

Public Hearing
November 14, 2024

*Walnut Valley Water District
Cost-of-Service Water Rate Study*



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Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Executive Summary

The Walnut Valley Water District (District) is located in the San Gabriel Valley in Los Angeles County and provides water and recycled water services to customers in the City of Diamond Bar, portions of the cities of Industry, Pomona, Walnut, West Covina, and a portion of the unincorporated area of Rowland Heights. The District periodically reviews its rates to determine if adjustments are required to meet its operational costs, system improvements and to fund reserves based on adopted reserve policies.

The District's utilities are separate business enterprises that collect revenues primarily through utility rates to cover all of its revenue requirements (expenses including reserve funding). Utility rates are designed to fully fund each respective enterprise and 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 of the utilities over a five-year period and (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.

Water Utility Summary

Financial Plan

Updating the water utility's long-term financial plan and performing a comprehensive cost-of-service analysis is a prudent business practice to ensure each utility can fully fund its revenue needs from Fiscal Year 2025 (FY 2025) through FY 2029 (Rate Setting Period) and beyond. In reviewing and updating water rates, the first step is to thoroughly check the financial health of the water utility. Based on a financial review at current rates, revenues from existing rates are not sufficient to cover operating expenses over the Rate Setting Period. The water utility is projected to end FY 2025 with an operating deficit of approximately \$3.3M, which would continue to grow annually without rate increases. Separate from operating expenses, the water utility also has significant capital projects over the next five years totaling \$55.3M, which includes the new headquarters and other projects such as reservoir coatings, pipeline replacement, and meter replacement. The new headquarters is debt financed over 30 years with annual payments of approximately \$2M. The debt financing of the headquarters provides equity between existing and future customers by spreading the cost over the amortization schedule of 30 years. To meet the District's revenue requirements over the Rate Setting Period, the proposed financial plan is projected to generate \$26.1M¹ in additional annual rate revenue by the end of FY 2029.

Rate Structure

The current water rate structure has both fixed and variable components. The fixed component consists of a fixed charge that varies by meter size and dedicated fire line charges that vary by connection size. Commodity rates vary by customer class, with Single-Family Residential customers subject to a three-tiered rate structure, charged in hundred cubic feet (HCF²) increments. All other customer classes pay their proportionate share of costs through uniform rates per HCF. The District also has pumping rates, charged per HCF, for certain areas that require booster pumps (and hence additional energy and operations and maintenance costs) to cover the cost of conveying water up to higher elevations.

The detailed cost-of-service analysis within this report includes adjustments to the existing rate structure. Single-Family residential will maintain a three-tiered rate structure, but tier allotments have been updated to reflect Senate Bill 1157 (47 gallons per capita per day or gpcd) for Tier 1 and recent water usage

¹ The proposed financial plan assumes 27,141 active accounts and 13,008 Acre Feet (AF) in sales.

² 1 HCF = 748.052 gallons

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characteristics for the other tiers. Multi-Family, Non-Residential, and Irrigation rate structures will maintain uniform rates.

By adopting the proposed financial plan and approving rates through FY 2029, the water utility is projected to generate positive net income above operating expenses by FY 2026, cover its capital costs, and exceed its minimum reserve requirement by FY 2029.

The proposed rates have been incorporated into a Proposition 218 Notice and mailed to each customer. A Public Hearing is scheduled for November 14, 2024, on the proposed rates identified in Table 1 through Table 3. If there is no majority protest, and the Board of Directors approves this cost-of-service study and proposed rates, the proposed rates for FY 2025 will go into effect on January 1, 2025, with subsequent adjustments occurring each January 1st thereafter.

Table 1: Proposed Water Fixed Charges

Proposed Fixed Charges (\$/Month)					
Meter Size	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
≤3/4"	\$37.15	\$41.98	\$47.44	\$53.61	\$60.58
1"	\$51.59	\$58.30	\$65.88	\$74.45	\$84.13
1 1/2"	\$87.65	\$99.05	\$111.93	\$126.49	\$142.94
2"	\$130.93	\$147.96	\$167.20	\$188.94	\$213.51
3"	\$246.35	\$278.38	\$314.57	\$355.47	\$401.69
4"	\$376.19	\$425.10	\$480.37	\$542.82	\$613.39
6"	\$736.85	\$832.65	\$940.90	\$1,063.22	\$1,201.44
8"	\$1,169.65	\$1,321.71	\$1,493.54	\$1,687.71	\$1,907.12

Table 2: Proposed Dedicated Fire Line Charges

Proposed Dedicated Fire Line Charges (\$/Month)					
Connection Size	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
All Sizes	\$15.51	\$17.53	\$19.81	\$22.39	\$25.31

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Table 3: Proposed Water Commodity Rates (\$/HCF)

Proposed Commodity Rates (\$/HCF)						
Customer Class	Tier Definitions	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Single-Family						
Tier 1	0 - 6 HCF	\$3.55	\$4.02	\$4.55	\$5.15	\$5.82
Tier 2	7 - 27 HCF	\$4.49	\$5.08	\$5.75	\$6.50	\$7.35
Tier 3	>27 HCF	\$5.97	\$6.75	\$7.63	\$8.63	\$9.76
Multi-Family	Uniform	\$4.46	\$5.04	\$5.70	\$6.45	\$7.29
Non-Residential	Uniform	\$4.46	\$5.04	\$5.70	\$6.45	\$7.29
Irrigation	Uniform	\$4.46	\$5.04	\$5.70	\$6.45	\$7.29

Table 4: Proposed Pumping Rates (\$/HCF)

Proposed Pumping Rates (\$/HCF)					
Pumping Zone	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Pump Zone 2	\$0.26	\$0.30	\$0.34	\$0.39	\$0.45
Pump Zone 3	\$0.48	\$0.55	\$0.63	\$0.72	\$0.82

Recycled Water Utility Summary

Financial Plan

Based on a financial review of the recycled water utility at current rates, revenues from existing rates are not sufficient to cover operating expenses over the Rate Setting Period. The recycled water utility is projected to end FY 2025 with an operating deficit of approximately \$132k, which continues to grow annually. Separate from operating expenses, the recycled water utility also has capital projects over the next five years totaling \$6M. The proposed financial plan is projected to generate \$1.4M³ in additional annual rate revenue by the end of FY 2029.

Rate Structure

The existing recycled water rates include the same fixed charges as the water utility and a uniform commodity rate. The proposed recycled fixed charges will continue to be equivalent to the proposed water fixed charges, and commodity rates will recover the remaining revenue requirements through a uniform rate applied to all recycled water customers. The recommended recycled water rates are included within the Proposition 218 Notice, and a Public Hearing is scheduled for November 14, 2024, on the proposed rates identified in Table 5 and Table 6. If there is no majority protest, then the Board may adopt the proposed rates for FY 2025, which will go into effect on January 1, 2025, with subsequent adjustments occurring each January 1st thereafter.

³ The proposed financial plan assumes 330 active accounts and 1,320 Acre Feet (AF) in sales.

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Table 5: Proposed Recycled Water Fixed Charges

Proposed Recycled Fixed Charges (\$/Month)					
Meter Size	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
≤3/4"	\$37.15	\$41.98	\$47.44	\$53.61	\$60.58
1"	\$51.59	\$58.30	\$65.88	\$74.45	\$84.13
1 1/2"	\$87.65	\$99.05	\$111.93	\$126.49	\$142.94
2"	\$130.93	\$147.96	\$167.20	\$188.94	\$213.51
3"	\$246.35	\$278.38	\$314.57	\$355.47	\$401.69
4"	\$376.19	\$425.10	\$480.37	\$542.82	\$613.39
6"	\$736.85	\$832.65	\$940.90	\$1,063.22	\$1,201.44
8"	\$1,169.65	\$1,321.71	\$1,493.54	\$1,687.71	\$1,907.12

Table 6: Proposed Recycled Water Commodity Rates (\$/HCF)

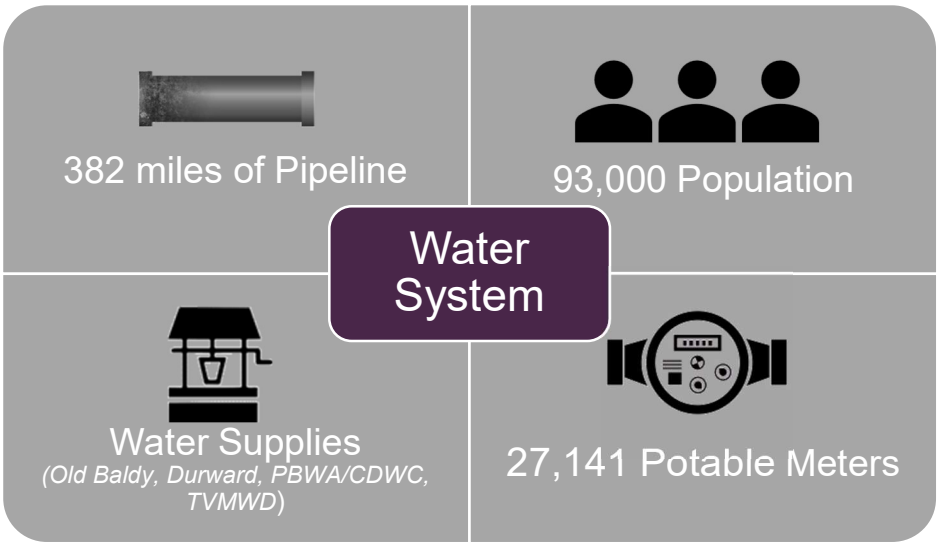
Proposed Recycled Commodity Rates (\$/HCF)					
Customer Class	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Recycled	\$2.66	\$3.04	\$3.47	\$3.96	\$4.53

Water Utility

Water System

The District is located approximately 20 miles east of Los Angeles in the San Gabriel Valley, encompasses an area of 29 square miles, and services the City of Diamond Bar, portions of the cities of Industry, Pomona, Walnut, West Covina, and a portion of the unincorporated area of Rowland Heights. The District provides water to a population of approximately 93,000 customers through 27,141 service connections⁴. The water system consists of two large, imported water pipelines, 382 miles of distribution mains (ranging from 4 inches to 51 inches), 15 pump plants, and 28 reservoirs.

Figure 1: District Water System

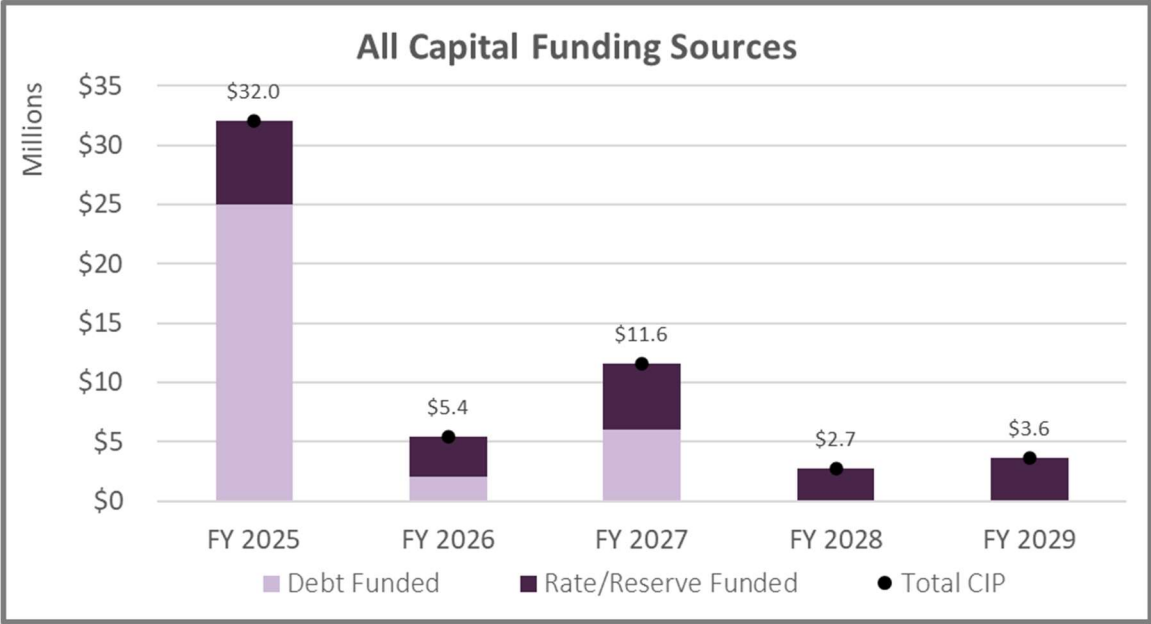


The Capital Improvement Plan (CIP) identified \$55.3M in projects over the next 5 years, which includes system reinvestment and new capital improvements. The District has two separate capital funds. The Asset Repair & Replacement (R&R) includes projects such as reservoir coatings, pipeline and meter replacement, vehicles and equipment, and other necessary improvements. The Capital Improvement includes new projects such as the headquarters. Debt funding has been secured to spread the cost of the new headquarters over 30 years. A detailed list of projects is shown in Appendix A. Figure 2 shows the combined annual CIP costs through FY 2029 and anticipated funding sources.

⁴ Based on FY 2024 billing and consumption data.

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Figure 2: Water Capital Improvement Plan



Customers

The District serves 27,141 water meters, with approximately 95% of accounts classified as residential, and 631 dedicated fire line connections. Table 7 provides a summary of accounts by meter size and connection size for fire lines.

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Table 7: Water Accounts by Meter Size / Connection Size

Accounts by Meter Size / Connection Size						
Meter Size	Single-Family	Multi-Family	Non-Residential	Irrigation	Accounts	Dedicated Fire Lines
≤3/4"	22,945	3	168	39	23,155	
1"	2,394	52	368	58	2,872	27
1 1/2"	165	18	282	86	551	6
2"	7	50	299	158	514	7
3"	-	-	-	-	-	-
4"	-	1	2	-	3	20
6"	-	28	2	-	30	167
8"	-	14	2	-	16	145
10"	-	-	-	-	-	86
12"	-	-	-	-	-	1
Private Hydrant	-	-	-	-	-	172
Total	25,511	166	1,123	341	27,141	631

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

As previously mentioned, the existing rate structure consists of monthly fixed charges, monthly dedicated fire line charges, commodity rates that vary by customer class, and pumping rates that vary by zone. The District offers a discounted rate on the monthly fixed charge to qualifying Single-Family accounts (Affordable Rate Discount). The Affordable Rate Discount is funded by non-rate revenues from cell tower rent. Single-Family customers are subject to a three-tiered rate structure. Multi-Family, Non-Residential, and Irrigation are charged uniform rates. Current monthly fixed charges and monthly dedicated fire line charges are identified in Table 8 and Table 9, respectively, followed by current commodity rates and tiers shown in Table 10. Pumping rates by zone are shown in Table 11.

Table 8: Existing Water Fixed Charges

Existing Fixed Charges (\$/Month)		
Meter Size	Current Charge	Current Affordable Rate Discount
≤3/4"	\$25.14	\$12.57
1"	\$39.64	\$19.82
1 1/2"	\$75.90	\$37.95
2"	\$119.38	\$59.69
3"	\$235.39	\$117.70
4"	\$365.89	\$182.95
6"	\$728.38	\$364.19
8"	\$1,163.36	\$581.68

Table 9: Existing Dedicated Fire Line Charges

Existing Dedicated Fire Line Charges (\$/Month)	
Connection Size	Current Charge
1"	\$11.07
1 1/2"	\$11.88
2"	\$13.30
4"	\$27.09
6"	\$58.46
8"	\$112.53
10"	\$193.90
12"	\$0.00
Private Hydrant	\$58.46

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Table 10: Existing Water Commodity Rates (\$/HCF)

Existing Commodity Rates (\$/HCF)		
Customer Class	Tier Definitions	Current Rate
Single-Family		
Tier 1	0 - 6 HCF	\$3.60
Tier 2	7 - 27 HCF	\$4.79
Tier 3	>27 HCF	\$5.51
Multi-Family	Uniform	\$4.10
Non-Residential	Uniform	\$4.34
Irrigation	Uniform	\$4.34
Affordable Rate Discount		
Tier 1	0 - 6 HCF	\$3.60
Tier 2	7 - 27 HCF	\$4.79
Tier 3	>27 HCF	\$5.51

Table 11: Existing Pumping Rates (\$/HCF)

Existing Pumping Rates (\$/HCF)	
Pumping Zone	Current Rate
Pump Zone 2	\$0.32
Pump Zone 3	\$0.56

Financial Plan Overview

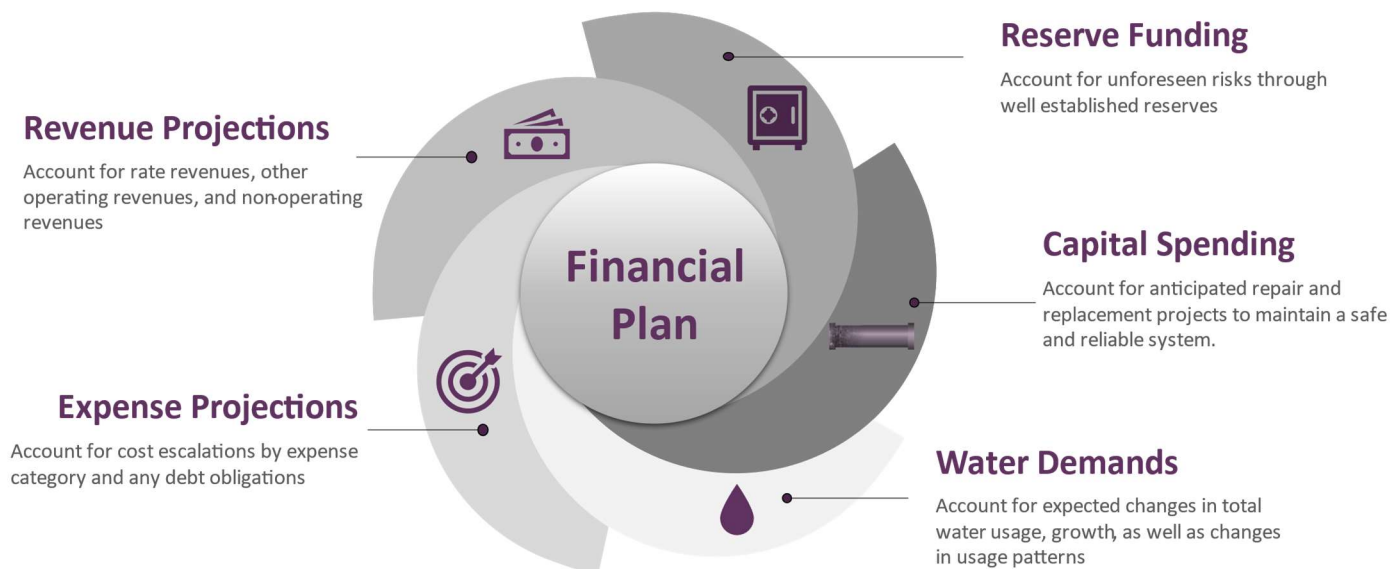
Financial Planning

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

- 1) Historical water sales and consumption patterns to determine an appropriate usage level for projecting future water demands.
- 2) 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.
- 3) 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.
- 4) Satisfy debt service coverage ratio requirements for any existing or proposed debt (125%).
- 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 3 illustrates the key elements when developing a long-term financial plan.

Figure 3: Financial Plan Key Elements



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Financial Planning Assumptions

Developing a long-term financial plan requires an understanding of the water utility's financial position by evaluating existing revenue streams, ongoing expenses, how those expenses will change over time, existing debt requirements, and reserve policies. With these considerations, certain assumptions are required for projecting revenues, expenses, and expected ending fund balances. Through discussions with staff and their understanding of historical budget data and future obligations, [Table 12](#) identifies assumptions used for forecasting revenues. [Table 13](#) and [Table 14](#) detail the number of accounts by meter size and the number of fire lines by connection size, respectively, over the Rate Setting Period. [Table 15](#) identifies projected consumption by customer class and tier and [Table 16](#) identifies projected consumption by pumping zone.

Table 12: Water Assumptions for Forecasting Revenues

Revenue Forecasting					
Key Assumptions	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Revenue Escalation					
Non-Rate Revenues	3.0%	3.0%	3.0%	3.0%	3.0%
Property Tax	1.0%	1.0%	1.0%	1.0%	1.0%
Reserve Interest	1.5%	1.5%	1.5%	1.5%	1.5%
Account Growth	0.0%	0.0%	0.0%	0.0%	0.0%
Total Meters	27,141	27,141	27,141	27,141	27,141
Total Dedicated Fire Lines	631	631	631	631	631
Total Consumption (HCF)	5,666,216	5,666,216	5,666,216	5,666,216	5,666,216

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Table 13: Water Accounts by Meter Size

Accounts by Meter Size					
Customer Accounts	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Single-Family					
Meter Size					
≤3/4"	22,254	22,254	22,254	22,254	22,254
1"	2,353	2,353	2,353	2,353	2,353
1 1/2"	165	165	165	165	165
2"	7	7	7	7	7
Subtotal Single-Family	24,779	24,779	24,779	24,779	24,779
Multi-Family					
Meter Size					
≤3/4"	3	3	3	3	3
1"	52	52	52	52	52
1 1/2"	18	18	18	18	18
2"	50	50	50	50	50
4"	1	1	1	1	1
6"	28	28	28	28	28
8"	14	14	14	14	14
Subtotal Multi-Family	166	166	166	166	166
Non-Residential					
Meter Size					
≤3/4"	168	168	168	168	168
1"	368	368	368	368	368
1 1/2"	282	282	282	282	282
2"	299	299	299	299	299
4"	2	2	2	2	2
6"	2	2	2	2	2
8"	2	2	2	2	2
Subtotal Non-Residential	1,123	1,123	1,123	1,123	1,123
Irrigation					
Meter Size					
≤3/4"	39	39	39	39	39
1"	58	58	58	58	58
1 1/2"	86	86	86	86	86
2"	158	158	158	158	158
Subtotal Irrigation	341	341	341	341	341
Affordable Rate Discount					
Meter Size					
≤3/4"	691	691	691	691	691
1"	41	41	41	41	41
Subtotal Affordable Rate Discount	732	732	732	732	732
Total All Meters	27,141	27,141	27,141	27,141	27,141

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Table 14: Dedicated Fire Lines by Connection Size

Accounts by Connection Size					
Private Fire Protection	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Connection Size					
1"	27	27	27	27	27
1 1/2"	6	6	6	6	6
2"	7	7	7	7	7
4"	20	20	20	20	20
6"	167	167	167	167	167
8"	145	145	145	145	145
10"	86	86	86	86	86
12"	1	1	1	1	1
Private Hydrant	172	172	172	172	172
Total Private Fire Protection	631	631	631	631	631

Table 15: Projected Water Consumption by Customer Class & Tier (HCF)

Projected Consumption					
Customer Class & Tier	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Single-Family					
Tier 1	2,152,688	2,152,688	2,152,688	2,152,688	2,152,688
Tier 2	1,553,343	1,553,343	1,553,343	1,553,343	1,553,343
Tier 3	246,299	246,299	246,299	246,299	246,299
Subtotal Single-Family	3,952,330	3,952,330	3,952,330	3,952,330	3,952,330
Multi-Family	664,539	664,539	664,539	664,539	664,539
Non-Residential	650,164	650,164	650,164	650,164	650,164
Irrigation	306,787	306,787	306,787	306,787	306,787
Affordable Rate Discount					
Tier 1	59,993	59,993	59,993	59,993	59,993
Tier 2	30,944	30,944	30,944	30,944	30,944
Tier 3	1,459	1,459	1,459	1,459	1,459
Subtotal Affordable Rate Discount	92,396	92,396	92,396	92,396	92,396
Total Consumption (HCF)	5,666,216	5,666,216	5,666,216	5,666,216	5,666,216

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Table 16: Projected Consumption by Pumping Zone (HCF)

Projected Consumption					
Consumption by Pumping Zone	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Pumping Zone					
Pump Zone 1	2,622,231	2,622,231	2,622,231	2,622,231	2,622,231
Pump Zone 2	2,438,112	2,438,112	2,438,112	2,438,112	2,438,112
Pump Zone 3	605,874	605,874	605,874	605,874	605,874
Total Consumption (HCF)	5,666,216	5,666,216	5,666,216	5,666,216	5,666,216

Table 17 identifies assumptions used for forecasting increases in expenses over the Rate Setting Period. The Capital and General Costs escalation factors reflect the 5-year average of the Engineering News-Record – Construction Cost Index (ENR CCI) and the Consumer Price Index (CPI), respectively, for the Los Angeles area.

Table 17: Water Assumptions for Forecasting Expense Requirements

Expense Forecasting						
Key Assumptions	Source:	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Expenditure Escalation						
Benefits		7.0%	7.0%	7.0%	7.0%	7.0%
Capital Construction	ENR - LA 5-Year Average	3.9%	3.9%	3.9%	3.9%	3.9%
Energy Costs		5.0%	5.0%	5.0%	5.0%	5.0%
General Costs	CPI - LA (BLS) 5-Year Average	3.9%	3.9%	3.9%	3.9%	3.9%
Retirement		4.0%	4.0%	4.0%	4.0%	4.0%
Salaries		7.2%	7.2%	7.2%	7.2%	7.2%
Potable - Fixed		5.0%	8.3%	8.3%	8.3%	8.3%
Potable - Variable		5.0%	8.3%	8.3%	8.3%	8.3%
Groundwater		2.5%	2.5%	2.5%	2.5%	2.5%

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Current Financial Position

Revenues

Based on the forecasting assumptions, fixed revenues were calculated by multiplying the existing fixed charges (Table 8 and Table 9) by accounts by meter size and dedicated fire line connection size and twelve billing periods (Table 13 and Table 14). Variable revenues were calculated using existing commodity rates (Table 10 and Table 11) and projected total water consumption by customer class and pumping zone (Table 15 and Table 16). Table 18 shows the calculated rate revenues through the Rate Setting Period. Table 19 summarizes calculated rate revenues from Table 18 and Operating, Non-operating, and Tax revenues through the Rate Setting Period, with projections rounded to the nearest thousands.

