Public Hearing
January 24, 2023

Cost-of-Service Rate Study

IB CONSULTING

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Executive Summary

The Temescal Valley Water District (District) periodically reviews its utilities to determine if adjustments are required to continue meeting its operational costs, system improvements, debt requirements, and adequate reserve funding to satisfy its reserve policies. The District hired IB Consulting to conduct a comprehensive cost-of-service analysis to develop proposed rates for Fiscal Year 2023 (FY 2023) through FY 2027 (Rate Setting Period) for its water, wastewater, and recycled water utilities. The District's previous rate study was completed in 2016 and set rates through Fiscal Year (FY) 2021 (July 1, 2020, through June 30, 2021). As such, the District has not increased rates for over 2 years as the scheduled adjustments took effect each January 1st of the corresponding fiscal year.

Updating a utility's long-term financial plan and performing a comprehensive cost-of-service analysis is a prudent business practice to ensure a utility can fully fund its revenue needs over the Rate Setting Period and beyond. As part of reviewing and updating utility rates, the first step is to conduct a thorough review of the financial health of each utility. Based on a long-term financial plan, revenues from existing rates are reviewed to determine if current revenues sufficiently cover operating expenses; capital spending and satisfy minimum reserve requirements through the Rate Setting Period. With financial planning, it is also critical to review revenue needs beyond the Rate Setting Period to account for any new expenses that may come online from changes in operations or treatment requirements and future capital projects on the horizon. This approach ensures that the District plans for future obligations and obtains a clear understanding of each utility's current financial position.

Water Utility

Based on our financial plan review of the water utility at current rates, the District's water utility is in a strong financial position and only modest adjustments of 3% each year are needed through FY 2027 to cover the water utility's revenue requirements and satisfy the minimum reserve requirements. The water utility does not have any outstanding debt and there is no debt financing proposed during the rate setting period. The District's starting reserve balance for FY 2023 equals $17.8M and currently exceeds the recommended reserve targets. Therefore, the District will utilize a combination of rate revenue and reserves to fund its Capital Improvement Plan (CIP). Doing so will bring down the water utility's reserve balances below the recommended target while maintaining a balance above the minimum requirements.

The District's water rate structure includes a monthly fixed charge by meter size and variable rates per hundred cubic feet (CCF)[1] that varies between customer classes. Residential customers are subject to a 3-tiered rate structure and non-residential customers and irrigation customers are subject to uniform rates. In addition, certain customers are charged a pump charge based on four elevation zones above the base level to cover energy costs.

The proposed rate structure will maintain three tiers for residential customers, with slight adjustments to the Tier 2 allotment reflecting updated consumption analysis of recent usage trends, and uniform rates for non-residential and irrigation customers. The Residential Tier 2 allotment will increase from 11 CCF to 16 CCF.

[1] 1 CCF = 748.05 gallons

The increase in the Tier 2 allotment covers the average summer usage of residential customers, equal to 23 CCF. As a result, the proposed Tier 3 rates would be incurred for usage above 23 CCF.

The updated cost-of-service fixed revenue recovery will equal approximately 30% of total rate revenue, which is a slight increase from the District's current 27% fixed cost recovery. The proposed rates derived within this report include five years of adjustments, commencing on February 1, 2023, and each subsequent January 1st through 2027. With the proposed rates, the utility will continue to generate positive net income above operating, fully fund its capital repair and replacement program through cash on hand and meet minimum reserve targets over the Rate Setting Period[2]. In addition, the financial plan assumes the District will continue to use the pass-through provision of Government Code section 53756 for increased costs in wholesale water from Western Municipal Water District (WMWD) associated with fixed charges, Readiness-To-Serve (RTS) charge and variable rates incurred by the District.

The recommended rates have been incorporated into a notice and mailed to each customer as part of the Proposition 218 noticing requirements. A Public Hearing is scheduled for January 24, 2023, on the proposed rates identified in Table 1 through Table 4.

Table 1: Proposed Water Monthly Fixed Charges

Fixed Meter Charges ($/Month)					
Meter Size	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Residential (<= 1")	$24.06	$24.79	$25.54	$26.31	$27.10
5/8"	$24.06	$24.79	$25.54	$26.31	$27.10
3/4"	$32.74	$33.73	$34.75	$35.80	$36.88
1"	$50.10	$51.61	$53.16	$54.76	$56.41
1 1/2"	$93.50	$96.31	$99.20	$102.18	$105.25
2"	$145.58	$149.95	$154.45	$159.09	$163.87
3"	$310.50	$319.82	$329.42	$339.31	$349.49
4"	$553.54	$570.15	$587.26	$604.88	$623.03
6"	$1,135.10	$1,169.16	$1,204.24	$1,240.37	$1,277.59
8"	$2,437.10	$2,510.22	$2,585.53	$2,663.10	$2,743.00

[2] The Proposed financial plan assumes water sales do not fall below 3,382 acre-feet over the Rate Setting Period, and future expenses do not exceed the projected costs identified herein.

Table 2: Proposed Water RTS Charge

Ready to Service (RTS) Charge ($/Month)					
Meter Size	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Residential (<= 1")	$2.14	TBD	TBD	TBD	TBD
5/8"	$2.14	TBD	TBD	TBD	TBD
3/4"	$2.14	TBD	TBD	TBD	TBD
1"	$2.14	TBD	TBD	TBD	TBD
1 1/2"	$2.14	TBD	TBD	TBD	TBD
2"	$2.14	TBD	TBD	TBD	TBD
3"	$2.14	TBD	TBD	TBD	TBD
4"	$2.14	TBD	TBD	TBD	TBD
6"	$2.14	TBD	TBD	TBD	TBD
8"	$2.14	TBD	TBD	TBD	TBD

Table 3: Proposed Water Variable Rates ($/CCF)

Variable Rates ($/CCF)					
Customer Class	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Residential					
Tier 1: (0 - 7 ccf)	$3.05	$3.14	$3.24	$3.33	$3.43
Tier 2: (8 - 23 ccf)	$3.46	$3.56	$3.67	$3.78	$3.89
Tier 3: (> 23 ccf)	$3.79	$3.90	$4.02	$4.14	$4.27
Non-Residential	$3.30	$3.40	$3.50	$3.61	$3.71
Irrigation	$3.49	$3.59	$3.70	$3.81	$3.93

Table 4: Proposed Pump Zone Charges ($/CCF)

Pumping Rates ($/CCF)					
Pumping Zone	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Zone A	$0.00	$0.00	$0.00	$0.00	$0.00
Zone B	$0.21	$0.22	$0.22	$0.23	$0.24
Zone C	$0.23	$0.24	$0.24	$0.25	$0.26
Zone D	$0.27	$0.28	$0.29	$0.30	$0.30
Zone E	$0.32	$0.33	$0.34	$0.35	$0.36

Wastewater Utility

The wastewater utility is also part of this study and includes a financial plan and cost-of-service analysis for proposed wastewater rates over the Rate Setting Period. The District's existing wastewater rate structure consists of monthly fixed charges per Equivalent Dwelling Units (EDUs) to all customers. The proposed wastewater rates derived within this report will continue to generate positive net income above operating, fully fund the wastewater CIP that averages $1.95M annually over the Rate Setting Period and meet minimum reserve targets.

The Proposed rate structure maintains flat charges for Residential and restructures Non-Residential rates into two components: a monthly fixed charge and a variable rate charged against water usage. The recommended rates were included in the Proposition 218 notice. A Public Hearing is scheduled for January 24, 2023, on the proposed rates identified in Table 5.

Table 5: Proposed Wastewater Rates

Wastewater Rates					
Customer Class	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Fixed Charges ($/Month)					
Residential	$41.57	$42.82	$44.11	$45.44	$46.81
Non-Residential	$21.15	$21.79	$22.45	$23.13	$23.83
Variable Rates ($/CCF)					
Non-Residential	$2.83	$2.92	$3.01	$3.11	$3.21

Recycled Water Utility

The recycled water utility does not require revenue adjustments for any fiscal year over the Rate Setting Period. However, fixed charges and pumping rates are equivalent to potable customers, which are increasing. Therefore, the recycled uniform variable rates are reduced each fiscal year to maintain revenue neutrality through the Rate Setting Period. The Proposed rate structure will remain the same with monthly fixed charges by meter size, a uniform variable rate, and pumping rates that vary by elevation zone. Recycled water customers are subject to the fixed charges and pumping rates identified in Table 1 and Table 4, respectively. The reduced recycled water variable rates are identified in Table 6.

Table 6: Proposed Recycled Water Variable Rates

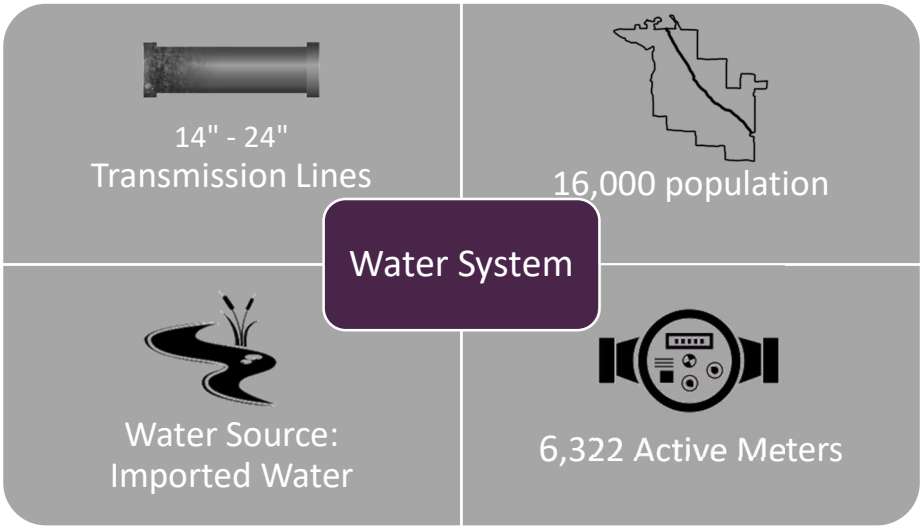
Recycled Water ($/CCF)					
Customer Class	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Recycled	$2.53	$2.51	$2.50	$2.48	$2.46

Water Utility

Water System

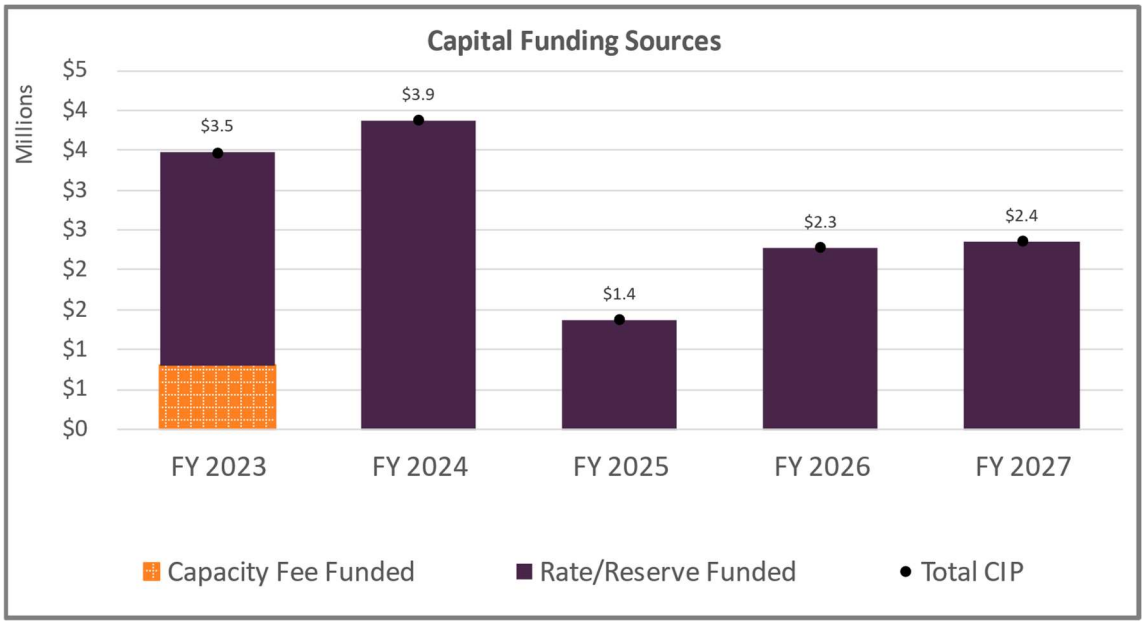
The District's service area spans approximately 10,800 acres, with 4,700 acres actively serviced by the District. The District was formed in 1965 to provide water and wastewater services to the residents of Temescal Valley. Currently, the District provides water, recycled water, and wastewater services to residents and customers of Temescal Valley between the Cities of Lake Elsinore and Corona. The District relies on imported water from WMWD as its sole source of water supply, serving a population of approximately 16,000 through 6,322 meters. The District's water system includes transmission lines ranging from 14-inch to 24-inch in diameter.

Figure 1: District Water System



The District's capital spending will average approximately $2.6M annually over the Rate Setting Period for the water system's repair and replacement program. Figure 2 shows the District's Capital Improvement Plan (CIP) through FY 2027.

Figure 2: Water Utility Capital Improvement Plan



Customers

The District serves 6,322 active accounts, with approximately 97% of all accounts classified as Residential. Table 7 provides a summary of accounts by meter size.

Table 7: Metered Accounts by Customer Class and Meter Size

Meter Size	Residential	Non-Residential	Irrigation	Total
5/8"	6,153	42	6	6,201
3/4"	-	0	0	-
1"	-	15	2	17
1 1/2"	-	3	6	9
2"	-	37	52	89
3"	-	1	2	3
4"	-	2	1	3
6"	-	0	0	-
8"	-	0	0	-
Total	6,153	100	69	6,322

The existing rate structure consists of monthly fixed charges, tiered variable rates for Residential, uniform variable rates for Non-Residential and Irrigation, and additional pumping charges based on elevation zone. Existing fixed charges and variable rates are identified in Table 8 through Table 11.

Table 8: Existing Water Monthly Fixed Charges

Existing Fixed Meter Charges	
Meter Size	($/Month)
Residential (<= 1")	$23.50
5/8"	$23.50
3/4"	$31.60
1"	$47.76
1 1/2"	$88.18
2"	$136.69
3"	$290.32
4"	$516.71
6"	$1,058.41
8"	$2,271.22

Table 9: Existing Water RTS Charge

Existing RTS Charges	
Meter Size	($/Month)
Residential (<= 1")	$1.73
5/8"	$1.73
3/4"	$1.73
1"	$1.73
1 1/2"	$1.73
2"	$1.73
3"	$1.73
4"	$1.73
6"	$1.73
8"	$1.73

Table 10: Existing Water Variable Rates ($/CCF)

Existing Variable Rates	
Customer	($/CCF)
Residential	
Tier 1: (0 - 7 ccf)	$2.97
Tier 2: (8 - 18 ccf)	$3.31
Tier 3: (> 18 ccf)	$3.61
Non-Residential	$3.21
Irrigation	$3.36

Table 11: Existing Pump Zone Charges ($/CCF)

Existing Pumping Charges	
Pumping Zones	($/CCF)
Zone A	$0.00
Zone B	$0.21
Zone C	$0.22
Zone D	$0.29
Zone E	$0.34

Financial Plan Overview – Water Utility

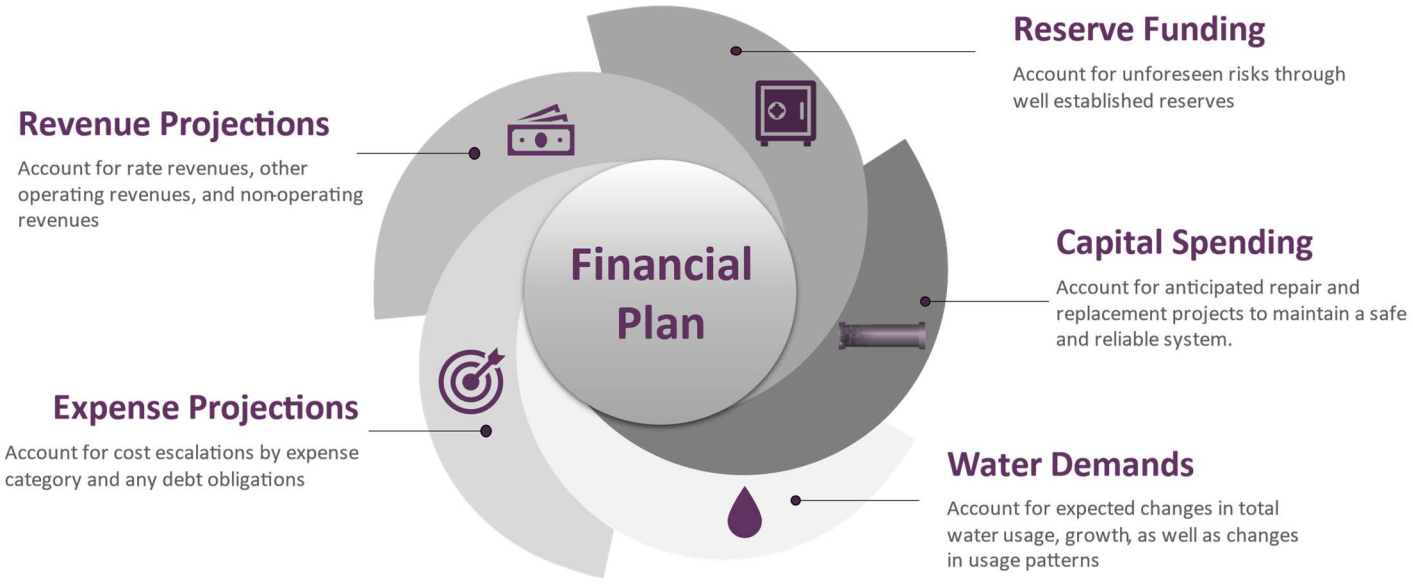
Financial Planning

Financial planning incorporates numerous considerations, including projecting revenues and forecasting expected costs using various inflationary adjustments. Utilities also need to account for changes in water demand driven by variations in weather, water availability, state mandates, growth, and economic factors. In addition, system maintenance and reinvestment, reserves, and debt compliance all influence the revenues needed in future years. Therefore, a comprehensive financial plan reviews the following:

1) Historical water sales and consumption patterns to determine an appropriate level of usage for projecting future water demands.
2) Operational costs that may change over the planning period because of inflation and any new expenditures added to meet strategic goals, state mandates, or changes in operations.
3) Multi-year system improvement needs, and scheduling based on priority. This review also considers available funding sources to complete projects such as pay-as-you-go (PAYGO), grants, loans, and debt financing when warranted.
4) Reserve funding to meet adopted reserve policies. The goal is to generate adequate cash on hand to mitigate financial risks related to operating cashflow needs, unexpected increases in expenses, shortages in system reinvestment, and mitigating potential system failures.

Figure 3 illustrates the key elements when developing a long-term financial plan.

Figure 3: Financial Plan Key Elements



Financial Planning Assumptions

Developing a long-term financial plan requires an understanding of the utility's financial position by evaluating existing revenue streams, ongoing expenses, how those expenses will change over time, debt obligations (when applicable), and reserve policies. These considerations require certain assumptions for projecting revenues, expenses, and expected ending fund balances. Through discussions with staff and their understanding of historical budget data and future obligations, Table 12 identifies assumptions for forecasting revenues over the Rate Setting Period. Table 13 identifies assumptions used for forecasting expense increases.

