

Public Hearing
May 16, 2023

Water Cost-of-Service Rate Study



B CONSULTING

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Executive Summary

The La Habra Heights County Water District (District) periodically reviews its rates 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 water rates for Fiscal Year 2024 (FY 2024) through FY 2028 (Rate Setting Period).

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 the utility. Based on a 10-year 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.

The District's water rate structure includes a monthly fixed charge by meter size and a uniform variable rate per hundred cubic feet (CCF)¹ that varies by zone.

The updated cost-of-service fixed revenue recovery will remain at approximately 43% of total revenue, similar to the current fixed cost recovery. The proposed rate structure reflects an updated cost-of-service analysis that identifies which expenses are recovered through the monthly meter charges versus variable rates.

The proposed rates derived within this report include five years of adjustments, commencing on July 1, 2023, and each subsequent July through 2028. 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 Period². The recommended rates have been incorporated into a notice and mailed to each customer as part of Proposition 218 noticing requirements. A Public Hearing is scheduled for May 16, 2023, on the proposed rates identified in Table 1 and Table 2.

¹ 1 CCF = 748.05 gallons

² The proposed financial plan assumes water sales do not fall below 2,701 acre-feet over the Rate Setting Period, and future expenses do not exceed the projected costs identified herein.

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Table 1: Proposed Monthly Fixed Charges

Fixed Meter Charges (\$/Month)					
Meter Size	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
3/4"	\$52.78	\$56.22	\$59.88	\$63.78	\$67.93
1"	\$86.51	\$92.14	\$98.13	\$104.51	\$111.31
1 1/2"	\$170.85	\$181.96	\$193.79	\$206.39	\$219.81
2"	\$272.05	\$289.73	\$308.57	\$328.63	\$350.00
3"	\$592.51	\$631.03	\$672.05	\$715.74	\$762.27
4"	\$1,064.78	\$1,134.00	\$1,207.71	\$1,286.22	\$1,369.83
6"	\$2,194.85	\$2,337.52	\$2,489.46	\$2,651.28	\$2,823.62

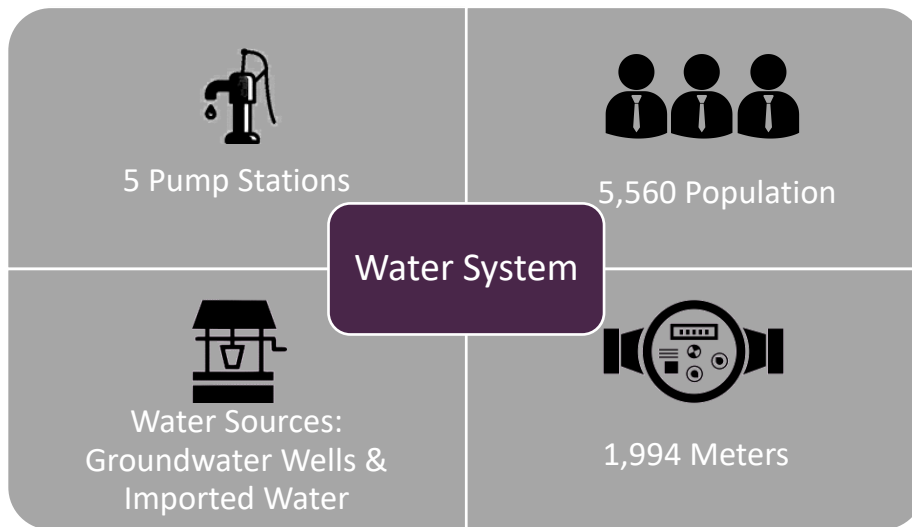
Table 2: Proposed Variable Rates

Variable Rates (\$/HCF)					
Zone	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Upper Zone	\$2.98	\$3.18	\$3.39	\$3.62	\$3.86
Lower Zone	\$2.60	\$2.78	\$2.97	\$3.17	\$3.38
Lower Zone - Outside District	\$2.87	\$3.06	\$3.26	\$3.48	\$3.71

Background

The La Habra Heights County Water District (District) is located in La Habra Heights. The District occupies approximately 3,904 acres which includes the majority of the City of La Habra Heights, portions of the City of Whittier, and unincorporated Los Angeles County. The District relies on groundwater from the central basin located near the San Gabriel River. In addition to groundwater wells, the District imports water from Metropolitan Water District (MWD), serving a population of approximately 5,560 through 1,994 meters. The District owns, maintains, and operates four water supply wells, five pump stations, seven reservoirs, and water lines.

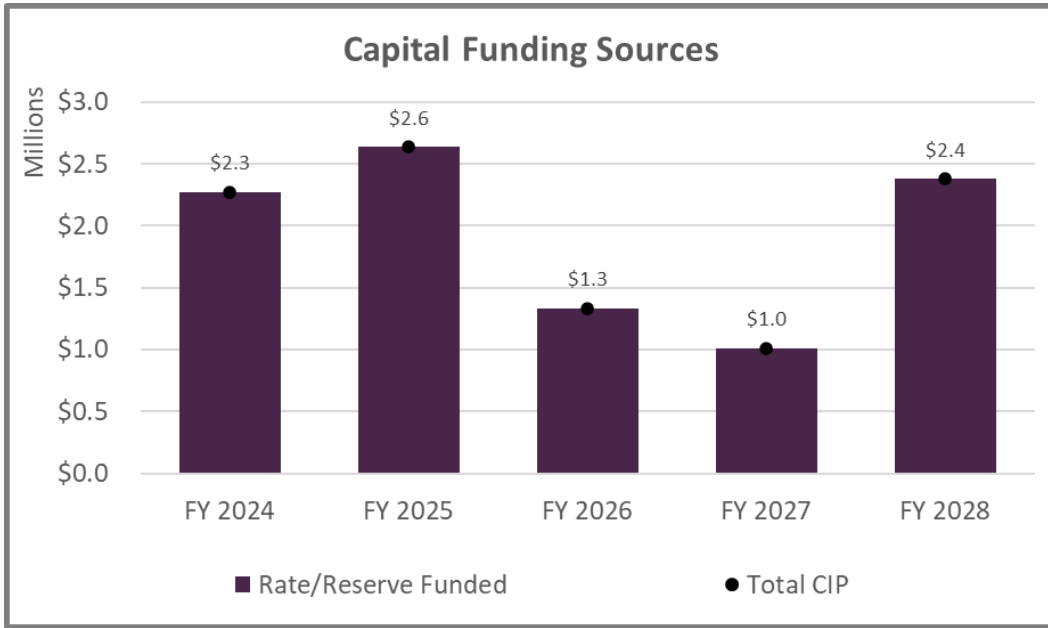
Figure 1: La Habra Heights County Water District Water System



The District's capital spending will average approximately \$1.9M annually over the Rate Setting Period for the water system's repair and replacement program. Figure 2 shows the District's capital repair and replacement plan through FY 2028.

La Habra Heights County Water District – *Water Cost-of Service Rate Study*

Figure 2: Capital Improvement Plan



Customers

The District serves 1,994 active accounts. Table 3 provides a summary of accounts by meter size and zone.

Table 3: Accounts by Zone and Meter Size

Meter Size	Upper Zone	Lower Zone	Lower Zone - Outside District	Total
3/4"	73	125	3	201
1"	565	970	1	1,536
1 1/2"	72	117	1	190
2"	22	32	1	55
3"	5	2	0	7
4"	3	0	0	3
6"	2	0	0	2
Total	742	1,246	6	1,994

La Habra Heights County Water District – *Water Cost-of Service Rate Study*

As previously mentioned, the existing rate structure consists of a monthly fixed meter charge and variable rates that vary by zone. Existing metered fixed charges and variable rates are identified in Table 4 and Table 5.

Table 4: FY 2023 Fixed Charges

Fixed Meter Charges (\$/Month)	
Meter Size	Existing
3/4"	\$47.66
1"	\$79.40
1 1/2"	\$158.76
2"	\$254.00
3"	\$555.57
4"	\$1,000.02
6"	\$2,222.18

Table 5: FY 2023 Variable Rates

Variable Rates (\$/HCF)	
Zone	Existing
Upper Zone	\$2.78
Lower Zone	\$2.50
Lower Zone - Outside District	\$3.75