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Table 18: Water Calculated Rate Revenues

Calculated Rate Revenue					
Fixed Revenue	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Fixed Charge					
Single-Family	\$7,993,172	\$7,993,172	\$7,993,172	\$7,993,172	\$7,993,172
Multi-Family	\$558,234	\$558,234	\$558,234	\$558,234	\$558,234
Non-Residential	\$965,097	\$965,097	\$965,097	\$965,097	\$965,097
Irrigation	\$344,028	\$344,028	\$344,028	\$344,028	\$344,028
Affordable Rate Discount	\$113,982	\$113,982	\$113,982	\$113,982	\$113,982
Total Fixed Charge	\$9,974,512	\$9,974,512	\$9,974,512	\$9,974,512	\$9,974,512
Dedicated Fire Line Charge					
Dedicated Fire Line Charge Revenue	\$645,783	\$645,783	\$645,783	\$645,783	\$645,783
Commodity Revenue	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Single-Family					
Tier 1	\$7,749,677	\$7,749,677	\$7,749,677	\$7,749,677	\$7,749,677
Tier 2	\$7,440,513	\$7,440,513	\$7,440,513	\$7,440,513	\$7,440,513
Tier 3	\$1,357,107	\$1,357,107	\$1,357,107	\$1,357,107	\$1,357,107
Single-Family Variable Revenue	\$16,547,297	\$16,547,297	\$16,547,297	\$16,547,297	\$16,547,297
Multi-Family	\$2,724,610	\$2,724,610	\$2,724,610	\$2,724,610	\$2,724,610
Non-Residential	\$2,821,712	\$2,821,712	\$2,821,712	\$2,821,712	\$2,821,712
Irrigation	\$1,331,456	\$1,331,456	\$1,331,456	\$1,331,456	\$1,331,456
Affordable Rate Discount					
Tier 1	\$215,975	\$215,975	\$215,975	\$215,975	\$215,975
Tier 2	\$148,222	\$148,222	\$148,222	\$148,222	\$148,222
Tier 3	\$8,039	\$8,039	\$8,039	\$8,039	\$8,039
Affordable Rate Discount Variable Revenue	\$372,236	\$372,236	\$372,236	\$372,236	\$372,236
Total Commodity Rate Revenue	\$23,797,310	\$23,797,310	\$23,797,310	\$23,797,310	\$23,797,310
Pumping					
Pump Zone 2	\$780,196	\$780,196	\$780,196	\$780,196	\$780,196
Pump Zone 3	\$339,289	\$339,289	\$339,289	\$339,289	\$339,289
Total Pumping Revenue	\$1,119,485	\$1,119,485	\$1,119,485	\$1,119,485	\$1,119,485
Total Rate Revenue	\$35,537,090	\$35,537,090	\$35,537,090	\$35,537,090	\$35,537,090

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Table 19: Water Projected Revenues

Projected Revenues					
Revenue Summary	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Rate Revenues					
Fixed Charge	\$9,975,000	\$9,975,000	\$9,975,000	\$9,975,000	\$9,975,000
Dedicated Fire Line Charge	\$646,000	\$646,000	\$646,000	\$646,000	\$646,000
Commodity	\$23,797,000	\$23,797,000	\$23,797,000	\$23,797,000	\$23,797,000
Pumping	\$1,119,000	\$1,119,000	\$1,119,000	\$1,119,000	\$1,119,000
Subtotal Rate Revenues	\$35,537,000	\$35,537,000	\$35,537,000	\$35,537,000	\$35,537,000
Operating Revenues	\$1,296,000	\$1,296,000	\$1,296,000	\$1,296,000	\$1,296,000
Non-Operating Revenues	\$656,000	\$659,000	\$661,000	\$664,000	\$667,000
Tax Revenue - General	\$1,230,000	\$1,242,000	\$1,255,000	\$1,267,000	\$1,280,000
Total Revenues	\$38,719,000	\$38,734,000	\$38,749,000	\$38,764,000	\$38,780,000

Walnut Valley Water District – *2024 Cost-of-Service Utility Rate Study*

Expenses

The FY 2025 budget was used as the baseline expenses of the utility and adjusted in subsequent years based on the escalation factors shown in Table 17. Table 20 and Table 21 provide projected Operational & Maintenance (O&M) costs through the Rate Setting Period, with future projections rounded to the nearest thousands. Each O&M expense category includes detailed line-item expenditures that were discussed with staff to determine the appropriate escalation factor for forecasting how costs will increase over time.

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Table 20: Water Projected O&M Expenses

Projected Expenses					
O&M Expenses	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Water Supply Costs					
Potable Fixed Water Supply Costs					
Old Baldy - Fixed	\$122,000	\$132,000	\$143,000	\$154,000	\$167,000
LHHCWD	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
PBWA/CDWC	\$9,000	\$9,000	\$10,000	\$11,000	\$12,000
PWR Surcharge	\$20,000	\$22,000	\$24,000	\$26,000	\$28,000
TVMWD	\$316,000	\$389,000	\$422,000	\$457,000	\$495,000
MWD	\$508,000	\$550,000	\$596,000	\$646,000	\$699,000
Groundwater Supply	\$207,000	\$222,000	\$238,000	\$255,000	\$273,000
Subtotal Potable Fixed Water Supply Costs	\$1,184,000	\$1,326,000	\$1,435,000	\$1,551,000	\$1,676,000
Variable Potable Water Supply Costs					
Old Baldy - Variable	\$178,000	\$310,000	\$335,000	\$363,000	\$393,000
Durward	\$208,000	\$1,021,000	\$1,105,000	\$1,197,000	\$1,296,000
PBWA	\$527,000	\$571,000	\$618,000	\$670,000	\$725,000
MWD Purchased Water Tier I	\$18,120,000	\$18,526,000	\$20,063,000	\$21,728,000	\$23,532,000
TVMWD Surcharges	\$208,000	\$213,000	\$231,000	\$250,000	\$270,000
Subtotal Variable Potable Water Supply Costs	\$19,241,000	\$20,641,000	\$22,352,000	\$24,208,000	\$26,216,000
Total Water Supply Costs	\$20,425,000	\$21,967,000	\$23,787,000	\$25,759,000	\$27,892,000
Operating Expenses					
Operating and Maintenance					
Operations - General (5200)	\$1,115,000	\$1,175,000	\$1,238,000	\$1,305,000	\$1,376,000
Production & Storage (5210)	\$561,000	\$591,000	\$623,000	\$657,000	\$693,000
Water Quality (5220)	\$500,000	\$525,000	\$552,000	\$580,000	\$610,000
Valve Maintenance (5230)	\$446,000	\$475,000	\$506,000	\$539,000	\$574,000
Field Services (5240)	\$1,623,000	\$1,710,000	\$1,802,000	\$1,900,000	\$2,003,000
Customer Service Field (5250)	\$600,000	\$640,000	\$681,000	\$726,000	\$774,000
Engineering - (5300)	\$1,477,000	\$1,571,000	\$1,672,000	\$1,779,000	\$1,894,000
Finance - General (5400)	\$771,000	\$810,000	\$851,000	\$894,000	\$940,000
Customer Service (5410)	\$1,011,000	\$1,075,000	\$1,144,000	\$1,217,000	\$1,295,000
Accounting (5420)	\$800,000	\$853,000	\$910,000	\$970,000	\$1,034,000
Executive Staff (Admin 5510)	\$1,155,000	\$1,229,000	\$1,308,000	\$1,392,000	\$1,482,000
BOD (5520)	\$285,000	\$304,000	\$324,000	\$346,000	\$369,000
Administrative Support (5530)	\$273,000	\$291,000	\$311,000	\$332,000	\$354,000
HR/Risk Mgmt. (5610)	\$1,034,000	\$1,094,000	\$1,158,000	\$1,225,000	\$1,297,000
IT (5620)	\$893,000	\$939,000	\$988,000	\$1,039,000	\$1,093,000
Cons. & Public Info. (5630)	\$1,348,000	\$1,425,000	\$1,507,000	\$1,594,000	\$1,687,000
General Services (5640)	\$919,000	\$973,000	\$1,030,000	\$1,090,000	\$1,154,000
General Administration (5700)	\$1,361,000	\$1,419,000	\$1,479,000	\$1,542,000	\$1,608,000
Unfunded Liability	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000
Non-Operating Expenses	\$275,000	\$286,000	\$297,000	\$308,000	\$320,000
Subtotal Operating and Maintenance	\$17,197,000	\$18,135,000	\$19,131,000	\$20,185,000	\$21,307,000

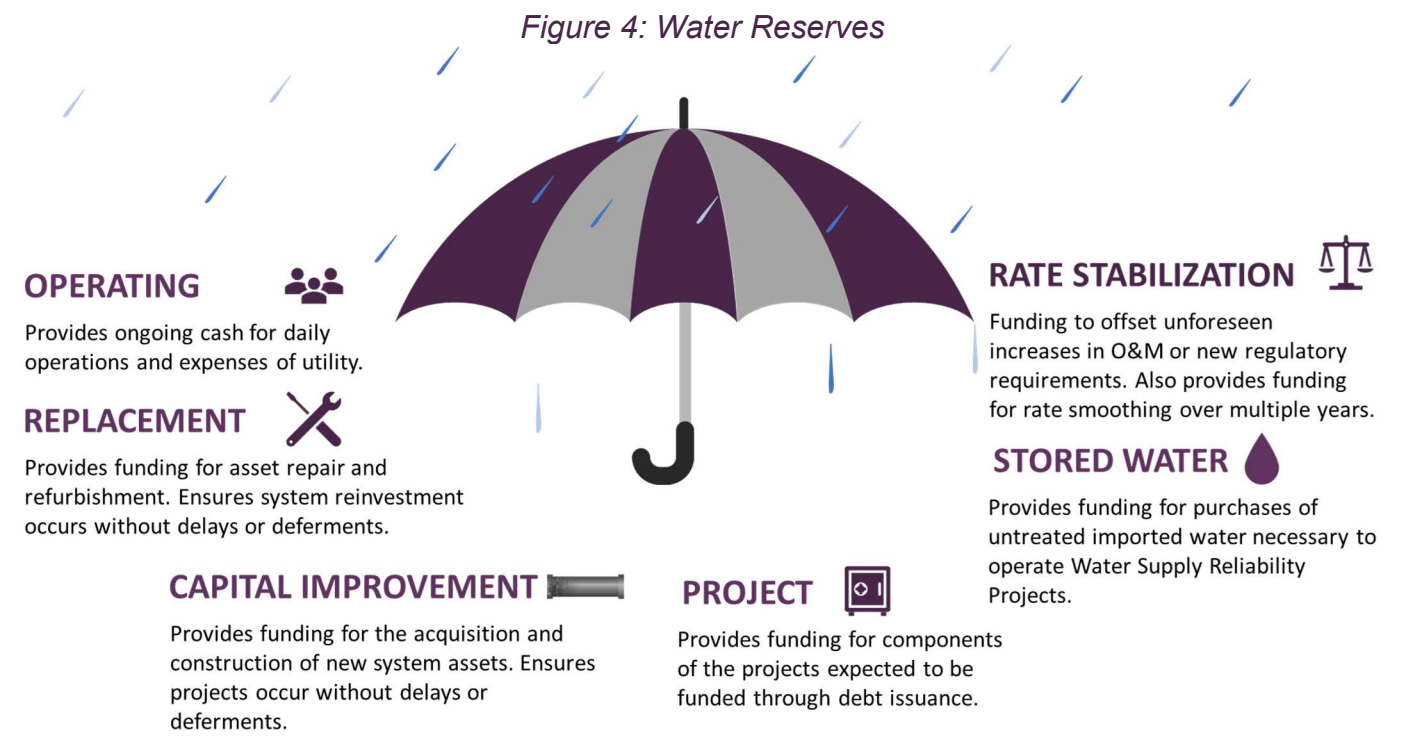
Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Table 21: Water Projected O&M Expenses (Continued)

Projected Expenses					
O&M Expenses	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
<i>Pump Zone Costs</i>					
<i>Electricity</i>					
Zone 1	\$48,000	\$50,000	\$52,000	\$55,000	\$58,000
Zone 2	\$699,000	\$734,000	\$771,000	\$809,000	\$850,000
Zone 3	\$105,000	\$110,000	\$116,000	\$121,000	\$127,000
<i>Operating and Maintenance</i>					
Zone 1	\$861,000	\$911,000	\$964,000	\$1,020,000	\$1,079,000
Zone 2	\$75,000	\$79,000	\$83,000	\$87,000	\$92,000
Zone 3	\$23,000	\$24,000	\$25,000	\$27,000	\$28,000
Subtotal Pump Zone Costs	\$1,811,000	\$1,908,000	\$2,011,000	\$2,119,000	\$2,234,000
Total Operating Expenses	\$19,008,000	\$20,043,000	\$21,142,000	\$22,304,000	\$23,541,000
<i>Debt Service</i>					
Existing Debt	\$2,575,000	\$3,178,000	\$3,174,000	\$3,176,000	\$3,175,000
Total Expenses	\$42,008,000	\$45,188,000	\$48,103,000	\$51,239,000	\$54,608,000

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Reserves



Established reserves include the Operating, Replacement, Capital Improvement, Project, Stored Water, and Rate Stabilization. Reserves help mitigate risks to a utility by ensuring sufficient cash is on hand for daily operations and to fund annual system improvements. Table 22 summarizes the existing minimum reserve requirements and ideal targets of each reserve.

Table 22: Existing Water Reserve Requirements and Targets

Reserve	Minimum Requirement	Reserve Target
Operating	60 Days of Operating	60 Days of Operating
Replacement	5 years of Asset R&R Plan	10 years of Asset R&R Plan
Capital Improvement	\$500,000	\$2,500,000
Stored Water	50% of water purchases (600 AF)	50% of water purchases (600 AF)
Rate Stabilization	125% of Debt Service	200% of Debt Service
Project	None	None

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Reserve Adjustments

The existing reserve requirements were evaluated as part of the financial planning process, and the following adjustments are recommended:

Operating Reserve: The current reserve target is 60 days of operating expenses. An operating reserve covers the daily operational expenses of the utility as well as periodic expenses that do not occur each month, such as debt service payments. The reserve target for an Operating Reserve is a function of the utility's annual expenses and billing frequency. It is recommended and common industry standard for utilities that bill on a monthly basis to set the minimum target at 90 days of operating expenses. As part of this study, the District is adjusting its reserve target from 60 days to 90 days.

Replacement Reserve: The current minimum reserve requirement is 5 years of capital spending. A replacement reserve is commonly established to cover at least the current fiscal year's capital spending needs. Annual rate revenue is structured to replenish funds from the replacement reserve. Therefore, the District is reducing its minimum reserve requirement and reserve target to cover the next 2 to 4 years of capital spending. The adjusted funding requirements are based on the five-year average of planned capital, with the minimum requirement equal 2 years of the 5-year average and the target equal 4 years. These new reserve levels will provide an adequate amount of funding to ensure projects are not delayed and provide matching funds for securing any potential grants.

Table 23 summarizes the revised minimum reserve requirements and ideal funding targets.

Table 23: Proposed Water Reserve Requirements and Targets

Reserve	Minimum Requirement	Reserve Target
Operating	60 Days of Operating	90 Days of Operating
Replacement	2 years of 5-year CIP average	4 years of 5-year CIP average
Capital Improvement	\$500,000	\$2,500,000
Stored Water	50% of water purchases (600 AF)	50% of water purchases (600 AF)
Rate Stabilization	125% of Debt Service	200% of Debt Service
Project	None	None

The beginning total water reserve balance for FY 2025 (July 1, 2024), is \$24.2M. The Project Reserve is not included in the total ending reserve balance because the funds in this reserve are designated for specific projects.

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Financial Outlook at Existing Rates

Calculating revenue using existing rates and projecting expenses helps determine the utility's current financial health. Revenues from current rates are not sufficient to cover operating expenses in FY 2025, and the operating reserve would absorb the shortfall. In addition, capital spending would require using reserves as the primary funding source, which is not sustainable in the long term. Table 24 and Table 25 forecast existing revenues and expenses through the Rate Setting Period. Table 26 identifies reserve transfers and reserve activity, with FY 2025 starting reserve balances shown for each reserve.

Table 24: Water Financial Plan at Existing Rates

Financial Plan at Existing Rates						
Revenue		FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Rate Revenues						
Fixed Charge	Table 19	\$9,975,000	\$9,975,000	\$9,975,000	\$9,975,000	\$9,975,000
Dedicated Fire Line Charge		\$646,000	\$646,000	\$646,000	\$646,000	\$646,000
Commodity		\$23,797,000	\$23,797,000	\$23,797,000	\$23,797,000	\$23,797,000
Pumping		\$1,119,000	\$1,119,000	\$1,119,000	\$1,119,000	\$1,119,000
Total Rate Revenues		\$35,537,000	\$35,537,000	\$35,537,000	\$35,537,000	\$35,537,000
Operating Revenues	Table 19	\$1,296,000	\$1,296,000	\$1,296,000	\$1,296,000	\$1,296,000
Non-Operating Revenues		\$656,000	\$659,000	\$661,000	\$664,000	\$667,000
Tax Revenue - General		\$1,230,000	\$1,242,000	\$1,255,000	\$1,267,000	\$1,280,000
Total Revenues		\$38,719,000	\$38,734,000	\$38,749,000	\$38,764,000	\$38,780,000
O&M Expenses		FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Water Supply Costs						
Potable Fixed Water Supply Costs						
Old Baldy - Fixed	Table 20	\$122,000	\$132,000	\$143,000	\$154,000	\$167,000
LHHCWD		\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
PBWA/CDWC		\$9,000	\$9,000	\$10,000	\$11,000	\$12,000
PWR Surcharge		\$20,000	\$22,000	\$24,000	\$26,000	\$28,000
TVMWD		\$316,000	\$389,000	\$422,000	\$457,000	\$495,000
MWD		\$508,000	\$550,000	\$596,000	\$646,000	\$699,000
Groundwater Supply		\$207,000	\$222,000	\$238,000	\$255,000	\$273,000
Subtotal Potable Fixed Water Supply Costs		\$1,184,000	\$1,326,000	\$1,435,000	\$1,551,000	\$1,676,000
Variable Potable Water Supply Costs						
Old Baldy - Variable	Table 20	\$178,000	\$310,000	\$335,000	\$363,000	\$393,000
Durward		\$208,000	\$1,021,000	\$1,105,000	\$1,197,000	\$1,296,000
PBWA		\$527,000	\$571,000	\$618,000	\$670,000	\$725,000
MWD Purchased Water Tier I		\$18,120,000	\$18,526,000	\$20,063,000	\$21,728,000	\$23,532,000
TVMWD Surcharges		\$208,000	\$213,000	\$231,000	\$250,000	\$270,000
Subtotal Variable Potable Water Supply Costs		\$19,241,000	\$20,641,000	\$22,352,000	\$24,208,000	\$26,216,000
Total Water Supply Costs		\$20,425,000	\$21,967,000	\$23,787,000	\$25,759,000	\$27,892,000

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Table 25: Water Financial Plan at Existing Rates (Continued)

Financial Plan at Existing Rates						
O&M Expenses		FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Operating Expenses						
Operating and Maintenance						
Operations - General (5200)	Table 20	\$1,115,000	\$1,175,000	\$1,238,000	\$1,305,000	\$1,376,000
Production & Storage (5210)		\$561,000	\$591,000	\$623,000	\$657,000	\$693,000
Water Quality (5220)		\$500,000	\$525,000	\$552,000	\$580,000	\$610,000
Valve Maintenance (5230)		\$446,000	\$475,000	\$506,000	\$539,000	\$574,000
Field Services (5240)		\$1,623,000	\$1,710,000	\$1,802,000	\$1,900,000	\$2,003,000
Customer Service Field (5250)		\$600,000	\$640,000	\$681,000	\$726,000	\$774,000
Engineering - (5300)		\$1,477,000	\$1,571,000	\$1,672,000	\$1,779,000	\$1,894,000
Finance - General (5400)		\$771,000	\$810,000	\$851,000	\$894,000	\$940,000
Customer Service (5410)		\$1,011,000	\$1,075,000	\$1,144,000	\$1,217,000	\$1,295,000
Accounting (5420)		\$800,000	\$853,000	\$910,000	\$970,000	\$1,034,000
Executive Staff (Admin 5510)		\$1,155,000	\$1,229,000	\$1,308,000	\$1,392,000	\$1,482,000
BOD (5520)		\$285,000	\$304,000	\$324,000	\$346,000	\$369,000
Administrative Support (5530)		\$273,000	\$291,000	\$311,000	\$332,000	\$354,000
HR/Risk Mgmt. (5610)		\$1,034,000	\$1,094,000	\$1,158,000	\$1,225,000	\$1,297,000
IT (5620)		\$893,000	\$939,000	\$988,000	\$1,039,000	\$1,093,000
Cons. & Public Info. (5630)		\$1,348,000	\$1,425,000	\$1,507,000	\$1,594,000	\$1,687,000
General Services (5640)		\$919,000	\$973,000	\$1,030,000	\$1,090,000	\$1,154,000
General Administration (5700)		\$1,361,000	\$1,419,000	\$1,479,000	\$1,542,000	\$1,608,000
Unfunded Liability		\$750,000	\$750,000	\$750,000	\$750,000	\$750,000
Non-Operating Expenses		\$275,000	\$286,000	\$297,000	\$308,000	\$320,000
Subtotal Operating and Maintenance		\$17,197,000	\$18,135,000	\$19,131,000	\$20,185,000	\$21,307,000
Pump Zone Costs						
Electricity						
Zone 1	Table 21	\$48,000	\$50,000	\$52,000	\$55,000	\$58,000
Zone 2		\$699,000	\$734,000	\$771,000	\$809,000	\$850,000
Zone 3		\$105,000	\$110,000	\$116,000	\$121,000	\$127,000
Operating and Maintenance						
Zone 1	Table 21	\$861,000	\$911,000	\$964,000	\$1,020,000	\$1,079,000
Zone 2		\$75,000	\$79,000	\$83,000	\$87,000	\$92,000
Zone 3		\$23,000	\$24,000	\$25,000	\$27,000	\$28,000
Subtotal Pump Zone Costs		\$1,811,000	\$1,908,000	\$2,011,000	\$2,119,000	\$2,234,000
Total Operating Expenses		\$19,008,000	\$20,043,000	\$21,142,000	\$22,304,000	\$23,541,000
Debt Service						
Existing Debt	Table 21	\$2,575,000	\$3,178,000	\$3,174,000	\$3,176,000	\$3,175,000
Total Expenses		\$42,008,000	\$45,188,000	\$48,103,000	\$51,239,000	\$54,608,000
Net Operating Income	(Revenues - Expenses)	(\$3,289,000)	(\$6,454,000)	(\$9,354,000)	(\$12,475,000)	(\$15,828,000)

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

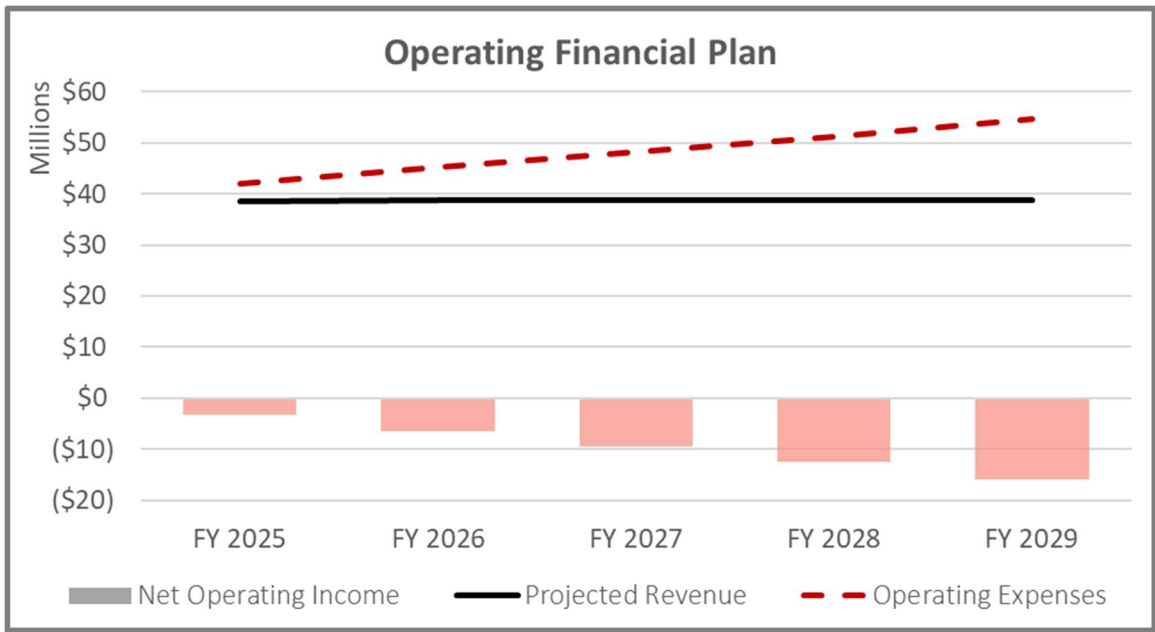
Table 26: Water Reserve Activity at Existing Rates

Reserve Activity at Existing Rates						
Line #	Operating	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
1	Beginning Balance	\$2,737,100	(\$551,900)	(\$7,005,900)	(\$16,359,900)	(\$28,834,900)
2	Transfers (Net Operating Income) Table 25	(\$3,289,000)	(\$6,454,000)	(\$9,354,000)	(\$12,475,000)	(\$15,828,000)
3	Ending Balance	(\$551,900)	(\$7,005,900)	(\$16,359,900)	(\$28,834,900)	(\$44,662,900)
Replacement						
		FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
4	Beginning Balance	\$15,330,263	\$7,664,406	\$4,834,752	\$803,222	(\$1,383,078)
5	Less:					
6	R&R	(\$6,499,075)	(\$2,922,700)	(\$4,073,500)	(\$2,186,300)	(\$3,051,500)
7	Transfers from/(to) Capital Improvement	(\$1,337,958)	\$0	\$0	\$0	\$0
8	Subtotal Replacement	\$7,493,230	\$4,741,706	\$761,252	(\$1,383,078)	(\$4,434,578)
9	Interest Earnings	\$171,176	\$93,046	\$41,970	\$0	\$0
10	Ending Balance	\$7,664,406	\$4,834,752	\$803,222	(\$1,383,078)	(\$4,434,578)
Capital Improvement						
		FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
11	Beginning Balance	\$1,557,988	\$2,425,601	\$1,958,235	\$476,358	(\$43,300)
12	Transfers from/(to) Replacement <i>Line 7</i>	\$1,337,958	\$0	\$0	\$0	\$0
13	Sources & Uses					
14	Remaining Proceeds - Capital Improvement	\$25,000,000	\$2,000,000	\$6,000,000	\$0	\$0
15	Less:					
16	CIP	(\$25,500,000)	(\$2,500,000)	(\$7,500,000)	(\$519,658)	(\$540,090)
17	Subtotal Subtotal Replacement	\$2,395,946	\$1,925,601	\$458,235	(\$43,300)	(\$583,389)
18	Interest Earnings	\$29,655	\$32,634	\$18,124	\$0	\$0
19	Ending Balance	\$2,425,601	\$1,958,235	\$476,358	(\$43,300)	(\$583,389)
Stored Water						
		FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
20	Beginning Balance	\$125,500	\$125,500	\$125,500	\$125,500	\$125,500
21	Ending Balance	\$125,500	\$125,500	\$125,500	\$125,500	\$125,500
Rate Stabilization						
		FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
22	Beginning Balance	\$4,543,125	\$4,543,125	\$4,543,125	\$4,543,125	\$4,543,125
23	Ending Balance	\$4,543,125	\$4,543,125	\$4,543,125	\$4,543,125	\$4,543,125
Project						
		FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
24	Beginning Balance	\$967,232	\$967,232	\$967,232	\$967,232	\$967,232
25	Ending Balance	\$967,232	\$967,232	\$967,232	\$967,232	\$967,232
26	Total Ending Balance	\$15,173,964	\$5,422,944	(\$9,444,462)	(\$24,625,421)	(\$44,045,010)
27	Total Ending Balance - Less Project Reserve	\$14,206,732	\$4,455,712	(\$10,411,694)	(\$25,592,653)	(\$45,012,242)

Figure 5 illustrates the utility's operating position. O&M expenses are identified with the dashed red trendline, and the horizontal black trendline shows total revenues at existing rates. The bars represent the net operating income, with grey bars reflecting positive net income for capital spending and reserve funding and red bars reflecting an operating deficit absorbed by reserves.

