Approved by the Board of Directors
October 11, 2023

Cost-of-Service Water Rate Study

Phelan Piñon Hills

Community Services District

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Executive Summary

The Phelan Piñon Hills Community Services District (CSD) periodically reviews its water utility to determine if adjustments are required to continue meeting its operational costs, system improvements, and adequate reserve funding based on the adopted reserve policies. The CSD must collect sufficient revenues from its customers to pay the costs to (1) prudently operate and maintain the water utility; (2) build, renew, replace, and upgrade its infrastructure, which includes pipelines, chromium 6 mitigation, reservoirs, pumps, and administration buildings and related facilities; and (3) ensure a prudent reserve of funds.

The CSD collects revenues primarily through user fees (rates and charges) that are designed to ensure that each customer pays their fair share of their total use of the water system. This Cost-of-Service Study is intended to (1) establish the total projected cost over a five-year period (the financial plan); (2) allocate those costs among customers in a way that ensures that each customer pays its fair share of those costs in compliance with California Constitution Article XIII D, section 6, also known as Proposition 218 (the rate structure).

The CSD's most recent 5-year rate schedule was adopted in December 2021. Due to increases in capital expenses and the recent hyper-inflationary climate, the CSD determined that the financial plan needed to be updated to reflect increased costs, and that rate increases would be needed to replace the current noticed rates for Fiscal Year 2023-24 (FY 2024) through FY 2026. The CSD selected IB Consulting to conduct a comprehensive cost-of-service analysis to establish water rates for the CSD's for the 5-year period from FY 2024 through FY 2028 (Rate Setting Period). That analysis is set forth below.

The CSD's groundwater is within two separate adjudicated areas known as the Mojave Basin Area (MBA) and the Antelope Valley Adjudicated Area (AVAA). The CSD has 17 wells, with one of them located within the AVAA (Well 14). Through the MBA, the CSD has limits on groundwater production, which are set on an annual basis by the Mojave Water Agency (MWA) as Watermaster of the MBA. The amount of groundwater production allowed by the CSD is known as their Free Production Allowance (FPA). The Mojave Water Agency has been ramping down the FPA over the past several years to ensure the sustainability of the MBA. For FY 2024, the CSD's FPA is set to 50% of its base water rights production (FY 2024 FPA = 2,518 AF) and will continue to reduce each year. By FY 2028, the CSD's FPA will decrease to 1,582 AF.

The CSD's current water demand is approximately 2,588 AF, which is greater than the current amount of its FPA. As the FPA continues to ramp down, the CSD will need to lease increasing amounts of replacement water from the MWA, incurring higher purchased water costs each year. The cost-of-service analysis accounts for the FPA reductions and the proposed rates have been restructured to a two-tiered rate structure. The two-tiered rate structure reflects the CSD's FPA reductions each year, with the Tier 1 allotment based on available groundwater and Tier 2 recovering increases in leased water. However, for FY 2024 and FY 2025, the CSD has available carryover groundwater production rights from previous years to cover its customer's total water demand and not incur replacement water. All customers will have a two-tiered variable rate structure. Each customer class will receive a proportionate share of groundwater supply in Tier 1 and Tier 2 will capture any water usage above Tier 1.

The last cost-of-service study was completed in 2021, setting rates for FY 2022 through FY 2026 (2021 Report). The 2021 Report identified a 4% revenue adjustment effective on January 1, 2022, followed by 6% revenue adjustments for FY 2023 through FY 2026, effective each July 1. The new proposed rates require a 16% revenue adjustment for the remainder of FY 2024, commencing on November 1, 2023, followed by 16% revenue adjustments for FY 2025 through FY 2028.

The proposed rates derived within this report include five years of rate adjustments, commencing on November 1, 2023, for FY 2024, followed by rate adjustments each July 1st for FY 2025 through FY 2028. With the proposed rates, the utility will generate adequate funding above operating expenses to fully fund its capital projects while building reserves up to meet the minimum reserve targets[1]. The Chromium 6 surcharge will remain at $9.71 per account, is in addition to the Monthly Fixed charges shown below and is forecasted to remain constant over the next five years. The recommended rates were incorporated into a Proposition 218 Notice and mailed to each customer. A Public Hearing is scheduled for October 11, 2023, on the proposed rates identified in Table 1 and Table 2.

Table 1: Proposed FY 2024 – FY 2028 Monthly Fixed Charges

Fixed Charges ($/Month)					
Meter Size	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**	**FY 2028**
≤3/4"	$31.02	$35.76	$39.75	$45.88	$53.13
1"	$46.70	$53.61	$59.41	$68.36	$78.95
1 1/2"	$85.90	$98.22	$108.56	$124.56	$143.50
2"	$132.94	$151.76	$167.54	$192.00	$220.96
3"	$281.90	$321.31	$354.31	$405.56	$466.25
4"	$501.42	$571.16	$629.55	$720.28	$827.73
6"	$1,026.70	$1,169.02	$1,288.16	$1,473.36	$1,692.70
8"	$2,202.70	$2,507.52	$2,762.66	$3,159.36	$3,629.20

Table 2: Proposed FY 2024 – FY 2028 Variable Charges

Variable Rates ($/HCF)					
Customer Class	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**	**FY 2028**
All Customers					
Tier 1	$3.46	$4.04	$4.55	$5.20	$5.96
Tier 2	$4.25	$4.97	$6.27	$7.28	$8.36

[1] The Proposed financial plan assumes water usage does not fall below 2,200 Acre Feet of demand and future expenses do not exceed the projected costs identified herein.

Overview

CSD Background

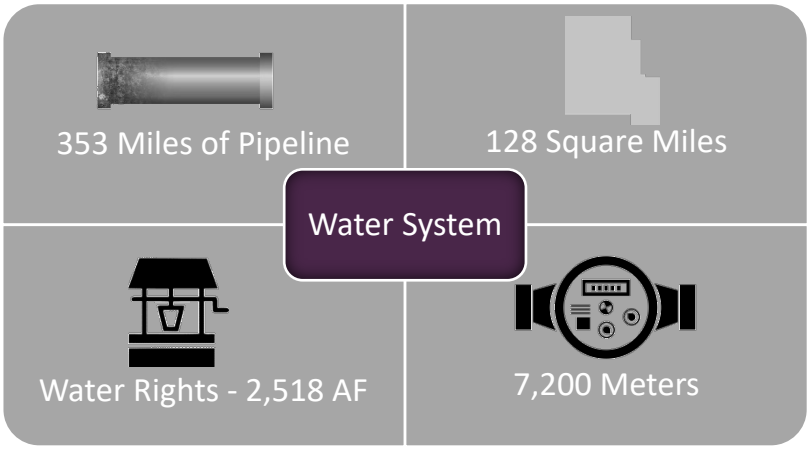
The CSD was formed in 2008 and the service area spans approximately 128 square miles in San Bernardino County. Since its inception, the CSD has made significant improvements to the water system, including:

- Addressing necessary repair and replacements
- Acquiring additional water rights
- Implementing a meter replacement program
- Addressing new regulations by the State for Chromium 6 detection to ensure safe, high-quality water is delivered now and in the future.

Water System

The water system includes 353 miles of pipeline that ranges in diameter from 4 inches to 16 inches. Customers are primarily served with groundwater from the local aquifer through wells within the MBA and AVAA. Groundwater is treated locally with chlorine before being discharged into the distribution system. In 2008, additional water rights were acquired through the purchase of Meadowbrook Dairy. The acquisition increased the annual rights within the MBA to approximately 5,000 Acre Feet (AF), but with production ramp downs by MWA, the CSD's FPA for FY 2024 is 2,518 AF and will reduce to 1,582 AF by FY 2028.

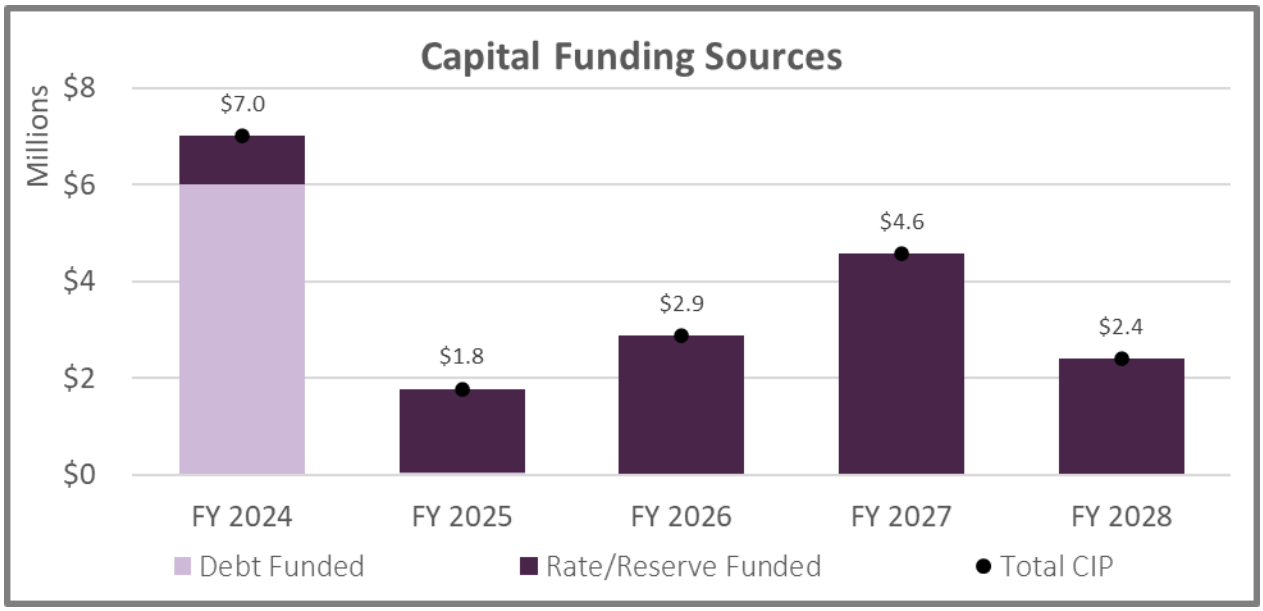
Figure 1: Phelan Pinon Hills CSD Water System



The CSD's water system net capital assets, based on its audited 2022 Audited Financial Statement, is approximately $38.1M with an annual depreciation of $1.8M. The CSD developed a detailed Capital Improvement Plan (CIP) through FY 2028 that continues a contribution to system reinvestment that outpaces the annual deprecation of capital assets and totals approximately $18.6M over the Rate Setting Period. The CIP major improvements include Chromium 6 mitigation ($3.4M), reservoirs ($2.8M), and the water utility's share of the administrative building ($6.5M), which has been debt financed over 20 years. With these significant improvements and ongoing repair and replacements to the water system, average capital spending

is approximately $3.7M per year through FY 2028. Figure 2 shows the CSD's capital plan with current funding sources.

Figure 2: Capital Improvement Plan



Customers

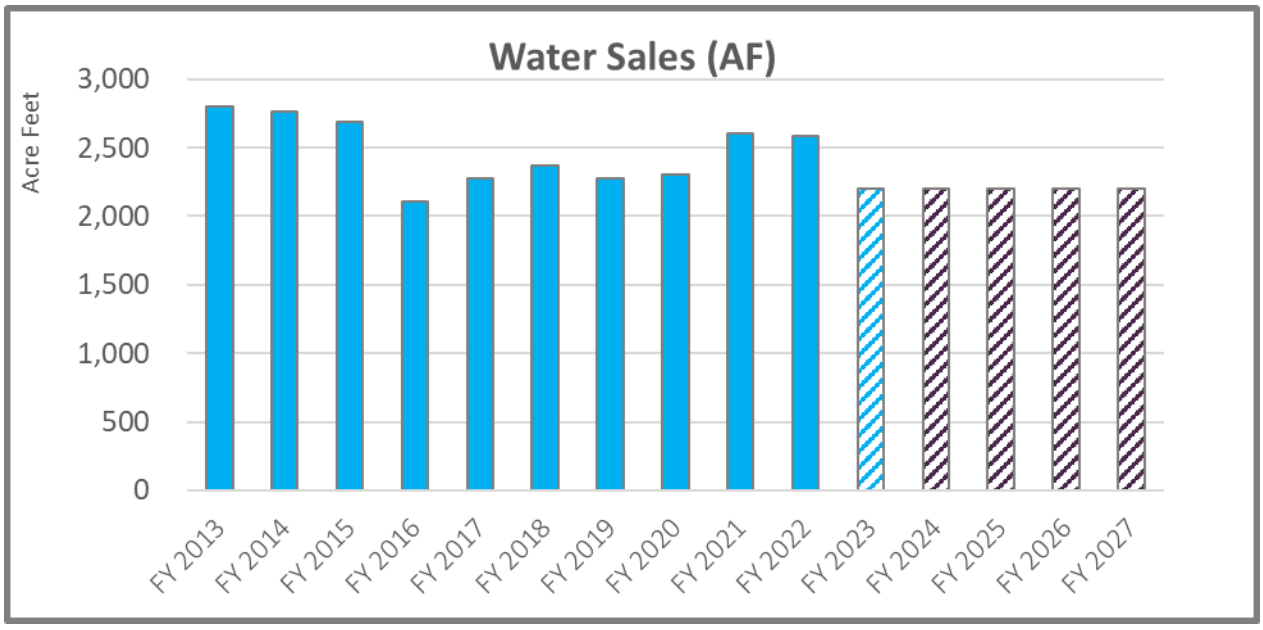
The CSD serves approximately 7,200 accounts, with over 95% of accounts classified as Residential. Table 3 provides a summary of accounts by meter size.

Table 3: Accounts by Meter Size

Meter Size	Number of Accounts
≤3/4"	1,915
1"	5,212
1 1/2"	20
2"	50
3"	2
4"	1
Total	7,200

During FY 2021 and FY 2022, water sales increased requiring the periodic use of Well 14. However, due to significant rainfall, water sales in FY 2023 decreased by approximately 385 AF. Figure 3 shows both historical water sales and projected water sales in AF. For the Rate Setting Period, water sales are expected to remain around FY 2023 usage due to the CSD's FPA continuing reductions each year.

Figure 3: Water Sales



The current rate structure consists of a monthly fixed meter charge, a monthly account Chromium 6 Surcharge, and variable rates that vary by customer class. Residential customers are currently on a 3-tiered variable rate structure, and non-residential customers (Commercial and Institutional) are on a uniform variable rate structure. Current monthly fixed charges are identified in Table 4, followed by variable rates shown in Table 5 by customer class and tier. Variable rates are charged per Hundred Cubic Feet (HCF).[2]

Table 4: FY 2024 Monthly Fixed Charges

Fixed Charges ($/Month)	
Meter Size	**Existing**
Base Fixed Charge	
≤3/4"	$25.63
1"	$38.77
1 1/2"	$71.64
2"	$111.08
3"	$235.96
4"	$420.01
6"	$860.41
8"	$1,846.37
Chromium-6 Surcharge	
≤3/4"	$9.71
1"	$9.71
1 1/2"	$9.71
2"	$9.71
3"	$9.71
4"	$9.71
6"	$9.71
8"	$9.71

Table 5: FY 2024 Variable Rates

Variable Rates ($/HCF)	
Customer Class	**Existing**
Residential	
Tier 1	$3.08
Tier 2	$3.51
Tier 3	$8.47
Commercial	$4.11
Institutional	$4.46

[2] 1 HCF = 748.05 gallons of water

Financial Plan Overview

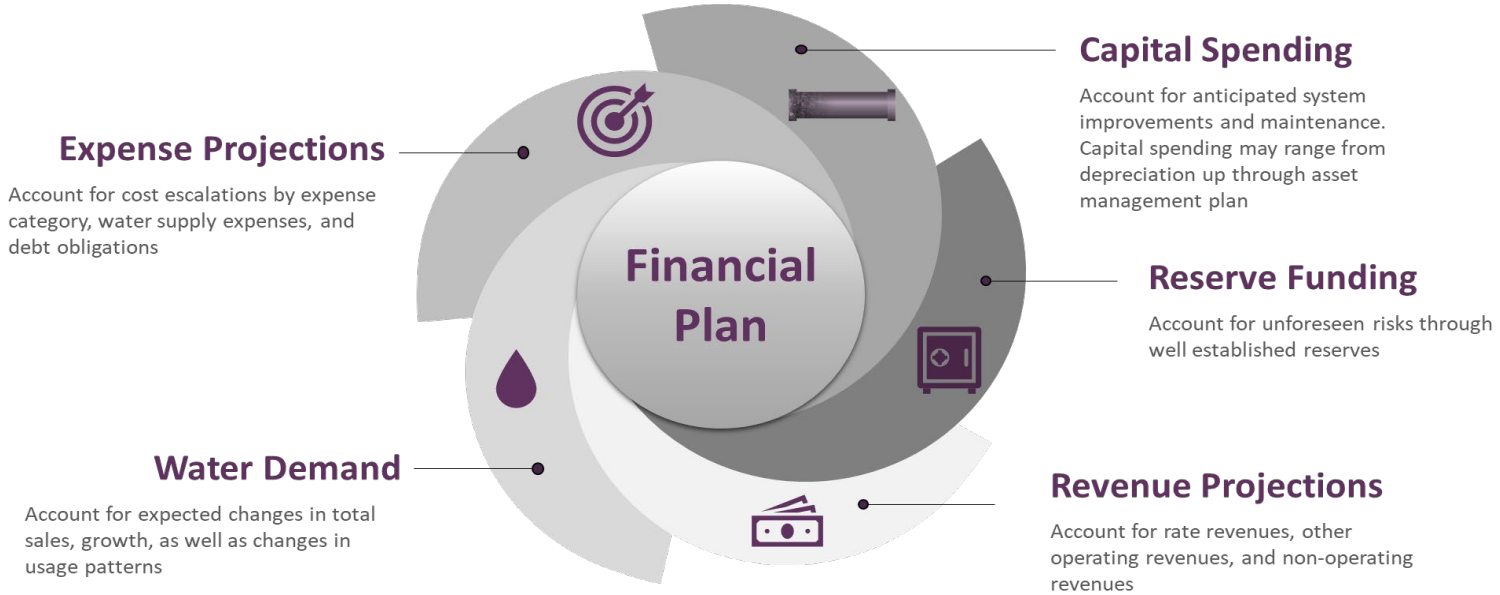
Financial Planning

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

1) Historical water sales and consumption patterns to determine an appropriate usage level for projecting future water demands.
2) Water supplies by source for each year and related costs.
3) Operational costs that may change over the planning period because of inflation, unique circumstances of the agency, new expenditures added to meet strategic goals, state mandates, or changes in operations.
4) Multi-year system improvement needs, and scheduling based on priority. This review also considers available funding sources to complete projects such as PAYGO, grants, loans, and debt financing.
5) 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 4 illustrates the key elements when developing a long-term financial plan.

Figure 4: Financial Plan Key Elements



Financial Planning Assumptions

Developing a long-term financial plan requires understanding the utility's financial position by evaluating existing revenue streams, ongoing expenses, and how those expenses will change over time, including existing debt requirements and reserves. With these considerations, certain assumptions are required for projecting revenues, expenses, and ending fund balances. Through discussions with staff and their understanding of historical budget data and future obligations, Table 6 identifies assumptions used for forecasting revenues. For forecasting revenues, our analysis assumes no growth in accounts as a conservative assumption so projected revenues do not rely on growth to occur. Table 7 provides details on the number of accounts by meter size and Table 8 identifies projected usage by customer class and tier. Tier 3 water usage was reduced to zero and is captured within Tier 2 for the Rate Setting Period.