Financial Plan Overview

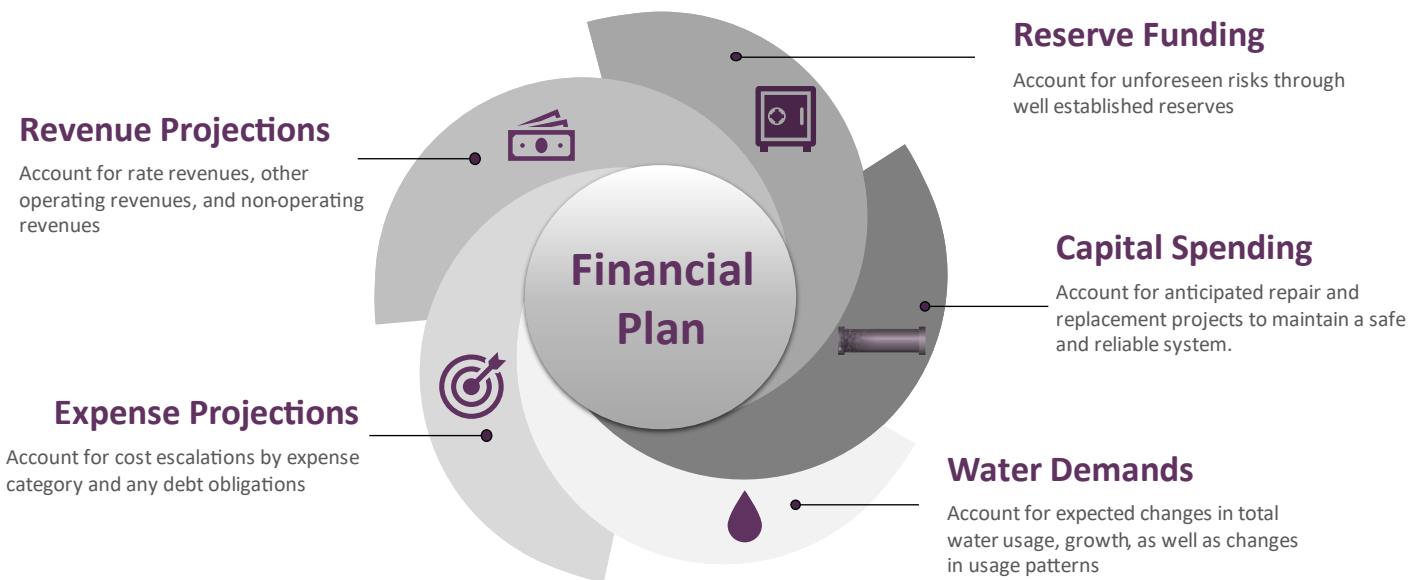
Financial Planning

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.
- 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



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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, existing debt requirements, 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 6 identifies assumptions for forecasting revenues over the Rate Setting Period. Table 7 identifies assumptions used for forecasting expense increases.

Table 6: Assumptions for Forecasting Revenues

Key Assumptions	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Revenue Escalation					
Non-Inflated	0%	0%	0%	0%	0%
Non-Rate Revenues	0%	0%	0%	0%	0%
Reserve Interest	1%	1%	1%	1%	1%
Account Growth	0%	0%	0%	0%	0%
Demand / Usage Adjustments					
Upper Zone	0%	0%	0%	0%	0%
Lower Zone	0%	0%	0%	0%	0%
Lower Zone - Outside District	0%	0%	0%	0%	0%
Water Sales (HCF)					
Upper Zone	491,591	491,591	491,591	491,591	491,591
Lower Zone	683,601	683,601	683,601	683,601	683,601
Lower Zone - Outside District	1,468	1,468	1,468	1,468	1,468
Total Water Sales (HCF)	1,176,660	1,176,660	1,176,660	1,176,660	1,176,660
All Meters					
Meter Size					
3/4"	201	201	201	201	201
1"	1,536	1,536	1,536	1,536	1,536
1 1/2"	190	190	190	190	190
2"	55	55	55	55	55
3"	7	7	7	7	7
4"	3	3	3	3	3
6"	2	2	2	2	2
Total All Meters	1,994	1,994	1,994	1,994	1,994

La Habra Heights County Water District – *Water Cost-of Service Rate Study*

Table 7: Assumptions for Forecasting Expense Requirements³

Key Assumptions	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Expenditure Escalation					
Benefits	3.0%	3.0%	3.0%	3.0%	3.0%
Capital Construction	6.9%	3.9%	3.9%	3.9%	3.9%
Energy Costs	5.0%	5.0%	5.0%	5.0%	5.0%
General Costs	6.2%	3.7%	3.7%	3.7%	3.7%
Non-Inflated	0.0%	0.0%	0.0%	0.0%	0.0%
Retirement	5.0%	5.0%	5.0%	5.0%	5.0%
Salaries	5.0%	5.0%	5.0%	5.0%	5.0%
Water Purchases (Fixed)	5.0%	5.0%	5.0%	5.0%	5.0%
Water Purchases (Variable)	5.0%	5.0%	5.0%	5.0%	5.0%

³Capital Construction and General Cost inflation for FY 2024 were increased to 6.9% and 6.2%, respectively, to account for recent increases due to inflation. Outer years reduce to 3.9% and 3.7%, respectively, reflecting the 5-year average of the Engineer’s News Record – CCI and Los Angeles Consumer Price indices.

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Current Financial Position

Revenues

Based on the forecasting assumptions, revenues were calculated using existing rates (Table 4 and Table 5) account data by meter size (Table 6), and projected total water sales by zone (Table 6). Table 8 shows the calculated rate revenues through the Rate Setting Period. Table 9 summarizes calculated rate and non-rate revenues available through the Rate Setting Period with projections rounded to the nearest thousands.

Table 8: Calculated Rate Revenues

Fixed Revenues	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Readiness-to-Serve Charge					
Upper Zone	\$906,974	\$906,974	\$906,974	\$906,974	\$906,974
Lower Zone	\$1,329,475	\$1,329,475	\$1,329,475	\$1,329,475	\$1,329,475
Lower Zone - Outside District	\$7,622	\$7,622	\$7,622	\$7,622	\$7,622
Total Readiness-to-Serve Charge	\$2,244,070	\$2,244,070	\$2,244,070	\$2,244,070	\$2,244,070
Variable Revenues	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Upper Zone	\$1,366,623	\$1,366,623	\$1,366,623	\$1,366,623	\$1,366,623
Lower Zone	\$1,709,003	\$1,709,003	\$1,709,003	\$1,709,003	\$1,709,003
Lower Zone - Outside District	\$5,505	\$5,505	\$5,505	\$5,505	\$5,505
Total Variable Rate Revenue	\$3,081,130	\$3,081,130	\$3,081,130	\$3,081,130	\$3,081,130
Total Rate Revenue	\$5,325,201	\$5,325,201	\$5,325,201	\$5,325,201	\$5,325,201

Table 9: Projected Revenues

Revenue Summary	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Rate Revenues					
Readiness-to-Serve Charge	\$2,244,000	\$2,244,000	\$2,244,000	\$2,244,000	\$2,244,000
Variable Revenues	\$3,081,000	\$3,081,000	\$3,081,000	\$3,081,000	\$3,081,000
Subtotal Rate Revenues	\$5,325,000	\$5,325,000	\$5,325,000	\$5,325,000	\$5,325,000
Operating Revenues					
Flow Restriction	\$28,000	\$28,000	\$28,000	\$28,000	\$28,000
Water Lease	\$29,000	\$29,000	\$29,000	\$29,000	\$29,000
Subtotal Operating Revenues	\$57,000	\$57,000	\$57,000	\$57,000	\$57,000
Non-Operating Revenues					
Interest Income	\$34,000	\$17,000	\$18,000	\$19,000	\$19,000
Property Tax income	\$892,371	\$892,371	\$892,371	\$892,371	\$892,371
Rent Income	\$120,458	\$120,458	\$120,458	\$120,458	\$120,458
Oil Royalties	\$10,589	\$10,589	\$10,589	\$10,589	\$10,589
Miscellaneous Income	\$5,664	\$5,664	\$5,664	\$5,664	\$5,664
Subtotal Non-Operating Revenues	\$1,063,082	\$1,046,082	\$1,047,082	\$1,048,082	\$1,048,082
Total Revenues	\$6,445,082	\$6,428,082	\$6,429,082	\$6,430,082	\$6,430,082

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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 7. Table 10 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 that were discussed with staff to determine the appropriate escalation factor to use for forecasting how costs will increase over time.

Table 10: Projected O&M Expenses⁴

O&M Expenses	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Specific Expenses					
Water Supply	\$1,457,000	\$1,530,000	\$1,606,000	\$1,686,000	\$1,771,000
Pumping - Upper Zone	\$183,000	\$192,000	\$201,000	\$211,000	\$222,000
Subtotal Specific Expenses	\$1,640,000	\$1,722,000	\$1,807,000	\$1,897,000	\$1,993,000
Operating Expenses					
Other Expenses	\$80,000	\$82,000	\$85,000	\$87,000	\$90,000
Pumping	\$930,000	\$975,000	\$1,024,000	\$1,074,000	\$1,127,000
Treatment/General Plant	\$126,000	\$131,000	\$136,000	\$141,000	\$147,000
Transmission & Distribution	\$631,000	\$661,000	\$692,000	\$724,000	\$758,000
Customer Account	\$180,000	\$186,000	\$193,000	\$200,000	\$208,000
Office Salaries & Expenses	\$1,037,000	\$1,083,000	\$1,131,000	\$1,181,000	\$1,233,000
Employee Benefits	\$629,000	\$653,000	\$679,000	\$705,000	\$733,000
Other Operating & Admin.	\$7,000	\$8,000	\$8,000	\$8,000	\$8,000
Non-Operating Expense	\$32,000	\$33,000	\$34,000	\$36,000	\$37,000
Subtotal Operating Expenses	\$3,652,000	\$3,812,000	\$3,982,000	\$4,156,000	\$4,341,000
Debt Service					
Existing Debt	\$52,000	\$0	\$0	\$0	\$0
Subtotal Debt Service	\$52,000	\$0	\$0	\$0	\$0
Total Expenses	\$5,344,000	\$5,534,000	\$5,789,000	\$6,053,000	\$6,334,000

⁴ Other Expenses includes Employee vacation and sick leave costs, Other Operating & Admin includes Property Tax expense, and Non-Operating Expense includes the costs for elections and Board of Directors expenses.