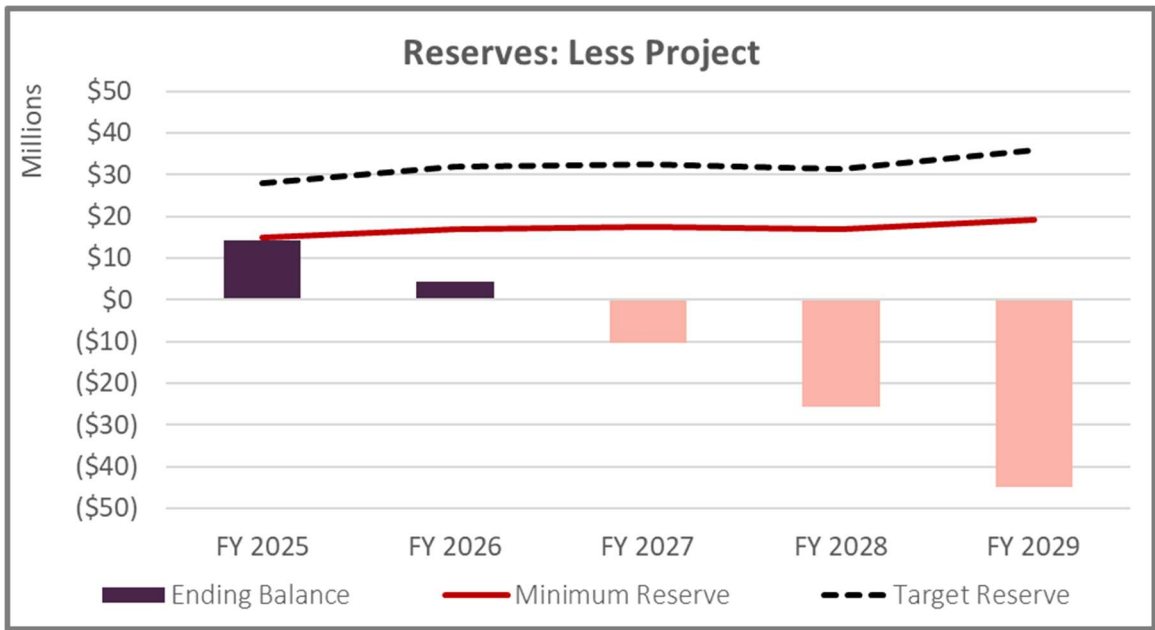
Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Figure 5: Water Current Operating Financial Position



Capital spending over the Rate Setting Period is approximately \$55.3M, as shown in Figure 2. The Project Reserve balance is not included in this figure as it has no minimum requirement or reserve target (as shown in Table 23) and the funds in this reserve are designated for specific projects not included in the financial plan. Without increases in rate revenue, the water utility would not meet its minimum target in FY 2026. By FY 2027, reserves would be depleted, and funding would not be available for the CIP. Figure 6 reflects the projected ending balances of reserves after funding operating and capital projects.

Figure 6: Water Projected Ending Reserves at Existing Rates



Proposed Financial Plan – Water Utility

Based on our review of the utility's financial outlook at existing rates, a proposed financial plan was developed to fund the multi-year revenue requirements. The proposed financial plan increases rate revenue each year to generate approximately \$26.1M in additional rate revenue by the end of FY 2029. Table 27 and Table 28 forecasts projected revenues, **with annual revenue adjustments**, and expenses through FY 2029. Table 29 identifies the projected FY 2025 total starting reserve balances, activity within each reserve (including net operating income transfer from Table 28, transfers between reserves, and annual CIP), and projected ending balances for each fiscal year of the Rate Setting Period. By FY 2029, rate revenues will be sufficient to fund the reserves above the minimum requirement.

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Table 27: Water Proposed Financial Plan

Proposed Financial Plan						
Revenue		FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Rate Revenues						
Fixed Charge	Table 19	\$9,975,000	\$9,975,000	\$9,975,000	\$9,975,000	\$9,975,000
Dedicated Fire Line Charge		\$646,000	\$646,000	\$646,000	\$646,000	\$646,000
Commodity		\$23,797,000	\$23,797,000	\$23,797,000	\$23,797,000	\$23,797,000
Pumping		\$1,119,000	\$1,119,000	\$1,119,000	\$1,119,000	\$1,119,000
Total Rate Revenues		\$35,537,000	\$35,537,000	\$35,537,000	\$35,537,000	\$35,537,000
Additional Revenue (from revenue adjustments):						
Fiscal Year	Revenue Adjustment	Effective Month				
FY 2025	13.0%	January	\$2,309,000	\$4,619,000	\$4,619,000	\$4,619,000
FY 2026	13.0%	January		\$2,610,000	\$5,220,000	\$5,220,000
FY 2027	13.0%	January			\$2,949,000	\$5,898,000
FY 2028	13.0%	January				\$3,332,000
FY 2029	13.0%	January				\$3,766,000
Total Additional Revenue		\$2,309,000	\$7,229,000	\$12,788,000	\$19,069,000	\$26,168,000
Projected Rate Revenue <i>(including revenue adjustments)</i>		\$37,846,000	\$42,766,000	\$48,325,000	\$54,606,000	\$61,705,000
Operating Revenues	Table 19	\$1,296,000	\$1,296,000	\$1,296,000	\$1,296,000	\$1,296,000
Non-Operating Revenues		\$656,000	\$659,000	\$661,000	\$664,000	\$667,000
Tax Revenue - General		\$1,230,000	\$1,242,000	\$1,255,000	\$1,267,000	\$1,280,000
Total Revenues		\$41,028,000	\$45,963,000	\$51,537,000	\$57,833,000	\$64,948,000
O&M Expenses		FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Water Supply Costs						
Potable Fixed Water Supply Costs						
Old Baldy - Fixed	Table 20	\$122,000	\$132,000	\$143,000	\$154,000	\$167,000
LHHCWD		\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
PBWA/CDWC		\$9,000	\$9,000	\$10,000	\$11,000	\$12,000
PWR Surcharge		\$20,000	\$22,000	\$24,000	\$26,000	\$28,000
TVMWD		\$316,000	\$389,000	\$422,000	\$457,000	\$495,000
MWD		\$508,000	\$550,000	\$596,000	\$646,000	\$699,000
Groundwater Supply		\$207,000	\$222,000	\$238,000	\$255,000	\$273,000
Subtotal Potable Fixed Water Supply Costs		\$1,184,000	\$1,326,000	\$1,435,000	\$1,551,000	\$1,676,000
Variable Potable Water Supply Costs						
Old Baldy - Variable	Table 20	\$178,000	\$310,000	\$335,000	\$363,000	\$393,000
Durward		\$208,000	\$1,021,000	\$1,105,000	\$1,197,000	\$1,296,000
PBWA		\$527,000	\$571,000	\$618,000	\$670,000	\$725,000
MWD Purchased Water Tier I		\$18,120,000	\$18,526,000	\$20,063,000	\$21,728,000	\$23,532,000
TVMWD Surcharges		\$208,000	\$213,000	\$231,000	\$250,000	\$270,000
Subtotal Variable Potable Water Supply Costs		\$19,241,000	\$20,641,000	\$22,352,000	\$24,208,000	\$26,216,000
Total Water Supply Costs		\$20,425,000	\$21,967,000	\$23,787,000	\$25,759,000	\$27,892,000

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Table 28: Water Proposed Financial Plan (Continued)

Proposed Financial Plan		FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
O&M Expenses						
Operating Expenses						
<i>Operating and Maintenance</i>						
Operations - General (5200)	Table 20	\$1,115,000	\$1,175,000	\$1,238,000	\$1,305,000	\$1,376,000
Production & Storage (5210)		\$561,000	\$591,000	\$623,000	\$657,000	\$693,000
Water Quality (5220)		\$500,000	\$525,000	\$552,000	\$580,000	\$610,000
Valve Maintenance (5230)		\$446,000	\$475,000	\$506,000	\$539,000	\$574,000
Field Services (5240)		\$1,623,000	\$1,710,000	\$1,802,000	\$1,900,000	\$2,003,000
Customer Service Field (5250)		\$600,000	\$640,000	\$681,000	\$726,000	\$774,000
Engineering - (5300)		\$1,477,000	\$1,571,000	\$1,672,000	\$1,779,000	\$1,894,000
Finance - General (5400)		\$771,000	\$810,000	\$851,000	\$894,000	\$940,000
Customer Service (5410)		\$1,011,000	\$1,075,000	\$1,144,000	\$1,217,000	\$1,295,000
Accounting (5420)		\$800,000	\$853,000	\$910,000	\$970,000	\$1,034,000
Executive Staff (Admin 5510)		\$1,155,000	\$1,229,000	\$1,308,000	\$1,392,000	\$1,482,000
BOD (5520)		\$285,000	\$304,000	\$324,000	\$346,000	\$369,000
Administrative Support (5530)		\$273,000	\$291,000	\$311,000	\$332,000	\$354,000
HR/Risk Mgmt. (5610)		\$1,034,000	\$1,094,000	\$1,158,000	\$1,225,000	\$1,297,000
IT (5620)		\$893,000	\$939,000	\$988,000	\$1,039,000	\$1,093,000
Cons. & Public Info. (5630)		\$1,348,000	\$1,425,000	\$1,507,000	\$1,594,000	\$1,687,000
General Services (5640)		\$919,000	\$973,000	\$1,030,000	\$1,090,000	\$1,154,000
General Administration (5700)		\$1,361,000	\$1,419,000	\$1,479,000	\$1,542,000	\$1,608,000
Unfunded Liability		\$750,000	\$750,000	\$750,000	\$750,000	\$750,000
Non-Operating Expenses		\$275,000	\$286,000	\$297,000	\$308,000	\$320,000
Subtotal Operating and Maintenance		\$17,197,000	\$18,135,000	\$19,131,000	\$20,185,000	\$21,307,000
<i>Pump Zone Costs</i>						
<i>Electricity</i>						
Zone 1	Table 21	\$48,000	\$50,000	\$52,000	\$55,000	\$58,000
Zone 2		\$699,000	\$734,000	\$771,000	\$809,000	\$850,000
Zone 3		\$105,000	\$110,000	\$116,000	\$121,000	\$127,000
<i>Operating and Maintenance</i>						
Zone 1	Table 21	\$861,000	\$911,000	\$964,000	\$1,020,000	\$1,079,000
Zone 2		\$75,000	\$79,000	\$83,000	\$87,000	\$92,000
Zone 3		\$23,000	\$24,000	\$25,000	\$27,000	\$28,000
Subtotal Pump Zone Costs		\$1,811,000	\$1,908,000	\$2,011,000	\$2,119,000	\$2,234,000
Total Operating Expenses		\$19,008,000	\$20,043,000	\$21,142,000	\$22,304,000	\$23,541,000
Debt Service						
Existing Debt	Table 21	\$2,575,000	\$3,178,000	\$3,174,000	\$3,176,000	\$3,175,000
Total Expenses		\$42,008,000	\$45,188,000	\$48,103,000	\$51,239,000	\$54,608,000
Net Operating Income	(Revenues - Expenses)	(\$980,000)	\$775,000	\$3,434,000	\$6,594,000	\$10,340,000

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Table 29: Water Proposed Transfers and Reserves Activity

Reserve Activity at Proposed Rates						
Line #	Operating	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
1	Beginning Balance	\$2,737,100	\$1,757,100	\$2,532,100	\$3,475,397	\$3,666,411
2	Transfers (Net Operating Income) Table 28	(\$980,000)	\$775,000	\$3,434,000	\$6,594,000	\$10,340,000
3	Transfers from/(to) Replacement	\$0	\$0	(\$2,490,703)	(\$6,402,986)	(\$10,136,658)
4	Ending Balance	\$1,757,100	\$2,532,100	\$3,475,397	\$3,666,411	\$3,869,753
Replacement						
		FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
5	Beginning Balance	\$15,330,263	\$7,664,406	\$4,834,752	\$3,312,605	\$7,610,606
6	Plus:					
7	Transfers from/(to) Operating <i>Line 3</i>	\$0	\$0	\$2,490,703	\$6,402,986	\$10,136,658
8	Less:					
9	R&R	(\$6,499,075)	(\$2,922,700)	(\$4,073,500)	(\$2,186,300)	(\$3,051,500)
10	Transfers from/(to) Capital Improvement	(\$1,337,958)	\$0	\$0	\$0	(\$4,649,723)
11	Subtotal Replacement	\$7,493,230	\$4,741,706	\$3,251,955	\$7,529,291	\$10,046,040
12	Interest Earnings	\$171,176	\$93,046	\$60,650	\$81,314	\$132,425
13	Ending Balance	\$7,664,406	\$4,834,752	\$3,312,605	\$7,610,606	\$10,178,465
Capital Improvement						
		FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
14	Beginning Balance	\$1,557,988	\$2,425,601	\$1,958,235	\$476,358	(\$43,300)
15	Transfers from/(to) Replacement <i>Line 10</i>	\$1,337,958	\$0	\$0	\$0	\$4,649,723
16	Sources & Uses					
17	Remaining Proceeds - Capital Improvement	\$25,000,000	\$2,000,000	\$6,000,000	\$0	\$0
18	Less:					
19	CIP	(\$25,500,000)	(\$2,500,000)	(\$7,500,000)	(\$519,658)	(\$540,090)
20	Subtotal Subtotal Replacement	\$2,395,946	\$1,925,601	\$458,235	(\$43,300)	\$4,066,334
21	Interest Earnings	\$29,655	\$32,634	\$18,124	\$0	\$30,173
22	Ending Balance	\$2,425,601	\$1,958,235	\$476,358	(\$43,300)	\$4,096,506
Stored Water						
		FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
23	Beginning Balance	\$125,500	\$125,500	\$125,500	\$125,500	\$125,500
24	Ending Balance	\$125,500	\$125,500	\$125,500	\$125,500	\$125,500
Rate Stabilization						
		FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
25	Beginning Balance	\$4,543,125	\$4,543,125	\$4,543,125	\$4,543,125	\$4,543,125
26	Ending Balance	\$4,543,125	\$4,543,125	\$4,543,125	\$4,543,125	\$4,543,125
Project						
		FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
27	Beginning Balance	\$967,232	\$967,232	\$967,232	\$967,232	\$967,232
28	Ending Balance	\$967,232	\$967,232	\$967,232	\$967,232	\$967,232
29	Total Ending Balance	\$17,482,964	\$14,960,944	\$12,900,218	\$16,869,574	\$23,780,582
30	Total Ending Balance - Less Project Reserve	\$16,515,732	\$13,993,712	\$11,932,986	\$15,902,342	\$22,813,350

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

The operating position based on the proposed financial plan is identified in Figure 7. Figure 8 and Figure 9 show the capital plan with funding sources and projected ending reserve balances, respectively. Debt financing is for the District's new headquarters. The debt is amortized over 30 years at an average coupon rate of 5%.

Figure 7: Water Proposed Operating Financial Position

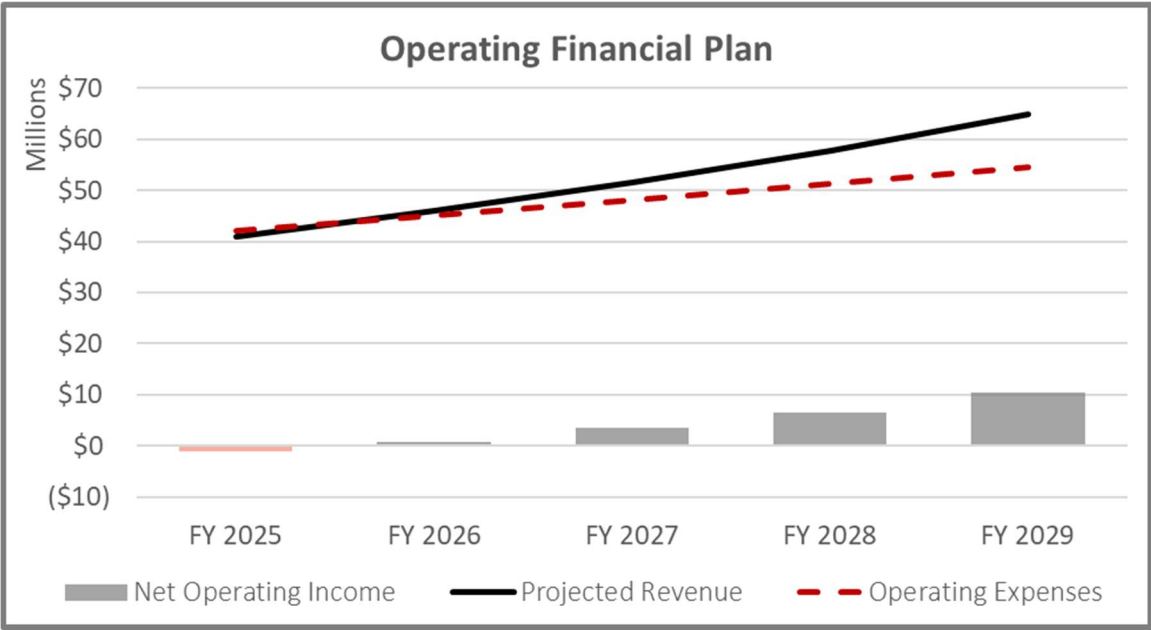


Figure 8: Water Capital Improvement Plan with Funding Sources

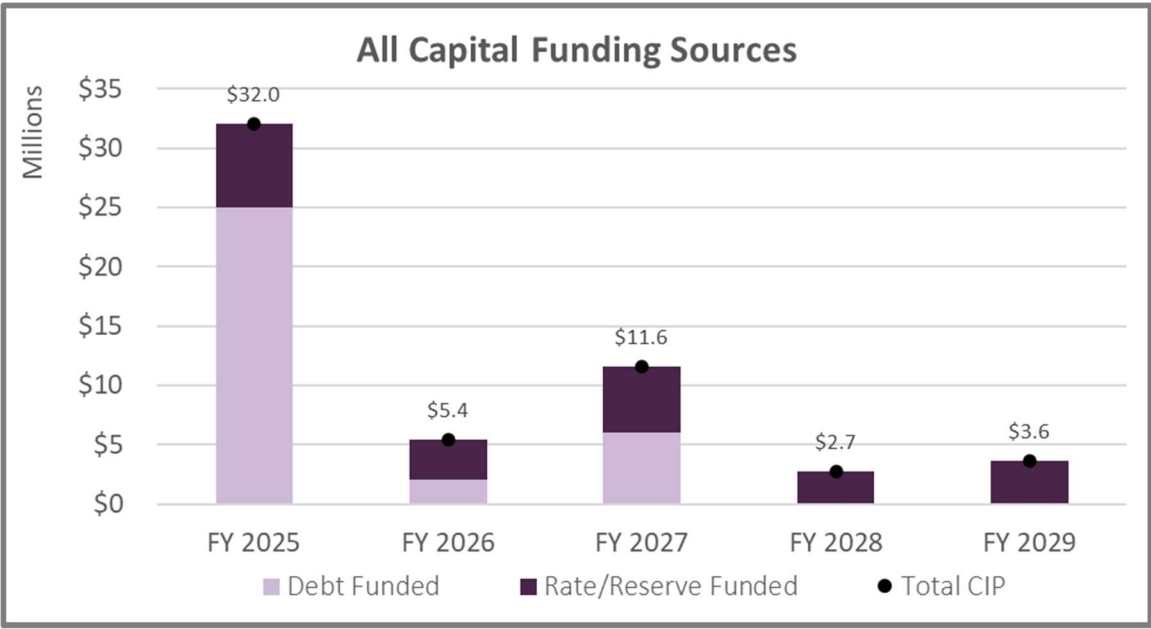
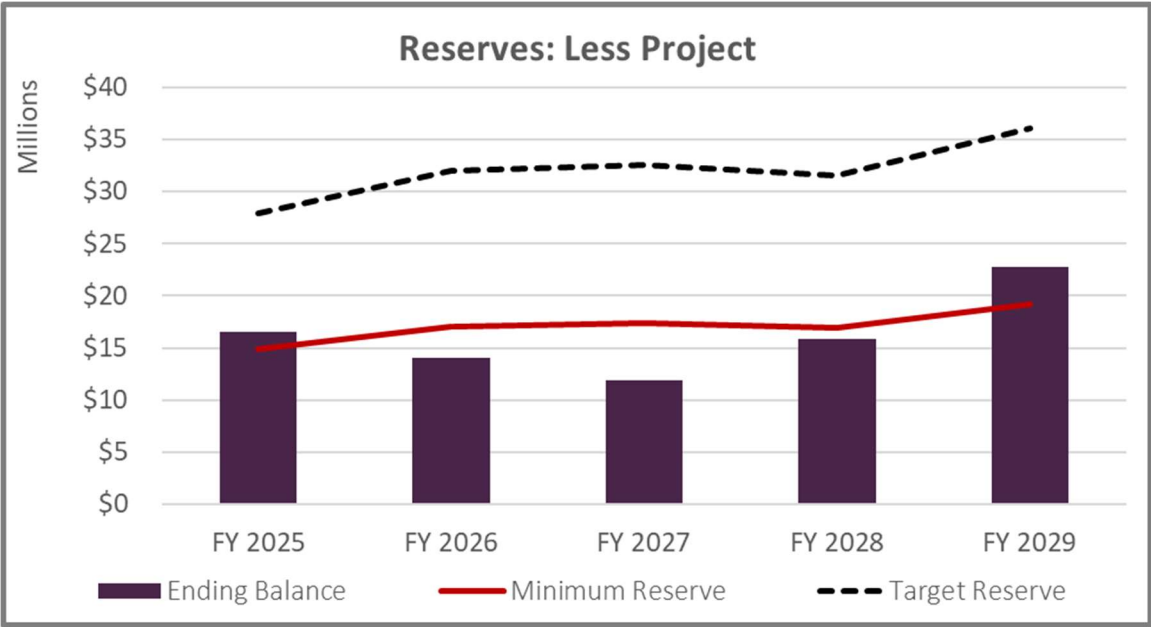


Figure 9: Water Proposed Ending Reserves



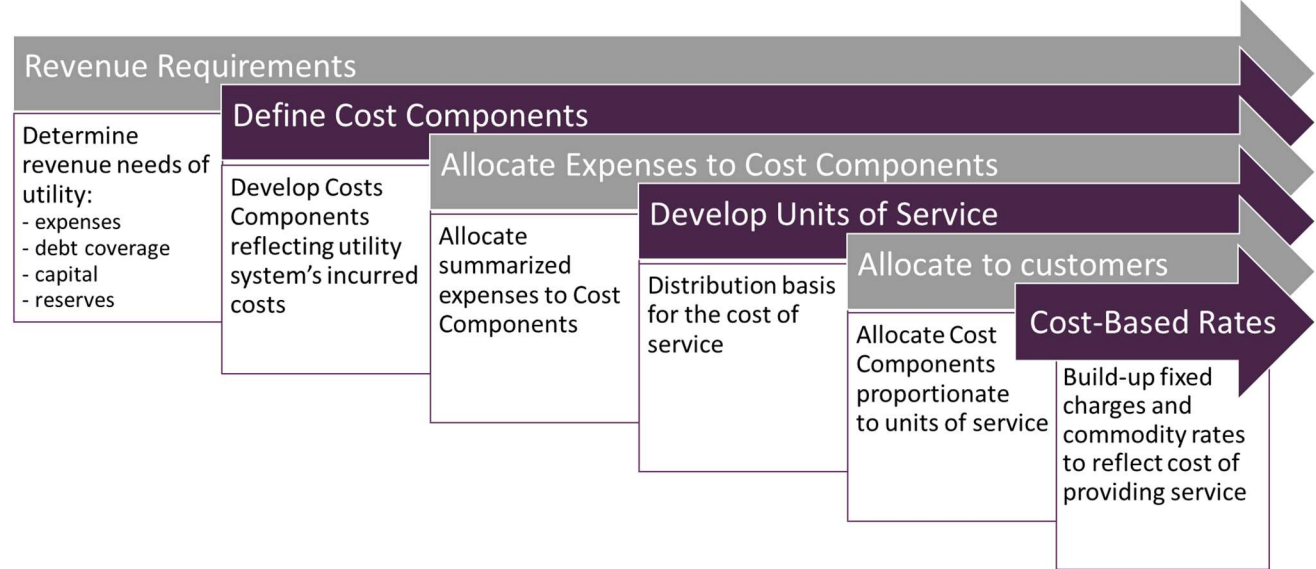
Cost-of-Service Analysis – Water Utility

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 allocate costs proportionately to each parcel served by the District and derives water rates that adhere to the cost-of-service provisions of Proposition 218.