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%	0.0%	0.0%	0.0%
Non-Rate Revenues	0.0%	0.0%	0.0%	0.0%	0.0%
Reserve Interest	1.5%	1.5%	1.5%	1.5%	1.5%
Account Growth	0.0%	0.0%	0.0%	0.0%	0.0%

Table 7: Accounts by Meter Size – FY 2024 through FY 2028

Customer Accounts	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
All Meters					
Meter Size					
≤3/4"	1,915	1,915	1,915	1,915	1,915
1"	5,212	5,212	5,212	5,212	5,212
1 1/2"	20	20	20	20	20
2"	50	50	50	50	50
3"	2	2	2	2	2
4"	1	1	1	1	1
6"	0	0	0	0	0
8"	0	0	0	0	0
Total All Meters	7,200	7,200	7,200	7,200	7,200

Table 8: Projected Consumption (HCF) – FY 2024 through FY 2028

Consumption by Customer Class	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Residential					
Tier 1	511,842	511,842	511,842	511,842	511,842
Tier 2	374,997	374,997	374,997	374,997	374,997
Tier 3	0	0	0	0	0
Subtotal Residential Consumption (HCF)	886,839	886,839	886,839	886,839	886,839
Commercial	9,089	9,089	9,089	9,089	9,089
Institutional	62,392	62,392	62,392	62,392	62,392
Total Consumption (HCF)	**958,320**	**958,320**	**958,320**	**958,320**	**958,320**

Table 9 identifies assumptions used to forecast expense increases over the Rate Setting Period.

Table 9: Assumptions for Forecasting Expense Requirements[3]

Key Assumptions	Source:	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Expenditure Escalation						
Benefits		5.0%	4.0%	4.0%	4.0%	4.0%
CalPers		5.0%	6.0%	6.0%	6.0%	6.0%
Capital Construction	ENR 20-City 5-Year Average	7.2%	3.9%	3.9%	3.9%	3.9%
Energy Costs		5.0%	10.0%	10.0%	10.0%	10.0%
General Costs	CPI - LA (BLS) 5-Year Average	7.4%	4.0%	4.0%	4.0%	4.0%
Salaries		5.0%	6.0%	6.0%	6.0%	6.0%

Current Financial Position

Revenues

Based on the forecasting assumptions, fixed revenues were calculated by multiplying existing fixed charges (Table 4) by accounts by meter size (Table 7) by the number of effective months (12). Variable revenues were calculated multiplying existing variable rates (Table 5) by projected total water sales (Table 8). Table 10 shows the calculated rate revenues through the Rate Setting Period. Table 11 summarizes calculated rate revenues from Table 10 and other operating and non-rate revenues available through the Rate Setting Period with projections rounded to the nearest thousands.

Table 10: Calculated Rate Revenues

Fixed Revenue	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Base Fixed Charge	$3,108,353	$3,108,353	$3,108,353	$3,108,353	$3,108,353
Variable Revenue	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**	**FY 2028**
Residential					
Tier 1	$1,576,473	$1,576,473	$1,576,473	$1,576,473	$1,576,473
Tier 2	$1,316,239	$1,316,239	$1,316,239	$1,316,239	$1,316,239
Tier 3	$0	$0	$0	$0	$0
Residential Variable Revenue	$2,892,713	$2,892,713	$2,892,713	$2,892,713	$2,892,713
Commercial	$37,356	$37,356	$37,356	$37,356	$37,356
Institutional	$278,268	$278,268	$278,268	$278,268	$278,268
Total Variable Rate Revenue	$3,208,337	$3,208,337	$3,208,337	$3,208,337	$3,208,337
Total Rate Revenue	$6,316,690	$6,316,690	$6,316,690	$6,316,690	$6,316,690

[3] Capital Construction inflation and General Costs for FY 2024 were increased to 7.2% and 7.4%, respectively, to account for recent increases due to inflation. Outer years reduce to 3.9% and 4.0%, reflecting the 5-year average of the Engineering News-Record – Construction Cost index and the Los Angeles Area Consumer Price Index, respectively.

Table 11: Projected Revenues

Revenue Summary	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Rate Revenue					
Base Fixed Charge	$3,108,000	$3,108,000	$3,108,000	$3,108,000	$3,108,000
Variable Revenue	$3,208,000	$3,208,000	$3,208,000	$3,208,000	$3,208,000
Subtotal Rate Revenue	$6,316,000	$6,316,000	$6,316,000	$6,316,000	$6,316,000
Chromium-6 Surcharge	$839,000	$839,000	$839,000	$839,000	$839,000
Meter Installation/Fees/Connections	$88,000	$88,000	$88,000	$88,000	$88,000
Other Operating Income	$305,000	$305,000	$305,000	$305,000	$305,000
Non-Operating Revenues	$1,123,000	$607,000	$596,000	$574,000	$574,000
Total Revenues	$8,671,000	$8,155,000	$8,144,000	$8,122,000	$8,122,000

Expenses

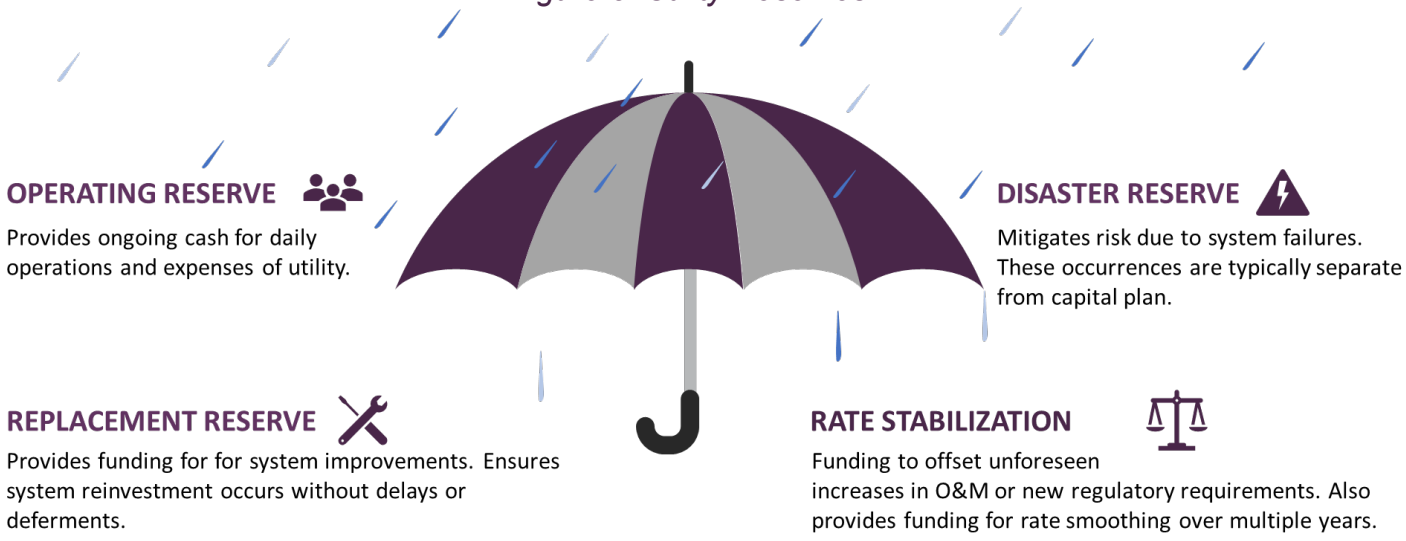
The FY 2024 budget was used to derive the unit rates for Water Supply costs. Any increases for purchased water will be passed through. The Operating Expenses are based on the FY 2024 Budget and adjusted in subsequent years based on the escalation factors shown in Table 9. Table 12 provides projected Operational & Maintenance (O&M) costs 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. The Inter-Fund Transfers are property tax revenues from the general fund that are scheduled to be phased out by FY 2026. Debt offsets are from the CSD's solar power credits.

Table 12: Projected O&M Expenses

O&M Expenses	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Water Supply					
MWA/Antelope WM Admin. & Bio Fee	$15,000	$15,000	$12,000	$10,000	$9,000
MWA/Antelope WM Make Up Water	$3,000	$3,000	$3,000	$5,000	$6,000
MWA/AVW Replacement Water	$0	$0	$315,000	$451,000	$588,000
AVW Purchases (Emergency)	$5,000	$5,000	$6,000	$8,000	$11,000
Electricity GW	$1,453,000	$1,598,000	$1,392,000	$1,356,000	$1,300,000
Electricity Leased Water	$0	$0	$366,000	$577,000	$827,000
Chromium 6 Mitigation	$839,000	$839,000	$839,000	$839,000	$839,000
Conservation	$36,000	$38,000	$40,000	$41,000	$43,000
Subtotal Water Supply	$2,351,000	$2,498,000	$2,973,000	$3,287,000	$3,623,000
Operating Expenses					
Administration	$2,177,000	$2,287,000	$2,402,000	$2,524,000	$2,653,000
Customer Accounts/Meters	$718,000	$756,000	$796,000	$838,000	$882,000
Distribution/Transmission	$615,000	$644,000	$674,000	$706,000	$739,000
Engineering	$450,000	$475,000	$501,000	$529,000	$558,000
Operations	$822,000	$867,000	$913,000	$962,000	$1,014,000
Production (Source of Supply)	$511,000	$536,000	$563,000	$592,000	$621,000
Vehicles and Equipment	$219,000	$228,000	$237,000	$246,000	$256,000
Water Quality	$106,000	$112,000	$118,000	$124,000	$131,000
Inter-Transfers	($104,000)	($52,000)	$0	$0	$0
Subtotal Operating Expenses	$5,514,000	$5,853,000	$6,204,000	$6,521,000	$6,854,000
Debt Service					
Existing Debt	$1,365,000	$1,351,000	$1,338,000	$1,338,000	$1,338,000
Existing Debt Offsets	($522,222)	($522,222)	($522,222)	($522,222)	($522,222)
Subtotal Debt Service	$842,778	$828,778	$815,778	$815,778	$815,778
Total Expenses	**$8,707,778**	**$9,179,778**	**$9,992,778**	**$10,623,778**	**$11,292,778**

Reserves

Figure 5: Utility Reserves



Established unrestricted reserves include Operating Reserve, Replacement Reserve, Disaster Reserve, and a Rate Stabilization Reserve. These robust 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. The most recent adopted reserve policies identify the function of each reserve, the minimum reserve requirements, and the ideal funding targets, as summarized in Table 13.

Table 13: Reserve Requirements and Targets

Reserve	Minimum Requirement	Reserve Target
Operating	3 months of operating costs	6 months of operating costs
Replacement	2 years of annual depreciation	2 years of 5-year annual average CIP
Disaster	10% of Asset Value	20% of Asset Value
Rate Stabilization	5% of rate revenue	10% of rate revenue

For FY 2024, the unrestricted reserve balances (as of July 1, 2023) equaled approximately $11.1M.

Financial Outlook at Existing Rates

Calculating revenue using current rates and projecting expenses helps determine the financial health of the utility. Revenues generated from current rates are projected to reflect a very slight year-end deficit for FY 2024, which will continue to grow over the Rate Setting Period. In addition, capital spending towards repair & replacement would require the use of reserves as the primary funding source for all capital projects besides the administrative building that is funded through debt, which is not sustainable. Table 14 forecasts existing revenues and expenses through the Rate Setting Period. Table 15 identifies reserve transfers and reserve activity, with projected FY 2024 starting reserve balances shown for each reserve.

Table 14: Financial Plan at Existing Rates

Revenue		FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Rate Revenue						
Base Fixed Charge	Table 10	$3,108,000	$3,108,000	$3,108,000	$3,108,000	$3,108,000
Variable Revenue		$3,208,000	$3,208,000	$3,208,000	$3,208,000	$3,208,000
Total Rate Revenue		$6,316,000	$6,316,000	$6,316,000	$6,316,000	$6,316,000
Other Rate Revenue						
Chromium-6 Surcharge	Table 11	$839,000	$839,000	$839,000	$839,000	$839,000
Projected Rate Revenue		**$7,155,000**	**$7,155,000**	**$7,155,000**	**$7,155,000**	**$7,155,000**
Meter Installation/Fees/Connections		$88,000	$88,000	$88,000	$88,000	$88,000
Other Operating Income	Table 11	$305,000	$305,000	$305,000	$305,000	$305,000
Non-Operating Revenues		$1,123,000	$607,000	$596,000	$574,000	$574,000
Total Revenues		$8,671,000	$8,155,000	$8,144,000	$8,122,000	$8,122,000

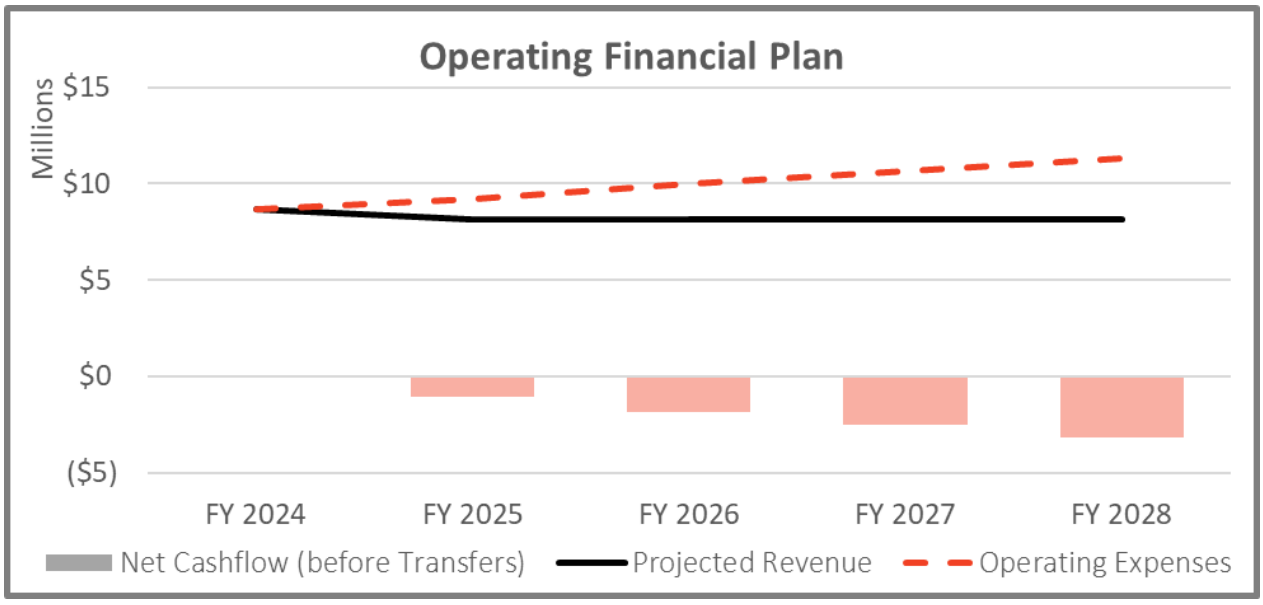
O&M Expenses		FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Water Supply						
MWA/Antelope WM Admin. & Bio Fee		$15,000	$15,000	$12,000	$10,000	$9,000
MWA/Antelope WM Make Up Water		$3,000	$3,000	$3,000	$5,000	$6,000
MWA/AVW Replacement Water		$0	$0	$315,000	$451,000	$588,000
AVW Purchases (Emergency)	Table 12	$5,000	$5,000	$6,000	$8,000	$11,000
Electricity GW		$1,453,000	$1,598,000	$1,392,000	$1,356,000	$1,300,000
Electricity Leased Water		$0	$0	$366,000	$577,000	$827,000
Chromium 6 Mitigation		$839,000	$839,000	$839,000	$839,000	$839,000
Conservation		$36,000	$38,000	$40,000	$41,000	$43,000
Subtotal Water Supply		$2,351,000	$2,498,000	$2,973,000	$3,287,000	$3,623,000
Operating Expenses						
Administration		$2,177,000	$2,287,000	$2,402,000	$2,524,000	$2,653,000
Customer Accounts/Meters		$718,000	$756,000	$796,000	$838,000	$882,000
Distribution/Transmission		$615,000	$644,000	$674,000	$706,000	$739,000
Engineering		$450,000	$475,000	$501,000	$529,000	$558,000
Operations	Table 12	$822,000	$867,000	$913,000	$962,000	$1,014,000
Production (Source of Supply)		$511,000	$536,000	$563,000	$592,000	$621,000
Vehicles and Equipment		$219,000	$228,000	$237,000	$246,000	$256,000
Water Quality		$106,000	$112,000	$118,000	$124,000	$131,000
Inter-Transfers		($104,000)	($52,000)	$0	$0	$0
Subtotal Operating Expenses		$5,514,000	$5,853,000	$6,204,000	$6,521,000	$6,854,000
Debt Service						
Existing Debt	Table 12	$1,365,000	$1,351,000	$1,338,000	$1,338,000	$1,338,000
Existing Debt Offsets		($522,222)	($522,222)	($522,222)	($522,222)	($522,222)
Subtotal Debt Service		$842,778	$828,778	$815,778	$815,778	$815,778
Total Expenses		$8,707,778	$9,179,778	$9,992,778	$10,623,778	$11,292,778
Net Cashflow		($36,778)	($1,024,778)	($1,848,778)	($2,501,778)	($3,170,778)

Table 15: Transfers and Reserve Activity at Existing Rates

Operating Fund	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Beginning Balance	$2,467,970	$1,939,315	$914,537	($934,241)	($3,436,019)
Transfers (Net Cashflow)	($36,778)	($1,024,778)	($1,848,778)	($2,501,778)	($3,170,778)
Transfers from/(to) Replacement Reserve	($491,877)	$0	$0	$0	$0
Ending Balance	**$1,939,315**	**$914,537**	**($934,241)**	**($3,436,019)**	**($6,606,797)**
Replacement Reserve	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**	**FY 2028**
Beginning Balance	$4,300,072	$4,682,819	$3,856,053	$1,861,414	($1,869,644)
Plus:					
Transfers from/(to) Operating Fund	$491,877	$0	$0	$0	$0
Payback (Chromium 6)	$839,000	$839,000	$839,000	$839,000	$839,000
Sources & Uses					
Use of Remaining Debt Proceeds	$6,000,000	$48,369	$0	$0	$0
Less:					
CIP	($7,015,000)	($1,777,700)	($2,876,200)	($4,570,058)	($2,408,018)
Subtotal Replacement Reserve	$4,615,949	$3,792,488	$1,818,853	($1,869,644)	($3,438,662)
Interest Earnings	$66,870	$63,565	$42,562	$0	$0
Ending Balance	**$4,682,819**	**$3,856,053**	**$1,861,414**	**($1,869,644)**	**($3,438,662)**
Disaster Reserve	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**	**FY 2028**
Beginning Balance	$3,946,325	$3,946,325	$3,946,325	$3,946,325	$3,946,325
Ending Balance	**$3,946,325**	**$3,946,325**	**$3,946,325**	**$3,946,325**	**$3,946,325**
Rate Stabilization Reserve	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**	**FY 2028**
Beginning Balance	$389,304	$389,304	$389,304	$389,304	$389,304
Ending Balance	**$389,304**	**$389,304**	**$389,304**	**$389,304**	**$389,304**
Ending Unrestricted Reserve Balance	**$10,957,763**	**$9,106,219**	**$5,262,803**	**($970,033)**	**($5,709,829)**