La Habra Heights County Water District – *Water Cost-of Service Rate Study*

Reserves

Figure 4: District Reserves

OPERATING



Provides ongoing cash for daily operations and expenses of utility.

CAPITAL REPAIRS & REPLACEMENT



Provides funding for for system upgrades and R&R. Ensures system reinvestment occurs without delays or deferrals.



EMERGENCY CAPITAL



Provides funding for annual system replacement. Ensures District can reinvest in its utility without delays or deferrals.

RATE STABILIZATION



Funding to offset unforeseen increases in O&M or new regulatory requirements. Also provides funding for rate smoothing over multiple years.

Currently the District has an Operating reserve with an informal reserve policy that includes 6 months of annual operating and maintenance expenses. IB Consulting recommends establishing the following reserves: Operating, Capital, Rate Stabilization, and Emergency. These reserves will 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 will help smooth rates and mitigate rate spikes due to emergencies or above-average system costs, system failures, and new regulatory requirements. Table 11 summarizes the recommended minimum reserve requirements and the ideal funding targets of each reserve.

Table 11: Recommended Reserve Requirements and Targets

Reserve	Minimum Requirement	Reserve Target
Operating	120 days of operating costs	180 days of operating costs
Capital	Annual CIP based on 5-Year avg.	2x Annual CIP based on 5-Year avg.
Rate Stabilization	5% of rate revenue	10% of rate revenue
Emergency Capital	\$250,000	\$250,000

The starting reserve balances for FY 2023 equaled approximately \$5.1M.

Financial Outlook at Existing Rates

Calculating revenue using existing rates and projecting expenses helps determine the current financial health of the utility. **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 from existing rates. The bars represent the net operating income available for capital spending and reserve funding. With the capital improvement plan reflecting over \$9.6M in spending through the Rate Setting Period, 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. By FY 2025, reserves will dip below the minimum reserve target and continue to deplete in subsequent years.

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Table 12: Financial Plan at Existing Rates

Revenue		FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Rate Revenues						
Readiness-to-Serve Charge	Table 9	\$2,244,000	\$2,244,000	\$2,244,000	\$2,244,000	\$2,244,000
Variable Revenues		\$3,081,000	\$3,081,000	\$3,081,000	\$3,081,000	\$3,081,000
Total Rate Revenues		\$5,325,000	\$5,325,000	\$5,325,000	\$5,325,000	\$5,325,000
Operating Revenues						
Flow Restriction	Table 9	\$28,000	\$28,000	\$28,000	\$28,000	\$28,000
Water Lease		\$29,000	\$29,000	\$29,000	\$29,000	\$29,000
Subtotal Operating Revenues		\$57,000	\$57,000	\$57,000	\$57,000	\$57,000
Non-Operating Revenues						
Interest Income		\$34,000	\$17,000	\$18,000	\$19,000	\$19,000
Property Tax income		\$892,371	\$892,371	\$892,371	\$892,371	\$892,371
Rent Income	Table 9	\$120,458	\$120,458	\$120,458	\$120,458	\$120,458
Oil Royalties		\$10,589	\$10,589	\$10,589	\$10,589	\$10,589
Miscellaneous Income		\$5,664	\$5,664	\$5,664	\$5,664	\$5,664
Subtotal Non-Operating Revenues		\$1,063,082	\$1,046,082	\$1,047,082	\$1,048,082	\$1,048,082
Total Revenues		\$6,445,082	\$6,428,082	\$6,429,082	\$6,430,082	\$6,430,082
O&M Expenses		FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Specific Expenses						
Water Supply	Table 10	\$1,457,000	\$1,530,000	\$1,606,000	\$1,686,000	\$1,771,000
Pumping - Upper Zone		\$183,000	\$192,000	\$201,000	\$211,000	\$222,000
Subtotal Specific Expenses		\$1,640,000	\$1,722,000	\$1,807,000	\$1,897,000	\$1,993,000
Operating Expenses						
Other Expenses		\$80,000	\$82,000	\$85,000	\$87,000	\$90,000
Pumping		\$930,000	\$975,000	\$1,024,000	\$1,074,000	\$1,127,000
Treatment/General Plant		\$126,000	\$131,000	\$136,000	\$141,000	\$147,000
Transmission & Distribution		\$631,000	\$661,000	\$692,000	\$724,000	\$758,000
Customer Account	Table 10	\$180,000	\$186,000	\$193,000	\$200,000	\$208,000
Office Salaries & Expenses		\$1,037,000	\$1,083,000	\$1,131,000	\$1,181,000	\$1,233,000
Employee Benefits		\$629,000	\$653,000	\$679,000	\$705,000	\$733,000
Other Operating & Admin.		\$7,000	\$8,000	\$8,000	\$8,000	\$8,000
Non-Operating Expense		\$32,000	\$33,000	\$34,000	\$36,000	\$37,000
Subtotal Operating Expenses		\$3,652,000	\$3,812,000	\$3,982,000	\$4,156,000	\$4,341,000
Debt Service						
Existing Debt	Table 10	\$52,000	\$0	\$0	\$0	\$0
Subtotal Debt Service		\$52,000	\$0	\$0	\$0	\$0
Total Expenses		\$5,344,000	\$5,534,000	\$5,789,000	\$6,053,000	\$6,334,000
Net Cashflow		\$1,101,082	\$894,082	\$640,082	\$377,082	\$96,082

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Table 13: Reserve Activity at Existing Rates

Direct Transfers	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Net Cashflow	\$1,101,082	\$894,082	\$640,082	\$377,082	\$96,082
Transfers (to)/from Rate Stabilization Reserve	\$0	\$0	\$0	\$0	\$0
Transfers (to)/from Emergency Reserve	\$0	\$0	\$0	\$0	\$0
Net Cashflow (after direct transfers)	\$1,101,082	\$894,082	\$640,082	\$377,082	\$96,082
Operating Fund	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Beginning Balance	\$1,672,767	\$1,756,932	\$1,819,397	\$1,903,233	\$1,990,027
Transfers (Net Cashflow)	\$1,101,082	\$894,082	\$640,082	\$377,082	\$96,082
Transfers from/(to) Capital Reserve	(\$1,016,918)	(\$831,616)	(\$556,246)	(\$290,287)	(\$3,698)
Ending Balance	\$1,756,932	\$1,819,397	\$1,903,233	\$1,990,027	\$2,082,411
Capital Reserve	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Beginning Balance	\$4,352,111	\$3,130,742	\$1,347,156	\$578,053	(\$145,708)
Plus:					
Transfers from/(to) Operating Fund	\$1,016,918	\$831,616	\$556,246	\$290,287	\$3,698
Less:					
CIP	(\$2,275,515)	(\$2,637,480)	(\$1,334,928)	(\$1,014,048)	(\$2,378,313)
Subtotal Capital Reserve	\$3,093,514	\$1,324,878	\$568,474	(\$145,708)	(\$2,520,323)
Interest Earnings	\$37,228	\$22,278	\$9,578	\$0	\$0
Ending Balance	\$3,130,742	\$1,347,156	\$578,053	(\$145,708)	(\$2,520,323)
Rate Stabilization Reserve	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Beginning Balance	\$0	\$0	\$0	\$0	\$0
Direct transfers to/(from) Rate Stabilization Reserve	\$0	\$0	\$0	\$0	\$0
Ending Balance	\$0	\$0	\$0	\$0	\$0
Emergency Reserve	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Beginning Balance	\$0	\$0	\$0	\$0	\$0
Direct transfers to/(from) Emergency Reserve	\$0	\$0	\$0	\$0	\$0
Ending Balance	\$0	\$0	\$0	\$0	\$0
Summary Information	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Beginning Balance	\$6,024,878	\$4,887,673	\$3,166,554	\$2,481,285	\$1,844,319
Ending Balance	\$4,887,673	\$3,166,554	\$2,481,285	\$1,844,319	(\$437,912)