Table 12: Water Assumptions for Forecasting Revenues

Key Assumptions	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Revenue Escalation					
Non-Inflated	0%	0%	0%	0%	0%
Non-Rate Revenues	2.0%	2.0%	2.0%	2.0%	2.0%
Reserve Interest	0.5%	0.5%	0.5%	0.5%	0.5%
Account Growth	0%	0%	0%	0%	0%
Projected Accounts / Water Sales					
Total Accounts	6,322	6,322	6,322	6,322	6,322
Water Sales (CCF)	1,473,168	1,473,168	1,473,168	1,473,168	1,473,168

Table 13: Water Assumptions for Forecasting Expense Requirements[3]

Key Assumptions	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Expenditure Escalation					
Benefits	Budget	5.0%	5.0%	5.0%	5.0%
Capital Construction	Budget	7.0%	7.0%	3.3%	3.3%
Energy Costs	Budget	10.0%	10.0%	10.0%	10.0%
General Costs	Budget	7.0%	7.0%	3.8%	3.8%
Non-Inflated	Budget	0.0%	0.0%	0.0%	0.0%
Retirement - CalPers	Budget	5.0%	5.0%	5.0%	5.0%
Salaries	Budget	5.0%	5.0%	5.0%	5.0%
Water Loss					
% of Total Production	5.0%	5.0%	5.0%	5.0%	5.0%

[3]Capital Construction inflation and General Costs for FY 2024 and FY 2025 were increased to 7% to account for recent increases due to inflation. Outer years reduce to 3.3% and 3.8%, reflecting the 20-year average of the Engineer's News Record – CCI Index and the 2021 Consumer Price Index – LA, respectively.

Current Financial Position

Revenues

Based on the forecasting assumptions, revenues were calculated using existing rates and account data, with projected total water sales shown in Table 12. Table 14 shows the calculated rate revenues through the Rate Setting Period. The detailed calculations can be found in the rate model on file with the District. Table 15 summarizes calculated rate and non-rate revenues available through the Rate Setting Period with projections rounded to the nearest thousands.

Table 14: Water Calculated Rate Revenues

Fixed Revenues	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Base Fixed Charge					
Residential	$1,735,146	$1,735,146	$1,735,146	$1,735,146	$1,735,146
Non-Residential	$100,191	$100,191	$100,191	$100,191	$100,191
Irrigation	$107,650	$107,650	$107,650	$107,650	$107,650
Total Base Fixed Charge	$1,942,986	$1,942,986	$1,942,986	$1,942,986	$1,942,986
WMWD Readiness-to-Serve					
Residential	$127,736	$127,736	$127,736	$127,736	$127,736
Non-Residential	$2,076	$2,076	$2,076	$2,076	$2,076
Irrigation	$1,432	$1,432	$1,432	$1,432	$1,432
Total WMWD Readiness-to-Serve	$131,245	$131,245	$131,245	$131,245	$131,245
Variable Revenues	**FY 2023**	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**
Residential					
Tier 1	$1,421,201	$1,421,201	$1,421,201	$1,421,201	$1,421,201
Tier 2	$1,542,970	$1,542,970	$1,542,970	$1,542,970	$1,542,970
Tier 3	$1,070,455	$1,070,455	$1,070,455	$1,070,455	$1,070,455
Residential Variable Revenue	$4,034,626	$4,034,626	$4,034,626	$4,034,626	$4,034,626
Non-Residential	$132,724	$132,724	$132,724	$132,724	$132,724
Irrigation	$640,493	$640,493	$640,493	$640,493	$640,493
Total Variable Rate Revenue	$4,807,844	$4,807,844	$4,807,844	$4,807,844	$4,807,844
Pumping - Variable					
Zone A	$0	$0	$0	$0	$0
Zone B	$55,159	$55,159	$55,159	$55,159	$55,159
Zone C	$99,632	$99,632	$99,632	$99,632	$99,632
Zone D	$11,156	$11,156	$11,156	$11,156	$11,156
Zone E	$32,486	$32,486	$32,486	$32,486	$32,486
Total Variable Pumping Revenue	$198,433	$198,433	$198,433	$198,433	$198,433
Total Rate Revenue	7,080,508	7,080,508	7,080,508	7,080,508	7,080,508

Table 15: Water Projected Revenues

Revenue Summary	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Rate Revenue					
Water Service Charge	$1,942,986	$1,943,000	$1,943,000	$1,943,000	$1,943,000
MWD Readiness To Serve Charge	$131,245	$131,000	$131,000	$131,000	$131,000
Water Usage Charges	$4,807,844	$4,808,000	$4,808,000	$4,808,000	$4,808,000
Water Pumping Charge	$198,433	$198,000	$198,000	$198,000	$198,000
Subtotal Rate Revenue	$7,080,508	$7,080,000	$7,080,000	$7,080,000	$7,080,000
Operating Revenues					
Misc. Utility Charges	$40,000	$40,000	$40,000	$40,000	$40,000
Service Meter Income	$60,000	$60,000	$60,000	$60,000	$60,000
Cellular Site Lease	$76,000	$76,000	$76,000	$76,000	$76,000
Standby Charges	$75,000	$75,000	$75,000	$75,000	$75,000
Inspection Charges	$30,000	$30,000	$30,000	$30,000	$30,000
Subtotal Operating Revenues	$281,000	$281,000	$281,000	$281,000	$281,000
Non-Operating Revenues					
Interest Income	$20,000	$125,000	$111,000	$98,000	$96,000
Property Tax Income	$57,500	$58,000	$58,000	$58,000	$58,000
Subtotal Non-Operating Revenues	$77,500	$183,000	$169,000	$156,000	$154,000
Total Revenues	$7,439,008	$7,544,000	$7,530,000	$7,517,000	$7,515,000

Expenses

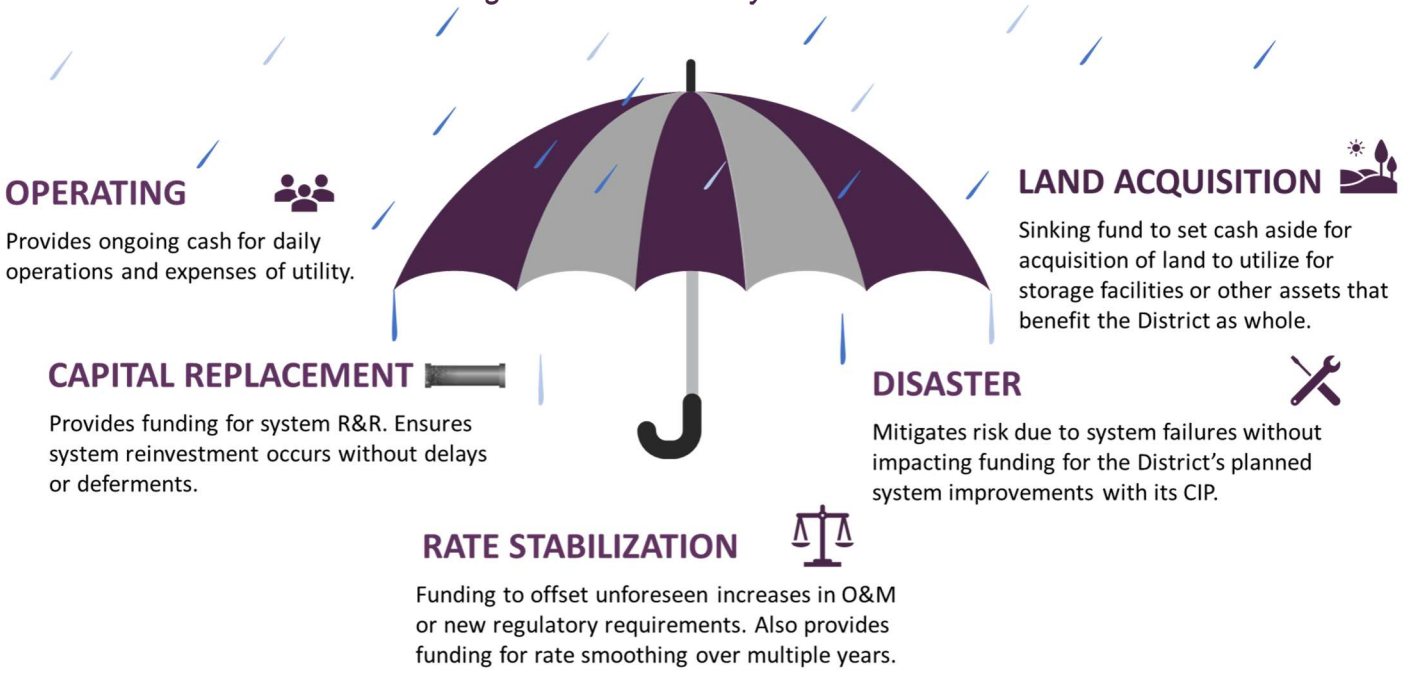
The FY 2023 budget was used as the utility's baseline Operational & Maintenance (O&M) expenses and adjusted in subsequent years based on the escalation factors shown in Table 13. Table 16 provides projected O&M expenses through the Rate Setting Period with future projections rounded to the nearest thousands. Each expense category includes detailed line-item expenditures discussed with staff to determine the appropriate escalation factor for forecasting how costs will increase over time.

Table 16: Water Projected O&M Expenses

O&M Expenses	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Purchased Water Costs					
Fixed Purchased Water Costs					
WMWD Readiness-to-Serve	$162,000	$162,000	$162,000	$162,000	$162,000
MWD Capacity	$70,000	$70,000	$70,000	$70,000	$70,000
Mills Gravity Line Major Maintenance Reserve Charge	$181,000	$181,000	$181,000	$181,000	$181,000
Subtotal Fixed Purchased Water Costs	$413,000	$413,000	$413,000	$413,000	$413,000
Variable Purchased Water Costs					
Variable Purchased Water Costs	$4,452,000	$4,452,000	$4,452,000	$4,452,000	$4,452,000
Subtotal Variable Purchased Water Costs	$4,452,000	$4,452,000	$4,452,000	$4,452,000	$4,452,000
Purchased Water Costs	$4,865,000	$4,865,000	$4,865,000	$4,865,000	$4,865,000
Operating Expenses					
Operating Expenses	$373,250	$393,000	$415,000	$434,000	$455,000
Administrative Expenses	$594,475	$629,000	$665,000	$695,000	$727,000
Energy Expense	$195,000	$215,000	$236,000	$260,000	$285,000
Meter Reads	$78,000	$83,000	$89,000	$93,000	$96,000
System/Maintenance	$348,940	$373,000	$400,000	$415,000	$431,000
Subtotal Operating Expenses	$1,589,665	$1,693,000	$1,805,000	$1,897,000	$1,994,000
Total Expenses	$6,454,665	$6,558,000	$6,670,000	$6,762,000	$6,859,000

Reserves

Figure 4: Water Utility Reserves



Established reserves include Operating, Capital Replacement, Rate Stabilization, Disaster, and Land Acquisition. These reserves help mitigate risks to the utility by ensuring sufficient cash is on hand for daily operations and to fund annual system improvements. In addition, these reserves help smooth rates and mitigate rate spikes due to emergencies or above-average system costs, system failures, and new regulatory requirements. Table 17 summarizes the minimum reserve requirements and the ideal funding targets of each reserve.

Table 17: Water Reserve Requirements and Targets

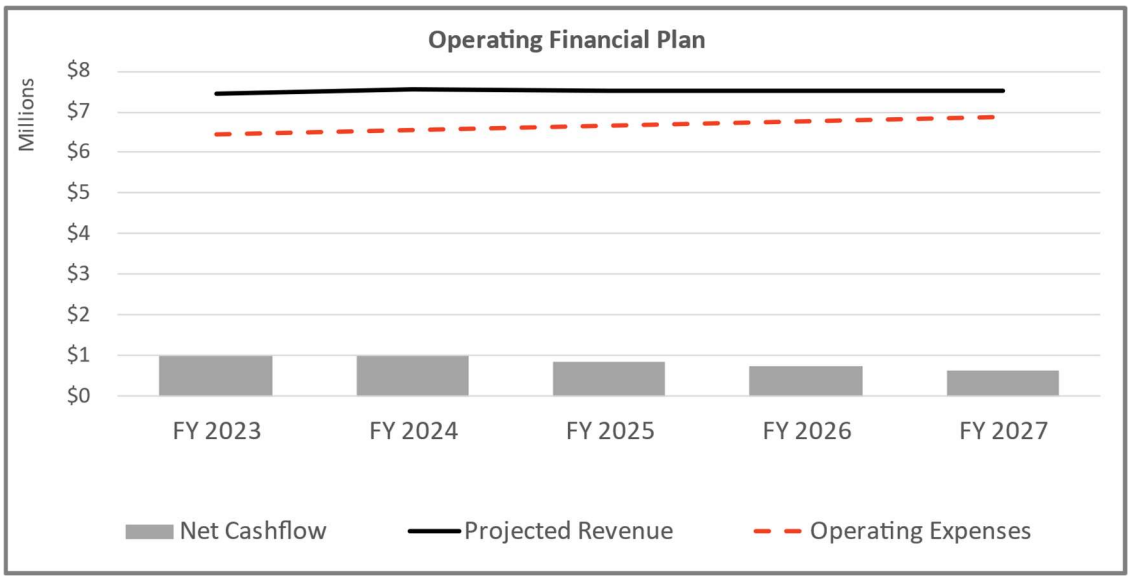
Reserve	Minimum Requirement	Reserve Target
Operating	120 days of operating costs	180 days of operating costs
Capital Replacement	1-year of CIP expenses based on the 5-year average of planned capital	2-years of CIP expenses based on the 5-year average of planned capital
Rate Stabilization	5% of rate revenue	10% of rate revenue
Disaster	2% of system asset value	3% of system asset value
Land Acquisition	Fixed Amount of $1M	Fixed amount of $3M

The starting reserve balances for FY 2023 (July 1, 2022) equaled approximately $17.8M.

Financial Outlook at Existing Rates

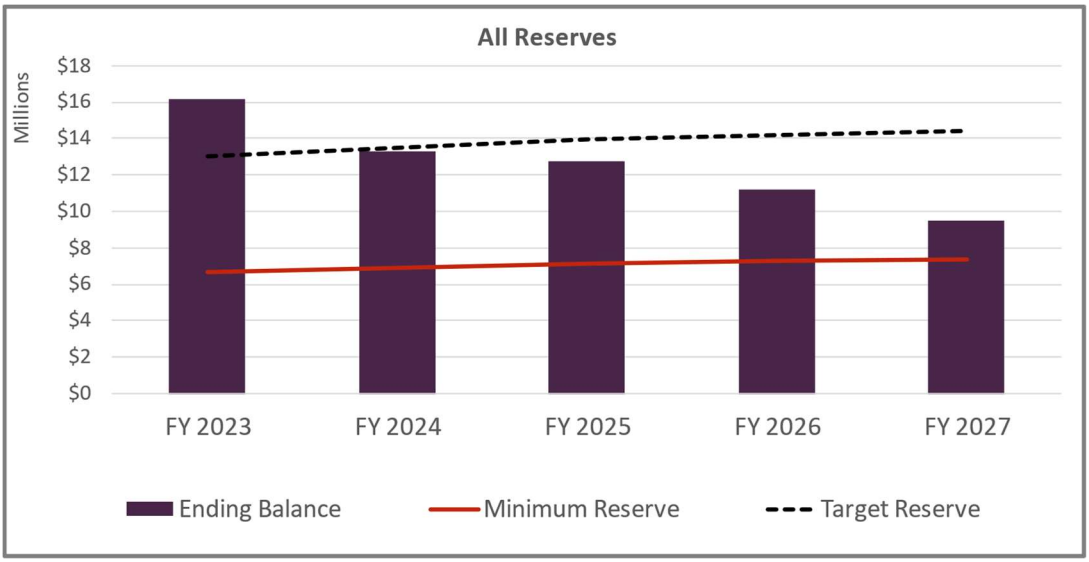
Calculating revenue using existing rates and projecting expenses helps determine the current financial health of the utility. As mentioned within the Executive Summary, the District is currently in a strong financial position; however, rates may only be approved for up to five years, and FY 2021 was the final year of rate increases. As such, revenues from existing rates are still sufficient to fund O&M through the Rate Setting Period but decline each year, leaving less funding for annual capital reinvestment. The reduced funding would cause the District to use more reserves than typical to fund its planned capital. Figure 5 illustrates the operating position of the utility, where O&M expenses are identified with the dashed red trendline, and the horizontal black trendline shows total revenues at existing rates. The bars represent the net operating income available for capital spending and reserve funding, which is declining.

Figure 5: Water – Current Operating Financial Position



With the capital improvement plan reflecting over $12.5M in spending from FY 2023 through FY 2027, as shown in Figure 2, reserves will cover the remaining capital expenses to ensure necessary projects continue to move forward as scheduled. Figure 6 reflects the projected ending balances of reserves after funding operating and capital projects. Reserves continue to decline each year to cover the District's CIP. By FY 2027, reserves will be well below the target and slightly above the minimum reserve target.

Figure 6: Water Projected Ending Reserves at Existing Rates



Proposed Financial Plan – Water Utility

From the financial outlook at existing rates, a proposed financial plan can be developed to fund the multi-year revenue requirements, while maintaining positive annual net operating income and ensuring reserves reflect a healthy balance between the minimum requirement and target. Table 18 forecasts projected revenues and expenses over the Rate Setting Period.

Table 18: Proposed Water Financial Plan – Revenues and Expenses Through FY 2027

Revenue	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Rate Revenue					
Water Service Charge	$1,942,986	$1,943,000	$1,943,000	$1,943,000	$1,943,000
Water Usage Charges	$4,807,844	$4,808,000	$4,808,000	$4,808,000	$4,808,000
Water Pumping Charge	$198,433	$198,000	$198,000	$198,000	$198,000
Total Rate Revenue	$6,949,263	$6,949,000	$6,949,000	$6,949,000	$6,949,000
Additional Revenue *(from revenue adjustments)*:					
Fiscal Year / Revenue Adjustment / Effective Month					
FY 2023 — 3.0% — February	$87,000	$208,000	$208,000	$208,000	$208,000
FY 2024 — 3.0% — January		$107,000	$215,000	$215,000	$215,000
FY 2025 — 3.0% — January			$111,000	$221,000	$221,000
FY 2026 — 3.0% — January				$114,000	$228,000
FY 2027 — 3.0% — January					$117,000
Total Additional Revenue	$87,000	$315,000	$534,000	$758,000	$989,000
MWD Readiness To Serve Charge	$131,245	$131,000	$131,000	$131,000	$131,000
Projected Rate Revenues	**$7,167,508**	**$7,395,000**	**$7,614,000**	**$7,838,000**	**$8,069,000**
Operating Revenues					
Misc. Utility Charges	$40,000	$40,000	$40,000	$40,000	$40,000
Service Meter Income	$60,000	$60,000	$60,000	$60,000	$60,000
Cellular Site Lease	$76,000	$76,000	$76,000	$76,000	$76,000
Standby Charges	$75,000	$75,000	$75,000	$75,000	$75,000
Inspection Charges	$30,000	$30,000	$30,000	$30,000	$30,000
Subtotal Operating Revenues	**$281,000**	**$281,000**	**$281,000**	**$281,000**	**$281,000**
Non-Operating Revenues					
Interest Income	$20,000	$125,000	$111,000	$98,000	$96,000
Property Tax Income	$57,500	$58,000	$58,000	$58,000	$58,000
Subtotal Non-Operating Revenues	**$77,500**	**$183,000**	**$169,000**	**$156,000**	**$154,000**
Total Revenues	**$7,526,008**	**$7,859,000**	**$8,064,000**	**$8,275,000**	**$8,504,000**

O&M Expenses	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Purchased Water Costs					
Fixed Purchased Water Costs					
WMWD Readiness-to-Serve	$162,000	$162,000	$162,000	$162,000	$162,000
MWD Capacity	$70,000	$70,000	$70,000	$70,000	$70,000
Mills Gravity Line Major Maintenance Reserve Charge	$181,000	$181,000	$181,000	$181,000	$181,000
Subtotal Fixed Purchased Water Costs	**$413,000**	**$413,000**	**$413,000**	**$413,000**	**$413,000**
Variable Purchased Water Costs					
Variable Purchased Water Costs	$4,452,000	$4,452,000	$4,452,000	$4,452,000	$4,452,000
Subtotal Variable Purchased Water Costs	**$4,452,000**	**$4,452,000**	**$4,452,000**	**$4,452,000**	**$4,452,000**
Purchased Water Costs	**$4,865,000**	**$4,865,000**	**$4,865,000**	**$4,865,000**	**$4,865,000**
Operating Expenses					
Operating Expenses	$373,250	$393,000	$415,000	$434,000	$455,000
Administrative Expenses	$594,475	$629,000	$665,000	$695,000	$727,000
Energy Expense	$195,000	$215,000	$236,000	$260,000	$285,000
Meter Reads	$78,000	$83,000	$89,000	$93,000	$96,000
System/Maintenance	$348,940	$373,000	$400,000	$415,000	$431,000
Subtotal Operating Expenses	**$1,589,665**	**$1,693,000**	**$1,805,000**	**$1,897,000**	**$1,994,000**
Total Expenses	**$6,454,665**	**$6,558,000**	**$6,670,000**	**$6,762,000**	**$6,859,000**
Net Cashflow	**$1,071,343**	**$1,301,000**	**$1,394,000**	**$1,513,000**	**$1,645,000**

Figure 7 identifies the operating position based on the proposed financial plan and Figure 8 shows the capital plan with funding sources. Figure 9 identifies the ending reserve balances for reserves after funding capital replacement.