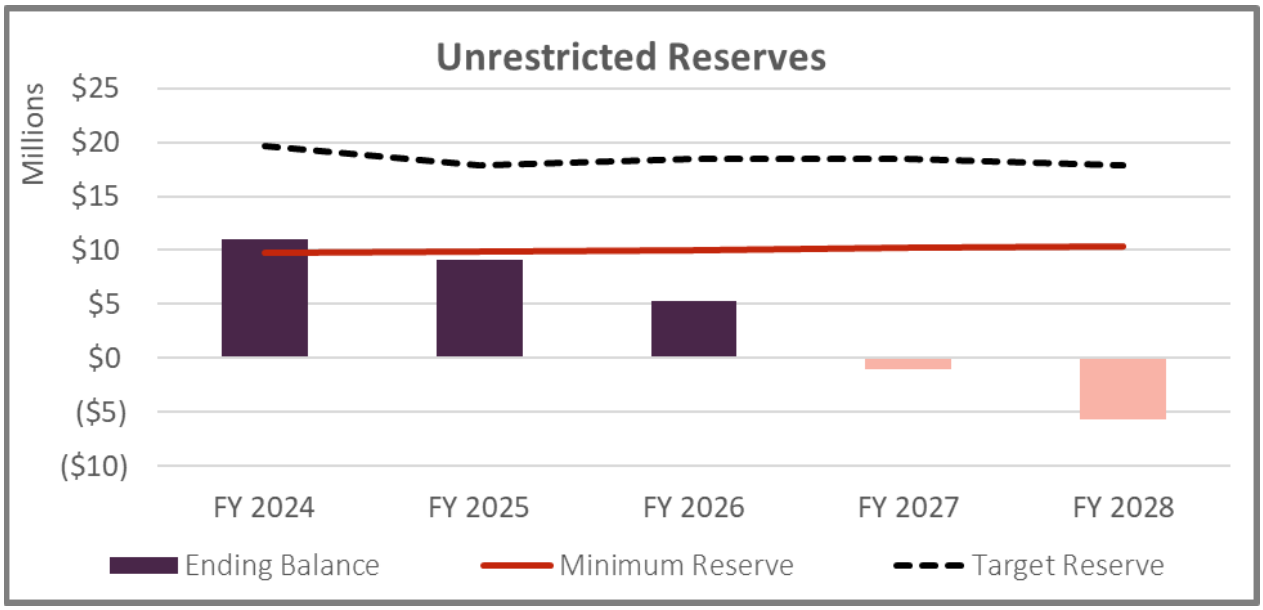
Figure 6 illustrates the operating position of the utility, where O&M expenses are identified with the dashed red trendline, and the horizontal black trendline shows total revenues at current rates. The bars represent the amount of net operating income, which reflects an annual deficit that is absorbed by reserves.

Figure 6: Current Operating Financial Position



With the capital improvement plan reflecting more than $18.6M in spending, as shown in Figure 2, existing debt proceeds and reserves will be utilized to cover the capital expenses. However, by FY 2025, reserves are below the recommended minimum target and are depleted by FY 2027. Figure 7 reflects the projected ending balances of unrestricted reserves after funding operating and capital projects. Unrestricted reserves include Operating, Replacement, Disaster, and Rate Stabilization. An increase in rate revenue is necessary to fully-fund the CSD's capital needs and generate additional net income to maintain healthy reserves.

Figure 7: Projected Ending Reserves at Noticed Rates



Proposed Financial Plan

From our review of the utility's financial outlook at noticed rates, a proposed financial plan is developed to fund the multi-year revenue requirements. The proposed financial plan generates approximately $18.5M in additional revenue over the Rate Setting Period. The additional revenue generates positive net operating income to go towards capital spending and satisfy reserve requirements. Table 16 forecasts the projected revenues, ***with annual revenue adjustments,*** and expenses through FY 2028. Table 17 identifies the projected FY 2024 total starting reserve balances, activity within each reserve (including net income transfer from Table 16, transfers between reserves, and annual CIP), and projected ending balances for each fiscal year of the Rate Setting Period.

Table 16: Proposed Financial Plan

Revenue		FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Rate Revenue						
Base Fixed Charge	Table 10	$3,108,000	$3,108,000	$3,108,000	$3,108,000	$3,108,000
Variable Revenue		$3,208,000	$3,208,000	$3,208,000	$3,208,000	$3,208,000
Total Rate Revenue		$6,316,000	$6,316,000	$6,316,000	$6,316,000	$6,316,000
Additional Revenue (from revenue adjustments):						
FY 2024 (16.0% Revenue Adjustment, November Effective Month)		$673,000	$1,010,000	$1,010,000	$1,010,000	$1,010,000
FY 2025 (16.0% Revenue Adjustment, July Effective Month)			$1,172,000	$1,172,000	$1,172,000	$1,172,000
FY 2026 (16.0% Revenue Adjustment, July Effective Month)				$1,359,000	$1,359,000	$1,359,000
FY 2027 (16.0% Revenue Adjustment, July Effective Month)					$1,577,000	$1,577,000
FY 2028 (16.0% Revenue Adjustment, July Effective Month)						$1,829,000
Total Additional Revenue		$673,000	$2,182,000	$3,541,000	$5,118,000	$6,947,000
Other Rate Revenue						
Chromium-6 Surcharge	Table 11	$839,000	$839,000	$839,000	$839,000	$839,000
Projected Rate Revenue		**$7,828,000**	**$9,337,000**	**$10,696,000**	**$12,273,000**	**$14,102,000**
Meter Installation/Fees/Connections		$88,000	$88,000	$88,000	$88,000	$88,000
Other Operating Income	Table 11	$305,000	$305,000	$305,000	$305,000	$305,000
Non-Operating Revenues		$1,123,000	$607,000	$604,000	$607,000	$609,000
Total Revenues		$9,344,000	$10,337,000	$11,693,000	$13,273,000	$15,104,000
O&M Expenses		**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**	**FY 2028**
Water Supply						
MWA/Antelope WM Admin. & Bio Fee		$15,000	$15,000	$12,000	$10,000	$9,000
MWA/Antelope WM Make Up Water		$3,000	$3,000	$3,000	$5,000	$6,000
MWA/AVW Replacement Water		$0	$0	$315,000	$451,000	$588,000
AVW Purchases (Emergency)	Table 12	$5,000	$5,000	$6,000	$8,000	$11,000
Electricity GW		$1,453,000	$1,598,000	$1,392,000	$1,356,000	$1,300,000
Electricity Leased Water		$0	$0	$366,000	$577,000	$827,000
Chromium 6 Mitigation		$839,000	$839,000	$839,000	$839,000	$839,000
Conservation		$36,000	$38,000	$40,000	$41,000	$43,000
Subtotal Water Supply		$2,351,000	$2,498,000	$2,973,000	$3,287,000	$3,623,000
Operating Expenses						
Administration		$2,177,000	$2,287,000	$2,402,000	$2,524,000	$2,653,000
Customer Accounts/Meters		$718,000	$756,000	$796,000	$838,000	$882,000
Distribution/Transmission		$615,000	$644,000	$674,000	$706,000	$739,000
Engineering		$450,000	$475,000	$501,000	$529,000	$558,000
Operations	Table 12	$822,000	$867,000	$913,000	$962,000	$1,014,000
Production (Source of Supply)		$511,000	$536,000	$563,000	$592,000	$621,000
Vehicles and Equipment		$219,000	$228,000	$237,000	$246,000	$256,000
Water Quality		$106,000	$112,000	$118,000	$124,000	$131,000
Inter-Transfers		($104,000)	($52,000)	$0	$0	$0
Subtotal Operating Expenses		$5,514,000	$5,853,000	$6,204,000	$6,521,000	$6,854,000
Debt Service						
Existing Debt	Table 12	$1,365,000	$1,351,000	$1,338,000	$1,338,000	$1,338,000
Existing Debt Offsets		($522,222)	($522,222)	($522,222)	($522,222)	($522,222)
Subtotal Debt Service		$842,778	$828,778	$815,778	$815,778	$815,778
Total Expenses		$8,707,778	$9,179,778	$9,992,778	$10,623,778	$11,292,778
Net Cashflow		$636,222	$1,157,222	$1,700,222	$2,649,222	$3,811,222

Table 17: Transfers and Reserves Activity through FY 2028

Operating Fund	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Beginning Balance	$2,467,970	$1,939,315	$2,059,151	$2,262,822	$2,418,411
Transfers (Net Cashflow)	$636,222	$1,157,222	$1,700,222	$2,649,222	$3,811,222
Transfers from/(to) Replacement Reserve	($1,164,877)	($1,037,386)	($1,496,551)	($2,493,633)	($3,646,263)
Ending Balance	**$1,939,315**	**$2,059,151**	**$2,262,822**	**$2,418,411**	**$2,583,370**
Replacement Reserve	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**	**FY 2028**
Beginning Balance	$4,300,072	$5,360,866	$5,589,438	$5,128,575	$3,958,798
Plus:					
Transfers from/(to) Operating Fund	$1,164,877	$1,037,386	$1,496,551	$2,493,633	$3,646,263
Payback (Chromium 6)	$839,000	$839,000	$839,000	$839,000	$839,000
Sources & Uses					
Use of Remaining Debt Proceeds	$6,000,000	$48,369	$0	$0	$0
Less:					
CIP	($7,015,000)	($1,777,700)	($2,876,200)	($4,570,058)	($2,408,018)
Subtotal Replacement Reserve	$5,288,949	$5,507,922	$5,048,789	$3,891,150	$6,036,043
Interest Earnings	$71,918	$81,516	$79,787	$67,648	$74,961
Ending Balance	**$5,360,866**	**$5,589,438**	**$5,128,575**	**$3,958,798**	**$6,111,004**
Disaster Reserve	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**	**FY 2028**
Beginning Balance	$3,946,325	$3,946,325	$3,946,325	$3,946,325	$3,946,325
Ending Balance	**$3,946,325**	**$3,946,325**	**$3,946,325**	**$3,946,325**	**$3,946,325**
Rate Stabilization Reserve	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**	**FY 2028**
Beginning Balance	$389,304	$389,304	$389,304	$389,304	$389,304
Ending Balance	**$389,304**	**$389,304**	**$389,304**	**$389,304**	**$389,304**
Ending Unrestricted Reserve Balance	**$11,635,810**	**$11,984,217**	**$11,727,026**	**$10,712,838**	**$13,030,003**

Figure 8 identifies the operating position based on the proposed financial plan, and Figure 9 and Figure 10 identify the capital plan with funding sources and ending reserve balances, respectively.

Figure 8: Proposed Operating Position

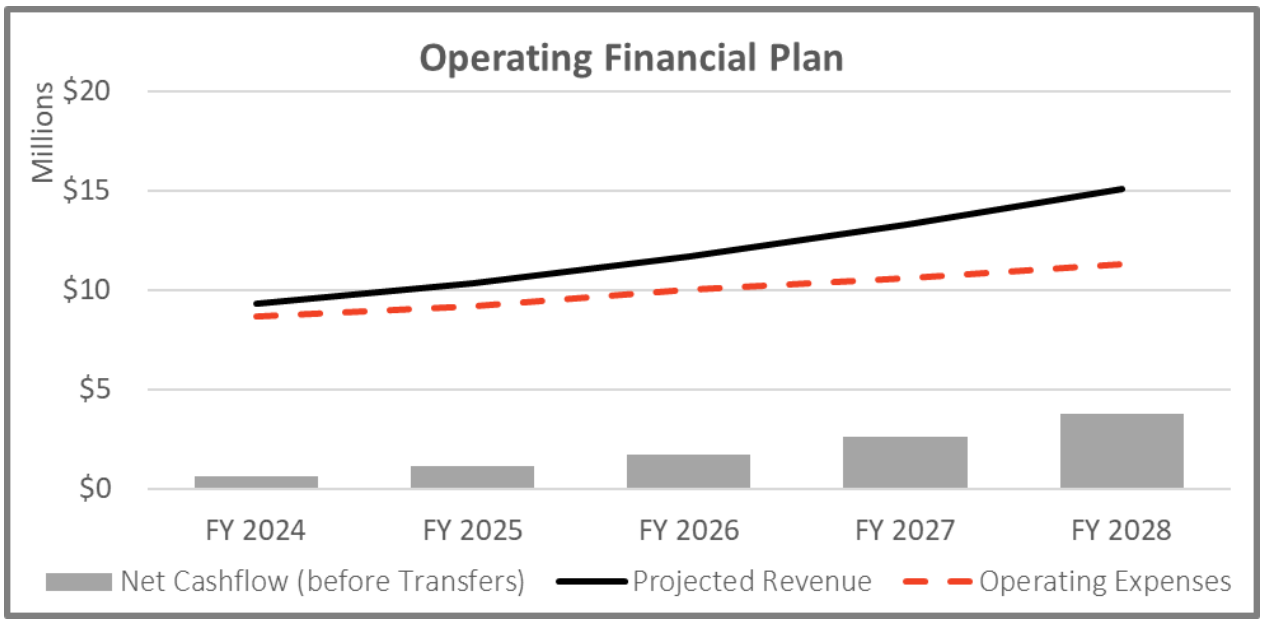


Figure 9: Capital Improvement Plan with Funding Sources

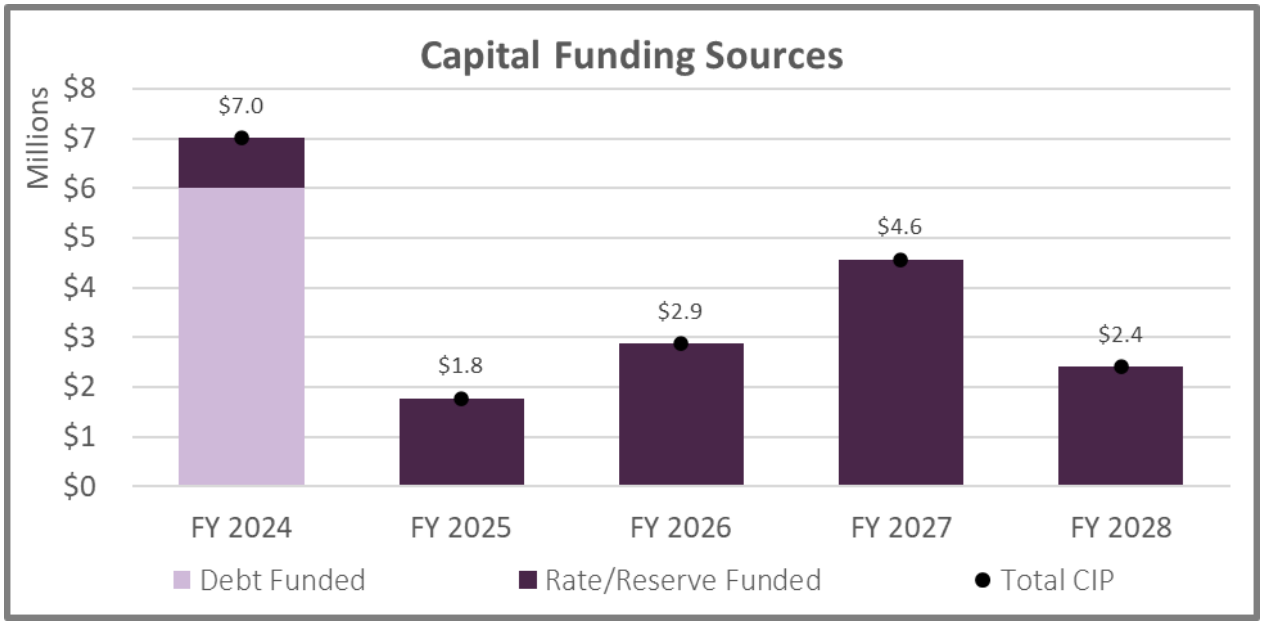
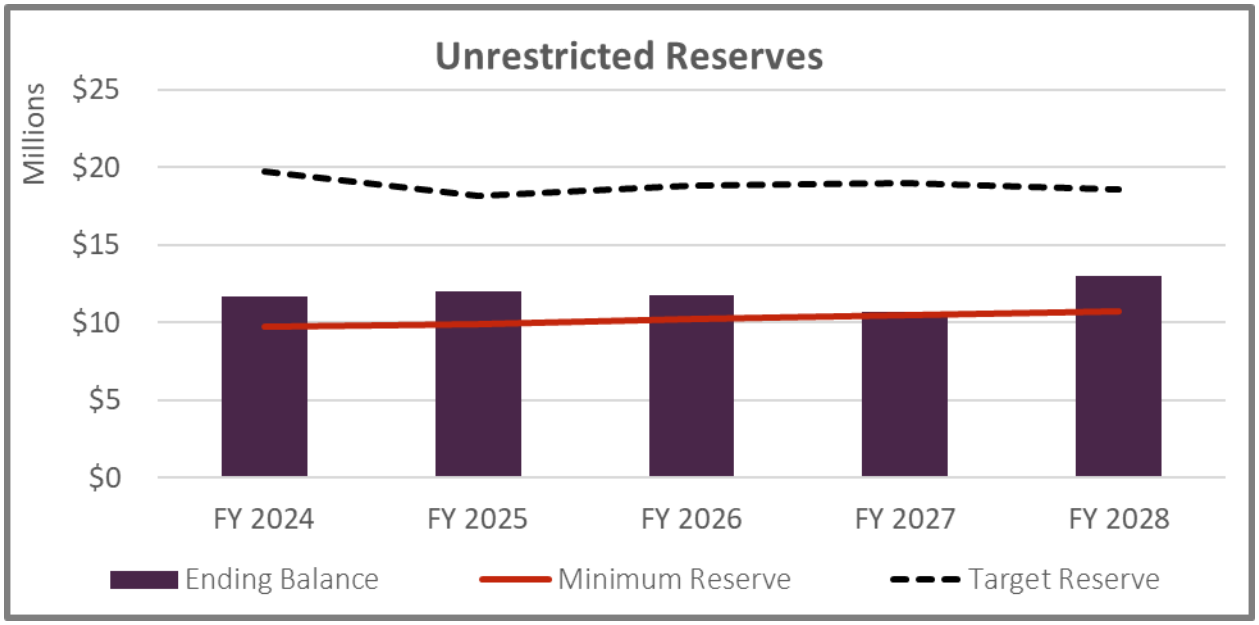


Figure 10: Proposed Ending Reserves



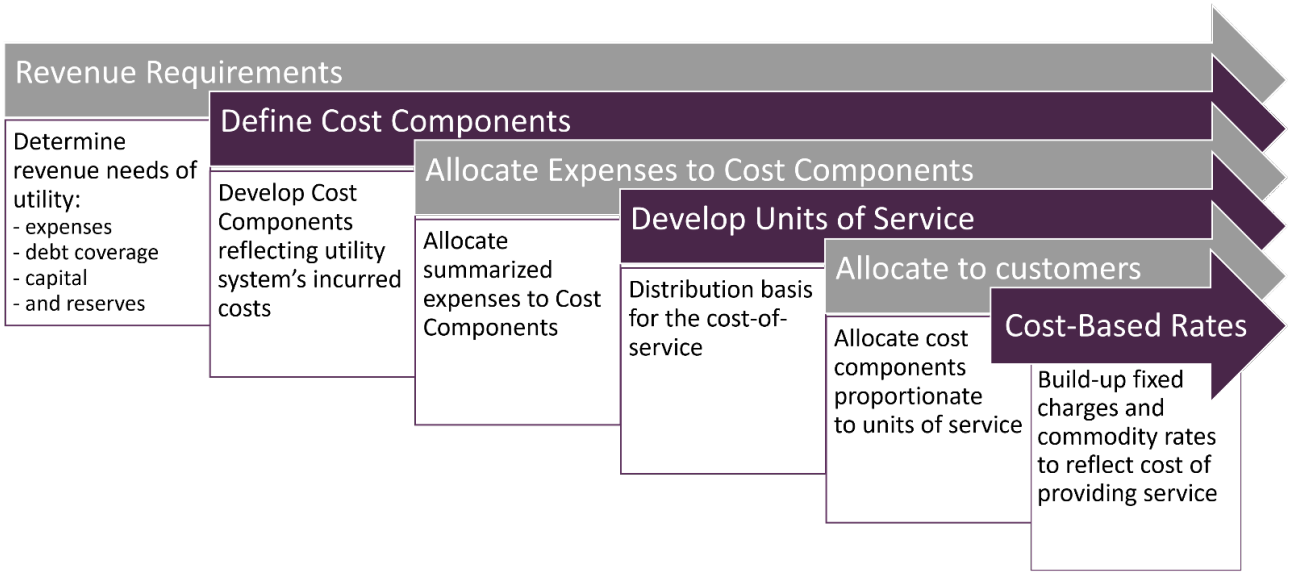
Cost-of-Service Analysis

Cost-of-Service Process

The next step in developing rates is to perform a cost-of-service analysis. This step develops proposed water rates that are cost-based and equitable. Meeting the requirements of Proposition 218 is of paramount importance in developing utility rates. Proposition 218 does not provide a particular methodology for establishing cost-based rates. This study and analysis herein allocates costs proportionately to each parcel served by the CSD and derives water rates that 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 them. The following graphic summarizes the cost-of-service process. Through this process, costs incurred are allocated to customer classes and tiers based on their proportional share. As a result, proposed rates are cost-based and reflect costs incurred by the utility to provide service to each parcel and corresponding account. Due to the ramp down in the CSD's FPA and increased replacement water costs each year, the cost-of-service analysis was performed for each year of the Rate Setting Period.