La Habra Heights County Water District – *Water Cost-of Service Rate Study*

Figure 5: Current Operating Financial Position

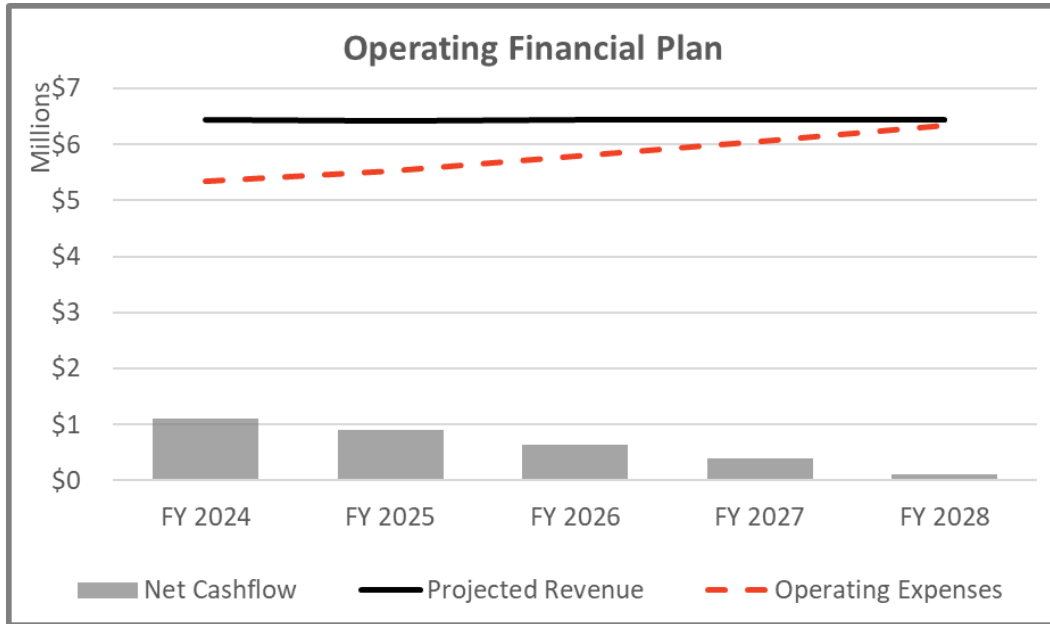
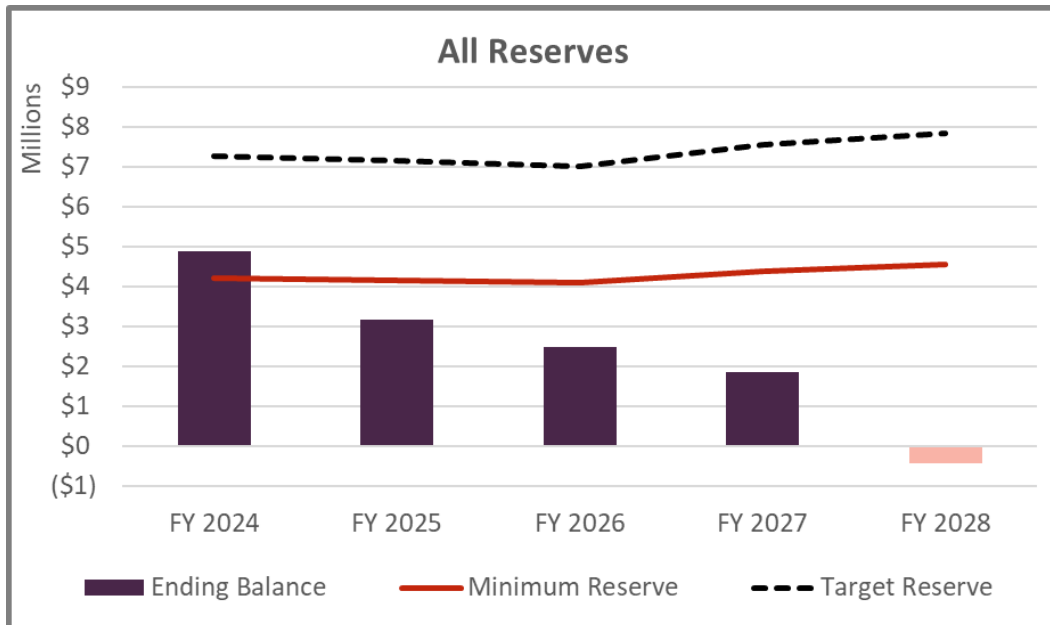


Figure 6: Projected Ending Reserves at Existing Rates



Proposed Financial Plan

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 satisfying reserve requirements. Based on funding the capital plan over the Rate Setting Period and ensuring reserves meet minimum targets, Table 14 forecasts projected revenues and expenses over the Rate Setting Period.

La Habra Heights County Water District – Water Cost-of Service Rate Study

Table 14: Proposed Financial Plan – Revenues and Expenses Through FY 2028

Revenue		FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Rate Revenues						
Readiness-to-Serve Charge	Table 9	\$2,244,000	\$2,244,000	\$2,244,000	\$2,244,000	\$2,244,000
Variable Revenues		\$3,081,000	\$3,081,000	\$3,081,000	\$3,081,000	\$3,081,000
Total Rate Revenues		\$5,325,000	\$5,325,000	\$5,325,000	\$5,325,000	\$5,325,000
	Fiscal Year					
	Revenue Adjustment					
	FY 2024	6.5%	\$346,000	\$346,000	\$346,000	\$346,000
	FY 2025	6.5%		\$368,000	\$368,000	\$368,000
	FY 2026	6.5%			\$392,000	\$392,000
	FY 2027	6.5%			\$418,000	\$418,000
	FY 2028	6.5%				\$445,000
Total Additional Revenue		\$346,000	\$714,000	\$1,106,000	\$1,524,000	\$1,969,000
Projected Rate Revenues		\$5,671,000	\$6,039,000	\$6,431,000	\$6,849,000	\$7,294,000
Operating Revenues						
Flow Restriction	Table 9	\$28,000	\$28,000	\$28,000	\$28,000	\$28,000
Water Lease		\$29,000	\$29,000	\$29,000	\$29,000	\$29,000
Subtotal Operating Revenues		\$57,000	\$57,000	\$57,000	\$57,000	\$57,000
Non-Operating Revenues						
Interest Income		\$34,000	\$20,000	\$24,000	\$25,000	\$26,000
Property Tax income		\$892,371	\$892,371	\$892,371	\$892,371	\$892,371
Rent Income	Table 9	\$120,458	\$120,458	\$120,458	\$120,458	\$120,458
Oil Royalties		\$10,589	\$10,589	\$10,589	\$10,589	\$10,589
Miscellaneous Income		\$5,664	\$5,664	\$5,664	\$5,664	\$5,664
Subtotal Non-Operating Revenues		\$1,063,082	\$1,049,082	\$1,053,082	\$1,054,082	\$1,055,082
Total Revenues		\$6,791,082	\$7,145,082	\$7,541,082	\$7,960,082	\$8,406,082
O&M Expenses		FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Specific Expenses						
Water Supply	Table 10	\$1,457,000	\$1,530,000	\$1,606,000	\$1,686,000	\$1,771,000
Pumping - Upper Zone		\$183,000	\$192,000	\$201,000	\$211,000	\$222,000
Subtotal Specific Expenses		\$1,640,000	\$1,722,000	\$1,807,000	\$1,897,000	\$1,993,000
Operating Expenses						
Other Expenses		\$80,000	\$82,000	\$85,000	\$87,000	\$90,000
Pumping		\$930,000	\$975,000	\$1,024,000	\$1,074,000	\$1,127,000
Treatment/General Plant		\$126,000	\$131,000	\$136,000	\$141,000	\$147,000
Transmission & Distribution		\$631,000	\$661,000	\$692,000	\$724,000	\$758,000
Customer Account	Table 10	\$180,000	\$186,000	\$193,000	\$200,000	\$208,000
Office Salaries & Expenses		\$1,037,000	\$1,083,000	\$1,131,000	\$1,181,000	\$1,233,000
Employee Benefits		\$629,000	\$653,000	\$679,000	\$705,000	\$733,000
Other Operating & Admin.		\$7,000	\$8,000	\$8,000	\$8,000	\$8,000
Non-Operating Expense		\$32,000	\$33,000	\$34,000	\$36,000	\$37,000
Subtotal Operating Expenses		\$3,652,000	\$3,812,000	\$3,982,000	\$4,156,000	\$4,341,000
Debt Service						
Existing Debt	Table 10	\$52,000	\$0	\$0	\$0	\$0
Subtotal Debt Service		\$52,000	\$0	\$0	\$0	\$0
Total Expenses		\$5,344,000	\$5,534,000	\$5,789,000	\$6,053,000	\$6,334,000
Net Cashflow		\$1,447,082	\$1,611,082	\$1,752,082	\$1,907,082	\$2,072,082

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Table 15: Projected Reserve Activity Through FY 2028

Direct Transfers	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Net Cashflow	\$1,447,082	\$1,611,082	\$1,752,082	\$1,907,082	\$2,072,082
Transfers (to)/from Rate Stabilization Reserve	(\$364,700)	\$0	\$0	\$0	\$0
Transfers (to)/from Emergency Reserve	(\$250,000)	\$0	\$0	\$0	\$0
Net Cashflow (after direct transfers)	\$832,382	\$1,611,082	\$1,752,082	\$1,907,082	\$2,072,082
Operating Fund	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Beginning Balance	\$1,672,767	\$1,756,932	\$1,819,397	\$1,903,233	\$1,990,027
Transfers (Net Cashflow (after direct transfers)	\$832,382	\$1,611,082	\$1,752,082	\$1,907,082	\$2,072,082
Transfers from/(to) Capital Reserve	(\$748,218)	(\$1,548,616)	(\$1,668,246)	(\$1,820,287)	(\$1,979,698)
Ending Balance	\$1,756,932	\$1,819,397	\$1,903,233	\$1,990,027	\$2,082,411
Capital Reserve	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Beginning Balance	\$4,352,111	\$2,860,698	\$1,794,997	\$2,147,932	\$2,979,682
Plus:					
Transfers from/(to) Operating Fund	\$748,218	\$1,548,616	\$1,668,246	\$1,820,287	\$1,979,698
Less:					
CIP	(\$2,275,515)	(\$2,637,480)	(\$1,334,928)	(\$1,014,048)	(\$2,378,313)
Subtotal Capital Reserve	\$2,824,814	\$1,771,835	\$2,128,316	\$2,954,171	\$2,581,067
Interest Earnings	\$35,885	\$23,163	\$19,617	\$25,511	\$27,804
Ending Balance	\$2,860,698	\$1,794,997	\$2,147,932	\$2,979,682	\$2,608,871
Rate Stabilization Reserve	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Beginning Balance	\$0	\$364,700	\$364,700	\$364,700	\$364,700
Direct transfers to/(from) Rate Stabilization Re	\$364,700	\$0	\$0	\$0	\$0
Ending Balance	\$364,700	\$364,700	\$364,700	\$364,700	\$364,700
Emergency Reserve	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Beginning Balance	\$0	\$250,000	\$250,000	\$250,000	\$250,000
Direct transfers to/(from) Emergency Reserve	\$250,000	\$0	\$0	\$0	\$0
Ending Balance	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000
Summary Information	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Beginning Balance	\$6,024,878	\$5,232,330	\$4,229,095	\$4,665,865	\$5,584,409
Ending Balance	\$5,232,330	\$4,229,095	\$4,665,865	\$5,584,409	\$5,305,982