It is important to understand **how** costs are incurred to determine the most appropriate way to recover them. The following graphic summarizes the cost-of-service process. This process allocates costs incurred to customer classes and tiers based on their proportional share. As a result, the proposed rates are cost-based and reflect the costs incurred to deliver water service to all customers.

Figure 10: Cost-of-Service Process



Revenue Requirements

With FY 2025 as the first year of the proposed rate schedule, revenue requirements are determined for FY 2025 and used for the cost-of-service. Revenue requirements include O&M expenses, available offsets from other operating and non-operating revenues, annual net income, and any mid-year adjustments if rates are implemented after the start of the fiscal year. The mid-year adjustment annualizes the proposed revenue adjustment to account for the time elapsed before new rates take effect to connect to the annual units of service used within this report for deriving rates. The proposed revenue adjustments and corresponding rates generate the necessary funding over the Rate Setting Period to fund total revenue requirements, including the capital spending plan and satisfy minimum reserve requirements by FY 2029. The results of the financial plan analysis are summarized in Table 30 and Table 31 and represent the revenue required from rates over the Rate Setting Period.

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Table 30: Water Revenue Requirements

Rate Setting Period	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Revenue Requirements	Total	Total	Total	Total	Total
Water Supply Costs					
<i>Potable Fixed Water Supply Costs</i>					
Old Baldy - Fixed	\$122,000	\$132,000	\$143,000	\$154,000	\$167,000
LHHCWD	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
PBWA/CDWC	\$9,000	\$9,000	\$10,000	\$11,000	\$12,000
PWR Surcharge	\$20,000	\$22,000	\$24,000	\$26,000	\$28,000
TVMWD	\$316,000	\$389,000	\$422,000	\$457,000	\$495,000
MWD	\$508,000	\$550,000	\$596,000	\$646,000	\$699,000
Groundwater Supply	\$207,000	\$222,000	\$238,000	\$255,000	\$273,000
<i>Variable Potable Water Supply Costs</i>					
Old Baldy - Variable	\$178,000	\$310,000	\$335,000	\$363,000	\$393,000
Durward	\$208,000	\$1,021,000	\$1,105,000	\$1,197,000	\$1,296,000
PBWA	\$527,000	\$571,000	\$618,000	\$670,000	\$725,000
MWD Purchased Water Tier I	\$18,120,000	\$18,526,000	\$20,063,000	\$21,728,000	\$23,532,000
TVMWD Surcharges	\$208,000	\$213,000	\$231,000	\$250,000	\$270,000
Total Water Supply Costs	\$20,425,000	\$21,967,000	\$23,787,000	\$25,759,000	\$27,892,000
Operating Expenses					
<i>Operating and Maintenance</i>					
Operations - General (5200)	\$1,115,000	\$1,175,000	\$1,238,000	\$1,305,000	\$1,376,000
Production & Storage (5210)	\$561,000	\$591,000	\$623,000	\$657,000	\$693,000
Water Quality (5220)	\$500,000	\$525,000	\$552,000	\$580,000	\$610,000
Valve Maintenance (5230)	\$446,000	\$475,000	\$506,000	\$539,000	\$574,000
Field Services (5240)	\$1,623,000	\$1,710,000	\$1,802,000	\$1,900,000	\$2,003,000
Customer Service Field (5250)	\$600,000	\$640,000	\$681,000	\$726,000	\$774,000
Engineering - (5300)	\$1,477,000	\$1,571,000	\$1,672,000	\$1,779,000	\$1,894,000
Finance - General (5400)	\$771,000	\$810,000	\$851,000	\$894,000	\$940,000
Customer Service (5410)	\$1,011,000	\$1,075,000	\$1,144,000	\$1,217,000	\$1,295,000
Accounting (5420)	\$800,000	\$853,000	\$910,000	\$970,000	\$1,034,000
Executive Staff (Admin 5510)	\$1,155,000	\$1,229,000	\$1,308,000	\$1,392,000	\$1,482,000
BOD (5520)	\$285,000	\$304,000	\$324,000	\$346,000	\$369,000
Administrative Support (5530)	\$273,000	\$291,000	\$311,000	\$332,000	\$354,000
HR/Risk Mgmt. (5610)	\$1,034,000	\$1,094,000	\$1,158,000	\$1,225,000	\$1,297,000
IT (5620)	\$893,000	\$939,000	\$988,000	\$1,039,000	\$1,093,000
Cons. & Public Info. (5630)	\$1,348,000	\$1,425,000	\$1,507,000	\$1,594,000	\$1,687,000
General Services (5640)	\$919,000	\$973,000	\$1,030,000	\$1,090,000	\$1,154,000
General Administration (5700)	\$1,361,000	\$1,419,000	\$1,479,000	\$1,542,000	\$1,608,000
Unfunded Liability	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000
Non-Operating Expenses	\$275,000	\$286,000	\$297,000	\$308,000	\$320,000
Total Operating and Maintenance	\$17,197,000	\$18,135,000	\$19,131,000	\$20,185,000	\$21,307,000

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Table 31: Water Revenue Requirements (Continued)

Rate Setting Period	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Revenue Requirements	Total	Total	Total	Total	Total
<i>Pump Zone Costs</i>					
<i>Electricity</i>					
Zone 1	\$48,000	\$50,000	\$52,000	\$55,000	\$58,000
Zone 2	\$699,000	\$734,000	\$771,000	\$809,000	\$850,000
Zone 3	\$105,000	\$110,000	\$116,000	\$121,000	\$127,000
<i>Operating and Maintenance</i>					
Zone 1	\$861,000	\$911,000	\$964,000	\$1,020,000	\$1,079,000
Zone 2	\$75,000	\$79,000	\$83,000	\$87,000	\$92,000
Zone 3	\$23,000	\$24,000	\$25,000	\$27,000	\$28,000
Total Pump Zone Costs	\$1,811,000	\$18,135,000	\$19,131,000	\$20,185,000	\$21,307,000
Debt Service					
Existing Debt	\$2,575,000	\$3,178,000	\$3,174,000	\$3,176,000	\$3,175,000
Other Funding					
<i>Revenue Offsets</i>					
Operating Revenues	(\$1,296,000)	(\$1,296,000)	(\$1,296,000)	(\$1,296,000)	(\$1,296,000)
Non-Operating Revenues	(\$656,000)	(\$659,000)	(\$661,000)	(\$664,000)	(\$667,000)
Tax Revenue - General	(\$1,230,000)	(\$1,242,000)	(\$1,255,000)	(\$1,267,000)	(\$1,280,000)
Total Revenue Offsets	(\$3,182,000)	(\$3,197,000)	(\$3,212,000)	(\$3,227,000)	(\$3,243,000)
<i>Adjustments</i>					
Reserve Funding	(\$980,000)	\$775,000	\$3,434,000	\$6,594,000	\$10,340,000
Adjustment for Mid-Year Increase	\$2,309,000	\$2,610,000	\$2,949,000	\$3,332,000	\$3,766,000
Total Adjustments	\$1,329,000	\$3,385,000	\$6,383,000	\$9,926,000	\$14,106,000
Total Other Funding	(\$1,853,000)	\$188,000	\$3,171,000	\$6,699,000	\$10,863,000
Revenue Requirement from Rates	\$40,155,000	\$45,376,000	\$51,274,000	\$57,938,000	\$65,471,000

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Define Cost Components

The water utility incurs costs to accommodate total water demand throughout the year. Therefore, to determine the most appropriate way to recover the utility's expenses, cost components are identified to allocate expenses based on how they are incurred. By reviewing the revenue requirements and understanding the utility system, it is appropriate and reasonable to utilize the base-extra capacity methodology outlined in the American Water Works Association M1 Manual. This methodology accounts for utility systems costs to meet revenue needs based on average annual usage and total demand. The cost components shown in Figure 11 reflects the cost components used for this study.

Figure 11: Water Cost Components



Cost Components:

Fixed Water Supply – Fixed monthly water supply costs incurred from water wholesalers.

Account Services: Fixed expenses that do not necessarily fluctuate based on usage nor are a function of meter size.

Meter Capacity: Fixed expenses associated with system demand to be recovered based on meter capacity.

Water Supply – Variable costs related to the four water supplies: Old Baldy, Durward, PBWA/CDWC, and TVMWD.

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.

Conservation: Expenses related to water conservation programs and public education.

Pumping – Energy and operating costs incurred to pump water to higher elevation zones.

Revenue Offset – Tax revenue used to offset variable rates.

Allocate Expenses to Cost Components

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 both fixed and variable. The distribution of expenses to the cost components should be straightforward to ensure the method of apportionment is **understandable** and easily **correlates to how expenses are incurred**. A description of each expense category is identified on the next page.

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Water Supply Expense Categories:

Old Baldy - Fixed: Fixed expenses related to water purchased from Old Baldy.

LHHCWD: Fixed expenses from La Habra Heights County Water District (LHHCWD) associated with their interconnection to the District's water system.

PBWA/CDWC: Fixed expense related to purchased water from the Puente Basin Water Agency (PBWA) and the California Domestic Water Company (CDWC).

PWR Surcharge: Depreciation and maintenance expenses related to a joint line with Pomona and Rowland Water District.

TVMWD: Fixed expenses associated with Three Valleys Municipal Water District (TVMWD).

MWD: Fixed expenses from Metropolitan Water District (MWD) that TVMWD passes through to the District.

Groundwater Supply: Fixed costs associated with the administration and operation of Puente Basin Watermaster and Spadra Basin Groundwater Sustainability Agency (GSA).

Old Baldy – Variable: Commodity rate (in Acre Feet) for the purchase of water from Old Baldy.

Durward: Commodity rate (in Acre Feet) for the purchase of water from Durward.

PBWA: Commodity rate (in Acre Feet) for the purchase of water from PBWA.

MWD Purchased Water Tier I: Commodity rate (in Acre Feet) for the purchase of water from MWD that TVMWD passes through to the District.

TVMWD Surcharges: Commodity rate (in Acre Feet) for the purchase of water from TVMWD.

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Table 32 summarizes the percent allocation of water supply costs to the water supply cost components and corresponding values in dollars. All fixed charges are allocated to the Fixed Water Supply cost component and each variable water supply expense is allocated 100% to its respective water supply cost component to clearly develop unit rates for each.

Table 32: Water Supply Costs Allocation to Cost Components

		Cost Components					
Water Supply Costs	Methodology / Allocation Basis	Fixed Water Supply	Old Baldy	Durward	PBWA/CDWC	TVMWD	Total
Potable Fixed Water Supply Costs							
Old Baldy - Fixed	Specific	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%
LHHCWD	Specific	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%
PBWA/CDWC	Specific	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%
PWR Surcharge	Specific	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%
TVMWD	Specific	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%
MWD	Specific	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Groundwater Supply	Specific	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Variable Potable Water Supply Costs							
Old Baldy - Variable	Specific	0.0%	100.0%	0.0%	0.0%	0.0%	100.0%
Durward	Specific	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%
PBWA	Specific	0.0%	0.0%	0.0%	100.0%	0.0%	100.0%
MWD Purchased Water Tier I	Specific	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
TVMWD Surcharges	Specific	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%

		Cost Components					
Water Supply Costs	Methodology / Allocation Basis	Fixed Water Supply	Old Baldy	Durward	PBWA/CDWC	TVMWD	Total
Potable Fixed Water Supply Costs							
Old Baldy - Fixed	Specific	\$122,000	\$0	\$0	\$0	\$0	\$122,000
LHHCWD	Specific	\$2,000	\$0	\$0	\$0	\$0	\$2,000
PBWA/CDWC	Specific	\$9,000	\$0	\$0	\$0	\$0	\$9,000
PWR Surcharge	Specific	\$20,000	\$0	\$0	\$0	\$0	\$20,000
TVMWD	Specific	\$316,000	\$0	\$0	\$0	\$0	\$316,000
MWD	Specific	\$508,000	\$0	\$0	\$0	\$0	\$508,000
Groundwater Supply	Specific	\$207,000	\$0	\$0	\$0	\$0	\$207,000
Variable Potable Water Supply Costs							
Old Baldy - Variable	Specific	\$0	\$178,000	\$0	\$0	\$0	\$178,000
Durward	Specific	\$0	\$0	\$208,000	\$0	\$0	\$208,000
PBWA	Specific	\$0	\$0	\$0	\$527,000	\$0	\$527,000
MWD Purchased Water Tier I	Specific	\$0	\$0	\$0	\$0	\$18,120,000	\$18,120,000
TVMWD Surcharges	Specific	\$0	\$0	\$0	\$0	\$208,000	\$208,000
Total Allocation (\$)		\$1,184,000	\$178,000	\$208,000	\$527,000	\$18,328,000	\$20,425,000

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Table 33 summarizes the percent allocation of operating and maintenance costs to the cost components and corresponding values in dollars. System operations and production are allocated to the variable cost component of Delivery, which is recovered over every unit of water. Field workers and staffing that manage and run the system are allocated to the fixed component of Meter Capacity and business operations are assigned to the fixed cost component of Account Services.

Table 33: Water Operating and Maintenance Allocation to Cost Components

Operating and Maintenance	Methodology / Allocation Basis	Cost Components				Total
		Account Services	Meter Capacity	Delivery	Conservation	
Operations - General (5200)	Average Day	0.0%	0.0%	100.0%	0.0%	100.0%
Production & Storage (5210)	Average Day	0.0%	0.0%	100.0%	0.0%	100.0%
Water Quality (5220)	Average Day	0.0%	0.0%	100.0%	0.0%	100.0%
Valve Maintenance (5230)	Average Day	0.0%	0.0%	100.0%	0.0%	100.0%
Field Services (5240)	Average Day	0.0%	0.0%	100.0%	0.0%	100.0%
Customer Service Field (5250)	Specific	0.0%	100.0%	0.0%	0.0%	100.0%
Engineering - (5300)	Specific	0.0%	100.0%	0.0%	0.0%	100.0%
Finance - General (5400)	Specific	100.0%	0.0%	0.0%	0.0%	100.0%
Customer Service (5410)	Specific	100.0%	0.0%	0.0%	0.0%	100.0%
Accounting (5420)	Specific	100.0%	0.0%	0.0%	0.0%	100.0%
Executive Staff (Admin 5510)	Specific	0.0%	100.0%	0.0%	0.0%	100.0%
BOD (5520)	Specific	0.0%	100.0%	0.0%	0.0%	100.0%
Administrative Support (5530)	Specific	0.0%	100.0%	0.0%	0.0%	100.0%
HR/Risk Mgmt. (5610)	Specific	100.0%	0.0%	0.0%	0.0%	100.0%
IT (5620)	Specific	0.0%	100.0%	0.0%	0.0%	100.0%
Cons. & Public Info. (5630)	Specific	0.0%	0.0%	0.0%	100.0%	100.0%
General Services (5640)	Specific	0.0%	100.0%	0.0%	0.0%	100.0%
General Administration (5700)	Specific	0.0%	100.0%	0.0%	0.0%	100.0%
Unfunded Liability	Specific	100.0%	0.0%	0.0%	0.0%	100.0%
Non-Operating Expenses	Specific	100.0%	0.0%	0.0%	0.0%	100.0%

Operating and Maintenance	Methodology / Allocation Basis	Cost Components				Total
		Account Services	Meter Capacity	Delivery	Conservation	
Operations - General (5200)	Average Day	\$0	\$0	\$1,115,000	\$0	\$1,115,000
Production & Storage (5210)	Average Day	\$0	\$0	\$561,000	\$0	\$561,000
Water Quality (5220)	Average Day	\$0	\$0	\$500,000	\$0	\$500,000
Valve Maintenance (5230)	Average Day	\$0	\$0	\$446,000	\$0	\$446,000
Field Services (5240)	Average Day	\$0	\$0	\$1,623,000	\$0	\$1,623,000
Customer Service Field (5250)	Specific	\$0	\$600,000	\$0	\$0	\$600,000
Engineering - (5300)	Specific	\$0	\$1,477,000	\$0	\$0	\$1,477,000
Finance - General (5400)	Specific	\$771,000	\$0	\$0	\$0	\$771,000
Customer Service (5410)	Specific	\$1,011,000	\$0	\$0	\$0	\$1,011,000
Accounting (5420)	Specific	\$800,000	\$0	\$0	\$0	\$800,000
Executive Staff (Admin 5510)	Specific	\$0	\$1,155,000	\$0	\$0	\$1,155,000
BOD (5520)	Specific	\$0	\$285,000	\$0	\$0	\$285,000
Administrative Support (5530)	Specific	\$0	\$273,000	\$0	\$0	\$273,000
HR/Risk Mgmt. (5610)	Specific	\$1,034,000	\$0	\$0	\$0	\$1,034,000
IT (5620)	Specific	\$0	\$893,000	\$0	\$0	\$893,000
Cons. & Public Info. (5630)	Specific	\$0	\$0	\$0	\$1,348,000	\$1,348,000
General Services (5640)	Specific	\$0	\$919,000	\$0	\$0	\$919,000
General Administration (5700)	Specific	\$0	\$1,361,000	\$0	\$0	\$1,361,000
Unfunded Liability	Specific	\$750,000	\$0	\$0	\$0	\$750,000
Non-Operating Expenses	Specific	\$275,000	\$0	\$0	\$0	\$275,000
Total Allocation (\$)		\$4,641,000	\$6,963,000	\$4,245,000	\$1,348,000	\$17,197,000
<i>O&M Allocation (%)</i>		<i>27.0%</i>	<i>40.5%</i>	<i>24.7%</i>	<i>7.8%</i>	<i>100.0%</i>

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Table 34 summarizes the percent allocation of pump zone costs to the cost components and corresponding values in dollars to each cost component. Electrical and operating costs for Zone 1 are allocated to Delivery since Zone 1 reflects the pumping costs to reach the surface level. Every unit of water must pass through Zone 1 before being pumped to the higher elevations. Electrical and operating expenses for Zones 2 and 3 are tracked separately and are allocated to Pumping to develop unit rates for each Zone.

Table 34: Water Pump Zone Allocation to Cost Components

		Cost Components		
Pump Zone Costs	Methodology / Allocation Basis	Delivery	Pumping	Total
Electricity				
Zone 1	Average Day	100.0%	0.0%	100.0%
Zone 2	Specific	0.0%	100.0%	100.0%
Zone 3	Specific	0.0%	100.0%	100.0%
Operating and Maintenance				
Zone 1	Average Day	100.0%	0.0%	100.0%
Zone 2	Specific	0.0%	100.0%	100.0%
Zone 3	Specific	0.0%	100.0%	100.0%

		Cost Components		
Pump Zone Costs	Methodology / Allocation Basis	Delivery	Pumping	Total
Electricity				
Zone 1	Average Day	\$48,000	\$0	\$48,000
Zone 2	Specific	\$0	\$699,000	\$699,000
Zone 3	Specific	\$0	\$105,000	\$105,000
Operating and Maintenance				
Zone 1	Average Day	\$861,000	\$0	\$861,000
Zone 2	Specific	\$0	\$75,000	\$75,000
Zone 3	Specific	\$0	\$23,000	\$23,000
Total Allocation (\$)		\$909,000	\$902,000	\$1,811,000

The District's debt, which includes the new bond issuance for the headquarters, was allocated based on the O&M Allocation percentages, derived in Table 33, to maintain the proportionality in how O&M expenses were allocated. Table 35 summarizes the percent allocation and corresponding values in dollars to each cost component.

Table 35: Water Debt Service Allocation to Cost Components

Debt Service	Methodology / Allocation Basis	Cost Components				Total
		Account Services	Meter Capacity	Delivery	Conservation	
Existing Debt	O&M Allocation	27.0%	40.5%	24.7%	7.8%	100.0%

Debt Service	Methodology / Allocation Basis	Cost Components				Total
		Account Services	Meter Capacity	Delivery	Conservation	
Existing Debt	O&M Allocation	\$694,922	\$1,042,608	\$635,627	\$201,843	\$2,575,000
Total Allocation (\$)		\$694,922	\$1,042,608	\$635,627	\$201,843	\$2,575,000

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Other Funding includes revenue offsets and adjustments. All items within Other Funding, except Tax Revenue, were also allocated based on the O&M Allocation percentages. Tax revenues are unrestricted and may be used for any purpose. The District will use these revenues to offset variable rates. Table 36 summarizes the percent allocation of Other Funding and corresponding values in dollars to each cost component.

Table 36: Water Other Funding Allocation to Cost Components

		Cost Components					
Other Funding	Methodology / Allocation Basis	Account Services	Meter Capacity	Delivery	Conservation	Revenue Offset	Total
Revenue Offsets							
Operating Revenues	O&M Allocation	27.0%	40.5%	24.7%	7.8%	0.0%	100.0%
Non-Operating Revenues	O&M Allocation	27.0%	40.5%	24.7%	7.8%	0.0%	100.0%
Tax Revenue - General	Specific	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Adjustments							
Reserve Funding	O&M Allocation	27.0%	40.5%	24.7%	7.8%	0.0%	100.0%
Adjustment for Mid-Year Increase	O&M Allocation	27.0%	40.5%	24.7%	7.8%	0.0%	100.0%

		Cost Components					
Other Funding	Methodology / Allocation Basis	Account Services	Meter Capacity	Delivery	Conservation	Revenue Offset	Total
Revenue Offsets							
Operating Revenues	O&M Allocation	(\$349,755)	(\$524,745)	(\$319,912)	(\$101,588)	\$0	(\$1,296,000)
Non-Operating Revenues	O&M Allocation	(\$177,036)	(\$265,612)	(\$161,931)	(\$51,421)	\$0	(\$656,000)
Tax Revenue - General	Specific	\$0	\$0	\$0	\$0	(\$1,230,000)	(\$1,230,000)
Adjustments							
Reserve Funding	O&M Allocation	(\$264,475)	(\$396,798)	(\$241,908)	(\$76,818)	\$0	(\$980,000)
Adjustment for Mid-Year Increase	O&M Allocation	\$623,136	\$934,905	\$569,966	\$180,993	\$0	\$2,309,000
Total Allocation (\$)		(\$168,131)	(\$252,250)	(\$153,785)	(\$48,834)	(\$1,230,000)	(\$1,853,000)

Table 37 summarizes the fixed cost-of-service requirements and Table 38 summarizes the variable cost-of-service requirements.

Table 37: FY 2025 Water Cost-of-Service Revenue Requirements by Fixed Cost Components

Revenue Requirement	Fixed Components			Fixed Total	Variable Total
	Fixed Water Supply	Account Services	Meter Capacity		
Water Supply Costs	\$1,184,000	\$0	\$0	\$1,184,000	\$19,241,000
Operating and Maintenance	\$0	\$4,641,000	\$6,963,000	\$11,604,000	\$5,593,000
Pump Zone Costs	\$0	\$0	\$0	\$0	\$1,811,000
Debt Service	\$0	\$694,922	\$1,042,608	\$1,737,530	\$837,470
Other Funding	\$0	(\$168,131)	(\$252,250)	(\$420,381)	(\$1,432,619)
COS Requirements	\$1,184,000	\$5,167,791	\$7,753,357	\$14,105,149	\$26,049,851

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Table 38: FY 2025 Water Cost-of-Service Revenue Requirements by Variable Cost Components

	Variable Components								
	Water Supply								
Revenue Requirement	Old Baldy	Durward	PBWA / CDWC	TVMWD	Delivery	Conservation	Pumping	Revenue Offset	Variable Total
Water Supply Costs	\$178,000	\$208,000	\$527,000	\$18,328,000	\$0	\$0	\$0	\$0	\$19,241,000
Operating and Maintenance	\$0	\$0	\$0	\$0	\$4,245,000	\$1,348,000	\$0	\$0	\$5,593,000
Pump Zone Costs	\$0	\$0	\$0	\$0	\$909,000	\$0	\$902,000	\$0	\$1,811,000
Debt Service	\$0	\$0	\$0	\$0	\$635,627	\$201,843	\$0	\$0	\$837,470
Other Funding	\$0	\$0	\$0	\$0	(\$153,785)	(\$48,834)	\$0	(\$1,230,000)	(\$1,432,619)
COS Requirements	\$178,000	\$208,000	\$527,000	\$18,328,000	\$5,635,842	\$1,501,009	\$902,000	(\$1,230,000)	\$26,049,851

Rate Design – Water Utility

Develop Units of Service

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

The method of apportionment considers each customer's share of system costs and is reflected by the units of service used to equitably distribute the cost components to each customer account. The distribution basis varies by cost component and includes annual bills (total accounts multiplied by 12 billing periods), Meter Equivalents (MEs), which reflect demand placed on the system based on meter size, total projected water consumption, and usage by tier. Each meter size was assigned an equivalency factor using the flow characteristics of a 3/4" meter, equal to 30 gpm. The District's meter inventory was reviewed, and the specifications of the meters were provided for determining the safe operating yield (in gpm) for each meter size. The safe maximum operating flow capacity for each meter size was divided by the safe operating flow capacity of the 3/4" meter (30 gpm) to determine the equivalent meter ratios identified in [Table 39](#) (Column B).

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 39](#) and [Table 40](#) summarize the annual units of service related to Total Accounts (Annual Bills) and Total MEs, respectively. [Table 41](#) summarizes the total accounts and total MEs by customer class.

