
Pico Water District

2023 Water Rate Study

Draft Report – December 14, 2023

Prepared by: Water Resources Economics, LLC



**Water Resources
Economics**

PROMOTING THE VALUE AND PRICE OF
WATER SERVICE

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December 14, 2023

Joe Basulto
General Manager
Pico Water District
4843 Church St
Pico Rivera, CA 90660

Subject: Pico Water District 2023 Water Rate Study

Dear Mr. Basulto,

Water Resources Economics, LLC is pleased to submit this 2023 Water Rate Study Report to Pico Water District. This report documents the results and recommendations of the 2023 Water Rate Study. The overall goal of the study was to develop an updated five-year schedule of water rates that will sufficiently fund the District's expenses, provide financial sustainability, and comply with cost-of-service principles.

This study utilized industry-standard rate-setting methodology in accordance with guidelines developed by the American Water Works Association. Our project team has a proven track record of developing fair and equitable water rates for numerous public water agencies in California over the past 25 years. We're confident in our ability to develop sound water rates that satisfy Proposition 218 requirements.

It has been a pleasure assisting the District and we appreciate the support provided by yourself and other District staff over the course of the study.

Sincerely,

Sanjay Gaur
Principal Consultant

2023 Water Rate Study

Pico Water District

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Abbreviations

AF: Acre-feet

CBMWD: Central Basin Municipal Water District

CCF: 100 cubic feet

CIP: Capital improvement plan

City: City of Pico Rivera

District: Pico Water District

FY: Fiscal year (July 1 – June 30)

GPM: Gallons per minute

IBank: California Infrastructure and Economic Development Bank

O&M: Operations and maintenance

WRD: Water Replenishment District of Southern California

WRE: Water Resources Economics, LLC

1. EXECUTIVE SUMMARY

RATE STUDY OVERVIEW

Public retail water agencies in California typically conduct a water rate study at least once every five years to ensure that customers are appropriately charged for water service. Pico Water District's currently adopted five-year rate schedule spans from FY 2021-FY 2025 and was established during the District's prior rate study conducted in 2020.¹ The third year of the adopted five-year rate schedule is currently in effect. However, the District anticipates that the final two years of currently adopted rates will not adequately meet the District's funding needs due to:

- **Insufficient revenue generation:** The currently adopted rate schedule has generated insufficient revenues over the past three years to fund infrastructure replacements, meet financial obligations, adjust to current operational demands, and cover new PFAS² treatment costs. This has been exacerbated by cost inflation and declining water sales due to conservation and has resulted in the depletion of cash reserves. If immediate action is not taken, the District may face potential consolidation with another water utility, which would inevitably result in significant customer bill increases. Average residential bills in the City of Pico Rivera's water service area are currently nearly 50% higher than in the District's service area. Average residential bills in the District's service under the proposed rate schedule will remain lower than in City's service area.³
- **Substantial capital needs:** Projected capital improvement plan (CIP) project costs are significant, amounting to \$8.2 million in total over the next five years. All five-year CIP is assumed to be cash funded (i.e., no new debt financing). These important projects include improvements to aging infrastructure, installation/ maintenance of PFAS treatment infrastructure, and other critical CIP projects. The projected CIP project costs over the next five years align with the District's 2021 Water Master Plan update. Adjusting rates to sufficiently fund planned CIP projects is needed to maintain the District's water system infrastructure and guarantee safe and reliable water service to customers.
- **Operations & Maintenance (O&M) cost increases:** O&M expenses are projected to increase by more than 6% annually on average over the next five years due to inflationary pressures and new PFAS-related expenses. The prior rate study assumed 4.5% annual average increases in O&M expenses. Inflationary increases to materials, chemicals, energy, and other services related to operation and maintenance of the District's water system are expected to be significant. Additionally, PFAS treatment requirements are expected to result in approximately \$125,000 in new annual O&M expenses, which is in addition to \$650,000 in annual capitalized expenses associated with PFAS treatment.

¹ "FY" refers to the District's fiscal year, which is from July through June.

² "PFAS" stands for per-and polyfluoroalkyl substances.

³ Based on the City of Pico Rivera's currently adopted water rate schedule through FY 2026.

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The District therefore engaged Water Resources Economics in 2023 to conduct an updated rate study to establish a new five-year proposed rate schedule spanning from FY 2024 through FY 2028. The primary purpose of this updated rate study was to reevaluate the District's revenue needs and establish proposed rates that will ensure financial sustainability. If adopted, the proposed five-year rate schedule presented in this report will replace the final two years of the currently adopted rate schedule.

LEGAL REQUIREMENTS

Legal considerations relating to retail water rates in California focus heavily on Proposition 218, which was enacted in 1996 and is now reflected in Article XIII C and Article XIII D of the California Constitution. Proposition 218 states that "property related fees and charges" (which include retail water rates) may not exceed the proportional cost of providing the service to the customer and may not be used for any purpose other than providing said service. The practical implication is that public retail water agencies in California must demonstrate a sufficient nexus between the costs incurred by the agency to provide water service and the rates charged to customers.

RATE-SETTING METHODOLOGY

This study was conducted using industry-standard methodology outlined by the American Water Works Association in its *Manual of Water Supply Practices M1: Principles of Water Rates, Fees and Charges, Seventh Edition*. The overall rate study process includes the following steps:

1. **Financial Plan:** Annual revenues and expenses are projected over the rate-setting period to determine the magnitude of rate increases needed to maintain financial sufficiency. Financial policies such as reserve targets are also evaluated and updated if necessary. The overall goal is to establish the total annual rate revenue requirement.
2. **Cost-of-Service Analysis:** Costs are evaluated and allocated to customers in proportion to use of and burden on the water system. The overall goal is to establish a robust nexus between the costs incurred by an agency and the rates charged to customers, as required by Proposition 218.
3. **Rate Design:** The existing rate structure is evaluated, and potential changes are identified. A multi-year proposed rate schedule is then calculated directly from the results of the financial plan and cost-of-service analysis.
4. **Rate Study Documentation:** A rate study report is developed to document the proposed rate development process. This provides transparency and enhances legal defensibility in light of Proposition 218 requirements. This document serves as the report for this rate study.

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RESULTS AND RECOMMENDATIONS

Proposed Reserve Policy

The District’s current reserve policy defines minimum and maximum reserve target levels based on fixed dollar amounts (see Table 1-1). It is recommended that the District update its reserve policy to align with industry standards more closely and to enhance risk management. The proposed reserve policy defines minimum and maximum reserve target levels for the following four categories:

- **Operating Reserve:** To maintain cash on hand to meet short-term cash flow imbalances
- **Capital Improvement Reserve:** To maintain cash on hand to execute CIP projects
- **Rate Stabilization Reserve:** To mitigate the risk of revenue shortfalls during periods of reduced water sales
- **Emergency Reserve:** To mitigate the risk of natural disaster, unexpected asset failure, etc.

Table 1-1: Current and Proposed Reserve Targets

Reserve Targets	Minimum Reserve Level	Maximum Reserve Level
Current Reserve Targets		
1. Operating Reserve	\$200,000	\$750,000
2. Capital Improvement Reserve	\$200,000	\$2,000,000
3. Rate Stabilization Reserve	\$80,000	\$400,000
4. Administrative Facilities Reserve	\$50,000	\$200,000
Total Reserve Target	\$530,000	\$3,350,000
Proposed Reserve Targets		
1. Operating Reserve	35% of annual operating expenses	35% of annual operating expenses
2. Capital Improvement Reserve	80% of annual average 5-year CIP	80% of annual average 5-year CIP
3. Rate Stabilization Reserve	N/A	20% of volumetric rate revenue
4. Emergency Reserve	N/A	\$2,000,000
Total Reserve Target (Projected FY 2024)	\$2,709,396	\$5,185,664

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Proposed Revenue Adjustments

Overall annual increases in rate revenues resulting from rate increases are referred to as revenue adjustments. The District’s currently adopted rate schedule includes 6% annual revenue adjustments through FY 2025. Various proposed revenue adjustment scenarios over the five-year rate-setting period were considered and refined based on input from District staff and the District’s Board of Directors, resulting in the proposed revenue adjustments shown below (see Table 1-2). The proposed revenue adjustments include significant annual increases of 35% in year 1, 20% in year 2, and 12% in years 3-5.

Table 1-2: Currently Adopted vs. Proposed Revenue Adjustments

Line	Fiscal Year	CURRENTLY ADOPTED		PROPOSED	
		Revenue Adjustment %	Effective Date	Revenue Adjustment %	Effective Date
1	FY 2024	6%	Feb. 14, 2024	35%	Mar. 1, 2024
2	FY 2025	6%	Feb. 14, 2025	20%	Jan. 1, 2025
3	FY 2026	N/A	N/A	12%	Jan. 1, 2026
4	FY 2027	N/A	N/A	12%	Jan. 1, 2027
5	FY 2028	N/A	N/A	12%	Jan. 1, 2028

Financial Plan Projections

Five-year financial plan projections were developed based on both the currently adopted revenue adjustments (referred to as the “status quo financial plan”) and the proposed revenue adjustments (referred to as the “proposed financial plan”). A comparison of the two scenarios on the following pages clearly shows that the currently adopted rate schedule is insufficient to meet the District’s financial needs not only over the full five-year study period, but also within the next two fiscal years.

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Status Quo vs. Proposed Financial Plans: Projected Cash Balance

Under the status quo financial plan, cash reserves are projected to be fully depleted in FY 2026 primarily due significant cash funding needs for CIP projects (see Figure 1-1). Under the proposed financial plan, cash reserves are projected to meet the proposed minimum reserve target level beginning in FY 2026 and steadily build up through the study period in preparation for substantial CIP funding needs anticipated beyond FY 2028 (see Figure 1-2).

Figure 1-1: Status Quo Financial Plan Cash Balance Summary

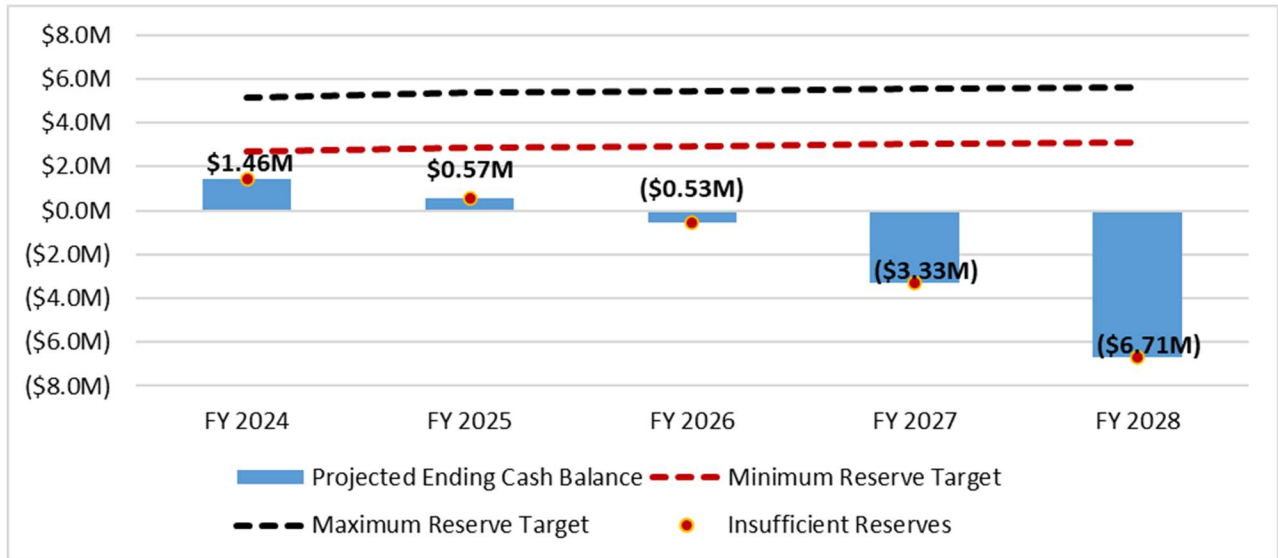
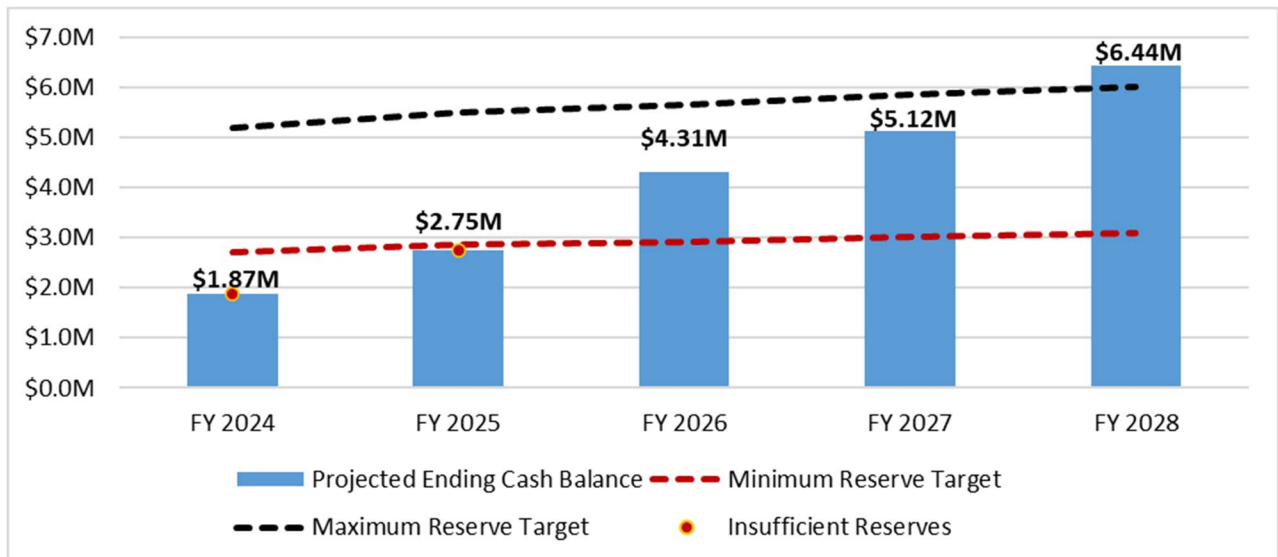


Figure 1-2: Proposed Financial Plan Cash Balance Summary



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Status Quo vs. Proposed Financial Plans: Projected Debt Coverage

Debt coverage reflects the ability of a borrower to meet its debt obligations and is defined as the ratio of net revenues to debt service. Per the terms of the District's outstanding debt, the District is required to maintain a debt coverage ratio of at least 1.20. Under the status quo financial plan, debt coverage is projected to fall below the required ratio beginning in FY 2025 (see Figure 1-3). Under the proposed financial plan, Debt coverage is projected to meet the required ratio in all years. (see Figure 1-4).

