

2023 WATER RATE STUDY

EXECUTIVE SUMMARY

Public water utilities in California typically perform a cost of service analysis every five years to ensure that customers are appropriately charged for water service commensurate with the cost to provide service. The District's last cost of service study established proposed water rates over a five-year period for fiscal year (FY) 2015/16 through FY 2020/21. No rate increases have been implemented since the last year of adopted rates went into effect in FY 2020/21. The District retained Reve Environmental in late 2019 to conduct a comprehensive cost of service and rate design study for its potable water service. Due to the impacts of the COVID-19 pandemic, the District decided to delay its planned implementation of updated water rates.

- The major objectives of the Study are to:
- Develop a proposed five-year financial plan for the District's Water Fund that sufficiently funds operating and capital expenses, maintains adequate reserves, and meets debt coverage requirements
- Perform a cost of service analysis for potable water service
- Develop a five-year schedule of potable water rates that meet Proposition 218 requirements
- Develop drought rates to be implemented during declared water shortage stages as defined by the District's Water Supply Shortage Contingency Plan
- Draft a report that demonstrates the nexus between the District's costs and proposed rates to meet the requirements of Proposition 218

1. RATE STUDY PROCESS

This study and analysis were guided by industry standard principles discussed in the American Water Works Association's Manual M1, although the proposed financial plan and rates are based on the District's particular circumstances and unique requirements under California law. The overall rate study process is outlined below:

- Financial Plan Analysis: Develop cash flow projections for the District's Water Fund to determine the annual amount of revenue required from water rates over the next five fiscal years (FY 2022/23-FY 2026/27).
- Cost of Service Analysis: Allocate costs to system components and then to various customer classes based on user characteristics.
- Rate Design: Develop rates that generate sufficient revenues based on the results of the financial plan and cost of service analyses.
- Report Preparation: Develop a report to document the results of the rate study.
- Rate Adoption: Proposed rates may be adopted by the District's Board of Directors only after holding a public hearing in accordance with Proposition 218 requirements.

2. FINANCIAL PLAN

Reve worked closely with District staff to develop assumptions necessary to project cash flow, reserve balance, and debt coverage for the Water Fund through FY 2026. This included the projection of revenues, O&M expenses, debt service, and funding of the Capital Rehabilitation and Replacement (CRR)

fund over the study period. AWWA recommends that approximately 3% of the total water system value is set aside each year for replacement. Table 1 below shows recommended funding alternatives.

Table 1: Estimated Annual CRR Funding

Beginning Reserve Fund balances and recommended Reserve Targets Requirements	Budget	Projected				
	FY2021/22	FY2022/23	FY2023/24	FY 2024/25	FY 2025/26	FY 2026/27
Operating Reserve ¹						
Ending Balance	\$ -	\$ 5,000	\$ 10,150	\$ 15,455	\$ 20,918	\$ 26,546
Recommended Minimum Target	\$ 48,437	\$ 50,126	\$ 51,884	\$ 53,440	\$ 55,044	\$ 56,695
Capital Rehabilitation & Replacement Reserve ²						
Ending Balance ²	\$ -	\$ 11,072	\$ 23,252	\$ 25,577	\$ 28,134	\$ 30,948
Recommended Alternative Target	\$ 25,000	\$ 50,750	\$ 77,273	\$ 104,591	\$ 132,728	\$ 161,710
AWWA Recommended Minimum Target -150,000/yr						
Debt Reserve						
Ending Balance	N/A	N/A	N/A	N/A	N/A	N/A
Recommended Minimum Target	N/A	N/A	N/A	N/A	N/A	N/A
Total Ending Balance	\$ -	\$ 16,072	\$ 49,474	\$ 90,505	\$ 139,558	\$ 197,051
Total Alternative Minimum Target	\$ 100,876		\$ 129,156	\$ 158,031	\$ 187,772	\$ 218,405
Structural Deficit (Recommended Alternative Target)	(\$100,876)	(\$84,804)	(\$79,683)	(\$67,526)	(\$48,214)	(\$21,354)

through FY 2026/27. It is evident that the proposed funding is far below AWWA recommendations, which is due to the District’s strained finances. The District’s CRR fund is here assumed to be cash funded by water rates and that no new debt will be issued to finance improvement projects through FY 2026/27.

Reve first conducted a “status quo” cash flow analysis to evaluate whether existing water rates currently in effect are adequate to fund the Water Fund’s expenses and maintain sufficient reserves through FY 2026/27.

Table 2. District Budget 2022/23

Summary of Sources and Uses of Funds and Net Revenue Requirements	Budget
	FY2021/22
Sources of Water Funds	
Rate Revenue Under Prevailing Rates	\$35,750
Non-Rate Revenues Under Prevailing Rates	\$83,856
Property Tax Redistribution	\$49,721
Other Non-Operating Revenue	\$17,516
Total Sources of Funds	\$186,843
Uses of Water Funds	
Operating and Maintenance Expenses	185,283
Existing Debt Service	\$0
General and Administrative Expenses	\$ 12,352
New O&M	\$0
Rate-Funded Replacement Reserves	\$0
Total Use of Funds	197,635
Additional Revenue from Rate Increases	-
Surplus (Deficiency) after Rate Increase	(\$10,792)

The budget analysis for 2022/23 FY clearly demonstrates that revenue adjustments (i.e., increases in water rate revenues relative to the status quo) are necessary over the next five years to adequately fund ongoing operations and maintenance and maintain sufficient reserve levels. After close consideration of multiple options, it is proposed that: 1) An ascending Block Rate structure is implemented to replace the

current Uniform Rate Structure, and 2) proceed with proposed revenue adjustments over the 5-year period.