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Table 39: Water Accounts

Annual Fixed Units of Service							
Meter Size	Single-Family	Multi-Family	Non-Residential	Irrigation	Accounts	Dedicated Fire Lines	Total Accounts
	[A]	[B]	[C]	[D]	[E] = A+B+C+D	[F]	[G] = E + F
≤3/4"	22,945	3	168	39	23,155	-	23,155
1"	2,394	52	368	58	2,872	27	2,899
1 1/2"	165	18	282	86	551	6	557
2"	7	50	299	158	514	7	521
3"	-	-	-	-	-	-	-
4"	-	1	2	-	3	20	23
6"	-	28	2	-	30	167	197
8"	-	14	2	-	16	145	161
10"	-	-	-	-	-	86	86
12"	-	-	-	-	-	1	1
Private Hydrant	-	-	-	-	-	172	172
Total	25,511	166	1,123	341	27,141	631	27,772
Annual Units (Total x 12 Billing Periods)	306,132	1,992	13,476	4,092	325,692	7,572	333,264

Table 40: Water Meter Equivalents

Annual Fixed Units of Service								
Meter Size	AWWA Capacity (gpm)	Capacity Ratio	Single-Family	Multi-Family	Non-Residential	Irrigation	Meter Equivalents	Total Meter Equivalents
	[A]	[B] = A ÷ 30	[C] = Table 39 x B	[D] = Table 39 x B	[E] = Table 39 x B	[F] = Table 39 x B	[G] = C+D+E+F	[H] = Table 39 x B
≤3/4"	30	1.00	22,945	3	168	39	23,155	23,155
1"	50	1.67	3,990	87	613	97	4,787	4,832
1 1/2"	100	3.33	550	60	940	287	1,837	1,857
2"	160	5.33	37	267	1,595	843	2,741	2,779
3"	320	10.67	-	-	-	-	-	-
4"	500	16.67	-	17	33	-	50	383
6"	1,000	33.33	-	933	67	-	1,000	6,567
8"	1,600	53.33	-	747	107	-	853	7,733
10"	4,200	140.00	-	-	-	-	-	12,040
12"	5,300	176.67	-	-	-	-	-	177
Private Hydrant	1,000	33.33	-	-	-	-	-	5,733
Total			27,522	2,113	3,523	1,265	34,423	31,686
Annual Units (Total x 12 Billing Periods)			330,268	25,356	42,272	15,180	413,076	380,228

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Table 41: Annual Fixed Units of Service

Annual Fixed Units of Service				
Customer Class	Annual Bills	Annual Bills (less Dedicated Fire)	Annual ME's	Annual ME's (less Dedicated Fire)
Single-Family	306,132	306,132	330,268	330,268
Multi-Family	1,992	1,992	25,356	25,356
Non-Residential	13,476	13,476	42,272	42,272
Irrigation	4,092	4,092	15,180	15,180
Dedicated Fire Line:	7,572	-	380,228	-
Annual Fixed Units	333,264	325,692	793,304	413,076

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Total usage by customer class and tier must be known to derive the units of service for allocating variable costs. As part of this rate study and cost-of-service, Single-Family residential tier widths have been revised. The revised Tier 1 allotment for Single-Family customers will be based on the water efficiency standard of the State of California, as amended by Senate Bill 1157. This efficiency standard was calculated by multiplying 47 gallons per capita per day (gpcd) by the average number of people per household (pph) and then multiplying by the number of days in the average billing cycle as shown in Table 42 (rounded up to the next whole unit of water). Single-Family Tier 2 is based on the average usage per account during the highest use month equal to 27 HCF, and Tier 3 captures all remaining usage over Tier 2. Table 43 provides the projected usage for FY 2025, broken out by customer class and tier.

Table 42: Water Efficiency Standard (HCF)

Water Efficiency Standards	
Efficiency Standard	47 gpcd
× People Per Household	3.03 pph
× Billing Cycle	30 days
Efficient Water Needs	4,266 gallons
Converted to HCF (divided by 748.052)	6.0 ccf

Table 43: Water Projected Usage by Customer Class and Tier (HCF)

Projected Usage by Customer Class and Tier (HCF)		
Customer Class & Tier	Tiers	Projected Usage (HCF)
Single-Family		
Tier 1	0 - 6	1,309,140
Tier 2	7 - 27	2,009,140
Tier 3	>27	726,447
Multi-Family	Uniform	664,539
Non-Residential	Uniform	650,164
Irrigation	Uniform	306,787
Total		5,666,216

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

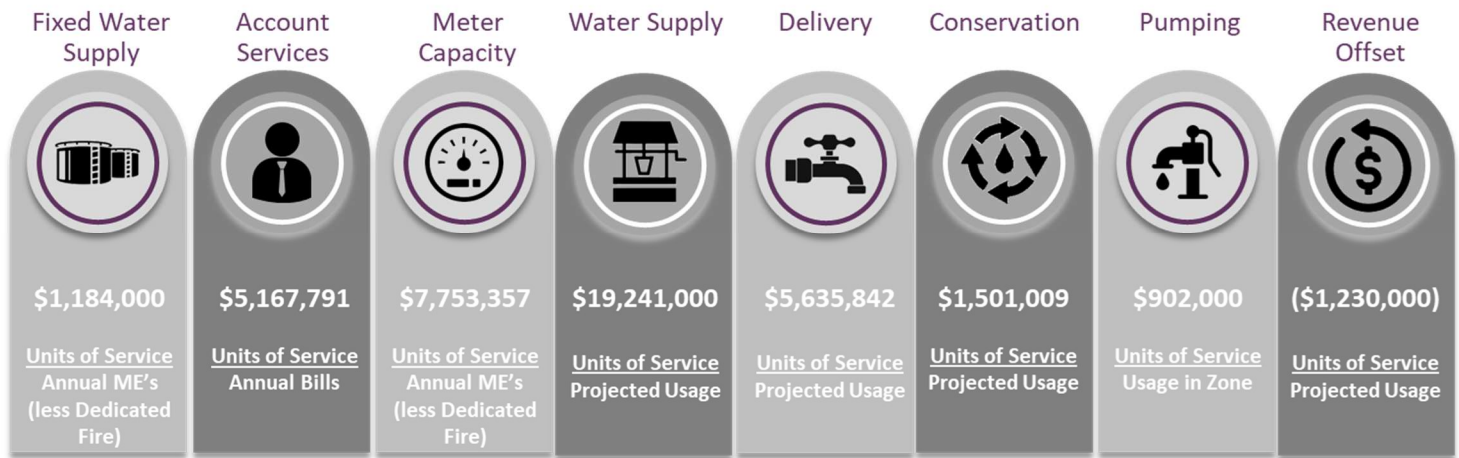
Table 44 provides the usage for Pump Zones 2 and 3 from Table 16 and total usage that flows through each zone. For Pump Zone 2, the total usage flowing through the zone includes all usage in Pump Zone 3. Pump Zone 3 is the highest elevation, and the total usage flowing through that zone is equivalent to usage in that zone.

Table 44: Water Projected Usage by Pump Zone (HCF)

Projected Usage by Pump Zone (HCF)		
Pump Zone	Pumping Usage	Usage Charged through Zone
Pump Zone 2	2,438,112	3,043,986
Pump Zone 3	605,874	605,874
Total	3,043,986	9,316,077

With the units of service shown in Table 41, Table 43, and Table 44 we can select the appropriate distribution basis for each cost component. Figure 12 identifies the total revenue requirements by cost component from Table 37 and Table 38 and the corresponding units of service.

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



Using the FY 2025 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 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.

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Fixed Cost Recovery

Fixed Water Supply

The Fixed Water Supply Component includes fixed costs associated with purchased water. The revenue requirement for Fixed Water Supply 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. However, dedicated fire line meters are a standby service and do not consistently use water or place demand on the system. Therefore, the revenue requirement for Fixed Water Supply is apportioned to meter size as represented by Annual MEs (less Dedicated Fire) (Table 41), as shown in Table 45.

Table 45: FY 2025 Fixed Water Supply Monthly Unit Rate

Fixed Water Supply Component Unit Rate	
Revenue Requirement	\$1,184,000
÷ Annual ME's (less Dedicated Fire)	413,076
Monthly Unit Rate	\$2.87

Account Services

Each customer incurs Account Services costs, including dedicated fire lines, 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 spreading the cost over total Annual Bills. Annual Bills are determined by multiplying the total accounts, including dedicated fire lines, by the 12 billing periods over the fiscal year (Table 41). Therefore, the revenue requirement for Account Services is apportioned based on the Annual Bills to determine the monthly unit cost-of-service shown in Table 46.

Table 46: FY 2025 Water Account Services Monthly Unit Rate

Account Services Component Unit Rate	
Revenue Requirement	\$5,167,791
÷ Annual Bills	333,264
Monthly Unit Rate	\$15.51

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Meter Capacity

The Meter Capacity Component includes operational costs and a portion of system-wide operations capital and reserve funding. The revenue requirement for Meter Capacity is apportioned based on meter size. Larger sized meters can generate a greater demand on the system from the amount of potential water flow that may pass through the meter. However, dedicated fire line meters are a standby service and do not consistently use water or place demand on the system. Therefore, the revenue requirement for Meter Capacity is apportioned to meter size as represented by Annual MEs (less Dedicated Fire) (Table 39), as shown in Table 47.

Table 47: FY 2025 Water Meter Capacity Monthly Unit Rate

Meter Capacity Component Unit Rate	
Revenue Requirement	\$7,753,357
÷ Annual ME's (less Dedicated Fire)	413,076
Monthly Unit Rate	\$18.77

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Variable Cost Recovery

The remaining cost components are recovered through the variable rates. The proposed variable rate structure includes tiers for Single-Family residential customers and uniform rates for Multi-Family, Non-Residential, and Irrigation accounts.

Water Supply

Tiered rates differ by water supplies available to serve each tier, with the lowest water supply unit rate applied to Tier 1 followed by more expensive water supplies as total water demand increases through the higher tiers. As part of this study, a detailed analysis was conducted to first separate fixed costs and variable costs of each water supply, and then a decoupling of variable costs between each water supply source to derive water supply unit rates. Through this approach, water supply variable costs were separated between Old Baldy, PBWA/CDWC, Durward, and TVMWD. The District's water loss is 7.0%, 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. Table 48 summarizes the unit rates for each water supply available to the District. Appendix B includes a detailed analysis of water supply costs.

Table 48: FY 2025 Water Supply Unit Rates per HCF

Water Supply Unit Rates						
Water Supplies	Production/ Purchases [A] = Acre Feet	Water Loss [B]	Net Water Supply [C] = A x (1-B)	Available Supply (HCF) [D] = C x 435.6	Revenue Requirement [E]	Unit Rate [F] = E ÷ D
Old Baldy	233	7.0%	217	94,390	\$178,000	\$1.89
Durward	165	7.0%	153	66,843	\$208,000	\$3.11
PBWA/CDWC	600	7.0%	558	243,065	\$527,000	\$2.17
TVMWD	12,989	7.0%	12,080	5,261,918	\$18,328,000	\$3.48
Total Water Supply	13,987		13,008	5,666,216	\$19,241,000	

Unit rates must be determined for each tier corresponding to the water source serving the usage within each tier. Table 49 summarizes the amount of water, by source, used to serve total water demand in each tier and the corresponding unit rate rounded up to the nearest penny. Each customer class is allocated a proportionate share of each water supply based on the percentage of total water sales. As such, irrespective of a customer class rate structure reflecting tiers or uniform rates, each customer class receives and pays its fair share of water supplies. For Single-Family, their fair share of water supplies was further apportioned to the tiers. The least expensive water supply was allocated to Tier 1 first, followed by the next expensive supply, until the projected demand of Tier 1 was met. As shown in Table 49, Old Baldy, PBWA/CDWC, and Durward cannot cover the total demand in Tier 1 of Single-Family, and water from TVMWD is required to meet the total demand in Single-Family Tier 1. Single-Family Tier 2 and Tier 3 use water from TVMWD as all other water supplies are no longer available. For Multi-Family, Non-Residential, and Irrigation, all four water supplies are applied to each customer class based on their percentage of total water demand (Table 49 – Column B).

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Table 49: FY 2025 Customer Class and Tier Water Supply Unit Rates per HCF

Tier Water Supply Unit Rates								
Water Supply Allocation	Projected Usage (HCF)	% Allocation	Old Baldy	PBWA / CDWC	Durward	TVMWD	Total Cost	Unit rate
	[A]	[B] = A as %	[C]	[D]	[E]	[F]	[G] = Sum Product (Unit Rate x Usage)	[H] = G ÷ A
Available Supply (HCF)			94,390	243,065	66,843	5,261,918		
Effective Unit Cost (\$/HCF)			\$1.89	\$2.17	\$3.11	\$3.48		
Single-Family								
Tier 1	1,309,140		67,379	173,507	47,715	1,020,539	\$4,206,409	\$3.22
Tier 2	2,009,140		-	-	-	2,009,140	\$6,998,115	\$3.49
Tier 3	726,447		-	-	-	726,447	\$2,530,316	\$3.49
Subtotal Single-Family	4,044,726	71.4%	67,379	173,507	47,715	3,756,125	\$13,734,840	
Multi-Family	664,539	11.7%	11,070	28,507	7,839	617,123	\$2,256,602	\$3.40
Non-Residential	650,164	11.5%	10,831	27,890	7,670	603,773	\$2,207,788	\$3.40
Irrigation	306,787	5.4%	5,111	13,160	3,619	284,897	\$1,041,769	\$3.40
Total	5,666,216	100%	94,390	243,065	66,843	5,261,918	\$19,241,000	

Delivery

Delivery costs are incurred based on the total volume of water produced and delivered to customers throughout the year. Therefore, the revenue requirement for Delivery is apportioned based on the projected total water usage to determine the unit cost-of-service, irrespective of tier, as shown in Table 50.

Table 50: FY 2025 Water Delivery Cost Unit Rate per HCF

Delivery Component Unit Rate	
Revenue Requirement	\$5,635,842
÷ All Usage	5,666,216
Unit Rate (\$/HCF)	\$1.00

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Conservation

Conservation costs are recovered over water usage in Single-Family Tier 3, Multi-Family, Non-Residential, and Irrigation. Water conservation programs and incentives aim to mitigate inefficient water usage; therefore, as usage in Tier 3 and the other customer classes reduces, the Conservation revenue requirement adjusts accordingly. Table 51 identifies the Conservation cost allocation and the corresponding unit rate.

Table 51: FY 2025 Water Conservation Unit Rate per HCF

Conservation Component Allocation to Customer Classes					
Customer Class	All Usage [A]	Allocation Factor [B]	Weighted Usage [C] = A x B	% Allocation [D] = C as a %	Revenue Requirement [E] = Rev Req x D
Single-Family	4,044,726	1.00	4,044,726	71.4%	\$1,071,468
Multi-Family	664,539	1.00	664,539	11.7%	\$176,040
Non-Residential	650,164	1.00	650,164	11.5%	\$172,232
Irrigation	306,787	1.00	306,787	5.4%	\$81,269
Total	5,666,216		5,666,216	100.0%	\$1,501,009

Conservation Component Allocation to Tiers						
Customer Class	Projected Usage [F]	Allocation Factor [G]	Weighted Usage [H] = F x G	% Allocation [I] = H as a %	Revenue Requirement [J] = E x I	Unit Rate [K] = J ÷ F
Single-Family						
Tier 1	1,309,140	-	-	0.0%	\$0	\$0.00
Tier 2	2,009,140	-	-	0.0%	\$0	\$0.00
Tier 3	726,447	1.00	726,447	100.0%	\$1,071,468	\$1.48
	4,044,726		726,447	100%	\$1,071,468	
Multi-Family	664,539	1.00	664,539	100.0%	\$176,040	\$0.27
Non-Residential	650,164	1.00	650,164	100.0%	\$172,232	\$0.27
Irrigation	306,787	1.00	306,787	100.0%	\$81,269	\$0.27
Total	5,666,216		2,347,937		\$1,501,009	

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Revenue Offset

The District is using Tax revenue to specifically offset variable rates for Single-Family, Multi-Family, Non-Residential, and Irrigation. Tax revenues may be used for any purpose and are projected to generate \$1.23M annually. Table 52 identifies the revenue offset amount to each of the customer classes and how the credit was applied to the respective tiers.

The proportional share of revenue offsets to Single-Family was applied 100% to Tier 1 to ensure all customers benefit from the revenue offset. Not all Single-Family customers have usage within the upper tiers and assigning revenue offsets to the higher tiers would cause certain customers to receive limited benefits. However, conversely, customers who use water within the higher tiers would receive the offset for all of their Tier 1 usage. The amount to Multi-Family, Non-Residential, and Irrigation was applied to all usage Table 52 identifies each customer class's share of the Revenue Offset and the impact on their variable rates.

Table 52: FY 2025 Water Revenue Offset Unit Rate per HCF

Revenue Offset Component Allocation to Customer Classes					
Customer Class	All Usage [A]	Allocation Factor [B]	Weighted Usage [C] = A x B	% Allocation [D] = C as a %	Revenue Requirement [E] = Rev Req x D
Single-Family	4,044,726	1.00	4,044,726	71.4%	(\$878,013)
Multi-Family	664,539	1.00	664,539	11.7%	(\$144,256)
Non-Residential	650,164	1.00	650,164	11.5%	(\$141,135)
Irrigation	306,787	1.00	306,787	5.4%	(\$66,596)
Total	5,666,216		5,666,216	100.0%	(\$1,230,000)

Revenue Offset Component Allocation to Tiers						
Customer Class	Projected Usage [F]	Allocation Factor [G]	Weighted Usage [H] = F x G	% Allocation [I] = H as a %	Revenue Requirement [J] = E x I	Unit Rate [K] = J ÷ F
Single-Family						
Tier 1	1,309,140	1.00	1,309,140	100.0%	(\$878,013)	(\$0.67)
Tier 2	2,009,140	-	-	0.0%	\$0	\$0.00
Tier 3	726,447	-	-	0.0%	\$0	\$0.00
	4,044,726		1,309,140	100%	(\$878,013)	
Multi-Family	664,539	1.00	664,539	100.0%	(\$144,256)	(\$0.21)
Non-Residential	650,164	1.00	650,164	100.0%	(\$141,135)	(\$0.21)
Irrigation	306,787	1.00	306,787	100.0%	(\$66,596)	(\$0.21)
Total	5,666,216		2,930,630		(\$1,230,000)	

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Pumping

Pumping costs are incurred based on the total volume of water pumped through each zone throughout the year. As mentioned, Pump Zone 1 reflects the pumping costs for water to reach the surface level, which is allocated to Delivery. Every unit of water must pass through Pump Zone 1 before being pumped to the higher elevations. Likewise, every unit of water pumped to Pump Zone 3 must pass through Pump Zone 2. This concept is shown in Table 44. Therefore, the revenue requirement for each zone is apportioned based on the projected total water usage pumped through each zone to determine the unit rate, as shown in Table 53.

Table 53: FY 2025 Water Pumping Cost by Pump Zone Unit Rate per HCF

Pumping Component Allocation to Zone							
Pumping Zone	Pumping Usage [A]	Usage Charged through Zone [B]	Costs by Zone [C]	% Allocation [D] = C as a %	Revenue Requirement [E] = Rev Req x D	Unit Rate [F] = E ÷ B	Zone Rate [G] = Sum of F
Pump Zone 2	2,438,112	3,043,986	\$774,000	85.8%	\$774,000	\$0.26	\$0.26
Pump Zone 3	605,874	605,874	\$128,000	14.2%	\$128,000	\$0.22	\$0.48
Total	5,666,217	9,316,077	\$902,000	100.0%	\$902,000		

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

FY 2025 Cost-of-Service Rates – Water Utility

Proposed FY 2025 Monthly Fixed Charges

The proposed monthly fixed charges for FY 2025 are shown in Table 54, reflecting the combined charges of Fixed Water Supply, Account Services, and Meter Capacity. Fixed Water Supply and Meter Capacity charges increase with the size of the meter in relation to the Capacity Ratios, rounded up to the next whole penny. The proposed monthly dedicated fire line charges for FY 2025 are shown in Table 55. Dedicated fire lines are charged a uniform monthly standby charge comprised of Account Services.

Table 54: FY 2025 Water Fixed Charges by Meter Size

Proposed Fixed Charges (\$/Month)					
Meter Size	Capacity Ratio	Fixed Water Supply	Account Services	Meter Capacity	FY 2025 Proposed Fixed Charge
	[A]	[B] = \$2.87 x A	[C] = \$15.51	[D] = \$18.77 x A	[E] = B + C + D
≤3/4"	1.00	\$2.87	\$15.51	\$18.77	\$37.15
1"	1.67	\$4.79	\$15.51	\$31.29	\$51.59
1 1/2"	3.33	\$9.57	\$15.51	\$62.57	\$87.65
2"	5.33	\$15.31	\$15.51	\$100.11	\$130.93
3"	10.67	\$30.62	\$15.51	\$200.22	\$246.35
4"	16.67	\$47.84	\$15.51	\$312.84	\$376.19
6"	33.33	\$95.67	\$15.51	\$625.67	\$736.85
8"	53.33	\$153.07	\$15.51	\$1,001.07	\$1,169.65

Table 55: FY 2025 Dedicated Fire Line Charge

Proposed Dedicated Fire Line Charges (\$/Month)		
Connection Size	Account Services	FY 2025 Proposed Dedicated Fire Line Charge
All Sizes	\$15.51	\$15.51

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Proposed FY 2025 Commodity Rates

The proposed variable rates for FY 2025 are shown in Table 56 for each customer class and tier, reflecting the combined variable rate components of Water Supply, Delivery, Conservation, and Revenue Offset. The proposed pumping rates by pump zone for FY 2025 are shown in Table 57.

Table 56: FY 2025 Water Commodity Rates by Customer Class and Tier (HCF)

Proposed Commodity Rates (\$/HCF)						
Customer Class & Tier	Tier Definitions (HCF)	Water Supply	Delivery	Conservation	Revenue Offset	FY 2025 Proposed Commodity Rate
		[A]	[B]	[C]	[D]	[E] = A + B + C + D
Single-Family						
Tier 1	0 - 6	\$3.22	\$1.00	\$0.00	(\$0.67)	\$3.55
Tier 2	7 - 27	\$3.49	\$1.00	\$0.00	\$0.00	\$4.49
Tier 3	>27	\$3.49	\$1.00	\$1.48	\$0.00	\$5.97
Multi-Family	Uniform	\$3.40	\$1.00	\$0.27	(\$0.21)	\$4.46
Non-Residential	Uniform	\$3.40	\$1.00	\$0.27	(\$0.21)	\$4.46
Irrigation	Uniform	\$3.40	\$1.00	\$0.27	(\$0.21)	\$4.46

Table 57: FY 2025 Water Pumping Rates by Pump Zone (HCF)

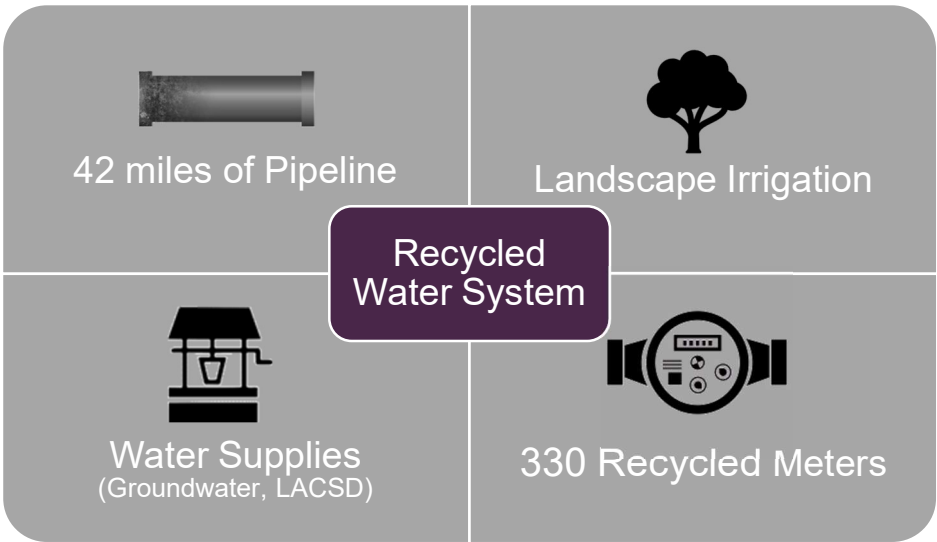
Proposed Pumping Rates (\$/HCF)	
Pumping Zone	FY 2025 Proposed Pumping Rate
Pump Zone 2	\$0.26
Pump Zone 3	\$0.48

Recycled Water Utility

Recycled Water System

The District owns and operates a separate recycled water distribution system. Recycled water is used for irrigation in parks, medians, and school grounds, and to decrease reliance on imported water. Recycled water is purchased from the Los Angeles County Sanitation District (LACSD) Pomona Water Reclamation plant and is augmented by groundwater from the District's recycled water wells. The District provides recycled water to 330 service connections⁵. The recycled water system consists of 42 miles of water mains, 5 production wells, 2 pump plants, and 3 reservoirs.

Figure 13: District Recycled Water System

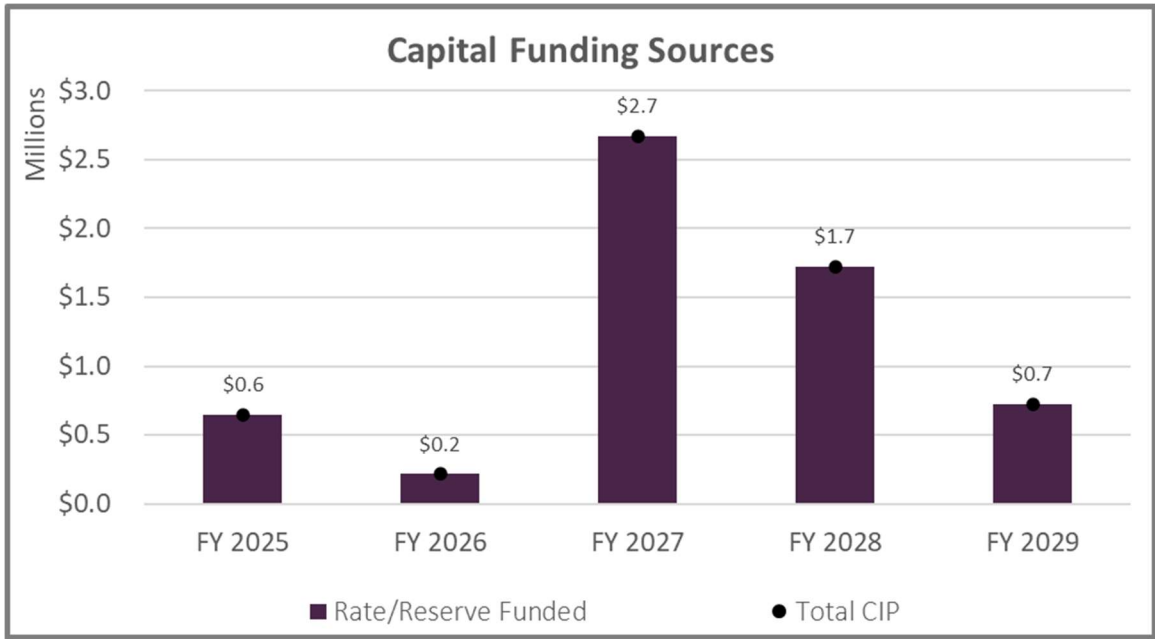


The Capital Improvement Plan (CIP) identified \$6.0M in projects over the next 5 years. The CIP includes projects such as a new non-potable reservoir, pump rehab, meter replacement, and other necessary improvements. The most significant project is the new reservoir (~\$4.0M), which is expected to be debt-financed. A detailed list of projects is shown in Appendix A. Figure 14 shows the selected CIP through FY 2029.