Figure 1-3: Status Quo Financial Plan Debt Coverage Summary

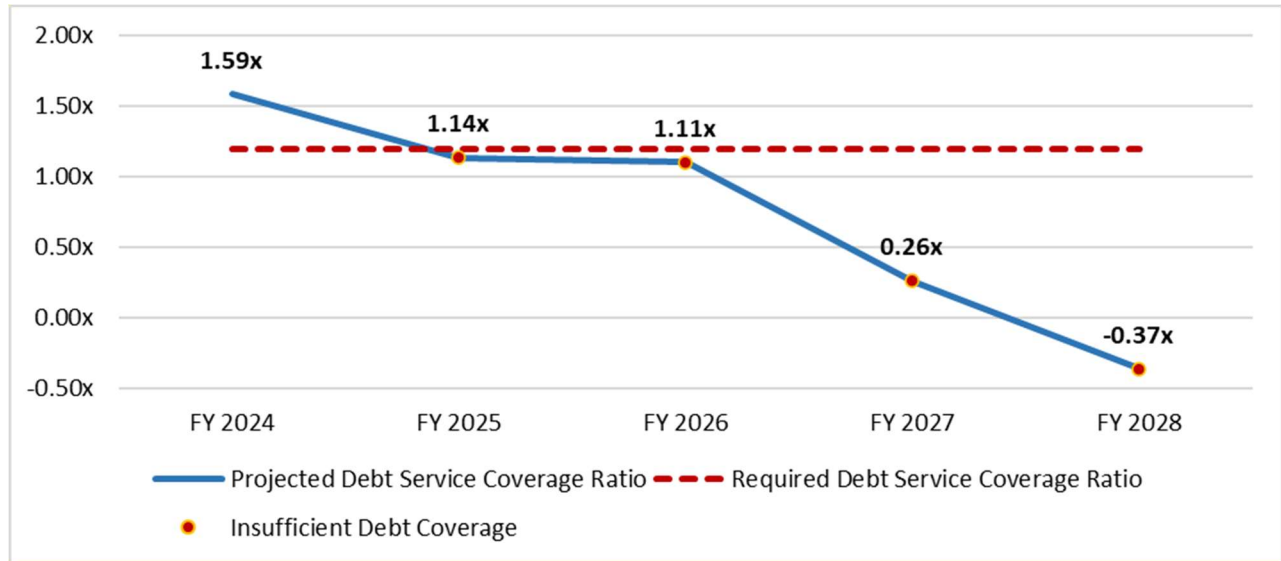
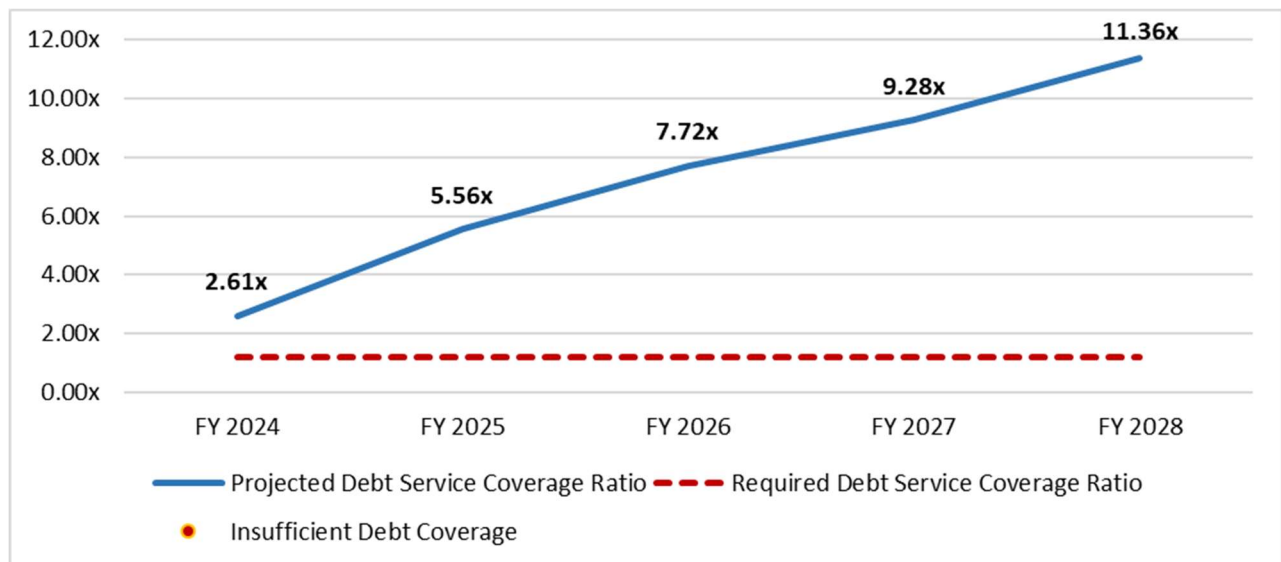


Figure 1-4: Proposed Financial Plan Debt Coverage Summary



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Proposed Rate Structure Changes

The District's currently adopted rate structure consists of the following types of rates and charges:

1. **Fixed Monthly Meter Charges:** Potable and recycled water customers are subject to a fixed monthly meter charge per metered water connection. Single family residential customers are all subject to the same charge regardless of meter size. All other customers are subject to charges that increase with meter size.
2. **Fixed Monthly Infrastructure Charges:** Potable water customers are subject to a fixed monthly infrastructure charge per metered water connection that is the same regardless of meter size. The charges are designed to recover debt service associated with the District's two outstanding loans, which were used to finance potable water system CIP projects.
3. **Volumetric Rates:** Potable and recycled water use are subject to volumetric rates per hundred cubic feet (CCF) of water delivered each billing period.⁴
4. **Fixed Monthly Private Fire Charges:** Potable water customers with a separate dedicated private fire protection connection (such as a fire-suppression sprinkler system) are also subject to a fixed monthly private charge based on the size of the lateral connection.

The District's currently adopted rate structure was evaluated, and potential changes were considered. However, only one rate structure change is proposed, as outlined below:

- **Proposed change to fixed monthly infrastructure charges:** The District's current fixed monthly infrastructure charges are the same regardless of meter size. It is recommended that proposed fixed monthly infrastructure charges are differentiated by meter size, just as fixed monthly meter charges currently are. Fixed monthly infrastructure charges are designed to recover existing debt service associated with potable water system infrastructure improvements. Because the benefit derived by customers from these infrastructure improvements is proportional to potential water use, it is more defensible and equitable for these charges to increase with meter size.

⁴ Pursuant to California Government Code 53756, the District may add additional "pass-through adjustments" to the adopted volumetric rates if groundwater assessments set by the Water Replenishment District of Southern California (WRD) or recycled water wholesale water rates set by Central Basin Municipal Water District (CBMWD) exceed projected amounts already incorporated into the adopted volumetric rates. This allows the District to directly pass through to its customers any unanticipated increases in direct water supply costs paid to outside agencies. The District must notify all customers at least 30 days prior to implementation of any pass-through adjustments. It is recommended that the District retain the option to implement pass-through adjustments over the proposed rate-setting period.

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Proposed Five-Year Rate Schedule

A proposed five-year rate schedule was developed directly from the results of the proposed financial plan and cost-of-service analyses (see Table 1-3). Proposed infrastructure charges are differentiated by meter size based on the proposed rate structure change outlined above.

Table 1-3: Proposed Five-Year Water Rate Schedule

	Current (2/14/2023)	Proposed FY 2024 (3/1/2024)	Proposed FY 2025 (1/1/2025)	Proposed FY 2026 (1/1/2026)	Proposed FY 2027 (1/1/2027)	Proposed FY 2028 (1/1/2028)
Proposed Water Rates						
Fixed Monthly Meter Charges (All water meters)						
Single Family Residential (all meter sizes)	\$18.23	\$28.39	\$34.07	\$38.16	\$42.74	\$47.87
5/8-inch meter	\$18.23	\$28.39	\$34.07	\$38.16	\$42.74	\$47.87
1-inch meter	\$40.35	\$61.21	\$73.46	\$82.28	\$92.16	\$103.22
1.5-inch meter	\$77.20	\$115.91	\$139.10	\$155.80	\$174.50	\$195.44
2-inch meter	\$121.44	\$181.55	\$217.86	\$244.01	\$273.30	\$306.10
3-inch meter	\$224.66	\$334.71	\$401.66	\$449.86	\$503.85	\$564.32
4-inch meter	\$372.12	\$553.51	\$664.22	\$743.93	\$833.21	\$933.20
6-inch meter	\$740.74	\$1,100.51	\$1,320.62	\$1,479.10	\$1,656.60	\$1,855.40
Fixed Monthly Infrastructure Charges (Potable water meters only)						
Single Family Residential (all meter sizes)	\$6.50	\$4.35	\$5.22	\$5.85	\$6.56	\$7.35
5/8-inch meter	\$6.50	\$4.35	\$5.22	\$5.85	\$6.56	\$7.35
1-inch meter	\$6.50	\$10.86	\$13.04	\$14.61	\$16.37	\$18.34
1.5-inch meter	\$6.50	\$21.72	\$26.07	\$29.20	\$32.71	\$36.64
2-inch meter	\$6.50	\$34.75	\$41.70	\$46.71	\$52.32	\$58.60
3-inch meter	\$6.50	\$65.16	\$78.20	\$87.59	\$98.11	\$109.89
4-inch meter	\$6.50	\$108.60	\$130.32	\$145.96	\$163.48	\$183.10
6-inch meter	\$6.50	\$217.19	\$260.63	\$291.91	\$326.94	\$366.18
Volumetric Rates per CCF						
Potable Water	\$2.12	\$2.72	\$3.27	\$3.67	\$4.12	\$4.62
Recycled Water	\$2.39	\$2.57	\$3.09	\$3.47	\$3.89	\$4.36
Fixed Monthly Private Fire Charges (Dedicated private fire connections only)						
1.5-inch connection	\$14.75	\$11.16	\$13.40	\$15.01	\$16.82	\$18.84
2-inch connection	\$23.60	\$15.12	\$18.15	\$20.33	\$22.77	\$25.51
4-inch connection	\$44.25	\$53.85	\$64.62	\$72.38	\$81.07	\$90.80
6-inch connection	\$73.74	\$141.85	\$170.22	\$190.65	\$213.53	\$239.16
8-inch connection	\$147.46	\$293.63	\$352.36	\$394.65	\$442.01	\$495.06
10-inch connection	\$339.16	\$521.94	\$626.33	\$701.49	\$785.67	\$879.96

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Monthly Water Bill Comparison to Neighboring Agencies

Current and proposed FY 2024 monthly bills for average residential customers⁵ are compared to neighboring water agencies below (see Figure 1-5). A five-year average residential monthly bill comparison to the City of Pico Rivera Water Authority is also provided (see Figure 1-6).⁶

Figure 1-5: FY 2024 Monthly Bill Comparison to Neighboring Agencies

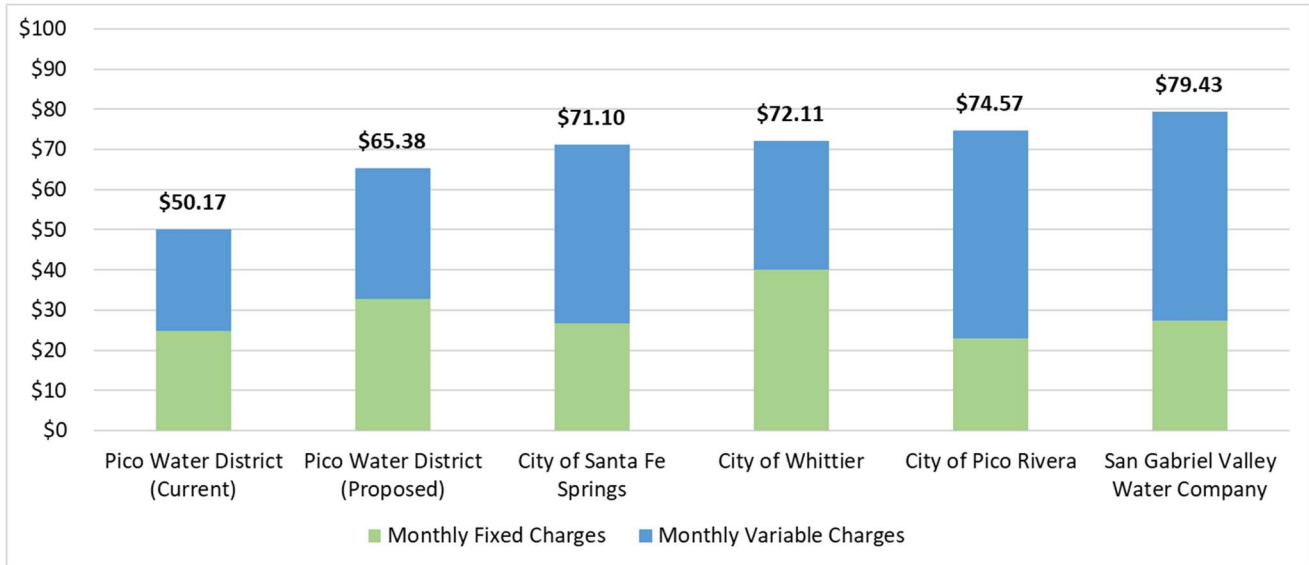
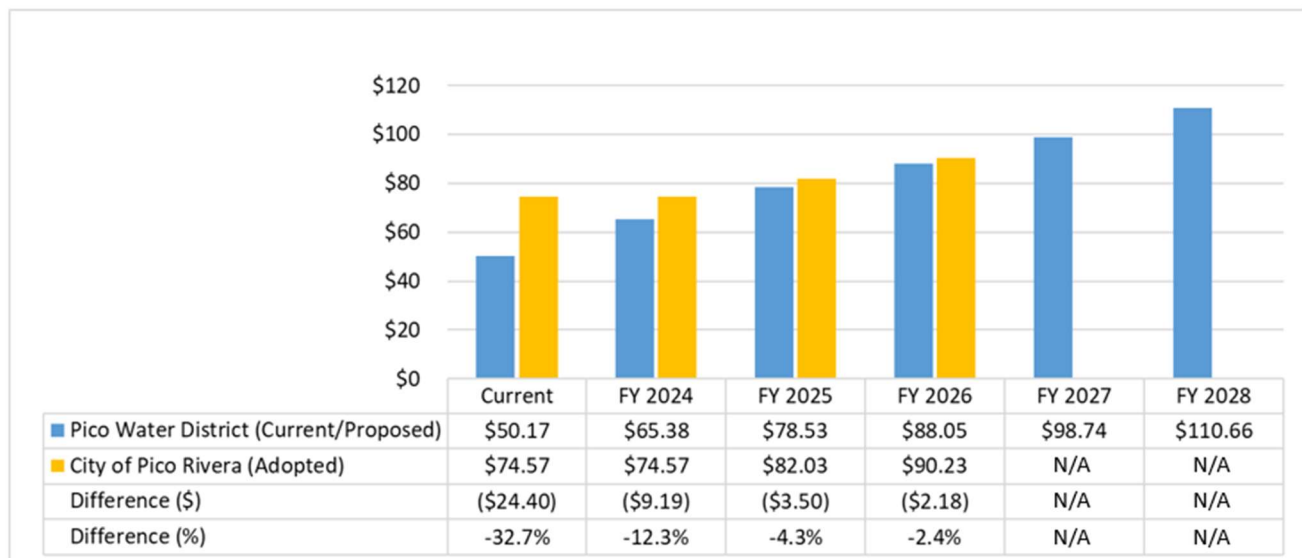


Figure 1-6: Five-Year Monthly Bill Comparison to City of Pico Rivera



⁵ All monthly bills are based on the smallest meter size available and assume 12 CCF in monthly water use.