Figure 7: Water *Proposed Operating Position*

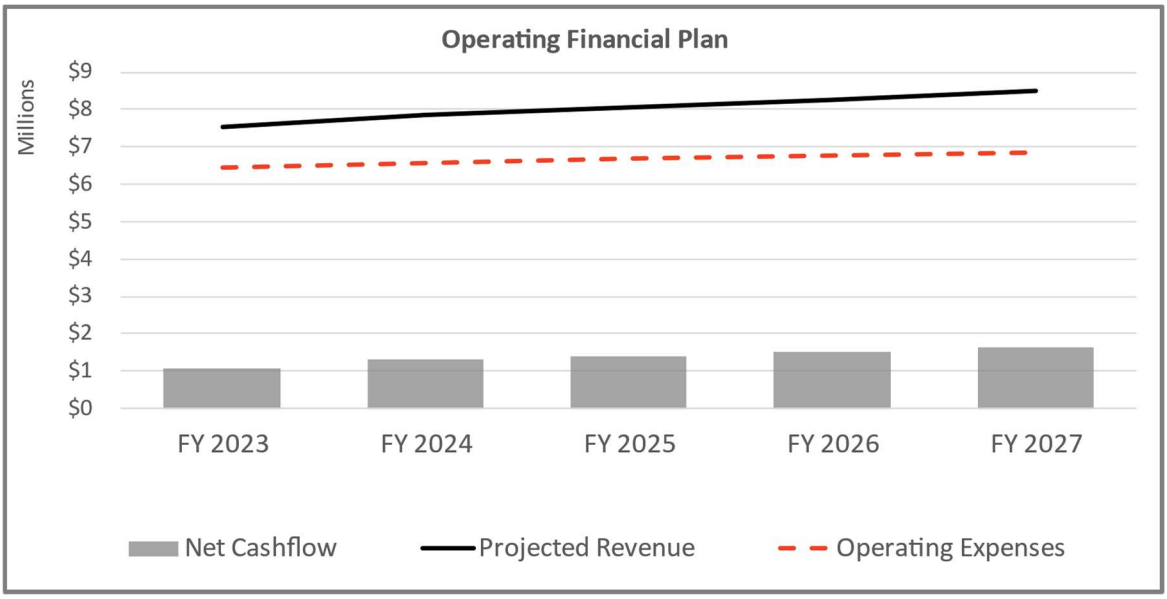


Figure 8: Water Capital Improvement Plan with Funding Sources

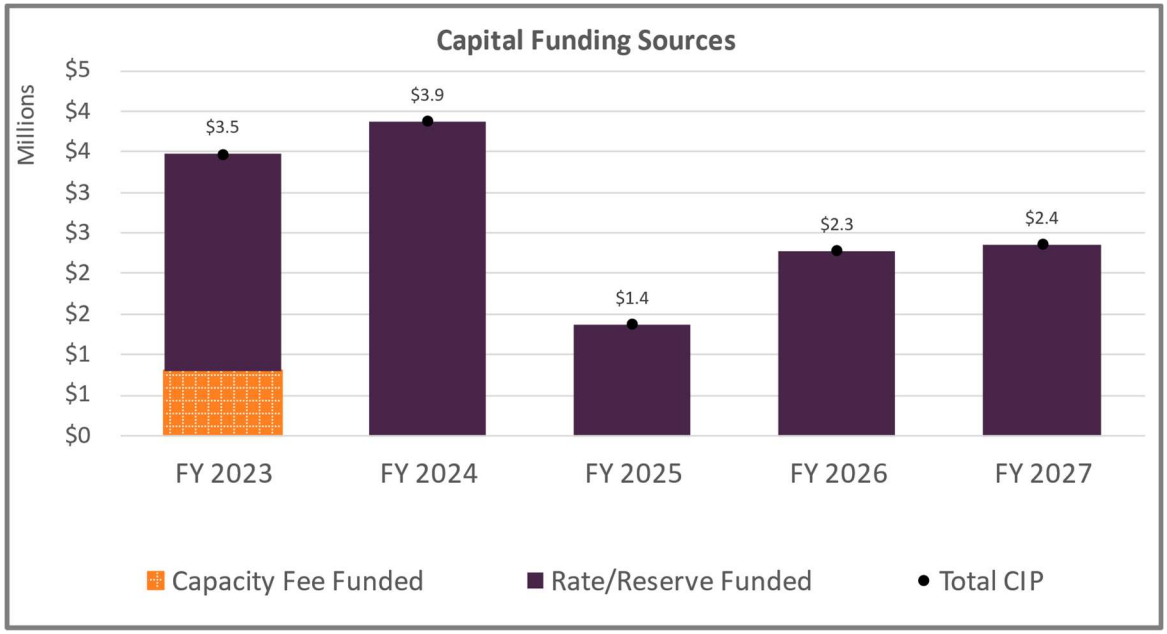
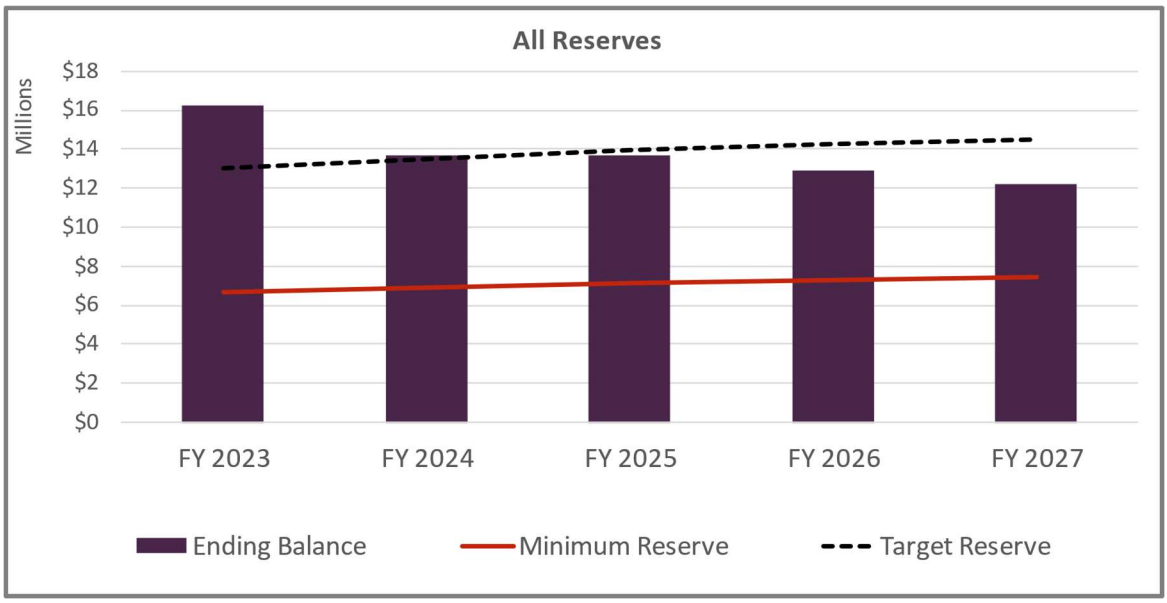


Figure 9: Water Proposed Ending Reserve Balances



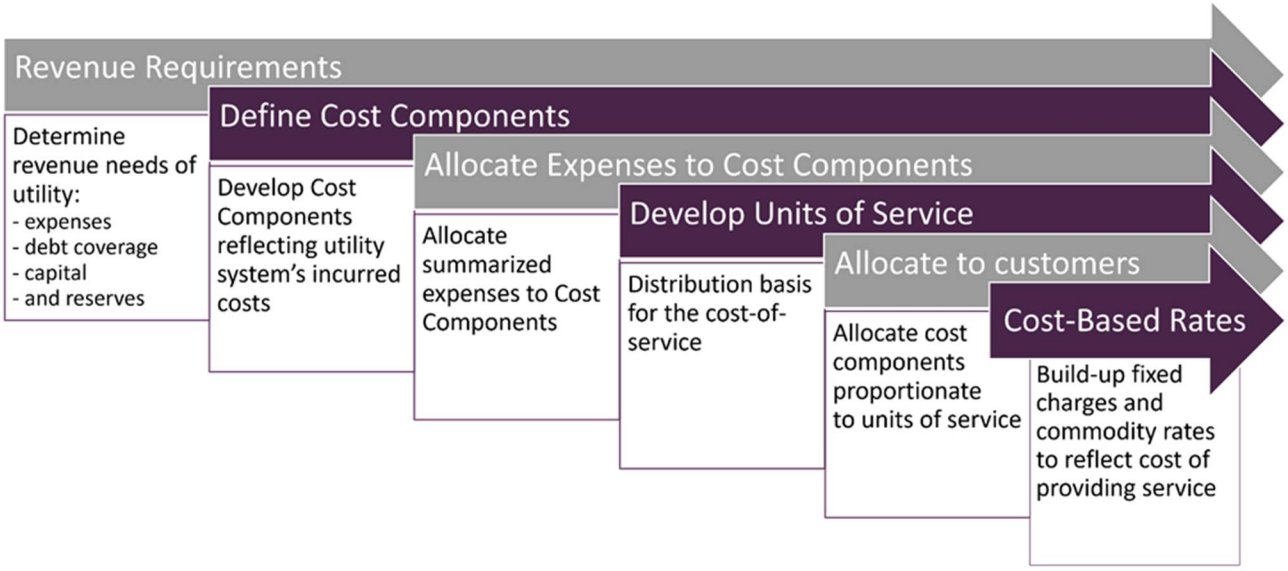
Cost-of-Service Analysis – Water Utility

Cost-of-Service Process

The next step in developing rates is to perform a cost-of-service analysis. Developing cost-based equitable rates is a significant consideration in developing proposed water rates. Meeting the statutory requirements of Proposition 218 is of paramount importance with utility rates. Proposition 218 does not provide a particular methodology for establishing cost-based rates. This study uses the Base-Extra Capacity Methodology for developing water rates and adheres to the cost-of-service provisions of Proposition 218.

It is important to understand **how** costs are incurred to determine the most appropriate way to recover these costs. The following graphic summarizes the cost-of-service process. This process first allocates costs incurred to customer classes to achieve interclass equity, followed by an allocation of costs to tiers, when applicable, to achieve intraclass equity. As a result, the proposed rates are cost-based, proportionate to each customer class and corresponding account, and reflect the costs incurred to provide water service to all customers.

Figure 10: Cost-of-Service Process



Revenue Requirements

With FY 2023 as the first year of the proposed rate schedule, revenue requirements are determined for FY 2023 and used for the cost-of-service analysis. Revenue requirements include O&M expenses, available revenue offsets from other revenues, annual net income, and any mid-year adjustments for rates implemented after the start of the fiscal year. The proposed revenue adjustments and corresponding rates accumulate the necessary funding over the Rate Setting Period to fund total revenue requirements while complying with reserve requirements. The results of the financial plan analysis are summarized in Table 19 and represent the revenue required from rates over the Rate Setting Period.

Table 19: FY 2023 – FY 2027 Water Revenue Requirements

	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Revenue Requirements	Total	Total	Total	Total	Total
Purchased Water					
WMWD Readiness-to-Serve	$162,000	$162,000	$162,000	$162,000	$162,000
MWD Capacity	$70,000	$70,000	$70,000	$70,000	$70,000
Mills Gravity Line Major Maintenance Reserve Charge	$181,000	$181,000	$181,000	$181,000	$181,000
Variable Purchased Water Costs	$4,452,000	$4,452,000	$4,452,000	$4,452,000	$4,452,000
Total Purchased Water	$4,865,000	$4,865,000	$4,865,000	$4,865,000	$4,865,000
Operations and Maintenance					
Operating Expenses	$373,250	$393,000	$415,000	$434,000	$455,000
Administrative Expenses	$594,475	$629,000	$665,000	$695,000	$727,000
Energy Expense	$195,000	$215,000	$236,000	$260,000	$285,000
Meter Reads	$78,000	$83,000	$89,000	$93,000	$96,000
System/Maintenance	$348,940	$373,000	$400,000	$415,000	$431,000
Total Operations and Maintenance	$1,589,665	$1,693,000	$1,805,000	$1,897,000	$1,994,000
Revenue Offsets					
Misc. Utility Charges	($40,000)	($40,000)	($40,000)	($40,000)	($40,000)
Service Meter Income	($60,000)	($60,000)	($60,000)	($60,000)	($60,000)
Cellular Site Lease	($76,000)	($76,000)	($76,000)	($76,000)	($76,000)
Standby Charges	($75,000)	($75,000)	($75,000)	($75,000)	($75,000)
Inspection Charges	($30,000)	($30,000)	($30,000)	($30,000)	($30,000)
Interest Income	($20,000)	($125,000)	($111,000)	($98,000)	($96,000)
Property Tax Income	($57,500)	($58,000)	($58,000)	($58,000)	($58,000)
Total Revenue Offsets	($358,500)	($464,000)	($450,000)	($437,000)	($435,000)
Adjustments					
Reserve Funding	$1,071,343	$1,301,000	$1,394,000	$1,513,000	$1,645,000
Adjustments for Mid-Year Increase	$121,800	$107,000	$111,000	$114,000	$117,000
Total Adjustments	$1,193,143	$1,408,000	$1,505,000	$1,627,000	$1,762,000
Revenue Required from Rates	$7,289,308	$7,502,000	$7,725,000	$7,952,000	$8,186,000

Define Cost Components

The utility incurs costs to accommodate total annual water usage and peak demands that vary throughout the year. Therefore, to determine the most appropriate way to recover the utility's expenses, cost components are identified to allocate expenses based on how they are incurred. By reviewing the revenue requirements and understanding the utility system, it is appropriate and reasonable to utilize the base-extra capacity methodology outlined in the American Water Works Association M1 Manual. This methodology accounts for the utility's costs as a function of meeting both total volume and peak use demands. For example, if a utility's average usage and peak usage were equivalent, the utility system could be sized solely to accommodate the average demand on the system. However, customer water usage peaks at various times, such as in the morning when everyone wakes up, evenings when customers are home from work/school, and at other times of the year, as outdoor water needs fluctuate based on the weather. The cost components shown in Figure 11 reflect the cost components used for this study.

Figure 11: Water Cost Components

Fixed Purchased – Fixed monthly water supply costs incurred by the District from its water wholesaler.
WMWD RTS – Fixed expenses from Metropolitan Water District (MWD) that WMWD passes through to the District. This charge supports MWD's system capital costs for emergency and standby storage facilities.
Account Services – Fixed expenses that do not necessarily fluctuate based on usage or meter size.
Meter Capacity – O&M expenses associated with meters, including a portion of capital and reserves.
Purchased Water – Water supply costs associated with the purchase of treated water from WMWD.
Delivery – Operating and capital expenses of the water system associated with serving customers at a constant average use or average daily demand. These costs tend to vary with the total water used.
Peaking – Expenses incurred to meet customer peak demands in excess of average daily usage.
Revenue Offset – Non-rate revenues (cell site leases and standby charges) used to offset variable rates.
Pumping – Expenses incurred for booster pumps to move water up to higher elevation zones of the District.

The analysis herein establishes cost components for developing fixed charges and utilizes the base-extra capacity method for developing variable rates. Total volume and usage patterns of customers and tiers are analyzed to allocate expenses proportionately based on total usage and peak demands. Peak demand is a function of Max Day Demand (Max Day) and Max Hour Demand (Max Hour) placed on the system in comparison to Average Day Demand (Avg Day). The system configuration provides fire flow demand inherent to a utility system and accounts for peak water demands generated by how customers use water above Avg Day. Max Day is the maximum amount of water used in a single day of a calendar year, and Max Hour reflects the peak hourly use on the system compared to Avg Day.

Allocate Expenses to Cost Components

When allocating expenses to the defined cost components, it is important to have a sound basis as to why an expense was allocated to a certain fixed cost component versus a variable cost component or split between both fixed and variable. The distribution of expenses to the cost components should be straightforward to ensure the method of apportionment is **understandable** and easily **correlates to how expenses are incurred**. A description of each expense category is identified on the following page.

Water Supply Expense Categories:

WMWD RTS: Costs associated with MWD's system capital costs for emergency and standby storage facilities, such as Lake Skinner and Diamond Valley Lake.
MWD Capacity: Fixed costs charged by MWD and passed through by WMWD to the District.
Mills Gravity Line Major Maintenance Reserve Charge: Fixed costs associated with the daily servicing and maintenance of the Mills Gravity Line used to deliver water to retail agencies.
Variable Purchased Water Costs: Variable expenses associated with the purchase of treated water from WMWD.
Energy Expense: Electricity expenses for pumping and conveying treated water to all elevation zones.

O&M Expense Categories:

Operating Expenses: Staffing expenses, including field workers, materials, and supplies to maintain the water system, energy costs, and part servicing.
Administrative Expenses: Overhead expenses and supplies to run the water utility.
Meter Reads: Expenses associated with reading and maintaining active meters.
System/Maintenance: Personnel costs and O&M costs associated with the water distribution system.

System peaking characteristics are used to allocate costs to Avg Day (Delivery) and Max Day / Max Hour (collectively, Peaking). Avg Day is assigned a factor of 1.0, signifying no peaking demands. The Max Day and Max Hour factors shown in Table 20 are from the District's most recent usage data for FY 2022. A Max Day peaking factor of 1.45 means that the system delivers almost one and a half times more water than the average daily demand during a peak day. A Max Hour peaking factor of 2.17 means that the system delivers twice the average daily demand during peak hour. The percentage allocations for Avg Day, Max Day, and Max Hour are determined through the following calculations:

Avg Day – 100% to Base (no peak)

Max Day – Max Day peak factor is 1.45 (Max Month Usage ÷ Average Month Usage = 406.00 AF / 280.34 = 1.45). Therefore, the base factor of 1.00 makes up 69.0% of the Max Day (1.00 / 1.45 = 0.69), and Max Day is 31.0% of demand.

Max Hour – The Max Hour peak factor is 1.5 times the Max Day, equal to 2.17. Therefore, the base factor of 1.00 makes up 46.0% of Max Hour (1.00 / 2.17 = 0.46), and the Max Day increment above Avg Day of 0.45 (1.45 - 1.00 = 0.45) makes up 20.6% of the Max Hour Demand (0.45 / 2.17 = 0.206). Therefore, the Max Hour increment equals the remainder of 33.3%.

These peaking factors are specific to the District and reflect the peaking characteristics of the District's water system. The corresponding allocations between Delivery and Peaking provide a means to spread costs incurred as a function of serving Max Day and Max Hour proportionately. Table 20 summarizes the percentage between Delivery and Peaking using Avg Day, Max Day, and Max Hour.

Table 20: System Peaking Factors and Distribution Basis

System Peak	Factor	Base [A]	Max Day [B]	Max Hour [C]	Delivery [D] = A	Peaking [E] = B+C
Avg Day	1.00	100.0%	0.0%	0.0%	100.0%	0.0%
Max Day	1.45	69.0%	31.0%	0.0%	69.0%	31.0%
Max Hour	2.17	46.0%	20.6%	33.3%	46.0%	54.0%

Table 21 summarizes the percent allocation of water supply costs to the applicable cost components. Table 22 reflects the dollars for each cost component based on the percent allocations in Table 21.

