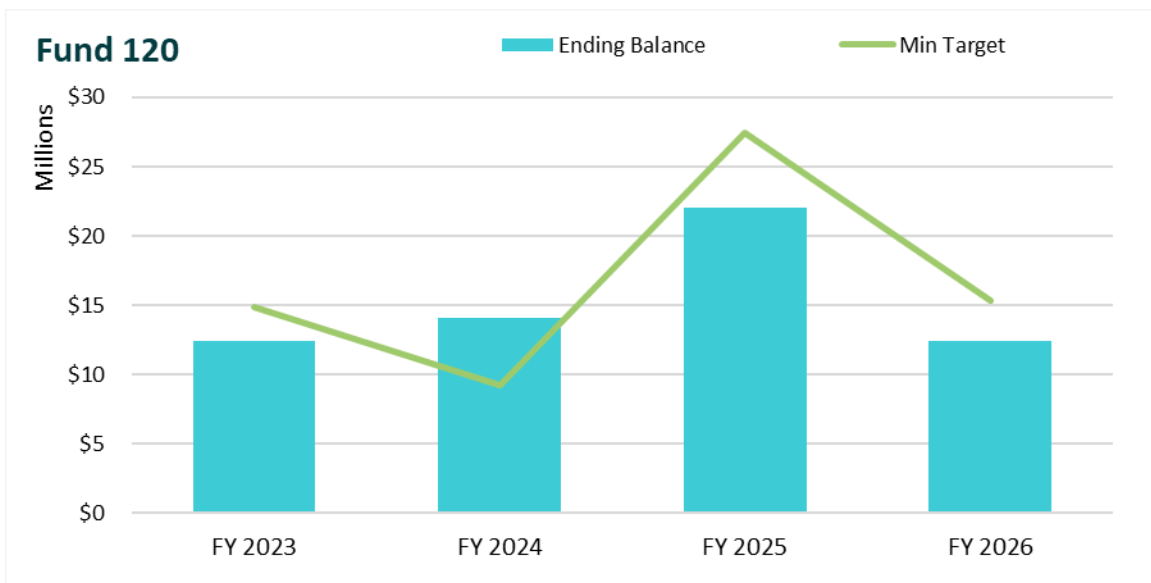


Figure 2-2: Projected Fund 120 Ending Balances Without Rate Revenue Adjustments



Proposed Financial Plan

The Agency requires additional rate revenues to meet its financial targets. **Table 2-7** shows the proposed revenue adjustments to fund O&M expenses, capital projects, debt service, and reserve balances. Each revenue adjustment is effective in January of each year.

Table 2-7: Proposed Rate Revenue Adjustments (Scenario 4)

Line	Year	Month Effective	Revenue Adjustment
1	CY 2023	February	5.5%
2	CY 2024	January	5.5%
3	CY 2025	January	5.5%
4	CY 2026	January	5.5%

Table 2-8 shows the proposed financial plan after applying the revenue adjustments in **Table 2-7**. The Agency will continue to meet its debt coverage requirement (Line 18) and is expected to meet its Fund 100 target balance for all years of the study.

Table 2-8: Proposed Financial Plan

Line	Financial Plan	FY 2023	FY 2024	FY 2025	FY 2026
1	Revenue				
2	Rate Revenues	\$55,267,776	\$57,006,814	\$58,391,763	\$58,760,119
3	Additional Revenue	\$1,519,864	\$4,789,285	\$8,386,995	\$12,135,904
4	Investment Earnings	\$422,108	\$418,412	\$436,812	\$452,666
5	Other Revenue	\$1,202,000	\$1,202,000	\$1,202,000	\$1,202,000
6	Total Revenue	\$58,411,748	\$63,416,511	\$68,417,569	\$72,550,689
7					
8	Expenses				
9	O&M Expenses	\$44,994,000	\$43,754,344	\$44,960,025	\$48,699,768
10	Existing Debt Service	\$3,123,838	\$3,126,088	\$3,125,838	\$3,123,088
11	Proposed Debt Service	\$0	\$480,000	\$1,415,681	\$1,415,681
12	Total Expenses	\$48,117,838	\$47,360,432	\$49,501,544	\$53,238,537
13					
14	Total Capital Funding	\$16,429,426	\$17,057,603	\$17,710,907	\$18,390,343
15					
16	Net Cash Flow	(\$6,135,516)	(\$1,001,524)	\$1,205,119	\$921,809
17					
18	Debt Coverage	430%	545%	517%	525%
19	Target Coverage	125%	125%	125%	125%
20					
21	Fund 100 Ending Balance	\$26,203,484	\$25,201,960	\$26,407,079	\$27,328,888
22	Target Balance	\$23,309,467	\$23,764,091	\$24,802,537	\$26,332,904
23					
24	Fund 120				
25	Beginning Balance	\$25,717,000	\$13,181,426	\$15,532,599	\$24,250,904
26	Capital Revenues and Funding	\$16,431,426	\$17,059,603	\$17,712,907	\$18,392,343
27	Bond Proceeds	\$0	\$12,000,000	\$12,000,000	\$0
28	Capital Expenses	(\$29,067,000)	(\$26,852,000)	(\$21,193,520)	(\$27,485,968)
29	Interest	\$100,000	\$143,570	\$198,918	\$198,031
30	Ending Balance	\$13,181,426	\$15,532,599	\$24,250,904	\$15,355,310
31	Target Balance	\$14,852,000	\$9,193,520	\$27,485,968	\$15,340,000

Figure 2-3 shows the projected Fund 100 ending balances based on the results in **Table 2-8** and the Agency's existing reserve policy targets. The Agency is expected to meet its Fund 100 targets for all years of the study. **Figure 2-4** shows the projected Fund 120 ending balances; the Agency is expected to meet its reservert targets for all years of the study.