Figure 11: Cost-of-Service Process



Revenue Requirements

Revenue requirements are determined for FY 2024 through FY 2028 and used for the cost-of-service. Revenue requirements include O&M expenses, debt service, available offsets from non-rate revenues, annual net income, and any mid-year adjustments if rates are implemented after the start of the fiscal year. Funding the capital plan and replenishing reserves to meet or exceed the minimum reserve requirement is achieved over the Rate Setting Period. The proposed revenue adjustments and corresponding rates collectively accumulate the necessary funding over the Rate Setting Period to fund the CSD's total revenue requirements. The results of the financial plan analysis are summarized in Table 18 and represent the revenue required from rates for FY 2024 through FY 2028.

Table 18: Revenue Requirements

Revenue Requirements	FY 2024 Total	FY 2025 Total	FY 2026 Total	FY 2027 Total	FY 2028 Total
Specific Expenses					
Water Supply					
MWA/Antelope WM Admin. & Bio Fee	$15,000	$15,000	$12,000	$10,000	$9,000
MWA/Antelope WM Make Up Water	$3,000	$3,000	$3,000	$5,000	$6,000
MWA/AVW Replacement Water	$0	$0	$315,000	$451,000	$588,000
AVW Purchases (Emergency)	$5,000	$5,000	$6,000	$8,000	$11,000
Electricity GW	$1,453,000	$1,598,000	$1,392,000	$1,356,000	$1,300,000
Electricity Leased Water	$0	$0	$366,000	$577,000	$827,000
Chromium 6 Mitigation	$839,000	$839,000	$839,000	$839,000	$839,000
Conservation	$36,000	$38,000	$40,000	$41,000	$43,000
Total Specific Expenses	$2,351,000	$2,498,000	$2,973,000	$3,287,000	$3,623,000
Operating Expenses					
Administration	$2,177,000	$2,287,000	$2,402,000	$2,524,000	$2,653,000
Customer Accounts/Meters	$718,000	$756,000	$796,000	$838,000	$882,000
Distribution/Transmission	$615,000	$644,000	$674,000	$706,000	$739,000
Engineering	$450,000	$475,000	$501,000	$529,000	$558,000
Operations	$822,000	$867,000	$913,000	$962,000	$1,014,000
Production (Source of Supply)	$511,000	$536,000	$563,000	$592,000	$621,000
Vehicles and Equipment	$219,000	$228,000	$237,000	$246,000	$256,000
Water Quality	$106,000	$112,000	$118,000	$124,000	$131,000
Inter-Transfers	($104,000)	($52,000)	$0	$0	$0
Total Operating Expenses	$5,514,000	$5,853,000	$6,204,000	$6,521,000	$6,854,000
Debt Service					
Existing Debt	$1,365,000	$1,351,000	$1,338,000	$1,338,000	$1,338,000
Existing Debt Offsets	($522,222)	($522,222)	($522,222)	($522,222)	($522,222)
Total Debt Service	$842,778	$828,778	$815,778	$815,778	$815,778
Other Funding					
Revenue Offsets					
Meter Installation/Fees/Connections	($88,000)	($88,000)	($88,000)	($88,000)	($88,000)
Other Operating Income	($305,000)	($305,000)	($305,000)	($305,000)	($305,000)
Non-Operating Revenues	($1,123,000)	($607,000)	($604,000)	($607,000)	($609,000)
Total Revenue Offsets	($1,516,000)	($1,000,000)	($997,000)	($1,000,000)	($1,002,000)
Adjustments					
Reserve Funding	$636,222	$1,157,222	$1,700,222	$2,649,222	$3,811,222
Adjustment for Mid-Year Increase	$336,500	$0	$0	$0	$0
Total Adjustments	$972,722	$1,157,222	$1,700,222	$2,649,222	$3,811,222
Total Other Funding	($543,278)	$157,222	$703,222	$1,649,222	$2,809,222
Revenue Requirement from Rates	**$8,164,500**	**$9,337,000**	**$10,696,000**	**$12,273,000**	**$14,102,000**

Define Cost Components

The utility incurs costs to accommodate total water demand 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. With our review of the revenue requirements and understanding of 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 to meet both total volume and peak use demands. For example, if a utility's average use and peak use were equivalent, the utility system could be sized solely to accommodate the average demand on the system. However, customer water usage peaks at various periods throughout the year, such as the morning when everyone wakes up, evenings when customers are home from work / school, and other times of the year as outdoor water needs fluctuate based on the weather. The cost components shown in Figure 12 reflect the cost components used within this study.

Figure 12: Cost Components

Account Services – Fixed expenses that do not necessarily fluctuate based on usage nor are a function of meter size. These expenses include customer call center, billing, and other expenses incurred based on an account.
Meter Capacity – Expenses associated with capital and administration of the system.
Chromium 6 – Specific expenses associated with Chromium 6 Mitigation that will remain constant over the 5-year Rate Setting Period.
Water Supply – Groundwater supply costs and purchased replacement water from MWA.
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 above average daily usage.
Water Efficiency – Expenses associated with the CSD programs for efficient water use and rebates.

The Chromium 6 Surcharge will remain in place as capital projects associated with the Chromium 6 Mitigation are part of the current five-year capital plan. Therefore, the Chromium 6 surcharge will remain as a separate fixed charge.

The analysis herein establishes cost components for developing monthly fixed charges and utilizes the base-extra capacity method for developing consumption-based charges. Total volume and usage patterns of customers and tier are analyzed to proportionately allocate expenses 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 is configured with various distribution and transmission lines ranging from 4" diameter to 16" diameter. The system's configuration accounts for peak water demands generated by how customers use water in excess of Avg Day and fire flow demand inherent to a utility system. 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

Utilizing these cost components allows us to distribute the total revenue requirements to the various customer classes reflecting the cost of providing service. This approach provides a nexus between the costs incurred and the proposed rates by meter size and customer class. When allocating expenses to the defined costs 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 fixed and variable. The allocation 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 next page.

Expense Categories:

Water Supply – Costs associated with groundwater supplies and replacement water from MWA.

Chromium 6 Mitigation – Costs associated with Chromium 6 improvements, including planning, design, construction, and ongoing maintenance.

Conservation – Costs associated with conservation programs, including personnel, advertising, and supplies.

Administration – General and overhead costs, including the Board, legal services, personnel, and supplies.

Customer Accounts/Meters – Costs associated with customer service and billing.

Distribution/Transmission – Costs associated with system maintenance, personnel, supplies, and tools.

Engineering – Costs associated with the engineering department, including personnel, supplies, training, software, and travel.

Operations – Costs associated with the daily operations of the utility, including personnel, repairs, supplies, software, insurance, and taxes.

Production – Costs associated with groundwater production, personnel, supplies, and insurance. Solar credits, net of debt offsets, are also included as part of production.

Vehicles and Equipment – Costs associated with rentals, vehicles, insurance, maintenance, and fuel.

Water Quality – Costs associated with testing, including personnel, equipment, and laboratory analysis.

Inter-Transfers – Property tax transfers from the general fund, determined by the Board, to offset expenses.

Debt – Existing and proposed debt payments to fund capital assets, including water rights and solar credit offsets.

System peaking factors are used to allocate costs to Avg Day (Delivery) and Max Day / Max Hour (collectively, Peaking). Avg Day is assigned a value of 1.0, signifying no peaking. The Peaking factors shown in Table 19 were based on the Water Master Plan. A Max Day factor of 2.0 means that the system delivers approximately 2.0 times the average daily demand during a peak day. Therefore, the Avg Day factor of 1.0 makes up 50% of Max Day (1.0 / 2.0 = 0.5). The Max Hour factor of 3.0 means that the Avg Day factor of 1.0 makes up 33.3% of Max Hour (1.0 / 3.0 = 0.333), with the increment related to Peaking making up another 66.7%. These peaking factors and corresponding allocations provide a means to spread costs incurred as a function of serving Max Day and Max Hour proportionately between Delivery and Peaking.

Table 19: System Peaking Factors and Distribution Basis

System Peak	Factor	Base	Peaking
	[A]	[B] = A ÷ Avg Day	[C] = 100% - B
Average Day Demand	1.00	100.0%	0.0%
Max Day Demand	2.00	50.0%	50.0%
Max Hour Demand	3.00	33.3%	66.7%

Table 20 summarizes the methodology/allocations of specific expenses including water supplies, Chromium 6 mitigation, and Conservation to the cost components.

Table 20: FY 2024 Specific Expense Allocation to Cost Components (%)

		Cost Components								
					Water Supply					
Specific Expenses	Methodology / Allocation Basis	Account Services	Meter Capacity	Chromium 6	Purchased Water	Groundwater	Delivery	Peaking	Water Efficiency	Total
Water Supply										
MWA/Antelope WM Admin. & Bio Fee	Specific	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	100.0%
MWA/Antelope WM Make Up Water	Specific	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	100.0%
MWA/AVW Replacement Water	Specific	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%
AVW Purchases (Emergency)	Specific	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%
Water Purchases - Other	Specific	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Electricity GW	Specific	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	100.0%
Electricity Leased Water	Specific	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Chromium 6 Mitigation	Specific	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Conservation	Specific	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%

The percent allocations listed in Table 20 are used to allocate FY 2024 specific expenses to each cost component shown in Table 21.

Table 21: FY 2024 Specific Expense Allocation to Cost Components ($)

		Cost Components								
					Water Supply					
Specific Expenses	Methodology / Allocation Basis	Account Services	Meter Capacity	Chromium 6	Purchased Water	Groundwater	Delivery	Peaking	Water Efficiency	Total
Water Supply										
MWA/Antelope WM Admin. & Bio Fee	Specific	$0	$0	$0	$0	$15,000	$0	$0	$0	$15,000
MWA/Antelope WM Make Up Water	Specific	$0	$0	$0	$0	$3,000	$0	$0	$0	$3,000
MWA/AVW Replacement Water	Specific	$0	$0	$0	$0	$0	$0	$0	$0	$0
AVW Purchases (Emergency)	Specific	$0	$0	$0	$0	$0	$5,000	$0	$0	$5,000
Water Purchases - Other	Specific	$0	$0	$0	$0	$0	$0	$0	$0	$0
Electricity GW	Specific	$0	$0	$0	$0	$1,453,000	$0	$0	$0	$1,453,000
Electricity Leased Water	Specific	$0	$0	$0	$0	$0	$0	$0	$0	$0
Chromium 6 Mitigation	Specific	$0	$0	$839,000	$0	$0	$0	$0	$0	$839,000
Conservation	Specific	$0	$0	$0	$0	$0	$0	$0	$36,000	$36,000
Total Allocation ($)		**$0**	**$0**	**$839,000**	**$0**	**$1,471,000**	**$5,000**	**$0**	**$36,000**	**$2,351,000**

Table 22 summarizes the methodology/percent allocations of FY 2024 operating expenses to the cost components Table 23 reflects the cost in dollars allocated to each cost component.

Table 22: FY 2024 O&M Expense Allocation to Cost Components (%)

		Cost Components								
					Water Supply					
Operating Expenses	Methodology / Allocation Basis	Account Services	Meter Capacity	Chromium 6	Purchased Water	Groundwater	Delivery	Peaking	Water Efficiency	Total
Administration	Specific	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Customer Accounts/Meters	Specific	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Distribution/Transmission	Max Hour Demand	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	66.7%	0.0%	100.0%
Engineering	Max Day Demand	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%	100.0%
Operations	Max Hour Demand	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	66.7%	0.0%	100.0%
Production (Source of Supply)	Average Day Demand	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%
Vehicles and Equipment	Specific	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Water Quality	Specific	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Inter-Transfers	Average Day Demand	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%

Table 23: FY 2024 O&M Expense Allocation to Cost Components ($)

Operating Expenses	Methodology / Allocation Basis	Cost Components: Account Services	Meter Capacity	Chromium 6	Water Supply: Purchased Water	Groundwater	Delivery	Peaking	Water Efficiency	Total
Administration	*Specific*	$0	$2,177,000	$0	$0	$0	$0	$0	$0	$2,177,000
Customer Accounts/Meters	*Specific*	$718,000	$0	$0	$0	$0	$0	$0	$0	$718,000
Distribution/Transmission	*Max Hour Demand*	$0	$0	$0	$0	$0	$205,000	$410,000	$0	$615,000
Engineering	*Max Day Demand*	$0	$0	$0	$0	$0	$225,000	$225,000	$0	$450,000
Operations	*Max Hour Demand*	$0	$0	$0	$0	$0	$274,000	$548,000	$0	$822,000
Production (Source of Supply)	*Average Day Demand*	$0	$0	$0	$0	$0	$511,000	$0	$0	$511,000
Vehicles and Equipment	*Specific*	$0	$219,000	$0	$0	$0	$0	$0	$0	$219,000
Water Quality	*Specific*	$0	$106,000	$0	$0	$0	$0	$0	$0	$106,000
Inter-Transfers	*Average Day Demand*	$0	$0	$0	$0	$0	($104,000)	$0	$0	($104,000)
Total Allocation ($)		**$718,000**	**$2,502,000**	**$0**	**$0**	**$0**	**$1,111,000**	**$1,183,000**	**$0**	**$5,514,000**
Operating Expenses Allocation (%)		*13.0%*	*45.4%*	*0.0%*	*0.0%*	*0.0%*	*20.1%*	*21.5%*	*0.0%*	*100.0%*

The CSD's debt was allocated to Meter Capacity because the debt is used for capital improvements of the water system, and Meter Capacity is a fixed cost recovery component that reflects the potential demand each meter places on the water system. Table 24 summarizes the percent allocation of existing indebtedness. Table 25 provides the cost in dollars allocated to each cost component. The debt offsets are from CSD's solar power credits.

Table 24: FY 2024 Debt Expense Allocation to Cost Components (%)

Debt Service	Methodology / Allocation Basis	Cost Components: Account Services	Meter Capacity	Chromium 6	Water Supply: Purchased Water	Groundwater	Delivery	Peaking	Water Efficiency	Total
Existing Debt	Specific	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Existing Debt Offsets	Specific	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Table 25: FY 2024 Debt Expense Allocation to Cost Components ($)

Debt Service	Methodology / Allocation Basis	Cost Components: Account Services	Meter Capacity	Chromium 6	Water Supply: Purchased Water	Groundwater	Delivery	Peaking	Water Efficiency	Total
Existing Debt	*Specific*	$0	$1,365,000	$0	$0	$0	$0	$0	$0	$1,365,000
Existing Debt Offsets	*Specific*	$0	($522,222)	$0	$0	$0	$0	$0	$0	($522,222)
Total Allocation ($)		**$0**	**$842,778**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$842,778**

Other Funding includes other operating and non-operating 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. All items under "Other Funding" are allocated based on the O&M percentages derived in Table 23 to maintain proportionately in how expenses were allocated to the cost components. Table 26 summarizes the percent allocation to the cost components, and Table 27 uses the percent allocations in Table 26 to allocate FY 2024 expenses in dollars to each cost component.

Table 26: FY 2024 Other Funding Allocation to Cost Components (%)

Other Funding	Methodology / Allocation Basis	Cost Components: Account Services	Meter Capacity	Chromium 6	Water Supply: Purchased Water	Groundwater	Delivery	Peaking	Water Efficiency	Total
Revenue Offsets										
Meter Installation/Fees/Connections	O&M Allocation	13.0%	45.4%	0.0%	0.0%	0.0%	20.1%	21.5%	0.0%	100.0%
Other Operating Income	O&M Allocation	13.0%	45.4%	0.0%	0.0%	0.0%	20.1%	21.5%	0.0%	100.0%
Non-Operating Revenues	O&M Allocation	13.0%	45.4%	0.0%	0.0%	0.0%	20.1%	21.5%	0.0%	100.0%
Adjustments										
Reserve Funding	O&M Allocation	13.0%	45.4%	0.0%	0.0%	0.0%	20.1%	21.5%	0.0%	100.0%
Adjustment for Mid-Year Increase	O&M Allocation	13.0%	45.4%	0.0%	0.0%	0.0%	20.1%	21.5%	0.0%	100.0%

Table 27: FY 2024 Other Funding Allocation to Cost Components ($)

Other Funding	Methodology / Allocation Basis	Cost Components: Account Services	Meter Capacity	Chromium 6	Water Supply: Purchased Water	Groundwater	Delivery	Peaking	Water Efficiency	Total
Revenue Offsets										
Meter Installation/Fees/Connections	O&M Allocation	($11,459)	($39,930)	$0	$0	$0	($17,731)	($18,880)	$0	($88,000)
Other Operating Income	O&M Allocation	($39,715)	($138,395)	$0	$0	$0	($61,454)	($65,436)	$0	($305,000)
Non-Operating Revenues	O&M Allocation	($146,230)	($509,566)	$0	$0	$0	($226,270)	($240,934)	$0	($1,123,000)
Adjustments										
Reserve Funding	O&M Allocation	$82,845	$288,688	$0	$0	$0	$128,191	$136,498	$0	$636,222
Adjustment for Mid-Year Increase	O&M Allocation	$43,817	$152,688	$0	$0	$0	$67,800	$72,194	$0	$336,500
Total Allocation ($)		**($70,742)**	**($246,515)**	**$0**	**$0**	**$0**	**($109,463)**	**($116,557)**	**$0**	**($543,278)**

Table 28 summarizes the FY 2024 total revenue requirements derived in Table 18 by cost component.