Table 21: Water Supply Expense Allocation to Cost Components (%)

Functionalized Expenses	Methodology / Allocation Basis	Fixed Purchased	WMWD RTS	Variable Purchased Water	Pumping	Total
WMWD Readiness-to-Serve	Specific	0.0%	100.0%	0.0%	0.0%	100.0%
MWD Capacity	Specific	100.0%	0.0%	0.0%	0.0%	100.0%
Mills Gravity Line Major Maintenance Reserve Charge	Specific	100.0%	0.0%	0.0%	0.0%	100.0%
Variable Purchased Water Costs	Specific	0.0%	0.0%	100.0%	0.0%	100.0%
Energy Expense	Specific	0.0%	0.0%	0.0%	100.0%	100.0%

Table 22: Water Supply Expense Allocation to Cost Components ($)

Functionalized Expenses	Methodology / Allocation Basis	Fixed Purchased	WMWD RTS	Variable Purchased Water	Pumping	Total
WMWD Readiness-to-Serve	Specific	$0	$162,000	$0	$0	$162,000
MWD Capacity	Specific	$70,000	$0	$0	$0	$70,000
Mills Gravity Line Major Maintenance Reserve Charge	Specific	$181,000	$0	$0	$0	$181,000
Variable Purchased Water Costs	Specific	$0	$0	$4,452,000	$0	$4,452,000
Energy Expense	Specific	$0	$0	$0	$195,000	$195,000
Specific Allocation ($)		$251,000	$162,000	$4,452,000	$195,000	$5,060,000

Table 23 summarizes the percent allocation of O&M revenue requirements to the cost components, and Table 24 uses the percent allocations in Table 23 to allocate expenses in dollars to each cost component. For the Engineering, Treatment and Distribution Divisions, personnel costs were allocated to the cost component of meter capacity as personnel costs are a fixed expense, with the remaining O&M expenses of each division allocated using Avg Day, Max Day, and Max Hour, respectively.

Table 23: Water O&M Expense Allocation to Cost Components (%)

Functionalized Expenses	Methodology / Allocation Basis	Account Services	Meter Capacity	Delivery	Peaking	Total
Operating Expenses	*Max Hour*	0%	64%	17%	19%	100.0%
Administrative Expenses	*Specific*	50%	50%	0%	0%	100.0%
Meter Reads	*Specific*	0%	100%	0%	0%	100.0%
System/Maintenance	*Specific*	0%	32%	31%	37%	100.0%

Table 24: Water O&M Expense Allocation to Cost Components ($)

Functionalized Expenses	Methodology / Allocation Basis	Account Services	Meter Capacity	Delivery	Peaking	Total
Operating Expenses	*Max Hour*	$0	$238,880	$61,855	$72,515	$373,250
Administrative Expenses	*Specific*	$297,575	$296,900	$0	$0	$594,475
Meter Reads	*Specific*	$0	$78,000	$0	$0	$78,000
System/Maintenance	*Specific*	$0	$111,000	$109,532	$128,408	$348,940
O&M Allocation ($)		$297,575	$724,780	$171,387	$200,923	$1,394,665
O&M Allocation (%)		*21.3%*	*52.0%*	*12.3%*	*14.4%*	*100.0%*

Other Funding includes miscellaneous revenues, reserve funding, and mid-year adjustment when proposed rates are implemented after the start of the fiscal year. The mid-year adjustment annualizes the proposed revenue adjustment to account for the time elapsed before new rates take effect to connect to the annual units of service used for deriving rates. Non-Operating revenues of Cellular Site Lease and Standby Charges are 100% allocated to the Revenue Offset cost component to specifically offset variable rates, with Residential's share applied to the Tier 1 rate. All other items under "Other Funding" are allocated based on O&M percentages derived in Table 24 to allocate each line item proportionately to the cost components. Table 25 summarizes the percent allocation to the cost components, and Table 26 uses the percent allocations in Table 25 to allocate expenses in dollars to each cost component. Table 27 summarizes the FY 2023 revenue requirement derived in Table 19 by cost component.

Table 25: Water Other Funding to Cost Components (%)

Functionalized Expenses	Methodology / Allocation Basis	Account Services	Meter Capacity	Delivery	Peaking	Revenue Offset	Total
Misc. Utility Charges	*O&M %*	21.3%	52.0%	12.3%	14.4%	0.0%	100.0%
Service Meter Income	*O&M %*	21.3%	52.0%	12.3%	14.4%	0.0%	100.0%
Cellular Site Lease	*Revenue Offset*	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Standby Charges	*Revenue Offset*	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Inspection Charges	*O&M %*	21.3%	52.0%	12.3%	14.4%	0.0%	100.0%
Interest Income	*O&M %*	21.3%	52.0%	12.3%	14.4%	0.0%	100.0%
Property Tax Income	*O&M %*	21.3%	52.0%	12.3%	14.4%	0.0%	100.0%
Reserve Funding	*O&M %*	21.3%	52.0%	12.3%	14.4%	0.0%	100.0%
Adjustments for Mid-Year Increase	*O&M %*	21.3%	52.0%	12.3%	14.4%	0.0%	100.0%

Table 26: Water Other Funding Allocation to Cost Components ($)

Functionalized Expenses	Methodology / Allocation Basis	Account Services	Meter Capacity	Delivery	Peaking	Revenue Offset	Total
Misc. Utility Charges	*O&M %*	($8,535)	($20,787)	($4,915)	($5,763)	$0	($40,000)
Service Meter Income	*O&M %*	($12,802)	($31,181)	($7,373)	($8,644)	$0	($60,000)
Cellular Site Lease	*Revenue Offset*	$0	$0	$0	$0	($76,000)	($76,000)
Standby Charges	*Revenue Offset*	$0	$0	$0	$0	($75,000)	($75,000)
Inspection Charges	*O&M %*	($6,401)	($15,590)	($3,687)	($4,322)	$0	($30,000)
Interest Income	*O&M %*	($4,267)	($10,394)	($2,458)	($2,881)	$0	($20,000)
Property Tax Income	*O&M %*	($12,269)	($29,882)	($7,066)	($8,284)	$0	($57,500)
Reserve Funding	*O&M %*	$228,589	$556,756	$131,654	$154,344	$0	$1,071,343
Adjustments for Mid-Year Increase	*O&M %*	$25,988	$63,297	$14,968	$17,547	$0	$121,800
Other Funding ($)		$210,303	$512,219	$121,123	$141,997	($151,000)	$834,643

Table 27: FY 2023 Water Cost-of-Service Requirements by Cost Component

Revenue Requirement	Fixed Purchased	WMWD RTS	Account Services	Meter Capacity	Variable Purchased Water	Delivery	Peaking	Revenue Offset	Pumping	Total
Specific	$251,000	$162,000	$0	$0	$4,452,000	$0	$0	$0	$195,000	$5,060,000
Operations and Maintenance	$0	$0	$297,575	$724,780	$0	$171,387	$200,923	$0	$0	$1,394,665
Other Funding	$0	$0	$210,303	$512,219	$0	$121,123	$141,997	($151,000)	$0	$834,643
COS Requirement	**$251,000**	**$162,000**	**$507,878**	**$1,236,999**	**$4,452,000**	**$292,509**	**$342,921**	**($151,000)**	**$195,000**	**$7,289,308**

Rate Design – Water Utility

Develop Units of Service

Unit rates for each cost component are derived by spreading the corresponding revenue requirements over appropriate units of service (distribution basis). This approach provides a clear connection between costs incurred and the proportionate share attributable to each customer class, corresponding tier, and customer account. When designing rates, the most critical component is to connect costs to the proposed rates, resulting in a rate structure that is cost-based and in compliance with Proposition 218. The previous section summarized costs by expense category and then allocated to cost components based on how each cost is incurred. The next step in designing rates is to allocate each cost component to customers in relation to their use of the system and facilities. The method of apportionment considers each customer's share of system costs and is reflected by the units of service used to distribute the cost components equitably to each customer account.

The distribution basis varies by cost component and includes total accounts, Meter Equivalents (MEs), which reflect demand placed on the system based on meter size, total water sales, usage by tier, and usage weighted by peaking for each customer class. Each meter size receives an equivalency factor based on the flow characteristics of a 5/8" meter. Table 28 provides the safe maximum operating flow capacity by meter size, as identified in the AWWA M1 Manual, 6th Edition, Table B-2.

The safe maximum operating flow capacity for each meter was divided by the base meter's safe operating flow capacity of 20 gallons per minute (gpm) (5/8") to determine the equivalent meter ratio. The Capacity Ratios represent the potential flow through each meter size compared to the flow of a 5/8" meter to establish parity between meter sizes. For Residential customers, accounts with a meter size of 1" or less are classified as 5/8" meters because these accounts can be served by a 5/8" meter and only require up to a 1" meter due to fire-related building codes.

Total MEs are determined by multiplying the number of meters by the Capacity Ratio and then multiplying the result by the billing periods in a year (12 billing periods). Table 28 summarizes the units of service related to total Accounts and MEs.

Table 28: Water Account and Meter Equivalents

Meter Size	AWWA Capacity (gpm) [A]	Capacity Ratio [B] = (A ÷ 20)	Number of Accounts [C]	Meter Equivalents [D] = (B x C)
5/8"	20	1.00	6,201	6,201
3/4"	30	1.50	-	-
1"	50	2.50	17	43
1 1/2"	100	5.00	9	45
2"	160	8.00	89	712
3"	350	17.50	3	53
4"	630	31.50	3	95
6"	1,300	65.00	-	-
8"	2,800	140.00	-	-
Total			6,322	7,148
Annual Units (Total x 12 billing periods)			75,864	85,770

Total usage and peaking factors must be calculated for each customer class and tier to derive the units of service for allocating variable costs. Table 29 provides the projected usage for FY 2023 from Table 12, broken out by customer class, including the usage characteristics of each customer class. The usage per account and peaking factors for Table 29 and Table 30 were determined through our detailed analysis of the most recently completed Fiscal Year of consumption during the study (FY 2022). Based on the consumption analysis, peaking factors were derived for each customer class by taking usage per account during the max billing period (September) divided by the average annual usage per account.

Table 29: Usage and Peaking Factors by Customer Class

Customer Class	Usage (CCF) [A]	Average Usage per Account [B]	Max Usage per Account [C]	Peaking Factors [D] = C ÷ B	Weighted Peak [E] = A x D
Residential	1,241,198	17.19	25.51	1.48	1,841,979
Non-Residential	41,347	35.22	39.77	1.13	46,698
Irrigation	190,623	249.89	401.18	1.61	306,032
Variable Units	1,473,168				2,194,709

The proposed Residential rate structure maintains three tiers, with the Tier 1 allotment based on the State's indoor water efficiency standards of 50 gallons per capita per day (gpcd) times the average number of people per household (pph) for Temescal Valley, equal to 3.26 pph. Tier 2 covers the maximum month (September) usage per dwelling unit equal to 23 CCF, and Tier 3 captures all remaining usage over Tier 2. The tiered usage characteristics will be used to further apportion the total variable costs allocated to Residential to the corresponding three tiers. Allocating variable costs to customer classes first, then to tiers, ensures each customer class is recovering its proportionate share of costs. Tier 1 is assigned a peak factor of 1.0 to reflect essential indoor water usage[4]. Tier 2 and Tier 3 peaking factors are based on the average usage of customer bills that fall into each tier.

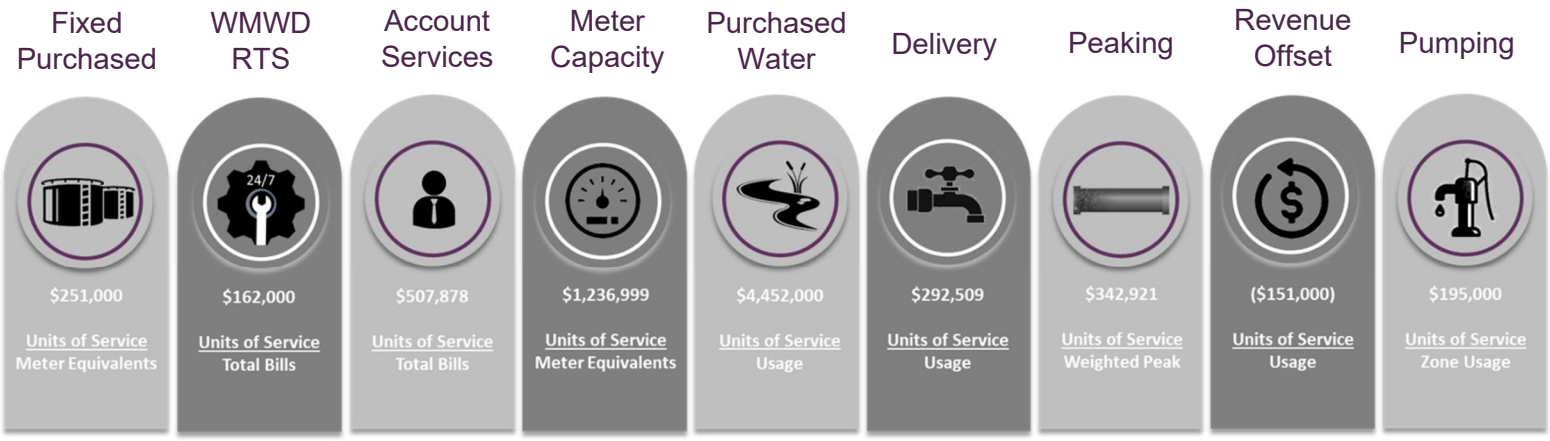
Table 30: Usage (CCF) and Peaking Factors for Tiers

Tier Usage Characteristics	Tier Allotments	Projected Usage [A]	Usage Per Account [B]	Peaking Factor [C] = B ÷ Tier 1	Weighted Peak [D] = A x C
Residential					
Tier 1	0 - 7 ccf	478,519	7.00	1.00	478,519
Tier 2	8 - 23 ccf	568,459	14.05	2.01	1,140,899
Tier 3	> 23 ccf	194,220	34.70	4.96	962,693
Total		1,241,198			2,582,110

With the units of service shown in Table 28, Table 29, and Table 30, the distribution basis can be identified for each cost component. Figure 12 identifies the total revenue requirements by cost component from Table 27 and the corresponding units of service.

[4]For Residential Tier 1, the full monthly allotment of 7 CCF is used for Column B as indoor usage is considered essential constant use (no peak).

Figure 12: Water Distribution Basis and Units of Service by Cost Component



Using the FY 2023 revenue requirements, the cost-of-service allocates expenses to customers based on the service demands that each place on the system (cost causation). This cost causation approach ensures that each customer proportionately shares in the financial obligation of the utility. For the following unit rate computations for each cost component, unit rates were rounded up to the nearest penny.

Fixed Cost Recovery

Fixed Purchased

Fixed Purchased expenses include MWD Capacity and Mills Gravity Line Major Maintenance Reserve Charge. These costs are a function of capacity and, therefore, are apportioned based on meter size. Larger sized meters can generate a greater demand on the system from the amount of potential water flow that may pass through the meter in gpm. The revenue requirement for Fixed Purchased is apportioned to meter size as represented by All MEs, as shown in Table 31

Table 31: FY 2023 Fixed Purchased Monthly Unit Rate

Fixed Purchased Component - Unit Rate	
Revenue Requirement	$251,000
÷ Meter Equivalents	85,770
Unit Rate	$2.93

WMWD RTS

The WMWD RTS provides system maintenance and emergency storage to all customers. Therefore, the WMWD RTS should be spread equally across all accounts. This is achieved by using the distribution basis of Total Bills. Total Bills are determined by multiplying the number of accounts by the number of billing periods over the fiscal year. Therefore, the revenue requirement for WMWD RTS is apportioned based on the Total Bills to determine the monthly unit cost-of-service shown in Table 32.

Table 32: FY 2023 WMWD RTS Monthly Unit Rate

WMWD RTS Component - Unit Rate	
Revenue Requirement	$162,000
÷ Number of Bills	75,864
Unit Rate	$2.14

Account Services

Each customer incurs Account Services costs regardless of the type of land use, meter size, or total amount of water used. These costs should be spread equally across all accounts. This is achieved by using the distribution basis of Total Bills. Total Bills are determined by multiplying the number of accounts by the number of billing periods over the fiscal year. Therefore, the revenue requirement for Account Services is apportioned based on the Total Bills to determine the monthly unit cost-of-service shown in Table 33.

Table 33: FY 2023 Account Services Monthly Unit Rate

Account Services Component - Unit Rate	
Revenue Requirement	$507,878
÷ Number of Bills	75,864
Unit Rate	$6.70

Meter Capacity

The Meter Capacity Component includes system-wide operations costs and a portion of capital, debt, and reserve funding. The revenue requirement for Meter Capacity is apportioned based on meter size. Larger sized meters can generate a greater demand on the system from the amount of potential water flow that may pass through the meter in gpm. The revenue requirement for Meter Capacity is apportioned to meter size as represented by All MEs, as shown in Table 34.

Table 34: FY 2023 Meter Capacity Monthly Unit Rate

Meter Capacity Component - Unit Rate	
Revenue Requirement	$1,236,999
÷ Meter Equivalents	85,770
Unit Rate	$14.43

Variable Cost Recovery

The remaining cost components of Purchased Water, Delivery, Peaking, Revenue Offset, and Pumping make up the District's variable rates. The proposed rate structure maintains a three-tiered rate structure for Residential and uniform rates for Commercial, Institutional, and Irrigation.

Purchased Water

The District purchases water from WMWD. Table 35 allocates the revenue requirement of Purchased Water to each customer class based on projected usage for FY 2022, which equates to the same unit rate per CCF.

Table 35: FY 2023 Purchased Water Unit Rate per CCF

Variable Purchased Water Component - Unit Rate	
Revenue Requirement	$4,452,000
÷ Projected Usage	1,473,168
Unit Rate	$3.03

Delivery

Delivery costs are incurred based on the total volume of water produced and delivered to customers at a constant average demand throughout the year. Therefore, the revenue requirement for Delivery is apportioned based on projected total usage identified in Table 29 to determine the unit cost-of-service, irrespective of tier, as shown in Table 36.

Table 36: FY 2023 Water Delivery Cost Unit Rate per CCF

Delivery Component - Unit Rate	
Revenue Requirement	$292,509
÷ Projected Usage	1,473,168
Unit Rate	$0.20

Peaking

Peaking costs are incurred based not only on the total volume of water produced and delivered but also as a function of the peaking characteristics of customer classes and tiers. Therefore, the revenue requirement for Peaking is first allocated to each customer class based on the Weighted Peaking derived in Table 29, and the results are identified in Table 37. The revenue requirement for Peaking from Table 27 ($342,921) is allocated to each customer class using the percentages of Weighted Peak (Table 29 – Column E). Table 38 takes the Peaking cost allocated to Residential ($287,807) and further apportions the costs to the corresponding tiers utilizing the Weighted Peaking derived in Table 30.

Table 37: FY 2023 Peaking Allocation to Customer Classes

Customer Class	Projected Usage [A]	Peaking Factor [B]	Weighted Peak [C] = A x B	% Allocation [D] = C as %	Revenue Requirement [E] = $342,921	Unit Rate Per CCF [F] = E ÷ A
Residential	1,241,198	1.48	1,841,979	83.9%	$287,807	*Further Allocated*
Non-Residential	41,347	1.13	46,698	2.1%	$7,296	$0.18
Irrigation	190,623	1.61	306,032	13.9%	$47,817	$0.26
Total	1,473,168		2,194,709	100.0%	342,921	

Table 38: FY 2023 Peaking Unit Rate by Tier

Residential	Projected Usage (CCF) [A]	Peaking Factor [B]	Weighted Peak [C] = A x B	% Allocation [D] = C as %	Revenue Requirement [E] = $287,807	Unit Rate [F] = E ÷ A
Tier 1: (0 - 7 ccf)	478,519	1.00	478,519	19%	$53,337	$0.12
Tier 2: (8 - 23 ccf)	568,459	2.01	1,140,899	44%	$127,167	$0.23
Tier 3: (> 23 ccf)	194,220	4.96	962,693	37%	$107,304	$0.56
Total	1,241,198		2,582,110	100%	$287,807	

Revenue Offset

The District has other revenues available, other than rates, such as cellular site lease and standby charges that may be used to mitigate rates. Through discussions with District staff, these two non-operating revenues totaled $151,000. Since these revenues are not generated from water rates and are not otherwise restricted, the District has the discretion to use these funds to offset rates. As such, these revenues are used as a direct offset to Residential and Non-Residential variable rates. Both customer class receives a proportionate share based on the percent of water usage. Residential's proportionate share is allocated solely to offset the tier 1 rate since all customers use Tier 1, but not all Residential customers go into Tier 2 or Tier 3. Table 39 summarizes the determination of the unit rate for the Revenue Offset Component, including Residential's share to Tier 1.