Figure 2-3: Proposed Fund 100 Ending Balances

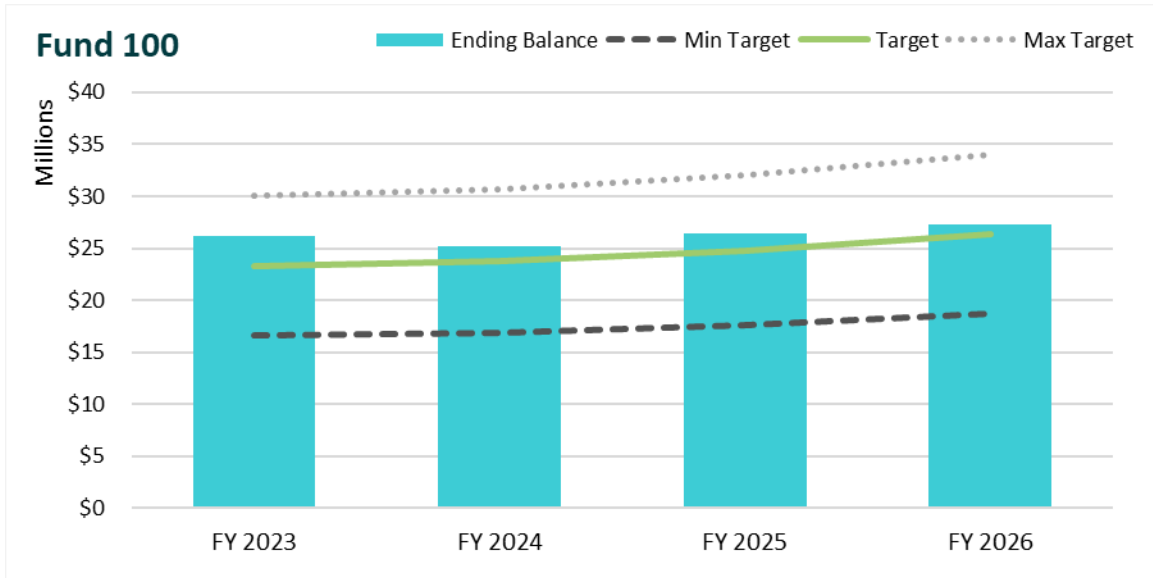
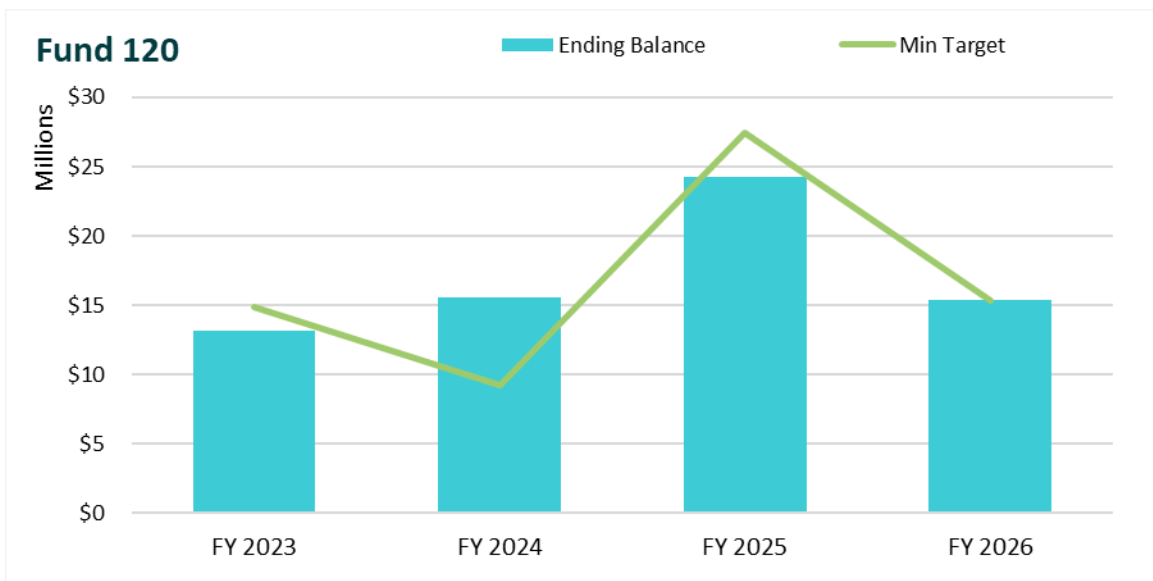


Figure 2-4: Proposed Fund 120 Ending Balances



3 Treated Water Rates

Revenue Requirement

Table 3-1 shows the total CY revenue requirement, which reflects the additional rate revenue adjustments based on the results of the financial plan. The percentage of fixed revenues will increase from 42.5% in CY 2022 to 45% starting in CY 2023.