Table 28: FY 2024 Cost-of-Service Requirements

Revenue Requirement		Fixed Components: Account Services	Meter Capacity	Chromium 6	Variable Components: Water Supply: Purchased Water	Groundwater	Delivery	Peaking	Water Efficiency	Total
Specific Expenses	Table 21	$0	$0	$839,000	$0	$1,471,000	$5,000	$0	$36,000	$2,351,000
Operating Expenses	Table 23	$718,000	$2,502,000	$0	$0	$0	$1,111,000	$1,183,000	$0	$5,514,000
Debt Service	Table 25	$0	$842,778	$0	$0	$0	$0	$0	$0	$842,778
Other Funding	Table 27	($70,742)	($246,515)	$0	$0	$0	($109,463)	($116,557)	$0	($543,278)
COS Requirements		**$647,258**	**$3,098,263**	**$839,000**	**$0**	**$1,471,000**	**$1,006,537**	**$1,066,443**	**$36,000**	**$8,164,500**

The total revenue requirements by cost component for FY 2025 through FY 2028 can be found in Appendix A-1 through D-1,respectively. The same approach shown for FY 2024 was used for each year of the Rate Setting Period but reflects each fiscal year's revenue requirement.

Rate Design

Develop Units of Service

Unit rates for the cost components 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 corresponding meter, tier, and customer account. When designing rates, the most critical component is connecting the proposed rates to the costs incurred, 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 for each fiscal year. The next step in designing rates is to apportion the total amount of 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 tier. In Table 29 each meter size was assigned an equivalency factor using the flow characteristics of a 3/4" meter. Based on the CSD's meter inventory, the safe maximum operating flow capacity for these meter types, as identified in the AWWA M1 Manual, 6th Edition, Table B-2, were used for determining meter equivalencies.

The safe maximum operating flow capacity for each meter was divided by the 3/4" meters' safe operating flow capacity of 30 gpm 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 safe operating flow capacity of 30 gpm. The Capacity Ratio represents the potential flow through each meter size compared to the flow through the base 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 (12 billing periods). Table 29 summarizes the units of service related to Total Annual Bills and Annual MEs for each year of the Rate Setting Period.

Table 29: Accounts and Meter Equivalents

Meter Size	AWWA Capacity (gpm) [A]	Capacity Ratio [B] = A ÷ 30	Number of Accounts [C]	Meter Equivalents [D] = B x C
≤3/4"	30	1.00	1,915	1,915
1"	50	1.67	5,212	8,687
1 1/2"	100	3.33	20	67
2"	160	5.33	50	267
3"	350	11.67	2	23
4"	630	21.00	1	21
6"	1,300	43.33	0	0
8"	2,800	93.33	0	0
Total			7,200	10,979
Annual Units (Total x 12 Bills)			86,400	131,752

Total usage by customer class and tier must be known to derive the units of service for allocating variable costs. Due to the decrease in the FPA each year, the tier definitions will vary based on the amount of groundwater available to the CSD. However, for FY 2024 and FY 2025, the CSD has carryover water to maintain a Tier 1 allotment of 11 HCF. Each customer class will receive a proportionate share of the groundwater supply available in Tier 1. Tier 1 definitions were determined for each year by dividing the amount of groundwater available, after water loss, by the annual bills shown in Table 29. Tier definitions were rounded up to the nearest whole HCF. Table 30 shows the tier definitions for each year of the Rate Setting Period.

Table 30: FY 2024 to FY 2028 Tier Definitions (HCF)

Groundwater	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Groundwater Available (HCF)	958,320	958,320	758,848	672,207	585,566
÷ Annual Accounts Table 29	86,400	86,400	86,400	86,400	86,400
Groundwater Allocation per Account	11 HCF	11 HCF	9 HCF	8 HCF	7 HCF
Tier Definitions					
All Customers					
Tier 1	0 - 11 HCF	0 - 11 HCF	0 - 9 HCF	0 - 8 HCF	0 - 7 HCF
Tier 2	>11 HCF	>11 HCF	>9 HCF	>8 HCF	>7 HCF

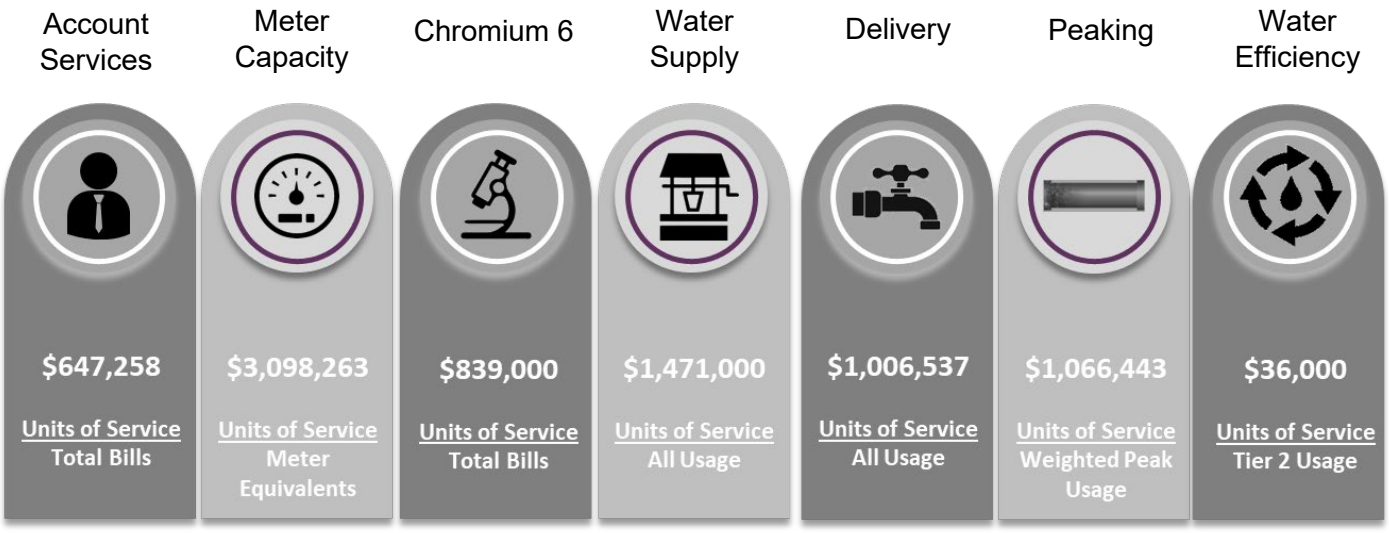
The FY 2024 projected usage by tier was determined using the revised tier definitions in Table 30. Table 31 summarizes the FY 2024 projected usage and the weighted peak usage by tier. FY 2025 through FY 2028 can be found in Appendix A-2 through Appendix D-2, respectively.

Table 31: FY 2024 Projected Usage by Tier (HCF)

Customer Class / Tier	Projected Usage (HCF) [A]	Peaking Factors [B]	Weighted Peak (HCF) [C] = A x B
All Customer Classes			
Tier 1	595,350	1.16	693,002
Tier 2	362,970	2.11	764,690
Total	958,320		1,457,691

With the units of service shown in Table 29 and Table 31, the distribution basis can be identified for each cost component. Figure 13 identifies the total revenue requirements for FY 2024 by cost component from Table 28 and the corresponding service units. The Purchased Water and Groundwater components are combined to make up the Water Supply component.

Figure 13: Distribution Basis and Units of Service by Cost Component



Using the revenue requirements, the cost-of-service allocates expenses to customers based on the service demands that each place on the system (cost causation). This approach was repeated for each year of the Rate Setting Period (as shown in Appendix A-1 through D-1) and ensures that each customer proportionately shares in the financial obligation of the water utility. For the following unit rate computations for each cost component, unit rates were rounded up to the nearest penny.

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 total accounts by the number of billing periods over the fiscal year (12 billing periods). Therefore, the revenue requirement for Account Services is apportioned based on the Total Bills (Table 29 – Number of accounts, Annual Units) to determine the monthly unit cost-of-service shown in Table 32. The Account Services unit rate was determined for each year using the same approach shown for FY 2024, see Appendix A-2 through D-2.

Table 32: FY 2024 Account Services Monthly Unit Rate

Account Services Component Unit Rate	
Revenue Requirement	$647,258
÷ Total Bills	86,400
Monthly Unit Rate	**$7.50**

Meter Capacity

The Meter Capacity Component includes system-wide costs and debt. 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 gallons per minute (gpm). Meter equivalents were used to create parity among the various meter sizes ranging from 3/4" to 4". In Table 29, each meter size was assigned an equivalency factor determined by the flow characteristics of a 3/4" meter based on the safe maximum operating flow capacity by meter type, as identified in the AWWA M1 Manual, 6th Edition, Table B-2. Each meter's safe maximum operating flow capacity was divided by the base meter's safe operating flow capacity of 30 gpm to determine the equivalent meter ratio. The Capacity Factors in Table 29 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 Factors and multiplying the result by 12 billing periods (Table 29). The revenue requirement for Meter Capacity is then apportioned based on meter size as represented by total MEs and summarized in Table 33. The Meter Capacity unit rate was determined for each year using the same approach shown for FY 2024, as shown in Appendix A-2 through D-2.

Table 33: FY 2024 Meter Capacity Monthly Unit Rate

Meter Capacity Component Unit Rate	
Revenue Requirement	$3,098,263
÷ Total ME's	131,752
Monthly Unit Rate	**$23.52**

Chromium 6 Surcharge

The Chromium 6 Surcharge will continue at the current cost recovery. Therefore, the revenue requirement for Chromium 6 is apportioned based on total bills to determine the monthly unit cost-of-service shown in Table 34. The Chromium 6 fixed charge will remain constant for all five years.

Table 34: FY 2024 Chromium 6 Monthly Unit Rate

Chromium 6 Component Unit Rate	
Revenue Requirement	$839,000
÷ Total Bills	86,400
Monthly Unit Rate	**$9.71**

Variable Cost Recovery

The remaining cost components are recovered through the variable rates. The proposed variable rate structure includes tiers for all customer classes.

Water Supply

The CSD's water supplies are solely groundwater, with most of its groundwater production from the MBA. The CSD has limits on groundwater production, which is set on an annual basis by the Mojave Water Agency as Watermaster. The CSD's FPA has decreased by almost 950 AF since FY 2021 and equals 2,518 AF for FY 2024. By FY 2028, the CSD's FPA will decrease to 1,582 AF.

The CSD's current water demand is approximately 2,588 AF, which is greater than the amount of the FPA. However, for FY 2024 and FY 2025, the CSD has available carryover groundwater production rights from previous years to cover its customer's total water demand and not incur replacement water. As the FPA continues to ramp down in future years, the CSD will need to lease replacement water from the MWA, incurring higher purchased water costs each year, commencing in FY 2026.

Tiered rates reflect the different water supply costs by source to serve each tier, with the groundwater from the FPA serving Tier 1 followed by a blend of remaining groundwater and more expensive leased water from MWA to serve Tier 2. The CSD's water loss is 15%, which is caused by evaporation, exfiltration, and leaks/breaks in the distribution system. The water loss percentage was applied to the water production to derive the net amount of each water supply available to serve customer demands. In FY 2024 and FY 2025, the water supply costs for each tier are the same due to the use of carryover water. Table 35 summarizes the unit rates for each water supply available to the CSD for FY 2024. The Water Supply unit rates were determined for each year using the same approach shown for FY 2024, as shown in Appendix A-2 through D-2.

Table 35: FY 2024 Water Supply Unit Rates

Water Supplies	Production / Purchases (AF) [A]	Water Loss [B]	Net Water Supply (AF) [C] = A x (1-B)	Avaliable Supply (HCF) [D] = C x 435.6	Revenue Requirement [E]	Unit Rate [F] = E ÷ D
Purchased Water	0	15.0%	0	0	$0	$0.00
Groundwater	2,588	15.0%	2,200	958,320	$1,471,000	$1.53
Total	2,588		2,200	958,320	$1,471,000	

Unit rates must be determined for each tier that corresponds to the water source serving the usage within each tier. Table 36 summarizes the amount of water - by source - used to serve total water demand in each tier for FY 2024. The corresponding unit rate is rounded up to the nearest penny. Groundwater is used to cover the total demand in Tier 1 and Tier 2 for FY 2024 and FY 2025. However, due to the ramp down of the FPA, in FY 2026 through FY 2028, leased water is required to meet the remaining demand in Tier 2, as shown in Appendix A-2 through D-2.

Table 36: FY 2024 Tier Water Supply Unit Rates

Water Supply Allocation	Projected Usage (HCF) [A]	Groundwater [B]	Purchased Water [C] = (A-B)	Total Usage [D] = (B + C)	Total Cost [E] = Unit Rate x Usage	Water Supply Unit Rate [F] = (E ÷ A)
Available Supply	Table 35	*958,320*	*0*			
Effective Unit Cost		*$1.53*	*$0.00*			
All Customer Classes						
Tier 1	595,350	595,350	0	595,350	$913,849	$1.54
Tier 2	362,970	362,970	0	362,970	$557,151	$1.54
Total	958,320	958,320	0	958,320	$1,471,000	

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 usage identified in Table 31, for FY 2024, to determine the unit cost-of-service, irrespective of tier, as shown in Table 37. The Delivery unit rate was determined for each year using the same approach shown for FY 2024, as shown in Appendix A-2 through D-2.

Table 37: FY 2024 Delivery Unit Rate

Delivery Cost Component Unit Rate	
Revenue Requirement	$1,006,537
÷ Projected Usage (HCF)	958,320
Monthly Unit Rate	$1.06

Peaking

Peaking costs are incurred not only based on the total volume of water produced and delivered but also as a function of the peaking characteristics of tiers. Therefore, the revenue requirement for Peaking is apportioned by weighting each customer class's peaking factor by total usage as shown in Table 31, for FY 2024. Table 38 provides the usage characteristics for FY 2024 by tier, the corresponding weighted peak, and the proportionate share of the revenue requirement for each tier. The unit rate per tier is then determined by taking the revenue requirement divided by the projected usage. The Peaking unit rate was determined for each year using the same approach shown for FY 2024, as shown in Appendix A-2 through D-2.

Table 38: FY 2024 Peaking Unit Rate by Tier

Customer Class	Projected Usage [A]	Weighted Peak (HCF) [B]	% Allocation [C] = B as %	Revenue Requirement [D] = $1,066,443 x C	Unit Rate [E] = D ÷ A
All Customer Classes					
Tier 1	595,350	693,002	47.5%	$506,998	$0.86
Tier 2	362,970	764,690	52.5%	$559,445	$1.55
	958,320	1,457,691	100.0%	$1,066,443	

Water Efficiency

Water Efficiency revenue requirements are apportioned to each tier as shown in Table 39. The entire revenue requirement is recovered proportionately over Tier 2 as conservation programs and rebates aim to mitigate high water usage above the CSD's FPA (usage over Tier 1). The Water Efficiency unit rate was determined for each year using the same approach shown for FY 2024, as shown in Appendix A-2 through D-2.

Table 39: FY 2024 Water Efficiency Unit Rate by Tier

Customer Class	Projected Usage (HCF) [A]	Factor [B]	Weighted Usage [C] = A x B	% Allocation [D] = C as %	Revenue Requirement [E] = $36,000 x D	Unit Rate [F] = E ÷ A
All Customer Classes						
Tier 1	595,350	0.00	0	0.0%	$0	$0.00
Tier 2	362,970	1.00	362,970	100.0%	$36,000	$0.10
Total	958,320		362,970	100.0%	$36,000	

FY 2024 Cost-of-Service Rates

Proposed FY 2024 Monthly Fixed Charges

Table 40 reflects the combined charges of the CSD's proposed fixed charge of Account Services and Meter Capacity for FY 2024. Account Services are constant for all meter sizes. Meter Capacity is multiplied by the corresponding Capacity Ratios of each meter size to derive the FY 2024 fixed charges. The fixed charges were determined for each year using the same approach shown for FY 2024, as shown in Appendix A-2 through D-2.

Table 40: FY 2024 Monthly Fixed Charges by Meter Size

Meter Size	Capacity Ratio [A]	Meters	Account Services [B] = $7.50	Meter Capacity [C] = $23.52 x A	FY 2024 Proposed Base Fixed Charge [D] = B + C
≤3/4"	1.00	1,915	$7.50	$23.52	$31.02
1"	1.67	5,212	$7.50	$39.20	$46.70
1 1/2"	3.33	20	$7.50	$78.40	$85.90
2"	5.33	50	$7.50	$125.44	$132.94
3"	11.67	2	$7.50	$274.40	$281.90
4"	21.00	1	$7.50	$493.92	$501.42
6"	43.33	0	$7.50	$1,019.20	$1,026.70
8"	93.33	0	$7.50	$2,195.20	$2,202.70

Table 41 shows the Chromium 6 Surcharge. The Chromium 6 Surcharge is constant for all meter sizes and will remain constant throughout the Rate Setting Period.

Table 41: Monthly Chromium 6 Surcharges by Meter Size

Meter Size	Capacity Ratio	Meters	Chromium 6	Proposed Chromium-6 Surcharge
≤3/4"	1.00	1,915	$9.71	$9.71
1"	1.67	5,212	$9.71	$9.71
1 1/2"	3.33	20	$9.71	$9.71
2"	5.33	50	$9.71	$9.71
3"	11.67	2	$9.71	$9.71
4"	21.00	1	$9.71	$9.71
6"	43.33	0	$9.71	$9.71
8"	93.33	0	$9.71	$9.71

Proposed FY 2024 Variable Rates

The proposed variable rates for FY 2024 are shown in Table 42 for each tier, reflecting the combined rate components of Water Supply, Delivery, Peaking, and Water Efficiency. The variable rates were determined for each year using the same approach shown for FY 2024, as shown in Appendix A-2 through D-2.

Table 42: FY 2024 Variable Rates by Tier (HCF)

Customer Class & Tier	Tier Definitions (HCF)	Projected Usage (HCF)	Water Supply [A]	Delivery [B]	Peaking [C]	Water Efficiency [D]	FY 2024 Proposed Variable Rate [E] = A + B + C + D
All Customer Classes							
Tier 1	0 - 11	595,350	$1.54	$1.06	$0.86	$0.00	**$3.46**
Tier 2	>11	362,970	$1.54	$1.06	$1.55	$0.10	**$4.25**

Cost-Based Rates

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 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 CSD's revenue requirements for the water utility, 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 CSD's water utility is analyzed as a separate business enterprise to track revenues and expenses and does not fund services other than those necessary for the provision of water.