⁶ City of Pico Rivera bills are based on current rates plus 10% adopted annual rate increases through FY 2026. The City hasn't adopted water rates beyond FY 2026; therefore, no bills are shown in FY 2027 and FY 2028.

2. INTRODUCTION

2.1 WATER SYSTEM OVERVIEW

Pico Water District (District) provides water service to about 5,400 metered connections serving residential, commercial, industrial, and institutional customers within the City of Pico Rivera (City). The District's water system serves a population of over 23,000 people; the City's remaining population receives water service from either the City of Pico Rivera Water Authority or the San Gabriel Valley Water Company.

The District operates and maintains a potable water system consisting of five active groundwater wells, disinfection stations, a storage reservoir, a booster pump station, and nearly 60 miles of pipelines. The District's potable water supply consists entirely of local groundwater pumped from the Central Basin, which underlies the District's service area. The District also delivers recycled water purchased from Central Basin Municipal Water District to fewer than ten recycled water connections.

2.2 RATE STUDY OVERVIEW

Public retail water agencies in California typically conduct a water rate study at least once every five years to ensure that customers are appropriately charged for water service. The District's currently adopted five-year rate schedule spans from Fiscal Year⁷ (FY) 2021 through FY 2025 and was established during the District's prior rate study conducted in 2020. The third year of the adopted five-year rate schedule is currently in effect. However, the District anticipates that the final two years of currently adopted rates will not be sufficient to meet the District's funding needs.

The District therefore engaged Water Resources Economics (WRE) in 2023 to conduct an updated rate study to establish a new five-year proposed rate schedule spanning from FY 2024 through FY 2028. The primary purpose of this updated rate study is to reevaluate the District's revenue needs and establish proposed rates that will ensure financial sustainability. If adopted, the proposed five-year rate schedule presented in this report will replace the final two years of the currently adopted rate schedule (for FY 2024-FY 2025) and establish rates for the following three years for which rates are not yet adopted (FY 2026-FY 2028).

2.3 LEGAL REQUIREMENTS

Legal considerations relating to retail water rates in California focus heavily on Proposition 218, which was enacted in 1996 and is now reflected in Article XIII C and Article XIII D of the California Constitution. Proposition 218 states that "property related fees and charges" (which include retail water rates) may not exceed the proportional cost of providing the service to the customer and may not be used for any purpose other than providing said service. The practical implication is that public retail water agencies in California must demonstrate a sufficient nexus between the costs incurred by

⁷ The District's fiscal year if from July through June.

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the agency to provide water service and the rates charged to customers. The primary means by which retail water agencies address this requirement is by conducting a “cost-of-service analysis” (which is described in more detail below).

Proposition 218 also affects the rate adoption process by requiring agencies to hold a public hearing to adopt rates. The agency must mail public hearing notices to all customers no fewer than 45 days prior to the public hearing. The public hearing notices must clearly show all proposed rate changes, provide information on the public hearing date/time/location, and provide instructions on how customers may protest the proposed rate changes. If a majority of customers submit a protest, the proposed rate changes cannot be adopted.

2.4 RATE-SETTING METHODOLOGY

This rate study was conducted using industry-standard methodology outlined by the American Water Works Association (AWWA) in its *Manual of Water Supply Practices M1: Principles of Water Rates, Fees and Charges, Seventh Edition* (M1 Manual). The overall rate study process is summarized in the steps outlined below:

1. **Financial Plan:** Annual revenues from current rates and expenses are projected over a multi-year period to establish baseline financial projections. If current rates generate insufficient revenues to recover expenses and meet financial targets, then the need for rate increases is evaluated. The overall goal of the financial plan is to establish the total annual rate revenue requirement over the multi-year rate-setting period.
2. **Cost-of-Service Analysis:** Costs are evaluated and allocated to various cost causation components such as customer service, water supply, etc. This provides a basis from which to allocate the total annual rate revenue requirement to customers in proportion to the use of and burden placed on the water system. The overall goal of the cost-of-service analysis is to establish a robust nexus between the costs incurred by an agency and the rates charged to customers, as required by Proposition 218.
3. **Rate Design:** The existing rate structure is evaluated, and potential changes are identified. A multi-year proposed rate schedule is then calculated directly from the results of the financial plan and cost-of-service analysis for the selected rate structure. Sample customer bills are evaluated to better understand the impacts of the proposed rate changes to customers.
4. **Rate Study Documentation:** A rate study report is developed to document the proposed rate development process. The report serves to provide transparency to customers and elected officials, and to enhance legal defensibility in light of Proposition 218 requirements. This document serves as the report for this rate study.

2.5 DISCLAIMERS

- All study projections are based on the best available data as of September 2023.

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- All table values are rounded to the nearest digit shown unless stated otherwise. However, all calculations are based on precise values. Attempting to manually recreate the calculations described in this report from the values displayed in tables may therefore produce slightly different results.
- All current and proposed rates and charges in this report are shown on a monthly basis.

3. FINANCIAL PLAN

3.1 FINANCIAL PLAN METHODOLOGY

A financial plan was developed to project revenues, expenses, cash flows, reserve balances, and debt coverage over a five-year period spanning from FY 2024 through FY 2028. The primary goal of the financial plan is to quantify the total amount of revenue required from water rates on an annual basis to support the District's financial needs. The key steps in developing a financial plan for a water enterprise are outlined below:

- **Revenue projections:** Annual revenues from rates and other miscellaneous sources are projected over the study period. Rate revenues are projected based on current rates to establish baseline revenues from which the need for additional rate increases can be evaluated.
- **Expense projections:** Annual expenses are projected over the study period. This includes operations and maintenance (O&M) expenses, debt service, and Capital Improvement Plan (CIP) project costs. CIP funding options such as new grants or debt financing are evaluated.
- **Evaluation of financial policies:** Relevant financial policies include debt coverage requirements and reserve targets. Debt coverage requirements are typically explicitly stated in official agreements on outstanding debt issues. Reserve targets are typically set by an agency's elected officials and may need to be periodically evaluated and updated.
- **Status quo financial plan projections:** Cash flow, reserve balances, and debt coverage are projected over the study period in the absence of any additional rate increases (i.e., the status quo). Projected reserve balances and debt coverage are then compared to the agency's financial policy requirements and targets. The status quo financial plan provides a baseline from which to evaluate the need for rate increases.
- **Proposed financial plan projections:** The magnitude and timing of annual proposed rate increases over the study period are evaluated and determined. Proposed rate increases (referred to as "revenue adjustments") should generate sufficient revenue to recover the District's expenses, maintain adequate reserves, and meet all debt coverage requirements. The proposed financial plan determines the total annual rate revenue requirement over the rate-setting period.

3.2 REVENUES

CURRENT WATER RATES

The District's currently adopted five-year rate schedule extends through FY 2025 (see Table 3-1). Year three of the adopted five-year rate schedule is currently in effect. Most single family residential customers are billed by the District on a bimonthly basis, while all other customers are billed on a monthly basis. However, all fixed charges shown are on a monthly basis. The District's current rate structure consists of the four following types of rates/charges:

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1. **Fixed Monthly Meter Charges:** Potable and recycled water customers are subject to a fixed monthly meter charge per metered water connection. Single family residential customers are all subject to the same charge regardless of meter size. All other customers are subject to charges that increase with meter size.
2. **Fixed Monthly Infrastructure Charges:** Potable water customers are subject to a fixed monthly infrastructure charge per metered water connection that is the same regardless of meter size. The charges are designed to recover debt service associated with the District's two outstanding loans, which were used to finance potable water system CIP projects.
3. **Volumetric Rates:** Potable and recycled water use are subject to volumetric rates per hundred cubic feet (CCF) of water delivered each billing period.⁸
4. **Fixed Monthly Private Fire Charges:** Potable water customers with a separate dedicated private fire protection connection (such as a fire-suppression sprinkler system) are also subject to a fixed monthly private charge based on the size of the lateral connection.

⁸ Pursuant to California Government Code 53756, the District may add additional "pass-through adjustments" to the adopted volumetric rates if groundwater replenishment assessments set by the Water Replenishment District of Southern California (WRD) or recycled water wholesale water rates set by Central Basin Municipal Water District (CBMWD) exceed projected amounts per the currently adopted rate study. This allows the District to directly pass through to its customers any unanticipated increases in direct water supply costs paid to outside agencies. Potable pass-through adjustments may be set equal to the difference between the actual WRD groundwater replenishment assessment per CCF and the projected amount per the District's 2020 Water Rate Study Report. Recycled pass-through adjustments may be set equal to the difference between the actual CBMWD wholesale water rate per CCF and the projected amount per the District's 2020 Water Rate Study Report. The District must notify all customers at least 30 days prior to implementation of any pass-through adjustments.

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Table 3-1: Currently Adopted Water Rate Schedule

Currently Adopted Water Rates	FY 2021 (2/14/2021)	FY 2022 (2/14/2022)	FY 2023 (2/14/2023)	FY 2024 (2/14/2024)	FY 2025 (2/14/2025)
Fixed Monthly Meter Charges (All water meters)					
Single Family Residential (all meter sizes)	\$16.21	\$17.19	\$18.23	\$19.33	\$20.49
5/8-inch meter	\$16.21	\$17.19	\$18.23	\$19.33	\$20.49
1-inch meter	\$35.90	\$38.06	\$40.35	\$42.78	\$45.35
1.5-inch meter	\$68.70	\$72.83	\$77.20	\$81.84	\$86.76
2-inch meter	\$108.07	\$114.56	\$121.44	\$128.73	\$136.46
3-inch meter	\$199.94	\$211.94	\$224.66	\$238.14	\$252.43
4-inch meter	\$331.17	\$351.05	\$372.12	\$394.45	\$418.12
6-inch meter	\$659.25	\$698.81	\$740.74	\$785.19	\$832.31
Fixed Monthly Infrastructure Charges (Potable water meters only)					
Potable Water Meters (all meter sizes)	\$6.50	\$6.50	\$6.50	\$6.50	\$6.50
Recycled Water Meters (all meter sizes)	N/A	N/A	N/A	N/A	N/A
Volumetric Rates per CCF					
Potable Water	\$1.88	\$2.00	\$2.12	\$2.25	\$2.39
Recycled Water	\$2.33	\$2.39	\$2.39	\$2.39	\$2.39
Fixed Monthly Private Fire Charges (Dedicated private fire connections only)					
1.5-inch connection	\$13.12	\$13.91	\$14.75	\$15.64	\$16.58
2-inch connection	\$21.00	\$22.26	\$23.60	\$25.02	\$26.53
4-inch connection	\$39.37	\$41.74	\$44.25	\$46.91	\$49.73
6-inch connection	\$65.62	\$69.56	\$73.74	\$78.17	\$82.87
8-inch connection	\$131.23	\$139.11	\$147.46	\$156.31	\$165.69
10-inch connection	\$301.84	\$319.96	\$339.16	\$359.51	\$381.09

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UNITS OF SERVICE

Metered Water Connections

Units of service represent the quantity of billing units subject to rates and charges. The number of metered water connections are the units of service for the District’s monthly fixed charges. Metered water connections were projected over the study period based on current actuals (see Table 3-2). No growth in customer connections is assumed over the study period, as minimal new development is anticipated in the District’s service area over the next five years.

Table 3-2: Number of Metered Water Connections

Metered Water Connections	FY 2024 Actual	FY 2025 Projected	FY 2026 Projected	FY 2027 Projected	FY 2028 Projected
Potable Water (excl. Private Fire Protection)					
Single Family Residential (all meter sizes)	4,565	4,565	4,565	4,565	4,565
5/8-inch meter	309	309	309	309	309
1-inch meter	172	172	172	172	172
1.5-inch meter	88	88	88	88	88
2-inch meter	145	145	145	145	145
3-inch meter	16	16	16	16	16
4-inch meter	18	18	18	18	18
6-inch meter	2	2	2	2	2
Subtotal	5,315	5,315	5,315	5,315	5,315
Recycled Water					
Single Family Residential (all meter sizes)	0	0	0	0	0
5/8-inch meter	0	0	0	0	0
1-inch meter	2	2	2	2	2
1.5-inch meter	0	0	0	0	0
2-inch meter	2	2	2	2	2
3-inch meter	1	1	1	1	1
4-inch meter	1	1	1	1	1
6-inch meter	0	0	0	0	0
Subtotal	6	6	6	6	6
Private Fire Protection					
1.5-inch connection	0	0	0	0	0
2-inch connection	1	1	1	1	1
4-inch connection	26	26	26	26	26
6-inch connection	23	23	23	23	23
8-inch connection	16	16	16	16	16
10-inch connection	5	5	5	5	5
Subtotal	71	71	71	71	71
Total	5,392	5,392	5,392	5,392	5,392

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Water Use

Annual potable and recycled water use in CCF are the units of service for the District’s volumetric rates. Water use was projected over the study period based on prior year actuals (see Table 3-3). Actual water use in FY 2023 declined significantly relative to the four prior fiscal years. For the purposes of a rate study, it is critical to conservatively project future water use to reduce the risk of overestimating revenues from volumetric rates. Therefore, it was determined to be most appropriate to hold five-year projected annual water demand constant at FY 2023 actual levels.⁹

Table 3-3: Water Use

Water Use	FY 2019 Actual	FY 2020 Actual	FY 2021 Actual	FY 2022 Actual	FY 2023 Actual	FY 2024 Projected	FY 2025 Projected	FY 2026 Projected	FY 2027 Projected	FY 2028 Projected
Potable Water Use (CCF)										
Single Family Residential	660,980	659,397	715,602	662,133	581,433	581,433	581,433	581,433	581,433	581,433
Multi-Family Residential	182,782	179,185	186,561	176,924	156,165	156,165	156,165	156,165	156,165	156,165
Commercial	188,657	173,834	191,462	204,301	209,780	209,780	209,780	209,780	209,780	209,780
Industrial	185	300	413	901	404	404	404	404	404	404
Institutional & Governmental	125,497	109,357	123,921	119,465	95,137	95,137	95,137	95,137	95,137	95,137
Temporary Construction	390	1,707	2,915	1,577	485	0	0	0	0	0
Subtotal	1,158,491	1,123,780	1,220,874	1,165,301	1,043,404	1,042,919	1,042,919	1,042,919	1,042,919	1,042,919
Recycled Water Use (CCF)										
Recycled Water Customers	28,086	28,596	28,484	29,088	20,468	20,468	20,468	20,468	20,468	20,468
Subtotal	28,086	28,596	28,484	29,088	20,468	20,468	20,468	20,468	20,468	20,468
Total (CCF)	1,186,577	1,152,376	1,249,358	1,194,389	1,063,872	1,063,387	1,063,387	1,063,387	1,063,387	1,063,387
Total (Acre-feet)	2,724	2,645	2,868	2,742	2,442	2,441	2,441	2,441	2,441	2,441

⁹ With the exception of water use for temporary construction, which is excluded from five-year projected water use due to the unreliable nature of temporary construction water demand.