La Habra Heights County Water District – *Water Cost-of Service Rate Study*

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: Proposed Operating Position

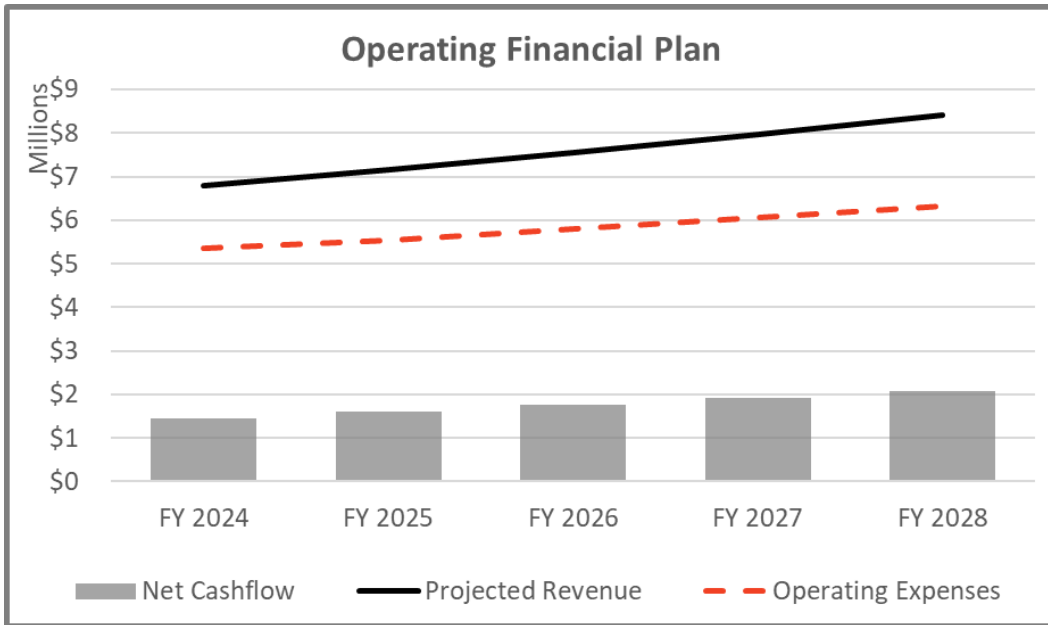
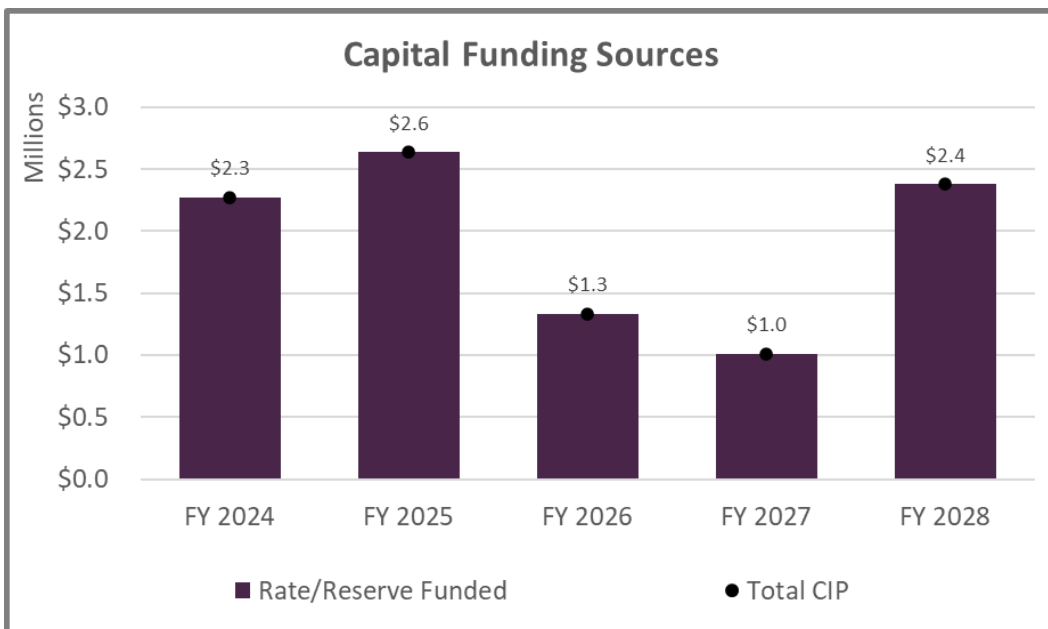
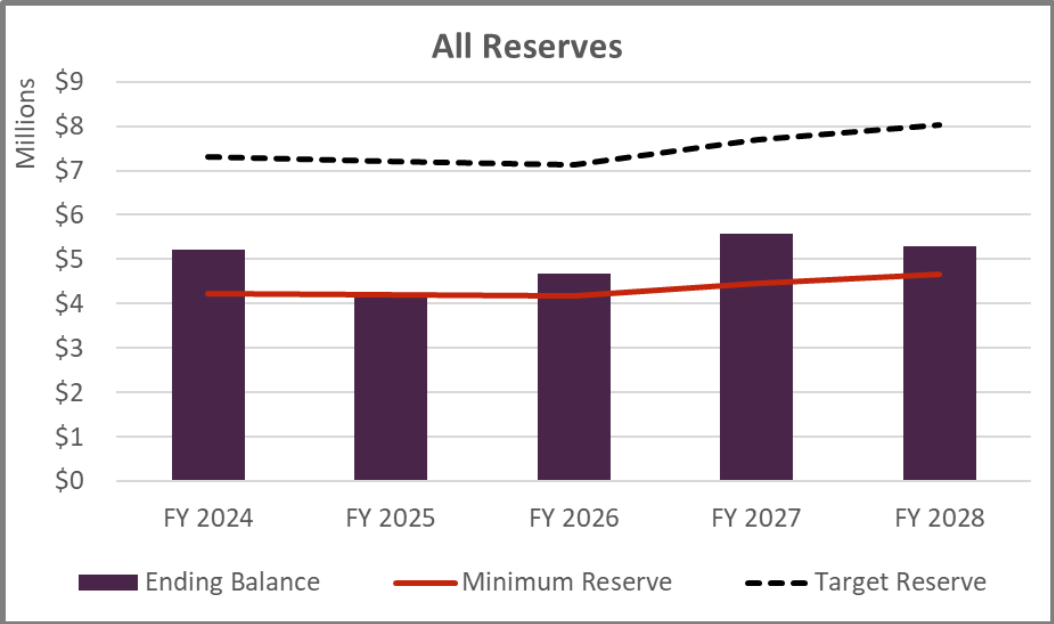


Figure 8: Capital Improvement Plan with Funding Sources



La Habra Heights County Water District – Water Cost-of-Service Rate Study

Figure 9: Projected Ending Reserve Balances



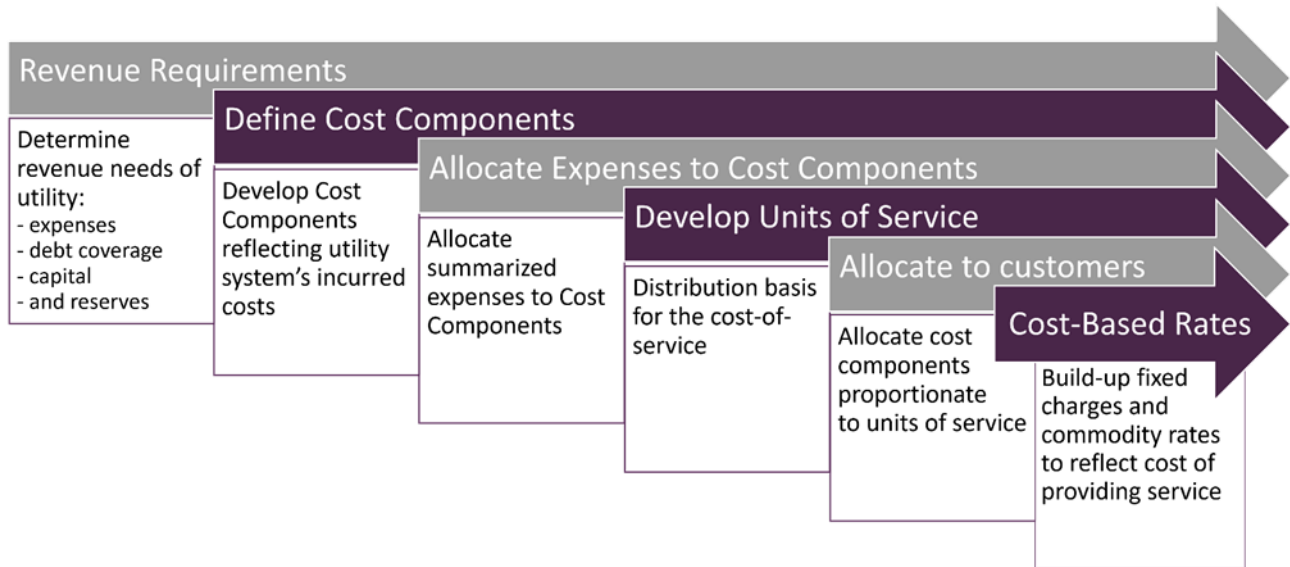
Cost of Service Analysis

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 and corresponding proposed water rates adhere 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 2024 as the first year of the proposed rate schedule, revenue requirements are determined for FY 2024 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 minimum reserve requirements. The results of the financial plan analysis are summarized in Table 16 and represent the revenue required from rates over the Rate Setting Period.