⁵ Based on FY 2024 billing and consumption data.

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Figure 14: Recycled Water Capital Improvement Plan



Customers

The District serves 330 recycled water meters. Table 58 provides a summary of recycled accounts by meter size.

Table 58: Recycled Water Accounts by Meter Size

Accounts by Meter Size	
Meter Size	
≤3/4"	23
1"	106
1 1/2"	50
2"	139
3"	5
4"	4
6"	3
8"	-
Total	330

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

As previously mentioned, the existing rate structure consists of monthly fixed charges and a uniform commodity rate. Current monthly fixed charges are shown in Table 59 followed by current commodity rates shown in Table 60.

Table 59: Existing Recycled Water Fixed Charges

Existing Recycled Fixed Charges (\$/Month)	
Meter Size	Current Charge
≤3/4"	\$25.14
1"	\$39.64
1 1/2"	\$75.90
2"	\$119.38
3"	\$235.39
4"	\$365.89
6"	\$728.38
8"	\$1,163.36

Table 60: Existing Recycled Commodity Rates (\$/HCF)

Existing Recycled Commodity Rates (\$/HCF)	
Customer Class	Current Rate
Recycled	\$2.29

Financial Plan Overview

Financial Planning Assumptions

Developing a long-term financial plan requires an understanding of the utility's financial position by evaluating existing revenue streams, ongoing expenses, how those expenses will change over time, existing debt requirements, and reserve policies. With these considerations, certain assumptions are required for projecting revenues, expenses, and expected ending fund balances. Through discussions with staff and their understanding of historical budget data and future obligations, Table 61 identifies assumptions used for forecasting revenues. Table 62 details the number of accounts by meter size over the Rate Setting Period. Table 63 identifies projected consumption by customer class.

Table 61: Recycled Water Assumptions for Forecasting Revenues

Revenue Forecasting					
Key Assumptions	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Revenue Escalation					
Reserve Interest	1.5%	1.5%	1.5%	1.5%	1.5%
Account Growth	0.0%	0.0%	0.0%	0.0%	0.0%
Total Meters	330	330	330	330	330
Total Consumption (HCF)	575,000	575,000	575,000	575,000	575,000

Table 62: Recycled Water Accounts by Meter Size

Accounts by Meter Size					
Customer Accounts	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Recycled					
Meter Size					
≤3/4"	23	23	23	23	23
1"	106	106	106	106	106
1 1/2"	50	50	50	50	50
2"	139	139	139	139	139
3"	5	5	5	5	5
4"	4	4	4	4	4
6"	3	3	3	3	3
8"	-	-	-	-	-
Total All Meters	330	330	330	330	330

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Table 63: Recycled Water Projected Consumption by Customer Class (HCF)

Projected Consumption					
Customer Class	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Recycled	575,000	575,000	575,000	575,000	575,000
Total Consumption (HCF)	575,000	575,000	575,000	575,000	575,000

Table 64 identifies assumptions used for forecasting increases in expenses over the Rate Setting Period. The Capital and General Costs escalation factors reflect the 5-year average of the Engineering News-Record – Construction Cost Index (ENR CCI) and the Consumer Price Index (CPI), respectively, for the Los Angeles area.

Table 64: Assumptions for Forecasting Expense Requirements

Expense Forecasting						
Key Assumptions	Source:	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Expenditure Escalation						
Benefits		7.0%	7.0%	7.0%	7.0%	7.0%
Capital Construction	ENR - LA	5-Year Average	3.9%	3.9%	3.9%	3.9%
Energy Costs			5.0%	5.0%	5.0%	5.0%
General Costs	CPI - LA (BLS)	5-Year Average	3.9%	3.9%	3.9%	3.9%
Retirement			4.0%	4.0%	4.0%	4.0%
Salaries			7.2%	7.2%	7.2%	7.2%
Recycled - Fixed			5.0%	5.0%	5.0%	5.0%
Recycled - Variable			5.0%	5.0%	5.0%	5.0%

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Current Financial Position

Revenues

Based on the forecasting assumptions, fixed revenues were calculated by multiplying the existing fixed charges (Table 59) by accounts by meter size and twelve billing periods (Table 62). Variable revenues were calculated using existing commodity rates (Table 60) and projected total water consumption class (Table 63). Table 65 shows the calculated rate revenues through the Rate Setting Period. Table 66 summarizes calculated rate revenues from Table 65 and Operating Revenues and Non-Operating Revenues available through the Rate Setting Period with projections rounded to the nearest thousands.

Table 65: Recycled Water Calculated Rate Revenues

Calculated Rate Revenue					
Fixed Revenue	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Base Fixed Charge					
Recycled	\$359,934	\$359,934	\$359,934	\$359,934	\$359,934
Total Base Fixed Charge	\$359,934	\$359,934	\$359,934	\$359,934	\$359,934
Variable Revenue	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Recycled	\$1,316,750	\$1,316,750	\$1,316,750	\$1,316,750	\$1,316,750
Total Variable Rate Revenue	\$1,316,750	\$1,316,750	\$1,316,750	\$1,316,750	\$1,316,750
Total Rate Revenue	\$1,676,684	\$1,676,684	\$1,676,684	\$1,676,684	\$1,676,684

Table 66: Recycled Water Projected Revenues

Projected Revenues					
Revenue Summary	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Rate Revenues					
Base Fixed Charge	\$360,000	\$360,000	\$360,000	\$360,000	\$360,000
Variable Revenue	\$1,317,000	\$1,317,000	\$1,317,000	\$1,317,000	\$1,317,000
Subtotal Rate Revenues	\$1,677,000	\$1,677,000	\$1,677,000	\$1,677,000	\$1,677,000
Operating Revenues	\$55,000	\$55,000	\$55,000	\$55,000	\$55,000
Non-Operating Revenues	\$19,000	\$19,000	\$19,000	\$19,000	\$19,000
Total Revenues	\$1,751,000	\$1,751,000	\$1,751,000	\$1,751,000	\$1,751,000

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Expenses

The FY 2025 budget was used as the baseline expenses of the utility and adjusted in subsequent years based on the escalation factors shown in Table 64. Table 67 provides projected Operational & Maintenance (O&M) costs through the Rate Setting Period, with future projections rounded to the nearest thousands. Each O&M expense category includes detailed line-item expenditures that were discussed with staff to determine the appropriate escalation factor for forecasting how costs will increase over time.

Table 67: Recycled Water Projected O&M Expenses

Projected Expenses					
O&M Expenses	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Water Supply Costs					
Recycled Fixed Water Supply Costs					
Groundwater Supply	\$134,000	\$144,000	\$154,000	\$166,000	\$177,000
Variable Recycled Water Supply Costs					
Purchased Water - WVWD	\$7,000	\$7,000	\$8,000	\$8,000	\$9,000
Purchased Water - LACSD	\$146,000	\$153,000	\$161,000	\$169,000	\$178,000
Subtotal Variable Recycled Water Supply Costs	\$153,000	\$160,000	\$169,000	\$177,000	\$187,000
Total Water Supply Costs	\$287,000	\$304,000	\$323,000	\$343,000	\$364,000
Operating Expenses					
Operations - General (5200)	\$86,000	\$91,000	\$96,000	\$102,000	\$107,000
Operations - Production & Storage (5210)	\$313,000	\$334,000	\$355,000	\$379,000	\$403,000
Operations - Water Quality (5220)	\$6,000	\$6,000	\$7,000	\$7,000	\$7,000
Operations - Valve Maintenance (5230)	\$38,000	\$41,000	\$43,000	\$46,000	\$49,000
Operations - Field Services (5240)	\$74,000	\$79,000	\$84,000	\$90,000	\$96,000
Operations - Customer Service Field (5250)	\$7,000	\$8,000	\$8,000	\$9,000	\$9,000
Operations - Recycled (5290)	\$606,000	\$638,000	\$672,000	\$708,000	\$746,000
Engineering - (5300)	\$126,000	\$134,000	\$143,000	\$152,000	\$162,000
Finance - General (5400)	\$9,000	\$10,000	\$10,000	\$11,000	\$11,000
Finance - Customer Service (5410)	\$12,000	\$13,000	\$14,000	\$14,000	\$15,000
Finance - Accounting (5420)	\$10,000	\$10,000	\$11,000	\$12,000	\$12,000
GM/Governance - Administration (5510)	\$14,000	\$15,000	\$15,000	\$16,000	\$17,000
GM/Governance - BOD (5520)	\$4,000	\$4,000	\$4,000	\$4,000	\$5,000
GM/Governance - Administrative Support (5530)	\$4,000	\$4,000	\$4,000	\$4,000	\$5,000
Adm. Services - HR/Risk Mgmt. (5610)	\$86,000	\$91,000	\$95,000	\$100,000	\$105,000
Adm. Services - IT (5620)	\$50,000	\$52,000	\$55,000	\$58,000	\$61,000
Adm. Services - Cons. & Public Info. (5630)	\$13,000	\$14,000	\$15,000	\$16,000	\$17,000
Adm. Services - General Services (5640)	\$79,000	\$83,000	\$88,000	\$93,000	\$99,000
General Administration (5700)	\$59,000	\$62,000	\$64,000	\$67,000	\$70,000
Total Operating Expenses	\$1,596,000	\$1,689,000	\$1,783,000	\$1,888,000	\$1,996,000
Total Expenses	\$1,883,000	\$1,993,000	\$2,106,000	\$2,231,000	\$2,360,000

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Reserves

Established reserves include the Operating and Replacement Reserve. Table 68 summarizes the existing minimum reserve requirements and ideal targets of each reserve.

Table 68: Existing Recycled Water Reserve Requirements and Targets

Reserve	Minimum Requirement	Reserve Target
Operating	60 Days of Operating	60 Days of Operating
Replacement	5 years of Asset R&R Plan	10 years of Asset R&R Plan

Reserve Adjustments

The existing reserve requirements were evaluated as part of the financial planning process and the adjustments discussed for the water utility were also applied to recycled water.

Table 69 summarizes the revised minimum reserve requirements and ideal funding targets.

Table 69: Proposed Recycled Water Reserve Requirements and Targets

Reserve	Minimum Requirement	Reserve Target
Operating	60 Days of Operating	90 Days of Operating
Replacement	2 years of 5-year CIP average	4 years of 5-year CIP average

The beginning total recycled water reserve balance for FY 2025 (July 1, 2024), is \$1.98M.

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Financial Outlook at Existing Rates

Calculating revenue using existing rates and projecting expenses helps determine the current financial health of the utility. Revenues from current rates are not sufficient to cover operating expenses. In addition, capital spending would require using reserves as the primary funding source, which is not sustainable in the long-term. **Table 70** forecasts existing revenues and expenses through the Rate Setting Period. **Table 71** identifies reserve transfers and reserve activity, with FY 2025 starting reserve balances shown for each reserve.

Table 70: Recycled Water Financial Plan at Existing Rates

Financial Plan at Existing Rates						
Revenue		FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Rate Revenues						
Base Fixed Charge	Table 66	\$360,000	\$360,000	\$360,000	\$360,000	\$360,000
Variable Revenue		\$1,317,000	\$1,317,000	\$1,317,000	\$1,317,000	\$1,317,000
Total Rate Revenues		\$1,677,000	\$1,677,000	\$1,677,000	\$1,677,000	\$1,677,000
Operating Revenues						
Non-Operating Revenues	Table 66	\$55,000	\$55,000	\$55,000	\$55,000	\$55,000
		\$19,000	\$19,000	\$19,000	\$19,000	\$19,000
Total Revenues		\$1,751,000	\$1,751,000	\$1,751,000	\$1,751,000	\$1,751,000
O&M Expenses		FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Water Supply Costs						
Recycled Fixed Water Supply Costs						
Groundwater Supply	Table 67	\$134,000	\$144,000	\$154,000	\$166,000	\$177,000
Variable Recycled Water Supply Costs						
Purchased Water - WVWD	Table 67	\$7,000	\$7,000	\$8,000	\$8,000	\$9,000
Purchased Water - LACSD		\$146,000	\$153,000	\$161,000	\$169,000	\$178,000
Subtotal Variable Recycled Water Supply Costs		\$153,000	\$160,000	\$169,000	\$177,000	\$187,000
Total Water Supply Costs		\$287,000	\$304,000	\$323,000	\$343,000	\$364,000
Operating Expenses						
Operations - General (5200)	Table 67	\$86,000	\$91,000	\$96,000	\$102,000	\$107,000
Operations - Production & Storage (5210)		\$313,000	\$334,000	\$355,000	\$379,000	\$403,000
Operations - Water Quality (5220)		\$6,000	\$6,000	\$7,000	\$7,000	\$7,000
Operations - Valve Maintenance (5230)		\$38,000	\$41,000	\$43,000	\$46,000	\$49,000
Operations - Field Services (5240)		\$74,000	\$79,000	\$84,000	\$90,000	\$96,000
Operations - Customer Service Field (5250)		\$7,000	\$8,000	\$8,000	\$9,000	\$9,000
Operations - Recycled (5290)		\$606,000	\$638,000	\$672,000	\$708,000	\$746,000
Engineering - (5300)		\$126,000	\$134,000	\$143,000	\$152,000	\$162,000
Finance - General (5400)		\$9,000	\$10,000	\$10,000	\$11,000	\$11,000
Finance - Customer Service (5410)		\$12,000	\$13,000	\$14,000	\$14,000	\$15,000
Finance - Accounting (5420)		\$10,000	\$10,000	\$11,000	\$12,000	\$12,000
GM/Governance - Administration (5510)		\$14,000	\$15,000	\$15,000	\$16,000	\$17,000
GM/Governance - BOD (5520)		\$4,000	\$4,000	\$4,000	\$4,000	\$5,000
GM/Governance - Administrative Support (5530)		\$4,000	\$4,000	\$4,000	\$4,000	\$5,000
Adm. Services - HR/Risk Mgmt. (5610)		\$86,000	\$91,000	\$95,000	\$100,000	\$105,000
Adm. Services - IT (5620)		\$50,000	\$52,000	\$55,000	\$58,000	\$61,000
Adm. Services - Cons. & Public Info. (5630)		\$13,000	\$14,000	\$15,000	\$16,000	\$17,000
Adm. Services - General Services (5640)		\$79,000	\$83,000	\$88,000	\$93,000	\$99,000
General Administration (5700)		\$59,000	\$62,000	\$64,000	\$67,000	\$70,000
Total Operating Expenses		\$1,596,000	\$1,689,000	\$1,783,000	\$1,888,000	\$1,996,000
Debt Service						
New/Proposed Debt		\$0	\$0	\$0	\$0	\$0
Total Expenses		\$1,883,000	\$1,993,000	\$2,106,000	\$2,231,000	\$2,360,000
Net Operating Income	(Revenues - Expenses)	(\$132,000)	(\$242,000)	(\$355,000)	(\$480,000)	(\$609,000)

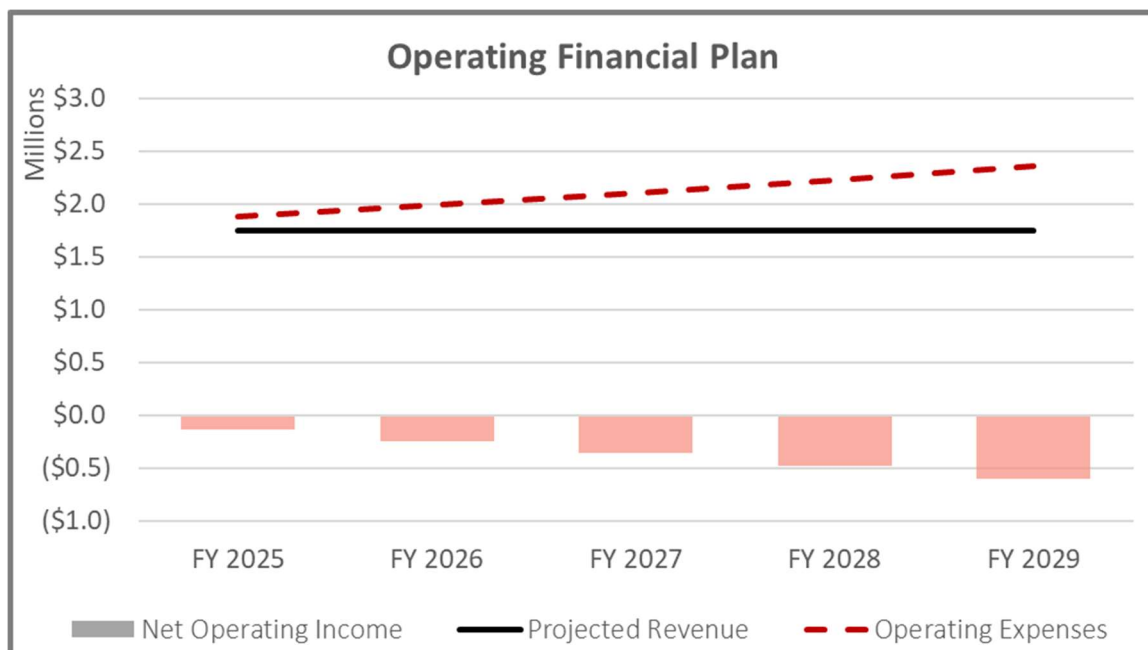
Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Table 71: Recycled Water Reserve Activity at Existing Rates

Reserve Activity at Existing Rates					
Operating	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Beginning Balance	\$225,000	\$93,000	(\$149,000)	(\$504,000)	(\$984,000)
Transfers (Net Operating Income)	Table 70	(\$132,000)	(\$242,000)	(\$355,000)	(\$609,000)
Ending Balance	\$93,000	(\$149,000)	(\$504,000)	(\$984,000)	(\$1,593,000)
Replacement	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Beginning Balance	\$1,750,000	\$1,124,398	\$922,837	(\$1,750,963)	(\$3,475,963)
Less:					
CIP	(\$647,000)	(\$216,800)	(\$2,673,800)	(\$1,725,000)	(\$726,600)
Subtotal Replacement	\$1,103,000	\$907,598	(\$1,750,963)	(\$3,475,963)	(\$4,202,563)
Interest Earnings	\$21,398	\$15,240	\$0	\$0	\$0
Ending Balance	\$1,124,398	\$922,837	(\$1,750,963)	(\$3,475,963)	(\$4,202,563)
Total Ending Balance	\$1,217,398	\$773,837	(\$2,254,963)	(\$4,459,963)	(\$5,795,563)

Figure 15 illustrates the operating position of the utility, where O&M expenses are identified with the dashed red trendline, and the horizontal black trendline shows total revenues at existing rates. The bars represent the net operating income, with grey bars reflecting positive net income for capital spending and reserve funding and red bars reflecting an operating deficit absorbed by reserves.

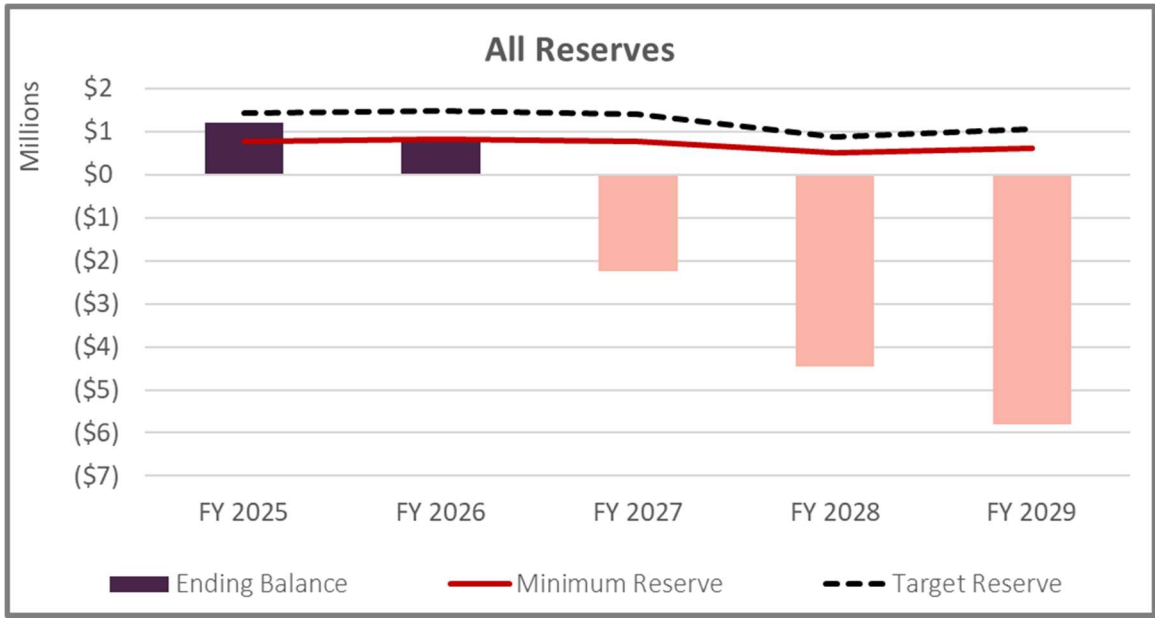
Figure 15: Recycled Water Current Operating Financial Position



Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Capital spending over the Rate Setting Period is approximately \$6.0M, as shown in Figure 14. Without increases in rate revenue, the recycled water reserves would be depleted by FY 2027, and funding would not be available for the CIP. Figure 16 reflects the projected ending balances of reserves after funding operating and capital projects.

Figure 16: Recycled Water Projected Ending Reserves at Existing Rates



Proposed Financial Plan – Recycled Water Utility

Based on our review of the utility's financial outlook at existing rates, a proposed financial plan was developed to fund the multi-year revenue requirements. The proposed financial plan increases rate revenue each year to generate approximately \$1.4M in additional rate revenue by the end of FY 2029. **Table 72** forecasts projected revenues, **with annual revenue adjustments**, and expenses through FY 2029. In addition, \$4.0M of capital costs are expected to be debt-financed through a bond issue in FY 2027, with the first payment occurring in FY 2028. This allows rates to increase steadily over the five-year period to cover capital spending in FY 2029 on a pay-as-you-go basis. However, the District's financial advisor will determine the specific terms and timing of the bond. **Table 73** identifies the projected FY 2025 total starting reserve balances, activity within each reserve (including net operating income transfer from **Table 72**, transfers between reserves, and annual CIP), and projected ending balances for each fiscal year of the Rate Setting Period. This proposed financial plan generates sufficient rate revenues to fund the reserves above the minimum requirement.