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REVENUE FROM CURRENT RATES

Annual revenues from current rates (effective Feb. 14, 2023) were projected over the study period (see Table 3-4).¹⁰ Fixed charge revenues were calculated by multiplying the current monthly charges (from Table 3-1) by the respective number of connections each year (from Table 3-2), and then multiplying by 12 months (to annualize the revenue). Volumetric rate revenues were calculated by multiplying current volumetric rates (from Table 3-1) by the respective water use (from Table 3-3).

Table 3-4: Revenue from Current Rates

Revenue from Current Rates	FY 2024 Projected	FY 2025 Projected	FY 2026 Projected	FY 2027 Projected	FY 2028 Projected
Fixed Monthly Meter Charges					
Single Family Residential (all meter sizes)	\$998,639	\$998,639	\$998,639	\$998,639	\$998,639
5/8-inch meter	\$67,597	\$67,597	\$67,597	\$67,597	\$67,597
1-inch meter	\$84,251	\$84,251	\$84,251	\$84,251	\$84,251
1.5-inch meter	\$81,523	\$81,523	\$81,523	\$81,523	\$81,523
2-inch meter	\$214,220	\$214,220	\$214,220	\$214,220	\$214,220
3-inch meter	\$45,831	\$45,831	\$45,831	\$45,831	\$45,831
4-inch meter	\$84,843	\$84,843	\$84,843	\$84,843	\$84,843
6-inch meter	\$17,778	\$17,778	\$17,778	\$17,778	\$17,778
Subtotal	\$1,594,682	\$1,594,682	\$1,594,682	\$1,594,682	\$1,594,682
Fixed Monthly Infrastructure Charges					
Potable Water Meters (all meter sizes)	\$414,570	\$414,570	\$414,570	\$414,570	\$414,570
Recycled Water Meters (all meter sizes)	N/A	N/A	N/A	N/A	N/A
Subtotal	\$414,570	\$414,570	\$414,570	\$414,570	\$414,570
Volumetric Rates					
Potable Water	\$2,210,988	\$2,210,988	\$2,210,988	\$2,210,988	\$2,210,988
Recycled Water	\$48,919	\$48,919	\$48,919	\$48,919	\$48,919
Subtotal	\$2,259,907	\$2,259,907	\$2,259,907	\$2,259,907	\$2,259,907
Fixed Monthly Private Fire Charges					
1.5-inch connection	\$0	\$0	\$0	\$0	\$0
2-inch connection	\$283	\$283	\$283	\$283	\$283
4-inch connection	\$13,806	\$13,806	\$13,806	\$13,806	\$13,806
6-inch connection	\$20,352	\$20,352	\$20,352	\$20,352	\$20,352
8-inch connection	\$28,312	\$28,312	\$28,312	\$28,312	\$28,312
10-inch connection	\$20,350	\$20,350	\$20,350	\$20,350	\$20,350
Subtotal	\$83,103	\$83,103	\$83,103	\$83,103	\$83,103
Total	\$4,352,262	\$4,352,262	\$4,352,262	\$4,352,262	\$4,352,262

¹⁰ Additional revenues resulting from the final two years of currently adopted rate increases in FY 2024 and FY 2025 are excluded from Table 3-4, but are accounted for separately in Table 3-13.

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MISCELLANEOUS NON-RATE REVENUES

The District also collects revenue from miscellaneous non-rate sources, which were projected over the study period (see Table 3-5). These projected revenues were held constant at FY 2024 budgeted amounts over the study period, with the following exceptions:

- Interest and investment income was projected beginning in FY 2025 based on projected cash reserve levels and an assumed 2% annual interest rate.
- House rental income was projected beginning in FY 2025 by escalating the FY 2024 budgeted amount by 5% annually (based on financial projections provided by District staff).

Table 3-5: Miscellaneous Non-Rate Revenue

Miscellaneous Non-Rate Revenues	FY 2024 Budget	FY 2025 Projected	FY 2026 Projected	FY 2027 Projected	FY 2028 Projected
Water Other-Hydrant Surcharge/Setup	\$600	\$600	\$600	\$600	\$600
Application Charges	\$5,600	\$5,600	\$5,600	\$5,600	\$5,600
Reconnection Charges	\$7,400	\$7,400	\$7,400	\$7,400	\$7,400
NSF Check Charges	\$800	\$800	\$800	\$800	\$800
Late Fee Charges	\$63,900	\$63,900	\$63,900	\$63,900	\$63,900
Credit & Collections	\$2,800	\$2,800	\$2,800	\$2,800	\$2,800
Testing-Mtr/Flow/Sample Charges	\$1,600	\$1,600	\$1,600	\$1,600	\$1,600
Backflow Program	\$33,300	\$33,300	\$33,300	\$33,300	\$33,300
Water Rights Income	\$21,600	\$21,600	\$21,600	\$21,600	\$21,600
Interest & Investment Income	\$31,600	\$45,703	\$69,849	\$93,349	\$114,427
House Rental Income	\$22,400	\$23,520	\$24,696	\$25,931	\$27,227
Total	\$191,600	\$206,823	\$232,145	\$256,880	\$279,255

3.3 OPERATIONS & MAINTENANCE EXPENSES

INFLATIONARY ASSUMPTIONS

Annual inflationary assumptions were developed to project O&M expenses over the study period (see Table 3-6). The inflationary assumptions shown are based both on District-specific historical cost increases as well as inflationary trends across the broader economy. No inflationary assumptions are shown for FY 2024, which is the base year from which all inflationary adjustments were applied.

Table 3-6: O&M Expense Annual Inflationary Assumptions

Inflationary Category	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
General	N/A	4.0%	4.0%	4.0%	4.0%
Salaries	N/A	5.0%	5.0%	5.0%	5.0%
Benefits	N/A	8.0%	8.0%	8.0%	8.0%
Energy	N/A	10.0%	10.0%	10.0%	10.0%
Chemicals	N/A	5.0%	5.0%	5.0%	5.0%
Direct Water Supply	N/A	5.5%	5.5%	5.5%	5.5%
Static	N/A	0.0%	0.0%	0.0%	0.0%

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DIRECT WATER SUPPLY COSTS

Direct water supply costs include variable costs the District must pay to outside agencies per acre-foot (AF) of water supply procured (see Table 3-7). For potable water, this includes groundwater assessments paid to the Water Replenishment District of Southern California (WRD) per AF of groundwater produced by the District. For recycled water, this includes the cost per AF of wholesale recycled water purchased from Central Basin Municipal Water District (CBMWD). Direct water supply costs are a function of total customer demand (plus any assumed water loss) and unit costs per AF.

Table 3-7: Direct Water Supply Costs

Line	Direct Water Supply Costs	FY 2024 Projected	FY 2025 Projected	FY 2026 Projected	FY 2027 Projected	FY 2028 Projected
1	Groundwater Replenishment Costs					
2	Potable Water Use (AF)	2,394	2,394	2,394	2,394	2,394
3	Potable Water Loss (%) ¹¹	4.19%	4.19%	4.19%	4.19%	4.19%
4	Groundwater Production (AF) ¹²	2,499	2,499	2,499	2,499	2,499
5	WRD Groundwater Assessment (\$/AF) ¹³	\$446.00	\$470.53	\$496.41	\$523.71	\$552.52
6	Projected Costs¹⁴	\$1,114,521	\$1,175,820	\$1,240,490	\$1,308,717	\$1,380,696
7						
8	Recycled Water Wholesale Costs					
9	Recycled Water Use (AF)	47	47	47	47	47
10	CBMWD Wholesale Rate (\$/AF) ¹⁵	\$790.00	\$833.45	\$879.29	\$927.65	\$978.67
11	Projected Costs¹⁶	\$37,121	\$39,162	\$41,316	\$43,589	\$45,986

O&M EXPENSE SUMMARY

O&M expenses were projected annually over the study period (see Table 3-8 for a summary and Appendix A for detailed projections on a line item basis). Direct water supply cost projections were described in the preceding subsection. Most other O&M expenses were projected over the study period by applying annual inflationary adjustments (from Table 3-6) to FY 2024 budgeted O&M expenses, with the following exceptions:

- Additional treatment costs were added beginning in FY 2025 based on District staff estimates of new anticipated costs pertaining to PFAS¹⁷ treatment.

¹¹ District water loss in 2020 per the District’s 2020 Urban Water Management Plan

¹² Line 4 = Line 2 ÷ (1 – Line 3)

¹³ Groundwater assessments include WRD Replenishment Assessments and PFAS Assessment Fees per AF, and were projected beyond FY 2024 by escalating current unit costs based on the “Direct Water Supply” inflationary assumptions (from Table 3-6).

¹⁴ Line 6 = Line 4 × Line 5

¹⁵ Wholesale rates per AF were projected beyond FY 2024 by escalating current unit costs based on the “Direct Water Supply” inflationary assumptions (from Table 3-6).

¹⁶ Line 11 = Line 9 × Line 10

¹⁷ “PFAS” stands for per-and polyfluoroalkyl substances.

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- Election costs, annual loan fee expenses, and certain benefit expenses were based on annual financial projections provided by District staff.

Table 3-8: Summary of O&M Expenses

O&M Expense Summary	FY 2024 Budget/ Projected	FY 2025 Projected	FY 2026 Projected	FY 2027 Projected	FY 2028 Projected
Source of Supply: Groundwater Replenishment Costs	\$1,114,521	\$1,175,820	\$1,240,490	\$1,308,717	\$1,380,696
Source of Supply: Recycled Water Wholesale Costs	\$37,121	\$39,162	\$41,316	\$43,589	\$45,986
Source of Supply: Other	\$70,000	\$73,500	\$77,175	\$81,034	\$85,085
Pumping	\$583,300	\$625,634	\$671,442	\$721,034	\$774,751
Water Treatment	\$135,800	\$259,518	\$270,687	\$282,341	\$294,504
Transmission & Distribution	\$196,700	\$205,518	\$214,736	\$224,373	\$234,448
Customer Accounts	\$248,700	\$260,336	\$272,522	\$285,284	\$298,649
General & Administrative	\$1,597,600	\$1,781,861	\$1,800,600	\$1,944,101	\$1,967,868
Non-Operating Expenses (excl. Debt Service)	\$21,700	\$21,304	\$20,912	\$20,425	\$20,042
Total	\$4,005,442	\$4,442,653	\$4,609,879	\$4,910,896	\$5,102,028
<i>% Change¹⁸</i>		10.9%	3.8%	6.5%	3.9%

3.4 DEBT SERVICE

The District's only outstanding debt consists of two California Infrastructure and Economic Development Bank (IBank) loans that are scheduled to be retired in FY 2047. Annual debt service over the study period associated with the two IBank loans was incorporated into the financial plan (see Table 3-9). It is assumed that the District will not issue any new debt over the study period.

Table 3-9: Existing Debt Service

Existing Debt Service	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
IBank Loan #1 (\$5.25 million)					
Principal	\$120,526	\$125,154	\$129,960	\$134,951	\$140,133
Interest	\$174,897	\$170,180	\$165,282	\$160,196	\$154,914
Subtotal	\$295,424	\$295,335	\$295,242	\$295,147	\$295,047
IBank Loan #2 (\$2 million)					
Principal	\$49,396	\$51,001	\$52,659	\$54,370	\$56,138
Interest	\$56,229	\$54,597	\$52,913	\$51,174	\$49,378
Subtotal	\$105,625	\$105,599	\$105,572	\$105,544	\$105,515
Total	\$401,048	\$400,933	\$400,814	\$400,691	\$400,562

¹⁸ Election costs only recur every other year, leading to uneven annual percent increases in total O&M expenses.

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3.5 CAPITAL IMPROVEMENT PLAN

CIP project costs over the study period were provided by District staff (see Table 3-10). All CIP project costs include 3% annual inflationary adjustments¹⁹ beginning in FY 2025 and are assumed to be entirely cash funded (i.e., no new debt financing). The CIP project costs are based on:

- CIP project costs for FY 2024 per the District’s adopted FY 2024 budget
- CIP project cost estimates for FY 2025-FY 2028 per the District’s 2021 Water Master Plan
- Additional PFAS-related CIP project cost estimates provided by District staff (see Lines 18-19)

Table 3-10: CIP Project Costs

Line	CIP Projects	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
1	Water Master Plan	\$85,900				
2	Office & Board Room AC Upgrade	\$25,000				
3	Tyler Document Management Program & Scanners	\$17,000				
4	Utility Truck	\$40,000				
5	New Service Truck				\$131,127	
6	New Field Truck			\$53,045		
7	Main Line Replacement	\$50,000				
8	Hydrant Replacement	\$12,500				
9	Service Line Replacement	\$12,500				
10	Meter Replacement	\$90,000	\$329,600	\$339,488	\$349,673	\$360,163
11	Valve Replacement	\$15,000				
12	Inter Connection #1 - City of Pico				\$819,545	
13	SCADA - Upgrade					\$562,754
14	Rehab Well #4A - Transmission Main to Well #2 Site for PFAS Treatment				\$546,364	\$1,125,509
15	Well #5A Waste Water Discharge Line	\$200,000				
16	Well #5A - Refurbishment			\$106,090		
17	Well #8 - Refurbishment					\$112,551
18	PFAS Vessel Media Replacement		\$618,000	\$636,540	\$655,636	\$675,305
19	Other PFAS-related Capital Projects	\$250,000				
20	Total	\$797,900	\$947,600	\$1,135,163	\$2,502,345	\$2,836,282

¹⁹ Based on long-term average annual increases in the Engineering News-Record Construction Cost Index for Los Angeles.

3.6 FINANCIAL POLICIES

DEBT COVERAGE REQUIREMENTS

Per the terms of the existing IBank loan agreements, the District is required to maintain a debt coverage ratio of at least 1.20. Debt coverage refers to the ratio of annual net revenues²⁰ to annual debt service. It reflects the ability of the borrower to meet its debt obligations.

RESERVE TARGETS

Water utilities need to maintain sufficient cash reserves to cover expenses and mitigate financial risks. Agencies typically adopt a formal reserve policy defining appropriate reserve levels. The District’s current reserve policy defines minimum and maximum reserve target levels based on fixed dollar amounts for four categories (see Table 3-13). It is recommended that the District update its reserve policy so that reserve targets levels are based on dynamic criteria. The proposed changes are more closely aligned with industry standards and would improve the District’s financial stability and risk management. The proposed reserve policy defines minimum and maximum reserve target levels for the following four categories:

- **Operating Reserve:** To maintain cash on hand to meet short-term cash flow imbalances
- **Capital Improvement Reserve:** To maintain cash on hand to execute CIP projects
- **Rate Stabilization Reserve:** To mitigate the risk of volumetric rate revenue shortfalls during periods of reduced water sales
- **Emergency Reserve:** To mitigate the risk of natural disaster, unexpected asset failure, etc.

Table 3-11: Current and Proposed Reserve Targets

Reserve Targets	Minimum Reserve Level	Maximum Reserve Level
Current Reserve Targets		
1. Operating Reserve	\$200,000	\$750,000
2. Capital Improvement Reserve	\$200,000	\$2,000,000
3. Rate Stabilization Reserve	\$80,000	\$400,000
4. Administrative Facilities Reserve	\$50,000	\$200,000
Total Reserve Target	\$530,000	\$3,350,000
Proposed Reserve Targets		
1. Operating Reserve	35% of annual operating expenses	35% of annual operating expenses
2. Capital Improvement Reserve	80% of annual average 5-year CIP	80% of annual average 5-year CIP
3. Rate Stabilization Reserve	N/A	20% of volumetric rate revenue
4. Emergency Reserve	N/A	\$2,000,000
Total Reserve Target (Projected FY 2024)	\$2,709,396	\$5,185,664

²⁰ Net revenues are equal to total revenues less O&M expenses.