Table 3-1: Treated Water Revenue Requirement

Line	Revenue Requirement	CY 2023	CY 2024	CY 2025	CY 2026
1	Fixed Charge	45%	45%	45%	45%
2	Volume-Based Charge	55%	55%	55%	55%
3					
4	Total Revenue Requirement	\$60,878,756	\$66,008,017	\$70,679,754	\$73,970,768
5	Fixed Charge	\$27,395,440	\$29,703,607	\$31,805,889	\$33,286,846
6	Volume-Based Charge	\$33,483,316	\$36,304,409	\$38,873,865	\$40,683,923

Units of Service

Table 3-2 show the CY units of service used to calculate the rates. The CY year units of service include the annual usage in ccf by customer and the two-year rolling average based on historical usage by customer, provided by Agency staff.

Table 3-2: Units of Service by Calendar Year

Line	Units of Service	CY 2023	CY 2024	CY 2025	CY 2026
1	Annual Usage (ccf)				
2	City of Pleasanton	4,999,632	5,325,426	5,473,205	5,655,830
3	Dublin San Ramon Services District	4,593,643	4,888,175	5,041,199	5,228,507
4	California Water Service Company	2,466,038	2,492,545	2,558,279	2,650,844
5	City of Livermore	2,576,546	2,680,507	2,727,292	2,805,373
6	Lawrence Livermore Lab	65,673	68,705	79,933	88,209
7	L.A.R.P.D.	1,156	1,224	1,241	1,274
8	Veterans Hospital	45,708	48,953	49,658	50,965
9	Wente Brothers	12,387	13,054	13,242	13,591
10	State of California DWR	0	0	0	0
11	East Bay Regional Park District	6,491	6,935	7,035	7,220
12	Total Annual Usage (ccf)	14,767,276	15,525,525	15,951,084	16,501,813
13					
14	2-Year Rolling Average (ccf)				
15	City of Pleasanton	4,896,962			
16	Dublin San Ramon Services District	4,540,298			
17	California Water Service Company	2,565,359			
18	City of Livermore	2,584,845			
19	Lawrence Livermore Lab	76,681			
20	L.A.R.P.D.	1,154			
21	Veterans Hospital	45,351			
22	Wente Brothers	12,394			
23	State of California DWR	0			
24	East Bay Regional Park District	6,449			
25	Total 2-Year Rolling Average (ccf)	14,729,493			

Proposed Rates

Table 3-3 shows the proposed treated water rate calculation. The proposed treated water rate structure includes a fixed charge and volume-based charge split of 45% to 55%, respectively. The revenue requirement shown in **Table 3-1** is divided by the units of service shown in **Table 3-2**. The annual fixed charge revenue requirement is allocated based on the two-year rolling average of historical water usage by customer. The volume-based charge revenue requirement is divided by the total annual usage for all customers in ccf. The annual fixed charge by customer for CY 2024 and beyond will be calculated annually based on an updated rolling two-year average of historical water.

Table 3-3: Proposed Treated Water Rates

Line	Treated Water Rate Calculation	CY 2023	CY 2024	CY 2025	CY 2026
1	Annual Fixed Charge				
2	City of Pleasanton	\$9,107,878			
3	Dublin San Ramon Services District	\$8,444,518			
4	California Water Service Company	\$4,771,322			
5	City of Livermore	\$4,807,562			
6	Lawrence Livermore Lab	\$142,620			
7	L.A.R.P.D.	\$2,147			
8	Veterans Hospital	\$84,349			
9	Wente Brothers	\$23,050			
10	State of California DWR	\$0			
11	East Bay Regional Park District	\$11,994			
12	Total Annual Fixed Charge	\$27,395,440	\$29,703,607	\$31,805,889	\$33,286,846
13					
14	Volume-Based Charge (\$/ccf)				
15	All Customers	\$2.27	\$2.34	\$2.44	\$2.47

Customer Impacts

Table 3-4 shows the approximated monthly customer impact of the resulting treated water rates for a customer using 10 ccf per month.

Table 3-4: Monthly Customer Impacts

Line	Monthly Customer Impacts	CY 2022	CY 2023	CY 2024	CY 2025	CY 2026
1	Monthly Water Use (ccf)	10	10	10	10	10
2	Fixed Charge	\$17.60	\$18.60	\$19.20	\$20.00	\$20.20
3	Volume-Based Charge	\$20.60	\$22.70	\$23.40	\$24.40	\$24.70
4	Total Charge	\$38.20	\$41.30	\$42.60	\$44.40	\$44.90
5	Difference (\$)		\$3.10	\$1.30	\$1.80	\$0.50