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Table 72: Recycled Water Proposed Financial Plan

Proposed Financial Plan						
Revenue		FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Rate Revenues						
Base Fixed Charge	Table 66	\$360,000	\$360,000	\$360,000	\$360,000	\$360,000
Variable Revenue		\$1,317,000	\$1,317,000	\$1,317,000	\$1,317,000	\$1,317,000
Total Rate Revenues		\$1,677,000	\$1,677,000	\$1,677,000	\$1,677,000	\$1,677,000
Additional Revenue (from revenue adjustments):						
Fiscal Year	Revenue Adjustment Effective Month					
FY 2025	14.0% January	\$117,000	\$234,000	\$234,000	\$234,000	\$234,000
FY 2026	14.0% January		\$133,000	\$267,000	\$267,000	\$267,000
FY 2027	14.0% January			\$152,000	\$304,000	\$304,000
FY 2028	14.0% January				\$173,000	\$347,000
FY 2029	14.0% January					\$198,000
Total Additional Revenue		\$117,000	\$367,000	\$653,000	\$978,000	\$1,350,000
Projected Rate Revenue	(including revenue adjustments)	\$1,794,000	\$2,044,000	\$2,330,000	\$2,655,000	\$3,027,000
Operating Revenues	Table 66	\$55,000	\$55,000	\$55,000	\$55,000	\$55,000
Non-Operating Revenues		\$19,000	\$19,000	\$19,000	\$19,000	\$19,000
Total Revenues		\$1,868,000	\$2,118,000	\$2,404,000	\$2,729,000	\$3,101,000
O&M Expenses						
		FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Water Supply Costs						
Recycled Fixed Water Supply Costs						
Groundwater Supply	Table 67	\$134,000	\$144,000	\$154,000	\$166,000	\$177,000
Variable Recycled Water Supply Costs						
Purchased Water - WVWD	Table 67	\$7,000	\$7,000	\$8,000	\$8,000	\$9,000
Purchased Water - LACSD		\$146,000	\$153,000	\$161,000	\$169,000	\$178,000
Subtotal Variable Recycled Water Supply Costs		\$153,000	\$160,000	\$169,000	\$177,000	\$187,000
Total Water Supply Costs		\$287,000	\$304,000	\$323,000	\$343,000	\$364,000
Operating Expenses						
Operations - General (5200)	Table 67	\$86,000	\$91,000	\$96,000	\$102,000	\$107,000
Operations - Production & Storage (5210)		\$313,000	\$334,000	\$355,000	\$379,000	\$403,000
Operations - Water Quality (5220)		\$6,000	\$6,000	\$7,000	\$7,000	\$7,000
Operations - Valve Maintenance (5230)		\$38,000	\$41,000	\$43,000	\$46,000	\$49,000
Operations - Field Services (5240)		\$74,000	\$79,000	\$84,000	\$90,000	\$96,000
Operations - Customer Service Field (5250)		\$7,000	\$8,000	\$8,000	\$9,000	\$9,000
Operations - Recycled (5290)		\$606,000	\$638,000	\$672,000	\$708,000	\$746,000
Engineering - (5300)		\$126,000	\$134,000	\$143,000	\$152,000	\$162,000
Finance - General (5400)		\$9,000	\$10,000	\$10,000	\$11,000	\$11,000
Finance - Customer Service (5410)		\$12,000	\$13,000	\$14,000	\$14,000	\$15,000
Finance - Accounting (5420)		\$10,000	\$10,000	\$11,000	\$12,000	\$12,000
GM/Governance - Administration (5510)		\$14,000	\$15,000	\$15,000	\$16,000	\$17,000
GM/Governance - BOD (5520)		\$4,000	\$4,000	\$4,000	\$4,000	\$5,000
GM/Governance - Administrative Support (5530)		\$4,000	\$4,000	\$4,000	\$4,000	\$5,000
Adm. Services - HR/Risk Mgmt. (5610)		\$86,000	\$91,000	\$95,000	\$100,000	\$105,000
Adm. Services - IT (5620)		\$50,000	\$52,000	\$55,000	\$58,000	\$61,000
Adm. Services - Cons. & Public Info. (5630)		\$13,000	\$14,000	\$15,000	\$16,000	\$17,000
Adm. Services - General Services (5640)		\$79,000	\$83,000	\$88,000	\$93,000	\$99,000
General Administration (5700)		\$59,000	\$62,000	\$64,000	\$67,000	\$70,000
Total Operating Expenses		\$1,596,000	\$1,689,000	\$1,783,000	\$1,888,000	\$1,996,000
Debt Service						
New/Proposed Debt		\$0	\$0	\$0	\$296,000	\$296,000
Total Expenses		\$1,883,000	\$1,993,000	\$2,106,000	\$2,527,000	\$2,656,000
Net Operating Income	(Revenues - Expenses)	(\$15,000)	\$125,000	\$298,000	\$202,000	\$445,000

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Table 73: Recycled Water Proposed Transfers and Reserves Activity

Reserve Activity at Proposed Rates						
Line #	Operating	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
1	Beginning Balance	\$225,000	\$210,000	\$277,644	\$293,096	\$310,356
2	Transfers (Net Operating Income) Table 72	(\$15,000)	\$125,000	\$298,000	\$202,000	\$445,000
3	Transfers from/(to) Replacement	\$0	(\$57,356)	(\$282,548)	(\$184,740)	(\$427,247)
4	Ending Balance	\$210,000	\$277,644	\$293,096	\$310,356	\$328,110
Replacement						
		FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
5	Beginning Balance	\$1,750,000	\$1,124,398	\$980,624	\$2,616,147	\$1,103,577
6	Plus:					
7	Transfers from/(to) Operating <i>Line 3</i>	\$0	\$57,356	\$282,548	\$184,740	\$427,247
8	New Debt Proceeds	\$0	\$0	\$4,000,000	\$0	\$0
9	Less:					
10	CIP	(\$647,000)	(\$216,800)	(\$2,673,800)	(\$1,725,000)	(\$726,600)
11	Subtotal Replacement	\$1,103,000	\$964,954	\$2,589,372	\$1,075,886	\$804,223
12	Interest Earnings	\$21,398	\$15,670	\$26,775	\$27,690	\$14,308
13	Ending Balance	\$1,124,398	\$980,624	\$2,616,147	\$1,103,577	\$818,532
14	Total Ending Balance	\$1,334,398	\$1,258,268	\$2,909,243	\$1,413,933	\$1,146,641

The operating position based on the proposed financial plan is identified in Figure 17. Figure 18 and Figure 19 show the capital plan with funding sources and projected ending reserve balances, respectively.

Figure 17: Recycled Water Proposed Operating Financial Position

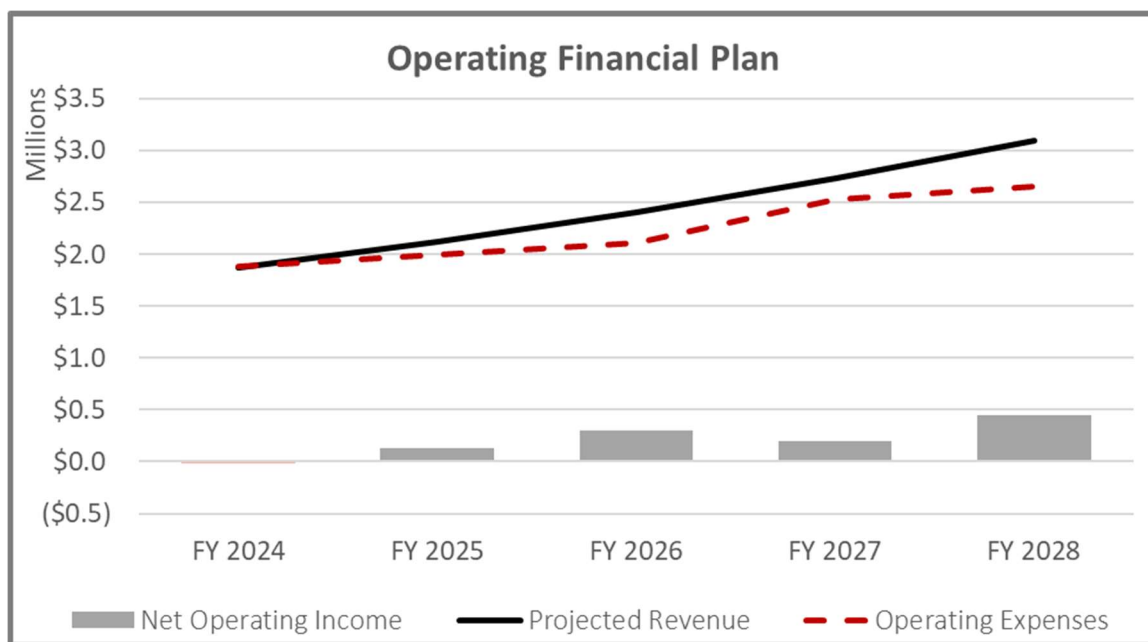


Figure 18: Recycled Water Capital Improvement Plan with Funding Sources

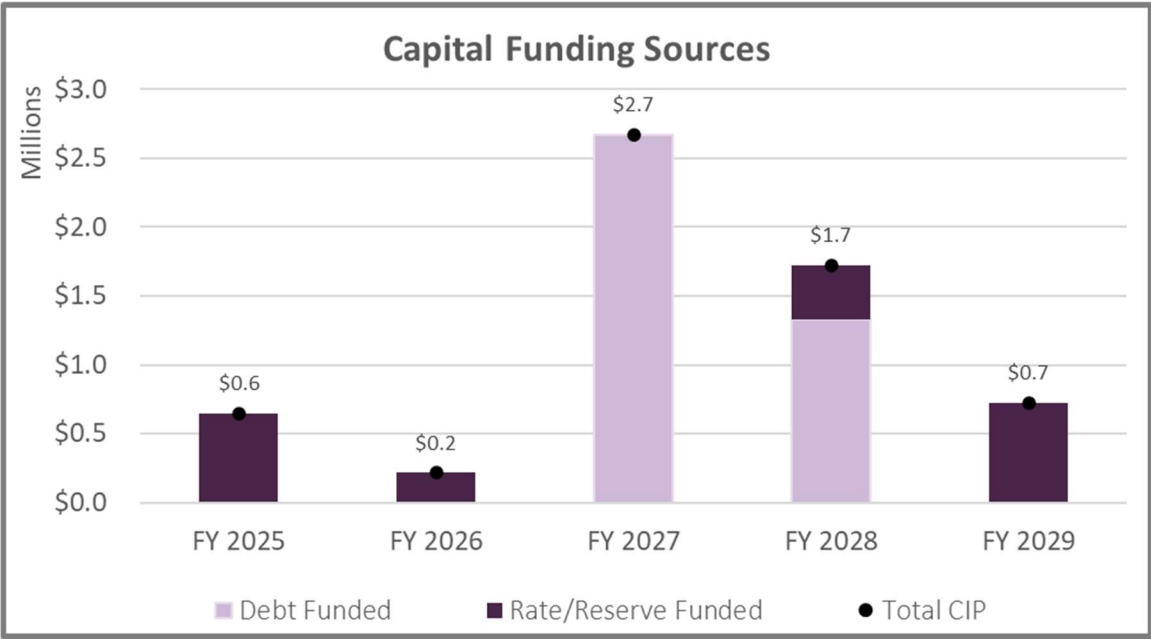
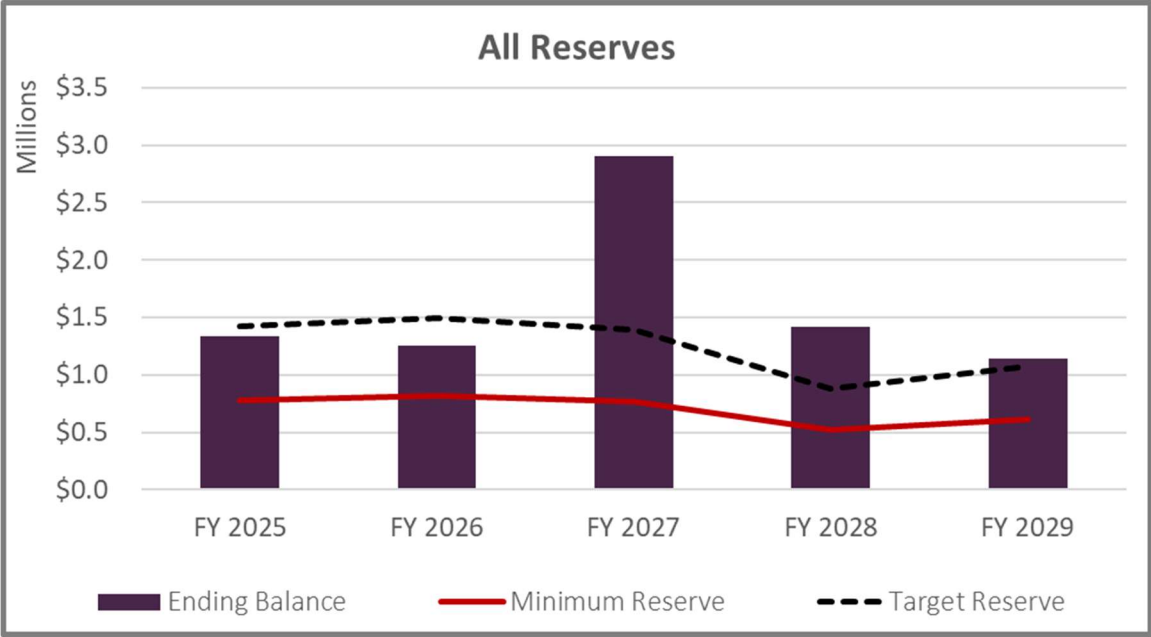


Figure 19: Recycled Water Proposed Ending Reserves



Cost-of-Service Analysis – Recycled Water Utility

Cost-of-Service Process

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

Revenue Requirements

With FY 2025 as the first year of the proposed rate schedule, revenue requirements are determined for FY 2025 and used for the cost-of-service. Revenue requirements include O&M expenses, available offsets from other operating and non-operating revenues, annual net income, and any mid-year adjustments if rates are implemented after the start of the fiscal year. The mid-year adjustment annualizes the proposed revenue adjustment to account for the time elapsed before new rates take effect to connect to the annual units of service used within this report for deriving rates. The proposed revenue adjustments and corresponding rates generate the necessary funding over the Rate Setting Period to fund total revenue requirements, including the capital spending plan, and satisfy the minimum reserve requirements. The results of the financial plan analysis are summarized in [Table 74](#) and represent the revenue required from rates over the Rate Setting Period.

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Table 74: Recycled Water Revenue Requirements

Rate Setting Period	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Revenue Requirements	Total	Total	Total	Total	Total
Water Supply Costs					
<i>Recycled Fixed Water Supply Costs</i>					
Groundwater Supply	\$134,000	\$144,000	\$154,000	\$166,000	\$177,000
<i>Variable Recycled Water Supply Costs</i>					
Purchased Water - WVWD	\$7,000	\$7,000	\$8,000	\$8,000	\$9,000
Purchased Water - LACSD	\$146,000	\$153,000	\$161,000	\$169,000	\$178,000
Total Water Supply Costs	\$287,000	\$304,000	\$323,000	\$343,000	\$364,000
Operating Expenses					
Operations - General (5200)	\$86,000	\$91,000	\$96,000	\$102,000	\$107,000
Operations - Production & Storage (5210)	\$313,000	\$334,000	\$355,000	\$379,000	\$403,000
Operations - Water Quality (5220)	\$6,000	\$6,000	\$7,000	\$7,000	\$7,000
Operations - Valve Maintenance (5230)	\$38,000	\$41,000	\$43,000	\$46,000	\$49,000
Operations - Field Services (5240)	\$74,000	\$79,000	\$84,000	\$90,000	\$96,000
Operations - Customer Service Field (5250)	\$7,000	\$8,000	\$8,000	\$9,000	\$9,000
Operations - Recycled (5290)	\$606,000	\$638,000	\$672,000	\$708,000	\$746,000
Engineering - (5300)	\$126,000	\$134,000	\$143,000	\$152,000	\$162,000
Finance - General (5400)	\$9,000	\$10,000	\$10,000	\$11,000	\$11,000
Finance - Customer Service (5410)	\$12,000	\$13,000	\$14,000	\$14,000	\$15,000
Finance - Accounting (5420)	\$10,000	\$10,000	\$11,000	\$12,000	\$12,000
GM/Governance - Administration (5510)	\$14,000	\$15,000	\$15,000	\$16,000	\$17,000
GM/Governance - BOD (5520)	\$4,000	\$4,000	\$4,000	\$4,000	\$5,000
GM/Governance - Administrative Support (5530)	\$4,000	\$4,000	\$4,000	\$4,000	\$5,000
Adm. Services - HR/Risk Mgmt. (5610)	\$86,000	\$91,000	\$95,000	\$100,000	\$105,000
Adm. Services - IT (5620)	\$50,000	\$52,000	\$55,000	\$58,000	\$61,000
Adm. Services - Cons. & Public Info. (5630)	\$13,000	\$14,000	\$15,000	\$16,000	\$17,000
Adm. Services - General Services (5640)	\$79,000	\$83,000	\$88,000	\$93,000	\$99,000
General Administration (5700)	\$59,000	\$62,000	\$64,000	\$67,000	\$70,000
Total Operating Expenses	\$1,596,000	\$1,689,000	\$1,783,000	\$1,888,000	\$1,996,000
Debt Service					
New/Proposed Debt	\$0	\$0	\$0	\$296,000	\$296,000
Other Funding					
<i>Revenue Offsets</i>					
Operating Revenues	(\$55,000)	(\$55,000)	(\$55,000)	(\$55,000)	(\$55,000)
Non-Operating Revenues	(\$19,000)	(\$19,000)	(\$19,000)	(\$19,000)	(\$19,000)
Total Revenue Offsets	(\$74,000)	(\$74,000)	(\$74,000)	(\$74,000)	(\$74,000)
<i>Adjustments</i>					
Reserve Funding	(\$15,000)	\$125,000	\$298,000	\$202,000	\$445,000
Adjustment for Mid-Year Increase	\$117,000	\$133,000	\$152,000	\$173,000	\$198,000
Total Adjustments	\$102,000	\$258,000	\$450,000	\$375,000	\$643,000
Total Other Funding	\$28,000	\$184,000	\$376,000	\$301,000	\$569,000
Revenue Requirement from Rates	\$1,911,000	\$2,177,000	\$2,482,000	\$2,828,000	\$3,225,000

Rate Design – Recycled Water Utility

All water-related customers are charged the same monthly fixed charge across the entire District because the District's fixed costs do not vary based on location or type of water service. Therefore, recycled water fixed charges are equivalent to potable water. The amount of annual revenues generated by the fixed charges for each fiscal year are determined and then used to derive commodity rates to cover the remaining revenue requirements for the Rate Setting Period.

Fixed Cost Recovery

Table 75 derives the recycled water fixed charges based on the water fixed charges over the Rate Setting Period and calculates the total revenue generated by the proposed fixed charges. Fixed revenues were calculated by multiplying the fixed charges by the accounts by meter size (shown in Table 58) and twelve billing periods.

Table 75: Proposed Recycled Water Fixed Charges & Revenue

Proposed Recycled Fixed Charges (\$/Month)						
Meter Size	# of Meters	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
≤3/4"	23	\$37.15	\$41.98	\$47.44	\$53.61	\$60.58
1"	106	\$51.59	\$58.30	\$65.88	\$74.45	\$84.13
1 1/2"	50	\$87.65	\$99.05	\$111.93	\$126.49	\$142.94
2"	139	\$130.93	\$147.96	\$167.20	\$188.94	\$213.51
3"	5	\$246.35	\$278.38	\$314.57	\$355.47	\$401.69
4"	4	\$376.19	\$425.10	\$480.37	\$542.82	\$613.39
6"	3	\$736.85	\$832.65	\$940.90	\$1,063.22	\$1,201.44
8"	-	\$1,169.65	\$1,321.71	\$1,493.54	\$1,687.71	\$1,907.12
Total Fixed Revenue	330	\$383,078	\$432,638	\$488,900	\$552,473	\$624,315

Variable Cost Recovery

Table 76 derives the proposed recycled water commodity rates by taking the total revenue requirement identified in Table 74 and reducing the amount by the total fixed revenue calculated in Table 75. The net amount is divided by total recycled water sales (Table 63) to determine the recycled water commodity rate for the Rate Setting Period.

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Table 76: Proposed Recycled Water Commodity Rates (\$/HCF)

Proposed Recycled Commodity Rates (\$/HCF)					
Variable Rate Analysis	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Recycled Revenue Requirement	\$1,911,000	\$2,177,000	\$2,482,000	\$2,828,000	\$3,225,000
Less: Projected Revenue from Fixed	(\$383,078)	(\$432,638)	(\$488,900)	(\$552,473)	(\$624,315)
Variable Revenue Requirement	\$1,527,922	\$1,744,362	\$1,993,100	\$2,275,527	\$2,600,685
÷ Units of Service (Projected Recycled Usage)	575,000	575,000	575,000	575,000	575,000
Proposed Recycled Water Commodity Rates	\$2.66	\$3.04	\$3.47	\$3.96	\$4.53

Cost-Based Rates – Water and Recycled Water

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 recycled water fixed charges and variable rates. Proposition 218 requires the following conditions:

1. An agency cannot collect revenue beyond what is necessary to provide service.
The long-term financial plan identifies the District's revenue requirements for each 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 District's water and recycled water utilities are analyzed as separate business enterprises to track revenues and expenses and do not fund services other than those necessary for each enterprise.
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 commodity rates reflect each customer's fair share of water and recycled water costs, respectively. 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 actually receiving utility service or have service immediately available to them are required to pay the fixed and commodity 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 at least 45 days before the November 14, 2024, Public Hearing.

The proposed water and recycled water 5-year rate schedule (FY 2025 through FY 2029) is shown in the following section. If a majority protest does not occur by or at the November 14, 2024, Public Hearing, the District Board may adopt the rates with an effective date of January 1, 2025, and each January 1st thereafter.

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

5-Year Rate Schedules

Water

Table 77 and Table 78 provide the 5-year water rate schedule over the Rate Setting Period for monthly fixed charges and dedicated fire line charges, respectively. Table 79 and Table 80 provide the 5-year rate schedule for water commodity rates and pumping rates, respectively. For FY 2026 through FY 2029, the revenue adjustments are applied across the board to the cost-of-service rates derived for FY 2025 to maintain the proportionality of the cost allocations between customers derived within this updated cost-of-service analysis.

Table 77: Proposed Water Fixed Charge (FY 2025 – FY 2029)

Revenue Adjustment		13.0%	13.0%	13.0%	13.0%
Proposed Fixed Charges (\$/Month)					
Meter Size	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
≤3/4"	\$37.15	\$41.98	\$47.44	\$53.61	\$60.58
1"	\$51.59	\$58.30	\$65.88	\$74.45	\$84.13
1 1/2"	\$87.65	\$99.05	\$111.93	\$126.49	\$142.94
2"	\$130.93	\$147.96	\$167.20	\$188.94	\$213.51
3"	\$246.35	\$278.38	\$314.57	\$355.47	\$401.69
4"	\$376.19	\$425.10	\$480.37	\$542.82	\$613.39
6"	\$736.85	\$832.65	\$940.90	\$1,063.22	\$1,201.44
8"	\$1,169.65	\$1,321.71	\$1,493.54	\$1,687.71	\$1,907.12

Table 78: Proposed Dedicated Fire Line Charge (FY 2025 – FY 2029)

Revenue Adjustment		13.0%	13.0%	13.0%	13.0%
Proposed Dedicated Fire Line Charges (\$/Month)					
Connection Size	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
All Sizes	\$15.51	\$17.53	\$19.81	\$22.39	\$25.31

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Table 79: Proposed Water Commodity Rates (FY 2025 – FY 2029)

Revenue Adjustment			13.0%	13.0%	13.0%	13.0%
Proposed Commodity Rates (\$/HCF)						
Customer Class	Tier Definitions	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Single-Family						
Tier 1	0 - 6 HCF	\$3.55	\$4.02	\$4.55	\$5.15	\$5.82
Tier 2	7 - 27 HCF	\$4.49	\$5.08	\$5.75	\$6.50	\$7.35
Tier 3	>27 HCF	\$5.97	\$6.75	\$7.63	\$8.63	\$9.76
Multi-Family	Uniform	\$4.46	\$5.04	\$5.70	\$6.45	\$7.29
Non-Residential	Uniform	\$4.46	\$5.04	\$5.70	\$6.45	\$7.29
Irrigation	Uniform	\$4.46	\$5.04	\$5.70	\$6.45	\$7.29

Table 80: Proposed Pumping Rates (FY 2025 – FY 2029)

Revenue Adjustment		13.0%	13.0%	13.0%	13.0%
Proposed Pumping Rates (\$/HCF)					
Pumping Zone	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Pump Zone 2	\$0.26	\$0.30	\$0.34	\$0.39	\$0.45
Pump Zone 3	\$0.48	\$0.55	\$0.63	\$0.72	\$0.82

Recycled Water

Table 81 and Table 82 provide the 5-year recycled water fixed charges and commodity rates over the Rate Setting Period, respectively. For FY 2025 through FY 2029, fixed charges are 100% of potable rates and the remaining revenue requirements for recycled water services are recovered from the variable rates.

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Table 81: Proposed Recycled Water Fixed Charge (FY 2025 – FY 2029)

Proposed Recycled Fixed Charges (\$/Month)					
Meter Size	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
≤3/4"	\$37.15	\$41.98	\$47.44	\$53.61	\$60.58
1"	\$51.59	\$58.30	\$65.88	\$74.45	\$84.13
1 1/2"	\$87.65	\$99.05	\$111.93	\$126.49	\$142.94
2"	\$130.93	\$147.96	\$167.20	\$188.94	\$213.51
3"	\$246.35	\$278.38	\$314.57	\$355.47	\$401.69
4"	\$376.19	\$425.10	\$480.37	\$542.82	\$613.39
6"	\$736.85	\$832.65	\$940.90	\$1,063.22	\$1,201.44
8"	\$1,169.65	\$1,321.71	\$1,493.54	\$1,687.71	\$1,907.12

Table 82: Proposed Recycled Water Commodity Rates (FY 2025 – FY 2029)

Proposed Recycled Commodity Rates (\$/HCF)					
Customer Class	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Recycled	\$2.66	\$3.04	\$3.47	\$3.96	\$4.53

Appendix A – Capital Improvement Plan

Table 83 identifies assumptions used for inflating water Asset R&R and Capital Improvement CIP costs over the Rate Setting Period. The same capital escalation factor shown in Table 20 reflecting the 5-year average of the ENR CCI for the Los Angeles area was used to calculate a cumulative inflationary factor. Project costs in the Asset R&R CIP have already been inflated by District staff; however, new projects in the Capital Improvement CIP are uninflated starting in FY 2028. The subtotal of the CIP costs for each fiscal year was multiplied by the corresponding cumulative inflationary factor to calculate the total inflated CIP costs. Table 84 shows the projects within the selected capital plans for the water utility.

Table 83: Assumptions for Forecasting Water CIP

Asset R&R Forecasting					
Key Assumptions	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Capital Inflation	3.9%	3.9%	3.9%	3.9%	3.9%
Cumulative Inflationary Factor	100.0%	100.0%	100.0%	100.0%	100.0%

Capital Improvement Forecasting					
Key Assumptions	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Capital Inflation	3.9%	3.9%	3.9%	3.9%	3.9%
Cumulative Inflationary Factor	100.0%	100.0%	100.0%	103.9%	108.0%

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Table 84: Detailed Water CIP

Asset R&R					
Project Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Potable Water					
Reservoir Coating - Exterior	\$651,600	\$0	\$370,500	\$662,500	\$0
Pump Rehab Costs	\$118,300	\$394,800	\$376,200	\$35,300	\$471,900
Mixers	\$358,600	\$273,600	\$106,800	\$36,600	\$188,500
Pipeline Replacements	\$125,000	\$204,000	\$254,700	\$310,700	\$372,400
Vehicles & Equipment	\$276,000	\$285,600	\$277,300	\$327,300	\$378,800
IT Replacement	\$0	\$162,800	\$52,800	\$109,000	\$395,700
SCADA	\$56,175	\$0	\$0	\$0	\$0
PRV	\$408,400	\$246,900	\$256,800	\$264,500	\$269,800
Asphalt	\$1,000,000	\$0	\$100,000	\$103,000	\$106,100
Operations Specific	\$1,113,000	\$315,000	\$818,400	\$337,400	\$868,300
One Time Expenses	\$2,392,000	\$1,040,000	\$1,460,000	\$0	\$0
Subtotal Scenario 1 - Asset R&R	\$6,499,075	\$2,922,700	\$4,073,500	\$2,186,300	\$3,051,500
Asset R&R Total Costs	\$6,499,075	\$2,922,700	\$4,073,500	\$2,186,300	\$3,051,500
New CIP					
Project Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Potable Water					
New District Headquarters	\$25,000,000	\$2,000,000	\$7,000,000	\$0	\$0
New Projects	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000
Subtotal Scenario 1 - New CIP	\$25,500,000	\$2,500,000	\$7,500,000	\$500,000	\$500,000
New CIP Total Costs	\$25,500,000	\$2,500,000	\$7,500,000	\$519,658	\$540,090
Total CIP (Asset R&R + New CIP)	\$31,999,075	\$5,422,700	\$11,573,500	\$2,705,958	\$3,591,590

Project costs in the recycled water CIP have already been inflated by District staff, so no inflationary factor was applied, as shown in Table 85. Table 86 show the projects within the selected capital plans for the recycled water utility.