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Minimum and maximum reserve target levels under the proposed reserve policy were projected annually over the study period (see Table 3-12). All reserve targets shown in subsequent report sections are based on the proposed reserve policy.

Table 3-12: Projected Five-Year Proposed Reserve Targets

Proposed Reserve Targets	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Minimum Reserve Targets					
1. Operating Reserve	\$1,394,310	\$1,547,472	\$1,606,138	\$1,711,665	\$1,778,695
2. Capital Improvement Reserve	\$1,315,086	\$1,315,086	\$1,315,086	\$1,315,086	\$1,315,086
3. Rate Stabilization Reserve	N/A	N/A	N/A	N/A	N/A
4. Emergency Reserve	N/A	N/A	N/A	N/A	N/A
Total	\$2,709,396	\$2,862,559	\$2,921,225	\$3,026,751	\$3,093,782
Maximum Reserve Targets					
1. Operating Reserve	\$1,394,310	\$1,547,472	\$1,606,138	\$1,711,665	\$1,778,695
2. Capital Improvement Reserve	\$1,315,086	\$1,315,086	\$1,315,086	\$1,315,086	\$1,315,086
3. Rate Stabilization Reserve	\$476,268	\$633,366	\$732,401	\$820,289	\$918,724
4. Emergency Reserve	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000
Total	\$5,185,664	\$5,495,924	\$5,653,626	\$5,847,040	\$6,012,505

3.7 STATUS QUO FINANCIAL PLAN

STATUS QUO REVENUE ADJUSTMENTS

Projected revenues over the study period (from Table 3-4) were calculated based on current rates in effect since February 14, 2023. However, the currently adopted rate schedule includes two additional years of 6% rate increases through FY 2025. The additional rate revenue (referred to as “revenue adjustments”) resulting from the final two years of adopted rate increases were projected for the purposes of the status quo financial plan (see Table 3-13).

Table 3-13: Status Quo Revenue Adjustments

Description	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Adopted Revenue Adjustments					
Revenue Adjustment %	6%	6%	N/A	N/A	N/A
Effective Date	Feb. 14, 2024	Feb. 14, 2025	N/A	N/A	N/A
Months Effective in Fiscal Year	4.5	4.5	N/A	N/A	N/A
Additional Rate Revenue					
FY 2024 Revenue Adjustment	\$97,926	\$261,136	\$261,136	\$261,136	\$261,136
FY 2025 Revenue Adjustment		\$103,801	\$276,804	\$276,804	\$276,804
FY 2026 Revenue Adjustment			N/A	N/A	N/A
FY 2027 Revenue Adjustment				N/A	N/A
FY 2028 Revenue Adjustment					N/A
Total	\$97,926	\$364,937	\$537,940	\$537,940	\$537,940

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STATUS QUO FINANCIAL PLAN PROFORMA

Status quo financial plan projections were developed to evaluate whether the currently adopted rate schedule will generate sufficient revenue over the study period to meet the District’s financial needs (see Table 3-14). The proforma shown below combines revenues and expenses from preceding subsections to project cash flow, reserve balances, and debt coverage on an annual basis. Projected reserve ending balances and debt coverage are compared to the District’s financial policy requirements/ targets.

Table 3-14: Status Quo Financial Plan Proforma

Line	Financial Plan Proforma	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
1	Revenues					
2	Revenue from Current Rates	\$4,352,262	\$4,352,262	\$4,352,262	\$4,352,262	\$4,352,262
3	Revenue Adjustments	\$97,926	\$364,937	\$537,940	\$537,940	\$537,940
4	Miscellaneous Non-Rate Revenues ²¹	\$191,600	\$181,168	\$162,682	\$125,389	\$65,482
5	Total Revenues	\$4,641,788	\$4,898,367	\$5,052,884	\$5,015,591	\$4,955,684
6						
7	Expenses					
8	O&M Expenses	\$4,005,442	\$4,442,653	\$4,609,879	\$4,910,896	\$5,102,028
9	Debt Service	\$401,048	\$400,933	\$400,814	\$400,691	\$400,562
10	CIP Projects	\$797,900	\$947,600	\$1,135,163	\$2,502,345	\$2,836,282
11	Total Expenses	\$5,204,390	\$5,791,186	\$6,145,856	\$7,813,932	\$8,338,873
12						
13	Cash Balance					
14	Beginning Cash Balance	\$2,021,412	\$1,458,810	\$565,991	(\$526,981)	(\$3,325,322)
15	Net Cash Flow ²²	(\$562,602)	(\$892,819)	(\$1,092,972)	(\$2,798,341)	(\$3,383,188)
16	Ending Cash Balance	\$1,458,810	\$565,991	(\$526,981)	(\$3,325,322)	(\$6,708,510)
17						
18	Reserve Targets					
19	<i>Minimum Reserve Target</i>	\$2,709,396	\$2,862,559	\$2,921,225	\$3,026,751	\$3,093,782
20	<i>Maximum Reserve Target</i> ²³	\$5,171,469	\$5,352,356	\$5,428,985	\$5,534,512	\$5,601,542
21	<i>Minimum Reserve Target Met?</i>	No	No	No	No	No
22						
23	Debt Coverage Requirements					
24	Projected Debt Coverage Ratio ²⁴	1.59	1.14	1.11	0.26	-0.37
25	<i>Required Debt Coverage Ratio</i>	1.20	1.20	1.20	1.20	1.20
26	<i>Debt Coverage Requirement Met?</i>	Yes	No	No	No	No

²¹ Miscellaneous non-rate revenues under the status quo financial plan are lower than what is shown in Table 3-5 due to the negative impact of lower cash reserve levels on interest earnings. Table 3-5 reflects projected values under the proposed financial plan.

²² Line 15 = Line 5 – Line 11

²³ The maximum reserve target level under the status quo financial plan is lower than what is shown in Table 3-12 Table 3-5 due to lower Volumetric Rate revenues. Table 3-12 reflects projected values under the proposed financial plan.

²⁴ Line 24 = (Line 5 – Line 8) ÷ Line 9

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STATUS QUO FINANCIAL PLAN SUMMARY

The status quo financial plan is summarized in graphical format below (see Figure 3-1 through Figure 3-3). Under the status quo financial plan, cash reserves are projected to be fully depleted by FY 2026 and debt coverage is projected to fall below the required ratio beginning in FY 2025.

Figure 3-1: Status Quo Financial Plan Cash Flow Summary

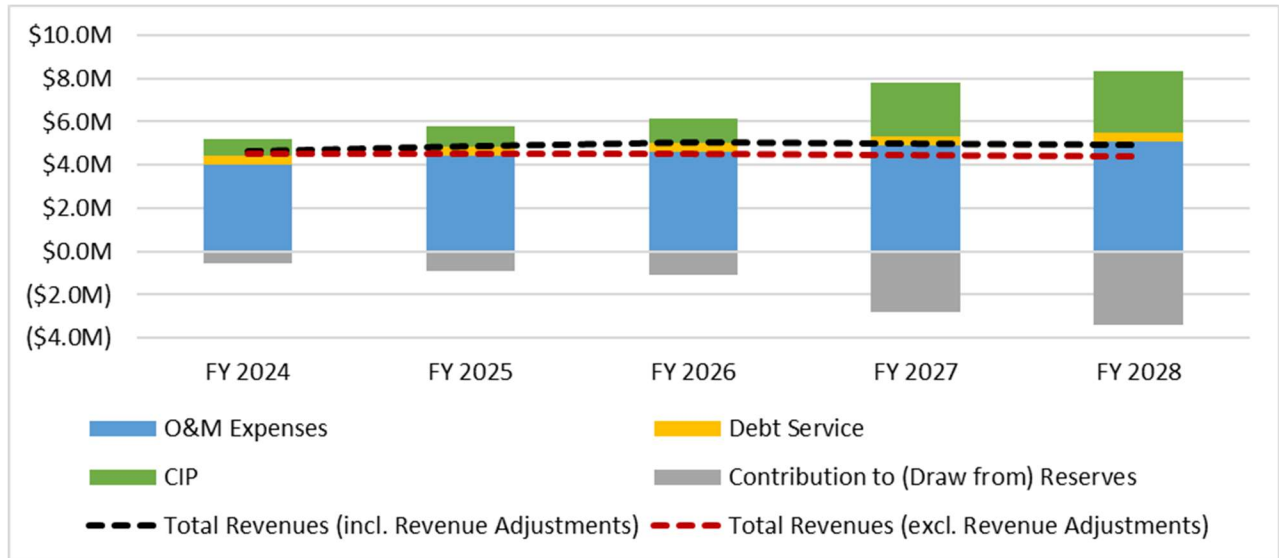


Figure 3-2: Status Quo Financial Plan Cash Balance Summary

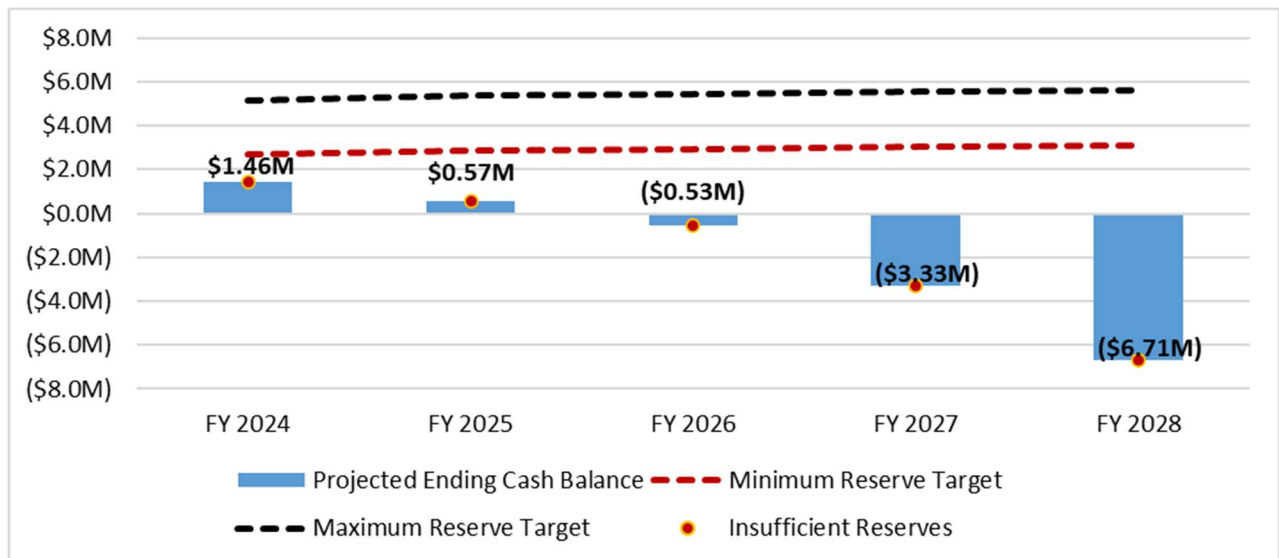
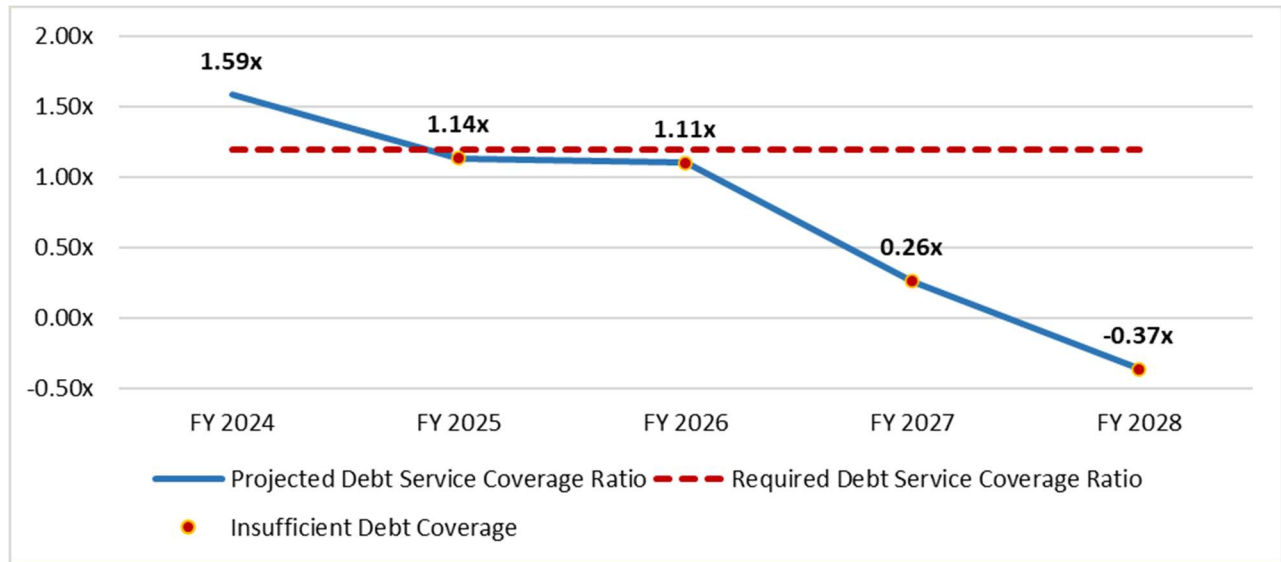


Figure 3-3: Status Quo Financial Plan Debt Coverage Summary



3.8 PROPOSED FINANCIAL PLAN

PROPOSED REVENUE ADJUSTMENTS

The status quo financial plan clearly shows that the currently adopted rate schedule is insufficient to meet the District’s financial needs not only over the full five-year study period, but also within the next two fiscal years. This demonstrates the need to implement a new rate schedule sooner than originally planned, as the currently adopted 6% revenue adjustments in FY 2024 and FY 2025 are clearly insufficient.

Various proposed revenue adjustment scenarios over the study period were considered and refined based on input from District staff and the District’s Board of Directors. During a special Board meeting in November 2016, the Board of Directors instructed WRE and District staff to proceed with the proposed revenue adjustments shown below (see Table 3-15). The proposed revenue adjustments include significant annual increases of 35% in year 1, 20% in year 2, and 12% in years 3-5. The key reasons behind the need for such substantial rate increases include:

- **Insufficient revenue generation:** The currently adopted rate schedule has generated insufficient revenues over the past three years to fund infrastructure replacements, meet financial obligations, adjust to current operational demands, and cover new PFAS treatment costs. This has been exacerbated by cost inflation and declining water sales due to conservation and has resulted in the depletion of cash reserves. If immediate action is not taken, the District may face potential consolidation with another water utility, which would inevitably result in significant customer bill increases. Average residential bills in the City of Pico Rivera’s water service area are currently nearly 50% higher than in the District’s service

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area. Average residential bills in the District’s service under the proposed rate schedule will remain lower than in City’s service area.²⁵

- **Substantial capital needs:** Projected CIP project costs are significant, amounting to \$8.2 million in total over the next five years. All five-year CIP is assumed to be cash funded (i.e., no new debt financing). These important projects include improvements to aging infrastructure, installation/ maintenance of PFAS treatment infrastructure, and other critical CIP projects. The projected CIP project costs over the next five years align with the District’s 2021 Water Master Plan update. Adjusting rates to sufficiently fund planned CIP projects is needed to maintain the District’s water system infrastructure and guarantee safe and reliable water service to customers.
- **Operations & Maintenance cost increases:** O&M expenses are projected to increase by more than 6% annually on average over the next five years due to inflationary pressures and new PFAS-related expenses. The prior rate study assumed 4.5% annual average increases in O&M expenses. Inflationary increases to materials, chemicals, energy, and other services related to operation and maintenance of the District’s water system are expected to be significant. Additionally, PFAS treatment requirements are expected to result in approximately \$125,000 in new annual O&M expenses, which is in addition to \$650,000 in annual capitalized expenses associated with PFAS treatment.