Table 39: FY 2023 Revenue Offset to Variable Rates

Customer Class	Projected Usage (CCF) [A]	Allocation Factor [B]	Weighted Usage [C] = A x B	% Allocation [D] = C as %	Revenue Requirement [E] = ($151,000)	Unit Rate [F] = E ÷ A
Residential	1,241,198	1.00	1,241,198	97%	($146,132)	*Further Allocated*
Non-Residential	41,347	1.00	41,347	3%	($4,868)	($0.11)
Irrigation	190,623	0.00	-	0%	$0	N/A
Total	1,473,168		1,282,545	100%	($151,000)	

Residential	Projected Usage [A]	Allocation Factor [B]	Weighted Peak [C] = A x B	$ Allocation [D] = C as %	Revenue Requirement [E] = ($146,132)	Unit Rate [F] = E ÷ A
Tier 1	478,519	1.00	478,519	100%	($146,132)	($0.30)
Tier 2	568,459	0.00	-	0%	$0	N/A
Tier 3	194,220	0.00	-	0%	$0	N/A
Total	1,241,198		478,519	100%	($146,132)	

Pumping

Pumping costs include electrical costs associated with conveying water through transmission and distribution lines and booster stations to higher elevations throughout the District's service area. The District has five elevation zones (Zone A, Zone B, Zone C, Zone D, and Zone E), with Zone A as the base ground level where booster stations are unnecessary, and a pump charge is not imposed. Pumping costs are allocated to each zone based on the amount of usage in each zone and incremental feet above Zone A. Table 40 provides the updated pumping charges by Elevation Zone.

Table 40: FY 2023 Pumping Rates by Elevation Zone

Zone	Elevation [A] = Elevation in ft	Allocation Factor [B] = Increase in ft	Projected Usage [C]	Weighted Usage [D] = B X C	% Allocation [E] = D as %	Revenue Requirement [F] = $195,000	Unit Rate [G] = F ÷ C
Zone A	1,320	-	623,618	-	0%	$0	N/A
Zone B	1,498	178	262,662	46,753,806	28%	$54,448	$0.21
Zone C	1,510	190	452,872	86,045,635	51%	$100,205	$0.23
Zone D	1,550	230	38,470	8,848,019	5%	$10,304	$0.27
Zone E	1,590	270	95,547	25,797,661	15%	$30,043	$0.32
Total Usage		868	1,473,168	167,445,122	100%	$195,000	

FY 2023 Cost-of-Service Rates – Water Utility

Proposed FY 2023 Monthly Fixed Charges

Table 41 reflects the combined charges of the District's fixed charge of Fixed Purchased, Account Services and Meter Capacity. Fixed Purchased and Meter Capacity are multiplied by the corresponding Capacity Ratios of each meter size to derive the corresponding charge, and Account Services are constant for all meter sizes. Table 42 is the WMWD RTS charge reflecting a uniform charge to all meters.

Table 41: FY 2023 Monthly Fixed Charges by Meter Size

Proposed FY 2023 Fixed Meter Charges					
Meter Size	Capacity Ratios	Fixed Purchased	Account Services	Meter Capacity	Proposed Fixed Charge
Residential (<= 1")	1.00	$2.93	$6.70	$14.43	$24.06
5/8"	1.00	$2.93	$6.70	$14.43	$24.06
3/4"	1.50	$4.40	$6.70	$21.65	$32.74
1"	2.50	$7.33	$6.70	$36.08	$50.10
1 1/2"	5.00	$14.65	$6.70	$72.15	$93.50
2"	8.00	$23.44	$6.70	$115.44	$145.58
3"	17.50	$51.28	$6.70	$252.53	$310.50
4"	31.50	$92.30	$6.70	$454.55	$553.54
6"	65.00	$190.45	$6.70	$937.95	$1,135.10
8"	140.00	$410.20	$6.70	$2,020.20	$2,437.10

Table 42: FY 2023 Monthly WMWD RTS Charge

Proposed FY 2023 RTS Charges	
Meter Size	WMWD RTS Charge
Residential (<= 1")	$2.14
5/8"	$2.14
3/4"	$2.14
1"	$2.14
1 1/2"	$2.14
2"	$2.14
3"	$2.14
4"	$2.14
6"	$2.14
8"	$2.14

Proposed FY 2023 Variable Rates

The proposed variable rates for FY 2023 are shown in Table 43 for each customer class and tier, reflecting the combined rate components of Purchased Water, Delivery, Peaking, and Revenue Offset.

Table 43: FY 2023 Variable Rates by Customer Class and Tier

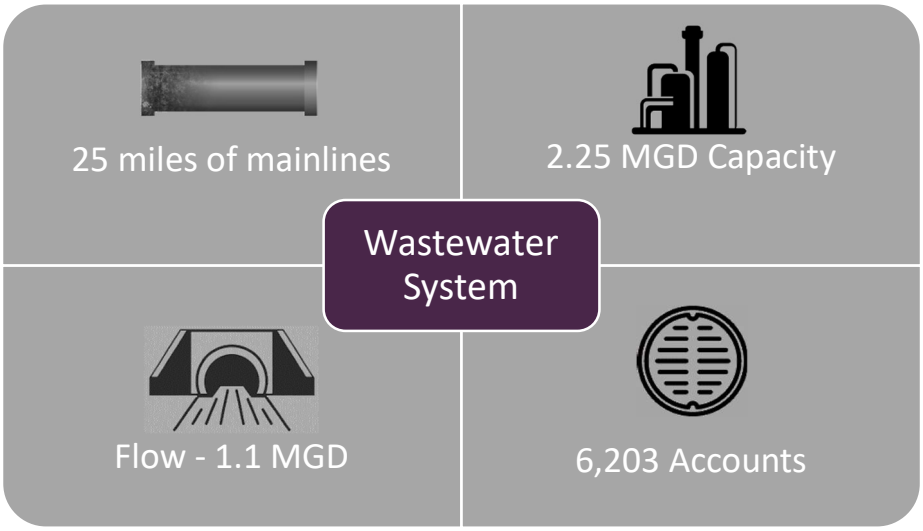
Proposed FY 2023 Variable Rates					
Customer Class/Tier	Purchased Water	Delivery	Peaking	Revenue Offset	Proposed Variable Rates
Residential					
Tier 1: (0 - 7 ccf)	$3.03	$0.20	$0.12	($0.30)	**$3.05**
Tier 2: (8 - 23 ccf)	$3.03	$0.20	$0.23	N/A	**$3.46**
Tier 3: (> 23 ccf)	$3.03	$0.20	$0.56	N/A	**$3.79**
Non-Residential	$3.03	$0.20	$0.18	($0.11)	**$3.30**
Irrigation	$3.03	$0.20	$0.26	N/A	**$3.49**

Wastewater Utility

Wastewater System

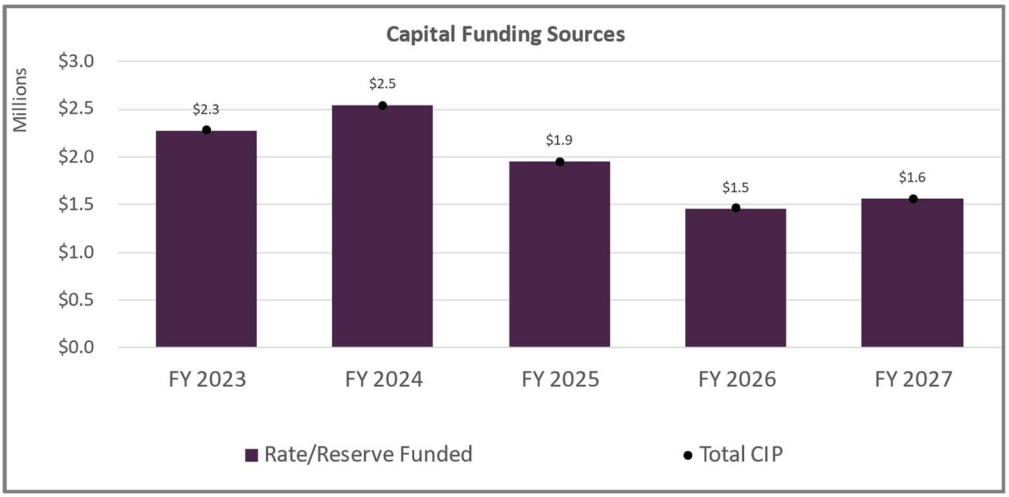
The District owns and operates gravity sewer pipelines, sewer lift stations, and a Wastewater Treatment Plant (WWTP) that serves over 6,200 accounts.

Figure 13: District Wastewater System



The District's wastewater capital spending will average approximately $1.95M annually through the Rate Setting Period for the wastewater system's repair and replacement program. Figure 14 shows the District's wastewater CIP through FY 2027.

Figure 14: Wastewater Capital Improvement Plan



Customers

At the start of FY 2023, the District had 6,203 active accounts, representing 76,656 annual Equivalent Dwelling Units (EDUs). Table 44 provides a summary of accounts and annual EDUs by customer class.

Table 44: Wastewater Accounts / Annual EDUs by Customer Class

Customer Accounts	FY 2023
Residential (unit)	6,115
Sewer (units)	3
Commercial (units)	27
Metered Sewer	25
Metered Sewer 2" or greater	33
Subtotal Customer Accounts	6,203
EDU's	
Residential (unit)	73,380.00
Sewer (units)	1,369.97
Commercial (units)	1,214.35
Metered Sewer	296.30
Metered Sewer 2" or greater	395.00
Subtotal Annual EDU's	76,656

The current wastewater rate structure consists of monthly fixed charges per EDU, equal to $39.72. Certain metered commercial accounts are also charged additional EDUs if the projected amount of flow based on water usage exceeds the amount of their base EDUs assignment.

Financial Plan Overview - Wastewater Utility

Financial Planning Assumptions

Developing a long-term financial plan requires understanding the utility's financial position by evaluating existing revenue streams, ongoing expenses, how those expenses will change over time, new strategic objectives, and reserve policies. These considerations require certain assumptions for projecting revenues, expenses, and expected ending fund balances. Table 45 identifies assumptions used for forecasting revenues, and Table 46 identifies assumptions used for forecasting increases in expenses through the Rate Setting Period.

Table 45: Wastewater Assumptions for Forecasting Revenues

Key Assumptions	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Revenue Escalation					
Non-Inflated	0%	0%	0%	0%	0%
Non-Rate Revenues	2.0%	2.0%	2.0%	2.0%	2.0%
Reserve Interest	0.5%	0.5%	0.5%	0.5%	0.5%
Account Growth	0%	0%	0%	0%	0%
Accounts and EDUs					
Accounts	6,203	6,203	6,203	6,203	6,203
Annual EDUs	76,656	76,655	76,655	76,655	76,655
Additional Annual EDUs	2,079	2,079	2,079	2,079	2,079

Table 46: Wastewater Assumptions for Forecasting Expense Requirements[5]

Key Assumptions	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Expenditure Escalation					
Benefits	Budget	15.0%	5.0%	5.0%	5.0%
Capital Construction	Budget	7.0%	7.0%	3.3%	3.3%
Energy Costs	Budget	10.0%	10.0%	10.0%	10.0%
General Costs	Budget	7.0%	7.0%	3.8%	3.8%
Non-Inflated	Budget	0.0%	0.0%	0.0%	0.0%
Retirement - CalPers	Budget	5.0%	5.0%	5.0%	5.0%
Salaries	Budget	15.0%	5.0%	5.0%	5.0%
Treatment	Budget	5.0%	5.0%	5.0%	5.0%

[5] Capital Construction inflation and General Costs for FY 2024 and FY 2025 were increased to 7% to account for recent increases due to inflation. Outer years reduce to 3.3% and 3.8%, reflecting the 20-year average of the Engineer's News Record – CCI Index and the 2021 Consumer Price Index – LA, respectively.

Current Financial Position

Revenues

Based on the forecasting assumptions, revenues were calculated using existing wastewater rates and EDUs. Table 47 shows the calculated revenues for FY 2023 through the Rate Setting Period. The detailed calculations can be found in the rate model on file with the District. Table 48 summarizes calculated rate revenues (rounded to thousands) and other non-rate revenues available through the Rate Setting Period.

Table 47: Wastewater Calculated Rate Revenues

EDU Rate	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Residential (unit)	$39.72	$39.72	$39.72	$39.72	$39.72
Sewer (units)	$39.72	$39.72	$39.72	$39.72	$39.72
Commercial (units)	$39.72	$39.72	$39.72	$39.72	$39.72
Metered Sewer	$39.72	$39.72	$39.72	$39.72	$39.72
Metered Sewer 2" or >	$39.72	$39.72	$39.72	$39.72	$39.72
EDU's	**FY 2023**	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**
Residential (unit)	73,380	73,380	73,380	73,380	73,380
Sewer (units)	1,370	1,370	1,370	1,370	1,370
Commercial (units)	1,214	1,214	1,214	1,214	1,214
Metered Sewer	296	296	296	296	296
Metered Sewer 2" or >	395	395	395	395	395
Subtotal Annual EDU's	76,656	76,655	76,655	76,655	76,655
Additional EDU's (from usage)	**FY 2023**	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**
Metered Sewer	68	68	68	68	68
Metered Sewer 2" or >	2,011	2,011	2,011	2,011	2,011
Total Additional EDU's (from usage)	2,079	2,079	2,079	2,079	2,079
Fixed EDU Revenues	**FY 2023**	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**
EDU Rate					
Residential	$2,914,654	$2,914,654	$2,914,654	$2,914,654	$2,914,654
Sewer based on Units	$54,415	$54,416	$54,416	$54,416	$54,416
Commercial (Units)	$48,234	$48,220	$48,220	$48,220	$48,220
Metered Sewer	$11,769	$11,757	$11,757	$11,757	$11,757
Metered Sewer 2" or >	$15,689	$15,689	$15,689	$15,689	$15,689
Total Fixed EDU Revenues	$3,044,761	$3,044,737	$3,044,737	$3,044,737	$3,044,737
Additional EDUs - Revenues	**FY 2023**	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**
Metered Sewer	$2,701	$2,701	$2,701	$2,701	$2,701
Metered Sewer 2" or >	$79,877	$79,877	$79,877	$79,877	$79,877
Total Additional EDUs - Revenues	$82,578	$82,578	$82,578	$82,578	$82,578
Total Rate Revenue	$3,127,339	$3,127,314	$3,127,314	$3,127,314	$3,127,314

Table 48: Wastewater Projected Wastewater Revenues

Revenue Summary	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Rate Revenue	$3,127,339	$3,127,000	$3,127,000	$3,127,000	$3,127,000
Operating Revenues					
Monthly Service Charge-Id #1	$145,000	$145,000	$145,000	$145,000	$145,000
Monthly Service Charge-Id #2	$164,000	$164,000	$164,000	$164,000	$164,000
Misc Utility Charges/ Revenue	$50,000	$50,000	$50,000	$50,000	$50,000
Standby Charges	$75,000	$75,000	$75,000	$75,000	$75,000
CFD Reimbursements	$30,000	$30,000	$30,000	$30,000	$30,000
Inspection Charges	$30,000	$30,000	$30,000	$30,000	$30,000
Subtotal Operating Revenues	$494,000	$494,000	$494,000	$494,000	$494,000
Non-Operating Revenues					
Interest Income	$15,000	$35,000	$30,000	$25,000	$23,000
Property Tax Income	$57,500	$59,000	$60,000	$61,000	$62,000
Subtotal Non-Operating Revenues	$72,500	$94,000	$90,000	$86,000	$85,000
Total Revenues	$3,693,839	$3,715,000	$3,711,000	$3,707,000	$3,706,000

Expenses

The FY 2023 budget was used as the utility's baseline expenses and adjusted in subsequent years based on the escalation factors shown in Table 46. Table 49 provides projected O&M expenses through the Rate Setting Period (rounded to thousands). Each expense category includes detailed line-item expenditures discussed with staff to determine the appropriate escalation factor for forecasting how costs will increase over time.

Table 49: Wastewater Projected O&M Expenses

O&M Expenses	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Operating Expenses					
Operating Expenses	$937,920	$1,030,000	$1,093,000	$1,140,000	$1,189,000
Administrative Expenses	$682,700	$766,000	$808,000	$846,000	$885,000
Energy Expense	$352,000	$387,000	$426,000	$469,000	$515,000
Treatment	$275,000	$289,000	$303,000	$318,000	$334,000
Subtotal Operating Expenses	$2,247,620	$2,472,000	$2,630,000	$2,773,000	$2,923,000
Total Expenses	$2,247,620	$2,472,000	$2,630,000	$2,773,000	$2,923,000

Reserves

The wastewater utility incorporates three primary reserves: Operating, Capital Replacement, and Rate Stabilization. These reserves help mitigate risks to the utility by ensuring sufficient cash is on hand for daily operations and to fund annual system improvements. In addition, these reserves help smooth rates and mitigate rate spikes due to emergencies or above-average system costs. Table 50 summarizes the minimum reserve requirements and the ideal funding targets of each reserve.

Table 50: Wastewater Reserve Requirements and Targets

Reserve	Minimum Requirement	Reserve Target
Operating	120 days of operating costs	180 days of operating costs
Capital System Improvements	1-year of CIP expenses based on the 5-year average of planned capital	2-years of CIP expenses based on the 5-year average of planned capital
Rate Stabilization	5% of rate revenue	10% of rate revenue

The reserve balance as of July 1, 2022, equaled approximately $7.3M.

Financial Outlook at Existing Rates

Calculating revenue using existing rates and projecting expenses helps determine the current financial health of the utility. Revenues from existing rates are sufficient to fund O&M through FY 2027; however, annual net income continues to decline each year, limiting the amount of funding towards capital and reserves. Therefore, reserves would cover the remaining capital costs, which is not sustainable long-term. Figure 15 illustrates the operating position of the utility, where O&M expenses are identified with the dashed red trendline, and the horizontal black trendline shows total revenues at existing rates. The bars represent the amount of net operating income available. Figure 16 reflects the projected ending balances of reserves after funding operating and capital projects through the Rate Setting Period. Beginning in FY 2027, reserves will be below the minimum target.