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 fair share of water costs. Through this updated analysis, each customer will pay the proportional cost of providing service to that 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.

   Only properties that are receiving water service or have service immediately available to them are required to pay the fixed and variable charges described in this study.

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 owner 45 days before the October 11, 2023, Public Hearing.

The proposed water 5-year rate schedules (FY 2024 through FY 2028) are shown in the following section. If a majority protest does not occur by or at the October 11th Public Hearing, the CSD Board may adopt the rates with an effective date of November 1, 2023.

Rate Schedules

Table 43 through Table 45 summarizes the five-year water rate schedule for the monthly fixed charges and variable rates, respectively.

Table 43: Proposed Monthly Fixed Charge (FY 2024 – FY 2028)

Fixed Charges ($/Month)					
Meter Size	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**	**FY 2028**
≤3/4"	$31.02	$35.76	$39.75	$45.88	$53.13
1"	$46.70	$53.61	$59.41	$68.36	$78.95
1 1/2"	$85.90	$98.22	$108.56	$124.56	$143.50
2"	$132.94	$151.76	$167.54	$192.00	$220.96
3"	$281.90	$321.31	$354.31	$405.56	$466.25
4"	$501.42	$571.16	$629.55	$720.28	$827.73
6"	$1,026.70	$1,169.02	$1,288.16	$1,473.36	$1,692.70
8"	$2,202.70	$2,507.52	$2,762.66	$3,159.36	$3,629.20

Table 44: Proposed Monthly Chromium 6 Surcharge (FY 2024 – FY 2028)

Chromium 6 Surcharges ($/Month)					
Meter Size	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**	**FY 2028**
≤3/4"	$9.71	$9.71	$9.71	$9.71	$9.71
1"	$9.71	$9.71	$9.71	$9.71	$9.71
1 1/2"	$9.71	$9.71	$9.71	$9.71	$9.71
2"	$9.71	$9.71	$9.71	$9.71	$9.71
3"	$9.71	$9.71	$9.71	$9.71	$9.71
4"	$9.71	$9.71	$9.71	$9.71	$9.71
6"	$9.71	$9.71	$9.71	$9.71	$9.71
8"	$9.71	$9.71	$9.71	$9.71	$9.71

Table 45: Proposed Variable Charge (FY 2024 – FY 2028)

Variable Rates ($/HCF)					
Customer Class	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**	**FY 2028**
All Customers					
Tier 1	$3.46	$4.04	$4.55	$5.20	$5.96
Tier 2	$4.25	$4.97	$6.27	$7.28	$8.36

Appendix A-1 – FY 2025 Cost-of-Service Analysis

Table 46: FY 2025 Specific Expense Allocation to Cost Components (%)

Specific Expenses	Methodology / Allocation Basis	Cost Components: Account Services	Meter Capacity	Chromium 6	Water Supply: Purchased Water	Groundwater	Delivery	Peaking	Water Efficiency	Total
Water Supply										
MWA/Antelope WM Admin. & Bio Fee	Specific	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	100.0%
MWA/Antelope WM Make Up Water	Specific	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	100.0%
MWA/AVW Replacement Water	Specific	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%
AVW Purchases (Emergency)	Specific	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%
Water Purchases - Other	Specific	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Electricity GW	Specific	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	100.0%
Electricity Leased Water	Specific	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Chromium 6 Mitigation	Specific	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Conservation	Specific	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%

Table 47: FY 2025 Specific Expense Allocation to Cost Components ($)

Specific Expenses	Methodology / Allocation Basis	Cost Components: Account Services	Meter Capacity	Chromium 6	Water Supply: Purchased Water	Groundwater	Delivery	Peaking	Water Efficiency	Total
Water Supply										
MWA/Antelope WM Admin. & Bio Fee	Specific	$0	$0	$0	$0	$15,000	$0	$0	$0	$15,000
MWA/Antelope WM Make Up Water	Specific	$0	$0	$0	$0	$3,000	$0	$0	$0	$3,000
MWA/AVW Replacement Water	Specific	$0	$0	$0	$0	$0	$0	$0	$0	$0
AVW Purchases (Emergency)	Specific	$0	$0	$0	$0	$0	$5,000	$0	$0	$5,000
Water Purchases - Other	Specific	$0	$0	$0	$0	$0	$0	$0	$0	$0
Electricity GW	Specific	$0	$0	$0	$0	$1,598,000	$0	$0	$0	$1,598,000
Electricity Leased Water	Specific	$0	$0	$0	$0	$0	$0	$0	$0	$0
Chromium 6 Mitigation	Specific	$0	$0	$839,000	$0	$0	$0	$0	$0	$839,000
Conservation	Specific	$0	$0	$0	$0	$0	$0	$0	$38,000	$38,000
Total Allocation ($)		**$0**	**$0**	**$839,000**	**$0**	**$1,616,000**	**$5,000**	**$0**	**$38,000**	**$2,498,000**

Table 48: FY 2025 O&M Expense Allocation to Cost Components (%)

Operating Expenses	Methodology / Allocation Basis	Cost Components: Account Services	Meter Capacity	Chromium 6	Water Supply: Purchased Water	Groundwater	Delivery	Peaking	Water Efficiency	Total
Administration	Specific	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Customer Accounts/Meters	Specific	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Distribution/Transmission	Max Hour Demand	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	66.7%	0.0%	100.0%
Engineering	Max Day Demand	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%	100.0%
Operations	Max Hour Demand	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	66.7%	0.0%	100.0%
Production (Source of Supply)	Average Day Demand	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%
Vehicles and Equipment	Specific	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Water Quality	Specific	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Inter-Transfers	Average Day Demand	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%

Table 49: FY 2025 O&M Expense Allocation to Cost Components ($)

Operating Expenses	Methodology / Allocation Basis	Cost Components: Account Services	Meter Capacity	Water Supply: Chromium 6	Purchased Water	Groundwater	Delivery	Peaking	Water Efficiency	Total
Administration	*Specific*	$0	$2,287,000	$0	$0	$0	$0	$0	$0	$2,287,000
Customer Accounts/Meters	*Specific*	$756,000	$0	$0	$0	$0	$0	$0	$0	$756,000
Distribution/Transmission	*Max Hour Demand*	$0	$0	$0	$0	$0	$214,667	$429,333	$0	$644,000
Engineering	*Max Day Demand*	$0	$0	$0	$0	$0	$237,500	$237,500	$0	$475,000
Operations	*Max Hour Demand*	$0	$0	$0	$0	$0	$289,000	$578,000	$0	$867,000
Production (Source of Supply)	*Average Day Demand*	$0	$0	$0	$0	$0	$536,000	$0	$0	$536,000
Vehicles and Equipment	*Specific*	$0	$228,000	$0	$0	$0	$0	$0	$0	$228,000
Water Quality	*Specific*	$0	$112,000	$0	$0	$0	$0	$0	$0	$112,000
Inter-Transfers	*Average Day Demand*	$0	$0	$0	$0	$0	($52,000)	$0	$0	($52,000)
Total Allocation ($)		**$756,000**	**$2,627,000**	**$0**	**$0**	**$0**	**$1,225,167**	**$1,244,833**	**$0**	**$5,853,000**
Operating Expenses Allocation (%)		*12.9%*	*44.9%*	*0.0%*	*0.0%*	*0.0%*	*20.9%*	*21.3%*	*0.0%*	*100.0%*

Table 50: FY 2025 Debt Expense Allocation to Cost Components (%)

Debt Service	Methodology / Allocation Basis	Cost Components: Account Services	Meter Capacity	Water Supply: Chromium 6	Purchased Water	Groundwater	Delivery	Peaking	Water Efficiency	Total
Existing Debt	Specific	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Existing Debt Offsets	Specific	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Table 51: FY 2025 Debt Expense Allocation to Cost Components ($)

Debt Service	Methodology / Allocation Basis	Cost Components: Account Services	Meter Capacity	Water Supply: Chromium 6	Purchased Water	Groundwater	Delivery	Peaking	Water Efficiency	Total
Existing Debt	*Specific*	$0	$1,351,000	$0	$0	$0	$0	$0	$0	$1,351,000
Existing Debt Offsets	*Specific*	$0	($522,222)	$0	$0	$0	$0	$0	$0	($522,222)
Total Allocation ($)		**$0**	**$828,778**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$828,778**

Table 52: FY 2025 Other Funding Allocation to Cost Components (%)

Other Funding	Methodology / Allocation Basis	Cost Components: Account Services	Meter Capacity	Water Supply: Chromium 6	Purchased Water	Groundwater	Delivery	Peaking	Water Efficiency	Total
Revenue Offsets										
Meter Installation/Fees/Connections	O&M Allocation	12.9%	44.9%	0.0%	0.0%	0.0%	20.9%	21.3%	0.0%	100.0%
Other Operating Income	O&M Allocation	12.9%	44.9%	0.0%	0.0%	0.0%	20.9%	21.3%	0.0%	100.0%
Non-Operating Revenues	O&M Allocation	12.9%	44.9%	0.0%	0.0%	0.0%	20.9%	21.3%	0.0%	100.0%
Adjustments										
Reserve Funding	O&M Allocation	12.9%	44.9%	0.0%	0.0%	0.0%	20.9%	21.3%	0.0%	100.0%
Adjustment for Mid-Year Increase	O&M Allocation	12.9%	44.9%	0.0%	0.0%	0.0%	20.9%	21.3%	0.0%	100.0%

Table 53: FY 2025 Other Funding Allocation to Cost Components ($)

Other Funding	Methodology / Allocation Basis	Cost Components: Account Services	Meter Capacity	Water Supply: Chromium 6	Purchased Water	Groundwater	Delivery	Peaking	Water Efficiency	Total
Revenue Offsets										
Meter Installation/Fees/Connections	*O&M Allocation*	($11,366)	($39,497)	$0	$0	$0	($18,420)	($18,716)	$0	($88,000)
Other Operating Income	*O&M Allocation*	($39,395)	($136,893)	$0	$0	$0	($63,843)	($64,868)	$0	($305,000)
Non-Operating Revenues	*O&M Allocation*	($78,403)	($272,440)	$0	$0	$0	($127,059)	($129,099)	$0	($607,000)
Adjustments										
Reserve Funding	*O&M Allocation*	$149,472	$519,396	$0	$0	$0	$242,233	$246,121	$0	$1,157,222
Adjustment for Mid-Year Increase	*O&M Allocation*	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Allocation ($)		**$20,308**	**$70,566**	**$0**	**$0**	**$0**	**$32,910**	**$33,438**	**$0**	**$157,222**

Table 54: FY 2025 Cost-of-Service Requirements

		Fixed Components			Variable Components					
					Water Supply					
Revenue Requirement		**Account Services**	**Meter Capacity**	**Chromium 6**	**Purchased Water**	**Groundwater**	**Delivery**	**Peaking**	**Water Efficiency**	**Total**
Specific Expenses	**Table 47**	$0	$0	$839,000	$0	$1,616,000	$5,000	$0	$38,000	$2,498,000
Operating Expenses	**Table 49**	$756,000	$2,627,000	$0	$0	$0	$1,225,167	$1,244,833	$0	$5,853,000
Debt Service	**Table 51**	$0	$828,778	$0	$0	$0	$0	$0	$0	$828,778
Other Funding	**Table 53**	$20,308	$70,566	$0	$0	$0	$32,910	$33,438	$0	$157,222
COS Requirements		**$776,308**	**$3,526,344**	**$839,000**	**$0**	**$1,616,000**	**$1,263,077**	**$1,278,272**	**$38,000**	**$9,337,000**

Appendix A-2 – FY 2025 Rate Design

Table 55: FY 2025 Projected Usage by Tier (HCF)

Customer Class / Tier	Projected Usage (HCF) [A]	Peaking Factors [B]	Weighted Peak (HCF) [C] = A x B
All Customer Classes			
Tier 1	595,350	1.16	693,002
Tier 2	362,970	2.11	764,690
Total	958,320		1,457,691

Table 56: FY 2025 Account Services Monthly Unit Rate

Account Services Component Unit Rate	
Revenue Requirement	$776,308
÷ Total Bills	86,400
Monthly Unit Rate	$8.99

Table 57: FY 2025 Meter Capacity Monthly Unit Rate

Meter Capacity Component Unit Rate	
Revenue Requirement	$3,526,344
÷ Total ME's	131,752
Monthly Unit Rate	$26.77

Table 58: FY 2025 Chromium 6 Monthly Unit Rate

Chromium 6 Component Unit Rate	
Revenue Requirement	$839,000
÷ Total Bills	86,400
Monthly Unit Rate	$9.71

Table 59: FY 2025 Water Supply Unit Rates

Water Supplies	Production / Purchases (AF) [A]	Water Loss [B]	Net Water Supply (AF) [C] = A x (1-B)	Avaliable Supply (HCF) [D] = C x 435.6	Revenue Requirement [E]	Unit Rate [F] = E ÷ D
Purchased Water	0	15.0%	0	0	$0	$0.00
Groundwater	2,588	15.0%	2,200	958,320	$1,616,000	$1.69

Table 60: FY 2025 Tier Water Supply Unit Rates

Water Supply Allocation	Projected Usage (HCF) [A]	GW Allocation [B]	Groundwater [B]	Purchased Water [C] = (A-B)	Total Usage [D] = (B + C)	Total Cost [E] = Unit Rate x Usage	Water Supply Unit Rate [F] = (E ÷ A)
Available Supply	**Table 59**		*958,320*	*0*			
Effective Unit Cost			*$1.69*	*$0.00*			
All Customer Classes							
Tier 1	595,350	950,400	595,350	0	595,350	$1,003,929	**$1.69**
Tier 2	362,970	7,920	362,970	0	362,970	$612,071	**$1.69**
Total	958,320	958,320	958,320	0	958,320	$1,616,000	

Table 61: FY 2025 Delivery Unit Rate

Delivery Cost Component Unit Rate	
Revenue Requirement	$1,263,077
÷ Projected Usage (HCF	958,320
Monthly Unit Rate	$1.32

Table 62: FY 2025 Peaking Unit Rate by Tier

Customer Class	Projected Usage (HCF) [A]	Weighted Peak (HCF) [B]	% Allocation [C] = B as %	Revenue Requirement [D] = $1,278,272 x C	Unit Rate [E] = D ÷ A
All Customer Classes					
Tier 1	595,350	693,002	47.5%	$607,704	**$1.03**
Tier 2	362,970	764,690	52.5%	$670,568	**$1.85**
	958,320	1,457,691	100.0%	$1,278,272	

Table 63: FY 2025 Water Efficiency Unit Rate by Tier

Customer Class	Projected Usage (HCF) [A]	Factor [B]	Weighted Usage [C] = A x B	% Allocation [D] = C as %	Revenue Requirement [E] = $38,000 x D	Unit Rate [F] = E ÷ A
All Customer Classes						
Tier 1	595,350	0.00	0	0.0%	$0	**$0.00**
Tier 2	362,970	1.00	362,970	100.0%	$38,000	**$0.11**
Total	958,320		362,970	100.0%	$38,000	

Table 64: FY 2025 Monthly Fixed Charges by Meter Size

Meter Size	Capacity Ratio [A]	Meters	Account Services [B] = $8.99	Meter Capacity [C] = $26.77 x A	FY 2025 Proposed Base Fixed Charge [D] = B + C
≤3/4"	1.00	1,915	$8.99	$26.77	$35.76
1"	1.67	5,212	$8.99	$44.62	$53.61
1 1/2"	3.33	20	$8.99	$89.23	$98.22
2"	5.33	50	$8.99	$142.77	$151.76
3"	11.67	2	$8.99	$312.32	$321.31
4"	21.00	1	$8.99	$562.17	$571.16
6"	43.33	0	$8.99	$1,160.03	$1,169.02
8"	93.33	0	$8.99	$2,498.53	$2,507.52

Table 65: FY 2025 Variable Rates by Tier (HCF)

Customer Class & Tier	Tier Definitions (HCF)	Projected Usage (HCF)	Water Supply [A]	Delivery [B]	Peaking [C]	Water Efficiency [D]	FY 2025 Proposed Variable Rate [E] = A + B + C + D
All Customer Classes							
Tier 1	0 - 11	595,350	$1.69	$1.32	$1.03	$0.00	$4.04
Tier 2	>11	362,970	$1.69	$1.32	$1.85	$0.11	$4.97

Appendix B-1 – FY 2026 Cost-of-Service Analysis

Table 66: FY 2026 Specific Expense Allocation to Cost Components (%)

Specific Expenses	Methodology / Allocation Basis	Cost Components: Water Supply: Account Services	Meter Capacity	Chromium 6	Purchased Water	Groundwater	Delivery	Peaking	Water Efficiency	Total
Water Supply										
MWA/Antelope WM Admin. & Bio Fee	Specific	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	100.0%
MWA/Antelope WM Make Up Water	Specific	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	100.0%
MWA/AVW Replacement Water	Specific	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%
AVW Purchases (Emergency)	Specific	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%
Water Purchases - Other	Specific	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Electricity GW	Specific	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	100.0%
Electricity Leased Water	Specific	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Chromium 6 Mitigation	Specific	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Conservation	Specific	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%

Table 67: FY 2026 Specific Expense Allocation to Cost Components ($)

Specific Expenses	Methodology / Allocation Basis	Cost Components: Water Supply: Account Services	Meter Capacity	Chromium 6	Purchased Water	Groundwater	Delivery	Peaking	Water Efficiency	Total
Water Supply										
MWA/Antelope WM Admin. & Bio Fee	Specific	$0	$0	$0	$0	$12,000	$0	$0	$0	$12,000
MWA/Antelope WM Make Up Water	Specific	$0	$0	$0	$0	$3,000	$0	$0	$0	$3,000
MWA/AVW Replacement Water	Specific	$0	$0	$0	$315,000	$0	$0	$0	$0	$315,000
AVW Purchases (Emergency)	Specific	$0	$0	$0	$0	$0	$6,000	$0	$0	$6,000
Water Purchases - Other	Specific	$0	$0	$0	$0	$0	$0	$0	$0	$0
Electricity GW	Specific	$0	$0	$0	$0	$1,392,000	$0	$0	$0	$1,392,000
Electricity Leased Water	Specific	$0	$0	$0	$366,000	$0	$0	$0	$0	$366,000
Chromium 6 Mitigation	Specific	$0	$0	$839,000	$0	$0	$0	$0	$0	$839,000
Conservation	Specific	$0	$0	$0	$0	$0	$0	$0	$40,000	$40,000
Total Allocation ($)		**$0**	**$0**	**$839,000**	**$681,000**	**$1,407,000**	**$6,000**	**$0**	**$40,000**	**$2,973,000**

Table 68: FY 2026 O&M Expense Allocation to Cost Components (%)

Operating Expenses	Methodology / Allocation Basis	Cost Components: Water Supply: Account Services	Meter Capacity	Chromium 6	Purchased Water	Groundwater	Delivery	Peaking	Water Efficiency	Total
Administration	Specific	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Customer Accounts/Meters	Specific	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Distribution/Transmission	Max Hour Demand	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	66.7%	0.0%	100.0%
Engineering	Max Day Demand	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%	100.0%
Operations	Max Hour Demand	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	66.7%	0.0%	100.0%
Production (Source of Supply)	Average Day Demand	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%
Vehicles and Equipment	Specific	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Water Quality	Specific	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Inter-Transfers	Average Day Demand	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%