Table 3-15: Proposed Quo Revenue Adjustments

Description	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Proposed Revenue Adjustments					
Revenue Adjustment %	35%	20%	12%	12%	12%
Effective Date	Mar. 1, 2024	Jan. 1, 2025	Jan. 1, 2026	Jan. 1, 2027	Jan. 1, 2028
Months Effective in Fiscal Year	4.0	6.0	6.0	6.0	6.0
Additional Rate Revenue					
FY 2024 Revenue Adjustment	\$507,764	\$1,523,292	\$1,523,292	\$1,523,292	\$1,523,292
FY 2025 Revenue Adjustment		\$587,555	\$1,175,111	\$1,175,111	\$1,175,111
FY 2026 Revenue Adjustment			\$423,040	\$846,080	\$846,080
FY 2027 Revenue Adjustment				\$473,805	\$947,609
FY 2028 Revenue Adjustment					\$530,661
Total	\$507,764	\$2,110,847	\$3,121,443	\$4,018,287	\$5,022,753

²⁵ Based on the City of Pico Rivera’s currently adopted water rate schedule through FY 2026.

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PROPOSED FINANCIAL PLAN PROFORMA

Proposed financial plan projections were developed to evaluate the sufficiency of the proposed revenue adjustments over the study period (see Table 3-16). The proposed financial plan proforma shown below is similar to the status quo financial plan proforma from Table 3-14. The primary difference is that revenue adjustments under the proposed financial plan are substantially higher.

Table 3-16: Proposed Financial Plan Proforma

Line	Financial Plan Proforma	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
1	Revenues					
2	Revenue from Current Rates	\$4,352,262	\$4,352,262	\$4,352,262	\$4,352,262	\$4,352,262
3	Revenue Adjustments	\$507,764	\$2,110,847	\$3,121,443	\$4,018,287	\$5,022,753
4	Miscellaneous Non-Rate Revenues	\$191,600	\$206,823	\$232,145	\$256,880	\$279,255
5	Total Revenues	\$5,051,626	\$6,669,933	\$7,705,850	\$8,627,429	\$9,654,270
6						
7	Expenses					
8	O&M Expenses	\$4,005,442	\$4,442,653	\$4,609,879	\$4,910,896	\$5,102,028
9	Debt Service	\$401,048	\$400,933	\$400,814	\$400,691	\$400,562
10	CIP Projects	\$797,900	\$947,600	\$1,135,163	\$2,502,345	\$2,836,282
11	Total Expenses	\$5,204,390	\$5,791,186	\$6,145,856	\$7,813,932	\$8,338,873
12						
13	Cash Balance					
14	Beginning Cash Balance	\$2,021,412	\$1,868,648	\$2,747,395	\$4,307,389	\$5,120,886
15	Net Cash Flow ²⁶	(\$152,764)	\$878,747	\$1,559,994	\$813,498	\$1,315,397
16	Ending Cash Balance	\$1,868,648	\$2,747,395	\$4,307,389	\$5,120,886	\$6,436,284
17						
18	Reserve Targets					
19	<i>Minimum Reserve Target</i>	\$2,709,396	\$2,862,559	\$2,921,225	\$3,026,751	\$3,093,782
20	<i>Maximum Reserve Target</i>	\$5,185,664	\$5,495,924	\$5,653,626	\$5,847,040	\$6,012,505
21	<i>Minimum Reserve Target Met?</i>	No	No	Yes	Yes	Yes
22						
23	Debt Coverage Requirements					
24	Projected Debt Coverage Ratio ²⁷	2.61	5.56	7.72	9.28	11.36
25	<i>Required Debt Coverage Ratio</i>	1.20	1.20	1.20	1.20	1.20
26	<i>Debt Coverage Requirement Met?</i>	Yes	Yes	Yes	Yes	Yes

²⁶ Line 15 = Line 5 – Line 11

²⁷ Line 24 = (Line 5 – Line 8) ÷ Line 9

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PROPOSED FINANCIAL PLAN SUMMARY

The proposed financial plan is summarized in graphical format below (see Figure 3-4 through Figure 3-6). Under the proposed financial plan, cash reserves are projected to meet the proposed minimum reserve target level beginning in FY 2026 and steadily build up through the study period in preparation for substantial CIP funding needs anticipated beyond FY 2028. Debt coverage is projected to meet the required ratio in all years.

Figure 3-4: Proposed Financial Plan Cash Flow Summary

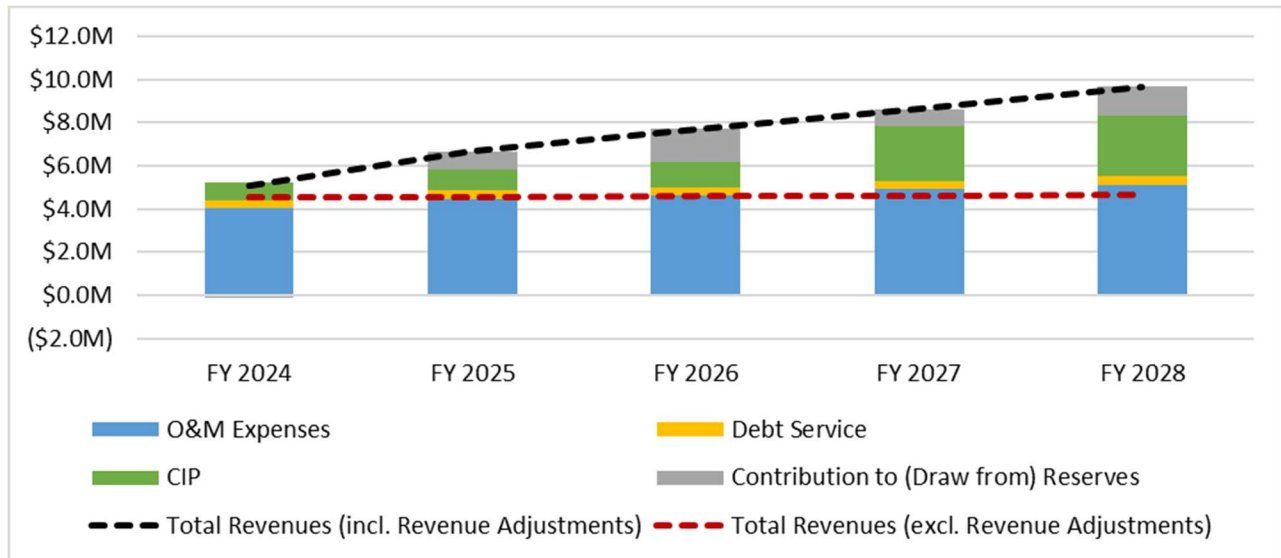
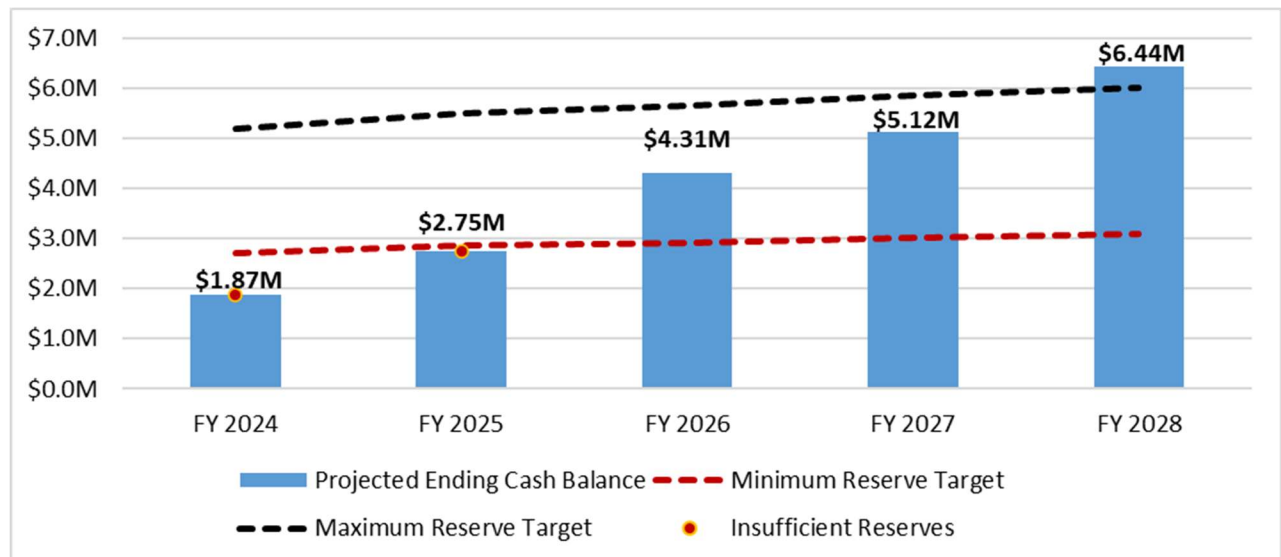
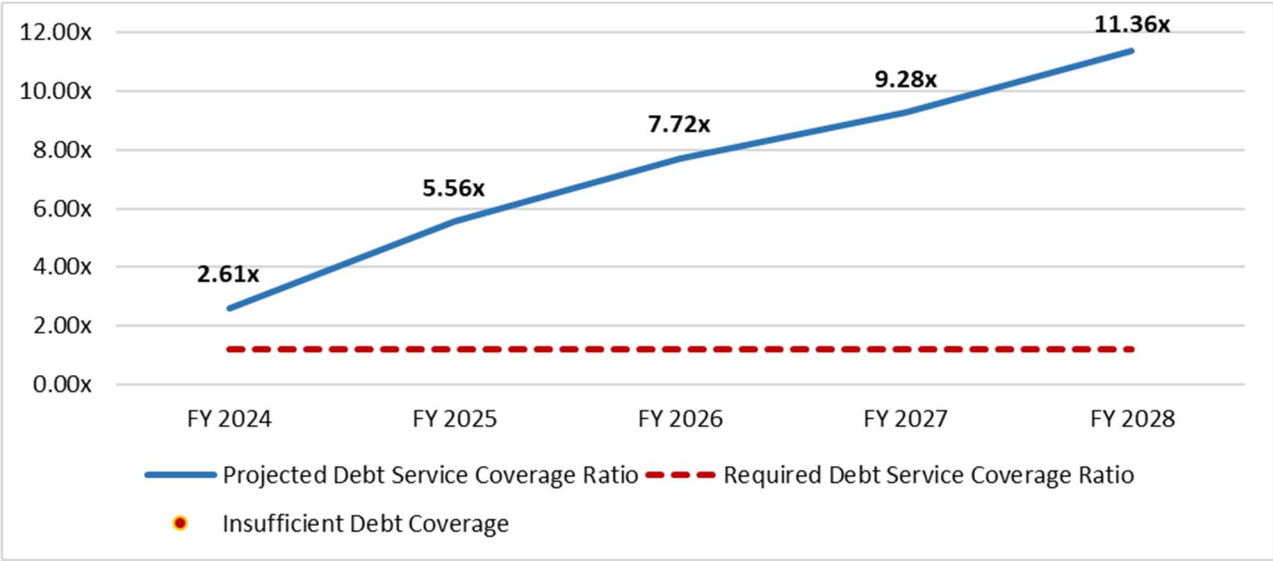


Figure 3-5: Proposed Financial Plan Cash Balance Summary



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Figure 3-6: Proposed Financial Plan Debt Coverage Summary



4. COST-OF-SERVICE ANALYSIS

4.1 COST-OF-SERVICE METHODOLOGY

A cost-of-service analysis was conducted to allocate the proposed FY 2024 rate revenue requirement to customers in proportion to use of and burden on the District's water system. The overall goal of the cost-of-service analysis is to develop "unit costs," which provide the basis from which proposed rates are directly calculated from. Note that although the study period spans five years, the cost-of-service analysis is limited to a single representative year referred to as the "test year." The test year in this study is FY 2024. All values presented in Section 4 pertain to FY 2024 unless stated otherwise. The key steps in conducting a water cost-of-service analysis are outlined below:

- **Revenue requirement determination:** The total rate revenue requirement for the test year is determined based on the results of the proposed financial plan and divided into primary sub-components (operating, capital, etc.).
- **Cost functionalization:** Operating and capital costs are evaluated and assigned to "functional categories" in the water system (e.g., customer service, groundwater wells, distribution, etc.). This provides a proportional breakdown of system costs by functional category.
- **Revenue requirement allocation to cost causation components:** Functionalized costs are allocated to "cost causation components" (e.g., water supply, base delivery, max day delivery, etc.), which is used to attribute customers' use of the system to the District's incursion of costs.
- **Unit cost development:** The rate revenue requirement allocation for each individual cost causation component is divided by the appropriate units of service to establish unit costs for the test year. Unit costs provide the basis from which proposed rates are calculated.

4.2 REVENUE REQUIREMENT DETERMINATION

The total rate revenue requirement for FY 2024 is based on the proposed financial plan projections from Table 3-16 and was allocated to four primary sub-components (see Table 4-1):

- The **Operating revenue requirement** consists solely of projected FY 2024 O&M expenses.
- The **Capital revenue requirement** consists of FY 2024 CIP project costs. It also includes adjustments to account for the projected FY 2024 draw from reserves and to annualize the proposed FY 2024 revenue adjustments.²⁸
- The **Infrastructure Charge revenue requirement** consists solely of FY 2024 debt service, as Infrastructure Charges are designed to specifically recover debt service associated with the District's two outstanding IBank loans.

²⁸ The proposed FY 2024 revenue adjustment is effective for only four months of FY 2024, as it is assumed to be implemented in March 2024. The revenue adjustment annualization reflects the additional revenue that would be generated if the FY 2024 revenue adjustment was effective for all twelve months of FY 2024. This annualization adjustment is necessary in order to calculate rates correctly.

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- **Revenue offsets** consist solely of projected FY 2024 miscellaneous non-rate revenues. These revenues contribute towards meeting the District’s total revenue requirement, and therefore reduce the total revenue required from rates.