Figure 15: Wastewater Current Operating Financial Position

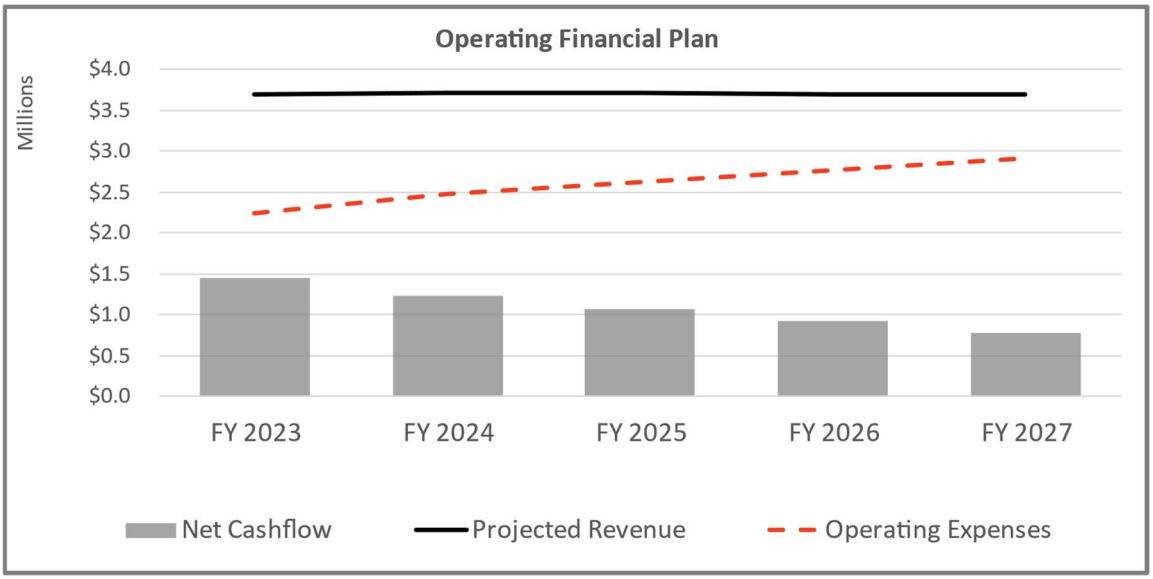
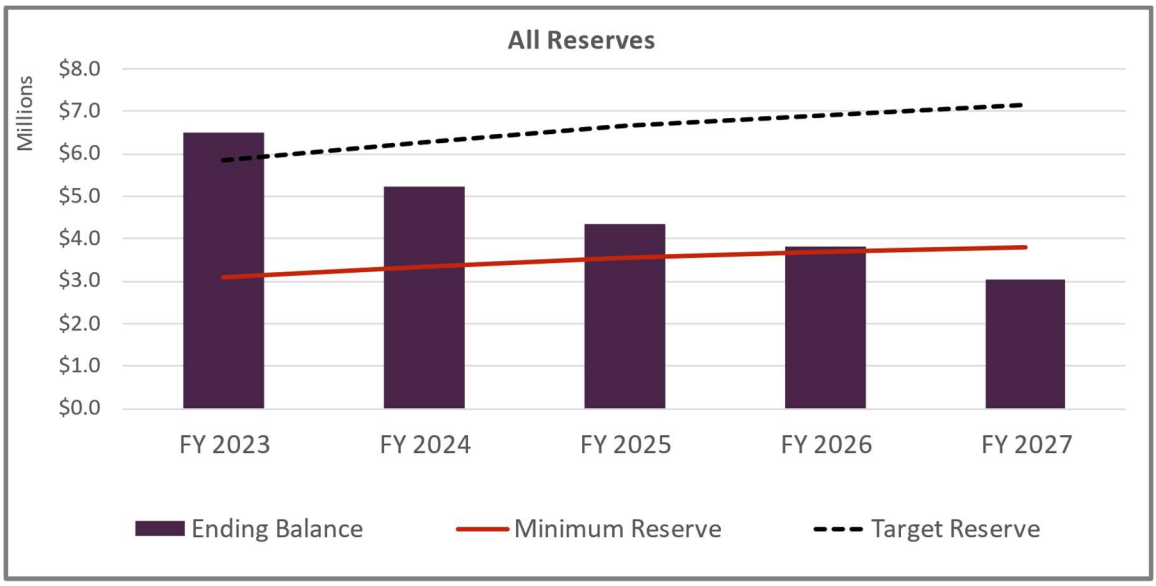


Figure 16: Wastewater Projected Ending Reserves at Existing Rates



Proposed Financial Plan – Wastewater Utility

From the financial outlook at existing rates, a proposed financial plan can be developed to adequately fund the multi-year revenue requirements, while meeting reserve requirements. Based on funding the capital plan over the Rate Setting Period and ensuring reserves meet minimum targets, Table 51 forecasts projected revenues and expenses, including projected revenue adjustments for FY 2023 through FY 2027.

Table 51: Proposed Wastewater Financial Plan – Revenues and Expenses Through FY 2027

Revenue	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Rate Revenue					
Monthly Sewer Service Charge	$3,017,303	$3,017,000	$3,017,000	$3,017,000	$3,017,000
Monthly Sewer Service Chg-R Com	$110,036	$110,000	$110,000	$110,000	$110,000
Total Rate Revenue	$3,127,339	$3,127,000	$3,127,000	$3,127,000	$3,127,000
Additional Revenue *(from revenue adjustments)*:					
Fiscal Year / Revenue Adjustment / Effective Month					
FY 2023 — 3.0% — February	$39,000	$94,000	$94,000	$94,000	$94,000
FY 2024 — 3.0% — January		$48,000	$97,000	$97,000	$97,000
FY 2025 — 3.0% — January			$50,000	$100,000	$100,000
FY 2026 — 3.0% — January				$51,000	$103,000
FY 2027 — 3.0% — January					$53,000
Total Additional Revenue	$39,000	$142,000	$241,000	$342,000	$447,000
Projected Rate Revenues	**$3,166,339**	**$3,269,000**	**$3,368,000**	**$3,469,000**	**$3,574,000**
Operating Revenues					
Monthly Service Charge-Id #1	$145,000	$145,000	$145,000	$145,000	$145,000
Monthly Service Charge-Id #2	$164,000	$164,000	$164,000	$164,000	$164,000
Misc Utility Charges/ Revenue	$50,000	$50,000	$50,000	$50,000	$50,000
Standby Charges	$75,000	$75,000	$75,000	$75,000	$75,000
CFD Reimbursements	$30,000	$30,000	$30,000	$30,000	$30,000
Inspection Charges	$30,000	$30,000	$30,000	$30,000	$30,000
Subtotal Operating Revenues	$494,000	$494,000	$494,000	$494,000	$494,000
Non-Operating Revenues					
Interest Income	$15,000	$35,000	$30,000	$25,000	$23,000
Property Tax Income	$57,500	$59,000	$60,000	$61,000	$62,000
Subtotal Non-Operating Revenues	$72,500	$94,000	$90,000	$86,000	$85,000
Total Revenues	$3,732,839	$3,857,000	$3,952,000	$4,049,000	$4,153,000

O&M Expenses	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Operating Expenses					
Operating Expenses	$937,920	$1,030,000	$1,093,000	$1,140,000	$1,189,000
Administrative Expenses	$682,700	$766,000	$808,000	$846,000	$885,000
Energy Expense	$352,000	$387,000	$426,000	$469,000	$515,000
Treatment	$275,000	$289,000	$303,000	$318,000	$334,000
Subtotal Operating Expenses	$2,247,620	$2,472,000	$2,630,000	$2,773,000	$2,923,000
Total Expenses	$2,247,620	$2,472,000	$2,630,000	$2,773,000	$2,923,000
Net Cashflow	$1,485,219	$1,385,000	$1,322,000	$1,276,000	$1,230,000

Figure 17 identifies the operating position based on the proposed financial plan, and Figure 18 shows the capital plan with funding sources. Figure 19 identifies the ending reserve balance after funding capital expenses.

Figure 17: Wastewater Proposed Operating Position

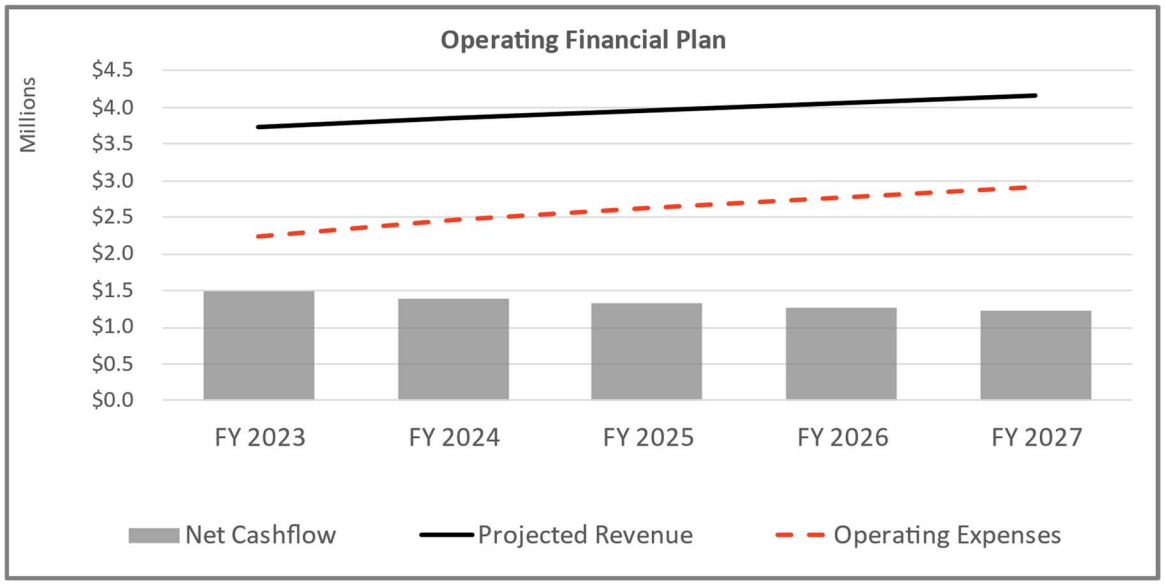


Figure 18: Wastewater Capital Improvement Plan with Funding Sources

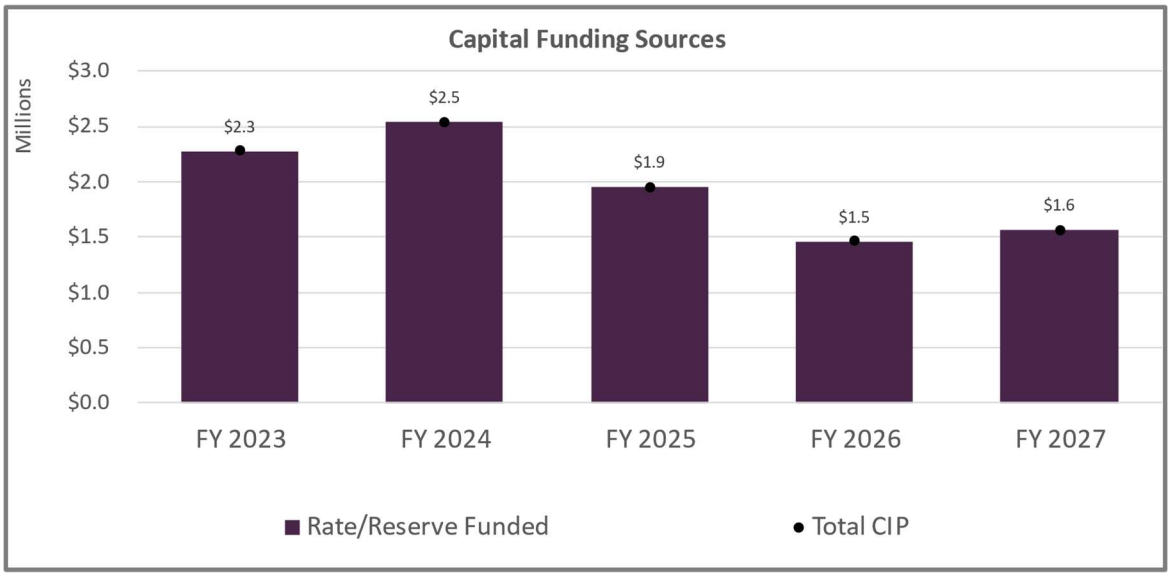
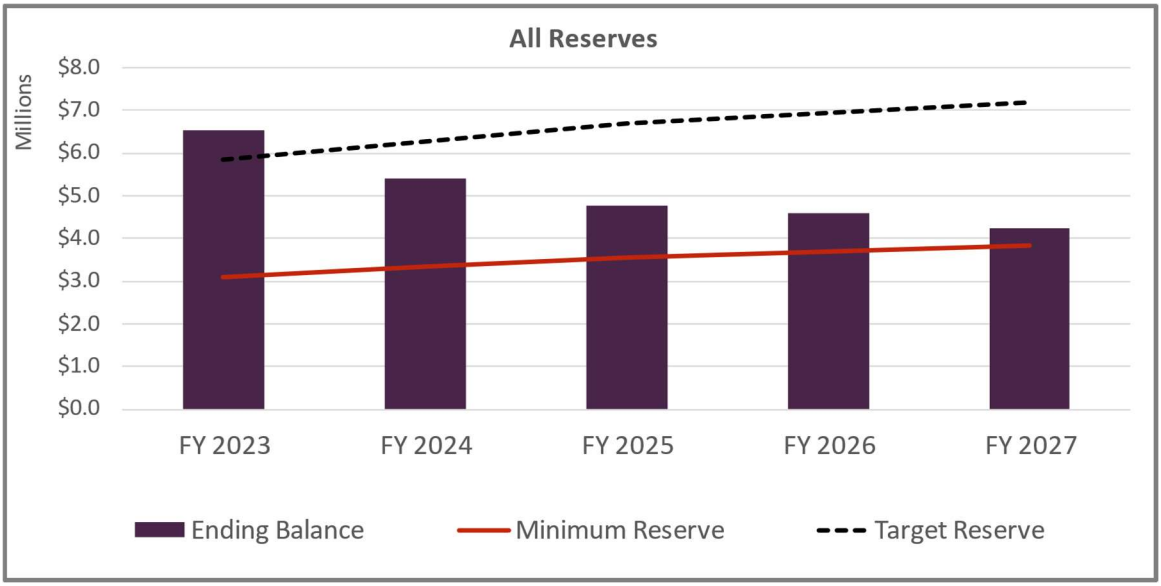


Figure 19: Wastewater Proposed Ending Reserves



Cost-of-Service Analysis – Wastewater Utility

Cost-of-Service Process

The next step in developing wastewater rates is to perform a cost-of-service analysis. Through this process, costs incurred are allocated to customer classes based on their proportional share. As a result, the proposed rates are cost-based and reflect the costs incurred to provide service to customers.

Revenue Requirements

FY 2023 revenue requirements were used for the cost-of-service analysis. Revenue requirements include O&M expenses, treatment plant expenses, non-rate revenues, and capital/reserve funding. The proposed revenue adjustments and corresponding rates accumulate the necessary funding over the Rate Setting Period to fund O&M, capital projects, and meet minimum reserve requirements. The results of the financial plan analysis are summarized in Table 52 and represent the revenue required from rates over the Rate Setting Period.

Table 52: FY 2023 – FY 2027 Wastewater Revenue Requirements

	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Revenue Requirements	Total	Total	Total	Total	Total
Opearting & Maintenance					
Operating Expenses	$937,920	$1,030,000	$1,093,000	$1,140,000	$1,189,000
Administrative Expenses	$682,700	$766,000	$808,000	$846,000	$885,000
Energy Expense	$352,000	$387,000	$426,000	$469,000	$515,000
Treatment	$275,000	$289,000	$303,000	$318,000	$334,000
Total District O&M	$2,247,620	$2,472,000	$2,630,000	$2,773,000	$2,923,000
Revenue Offsets					
Monthly Service Charge-Id #1	($145,000)	($145,000)	($145,000)	($145,000)	($145,000)
Monthly Service Charge-Id #2	($164,000)	($164,000)	($164,000)	($164,000)	($164,000)
Misc Utility Charges/ Revenue	($50,000)	($50,000)	($50,000)	($50,000)	($50,000)
Standby Charges	($75,000)	($75,000)	($75,000)	($75,000)	($75,000)
CFD Reimbursements	($30,000)	($30,000)	($30,000)	($30,000)	($30,000)
Inspection Charges	($30,000)	($30,000)	($30,000)	($30,000)	($30,000)
Interest Income	($15,000)	($35,000)	($30,000)	($25,000)	($23,000)
Property Tax Income	($57,500)	($59,000)	($60,000)	($61,000)	($62,000)
Total Revenue Offsets	($566,500)	($588,000)	($584,000)	($580,000)	($579,000)
Adjustments					
Capital / Reserve Funding	$1,485,219	$1,385,000	$1,322,000	$1,276,000	$1,230,000
Adjustment for Mid-Year Ir	$54,600	$48,000	$50,000	$51,000	$53,000
Total Adjustments	$1,539,819	$1,433,000	$1,372,000	$1,327,000	$1,283,000
Revenue Required from Ra	$3,220,939	$3,317,000	$3,418,000	$3,520,000	$3,627,000

Define Cost Components

The District's wastewater cost-of-service requirements were allocated to cost components and then to customer classes utilizing a cost causation approach endorsed by the Water Environment Federation (WEF) rate-setting manual Financing and Charges for Wastewater Systems (MOP 27). The utility incurs costs to accommodate total flow demand and various strength concentrations of influent generated by different customer classes. Therefore, to determine the most appropriate way to recover the utility's expenses, cost components are identified and used to allocate expenses based on how they are incurred. Through our review of the revenue requirements and understanding of the wastewater system, the cost-of-service allocation documented in this report is based on total accounts, flow (volume influent in CCF), and the strength characteristics of each customer class.

Strength loading factors for biological oxygen demand (BOD) and total suspended solids (TSS) remain the same as in the previous study, which were based on the Los Angeles County Sanitation District (LACSD) 2007 update. The LACSD's 2007 update reflects a substantial dataset of the most up-to-date discharge characteristics for various commercial uses, which typically would not vary by geographical location.

The cost-of-service analysis accounts for system costs as a function of serving total customers, treating the total volume of influent and associated strength from each customer class. The cost components shown in Figure 20 are used within the cost-of-service to allocate costs to customer classes in relation to the demand that each place on the system.

Figure 20: Wastewater Cost Components

Account Services – Fixed expenses related to the collection system and treatment plants that do not necessarily fluctuate based on flow. Operating expenses, administration, utility billing services, and overhead costs are incurred based on having an account.
Flow – Expenses associated with the District's collection system and volume of flow treated at the WWTP.

Allocate Expenses to Cost Components

When allocating expenses to the defined cost components, it is important to have a sound basis as to why an expense was allocated to a certain fixed cost component versus a variable cost component or split between both fixed and variable. The distribution of expenses to the cost components should be straightforward to ensure the method of apportionment is **understandable** and easily **correlates to how expenses are incurred**. A description of each expense category is identified below.

O&M Expense Categories:

Operating Expenses: Staffing expenses, including field workers, equipment, materials and supplies, and sewer line repairs.
Administrative Expenses: Contract management, overhead expenses, legal, IT, insurance, and other miscellaneous administrative expenses.
Energy: Electrical expenses associated with pushing influent through the treatment plant processes.
Treatment: Expenses associated with chemicals and discharge removal at the WWTP.

Table 53 summarizes the percent allocation of Operating and Maintenance to the cost components, with Account Services as a fixed component and Flow as a variable cost component. The percentages shown in Table 53 were based on discussions with District staff. Table 54 uses the percent allocations in Table 53 to allocate expenses in dollars to each cost component.

Table 53: Wastewater O&M Expense Allocation to Cost Components (%)

Functionalized Expenses	Methodology / Allocation Basis	Fixed	Flow	Total
Operating Expenses	Fixed	100.0%	0.0%	100.0%
Administrative Expenses	Fixed	100.0%	0.0%	100.0%
Energy Expense	Flow	0.0%	100.0%	100.0%
Treatment	Flow	0.0%	100.0%	100.0%

Table 54: Wastewater O&M Expense Allocation to Cost Components ($)

Functionalized Expenses	Methodology / Allocation Basis	Fixed	Flow	Total
Operating Expenses	Fixed	$937,920	$0	$937,920
Administrative Expenses	Fixed	$682,700	$0	$682,700
Energy Expense	Flow	$0	$352,000	$352,000
Treatment	Flow	$0	$275,000	$275,000
Total Allocation ($)		$1,620,620	$627,000	$2,247,620

Other Funding includes miscellaneous revenues, reserve funding, and mid-year adjustment when proposed rates are implemented after the start of the fiscal year. The mid-year adjustment annualizes the proposed revenue adjustment to account for the time elapsed before new rates take effect to connect to the annual units of service used for deriving rates. All items under "Other Funding" are assigned to flow to proportionately allocate costs to customers based on the demand placed on the system. Table 55 summarizes the percent allocation to the cost components, and Table 56 uses the percent allocations in Table 55 to allocate expenses in dollars to each cost component. Table 57 summarizes the FY 2023 revenue requirement derived in Table 52 by cost component.