La Habra Heights County Water District – *Water Cost-of Service Rate Study*

Table 16: FY 2024 – FY 2028 Revenue Requirements

	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Revenue Requirements	Total	Total	Total	Total	Total
Specific Expenses					
Water Supply	\$1,457,000	\$1,530,000	\$1,606,000	\$1,686,000	\$1,771,000
Pumping - Upper Zone	\$183,000	\$192,000	\$201,000	\$211,000	\$222,000
Total Specific Expenses	\$1,640,000	\$1,722,000	\$1,807,000	\$1,897,000	\$1,993,000
Operating Expenses					
Other Expenses	\$80,000	\$82,000	\$85,000	\$87,000	\$90,000
Pumping	\$930,000	\$975,000	\$1,024,000	\$1,074,000	\$1,127,000
Treatment/General Plant	\$126,000	\$131,000	\$136,000	\$141,000	\$147,000
Transmission & Distribution	\$631,000	\$661,000	\$692,000	\$724,000	\$758,000
Customer Account	\$180,000	\$186,000	\$193,000	\$200,000	\$208,000
Office Salaries & Expenses	\$1,037,000	\$1,083,000	\$1,131,000	\$1,181,000	\$1,233,000
Employee Benefits	\$629,000	\$653,000	\$679,000	\$705,000	\$733,000
Other Operating & Admin.	\$7,000	\$8,000	\$8,000	\$8,000	\$8,000
Non-Operating Expense	\$32,000	\$33,000	\$34,000	\$36,000	\$37,000
Total Operating Expenses	\$3,652,000	\$3,812,000	\$3,982,000	\$4,156,000	\$4,341,000
Debt Service					
Existing Debt	\$52,000	\$0	\$0	\$0	\$0
Total Debt Service	\$52,000	\$0	\$0	\$0	\$0
Other Funding					
<i>Transfers</i>					
Transfers (to)/from Rate Stabilization Reserve	\$364,700	\$0	\$0	\$0	\$0
Transfers (to)/from Emergency Reserve	\$250,000	\$0	\$0	\$0	\$0
<i>Subtotal Transfers</i>	<i>\$614,700</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>
<i>Revenue Offsets</i>					
Operating Revenues					
Flow Restriction	(\$28,000)	(\$28,000)	(\$28,000)	(\$28,000)	(\$28,000)
Water Lease	(\$29,000)	(\$29,000)	(\$29,000)	(\$29,000)	(\$29,000)
Non-Operating Revenues					
Interest Income	(\$34,000)	(\$20,000)	(\$24,000)	(\$25,000)	(\$26,000)
Property Tax income	(\$892,371)	(\$892,371)	(\$892,371)	(\$892,371)	(\$892,371)
Rent Income	(\$120,458)	(\$120,458)	(\$120,458)	(\$120,458)	(\$120,458)
Oil Royalties	(\$10,589)	(\$10,589)	(\$10,589)	(\$10,589)	(\$10,589)
Miscellaneous Income	(\$5,664)	(\$5,664)	(\$5,664)	(\$5,664)	(\$5,664)
<i>Subtotal Revenue Offsets</i>	<i>(\$1,120,082)</i>	<i>(\$1,106,082)</i>	<i>(\$1,110,082)</i>	<i>(\$1,111,082)</i>	<i>(\$1,112,082)</i>
<i>Adjustments</i>					
Reserve Funding	\$832,382	\$1,611,082	\$1,752,082	\$1,907,082	\$2,072,082
Adjustment for Mid-Year Increase	\$0	\$0	\$0	\$0	\$0
<i>Subtotal Adjustments</i>	<i>\$832,382</i>	<i>\$1,611,082</i>	<i>\$1,752,082</i>	<i>\$1,907,082</i>	<i>\$2,072,082</i>
Total Other Funding	\$327,000	\$505,000	\$642,000	\$796,000	\$960,000
Revenue Requirement from Rates	\$5,671,000	\$6,039,000	\$6,431,000	\$6,849,000	\$7,294,000

La Habra Heights County Water District – *Water Cost-of Service Rate Study*

Define Cost Components

The utility incurs costs to accommodate total water demand that varies 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. The cost components shown in Figure 11 reflect the cost components used for this study.

Figure 11: Cost Components



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.

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.

Pumping – Upper Zone – Expenses incurred for booster pumps to move water to the Upper Zone.

Revenue Offset – Non-rate revenues (a portion of the Property tax) used to offset variable rates.

Allocate Expenses to Cost Components

The analysis herein establishes cost components for developing fixed charges and variable rates. When allocating expenses to the defined costs components, it is important identify which expenses were allocated to a fixed versus a variable or split between both fixed and variable. The distribution of expenses to the cost components should be straight-forward to ensure the method of apportionment is **understandable** and easily **correlates to how expenses are incurred**.

La Habra Heights County Water District – *Water Cost-of Service Rate Study*

Table 17 summarizes the percent allocation of Water Supply and Upper Zone Pumping revenue requirements to the cost components, and Table 18 uses the percent allocations in Table 17 to allocate expenses in dollars to each cost component. These expenses are referred to as Specific Expenses because the costs are allocated 100% to the respective cost component. Doing so ties the cost component specifically to the expense and they are not adjusted by revenue offsets or reserve funding.

Table 17: Specific Expense Allocation to Cost Components (%)

Specific Expenses	Methodology / Allocation Basis	Cost Components					Total
		Account Services	Meter Capacity	Delivery	Pumping - Upper Zone	Revenue Offset	
Water Supply	Specific	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%
Pumping - Upper Zone	Specific	0.0%	0.0%	0.0%	100.0%	0.0%	100.0%

Table 18: Specific Expense Allocation to Cost Components (\$)

Specific Expenses	Methodology / Allocation Basis	Cost Components					Total
		Account Services	Meter Capacity	Delivery	Pumping - Upper Zone	Revenue Offset	
Water Supply	Specific	\$0	\$0	\$1,457,000	\$0	\$0	\$1,457,000
Pumping - Upper Zone	Specific	\$0	\$0	\$0	\$183,000	\$0	\$183,000
Total Allocation (\$)		\$0	\$0	\$1,457,000	\$183,000	\$0	\$1,640,000

Table 19 summarizes the percent allocation of O&M revenue requirements to the cost components, and Table 20 uses the percent allocations in Table 17 to allocate expenses in dollars to each cost component. Transmission and Distributions expenses were allocated to both the Meter Capacity and Delivery cost components. The portion of cost associated with District staff was assigned to the fixed component of Meter Capacity ($\$253,692 / \$631,000 = 40.2\%$) and the remaining cost within the division was allocated to Delivery.