Table 69: FY 2026 O&M Expense Allocation to Cost Components ($)

Operating Expenses	Methodology / Allocation Basis	Cost Components: Account Services	Meter Capacity	Chromium 6	Water Supply: Purchased Water	Groundwater	Delivery	Peaking	Water Efficiency	Total
Administration	*Specific*	$0	$2,402,000	$0	$0	$0	$0	$0	$0	$2,402,000
Customer Accounts/Meters	*Specific*	$796,000	$0	$0	$0	$0	$0	$0	$0	$796,000
Distribution/Transmission	*Max Hour Demand*	$0	$0	$0	$0	$0	$224,667	$449,333	$0	$674,000
Engineering	*Max Day Demand*	$0	$0	$0	$0	$0	$250,500	$250,500	$0	$501,000
Operations	*Max Hour Demand*	$0	$0	$0	$0	$0	$304,333	$608,667	$0	$913,000
Production (Source of Supply)	*Average Day Demand*	$0	$0	$0	$0	$0	$563,000	$0	$0	$563,000
Vehicles and Equipment	*Specific*	$0	$237,000	$0	$0	$0	$0	$0	$0	$237,000
Water Quality	*Specific*	$0	$118,000	$0	$0	$0	$0	$0	$0	$118,000
Inter-Transfers	*Average Day Demand*	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Allocation ($)		**$796,000**	**$2,757,000**	**$0**	**$0**	**$0**	**$1,342,500**	**$1,308,500**	**$0**	**$6,204,000**
Operating Expenses Allocation (%)		*12.8%*	*44.4%*	*0.0%*	*0.0%*	*0.0%*	*21.6%*	*21.1%*	*0.0%*	*100.0%*

Table 70: FY 2026 Debt Expense Allocation to Cost Components (%)

Debt Service	Methodology / Allocation Basis	Cost Components: Account Services	Meter Capacity	Chromium 6	Water Supply: Purchased Water	Groundwater	Delivery	Peaking	Water Efficiency	Total
Existing Debt	**Specific**	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Existing Debt Offsets	**Specific**	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Table 71: FY 2026 Debt Expense Allocation to Cost Components ($)

Debt Service	Methodology / Allocation Basis	Cost Components: Account Services	Meter Capacity	Chromium 6	Water Supply: Purchased Water	Groundwater	Delivery	Peaking	Water Efficiency	Total
Existing Debt	*Specific*	$0	$1,338,000	$0	$0	$0	$0	$0	$0	$1,338,000
Existing Debt Offsets	*Specific*	$0	($522,222)	$0	$0	$0	$0	$0	$0	($522,222)
Total Allocation ($)		**$0**	**$815,778**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$815,778**

Table 72: FY 2026 Other Funding Allocation to Cost Components (%)

Other Funding	Methodology / Allocation Basis	Cost Components: Account Services	Meter Capacity	Chromium 6	Water Supply: Purchased Water	Groundwater	Delivery	Peaking	Water Efficiency	Total
Revenue Offsets										
Meter Installation/Fees/Connections	**O&M Allocation**	12.8%	44.4%	0.0%	0.0%	0.0%	21.6%	21.1%	0.0%	100.0%
Other Operating Income	**O&M Allocation**	12.8%	44.4%	0.0%	0.0%	0.0%	21.6%	21.1%	0.0%	100.0%
Non-Operating Revenues	**O&M Allocation**	12.8%	44.4%	0.0%	0.0%	0.0%	21.6%	21.1%	0.0%	100.0%
Adjustments										
Reserve Funding	**O&M Allocation**	12.8%	44.4%	0.0%	0.0%	0.0%	21.6%	21.1%	0.0%	100.0%
Adjustment for Mid-Year Increase	**O&M Allocation**	12.8%	44.4%	0.0%	0.0%	0.0%	21.6%	21.1%	0.0%	100.0%

Table 73: FY 2026 Other Funding Allocation to Cost Components ($)

Other Funding	Methodology / Allocation Basis	Cost Components: Account Services	Meter Capacity	Chromium 6	Water Supply: Purchased Water	Groundwater	Delivery	Peaking	Water Efficiency	Total
Revenue Offsets										
Meter Installation/Fees/Connections	*O&M Allocation*	($11,291)	($39,106)	$0	$0	$0	($19,043)	($18,560)	$0	($88,000)
Other Operating Income	*O&M Allocation*	($39,133)	($135,539)	$0	$0	$0	($66,000)	($64,328)	$0	($305,000)
Non-Operating Revenues	*O&M Allocation*	($77,496)	($268,412)	$0	$0	$0	($130,701)	($127,391)	$0	($604,000)
Adjustments										
Reserve Funding	*O&M Allocation*	$218,146	$755,563	$0	$0	$0	$367,916	$358,598	$0	$1,700,222
Adjustment for Mid-Year Increase	*O&M Allocation*	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Allocation ($)		**$90,226**	**$312,505**	**$0**	**$0**	**$0**	**$152,172**	**$148,318**	**$0**	**$703,222**

Table 74: FY 2026 Cost-of-Service Requirements

Revenue Requirement		Fixed Components			Variable Components					Total
					Water Supply					
		Account Services	Meter Capacity	Chromium 6	Purchased Water	Groundwater	Delivery	Peaking	Water Efficiency	
Specific Expenses	**Table 67**	$0	$0	$839,000	$681,000	$1,407,000	$6,000	$0	$40,000	$2,973,000
Operating Expenses	**Table 69**	$796,000	$2,757,000	$0	$0	$0	$1,342,500	$1,308,500	$0	$6,204,000
Debt Service	**Table 71**	$0	$815,778	$0	$0	$0	$0	$0	$0	$815,778
Other Funding	**Table 73**	$90,226	$312,505	$0	$0	$0	$152,172	$148,318	$0	$703,222
COS Requirements		**$886,226**	**$3,885,283**	**$839,000**	**$681,000**	**$1,407,000**	**$1,500,672**	**$1,456,818**	**$40,000**	**$10,696,000**

Appendix B-2 – FY 2026 Rate Design

Table 75: FY 2026 Projected Usage by Tier (HCF)

Customer Class / Tier	Projected Usage (HCF) [A]	Peaking Factors [B]	Weighted Peak (HCF) [C] = A x B
All Customer Classes			
Tier 1	529,597	1.13	597,202
Tier 2	428,723	2.04	872,497
Variable Units	958,320		1,469,700

Table 76: FY 2026 Account Services Monthly Unit Rate

Account Services Component Unit Rate	
Revenue Requirement	$886,226
÷ Total Bills	86,400
Monthly Unit Rate	$10.26

Table 77: FY 2026 Meter Capacity Monthly Unit Rate

Meter Capacity Component Unit Rate	
Revenue Requirement	$3,885,283
÷ Total ME's	131,752
Monthly Unit Rate	$29.49

Table 78: FY 2026 Chromium 6 Monthly Unit Rate

Chromium 6 Component Unit Rate	
Revenue Requirement	$839,000
÷ Total Bills	86,400
Monthly Unit Rate	$9.71

Table 79: FY 2026 Water Supply Unit Rates

Water Supplies	Production / Purchases (AF) [A]	Water Loss [B]	Net Water Supply (AF) [C] = A x (1-B)	Avaliable Supply (HCF) [D] = C x 435.6	Revenue Requirement [E]	Unit Rate [F] = E ÷ D
Purchased Water	539	15.0%	458	199,472	$681,000	$3.41
Groundwater	2,050	15.0%	1,742	758,848	$1,407,000	$1.85
Total	2,588		2,200	958,320	$2,088,000	

Table 80: FY 2026 Tier Water Supply Unit Rates

Water Supply Allocation	Projected Usage (HCF) [A]	Groundwater [B]	Purchased Water [C] = (A-B)	Total Usage [D] = (B + C)	Total Cost [E] = Unit Rate x Usage	Water Supply Unit Rate [F] = (E ÷ A)
Available Supply	Table 79	*758,848*	*199,472*			
Effective Unit Cost		*$1.85*	*$3.41*			
All Customer Classes						
Tier 1	529,597	529,597	0	529,597	$981,940	$1.86
Tier 2	428,723	229,251	199,472	428,723	$1,106,060	$2.58
Total	958,320	758,848	199,472	958,320	$2,088,000	

Table 81: FY 2026 Delivery Unit Rate

Delivery Cost Component Unit Rate	
Revenue Requirement	$1,500,672
÷ Projected Usage (HCF)	958,320
Monthly Unit Rate	$1.57

Table 82: FY 2026 Peaking Unit Rate by Tier

Customer Class	Projected Usage (HCF) [A]	Weighted Peak (HCF) [B]	% Allocation [C] = B as %	Revenue Requirement [D] = $1,456,818 x C	Unit Rate [E] = D ÷ A
All Customer Classes					
Tier 1	529,597	597,202	40.6%	$591,968	$1.12
Tier 2	428,723	872,497	59.4%	$864,850	$2.02
	958,320	1,469,700	100.0%	$1,456,818	

Table 83: FY 2026 Water Efficiency Unit Rate by Tier

Customer Class	Projected Usage (HCF) [A]	Factor [B]	Weighted Usage [C] = A x B	% Allocation [D] = C as %	Revenue Requirement [E] = $40,000 x D	Unit Rate [F] = E ÷ A
All Customer Classes						
Tier 1	529,597	0.00	0	0.0%	$0	$0.00
Tier 2	428,723	1.00	428,723	100.0%	$40,000	$0.10
Total	958,320		428,723	100.0%	$40,000	

Table 84: FY 2026 Monthly Fixed Charges by Meter Size

Meter Size	Capacity Ratio [A]	Meters	Account Services [B] = $10.26	Meter Capacity [C] = $29.49 x A	FY 2026 Proposed Base Fixed Charge [D] = B + C
≤3/4"	1.00	1,915	$10.26	$29.49	$39.75
1"	1.67	5,212	$10.26	$49.15	$59.41
1 1/2"	3.33	20	$10.26	$98.30	$108.56
2"	5.33	50	$10.26	$157.28	$167.54
3"	11.67	2	$10.26	$344.05	$354.31
4"	21.00	1	$10.26	$619.29	$629.55
6"	43.33	0	$10.26	$1,277.90	$1,288.16
8"	93.33	0	$10.26	$2,752.40	$2,762.66

Table 85: FY 2026 Variable Rates by Tier (HCF)

Customer Class & Tier	Tier Definitions (HCF)	Projected Usage (HCF)	Water Supply [A]	Delivery [B]	Peaking [C]	Water Efficiency [D]	FY 2026 Proposed Variable Rate [E] = A + B + C + D
All Customer Classes							
Tier 1	0 - 9	529,597	$1.86	$1.57	$1.12	$0.00	$4.55
Tier 2	>9	428,723	$2.58	$1.57	$2.02	$0.10	$6.27

Appendix C-1 – FY 2027 Cost-of-Service Analysis

Table 86: FY 2027 Specific Expense Allocation to Cost Components (%)

Specific Expenses	Methodology / Allocation Basis	Cost Components: Account Services	Meter Capacity	Chromium 6	Water Supply: Purchased Water	Groundwater	Delivery	Peaking	Water Efficiency	Total
Water Supply										
MWA/Antelope WM Admin. & Bio Fee	Specific	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	100.0%
MWA/Antelope WM Make Up Water	Specific	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	100.0%
MWA/AVW Replacement Water	Specific	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%
AVW Purchases (Emergency)	Specific	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%
Water Purchases - Other	Specific	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Electricity GW	Specific	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	100.0%
Electricity Leased Water	Specific	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Chromium 6 Mitigation	Specific	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Conservation	Specific	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%

Table 87: FY 2027 Specific Expense Allocation to Cost Components ($)

Specific Expenses	Methodology / Allocation Basis	Cost Components: Account Services	Meter Capacity	Chromium 6	Water Supply: Purchased Water	Groundwater	Delivery	Peaking	Water Efficiency	Total
Water Supply										
MWA/Antelope WM Admin. & Bio Fee	Specific	$0	$0	$0	$0	$10,000	$0	$0	$0	$10,000
MWA/Antelope WM Make Up Water	Specific	$0	$0	$0	$0	$5,000	$0	$0	$0	$5,000
MWA/AVW Replacement Water	Specific	$0	$0	$0	$451,000	$0	$0	$0	$0	$451,000
AVW Purchases (Emergency)	Specific	$0	$0	$0	$0	$0	$8,000	$0	$0	$8,000
Water Purchases - Other	Specific	$0	$0	$0	$0	$0	$0	$0	$0	$0
Electricity GW	Specific	$0	$0	$0	$0	$1,356,000	$0	$0	$0	$1,356,000
Electricity Leased Water	Specific	$0	$0	$0	$577,000	$0	$0	$0	$0	$577,000
Chromium 6 Mitigation	Specific	$0	$0	$839,000	$0	$0	$0	$0	$0	$839,000
Conservation	Specific	$0	$0	$0	$0	$0	$0	$0	$41,000	$41,000
Total Allocation ($)		**$0**	**$0**	**$839,000**	**$1,028,000**	**$1,371,000**	**$8,000**	**$0**	**$41,000**	**$3,287,000**

Table 88: FY 2027 O&M Expense Allocation to Cost Components (%)

Operating Expenses	Methodology / Allocation Basis	Cost Components: Account Services	Meter Capacity	Chromium 6	Water Supply: Purchased Water	Groundwater	Delivery	Peaking	Water Efficiency	Total
Administration	Specific	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Customer Accounts/Meters	Specific	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Distribution/Transmission	Max Hour Demand	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	66.7%	0.0%	100.0%
Engineering	Max Day Demand	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%	100.0%
Operations	Max Hour Demand	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	66.7%	0.0%	100.0%
Production (Source of Supply)	Average Day Demand	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%
Vehicles and Equipment	Specific	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Water Quality	Specific	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Inter-Transfers	Average Day Demand	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%

Table 89: FY 2027 O&M Expense Allocation to Cost Components ($)

Operating Expenses	Methodology / Allocation Basis	Cost Components: Account Services	Meter Capacity	Chromium 6	Water Supply: Purchased Water	Groundwater	Delivery	Peaking	Water Efficiency	Total
Administration	*Specific*	$0	$2,524,000	$0	$0	$0	$0	$0	$0	$2,524,000
Customer Accounts/Meters	*Specific*	$838,000	$0	$0	$0	$0	$0	$0	$0	$838,000
Distribution/Transmission	*Max Hour Demand*	$0	$0	$0	$0	$0	$235,333	$470,667	$0	$706,000
Engineering	*Max Day Demand*	$0	$0	$0	$0	$0	$264,500	$264,500	$0	$529,000
Operations	*Max Hour Demand*	$0	$0	$0	$0	$0	$320,667	$641,333	$0	$962,000
Production (Source of Supply)	*Average Day Demand*	$0	$0	$0	$0	$0	$592,000	$0	$0	$592,000
Vehicles and Equipment	*Specific*	$0	$246,000	$0	$0	$0	$0	$0	$0	$246,000
Water Quality	*Specific*	$0	$124,000	$0	$0	$0	$0	$0	$0	$124,000
Inter-Transfers	*Average Day Demand*	$0	$0	$0	$0	$0	$0	$0	$0	$0
Placeholder	*Specific*	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Allocation ($)		**$838,000**	**$2,894,000**	**$0**	**$0**	**$0**	**$1,412,500**	**$1,376,500**	**$0**	**$6,521,000**
Operating Expenses Allocation (%)		*12.9%*	*44.4%*	*0.0%*	*0.0%*	*0.0%*	*21.7%*	*21.1%*	*0.0%*	*100.0%*

Table 90: FY 2027 Debt Expense Allocation to Cost Components (%)

Debt Service	Methodology / Allocation Basis	Cost Components: Account Services	Meter Capacity	Chromium 6	Water Supply: Purchased Water	Groundwater	Delivery	Peaking	Water Efficiency	Total
Existing Debt	Specific	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Existing Debt Offsets	Specific	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Table 91: FY 2027 Debt Expense Allocation to Cost Components ($)

Debt Service	Methodology / Allocation Basis	Cost Components: Account Services	Meter Capacity	Chromium 6	Water Supply: Purchased Water	Groundwater	Delivery	Peaking	Water Efficiency	Total
Existing Debt	*Specific*	$0	$1,338,000	$0	$0	$0	$0	$0	$0	$1,338,000
Existing Debt Offsets	*Specific*	$0	($522,222)	$0	$0	$0	$0	$0	$0	($522,222)
Total Allocation ($)		**$0**	**$815,778**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$815,778**

Table 92: FY 2027 Other Funding Allocation to Cost Components (%)

Other Funding	Methodology / Allocation Basis	Cost Components: Account Services	Meter Capacity	Chromium 6	Water Supply: Purchased Water	Groundwater	Delivery	Peaking	Water Efficiency	Total
Revenue Offsets										
Meter Installation/Fees/Connections	O&M Allocation	12.9%	44.4%	0.0%	0.0%	0.0%	21.7%	21.1%	0.0%	100.0%
Other Operating Income	O&M Allocation	12.9%	44.4%	0.0%	0.0%	0.0%	21.7%	21.1%	0.0%	100.0%
Non-Operating Revenues	O&M Allocation	12.9%	44.4%	0.0%	0.0%	0.0%	21.7%	21.1%	0.0%	100.0%
Adjustments										
Reserve Funding	O&M Allocation	12.9%	44.4%	0.0%	0.0%	0.0%	21.7%	21.1%	0.0%	100.0%
Adjustment for Mid-Year Increase	O&M Allocation	12.9%	44.4%	0.0%	0.0%	0.0%	21.7%	21.1%	0.0%	100.0%

Table 93: FY 2027 Other Funding Allocation to Cost Components ($)

Other Funding	Methodology / Allocation Basis	Cost Components: Account Services	Meter Capacity	Chromium 6	Water Supply: Purchased Water	Groundwater	Delivery	Peaking	Water Efficiency	Total
Revenue Offsets										
Meter Installation/Fees/Connections	*O&M Allocation*	($11,309)	($39,054)	$0	$0	$0	($19,061)	($18,576)	$0	($88,000)
Other Operating Income	*O&M Allocation*	($39,195)	($135,358)	$0	$0	$0	($66,065)	($64,382)	$0	($305,000)
Non-Operating Revenues	*O&M Allocation*	($78,004)	($269,385)	$0	$0	$0	($131,481)	($128,130)	$0	($607,000)
Adjustments										
Reserve Funding	*O&M Allocation*	$340,446	$1,175,717	$0	$0	$0	$573,842	$559,217	$0	$2,649,222
Adjustment for Mid-Year Increase	*O&M Allocation*	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Allocation ($)		**$211,938**	**$731,920**	**$0**	**$0**	**$0**	**$357,235**	**$348,130**	**$0**	**$1,649,222**