Table 55: Wastewater Other Funding to Cost Components (%)

Functionalized Expenses	Methodology / Allocation Basis	Fixed	Flow	Total
Monthly Service Charge-Id #1	Flow	0.0%	100.0%	100.0%
Monthly Service Charge-Id #2	Flow	0.0%	100.0%	100.0%
Misc Utility Charges/ Revenue	Flow	0.0%	100.0%	100.0%
Standby Charges	Flow	0.0%	100.0%	100.0%
CFD Reimbursements	Flow	0.0%	100.0%	100.0%
Inspection Charges	Flow	0.0%	100.0%	100.0%
Interest Income	Flow	0.0%	100.0%	100.0%
Property Tax Income	Flow	0.0%	100.0%	100.0%
Capital / Reserve Funding	Flow	0.0%	100.0%	100.0%
Adjustment for Mid-Year Increase	Flow	0.0%	100.0%	100.0%

Table 56: Wastewater Other Funding to Cost Components ($)

Functionalized Expenses	Methodology / Allocation Basis	Fixed	Flow	Total
Monthly Service Charge-Id #1	Flow	$0	($145,000)	($145,000)
Monthly Service Charge-Id #2	Flow	$0	($164,000)	($164,000)
Misc Utility Charges/ Revenue	Flow	$0	($50,000)	($50,000)
Standby Charges	Flow	$0	($75,000)	($75,000)
CFD Reimbursements	Flow	$0	($30,000)	($30,000)
Inspection Charges	Flow	$0	($30,000)	($30,000)
Interest Income	Flow	$0	($15,000)	($15,000)
Property Tax Income	Flow	$0	($57,500)	($57,500)
Capital / Reserve Funding	Flow	$0	$1,485,219	$1,485,219
Adjustment for Mid-Year Increase	Flow	$0	$54,600	$54,600
Total Allocation ($)		$0	$973,319	$973,319

Table 57: FY 2023 Wastewater Cost-of-Service Requirements

Functionalized Expenses	Fixed	Flow	Total
Operating & Maintenance	$1,620,620	$627,000	$2,247,620
Other Funding	$0	$973,319	$973,319
Cost of Service Requirement	$1,620,620	$1,600,319	$3,220,939

Rate Design – Wastewater Utility

Develop Units of Service

Residential customer flows were projected using expected indoor use based on gpcd and pph basis. Residential projected flows were based on 50 gpcd for indoor use based on water efficiency standards. The annual gallons reflect the District's twelve 30-day billing periods (360 days). The 360 days acknowledges that not all accounts are active throughout the year, and not all customers are in town for each day. Taking the product of the average household size, 50 gpcd, and the number of residential units results in total annual projected flows of 488,639 ccf, as shown in Table 58.

The final projected flow from residential customers was calculated by taking the product of annual ccf, pph, and the number of residential dwelling units (24.06 x 3.26 x 6,229 = 488,639 ccf). The total projected residential flow translates to an expected monthly flow per residential dwelling unit of 6.5 ccf (488,639 ccf / 6,229 / 12 months = 6.5 ccf).

Table 58: Residential Projected Flows

Line #	Residential Flow Projections	Assumptions [A]	Annual [B]	Projected Flow (CCF) [C]	Formula for Column C
1	Gallons per capita per day	50 gpcd	18,000	24.06	B1 / 748.052
2	People per household (Residentia	3.26 pph			
3	Number of Residential accounts	6,229			
4	Residential Flow			488,639	C1 x A2 x A3

Non-Residential customer flows were determined by estimating the flow return factor for the non-residential customer class. To determine the appropriate flow return factor, we used the amount of total influent treated at the Wastewater Plant for FY 2021 and reduced the total treated flow by the projected amount from residential, less infiltration/inflow (known as I/I, which is a measure of the amount of water that enters the collection system that is not sewage, such as stormwater or groundwater that infiltrates into the collection system). The remainder is the estimated amount generated by non-residential customers. Table 59 provides the calculations used to derive the amount of projected flow expected to be generated by non-residential customers.

Table 59: Non-Residential Projected Flows

Flow Assumptions	I/I	FY 2023
Total Treated Flow		542,267
Less: Inflow and Infiltration (I&I)	5.5%	(29,825)
Flow from Customers		512,442
Projected Residential Flow		(488,639)
Projected Non-Residential Flows		23,803
Projected Non-Residential Water Usage		26,334
Non-Residential Flow Return Factor		90%
Projected Non-Residential Flow		23,803

Applying a return factor of 90% against Non-Residential water usage generates a calculated flow of 23,803 ccf, which is in line with what is expected when compared to the projected treated flow from Non-Residential.

Unit rates for the cost components are derived by identifying the units of service for each cost component (distribution basis). The distribution basis varies by cost component and includes EDUs and projected flow. Table 60 summarizes the units of service for each cost component.

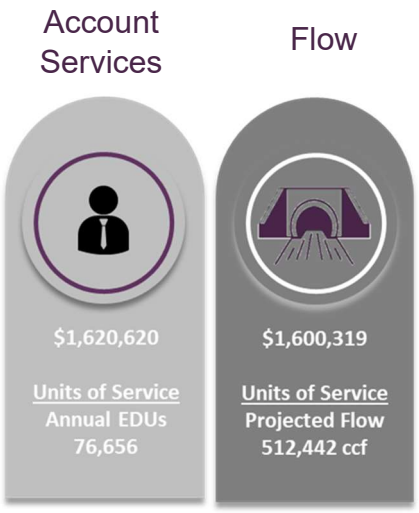
Table 60: Wastewater Units of Service

Customer Class	Annual EDUs	Non-Residential Water Usage	Return Factor	Projected Flow
Residential (unit)	74,750			488,639
Commercial (units)	1,214	876	90%	791
Metered Sewer	691	25,458	90%	23,012
Total	76,656	26,334		512,442
Annual Units	76,656	26,334		512,442

With the units of service shown in Table 60, the distribution basis can be identified for each cost component.

Figure 21 identifies the total revenue requirements by cost component from Table 57 and the corresponding units of service.

Figure 21: Wastewater Distribution Basis and Units of Service by Cost Component



Allocate to Customer Class

Using the FY 2023 revenue requirements, the cost-of-service allocates expenses to customer classes based on the service demands that each place on the system (cost causation). This approach provides a clear connection between costs incurred and the proportionate share attributable to each customer class. When designing rates, the most critical component is to connect costs to the proposed rates, resulting in a cost-based rate structure in compliance with Proposition 218. In the previous section, costs were summarized by expense category and allocated to cost components based on how each cost was incurred. The next step in designing rates is to allocate each cost component to customers in relation to their use of the system and facilities. This systematic approach ensures that each customer proportionately shares in the financial obligation of the wastewater utility. For the following unit rate computations, unit rates were rounded up to the nearest penny.

Fixed Cost Recovery

Account Services

Account Service costs are spread equally across all EDUs over 12 months. Therefore, the revenue requirement for Account Services is apportioned based on the annual EDUs to determine the monthly unit cost-of-service shown in Table 61.

Table 61: FY 2023 Wastewater Account Services Monthly Unit Rate

Fixed Charge Component - Unit Rate	
Revenue Requirement	$1,620,620
÷ Number of Annual EDUs	76,656
Monthly Charge	$21.15

Variable Cost Recovery

Flow

The cost associated with the total volume of influent collected and conveyed to the WWTP is allocated based on projected flow. Therefore, the revenue requirement for Flow is apportioned to each customer class based on their percentage of the total projected flow into the WWTP, as summarized in Table 62.

Table 62: FY 2023 Wastewater Flow Allocation by Customer Class

Flow Component - Unit Rate	
Revenue Requirement	$1,600,319
÷ Projected Flow	512,442
	$3.13

Customer Class	Projected Flow [A]	% Allocation [B] = A as %	Revenue Requirement [C] = $1,600,319
Residential (unit)	488,639	95.35%	$1,525,984
Commercial (units)	791	0.15%	$2,472
Metered Sewer	23,012	4.49%	$71,863
Total	512,442	100%	$1,600,319

The revenue requirements for residential customers are recovered as flat monthly charges as residential flows are fairly constant throughout the year. Table 63 derives the monthly flat charges for Residential Customers, which are charged against each EDU.

For non-residential customer classes, commodity rates are derived for the variable components by dividing the total allocated cost by total water usage as wastewater flows are not metered. Table 64 derives the monthly fixed charges and variable rates for Non-Residential.

Table 63: FY 2023 Residential Flat Monthly Charge per EDU

Customer Class	Account Services	Flow	Total Monthly Charge
Residential			
Revenue Requirement	$1,580,332	$1,525,984	
÷ Units of Service	74,750	74,750	
Unit Rate	$21.15	$20.42	$41.57

Table 64: FY 2023 Non-Residential Monthly Fixed Charge and Variable Rates

Customer Class	Annual EDUs [A]	Water Usage (CCF) [B]	Account Services Revenue Requirement [C]	Flow Revenue Requirement [D]	Proposed Fixed Monthly Charge [E] = C ÷ A	Proposed Variable Monthly Charge [F] = D ÷ B
Non-Residential						
Commercial (units)	1,214	876	$25,673	$2,472	$21.15	$2.83
Metered Sewer	691	25,458	$14,615	$71,863	$21.15	$2.83

Cost-Based Rates – Water and Wastewater

Cost-of-Service and Rate Summary

The comprehensive cost-of-service analysis and rate development meet the requirements of Proposition 218 and identify the cost components that make up the proposed water and wastewater fixed charges and variable rates. Proposition 218 requires the following conditions:

1. An agency cannot collect revenue beyond what is necessary to provide service.
   The long-term financial plan identifies the District's revenue requirements for each enterprise, including operating expenses, capital improvement programs, debt, and reserves.
2. Revenues derived by the charge shall not be used for any other purpose other than that for which the charge was imposed.
   The District's water and wastewater fund are separate business enterprises to track revenues and expenses.
3. The amount of the fee may not exceed the proportional cost-of-service for the parcel.
   The comprehensive cost-of-service analysis, updated fixed charges, and variable rates reflect each customer's proportionate share of the cost for water and wastewater. Through this update, each account is paying for the cost of providing service to the parcel.
4. No charge may be imposed for a service unless that service is actually used or immediately available to the owner of a property.
   The proposed fixed charges and variable rates connect directly to the District's budget and projected future revenue requirements of the water and wastewater enterprises and are recovered equitably from all active accounts receiving service.
5. A written notice of the proposed charge shall be mailed to the record owner of each parcel at least 45 days prior to the public hearing.
   Notices were mailed to each affected parcel at least 45 days before January 24, 2023, Public Hearing.

The proposed water and wastewater 5-year rate schedules (FY 2023 through FY 2027) are shown in the following section. If a majority protest does not exist at the January 24th Public Hearing, the District Board may adopt the rates with an effective date of February 1, 2023, and each January 1st, thereafter.

Multi-Year Rate Schedules – Water and Wastewater

Water

Table 65 and Table 68 provide the five-year water rate schedules over the Rate Setting Period for monthly fixed charges and variable rates. For FY 2024 and FY 2027, the revenue adjustments are applied across the board to the cost-of-service rates derived for FY 2023 as account growth and usage characteristics are projected to remain constant for financial planning.

Table 65: Proposed Water Monthly Fixed Charge (FY 2023 – FY 2027)

Fixed Meter Charges ($/Month)					
Revenue Adjustment:		3.0%	3.0%	3.0%	3.0%
Meter Size	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Residential (<= 1")	$24.06	$24.79	$25.54	$26.31	$27.10
5/8"	$24.06	$24.79	$25.54	$26.31	$27.10
3/4"	$32.74	$33.73	$34.75	$35.80	$36.88
1"	$50.10	$51.61	$53.16	$54.76	$56.41
1 1/2"	$93.50	$96.31	$99.20	$102.18	$105.25
2"	$145.58	$149.95	$154.45	$159.09	$163.87
3"	$310.50	$319.82	$329.42	$339.31	$349.49
4"	$553.54	$570.15	$587.26	$604.88	$623.03
6"	$1,135.10	$1,169.16	$1,204.24	$1,240.37	$1,277.59
8"	$2,437.10	$2,510.22	$2,585.53	$2,663.10	$2,743.00

Table 66: Proposed WMWD – RTS Monthly Fixed Charge (FY 2023 – FY 2027)

Fixed WMWD - RTS Charges ($/Month)					
Revenue Adjustment:		*Pass-Through*	*Pass-Through*	*Pass-Through*	*Pass-Through*
Meter Size	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Residential (<= 1")	$2.14	TBD	TBD	TBD	TBD
5/8"	$2.14	TBD	TBD	TBD	TBD
3/4"	$2.14	TBD	TBD	TBD	TBD
1"	$2.14	TBD	TBD	TBD	TBD
1 1/2"	$2.14	TBD	TBD	TBD	TBD
2"	$2.14	TBD	TBD	TBD	TBD
3"	$2.14	TBD	TBD	TBD	TBD
4"	$2.14	TBD	TBD	TBD	TBD
6"	$2.14	TBD	TBD	TBD	TBD
8"	$2.14	TBD	TBD	TBD	TBD

Table 67: Proposed Water Variable Charge (FY 2023 – FY 2027)

Variable Rates ($/CCF)					
Revenue Adjustment:		*3.0%*	*3.0%*	*3.0%*	*3.0%*
Customer Class	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Residential					
Tier 1	$3.05	$3.14	$3.24	$3.33	$3.43
Tier 2	$3.46	$3.56	$3.67	$3.78	$3.89
Tier 3	$3.79	$3.90	$4.02	$4.14	$4.27
Non-Residential	$3.30	$3.40	$3.50	$3.61	$3.71
Irrigation	$3.49	$3.59	$3.70	$3.81	$3.93

Table 68: Proposed Water Pumping Rates (FY 2023 – FY 2027)

Pumping Rates ($/CCF)					
Revenue Adjustment:		*3.0%*	*3.0%*	*3.0%*	*3.0%*
Pumping Zone	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Zone A	$0.00	$0.00	$0.00	$0.00	$0.00
Zone B	$0.21	$0.22	$0.22	$0.23	$0.24
Zone C	$0.23	$0.24	$0.24	$0.25	$0.26
Zone D	$0.27	$0.28	$0.29	$0.30	$0.30
Zone E	$0.32	$0.33	$0.34	$0.35	$0.36

Wastewater

Table 69 provides the five-year wastewater rate schedule over the Rate Setting Period for monthly fixed charges and variable rates. For FY 2024 and FY 2027, the revenue adjustments are applied across the board to the cost-of-service rates derived for FY 2023 as account growth and usage characteristics are projected to remain constant for financial planning.

Table 69: Proposed Wastewater Monthly Fixed Charge and Variable Rates (FY 2023 – FY 2027)

Wastewater Rates					
Revenue Adjustment:		*3.0%*	*3.0%*	*3.0%*	*3.0%*
Customer Class	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Fixed Charges ($/Month)					
Residential	$41.57	$42.82	$44.11	$45.44	$46.81
Non-Residential	$21.15	$21.79	$22.45	$23.13	$23.83
Variable Rates ($/CCF)					
Non-Residential	$2.83	$2.92	$3.01	$3.11	$3.21

Recycled Water Financial Plan Overview

Customers

The District serves 144 active recycled water accounts. Table 70 provides a summary of accounts by meter size.

Table 70: Recycled Water Accounts by Meter Size

Meter Size	Accounts
5/8"	8
3/4"	0
1"	13
1 1/2"	9
2"	103
3"	2
4"	4
6"	3
8"	2
Total	144

The existing rate structure consists of a monthly fixed meter charge, a uniform variable rate, and pumping charges that vary by zone. Recycled customers are charged the same monthly fixed charge and pumping rates as potable customers but are not charged the WMWD RTS. **The proposed rate structure maintains the same rate structure that exists today.**

Existing monthly fixed charges are identified in Table 71, followed by variable rates in Table 72 and pumping rates in Table 73.

Table 71: Existing Recycled Water Monthly Fixed Charges

Existing Fixed Meter Charges	
Meter Size	($/Month)
5/8"	$23.50
3/4"	$31.60
1"	$47.76
1 1/2"	$88.18
2"	$136.69
3"	$290.32
4"	$516.71
6"	$1,058.41
8"	$2,271.22

Table 72: Existing Recycled Water Variable Rate

Existing Variable Rate	
Customer Class	($/CCF)
Recycled Customers	$2.55

Table 73: Existing Recycled Pump Zone Charges ($/CCF)

Existing Pumping Charges	
Pumping Zones	($/CCF)
Zone A	$0.00
Zone B	$0.21
Zone C	$0.22
Zone D	$0.29
Zone E	$0.34

Financial Planning Assumptions

Developing a long-term financial plan requires an understanding of the utility's financial position by evaluating existing revenue streams, ongoing expenses, how those expenses will change over time, and planned capital and reserves. Certain assumptions are required for projecting revenues, expenses, and expected ending fund balances. Table 74 identifies assumptions for forecasting revenues, and Table 75 identifies assumptions for forecasting expenses over the Rate Setting Period based on discussions with staff.

Table 74: Recycled Water Assumptions for Forecasting Revenues

Key Assumptions	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Revenue Escalation					
Non-Inflated	0%	0%	0%	0%	0%
Non-Rate Revenues	2.0%	2.0%	2.0%	2.0%	2.0%
Reserve Interest	0.5%	0.5%	0.5%	0.5%	0.5%
Account Growth	0%	0%	0%	0%	0%
Projected Accounts and Recycled Water Sales					
Accounts	144	144	144	144	144
Projected Water Sales (CCF)	770,375	770,375	770,375	770,375	770,375

Table 75: Recycled Water Assumptions for Forecasting Expense Requirements[6]

Key Assumptions	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Expenditure Escalation					
Benefits	Budget	5.0%	5.0%	5.0%	5.0%
Capital Construction	Budget	7.0%	7.0%	3.3%	3.3%
Energy Costs	Budget	10.0%	10.0%	10.0%	10.0%
General Costs	Budget	7.0%	7.0%	3.8%	3.8%
Retirement - CalPers	Budget	5.0%	5.0%	5.0%	5.0%
Salaries	Budget	5.0%	5.0%	5.0%	5.0%
Purchased Water	Budget	2.0%	2.0%	2.0%	2.0%

[6] Capital Construction inflation and General Costs for FY 2024 and FY 2025 were increased to 7% to account for recent increases due to inflation. Outer years reduce to 3.3% and 3.8%, reflecting the 20-year average of the Engineer's News Record – CCI Index and the 2021 Consumer Price Index – LA, respectively.

Current Financial Position

Revenues

Based on the forecasting assumptions, revenues were calculated using existing rates and account data, with projected total water sales shown in Table 74. Table 76 shows the calculated rate revenues through the Rate Setting Period. The detailed calculations can be found in the rate model on file with the District. Table 77 summarizes calculated rate and non-rate revenues available through the Rate Setting Period with projections rounded to the nearest thousands. Recycled water customers only reside within pumping zones A and B.