Table 19: O&M Expense Allocation to Cost Components (%)

Operating Expenses	Methodology / Allocation Basis	Cost Components					Total
		Account Services	Meter Capacity	Delivery	Pumping - Upper Zone	Revenue Offset	
Other Expenses	Specific	0.0%	100.0%	0.0%	0.0%	0.0%	100.0%
Pumping	Specific	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%
Treatment/General Plant	Specific	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%
Transmission & Distribution	Specific	0.0%	40.2%	59.8%	0.0%	0.0%	100.0%
Customer Account	Specific	0.0%	100.0%	0.0%	0.0%	0.0%	100.0%
Office Salaries & Expenses	Specific	0.0%	100.0%	0.0%	0.0%	0.0%	100.0%
Employee Benefits	Specific	0.0%	100.0%	0.0%	0.0%	0.0%	100.0%
Other Operating & Admin.	Specific	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Non-Operating Expense	Specific	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%

La Habra Heights County Water District – *Water Cost-of Service Rate Study*

Table 20: O&M Expense Allocation to Cost Components (\$)

Operating Expenses	Methodology / Allocation Basis	Cost Components					Total
		Account Services	Meter Capacity	Delivery	Pumping - Upper Zone	Revenue Offset	
Other Expenses	Specific	\$0	\$80,000	\$0	\$0	\$0	\$80,000
Pumping	Specific	\$0	\$0	\$930,000	\$0	\$0	\$930,000
Treatment/General Plant	Specific	\$0	\$0	\$126,000	\$0	\$0	\$126,000
Transmission & Distribution	Specific	\$0	\$253,692	\$377,308	\$0	\$0	\$631,000
Customer Account	Specific	\$0	\$180,000	\$0	\$0	\$0	\$180,000
Office Salaries & Expenses	Specific	\$0	\$1,037,000	\$0	\$0	\$0	\$1,037,000
Employee Benefits	Specific	\$0	\$629,000	\$0	\$0	\$0	\$629,000
Other Operating & Admin.	Specific	\$7,000	\$0	\$0	\$0	\$0	\$7,000
Non-Operating Expense	Specific	\$32,000	\$0	\$0	\$0	\$0	\$32,000
Total Allocation (\$)		\$39,000	\$2,179,692	\$1,433,308	\$0	\$0	\$3,652,000
O&M Allocation (%)		1.1%	59.7%	39.2%	0.0%	0.0%	100.0%

The District's debt was allocated to meter capacity because it is a fixed cost that must be paid. In subsequent years, when debt is retired, the amount may go directly to fund a portion of the capital expenses on a Pay-As-You-Go (PAYGO) basis. Table 21 identifies the percent allocation of the debt expense to the cost components, and Table 22 reflects the debt expense in dollars.

Table 21: Debt Allocation to Cost Components (%)

Debt Service	Methodology / Allocation Basis	Cost Components					Total
		Account Services	Meter Capacity	Delivery	Pumping - Upper Zone	Revenue Offset	
Existing Debt	Specific	0.0%	100.0%	0.0%	0.0%	0.0%	100.0%
New/Proposed Debt	Specific	0.0%	100.0%	0.0%	0.0%	0.0%	100.0%

Table 22: Debt Allocation to Cost Components (\$)

Debt Service	Methodology / Allocation Basis	Cost Components					Total
		Account Services	Meter Capacity	Delivery	Pumping - Upper Zone	Revenue Offset	
Existing Debt	Specific	\$0	\$52,000	\$0	\$0	\$0	\$52,000
New/Proposed Debt	Specific	\$0	\$0	\$0	\$0	\$0	\$0
Total Allocation (\$)		\$0	\$52,000	\$0	\$0	\$0	\$52,000

La Habra Heights County Water District – Water Cost-of Service Rate Study

Other Funding includes miscellaneous revenues and reserve funding. Most items under "Other Funding" are allocated based on O&M percentages derived in Table 20 to allocate each line item to the cost components proportionately. Property tax income is allocated to the Meter Capacity and Revenue Offset cost components. Property tax revenue was first allocated to the Meter Capacity cost component in order to adjust the fixed cost recovery to the current level of approximately 42% and the remainder was allocated to the Revenue Offset component. Table 23 summarizes the percent allocation to the cost components, and Table 24 uses the percent allocations in Table 23 to allocate expenses in dollars to each cost component. Table 25 summarizes the FY 2024 revenue requirement derived in Table 16 by cost component.

Table 23: Other Funding to Cost Components (%)

Other Funding	Methodology / Allocation Basis	Cost Components					Total
		Account Services	Meter Capacity	Delivery	Pumping - Upper Zone	Revenue Offset	
<i>Transfers</i>							
Transfers (to)/from Rate Stabilization Reserve	O&M Allocation	1.1%	59.7%	39.2%	0.0%	0.0%	100.0%
Transfers (to)/from Emergency Reserve	O&M Allocation	1.1%	59.7%	39.2%	0.0%	0.0%	100.0%
<i>Revenue Offsets</i>							
<i>Operating Revenues</i>							
Flow Restriction	O&M Allocation	1.1%	59.7%	39.2%	0.0%	0.0%	100.0%
Water Lease	O&M Allocation	1.1%	59.7%	39.2%	0.0%	0.0%	100.0%
<i>Non-Operating Revenues</i>							
Interest Income	O&M Allocation	1.1%	59.7%	39.2%	0.0%	0.0%	100.0%
Property Tax income	Specific	0.0%	65.0%	0.0%	0.0%	35.0%	100.0%
Rent Income	O&M Allocation	1.1%	59.7%	39.2%	0.0%	0.0%	100.0%
Oil Royalties	O&M Allocation	1.1%	59.7%	39.2%	0.0%	0.0%	100.0%
Miscellaneous Income	O&M Allocation	1.1%	59.7%	39.2%	0.0%	0.0%	100.0%
<i>Adjustments</i>							
Reserve Funding	O&M Allocation	1.1%	59.7%	39.2%	0.0%	0.0%	100.0%

Table 24: Other Funding Allocation to Cost Components (\$)

Other Funding	Methodology / Allocation Basis	Cost Components					Total
		Account Services	Meter Capacity	Delivery	Pumping - Upper Zone	Revenue Offset	
<i>Transfers</i>							
Transfers (to)/from Rate Stabilization Reserve	O&M Allocation	\$3,895	\$217,671	\$143,135	\$0	\$0	\$364,700
Transfers (to)/from Emergency Reserve	O&M Allocation	\$2,670	\$149,212	\$98,118	\$0	\$0	\$250,000
<i>Revenue Offsets</i>							
<i>Operating Revenues</i>							
Flow Restriction	O&M Allocation	(\$299)	(\$16,712)	(\$10,989)	\$0	\$0	(\$28,000)
Water Lease	O&M Allocation	(\$310)	(\$17,309)	(\$11,382)	\$0	\$0	(\$29,000)
<i>Non-Operating Revenues</i>							
Interest Income	O&M Allocation	(\$363)	(\$20,293)	(\$13,344)	\$0	\$0	(\$34,000)
Property Tax income	Specific	\$0	(\$580,041)	\$0	\$0	(\$312,330)	(\$892,371)
Rent Income	O&M Allocation	(\$1,286)	(\$71,895)	(\$47,276)	\$0	\$0	(\$120,458)
Oil Royalties	O&M Allocation	(\$113)	(\$6,320)	(\$4,156)	\$0	\$0	(\$10,589)
Miscellaneous Income	O&M Allocation	(\$60)	(\$3,381)	(\$2,223)	\$0	\$0	(\$5,664)
<i>Adjustments</i>							
Reserve Funding	O&M Allocation	\$8,889	\$496,806	\$326,687	\$0	\$0	\$832,382
Total Allocation (\$)		\$13,022	\$147,739	\$478,569	\$0	(\$312,330)	\$327,000

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Table 25: FY 2024 Cost-of-Service Requirements by Cost Component

Revenue Requirement	Account Services	Meter Capacity	Delivery	Pumping - Upper Zone	Revenue Offset	Total
Specific	\$0	\$0	\$1,457,000	\$183,000	\$0	\$1,640,000
Operating	\$39,000	\$2,179,692	\$1,433,308	\$0	\$0	\$3,652,000
Debt Service	\$0	\$52,000	\$0	\$0	\$0	\$52,000
Other Funding	\$13,022	\$147,739	\$478,569	\$0	(\$312,330)	\$327,000
COS Requirement	\$52,022	\$2,379,430	\$3,368,878	\$183,000	(\$312,330)	\$5,671,000

Rate Design

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 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 equitably distribute the cost components 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 and usage by zone. Each meter size receives an equivalency factor based on the flow characteristics of a 3/4" meter. Table 26 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 30 gallons per minute (gpm) (3/4") to determine the equivalent meter ratio. In other words, the calculations convert all larger sized meters to an equivalent number of 3/4" meters based on the 3/4" safe operating flow capacity of 30 gpm. The Capacity Ratios represent the potential flow through each meter size compared to the flow through a 3/4" meter to establish parity between meter sizes. 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. Table 26 summarizes the units of service related to total Accounts and MEs.

Table 26: Accounts and Meter Equivalents

Meter Size	AWWA Capacity (gpm)	Capacity Ratio	Number of Accounts	Meter Equivalents
	[A]	[B] = A ÷ 30	[C]	[D] = B x C
3/4"	30	1.00	201	201
1"	50	1.67	1,536	2,560
1 1/2"	100	3.33	190	633
2"	160	5.33	55	293
3"	350	11.67	7	82
4"	630	21.00	3	63
6"	1,300	43.33	2	87
Total			1,994	3,919
Annual Units			23,928	47,028