Table 4-1: FY 2024 Rate Revenue Requirement Determination

Line	Rate Revenue Requirement	Operating Revenue Requirement	Capital Revenue Requirement	Infrastructure Charge Revenue Requirement	Revenue Offsets	Total Rate Revenue Requirement
1	Revenue Requirements					
2	O&M Expenses	\$4,005,442	\$0	\$0	\$0	\$4,005,442
3	Debt Service	\$0	\$0	\$401,048	\$0	\$401,048
4	CIP	\$0	\$797,900	\$0	\$0	\$797,900
5	Subtotal	\$4,005,442	\$797,900	\$401,048	\$0	\$5,204,390
6						
7	Adjustments					
8	Miscellaneous Non-Rate Revenues	\$0	\$0	\$0	(\$191,600)	(\$191,600)
9	Contribution to (Draw from) Reserves	\$0	(\$152,764)	\$0	\$0	(\$152,764)
10	Revenue Adjustment Annualization	\$0	\$1,015,528	\$0	\$0	\$1,015,528
11	Subtotal	\$0	\$862,764	\$0	(\$191,600)	\$671,164
12						
13	Total	\$4,005,442	\$1,660,664	\$401,048	(\$191,600)	\$5,875,554

4.3 COST FUNCTIONALIZATION

FUNCTIONAL CATEGORY DEFINITIONS

District costs were evaluated and assigned to various functional categories in the water system. The functional categories include the following:

- **Customer Service:** related to customer service and billing activities
- **Meter Maintenance & Replacement:** maintenance and replacement of water meters
- **Public Fire Hydrants:** related to the District’s public fire hydrants
- **Private Fire Protection:** related to dedicated private fire service connections
- **Potable Water Supply:** WRD groundwater assessments and related District staff time
- **Groundwater Wells:** related to the District’s groundwater wells
- **Treatment:** related to treatment of water to potable standards
- **Storage:** related to the District’s storage reservoir
- **Transmission:** related to booster pump infrastructure and the District’s emergency intertie to the City of Pico Rivera’s water system

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- **Distribution:** related to delivery of potable water to customers through the District’s distribution system
- **Conservation:** related to water conservation and efficiency programs and efforts
- **Recycled Water:** related specifically to the recycled water system
- **General & Admin:** related to general and administrative activities that are not directly attributable to any other functional category

O&M EXPENSE FUNCTIONALIZATION

Projected FY 2024 O&M expenses were evaluated and allocated to the most closely associated functional categories (see Table 4-2 below for a summary and Appendix B for detailed allocations on a line item basis).

Table 4-2: FY 2024 O&M Expense Functionalization

Line	Functional Categories	FY 2024 O&M Expenses (\$)	FY 2024 O&M Expenses (%)
1	Customer Service	\$309,438	7.7%
2	Meter Maintenance & Replacement	\$7,500	0.2%
3	Public Fire Hydrants	\$7,500	0.2%
4	Private Fire Protection	\$0	0.0%
5	Potable Water Supply	\$1,246,598	31.1%
6	Groundwater Wells	\$702,282	17.5%
7	Treatment	\$154,793	3.9%
8	Storage	\$108,934	2.7%
9	Transmission	\$0	0.0%
10	Distribution	\$271,917	6.8%
11	Conservation	\$25,000	0.6%
12	Recycled Water	\$41,520	1.0%
13	General & Admin	\$1,129,960	28.2%
14	Total	\$4,005,442	100.0%

CAPITAL ASSET FUNCTIONALIZATION

Current capital assets were evaluated and allocated to the most closely associated functional category (see Table 4-3 below for a summary and Appendix C for detailed allocations for each individual asset listing). It is standard practice in water cost-of-service studies to functionalize existing capital assets rather than planned CIP project costs. This is because the breakdown of planned CIP projects by functional category can fluctuate significantly from year to year. The existing capital asset base provides a much stabler representation of long-term capital costs.

Table 4-3: Current Capital Asset Functionalization

Line	Functional Categories	Current Capital Asset Value (\$)	Current Capital Asset Value ²⁹ (%)
1	Customer Service	\$18,281	0.1%
2	Meter Maintenance & Replacement	\$932,513	4.3%
3	Public Fire Hydrants	\$681,309	3.2%
4	Private Fire Protection	\$45,304	0.2%
5	Potable Water Supply	\$0	0.0%
6	Groundwater Wells	\$5,262,984	24.4%
7	Treatment	\$32,929	0.2%
8	Storage	\$621,061	2.9%
9	Transmission	\$130,061	0.6%
10	Distribution	\$13,503,093	62.6%
11	Conservation	\$0	0.0%
12	Recycled Water	\$0	0.0%
13	General & Admin	\$358,708	1.7%
14	Total	\$21,586,243	100.0%

4.4 REVENUE REQUIREMENT ALLOCATION TO COST CAUSATION COMPONENTS

COST CAUSATION COMPONENTS DEFINITIONS

The total rate revenue requirement was allocated to various cost causation components, most of which directly correspond to a single functional category. The cost causation components include the following:

- **Customer Service:** directly corresponds to the “customer service” functional category
- **Meter Maintenance & Replacement:** directly corresponds to the “meter maintenance and replacement” functional category
- **Meter Capacity:** pertains to system costs that are generally incurred in proportion to the flow capacity of customers’ water meters
- **Private Fire Protection:** directly corresponds to the “private fire protection” functional category
- **Potable Water Supply:** directly corresponds to the “potable water supply” functional category
- **Base Delivery:** pertains to well, treatment, storage, transmission, and distribution costs associated with delivering water to customers during average water demand conditions
- **Max Day Delivery:** pertains to well, treatment, storage, transmission, and distribution costs associated with delivering water to customers during maximum day demand conditions

²⁹ Asset value based on replacement cost less depreciation.

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- **Max Hour Delivery:** pertains to well, treatment, storage, transmission, and distribution costs associated with delivering water to customers during maximum hour demand conditions
- **Conservation:** directly corresponds to the “conservation” functional category
- **Recycled Water:** directly corresponds to the “recycled water” functional category
- **General:** directly corresponds to the “general & administrative” functional category

POTABLE WATER SYSTEM PEAKING

Systemwide peaking factors for the District’s potable water system were used to allocate costs associated with the groundwater wells, treatment, storage, transmission, and distribution functional categories to the base delivery, max day, and max hour cost causation components (see Table 4-4). Peaking factors represent the ratio of maximum to average water demand over the course of one year. This provides a basis from which to identify costs incurred to provide water service during average demand conditions (i.e., base delivery) and costs incurred to provide additional system capacity during peak demand conditions (i.e., max day and max hour).

Table 4-4: Potable Water System Peaking

Line	Potable Water System Peaking	Peaking Factor ³⁰	Base Delivery	Max Day	Max Hour	Total
1	Average Day Demand	1.00	100.00% ³¹	N/A	N/A	100.00%
2	Max Day Demand	1.80	55.52% ³²	44.48% ³³	N/A	100.00%
3	Max Hour Demand	2.70	37.01% ³⁴	29.66% ³⁵	33.33% ³⁶	100.00%

ALLOCATION OF FUNCTIONAL CATEGORIES TO COST CAUSATION COMPONENTS

Each functional category was allocated to the various cost causation components (see Table 4-5). Most functional categories are fully allocated to the directly corresponding cost causation component. The groundwater wells, treatment, storage, and transmission functional categories are allocated to the base delivery and max day cost causation components based on max day demand allocations (from Table 4-4, Line 2). The distribution functional category is allocated to the base delivery, max day, and max hour cost causation components based on max hour demand allocations (from Table 4-4, Line 3). This is because distribution infrastructure is typically sized based on maximum hour demand requirements, while all other infrastructure is typically sized based on maximum day demand requirements.

³⁰ Per the District’s 2021 Water Master Plan.

³¹ = $1.00 \div 1.00$

³² = $1.00 \div 1.80$

³³ = $(1.80 - 1.00) \div 1.80$

³⁴ = $1.00 \div 2.70$

³⁵ = $(1.80 - 1.00) \div 2.70$

³⁶ = $(2.70 - 1.80) \div 2.70$

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Table 4-5: Allocation of Functional Categories to Cost Causation Components

COST CAUSATION COMPONENTS													
Line	Functional Category	Customer Service	Meter Maintenance & Replacement	Meter Capacity	Private Fire Protection	Potable Water Supply	Base Delivery	Max Day Delivery	Max Hour Delivery	Conservation	Recycled Water	General	Total
1	Customer Service	100.00%											100.00%
2	Meter Maintenance & Replacement		100.00%										100.00%
3	Public Fire Hydrants			100.00%									100.00%
4	Private Fire Protection				100.00%								100.00%
5	Potable Water Supply					100.00%							100.00%
6	Groundwater Wells						55.52%	44.48%					100.00%
7	Treatment						55.52%	44.48%					100.00%
8	Storage						55.52%	44.48%					100.00%
9	Transmission						55.52%	44.48%					100.00%
10	Distribution						37.01%	29.66%	33.33%				100.00%
11	Conservation									100.00%			100.00%
12	Recycled Water										100.00%		100.00%
13	General & Admin											100.00%	100.00%

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ALLOCATION OF OPERATING REVENUE REQUIREMENT TO COST CAUSATION COMPONENTS

Functionalized FY 2024 O&M expenses from Table 4-2 were allocated to the various cost causation components based on the allocation percentages from Table 4-5 (see Table 4-6 below). This results in a breakdown of the operating revenue requirement by cost causation component (see Line 14 below).

Table 4-6: Allocation of Operating Revenue Requirement to Cost Causation Components

COST CAUSATION COMPONENTS													
Line	Functional Category	Customer Service	Meter Maintenance & Replacement	Meter Capacity	Private Fire Protection	Potable Water Supply	Base Delivery	Max Day Delivery	Max Hour Delivery	Conservation	Recycled Water	General	Total
1	Customer Service	\$309,438											\$309,438
2	Meter Maintenance & Replacement		\$7,500										\$7,500
3	Public Fire Hydrants			\$7,500									\$7,500
4	Private Fire Protection				\$0								\$0
5	Potable Water Supply					\$1,246,598							\$1,246,598
6	Groundwater Wells						\$389,872	\$312,410	\$0				\$702,282
7	Treatment						\$85,933	\$68,860	\$0				\$154,793
8	Storage						\$60,475	\$48,459	\$0				\$108,934
9	Transmission						\$0	\$0	\$0				\$0
10	Distribution						\$100,647	\$80,650	\$90,621				\$271,917
11	Conservation									\$25,000			\$25,000
12	Recycled Water										\$41,520		\$41,520
13	General & Admin											\$1,129,960	\$1,129,960
14	Total Operating Revenue Requirement	\$309,438	\$7,500	\$7,500	\$0	\$1,246,598	\$636,927	\$510,378	\$90,621	\$25,000	\$41,520	\$1,129,960	\$4,005,442

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ALLOCATION OF CAPITAL REVENUE REQUIREMENT TO COST CAUSATION COMPONENTS

Functionalized capital asset values from Table 4-3 were allocated to the various cost causation components based on the allocation percentages from Table 4-5 (see Table 4-7 below). This results in a breakdown of capital asset value by cost causation component (see Line 14 below). The capital revenue requirement from Table 4-1 (see Line 18 below) was then allocated based on the proportion of capital assets within each cost causation component (see Line 16 below).

Table 4-7: Allocation of Capital Revenue Requirement to Cost Causation Components

COST CAUSATION COMPONENTS													
Line	Functional Category	Customer Service	Meter Maintenance & Replacement	Meter Capacity	Private Fire Protection	Potable Water Supply	Base Delivery	Max Day Delivery	Max Hour Delivery	Conservation	Recycled Water	General	Total
1	Customer Service	\$18,281											\$18,281
2	Meter Maintenance & Replacement		\$932,513										\$932,513
3	Public Fire Hydrants			\$681,309									\$681,309
4	Private Fire Protection				\$45,304								\$45,304
5	Potable Water Supply					\$0							\$0
6	Groundwater Wells						\$2,921,748	\$2,341,236	\$0				\$5,262,984
7	Treatment						\$18,280	\$14,648	\$0				\$32,929
8	Storage						\$344,782	\$276,279	\$0				\$621,061
9	Transmission						\$72,204	\$57,858	\$0				\$130,061
10	Distribution						\$4,998,005	\$4,004,969	\$4,500,119				\$13,503,093
11	Conservation									\$0			\$0
12	Recycled Water										\$0		\$0
13	General & Admin											\$358,708	\$358,708
14	Total Capital Assets (\$)	\$18,281	\$932,513	\$681,309	\$45,304	\$0	\$8,355,019	\$6,694,991	\$4,500,119	\$0	\$0	\$358,708	\$21,586,243
15													
16	<i>Total Capital Assets (%)</i>	<i>0.08%</i>	<i>4.32%</i>	<i>3.16%</i>	<i>0.21%</i>	<i>0.00%</i>	<i>38.71%</i>	<i>31.02%</i>	<i>20.85%</i>	<i>0.00%</i>	<i>0.00%</i>	<i>1.66%</i>	<i>100.00%</i>
17													
18	Total Capital Revenue Requirement	\$1,406	\$71,740	\$52,414	\$3,485	\$0	\$642,765	\$515,056	\$346,201	\$0	\$0	\$27,596	\$1,660,664

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PRELIMINARY COST-OF-SERVICE ALLOCATION

The four sub-components of the total FY 2024 rate revenue requirement (from Table 4-1) were allocated to the cost causation components to establish preliminary cost-of-service allocations (see Table 4-8). The operating and capital revenue requirement allocations shown below were previously established in Table 4-6 and Table 4-7, respectively. The infrastructure charge revenue requirement and revenue offsets were fully allocated to two newly introduced cost causation components that directly correspond to each.

Table 4-8: Preliminary Cost-of-Service Allocation

Line	Cost Causation Component	Operating Revenue Requirement	Capital Revenue Requirement	Infrastructure Charge Revenue Requirement	Revenue Offsets	Total FY 2024 Rate Revenue Requirement
1	Customer Service	\$309,438	\$1,406			\$310,844
2	Meter Maintenance & Replacement	\$7,500	\$71,740			\$79,240
3	Meter Capacity	\$7,500	\$52,414			\$59,914
4	Private Fire Protection	\$0	\$3,485			\$3,485
5	Potable Water Supply	\$1,246,598	\$0			\$1,246,598
6	Base Delivery	\$636,927	\$642,765			\$1,279,692
7	Max Day Delivery	\$510,378	\$515,056			\$1,025,435
8	Max Hour Delivery	\$90,621	\$346,201			\$436,822
9	Conservation	\$25,000	\$0			\$25,000
10	Recycled Water	\$41,520	\$0			\$41,520
11	General	\$1,129,960	\$27,596			\$1,157,556
12	Infrastructure Charge			\$401,048		\$401,048
13	Revenue Offsets				(\$191,600)	(\$191,600)
14	Total	\$4,005,442	\$1,660,664	\$401,048	(\$191,600)	\$5,875,554

GENERAL COST REALLOCATION

General costs are not attributable to specific system functions and were therefore proportionally reallocated to all other cost causation components (see Table 4-9), with the exception of the following cost causation components:

- **Potable water supply**, which is limited to the cost of WRD groundwater assessments and related District staff time.
- **Infrastructure charge**, which is limited to existing debt service.
- **Revenue offsets**, which pertain to miscellaneous non-rate revenues rather than costs.