Table 76: Recycled Water Calculated Rate Revenues

Customer Accounts	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
All Meters					
Meter Size					
5/8"	8	8	8	8	8
3/4"	0	0	0	0	0
1"	13	13	13	13	13
1 1/2"	9	9	9	9	9
2"	103	103	103	103	103
3"	2	2	2	2	2
4"	4	4	4	4	4
6"	3	3	3	3	3
8"	2	2	2	2	2
Total All Meters	144	144	144	144	144
Consumption by Customer Class	**FY 2023**	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**
Recycled Water	770,375	770,375	770,375	770,375	770,375
Consumption by Pumping Zone	**FY 2023**	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**
Pumping Zone					
Zone A	470,871	470,871	470,871	470,871	470,871
Zone B	299,504	299,504	299,504	299,504	299,504
Total Consumption by Pumping Zone (CCF)	770,375	770,375	770,375	770,375	770,375
Fixed Revenues	**FY 2023**	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**
Base Fixed Charge					
Recycled Water	$312,561	$312,561	$312,561	$312,561	$312,561
Total Base Fixed Charge	$312,561	$312,561	$312,561	$312,561	$312,561
Variable Revenues	**FY 2023**	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**
Recycled Water	$1,964,456	$1,964,456	$1,964,456	$1,964,456	$1,964,456
Pumping - Variable					
Zone A	$0	$0	$0	$0	$0
Zone B	$62,896	$62,896	$62,896	$62,896	$62,896
Total Variable Pumping Revenue	$62,896	$62,896	$62,896	$62,896	$62,896
Total Rate Revenue	2,339,913	2,339,913	2,339,913	2,339,913	2,339,913

Table 77: Recycled Water Projected Revenues

Revenue Summary	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Rate Revenue	$2,339,913	$2,340,000	$2,340,000	$2,340,000	$2,340,000
Operating Revenues					
Misc Income	$11,500	$12,000	$12,000	$12,000	$12,000
Inspection Revenue	$18,000	$18,000	$18,000	$18,000	$18,000
Subtotal Operating Revenues	$29,500	$30,000	$30,000	$30,000	$30,000
Non-Operating Revenues					
Interest Income	$12,000	$52,000	$46,000	$31,000	$28,000
Subtotal Non-Operating Revenues	$12,000	$52,000	$46,000	$31,000	$28,000
Total Revenues	$2,381,413	$2,422,000	$2,416,000	$2,401,000	$2,398,000

Expenses

The FY 2023 budget was used as the baseline expenses of the utility and adjusted in subsequent years based on the escalation factors shown in Table 75. Table 78 provides projected O&M costs through FY 2027. Each expense category includes detailed line items discussed with staff to determine the appropriate escalation factor for forecasting how costs will increase over time.

Table 78: Recycled Water Projected O&M Expenses

O&M Expenses	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Operating Expenses					
Operating Expenses	$358,900	$380,000	$402,000	$420,000	$438,000
Administrative Expenses	$408,250	$432,000	$456,000	$477,000	$499,000
Energy Expense	$280,000	$308,000	$339,000	$373,000	$410,000
Purchased Water	$14,800	$16,000	$17,000	$18,000	$18,000
Subtotal Operating Expenses	$1,061,950	$1,136,000	$1,214,000	$1,288,000	$1,365,000
Total Expenses	$1,061,950	$1,136,000	$1,214,000	$1,288,000	$1,365,000

Reserves

Established reserves include Operating, Capital Replacement, and Rate Stabilization. These robust reserves help mitigate risks to the utility by ensuring sufficient cash is on hand for daily operations and fund capital replacement. In addition, these reserves help smooth rates and mitigate rate spikes due to emergencies or above-average system costs. Table 79 summarizes the minimum reserve requirements and the ideal funding targets of each reserve.

Table 79: Recycled Water Reserve Requirements and Targets

Reserve	Minimum Requirement	Reserve Target
Operating	120 days of operating costs	180 days of operating costs
Replacement	1-year of CIP expenses based on the 5-year average of planned capital	2-years of CIP expenses based on the 5-year average of planned capital
Rate Stabilization	5% of rate revenue	10% of rate revenue

The total reserve balances as of July 1, 2022, equal approximately $6.6M.

Financial Outlook at Existing Rates

Calculating revenue using existing rates and projecting expenses helps determine the current financial health of the utility. Our review shows that revenues from existing rates are sufficient to cover operating expenses and planned capital and satisfy minimum reserve requirements. Therefore, revenue adjustments are not needed over the Rate Setting Period. Figure 22 illustrates the operating position of the utility, with O&M expenses shown with the dashed red trendline and total revenues at existing rates displayed by the horizontal black trendline. The bars represent the amount of net operating income available for capital replacement and reserve funding.

Figure 22: Recycled Water Current Operating Financial Position

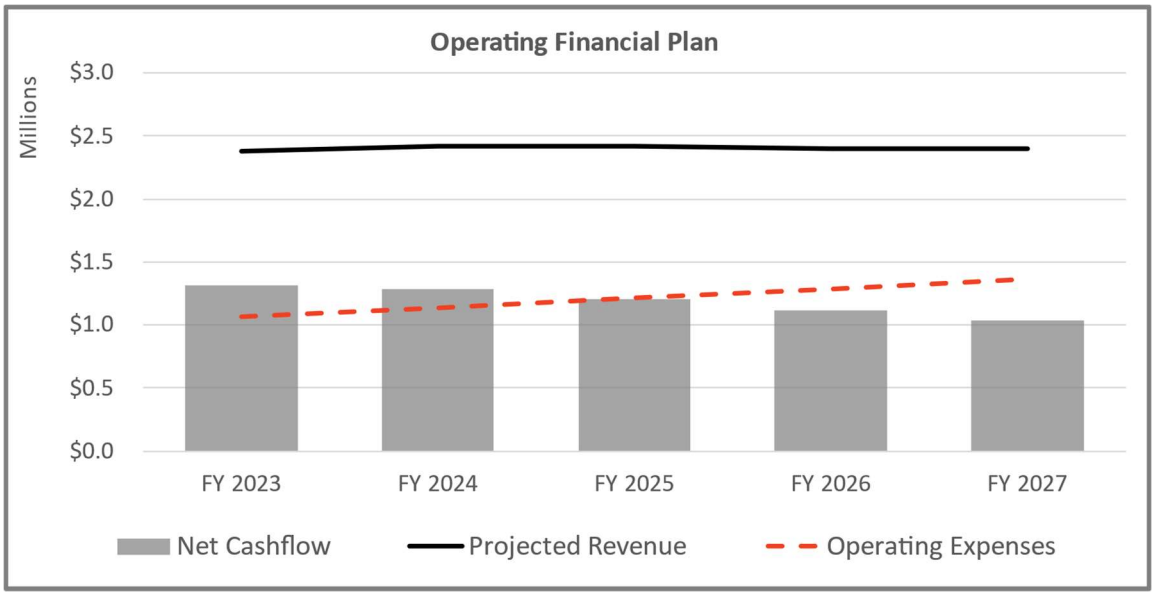


Figure 23 identifies the capital replacement plan through the Rate Setting Period. Figure 24 reflects the projected ending balances of reserves after funding operating expenses and capital replacement. The District's current reserve balance exceeds the reserve target for FY 2023; however, FY 2024 has $3.8M in projects, which will draw down reserves for capital funding.

Figure 23: Recycled Water Capital Replacement Plan

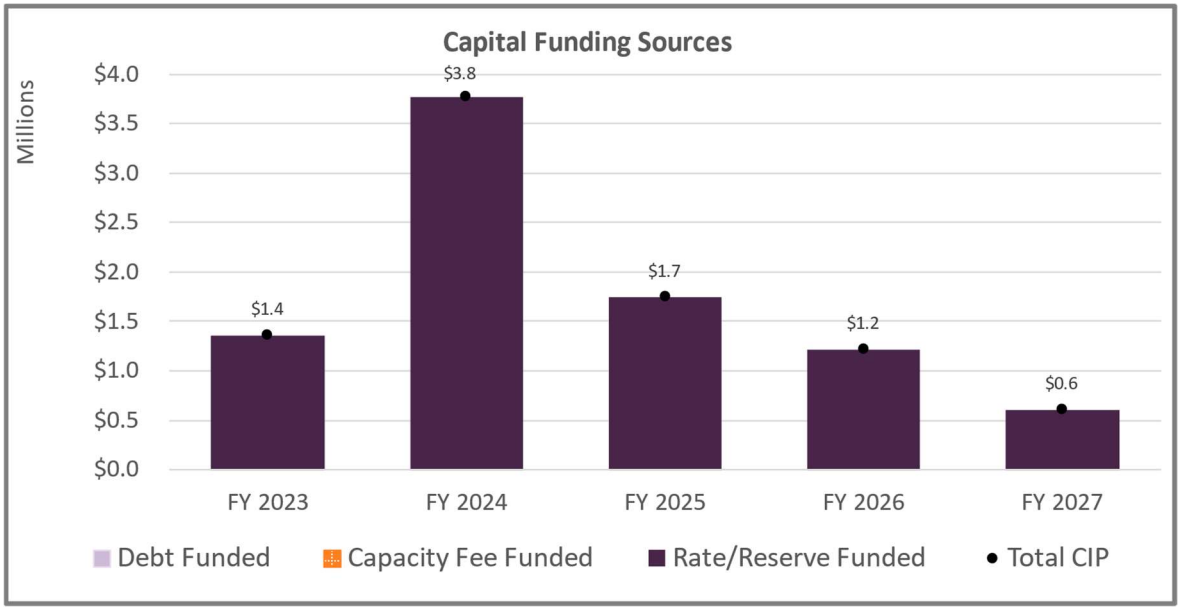
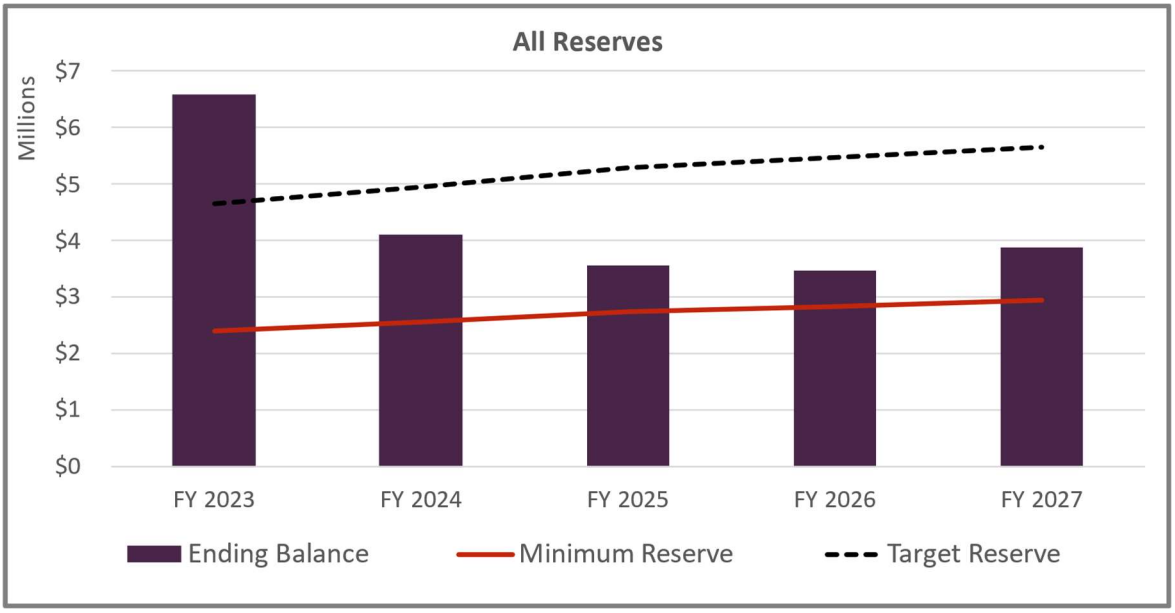


Figure 24: Recycled Water Ending Reserves at Existing Rates



Recycled Water Proposed Financial Plan

A proposed financial plan can be developed from the financial outlook at existing rates to fund the multi-year revenue requirements. The District does not need any rate revenue increases for the recycled water utility. Table 80 forecasts projected revenues and expenses over the Rate Setting Period, with no revenue adjustments through FY 2027.

Table 80: Recycled Water Proposed Financial Plan

Revenue	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Rate Revenue					
Recycled/Non-Potable Water Sales	$1,964,456	$1,964,000	$1,964,000	$1,964,000	$1,964,000
Recycled/ Non-Pot Water Fixed Charge	$312,561	$313,000	$313,000	$313,000	$313,000
Recycled/Non-Potable Pumping Charge	$62,896	$63,000	$63,000	$63,000	$63,000
Total Rate Revenue	$2,339,913	$2,340,000	$2,340,000	$2,340,000	$2,340,000
Additional Revenue *(from revenue adjustments)*:					
Fiscal Year / Revenue Adjustment / Effective Month					
FY 2023 / 0.0% / February	$0	$0	$0	$0	$0
FY 2024 / 0.0% / January		$0	$0	$0	$0
FY 2025 / 0.0% / January			$0	$0	$0
FY 2026 / 0.0% / January				$0	$0
FY 2027 / 0.0% / January					$0
Total Additional Revenue	$0	$0	$0	$0	$0
Projected Rate Revenues	**$2,339,913**	**$2,340,000**	**$2,340,000**	**$2,340,000**	**$2,340,000**
Operating Revenues					
Misc Income	$11,500	$12,000	$12,000	$12,000	$12,000
Inspection Revenue	$18,000	$18,000	$18,000	$18,000	$18,000
Subtotal Operating Revenues	$29,500	$30,000	$30,000	$30,000	$30,000
Non-Operating Revenues					
Interest Income	$12,000	$52,000	$46,000	$31,000	$28,000
Subtotal Non-Operating Revenues	$12,000	$52,000	$46,000	$31,000	$28,000
Total Revenues	$2,381,413	$2,422,000	$2,416,000	$2,401,000	$2,398,000

O&M Expenses	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Operating Expenses					
Operating Expenses	$358,900	$380,000	$402,000	$420,000	$438,000
Administrative Expenses	$408,250	$432,000	$456,000	$477,000	$499,000
Energy Expense	$280,000	$308,000	$339,000	$373,000	$410,000
Purchased Water	$14,800	$16,000	$17,000	$18,000	$18,000
Subtotal Operating Expenses	$1,061,950	$1,136,000	$1,214,000	$1,288,000	$1,365,000
Total Expenses	$1,061,950	$1,136,000	$1,214,000	$1,288,000	$1,365,000
Net Cashflow	$1,319,463	$1,286,000	$1,202,000	$1,113,000	$1,033,000

Cost-of-Service Analysis – Recycled Water

Revenue Requirements

With FY 2023 as the first year of the proposed rate schedule, revenue requirements are determined for FY 2023 and used for the cost-of-service analysis. Revenue requirements include O&M expenses, capital replacement, available offsets from non-rate revenues, and reserve funding.

The results of the financial plan analysis are summarized in Table 81 and represent the revenue required from rates over the Rate Setting Period.

Table 81: Recycled Water Revenue Requirements

	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Revenue Requirements	Total	Total	Total	Total	Total
Operations and Maintenance					
Operating Expenses	$358,900	$380,000	$402,000	$420,000	$438,000
Administrative Expenses	$408,250	$432,000	$456,000	$477,000	$499,000
Energy Expense	$280,000	$308,000	$339,000	$373,000	$410,000
Purchased Water	$14,800	$16,000	$17,000	$18,000	$18,000
Total Operations and Maintenance	$1,061,950	$1,136,000	$1,214,000	$1,288,000	$1,365,000
Revenue Offsets					
Misc Income	($11,500)	($12,000)	($12,000)	($12,000)	($12,000)
Inspection Revenue	($18,000)	($18,000)	($18,000)	($18,000)	($18,000)
Interest Income	($12,000)	($52,000)	($46,000)	($31,000)	($28,000)
Total Revenue Offsets	($41,500)	($82,000)	($76,000)	($61,000)	($58,000)
Adjustments					
Reserve Funding	$1,319,463	$1,286,000	$1,202,000	$1,113,000	$1,033,000
Total Adjustments	$1,319,463	$1,286,000	$1,202,000	$1,113,000	$1,033,000
Revenue Required from Rates	$2,339,913	$2,340,000	$2,340,000	$2,340,000	$2,340,000

Cost-Based Rates – Recycled Water

Proposed Monthly Fixed Charges

All water-related customers are charged the same monthly fixed charge across the entire District because the District's fixed costs do not vary based on location or type of water service. Therefore, recycled water fixed charges are equivalent to potable water and summarized in Table 82.

Table 82: Recycled Water Proposed Monthly Fixed Charges

Fixed Meter Charges ($/Month)					
Meter Size	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
5/8"	$24.06	$24.79	$25.54	$26.31	$27.10
3/4"	$32.74	$33.73	$34.75	$35.80	$36.88
1"	$50.10	$51.61	$53.16	$54.76	$56.41
1 1/2"	$93.50	$96.31	$99.20	$102.18	$105.25
2"	$145.58	$149.95	$154.45	$159.09	$163.87
3"	$310.50	$319.82	$329.42	$339.31	$349.49
4"	$553.54	$570.15	$587.26	$604.88	$623.03
6"	$1,135.10	$1,169.16	$1,204.24	$1,240.37	$1,277.59
8"	$2,437.10	$2,510.22	$2,585.53	$2,663.10	$2,743.00

Proposed Pumping Rates

All customers are charged the same pumping charges across the entire District because pumping rates are based on costs incurred to pump water to higher elevations. Therefore, pumping charges for recycled water are equivalent to potable water and summarized in Table 83.

Table 83: Recycled Water Proposed Pumping Rates by Zone

Pumping Rates ($/CCF)					
Pumping Zone	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Zone A	$0.00	$0.00	$0.00	$0.00	$0.00
Zone B	$0.21	$0.22	$0.22	$0.23	$0.24
Zone C	$0.23	$0.24	$0.24	$0.25	$0.26
Zone D	$0.27	$0.28	$0.29	$0.30	$0.30
Zone E	$0.32	$0.33	$0.34	$0.35	$0.36

Proposed Variable Rates

The proposed variable rates for FY 2023 through FY 2027 recover the remaining revenue needs after the total revenue requirements in Table 81 are reduced by the revenue generated from proposed fixed charges and pumping rates. Table 84 takes the revenue requirements from Table 81 and determines the cost recovery required from variable rates by subtracting fixed revenues and pumping revenues. The variable rate for each fiscal year is derived by taking the variable revenue requirement and dividing it by the total amount of projected recycled water usage over the Rate Setting Period. Because fixed charges and pumping rates are increasing, the variable rates for recycled water are reduced to maintain revenue neutrality.

Table 84: Recycled Water Variable Rate Revenue Requirement and Variable Rates

Meter Service Charge	# of Meters	FY 2023 Proposed Meter Service Charge	FY 2024 Proposed Meter Service Charge	FY 2025 Proposed Meter Service Charge	FY 2026 Proposed Meter Service Charge	FY 2027 Proposed Meter Service Charge
Meter Size						
5/8"	8	$24.06	$24.79	$25.54	$26.31	$27.10
3/4"	0	$32.74	$33.73	$34.75	$35.80	$36.88
1"	13	$50.10	$51.61	$53.16	$54.76	$56.41
1 1/2"	9	$93.50	$96.31	$99.20	$102.18	$105.25
2"	103	$145.58	$149.95	$154.45	$159.09	$163.87
3"	2	$310.50	$319.82	$329.42	$339.31	$349.49
4"	4	$553.54	$570.15	$587.26	$604.88	$623.03
6"	3	$1,135.10	$1,169.16	$1,204.24	$1,240.37	$1,277.59
8"	2	$2,437.10	$2,510.22	$2,585.53	$2,663.10	$2,743.00
Projected Revenue		**$333,536**	**$343,549**	**$353,859**	**$364,484**	**$375,430**

Pumping Rates	Projected Usage	FY 2023 Pumping Rates	FY 2024 Pumping Rates	FY 2025 Pumping Rates	FY 2026 Pumping Rates	FY 2027 Pumping Rates
Zone A	470,871	$0.00	$0.00	$0.00	$0.00	$0.00
Zone B	299,504	$0.21	$0.22	$0.22	$0.23	$0.24
Projected Revenue		**$62,896**	**$64,783**	**$66,726**	**$68,728**	**$70,790**

Variable Rate Analysis	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Recycled Revenue Requirement	$2,339,913	$2,339,913	$2,339,913	$2,339,913	$2,339,913
Less: Projected Revenue from Fixed	($333,536)	($343,549)	($353,859)	($364,484)	($375,430)
Less: Projected Revenue from Pumping	($62,896)	($64,783)	($66,726)	($68,728)	($70,790)
Variable Revenue Requirement	$1,943,481	$1,931,581	$1,919,328	$1,906,700	$1,893,693
÷ Projected Usage (ccf)	770,375	770,375	770,375	770,375	770,375
Proposed Variable Unit Rate	**$2.53**	**$2.51**	**$2.50**	**$2.48**	**$2.46**