Table 94: FY 2027 Cost-of-Service Requirements

Revenue Requirement		Fixed Components			Variable Components					Total
					Water Supply					
		Account Services	Meter Capacity	Chromium 6	Purchased Water	Groundwater	Delivery	Peaking	Water Efficiency	
Specific Expenses	**Table 87**	$0	$0	$839,000	$1,028,000	$1,371,000	$8,000	$0	$41,000	$3,287,000
Operating Expenses	**Table 89**	$838,000	$2,894,000	$0	$0	$0	$1,412,500	$1,376,500	$0	$6,521,000
Debt Service	**Table 91**	$0	$815,778	$0	$0	$0	$0	$0	$0	$815,778
Other Funding	**Table 93**	$211,938	$731,920	$0	$0	$0	$357,235	$348,130	$0	$1,649,222
COS Requirements		**$1,049,938**	**$4,441,698**	**$839,000**	**$1,028,000**	**$1,371,000**	**$1,777,735**	**$1,724,630**	**$41,000**	**$12,273,000**

Appendix C-2 – FY 2027 Rate Design

Table 95: FY 2027 Projected Usage by Tier (HCF)

Customer Class / Tier	Projected Usage (HCF) [A]	Peaking Factors [B]	Weighted Peak (HCF) [C] = A x B
All Customer Classes			
Tier 1	490,837	1.11	544,474
Tier 2	467,483	1.99	932,127
Variable Units	958,320		1,476,601

Table 96: FY 2027 Account Services Monthly Unit Rate

Account Services Component Unit Rate	
Revenue Requirement	$1,049,938
÷ Total Bills	86,400
Monthly Unit Rate	$12.16

Table 97: FY 2027 Meter Capacity Monthly Unit Rate

Meter Capacity Component Unit Rate	
Revenue Requirement	$4,441,698
÷ Total ME's	131,752
Monthly Unit Rate	$33.72

Table 98: FY 2027 Chromium 6 Monthly Unit Rate

Chromium 6 Component Unit Rate	
Revenue Requirement	$839,000
÷ Total Bills	86,400
Monthly Unit Rate	$9.71

Table 99: FY 2027 Water Supply Unit Rates

Water Supplies	Production / Purchases (AF) [A]	Water Loss [B]	Net Water Supply (AF) [C] = A x (1-B)	Avaliable Supply (HCF) [D] = C x 435.6	Revenue Requirement [E]	Unit Rate [F] = E ÷ D
Purchased Water	773	15.0%	657	286,113	$1,028,000	$3.59
Groundwater	1,816	15.0%	1,543	672,207	$1,371,000	$2.04
Total	2,588		2,200	958,320	$2,399,000	

Table 100: FY 2027 Tier Water Supply Unit Rates

Water Supply Allocation	Projected Usage (HCF) [A]	Groundwater [B]	Purchased Water [C] = (A-B)	Total Usage [D] = (B + C)	Total Cost [E] = Unit Rate x Usage	Water Supply Unit Rate [F] = (E ÷ A)
Available Supply	Table 99	*672,207*	*286,113*			
Effective Unit Cost		*$2.04*	*$3.59*			
All Customer Classes						
Tier 1	490,837	490,837	0	490,837	$1,001,087	$2.04
Tier 2	467,483	181,370	286,113	467,483	$1,397,913	$3.00
Total	958,320	672,207	286,113	958,320	$2,399,000	

Table 101: FY 2027 Delivery Unit Rate

Delivery Cost Component Unit Rate	
Revenue Requirement	$1,777,735
÷ Projected Usage (HCF)	958,320
Monthly Unit Rate	$1.86

Table 102: FY 2027 Peaking Unit Rate by Tier

Customer Class	Projected Usage (HCF) [A]	Weighted Peak (HCF) [B]	% Allocation [C] = B as %	Revenue Requirement [D] = $1,724,630 x C	Unit Rate [E] = D ÷ A
All Customer Classes					
Tier 1	490,837	544,474	36.9%	$635,931	$1.30
Tier 2	467,483	932,127	63.1%	$1,088,699	$2.33
	958,320	1,476,601	100.0%	$1,724,630	

Table 103: FY 2027 Water Efficiency Unit Rate by Tier

Customer Class	Projected Usage (HCF) [A]	Factor [B]	Weighted Usage [C] = A x B	% Allocation [D] = C as %	Revenue Requirement [E] = $41,000 x D	Unit Rate [F] = E ÷ A
All Customer Classes						
Tier 1	490,837	0.00	0	0.0%	$0	$0.00
Tier 2	467,483	1.00	467,483	100.0%	$41,000	$0.09
Total	958,320		467,483	100.0%	$41,000	

Table 104: FY 2027 Monthly Fixed Charges by Meter Size

Meter Size	Capacity Ratio [A]	Meters	Account Services [B] = $12.16	Meter Capacity [C] = $33.72 x A	FY 2027 Proposed Base Fixed Charge [D] = B + C
≤3/4"	1.00	1,915	$12.16	$33.72	$45.88
1"	1.67	5,212	$12.16	$56.20	$68.36
1 1/2"	3.33	20	$12.16	$112.40	$124.56
2"	5.33	50	$12.16	$179.84	$192.00
3"	11.67	2	$12.16	$393.40	$405.56
4"	21.00	1	$12.16	$708.12	$720.28
6"	43.33	0	$12.16	$1,461.20	$1,473.36
8"	93.33	0	$12.16	$3,147.20	$3,159.36

Table 105: FY 2027 Variable Rates by Tier (HCF)

Customer Class & Tier	Tier Definitions (HCF)	Projected Usage (HCF)	Water Supply [A]	Delivery [B]	Peaking [C]	Water Efficiency [D]	FY 2027 Proposed Variable Rate [E] = A + B + C + D
All Customer Classes							
Tier 1	0 - 8	490,837	$2.04	$1.86	$1.30	$0.00	$5.20
Tier 2	>8	467,483	$3.00	$1.86	$2.33	$0.09	$7.28

Appendix D-1 – FY 2028 Cost-of-Service Analysis

Table 106: FY 2028 Specific Expense Allocation to Cost Components (%)

Specific Expenses	Methodology / Allocation Basis	Cost Components: Account Services	Meter Capacity	Chromium 6	Water Supply: Purchased Water	Groundwater	Delivery	Peaking	Water Efficiency	Total
Water Supply										
MWA/Antelope WM Admin. & Bio Fee	Specific	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	100.0%
MWA/Antelope WM Make Up Water	Specific	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	100.0%
MWA/AVW Replacement Water	Specific	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%
AVW Purchases (Emergency)	Specific	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%
Water Purchases - Other	Specific	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Electricity GW	Specific	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	100.0%
Electricity Leased Water	Specific	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Chromium 6 Mitigation	Specific	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Conservation	Specific	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%

Table 107: FY 2028 Specific Expense Allocation to Cost Components ($)

Specific Expenses	Methodology / Allocation Basis	Cost Components: Account Services	Meter Capacity	Chromium 6	Water Supply: Purchased Water	Groundwater	Delivery	Peaking	Water Efficiency	Total
Water Supply										
MWA/Antelope WM Admin. & Bio Fee	Specific	$0	$0	$0	$0	$9,000	$0	$0	$0	$9,000
MWA/Antelope WM Make Up Water	Specific	$0	$0	$0	$0	$6,000	$0	$0	$0	$6,000
MWA/AVW Replacement Water	Specific	$0	$0	$0	$588,000	$0	$0	$0	$0	$588,000
AVW Purchases (Emergency)	Specific	$0	$0	$0	$0	$0	$11,000	$0	$0	$11,000
Water Purchases - Other	Specific	$0	$0	$0	$0	$0	$0	$0	$0	$0
Electricity GW	Specific	$0	$0	$0	$0	$1,300,000	$0	$0	$0	$1,300,000
Electricity Leased Water	Specific	$0	$0	$0	$827,000	$0	$0	$0	$0	$827,000
Chromium 6 Mitigation	Specific	$0	$0	$839,000	$0	$0	$0	$0	$0	$839,000
Conservation	Specific	$0	$0	$0	$0	$0	$0	$0	$43,000	$43,000
Total Allocation ($)		**$0**	**$0**	**$839,000**	**$1,415,000**	**$1,315,000**	**$11,000**	**$0**	**$43,000**	**$3,623,000**

Table 108: FY 2028 O&M Expense Allocation to Cost Components (%)

Operating Expenses	Methodology / Allocation Basis	Cost Components: Account Services	Meter Capacity	Chromium 6	Water Supply: Purchased Water	Groundwater	Delivery	Peaking	Water Efficiency	Total
Administration	Specific	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Customer Accounts/Meters	Specific	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Distribution/Transmission	Max Hour Demand	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	66.7%	0.0%	100.0%
Engineering	Max Day Demand	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%	100.0%
Operations	Max Hour Demand	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	66.7%	0.0%	100.0%
Production (Source of Supply)	Average Day Demand	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%
Vehicles and Equipment	Specific	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Water Quality	Specific	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Inter-Transfers	Average Day Demand	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%

Table 109: FY 2028 O&M Expense Allocation to Cost Components ($)

Operating Expenses	Methodology / Allocation Basis	Cost Components: Account Services	Meter Capacity	Chromium 6	Water Supply: Purchased Water	Groundwater	Delivery	Peaking	Water Efficiency	Total
Administration	*Specific*	$0	$2,653,000	$0	$0	$0	$0	$0	$0	$2,653,000
Customer Accounts/Meters	*Specific*	$882,000	$0	$0	$0	$0	$0	$0	$0	$882,000
Distribution/Transmission	*Max Hour Demand*	$0	$0	$0	$0	$0	$246,333	$492,667	$0	$739,000
Engineering	*Max Day Demand*	$0	$0	$0	$0	$0	$279,000	$279,000	$0	$558,000
Operations	*Max Hour Demand*	$0	$0	$0	$0	$0	$338,000	$676,000	$0	$1,014,000
Production (Source of Supply)	*Average Day Demand*	$0	$0	$0	$0	$0	$621,000	$0	$0	$621,000
Vehicles and Equipment	*Specific*	$0	$256,000	$0	$0	$0	$0	$0	$0	$256,000
Water Quality	*Specific*	$0	$131,000	$0	$0	$0	$0	$0	$0	$131,000
Inter-Transfers	*Average Day Demand*	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Allocation ($)		**$882,000**	**$3,040,000**	**$0**	**$0**	**$0**	**$1,484,333**	**$1,447,667**	**$0**	**$6,854,000**
Operating Expenses Allocation (%)		*12.9%*	*44.4%*	*0.0%*	*0.0%*	*0.0%*	*21.7%*	*21.1%*	*0.0%*	*100.0%*

Table 110: FY 2028 Debt Expense Allocation to Cost Components (%)

Debt Service	Methodology / Allocation Basis	Cost Components: Account Services	Meter Capacity	Chromium 6	Water Supply: Purchased Water	Groundwater	Delivery	Peaking	Water Efficiency	Total
Existing Debt	Specific	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Existing Debt Offsets	Specific	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Table 111: FY 2028 Debt Expense Allocation to Cost Components ($)

Debt Service	Methodology / Allocation Basis	Cost Components: Account Services	Meter Capacity	Chromium 6	Water Supply: Purchased Water	Groundwater	Delivery	Peaking	Water Efficiency	Total
Existing Debt	*Specific*	$0	$1,338,000	$0	$0	$0	$0	$0	$0	$1,338,000
Existing Debt Offsets	*Specific*	$0	($522,222)	$0	$0	$0	$0	$0	$0	($522,222)
Total Allocation ($)		**$0**	**$815,778**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$815,778**

Table 112: FY 2028 Other Funding Allocation to Cost Components (%)

Other Funding	Methodology / Allocation Basis	Cost Components: Account Services	Meter Capacity	Chromium 6	Water Supply: Purchased Water	Groundwater	Delivery	Peaking	Water Efficiency	Total
Revenue Offsets										
Meter Installation/Fees/Connections	O&M Allocation	12.9%	44.4%	0.0%	0.0%	0.0%	21.7%	21.1%	0.0%	100.0%
Other Operating Income	O&M Allocation	12.9%	44.4%	0.0%	0.0%	0.0%	21.7%	21.1%	0.0%	100.0%
Non-Operating Revenues	O&M Allocation	12.9%	44.4%	0.0%	0.0%	0.0%	21.7%	21.1%	0.0%	100.0%
Adjustments										
Reserve Funding	O&M Allocation	12.9%	44.4%	0.0%	0.0%	0.0%	21.7%	21.1%	0.0%	100.0%
Adjustment for Mid-Year Increase	O&M Allocation	12.9%	44.4%	0.0%	0.0%	0.0%	21.7%	21.1%	0.0%	100.0%

Table 113: FY 2028 Other Funding Allocation to Cost Components ($)

Other Funding	Methodology / Allocation Basis	Cost Components: Account Services	Meter Capacity	Chromium 6	Water Supply: Purchased Water	Groundwater	Delivery	Peaking	Water Efficiency	Total
Revenue Offsets										
Meter Installation/Fees/Connections	*O&M Allocation*	($11,324)	($39,031)	$0	$0	$0	($19,058)	($18,587)	$0	($88,000)
Other Operating Income	*O&M Allocation*	($39,249)	($135,279)	$0	$0	$0	($66,052)	($64,421)	$0	($305,000)
Non-Operating Revenues	*O&M Allocation*	($78,369)	($270,114)	$0	$0	$0	($131,888)	($128,630)	$0	($609,000)
Adjustments										
Reserve Funding	*O&M Allocation*	$490,443	$1,690,417	$0	$0	$0	$825,376	$804,987	$0	$3,811,222
Adjustment for Mid-Year Increase	*O&M Allocation*	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Allocation ($)		**$361,502**	**$1,245,993**	**$0**	**$0**	**$0**	**$608,378**	**$593,349**	**$0**	**$2,809,222**

Table 114: FY 2028 Cost-of-Service Requirements

Revenue Requirement		Fixed Components			Variable Components					
					Water Supply					
		Account Services	Meter Capacity	Chromium 6	Purchased Water	Groundwater	Delivery	Peaking	Water Efficiency	Total
Specific Expenses	Table 107	$0	$0	$839,000	$1,415,000	$1,315,000	$11,000	$0	$43,000	$3,623,000
Operating Expenses	Table 109	$882,000	$3,040,000	$0	$0	$0	$1,484,333	$1,447,667	$0	$6,854,000
Debt Service	Table 111	$0	$815,778	$0	$0	$0	$0	$0	$0	$815,778
Other Funding	Table 113	$361,502	$1,245,993	$0	$0	$0	$608,378	$593,349	$0	$2,809,222
COS Requirements		**$1,243,502**	**$5,101,771**	**$839,000**	**$1,415,000**	**$1,315,000**	**$2,103,711**	**$2,041,016**	**$43,000**	**$14,102,000**

Appendix D-2 – FY 2028 Rate Design

Table 115: FY 2028 Projected Usage by Tier (HCF)

Customer Class / Tier	Projected Usage (HCF) [A]	Peaking Factors [B]	Weighted Peak (HCF) [C] = A x B
All Customer Classes			
Tier 1	447,574	1.09	488,163
Tier 2	510,746	1.95	995,839
Variable Units	958,320		1,484,001

Table 116: FY 2028 Account Services Monthly Unit Rate

Account Services Component Unit Rate	
Revenue Requirement	$1,243,502
÷ Total Bills	86,400
Monthly Unit Rate	$14.40

Table 117: FY 2028 Meter Capacity Monthly Unit Rate

Meter Capacity Component Unit Rate	
Revenue Requirement	$5,101,771
÷ Total ME's	131,752
Monthly Unit Rate	$38.73

Table 118: FY 2028 Chromium 6 Monthly Unit Rate

Chromium 6 Component Unit Rate	
Revenue Requirement	$839,000
÷ Total Bills	86,400
Monthly Unit Rate	$9.71

Table 119: FY 2028 Water Supply Unit Rates

Water Supplies	Production / Purchases (AF) [A]	Water Loss [B]	Net Water Supply (AF) [C] = A x (1-B)	Avaliable Supply (HCF) [D] = C x 435.6	Revenue Requirement [E]	Unit Rate [F] = E ÷ D
Purchased Water	1,007	15.0%	856	372,754	$1,415,000	$3.80
Groundwater	1,582	15.0%	1,344	585,566	$1,315,000	$2.25
Total	2,588		2,200	958,320	$2,730,000	

Table 120: FY 2028 Tier Water Supply Unit Rates

Water Supply Allocation	Projected Usage (HCF) [A]	Groundwater [B]	Purchased Water [C] = (A-B)	Total Usage [D] = (B + C)	Total Cost [E] = Unit Rate x Usage	Water Supply Unit Rate [F] = (E ÷ A)
Available Supply	Table 119	*585,566*	*372,754*			
Effective Unit Cost		*$2.25*	*$3.80*			
All Customer Classes						
Tier 1	447,574	447,574	0	447,574	$1,005,111	$2.25
Tier 2	510,746	137,993	372,754	510,746	$1,724,889	$3.38
Total	958,320	585,566	372,754	958,320	$2,730,000	

Table 121: FY 2028 Delivery Unit Rate

Delivery Cost Component Unit Rate	
Revenue Requirement	$2,103,711
÷ Projected Usage (HCF)	958,320
Monthly Unit Rate	$2.20

Table 122: FY 2028 Peaking Unit Rate by Tier

Customer Class	Projected Usage (HCF) [A]	Weighted Peak (HCF) [B]	% Allocation [C] = B as %	Revenue Requirement [D] = $2,041,016 x C	Unit Rate [E] = D ÷ A
All Customer Classes					
Tier 1	447,574	488,163	32.9%	$671,393	$1.51
Tier 2	510,746	995,839	67.1%	$1,369,624	$2.69
	958,320	1,484,001	100.0%	$2,041,016	

Table 123: FY 2028 Water Efficiency Unit Rate by Tier

Customer Class	Projected Usage (HCF) [A]	Factor [B]	Weighted Usage [C] = A x B	% Allocation [D] = C as %	Revenue Requirement [E] = $43,000 x D	Unit Rate [F] = E ÷ A
All Customer Classes						
Tier 1	447,574	0.00	0	0.0%	$0	$0.00
Tier 2	510,746	1.00	510,746	100.0%	$43,000	$0.09
Total	958,320		510,746	100.0%	$43,000	

Table 124: FY 2028 Monthly Fixed Charges by Meter Size

Meter Size	Capacity Ratio [A]	Meters	Account Services [B] = $14.40	Meter Capacity [C] = $38.73 x A	FY 2028 Proposed Base Fixed Charge [D] = B + C
≤3/4"	1.00	1,915	$14.40	$38.73	$53.13
1"	1.67	5,212	$14.40	$64.55	$78.95
1 1/2"	3.33	20	$14.40	$129.10	$143.50
2"	5.33	50	$14.40	$206.56	$220.96
3"	11.67	2	$14.40	$451.85	$466.25
4"	21.00	1	$14.40	$813.33	$827.73
6"	43.33	0	$14.40	$1,678.30	$1,692.70
8"	93.33	0	$14.40	$3,614.80	$3,629.20

Table 125: FY 2028 Variable Rates by Tier (HCF)

Customer Class & Tier	Tier Definitions (HCF)	Projected Usage (HCF)	Water Supply [A]	Delivery [B]	Peaking [C]	Water Efficiency [D]	FY 2028 Proposed Variable Rate [E] = A + B + C + D
All Customer Classes							
Tier 1	0 - 7	447,574	$2.25	$2.20	$1.51	$0.00	$5.96
Tier 2	>7	510,746	$3.38	$2.20	$2.69	$0.09	$8.36