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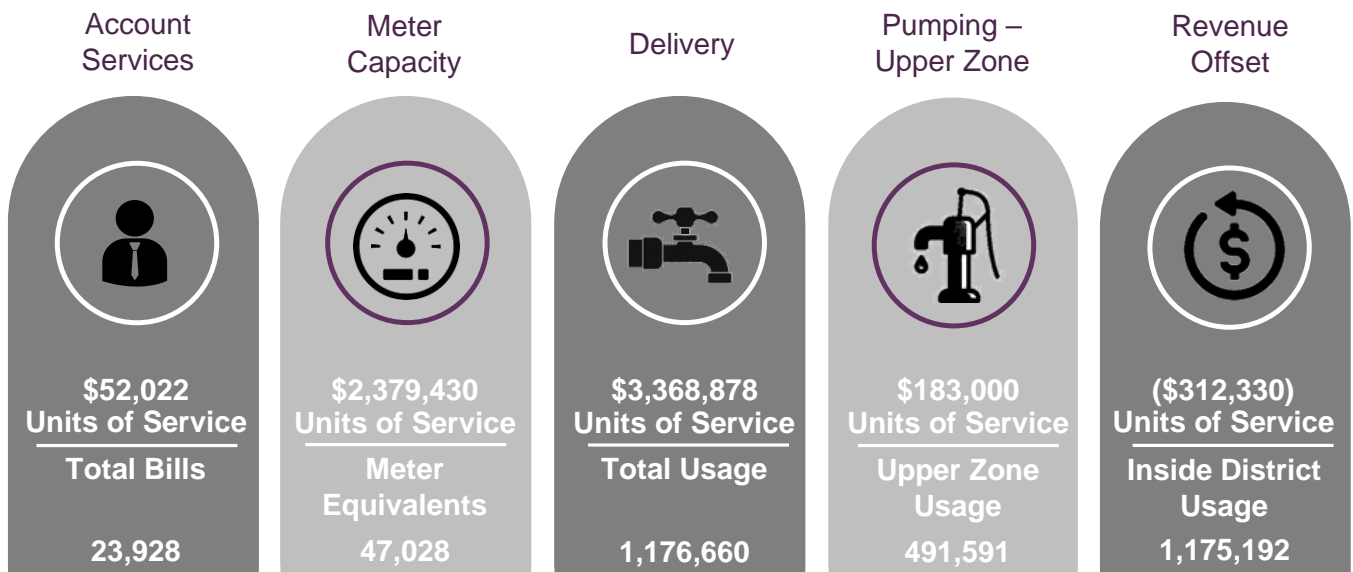
Total usage and usage by zone must be determined to derive the units of service for allocating variable costs. Table 27 provides the projected usage for FY 2024 from Table 6, broken out by zone.

Table 27: Projected Water Usage by Zone

Zone	All Usage (HCF)	Upper Zone Usage (HCF)	Lower Zone Usage (HCF)
Upper Zone	491,591	491,591	0
Lower Zone	683,601	0	683,601
Lower Zone - Outside District	1,468	0	1,468
Variable Units	1,176,660	491,591	685,069

With the units of service shown in Table 26 and Table 27, the distribution basis can be identified for each cost component. Figure 12 identifies the total revenue requirements by cost component from Table 25 and the corresponding units of service.

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



Using the FY 2024 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 except Revenue Offset, unit rates were rounded up to the nearest penny.

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Fixed Cost Recovery

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 28.

Table 28: FY 2024 Account Services Monthly Unit Rate

Account Services Component Unit Rate	
Revenue Requirement	\$52,022
÷ Total Bills	23,928
Monthly Unit Rate	\$2.18

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 29.

Table 29: FY 2024 Meter Capacity Monthly Unit Rate

Meter Capacity Component Unit Rate	
Revenue Requirement	\$2,379,430
÷ Total ME's	47,028
Monthly Unit Rate	\$50.60

Variable Cost Recovery

The remaining cost components of Delivery, Pumping – Upper Zone, and Revenue Offset are recovered through the variable rates. The proposed rate structure consists of uniform rates for Upper Zone, Lower Zone, and Lower Zone – Outside District customers.

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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 27 to determine the unit cost-of-service, irrespective of tier, as shown in Table 30.

Table 30: FY 2024 Delivery Cost Unit Rate per CCF

Delivery Component Unit Rate	
Revenue Requirement	\$3,368,878
÷ All Usage	1,176,660
Monthly Unit Rate	\$2.87

Pumping – Upper Zone

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 two elevation zones (Upper and Lower), with the Lower Zone as the base ground level. Pumping costs for the Lower Zone are included in the Delivery rate shown above. Pumping costs for the Upper Zone are based on the electrical costs and amount of usage in this zone. Table 31 provides the pumping charge for the Upper Zone.

Table 31: FY 2024 Upper Zone Cost Unit Rate per CCF

Pumping - Upper Zone Component Unit Rate	
Revenue Requirement	\$183,000
÷ Upper Zone Usage	491,591
Monthly Unit Rate	\$0.38

Revenue Offset

The District has other revenues available, other than rates, such as property tax income that may be used to mitigate rates. 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 Upper Zone and Lower Zone variable rates, but not Lower Zone – Outside District. Lower Zone – Outside District customers do not contribute to the property tax revenue and, therefore, the remaining portion of the Property Tax revenue that was not used to offset fixed charges are only applied to inside District customers and not shared with the six Lower Zone – Outside District customers. Table 32 summarizes the determination of the unit rate for the Revenue Offset Component.

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Table 32: FY 2024 Revenue Offset to Variable Rates

Zone	All Usage [A]	Factor [B]	Weighted Usage [C] = A x B	% Allocation [D] = C as %	Revenue Requirement [E] = (\$312,330) x D	Unit Rate [F] = E ÷ A
Upper Zone	491,591	1.00	491,591	41.8%	(\$130,650)	(\$0.27)
Lower Zone	683,601	1.00	683,601	58.2%	(\$181,680)	(\$0.27)
Lower Zone - Outside District	1,468	0.00	0	0.0%	\$0	\$0.00
Total	1,176,660		1,175,192	100.0%	(\$312,330)	

FY 2024 Cost-of-Service Rates

Proposed FY 2024 Monthly Fixed Charges

Table 33 reflects the combined charges of the District's fixed charge of Account Services and Meter Capacity. Account Services are constant for all meter sizes. Meter Capacity is multiplied by the corresponding Capacity Ratios of each meter size to derive the District's FY 2024 fixed charges.

Table 33: FY 2024 Monthly Fixed Charges by Meter Size

Meter Size	Capacity Ratio	Account Services	Meter Capacity	FY 2024 Proposed Fixed Charge
	[A]	[B]	[C] = \$50.60 x A	[D] = B + C
3/4"	1.00	\$2.18	\$50.60	\$52.78
1"	1.67	\$2.18	\$84.33	\$86.51
1 1/2"	3.33	\$2.18	\$168.67	\$170.85
2"	5.33	\$2.18	\$269.87	\$272.05
3"	11.67	\$2.18	\$590.33	\$592.51
4"	21.00	\$2.18	\$1,062.60	\$1,064.78
6"	43.33	\$2.18	\$2,192.67	\$2,194.85

Proposed FY 2024 Variable Rates

The proposed variable rates for FY 2024 are shown in Table 34 for each Zone, reflecting the combined rate components of Delivery, Pumping – Upper Zone, and Revenue Offset.

Table 34: FY 2024 Variable Rates by Customer Class and Tier

Zone	Projected Usage (HCF)	Delivery [A]	Pumping - Upper Zone [B]	Revenue Offset [C]	FY 2024 Proposed Variable Rate [D] = A + B + C
Upper Zone	491,591	\$2.87	\$0.38	(\$0.27)	\$2.98
Lower Zone	683,601	\$2.87	\$0.00	(\$0.27)	\$2.60
Lower Zone - Outside District	1,468	\$2.87	\$0.00	\$0.00	\$2.87

Cost-Based Rates

Cost-of-Service and Proposed Rate Schedules

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 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, 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 utility is set up as a business enterprise to track revenues and expenses and does not fund other services outside of those necessary for the provision of water to property.

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 water costs. 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 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 the May 16th, 2023, Public Hearing.

The proposed water rate schedules for FY 2024 through FY 2028 are shown in the following section. If a majority protest does not exist at the May 16th Public Hearing, the District Board may adopt the rates with an effective date of July 1, 2023, for the first rate adjustment, and each July 1 thereafter through July 1, 2027.

Multi-Year Rate Schedules

Table 35 provides the five-year fixed charge schedule through FY 2028. Table 36 provides the five-year variable rate schedule through FY 2028. For FY 2025 through FY 2028, the revenue adjustments are applied across-the-board to the cost-of-service rates derived for FY 2024 (rounded up to the next whole penny) as account growth and usage characteristics are projected to remain constant for financial planning.

Table 35: Proposed Monthly Fixed Charges (FY 2024 – FY 2028)

Revenue Adjustments		6.5%	6.5%	6.5%	6.5%
Fixed Meter Charges (\$/Month)					
Meter Size	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
3/4"	\$52.78	\$56.22	\$59.88	\$63.78	\$67.93
1"	\$86.51	\$92.14	\$98.13	\$104.51	\$111.31
1 1/2"	\$170.85	\$181.96	\$193.79	\$206.39	\$219.81
2"	\$272.05	\$289.73	\$308.57	\$328.63	\$350.00
3"	\$592.51	\$631.03	\$672.05	\$715.74	\$762.27
4"	\$1,064.78	\$1,134.00	\$1,207.71	\$1,286.22	\$1,369.83
6"	\$2,194.85	\$2,337.52	\$2,489.46	\$2,651.28	\$2,823.62

Table 36: Proposed Variable Rates by Customer Class and Tier (FY 2024 – FY 2028)

Revenue Adjustments		6.5%	6.5%	6.5%	6.5%
Variable Rates (\$/HCF)					
Zone	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Upper Zone	\$2.98	\$3.18	\$3.39	\$3.62	\$3.86
Lower Zone	\$2.60	\$2.78	\$2.97	\$3.17	\$3.38
Lower Zone - Outside District	\$2.87	\$3.06	\$3.26	\$3.48	\$3.71