3. CURRENT WATER RATE STRUCTURE

The District’s current water rate structure consists of the following rates and charges:

- Monthly Service Charge: Monthly fixed charge paid by all customers; varies based on water meter size.
- Volumetric Rates:
 - Volumetric rates are charged per hundred cubic feet (HCF) or 748 gallons of water delivered per billing period. All customers, excluding Non-Potable water, are subject to a uniform water rate structure. Customers are subject to a uniform water rate of \$6.64 per HCF
 - Volumetric Rates for Non-Potable water users are subject to a uniform commodity rate of \$4.98.

4. PROPOSED CHANGES TO WATER RATE STRUCTURE

Reve worked closely with District staff to evaluate the need for revisions to the District’s current water rate structure. After careful consideration, an ascending Block Rate structure is proposed to replace the current Uniform Rate structure. The rationale for the proposed rate structure is to discourage excessive water usage and to use those funds generated from high-end water consumption to help finance the construction of needed additional water supply sources including a new well and associated water treatment facilities.

4.1 Ascending Block Definition

Table shows the proposed monthly block allotments by meter size. The current Block 1 allotment was designed to provide for basic indoor water needs; Block 2 was designed to provide sufficient water for limited landscaping/animal water needs; Tier 3 was designed to represent high water use, and Tier 4 was designed to apply to the top 1-2% percent of residential water use.

Table 3. Proposed Monthly Water Allotment in HCF per Block and by Meter Size

Meter Size	Block 1 (hcf)	Block 2 (hcf)	Block 3 (hcf)	Block 4 (hcf)
5/8" X 3/4"	0-12	13-24	25-36	> 36
3/4"	0-12	13-24	25-36	> 36
1"	0-12	13-24	25-36	> 36

4.2 PROPOSED WATER RATES

Reve developed a proposed five-year schedule of water rates based the proposed revenue adjustments from the financial plan analysis as well as the updated cost of service analysis. Proposed rates and charges are shown Table 4 and 4. All proposed FY 2022/23 rates are calculated based on the results of the cost of service analysis. Proposed Meter Service Charge (Table 4) and Commodity Rates (Table 5) beyond FY 2022/23 are calculated by increasing the prior year rate by 20%, 7.5% and 4% for the subsequent four years. (i.e., the proposed annual revenue adjustment).

Table 4. Proposed Five-Year Schedule of Monthly Meter Service Charges

Meter Size	Current	FY 2022/23 (Apr. 2023)	FY 2023/24 (Jul. 2023)	FY 2024/25 (Jan. 2024)	FY 2025/26 (Jan. 2025)	FY 2026/27 (Jul. 2026)
5/8" X 3/4"	\$103.36	\$134.37	\$147.80	\$162.59	\$178.84	\$202.63
3/4"	\$103.36	\$134.37	\$147.80	\$162.59	\$178.84	\$202.63
1"	\$139.76	\$181.69	\$1999.86	\$219.84	\$241.83	\$273.99

Table 5. Proposed Five-Year Schedule of Water Rates

Water Rate Schedule	Current Rates ¹	Proposed Rates				
		FY2023/24	FY2024/25	FY 2025/26	FY 2026/27	FY 2027/28
<i>Projected Increase in Rate Revenue per Financial Plan:</i>		30.00%	10.00%	10.00%	10.00%	10.00%
Block 1: 0-12	\$ 6.64	\$ 8.63	\$ 9.50	\$ 10.44	\$ 11.49	\$ 12.64
Block 2: 12-24	\$ 6.64	\$ 10.36	\$ 11.39	\$ 12.53	\$ 13.79	\$ 15.17
Block 3: 24-36	\$ 6.64	\$ 15.54	\$ 17.09	\$ 18.80	\$ 20.68	\$ 22.75
Block 4: All usage above 36	\$ 6.64	\$ 34.53	\$ 37.98	\$ 41.78	\$ 45.96	\$ 50.55

4.3 CUSTOMER BILL IMPACTS

Table 6 shows sample monthly water bills for single family residential customers with a 5/8" X 3/4" or 3/4" water meter at varying levels of water use under both current rates and proposed FY 2022/23 rates and beyond. The water use data is based on actual FY 2021/22 billing data that comprises over 650 monthly bills:

Table 6. Estimated Sample Water Bills for Residential Customers

Monthly Water Consumption (HCF)	Number of Monthly Bills per Bin	Current Rates	New Rates, Meter Size 5/8" X 3/4" and 3/4"				
			FY2023/24	FY2024/25	FY 2025/26	FY 2026/27	FY 2027/28
2	21%	\$116.64	\$151.63	\$166.80	\$183.47	\$201.82	\$227.91
4	20%	\$129.92	\$168.90	\$185.79	\$204.36	\$224.80	\$253.18
6	21%	\$143.20	\$186.16	\$204.78	\$225.25	\$247.78	\$278.46
8	11%	\$156.48	\$203.42	\$223.77	\$246.14	\$270.76	\$303.73
10	9%	\$169.76	\$220.69	\$242.76	\$267.03	\$293.74	\$329.01
12	6%	\$183.04	\$237.95	\$261.75	\$287.92	\$316.71	\$354.29

Approximately 41% of all monthly bills over one year show usage of 4 HCF or less and 85% of all monthly bills show usage of 8 HCF per month or less. This illustrates that overall water use in the District is quite modest and that water conservation efforts by customers are successful.

Different customers will experience differential bill increases in FY 2022/23 due to the impacts of the updated cost of service and required funding for new water supply facilities. Specifically, water users whose demand exceeds 24 HCF per month will be most impacted. However, customers that use more than 36 HCF per month will be severely impacted – this because historical data indicate excess water use during the warm season when groundwater supply is the most uncertain and thus triggers a more urgent need for additional water supply.