Table 85: Assumptions for Forecasting Recycled Water CIP

CIP Forecasting					
Key Assumptions	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Capital Inflation	3.9%	3.9%	3.9%	3.9%	3.9%
Cumulative Inflationary Factor	100.0%	100.0%	100.0%	100.0%	100.0%

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Table 86: Detailed Recycled Water CIP

Recycled CIP					
Project Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Pump Rehab Costs	\$0	\$216,800	\$56,400	\$0	\$179,400
Meter Replacement	\$0	\$0	\$617,400	\$0	\$0
Asphalt	\$0	\$0	\$0	\$0	\$212,200
One Time & Non-Potable Reservoir	\$647,000	\$0	\$2,000,000	\$1,725,000	\$335,000
Subtotal Recycled CIP	\$647,000	\$216,800	\$2,673,800	\$1,725,000	\$726,600
Recycled CIP Total Costs	\$647,000	\$216,800	\$2,673,800	\$1,725,000	\$726,600

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Appendix B – Water Supply Analysis

Table 87: Water Supply Analysis

Water Supply Analysis					
Key Inputs / Assumptions	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Potable Water Loss	7.0%	7.0%	7.0%	7.0%	7.0%
Water Supply Rates					
	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Potable Monthly Fixed Costs					
Old Baldy	\$10,100	\$10,938	\$11,846	\$12,829	\$13,894
LHHCWD	\$117	\$126	\$137	\$148	\$160
PBWA/CDWC 1st AF	\$667	\$722	\$782	\$847	\$918
PWR Surcharge	\$1,658	\$1,796	\$1,945	\$2,106	\$2,281
TVMWD Connected Capacity Charge	\$7,600	\$8,231	\$8,914	\$9,654	\$10,455
TVMWD Equiv Small Meter Charge	\$5,075	\$5,496	\$5,952	\$6,446	\$6,982
TVMWD Water Use Charge	\$9,392	\$10,171	\$11,015	\$11,930	\$12,920
TVMWD RTS Charge	\$4,258	\$8,516	\$9,223	\$9,988	\$10,817
MWD Capacity Reserv. Charges	\$42,317	\$45,829	\$49,633	\$53,752	\$58,214
Groundwater Supply	\$17,204	\$18,443	\$19,771	\$21,194	\$22,720
Potable Variable Water Supply Costs					
Old Baldy	\$668	\$723	\$783	\$849	\$919
Old Baldy - Power	\$94	\$101	\$110	\$119	\$129
Durward	\$1,256	\$1,360	\$1,473	\$1,595	\$1,728
PBWA/CDWC > 1 AF	\$442	\$479	\$518	\$561	\$608
PBWA/CDWC - Replenishment	\$200	\$217	\$235	\$254	\$275
PBWA/CDWC Chemicals/Maintenance/Reserves	\$236	\$255	\$277	\$300	\$324
MWD Purchased Water Tier I	\$1,395	\$1,511	\$1,636	\$1,772	\$1,919
TVMWD Surcharges	\$16	\$17	\$19	\$20	\$22
Fixed Water Supply Costs (Annual) Calculation					
	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Potable Fixed Water Supply Costs					
Old Baldy	\$121,200	\$131,260	\$142,154	\$153,953	\$166,731
LHHCWD	\$1,400	\$1,516	\$1,642	\$1,778	\$1,926
PBWA/CDWC 1st AF	\$8,004	\$8,668	\$9,388	\$10,167	\$11,011
PWR Surcharge	\$19,900	\$21,552	\$23,340	\$25,278	\$27,376
TVMWD Connected Capacity Charge	\$91,200	\$98,770	\$106,967	\$115,846	\$125,461
TVMWD Equiv Small Meter Charge	\$60,900	\$65,955	\$71,429	\$77,358	\$83,778
TVMWD Water Use Charge	\$112,700	\$122,054	\$132,185	\$143,156	\$155,038
TVMWD RTS Charge	\$51,096	\$102,192	\$110,674	\$119,860	\$129,808
MWD Capacity Reserv. Charges	\$507,800	\$549,947	\$595,593	\$645,027	\$698,565
Groundwater Supply	\$206,450	\$221,314	\$237,249	\$254,331	\$272,643
Subtotal Potable Fixed Water Supply Costs	\$1,180,650	\$1,323,228	\$1,430,622	\$1,546,753	\$1,672,336
Variable Water Supply Costs (Annual) Calculation					
	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Potable Water Billings/Sales (AF)					
Potable Water Demand	13,987 AF	13,987 AF	13,987 AF	13,987 AF	13,987 AF
Old Baldy	233 AF	375 AF	375 AF	375 AF	375 AF
Durward	165 AF	750 AF	750 AF	750 AF	750 AF
PBWA/CDWC	600 AF	600 AF	600 AF	600 AF	600 AF
TVMWD	12,989 AF	12,262 AF	12,262 AF	12,262 AF	12,262 AF
Total	13,987 AF	13,987 AF	13,987 AF	13,987 AF	13,987 AF
Potable Water Purchases (AF)					
Old Baldy Purchased at Current Rate	233 AF	375 AF	375 AF	375 AF	375 AF
Durward Purchased at Current Rate	165 AF	750 AF	750 AF	750 AF	750 AF
PBWA/CDWC Purchased at Current Rate	600 AF	600 AF	600 AF	600 AF	600 AF
TVMWD Purchased at Current Rate	12,989 AF	12,262 AF	12,262 AF	12,262 AF	12,262 AF
Calculated Potable Variable Water Supply Costs					
Old Baldy	\$177,430	\$309,264	\$334,933	\$362,733	\$392,839
Durward	\$207,240	\$1,020,186	\$1,104,861	\$1,196,565	\$1,295,880
PBWA/CDWC	\$526,692	\$570,407	\$617,751	\$669,025	\$724,554
MWD Purchased Water Tier I	\$18,119,553	\$18,525,135	\$20,062,722	\$21,727,927	\$23,531,345
TVMWD Surcharges	\$207,823	\$212,475	\$230,110	\$249,209	\$269,894
Total Calculated Potable Variable Water Supply Costs	\$19,238,737	\$20,637,468	\$22,350,377	\$24,205,459	\$26,214,512

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Table 88: Water Supply Summary

Water Supply Summary					
Water Supply Costs	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Potable Fixed Water Supply Costs					
Old Baldy - Fixed	\$122,000	\$132,000	\$143,000	\$154,000	\$167,000
LHHCWD	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
PBWA/CDWC	\$9,000	\$9,000	\$10,000	\$11,000	\$12,000
PWR Surcharge	\$20,000	\$22,000	\$24,000	\$26,000	\$28,000
TVMWD	\$316,000	\$389,000	\$422,000	\$457,000	\$495,000
MWD	\$508,000	\$550,000	\$596,000	\$646,000	\$699,000
Groundwater Supply	\$207,000	\$222,000	\$238,000	\$255,000	\$273,000
Subtotal Potable Fixed Water Supply Costs	\$1,184,000	\$1,326,000	\$1,435,000	\$1,551,000	\$1,676,000
Variable Potable Water Supply Costs					
Old Baldy - Variable	\$178,000	\$310,000	\$335,000	\$363,000	\$393,000
Durward	\$208,000	\$1,021,000	\$1,105,000	\$1,197,000	\$1,296,000
PBWA	\$527,000	\$571,000	\$618,000	\$670,000	\$725,000
MWD Purchased Water Tier I	\$18,120,000	\$18,526,000	\$20,063,000	\$21,728,000	\$23,532,000
TVMWD Surcharges	\$208,000	\$213,000	\$231,000	\$250,000	\$270,000
Subtotal Variable Potable Water Supply Costs	\$19,241,000	\$20,641,000	\$22,352,000	\$24,208,000	\$26,216,000
Total Water Supply Costs	\$20,425,000	\$21,967,000	\$23,787,000	\$25,759,000	\$27,892,000

Walnut Valley Water District – 2024 Cost-of-Service Utility Rate Study

Table 89: Recycled Water Supply Analysis

Water Supply Analysis					
Key Inputs / Assumptions	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Recycled Water Loss	3.9%	3.9%	3.9%	3.9%	3.9%
Water Supply Rates					
	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Recycled Monthly Fixed Costs					
Groundwater Supply	\$11,162	\$11,966	\$12,827	\$13,751	\$14,741
Recycled Variable Water Supply Costs					
WVWD	\$11	\$11	\$12	\$12	\$13
LACSD	\$150	\$158	\$165	\$174	\$182
Fixed Water Supply Costs (Annual) Calculation					
	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Recycled Fixed Water Supply Costs					
Groundwater Supply	\$133,944	\$143,588	\$153,926	\$165,009	\$176,890
Variable Water Supply Costs (Annual) Calculation					
	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Recycled Water Billings/Sales (AF)	1,320 AF	1,320 AF	1,320 AF	1,320 AF	1,320 AF
Recycled Wholesale	204 AF	204 AF	204 AF	204 AF	204 AF
Total Recycled Sales	1,524 AF	1,524 AF	1,524 AF	1,524 AF	1,524 AF
Recycled Water Demand	1,585 AF	1,585 AF	1,585 AF	1,585 AF	1,585 AF
WVWD - Wells & Domestic Reservoir	614 AF	614 AF	614 AF	614 AF	614 AF
LACSD - Pomona Intertie	971 AF	971 AF	971 AF	971 AF	971 AF
Total Acre Feet of Demand	1,585 AF	1,585 AF	1,585 AF	1,585 AF	1,585 AF
Recycled Water Purchases (AF)					
WVWD - Wells & Domestic Reservoir Purchased at Current Rate	614 AF	614 AF	614 AF	614 AF	614 AF
LACSD - Pomona Intertie Purchased at Current Rate	971 AF	971 AF	971 AF	971 AF	971 AF
Calculated Recycled Variable Water Supply Costs					
WVWD - Wells & Domestic Reservoir	\$6,608	\$6,939	\$7,286	\$7,650	\$8,032
LACSD - Pomona Intertie	\$145,696	\$152,981	\$160,630	\$168,661	\$177,094
Total Calculated Recycled Variable Water Supply Costs	\$152,304	\$159,919	\$167,915	\$176,311	\$185,127

Table 90: Recycled Water Supply Summary

Water Supply Summary					
Water Supply Costs	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Recycled Fixed Water Supply Costs					
Groundwater Supply	\$134,000	\$144,000	\$154,000	\$166,000	\$177,000
Variable Recycled Water Supply Costs					
Purchased Water - WVWD	\$7,000	\$7,000	\$8,000	\$8,000	\$9,000
Purchased Water - LACSD	\$146,000	\$153,000	\$161,000	\$169,000	\$178,000
Subtotal LACSD Capacity Charge	\$153,000	\$160,000	\$169,000	\$177,000	\$187,000
Total Water Supply Costs	\$287,000	\$304,000	\$323,000	\$343,000	\$364,000

Appendix C – Drought Rate Surcharges

The District adopted a Water Shortage Contingency Plan (WSCP) with six conservation stages reflecting reduced water usage. When conservation stages are enacted, and the conservation measures realize reductions in water usage, revenues will also decrease, causing the utility not to meet its revenue requirements. As such, the District may implement Drought Rate Surcharges to recover projected lost revenues from each conservation stage. Stage 1 assumes a 10% reduction, with each subsequent stage projecting an additional 10% reduction in water usage up to a 60% reduction in stage 6.

The District Board may enact Drought Rate Surcharges during water shortage events to recover the appropriate revenue to fund water system operations from a reduced volume of water sold. Therefore, Drought Rate Surcharges are higher than the proposed commodity rates identified in Table 79 and increase for each stage.

The proposed Drought Rate Surcharges are developed by stage for FY 2025 through FY 2029. Water use reductions were first applied to Single-Family Residential – Tier 3. Single-Family Residential - Tier 3 usage has the highest potential for cuts and the greatest revenue loss to recover for developing Drought Rate Surcharges. As water usage continues to reduce through the conservation stages, reductions are applied pro-rata to Single-Family Residential – Tier 2 and Irrigation, followed by pro-rata reductions to Single-Family Residential Tier 1, Multi-Family Residential, and Non-Residential. Table 91 identifies the total reduction in HCF needed to achieve each conservation stage, and Table 92 summarizes where the reductions are assumed to occur from customer classes and tiers.

Table 91: Total Usage Reductions by Conservation Stage

Usage Reduction by Conservation Stage							
	Baseline Usage (HCF)	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Target Reduction Goal		10.0%	20.0%	30.0%	40.0%	50.0%	60.0%
Potable Usage / Reduction (HCF)	5,666,216	566,622	1,133,243	1,699,865	2,266,486	2,833,108	3,399,730

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Table 92: Usage Reductions by Customer Class and Tier

Usage Reductions by Customer Class & Tier								
% Reduction								
Customer Class	Baseline Usage (HCF)	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6	Revenue Sufficiency Priority
Single-Family								
Tier 1	1,309,140	0.0%	0.0%	0.0%	0.0%	0.0%	13.6%	3rd Reduction
Tier 2	2,009,140	0.0%	17.6%	42.0%	66.5%	91.0%	100.0%	2nd Reduction
Tier 3	726,447	78.0%	100.0%	100.0%	100.0%	100.0%	100.0%	1st Reduction
Multi-Family	664,539	0.0%	0.0%	0.0%	0.0%	0.0%	13.6%	3rd Reduction
Non-Residential	650,164	0.0%	0.0%	0.0%	0.0%	0.0%	13.6%	3rd Reduction
Irrigation	306,787	0.0%	17.6%	42.0%	66.5%	91.0%	100.0%	2nd Reduction
Total	5,666,216							
Usage Reduction (HCF)								
Customer Class	Baseline Usage (HCF)	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6	
Single-Family								
Tier 1	1,309,140	-	-	-	-	-	178,299	
Tier 2	2,009,140	-	352,909	844,471	1,336,033	1,827,595	2,009,140	
Tier 3	726,447	566,622	726,447	726,447	726,447	726,447	726,447	
Multi-Family	664,539	-	-	-	-	-	90,507	
Non-Residential	650,164	-	-	-	-	-	88,550	
Irrigation	306,787	-	53,888	128,947	204,007	279,066	306,787	
Projected Usage Reduction		566,622	1,133,243	1,699,865	2,266,486	2,833,108	3,399,730	

With reductions identified in Table 92, the remaining usage is summarized in Table 93. The corresponding reduced revenue for FY 2025 is shown in Table 94 by taking the usage in Table 93 and multiplying it by the proposed FY 2025 commodity rates.

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Table 93: Remaining Usage by Conservation Stage

Remaining Usage by Conservation Stage							
Customer Class	Baseline Usage (HCF)	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Single-Family							
Tier 1	1,309,140	1,309,140	1,309,140	1,309,140	1,309,140	1,309,140	1,130,840
Tier 2	2,009,140	2,009,140	1,656,231	1,164,669	673,106	181,544	-
Tier 3	726,447	159,825	-	-	-	-	-
Multi-Family	664,539	664,539	664,539	664,539	664,539	664,539	574,032
Non-Residential	650,164	650,164	650,164	650,164	650,164	650,164	561,614
Irrigation	306,787	306,787	252,899	177,840	102,780	27,721	-
Projected Water Sales	5,666,216	5,099,594	4,532,973	3,966,351	3,399,730	2,833,108	2,266,486

Table 94: FY 2025 Projected Revenue & Potential Revenue Loss

Remaining Usage by Conservation Stage							
Commodity Rates (\$/HCF)							
Customer Class	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2025 Selected	
Single-Family							
Tier 1	\$3.55	\$4.02	\$4.55	\$5.15	\$5.82	\$3.55	
Tier 2	\$4.49	\$5.08	\$5.75	\$6.50	\$7.35	\$4.49	
Tier 3	\$5.97	\$6.75	\$7.63	\$8.63	\$9.76	\$5.97	
Multi-Family	\$4.46	\$5.04	\$5.70	\$6.45	\$7.29	\$4.46	
Non-Residential	\$4.46	\$5.04	\$5.70	\$6.45	\$7.29	\$4.46	
Irrigation	\$4.46	\$5.04	\$5.70	\$6.45	\$7.29	\$4.46	
Projected Commodity Revenue	FY 2025						
Customer Class	Baseline	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
	[A]	[B]	[C]	[D]	[E]	[F]	[G]
Single-Family							
Tier 1	\$4,647,446	\$4,647,446	\$4,647,446	\$4,647,446	\$4,647,446	\$4,647,446	\$4,014,483
Tier 2	\$9,021,037	\$9,021,037	\$7,436,476	\$5,229,362	\$3,022,248	\$815,134	\$0
Tier 3	\$4,336,887	\$954,156	\$0	\$0	\$0	\$0	\$0
Multi-Family	\$2,963,844	\$2,963,844	\$2,963,844	\$2,963,844	\$2,963,844	\$2,963,844	\$2,560,181
Non-Residential	\$2,899,731	\$2,899,731	\$2,899,731	\$2,899,731	\$2,899,731	\$2,899,731	\$2,504,800
Irrigation	\$1,368,270	\$1,368,270	\$1,127,931	\$793,166	\$458,401	\$123,636	\$0
Projected Commodity Revenue	\$25,237,215	\$21,854,484	\$19,075,428	\$16,533,549	\$13,991,670	\$11,449,791	\$9,079,465
Projected Loss (Baseline Revenue - Stage Revenue)		\$3,382,731	\$6,161,786	\$8,703,666	\$11,245,545	\$13,787,424	\$16,157,750

In addition to revenue losses, the District will also reduce certain expenses, generating cost savings. Table 95 calculates the cost savings from reduced water loss, and Table 96 reflects the FY 2025 net impact of revenue loss to be recovered from Drought Rate Surcharges for each stage.

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Table 95: FY 2025 Water Loss Expenses – Cost Savings

Water Loss Expense - Cost Savings							
Variable Water Costs	Quantity (HCF)	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2025 Selected
TVMWD	5,261,918	\$18,328,000	\$18,739,000	\$20,294,000	\$21,978,000	\$23,802,000	\$18,328,000
Total Variable Water Costs		\$18,328,000	\$18,739,000	\$20,294,000	\$21,978,000	\$23,802,000	\$18,328,000
Variable Water Unit Costs							
Variable Water Costs	\$18,328,000						
÷ Quantity (HCF)	5,261,918						
Variable Water Unit Cost (\$/HCF)	\$3.49						
Variable Water Cost Savings		Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Reduction in Usage	Table 92	566,622	1,133,243	1,699,865	2,266,486	2,833,108	3,399,730
x Variable Water Unit Cost		\$3.49	\$3.49	\$3.49	\$3.49	\$3.49	\$3.49
Variable Water Cost Savings		\$1,977,509	\$3,955,019	\$5,932,528	\$7,910,038	\$9,887,547	\$11,865,056

Table 96: FY 2025 Net Impact from Conservation Stages

Net Impact from Conservation Stages							
Net Impact	Source	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Lost Revenue	Table 94	(\$3,382,731)	(\$6,161,786)	(\$8,703,666)	(\$11,245,545)	(\$13,787,424)	(\$16,157,750)
Plus Cost Savings	Table 95	\$1,977,509	\$3,955,019	\$5,932,528	\$7,910,038	\$9,887,547	\$11,865,056
Net Revenue Loss		(\$1,405,222)	(\$2,206,768)	(\$2,771,137)	(\$3,335,507)	(\$3,899,877)	(\$4,292,694)

Table 97 takes the net revenue loss in Table 96 and recovers it from the remaining usage from Table 93 as a percent increase surcharge across all commodity rates, maintaining the cost-of-service analysis developed for the District's commodity rates. The percentage surcharges of each stage for FY 2025 are calculated by taking the revenue loss to recover as a percentage of the Projected Commodity Revenue in Table 94.

Table 98 through Table 101 identify the Drought Rate Surcharges for FY 2026 through FY 2029, using the same approach shown for FY 2025.

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Table 97: FY 2025 Drought Rate Surcharges

Water Shortage Surcharges							
% Increase			Conservation Stages				
FY 2025			Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
Net Revenue Loss			\$1,405,222	\$2,206,768	\$2,771,137	\$3,335,507	\$3,899,877
Projected Commodity Revenue			\$21,854,484	\$19,075,428	\$16,533,549	\$13,991,670	\$11,449,791
Net Revenue Loss / Projected Commodity Revenue			6.43%	11.57%	16.76%	23.84%	34.06%

FY 2025							
Customer Class	Baseline		Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
Single-Family							
Tier 1	\$3.55		\$0.23	\$0.42	\$0.60	\$0.85	\$1.21
Tier 2	\$4.49		\$0.29	\$0.52	\$0.76	\$1.08	\$1.53
Tier 3	\$5.97		\$0.39	\$0.70	\$1.01	\$1.43	\$2.04
Multi-Family	\$4.46		\$0.29	\$0.52	\$0.75	\$1.07	\$1.52
Non-Residential	\$4.46		\$0.29	\$0.52	\$0.75	\$1.07	\$1.52
Irrigation	\$4.46		\$0.29	\$0.52	\$0.75	\$1.07	\$1.52

Table 98: FY 2026 Drought Rate Surcharges

Water Shortage Surcharges							
% Increase			Conservation Stages				
FY 2026			Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
Net Revenue Loss			\$1,682,866	\$2,684,227	\$3,417,832	\$4,151,438	\$4,885,044
Projected Commodity Revenue			\$24,720,300	\$21,577,110	\$18,701,674	\$15,826,239	\$12,950,804
Net Revenue Loss / Projected Commodity Revenue			6.81%	12.44%	18.28%	26.23%	37.72%

FY 2026							
Customer Class	Baseline		Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
Single-Family							
Tier 1	\$4.02		\$0.28	\$0.51	\$0.74	\$1.06	\$1.52
Tier 2	\$5.08		\$0.35	\$0.64	\$0.93	\$1.34	\$1.92
Tier 3	\$6.75		\$0.46	\$0.84	\$1.24	\$1.78	\$2.55
Multi-Family	\$5.04		\$0.35	\$0.63	\$0.93	\$1.33	\$1.91
Non-Residential	\$5.04		\$0.35	\$0.63	\$0.93	\$1.33	\$1.91
Irrigation	\$5.04		\$0.35	\$0.63	\$0.93	\$1.33	\$1.91

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Table 99: FY 2027 Drought Rate Surcharges

Water Shortage Surcharges								
% Increase			Conservation Stages					
FY 2027			Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Net Revenue Loss			\$2,005,840	\$3,244,209	\$4,181,048	\$5,117,887	\$6,054,726	\$6,771,020
Projected Commodity Revenue			\$27,971,097	\$24,415,246	\$21,160,925	\$17,906,603	\$14,652,282	\$11,618,506
Net Revenue Loss / Projected Commodity Revenue			7.17%	13.29%	19.76%	28.58%	41.32%	58.28%
FY 2027								
Customer Class	Baseline		Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Single-Family								
Tier 1	\$4.55		\$0.33	\$0.61	\$0.90	\$1.31	\$1.89	\$2.66
Tier 2	\$5.75		\$0.42	\$0.77	\$1.14	\$1.65	\$2.38	\$3.36
Tier 3	\$7.63		\$0.55	\$1.02	\$1.51	\$2.19	\$3.16	\$4.45
Multi-Family	\$5.70		\$0.41	\$0.76	\$1.13	\$1.63	\$2.36	\$3.33
Non-Residential	\$5.70		\$0.41	\$0.76	\$1.13	\$1.63	\$2.36	\$3.33
Irrigation	\$5.70		\$0.41	\$0.76	\$1.13	\$1.63	\$2.36	\$3.33

Table 100: FY 2028 Drought Rate Surcharges

Water Shortage Surcharges						
% Increase			Conservation Stages			
FY 2028	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Net Revenue Loss	\$2,379,811	\$3,890,450	\$5,059,604	\$6,228,758	\$7,397,912	\$8,319,775
Projected Commodity Revenue	\$31,639,378	\$27,618,604	\$23,939,317	\$20,260,030	\$16,580,742	\$13,148,745
Net Revenue Loss / Projected Commodity Revenue	7.52%	14.09%	21.14%	30.74%	44.62%	63.27%

FY 2028							
Customer Class	Baseline	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Single-Family							
Tier 1	\$5.15	\$0.39	\$0.73	\$1.09	\$1.59	\$2.30	\$3.26
Tier 2	\$6.50	\$0.49	\$0.92	\$1.38	\$2.00	\$2.91	\$4.12
Tier 3	\$8.63	\$0.65	\$1.22	\$1.83	\$2.66	\$3.86	\$5.47
Multi-Family	\$6.45	\$0.49	\$0.91	\$1.37	\$1.99	\$2.88	\$4.09
Non-Residential	\$6.45	\$0.49	\$0.91	\$1.37	\$1.99	\$2.88	\$4.09
Irrigation	\$6.45	\$0.49	\$0.91	\$1.37	\$1.99	\$2.88	\$4.09

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Table 101: FY 2029 Drought Rate Surcharges

Water Shortage Surcharges						
% Increase	Conservation Stages					
FY 2029	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Net Revenue Loss	\$2,810,443	\$4,637,273	\$6,077,655	\$7,518,036	\$8,958,418	\$10,118,098
Projected Commodity Revenue	\$35,766,924	\$31,220,310	\$27,060,145	\$22,899,980	\$18,739,815	\$14,860,350
Net Revenue Loss / Projected Commodity Revenue	7.86%	14.85%	22.46%	32.83%	47.80%	68.09%

		FY 2029					
Customer Class	Baseline	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Single-Family							
Tier 1	\$5.82	\$0.46	\$0.87	\$1.31	\$1.92	\$2.79	\$3.97
Tier 2	\$7.35	\$0.58	\$1.10	\$1.66	\$2.42	\$3.52	\$5.01
Tier 3	\$9.76	\$0.77	\$1.45	\$2.20	\$3.21	\$4.67	\$6.65
Multi-Family	\$7.29	\$0.58	\$1.09	\$1.64	\$2.40	\$3.49	\$4.97
Non-Residential	\$7.29	\$0.58	\$1.09	\$1.64	\$2.40	\$3.49	\$4.97
Irrigation	\$7.29	\$0.58	\$1.09	\$1.64	\$2.40	\$3.49	\$4.97