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Table 4-9: General Cost Reallocation

Line	Cost Causation Component	Preliminary Cost-of-Service Allocation	General Cost Reallocation	Total
1	Customer Service	\$310,844	\$110,308	\$421,152
2	Meter Maintenance & Replacement	\$79,240	\$28,119	\$107,359
3	Meter Capacity	\$59,914	\$21,262	\$81,176
4	Private Fire Protection	\$3,485	\$1,237	\$4,722
5	Potable Water Supply	\$1,246,598	N/A	\$1,246,598
6	Base Delivery	\$1,279,692	\$454,119	\$1,733,812
7	Max Day Delivery	\$1,025,435	\$363,892	\$1,389,327
8	Max Hour Delivery	\$436,822	\$155,013	\$591,835
9	Conservation	\$25,000	\$8,872	\$33,872
10	Recycled Water	\$41,520	\$14,734	\$56,253
11	General	\$1,157,556	(\$1,157,556)	\$0
12	Infrastructure Charge	\$401,048	N/A	\$401,048
13	Revenue Offsets	(\$191,600)	N/A	(\$191,600)
14	Total	\$5,875,554	\$0	\$5,875,554

MAX DAY AND MAX HOUR COST REALLOCATION

Extra Capacity Calculations

The max day and max hour cost causation components include costs incurred to provide additional potable water system capacity during peak water demand conditions. Some of this “extra capacity” is associated with providing capacity to meet fire protection needs, and the rest is associated with providing capacity to meet peak customer water demand unrelated to fire protection. Extra capacity requirements were estimated for each (see Table 4-10).

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Table 4-10: Extra Capacity Calculations

Line	Extra Capacity Calculations	FY 2024
1	Extra Capacity (excl. Fire Protection)	
2	<u>Potable System Peaking Factors</u>	
3	Max Day Peaking Factor	1.80
4	Max Hour Peaking Factor	2.70
5		
6	<u>Annual Potable Water Demand</u>	
7	Potable Water Demand (CCF/Year)	1,042,919
8		
9	<u>Daily Potable Water Demand</u>	
10	Average Day (CCF/Day) ³⁷	2,857.3
11	Max Day (CCF/Day) ³⁸	5,146.9
12	Max Hour (CCF/Day) ³⁹	7,719.6
13		
14	<u>Extra Capacity (excl. Fire Protection)</u>	
15	Max Day Extra Capacity (CCF/Day) ⁴⁰	2,289.6
16	Max Hour Extra Capacity (CCF/Day) ⁴¹	2,572.7
17		
18	Extra Capacity for Fire Protection Only	
19	<u>Fire Protection Water Flow Requirements</u>	
20	Duration of Fire (hours)	2.0
21	Water Use Rate (gallons per minute)	4,000
22		
23	<u>Extra Capacity for Fire Protection Only</u>	
24	Max Day Extra Capacity (CCF/Day) ⁴²	641.7
25	Max Hour Extra Capacity (CCF/Day) ⁴³	7,058.4

Fire Protection Demand

Extra capacity related to fire protection is attributable to both public fire hydrants and private fire protection connections. Potential water demand for fire protection purposes is a function of the diameter of the connection. Therefore, “equivalent fire protection demand units” were calculated for the District’s public fire hydrants and private fire protection connections to determine the potential water demand attributable to each (see Table 4-11).

³⁷ Line 10 = Line 7 ÷ 365 days per year

³⁸ Line 11 = Line 10 × Line 3

³⁹ Line 12 = Line 10 × Line 4

⁴⁰ Line 15 = Line 11 – Line 10

⁴¹ Line 16 = Line 12 – Line 11

⁴² Line 24 = Line 20 × Line 21 × 60 minutes per hour ÷ 748.06 gallons per CCF

⁴³ Line 25 = Line 21 × 60 minutes per hour × 24 hours per day ÷ 748.06 gallons per CCF – Line 24

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Table 4-11: Fire Protection Demand

Line	Fire Protection Connections	Fire Protection Demand ⁴⁴	Fire Protection Demand Ratio	Number of Connections	Equivalent Fire Protection Demand Units ⁴⁵	Equivalent Fire Protection Demand (%)
1	Public Fire Hydrants					
2	4-inch connection	38.32	13.19	146	1,926.0	10.59%
3	6-inch connection	111.31	38.32	339	12,990.2	71.44%
4	Subtotal			485	14,916.2	82.03%
5						
6	Private Fire Connections					
7	1.5-inch connection	2.90	1.00	0	0.0	0.00%
8	2-inch connection	6.19	2.13	1	2.1	0.01%
9	4-inch connection	38.32	13.19	26	343.0	1.89%
10	6-inch connection	111.31	38.32	23	881.3	4.85%
11	8-inch connection	237.21	81.66	16	1,306.6	7.19%
12	10-inch connection	426.58	146.85	5	734.3	4.04%
13	Subtotal			71	3,267.3	17.97%
14						
15	Total			556	18,183.5	100.00%

Summary of Extra Capacity Requirements

Extra capacity requirements were attributed to peak customer water demand excluding fire protection, public fire hydrants, and private fire protection connections (see Table 4-12). Extra capacity requirements associated with fire protection (see Lines 2-3 below) were allocated to public hydrants and private fire protection connections in proportion to equivalent fire protection demand.

Table 4-12: Summary of Extra Capacity Requirements

Line	Summary of Extra Capacity Requirements	Max Day Extra Capacity (CCF/Day)	Max Hour Extra Capacity (CCF/Day)	Max Day Extra Capacity (%)	Max Hour Extra Capacity (%)
1	Extra Capacity excluding Fire Protection ⁴⁶	2,289.6	2,572.7	78.11%	26.71%
2	Extra Capacity for Public Fire Hydrants ⁴⁷	526.4	5,790.1	17.96%	60.12%
3	Extra Capacity for Private Fire Connections ⁴⁸	115.3	1,268.3	3.93%	13.17%
4	Total	2,931.3	9,631.0	100.00%	100.00%

⁴⁴ Connection diameter in inches raised to the 2.63 power, per the Hazen-Williams equation per the *AWWA M1 Manual*.

⁴⁵ Equivalent fire protection demand units = fire protection demand ratio × number of connections

⁴⁶ Extra capacity excluding fire protection per Table 4-10.

⁴⁷ 82.03% of extra capacity for fire protection per Table 4-10 and Table 4-11.

⁴⁸ 17.97% of extra capacity for fire protection per Table 4-10 and Table 4-11.

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Max Day and Max Hour Cost Reallocations

All max day and max hour costs were reallocated to the meter capacity and private fire protection cost causation components (see Table 4-13), as outlined below:

- Max day and max hour costs attributable to non-fire related purposes (per the percentages from Table 4-12, Line 1) were reallocated to the meter capacity cost causation component. This ensures that capacity-related costs will be recovered from customers in proportion to meter capacity, as larger meter sizes require greater system capacity.
- Max day and max hour costs attributable to public fire hydrants (per the percentages from Table 4-12, Line 2) were reallocated to the meter capacity cost causation component. This ensures that hydrant-related costs will be recovered from customers in proportion to meter size.
- Max day and max hour costs attributable to private fire protection (per the percentages from Table 4-12, Line 3) were reallocated to the private fire protection cost causation component. This ensures that capacity-related costs attributable to private fire protection will be recovered from customers with dedicated private fire connections.

Table 4-13: Max Day and Max Hour Cost Reallocation

Line	Cost Causation Component	Preliminary Cost-of-Service Analysis after General Cost Reallocation	Max Day Cost Reallocation (\$)	Max Hour Cost Reallocation (\$)	Total
1	Customer Service	\$421,152			\$421,152
2	Meter Maintenance & Replacement	\$107,359			\$107,359
3	Meter Capacity	\$81,176	\$1,334,680 ⁴⁹	\$513,899 ⁵⁰	\$1,929,755
4	Private Fire Protection	\$4,722	\$54,647 ⁵¹	\$77,936 ⁵²	\$137,305
5	Potable Water Supply	\$1,246,598			\$1,246,598
6	Base Delivery	\$1,733,812			\$1,733,812
7	Max Day Delivery	\$1,389,327	(\$1,389,327)		\$0
8	Max Hour Delivery	\$591,835		(\$591,835)	\$0
9	Conservation	\$33,872			\$33,872
10	Recycled Water	\$56,253			\$56,253
11	General	\$0			\$0
12	Infrastructure Charge	\$401,048			\$401,048
13	Revenue Offsets	(\$191,600)			(\$191,600)
14	Total	\$5,875,554	\$0	\$0	\$5,875,554

⁴⁹ 78.11% + 17.96% of max day costs per Table 4-12.

⁵⁰ 26.71% + 60.12% of max hour costs per Table 4-12.

⁵¹ 3.93% of max day costs per Table 4-12.

⁵² 13.17% of max hour costs per Table 4-12.

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FINAL COST-OF SERVICE ALLOCATION

The reallocation of general, max day, and max hour costs results in the final cost-of-service allocation (see Table 4-14).

Table 4-14: Final Cost-of-Service Allocation

Line	Cost Causation Component	Final Cost-of-Service Allocation
1	Customer Service	\$421,152
2	Meter Maintenance & Replacement	\$107,359
3	Meter Capacity	\$1,929,755
4	Private Fire Protection	\$137,305
5	Potable Water Supply	\$1,246,598
6	Base Delivery	\$1,733,812
7	Conservation	\$33,872
8	Recycled Water	\$56,253
9	Infrastructure Charge	\$401,048
10	Revenue Offsets	(\$191,600)
11	Total	\$5,875,554

4.5 UNIT COST DEVELOPMENT

EQUIVALENT METER UNIT CALCULATION

Meter maintenance & replacement, meter capacity, and infrastructure charge cost causation increases with meter size. Therefore, “equivalent meter units” (referred to as EMUs) were calculated to provide a basis from which to allocate costs in proportion to meter size (see Table 4-15). EMUs were calculated based on meter capacity ratios, which represent the safe operating capacity of a water meter relative to a 5/8-inch water meter.

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Table 4-15: Number of Equivalent Meter Units

Line	Metered Water Connections	Safe Operating Capacity (gallons per minute)	Meter Capacity Ratio	Number of Connections	Number of Equivalent Meter Units (EMUs) ⁵³
1	Potable Water (excl. Private Fire Protection)				
2	Single Family Residential (all meter sizes)	20	1.00	4,565	4,565
3	5/8-inch meter	20	1.00	309	309
4	1-inch meter	50	2.50	172	430
5	1.5-inch meter	100	5.00	88	440
6	2-inch meter	160	8.00	145	1,160
7	3-inch meter	300	15.00	16	240
8	4-inch meter	500	25.00	18	450
9	6-inch meter	1,000	50.00	2	100
10	Subtotal			5,315	7,694
11					
12	Recycled Water				
13	Single Family Residential (all meter sizes)	20	1.00	0	0
14	5/8-inch meter	20	1.00	0	0
15	1-inch meter	50	2.50	2	5
16	1.5-inch meter	100	5.00	0	0
17	2-inch meter	160	8.00	2	16
18	3-inch meter	300	15.00	1	15
19	4-inch meter	500	25.00	1	25
20	6-inch meter	1,000	50.00	0	0
21	Subtotal			6	61
22					
23	Private Fire Protection⁵⁴				
24	1.5-inch connection	20	1.00	0	0
25	2-inch connection	20	1.00	1	1
26	4-inch connection	20	1.00	26	26
27	6-inch connection	20	1.00	23	23
28	8-inch connection	20	1.00	16	16
29	10-inch connection	20	1.00	5	5
30	Subtotal			71	71
31					
32	Total			5,392	7,826

⁵³ EMUs = meter capacity ratio × number of connections

⁵⁴ All private fire connections have a dedicated 5/8-inch meter, regardless of lateral connection size.

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UNITS OF SERVICE DEFINITIONS

The appropriate units of service were established for each cost causation component based on cost causation (see Table 4-16). Cost causation components to be recovered by fixed charges were assigned units of service based on the number of water meters, EMUs, or equivalent fire demand units. Cost causation components to be recovered by volumetric rates were assigned units of service based on annual projected water use.

Table 4-16: Units of Service Definitions

Line	Cost Causation Component	Units of Service Definition
1	Customer Service	Number of water meters (incl. Private Fire Protection) x 12 months per year
2	Meter Maintenance & Replacement	Number of EMUs (incl. Private Fire Protection) x 12 months per year
3	Meter Capacity	Number of EMUs (excl. Private Fire Protection) x 12 months per year
4	Private Fire Protection	Number of Equivalent Fire Demand Units (Private Fire Protection only) x 12 months per year
5	Potable Water Supply	Potable water demand (CCF)
6	Base Delivery	Potable water demand (CCF)
7	Conservation	Potable water demand (CCF)
8	Recycled Water	Recycled water demand (CCF)
9	Infrastructure Charge	Number of Potable EMUs (excl. Private Fire Protection) x 12 months per year
10	Revenue Offsets	Total water demand (CCF)

UNIT COST CALCULATION

Unit costs for each cost causation component were calculated by dividing the final cost-of-service allocations from Table 4-14 by the annualized units of service (see Table 4-17).

Table 4-17: FY 2024 Unit Cost Calculation

Line	Cost Causation Component	Final Cost-of-Service Allocation	Annualized Units of Service	Unit Cost
1	Customer Service	\$421,152	64,704	\$6.51
2	Meter Maintenance & Replacement	\$107,359	93,912	\$1.14
3	Meter Capacity	\$1,929,755	93,060	\$20.74
4	Private Fire Protection	\$137,305	39,207	\$3.50
5	Potable Water Supply	\$1,246,598	1,042,919	\$1.20
6	Base Delivery	\$1,733,812	1,042,919	\$1.66
7	Conservation	\$33,872	1,042,919	\$0.03
8	Recycled Water	\$56,253	20,468	\$2.75
9	Infrastructure Charge	\$401,048	92,328	\$4.34
10	Revenue Offsets	(\$191,600)	1,063,387	(\$0.18)
11	Total	\$5,875,554		

5. RATE DESIGN

5.1 RATE DESIGN METHODOLOGY

A five-year proposed water rate schedule was developed based on the results of the proposed financial plan and cost-of-service analysis. The key steps in developing the proposed rate schedule are outlined below:

- **Rate structure evaluation:** The existing rate structure is evaluated, and any proposed changes are identified. Proposed rate structure changes are typically intended to address specific policy objectives or to improve legal defensibility.
- **Test year rate development:** Rates are calculated for the proposed rate structure for the cost-of-service test year (FY 2024). Rate calculations directly incorporate the unit costs developed in the cost-of-service analysis. Although total rate revenues in the test year are designed to increase by the proposed revenue adjustment percentage (35% in FY 2024), the proposed percentage increase to each rate/charge varies due to the updated cost-of-service allocations.
- **Five-year rate schedule development:** Proposed rates for the full five-year study period are calculated by increasing the test year rates by the proposed annual revenue adjustment percentages from the proposed financial plan.

5.2 PROPOSED RATE STRUCTURE CHANGES

The District's existing rate structure was evaluated, and potential changes were considered. However, only one rate structure change is proposed as part of this study, as outlined below:

- **Proposed change to fixed monthly infrastructure charges:** The District's current fixed monthly infrastructure charges are the same regardless of meter size. It is recommended that proposed fixed monthly infrastructure charges are differentiated by meter size based on meter capacity. Fixed monthly infrastructure charges are designed to recover existing debt service associated with IBank loans that were used to finance potable water system infrastructure improvements. The benefit derived by customers from these infrastructure improvements is proportional to potential customer water use. Therefore, it is more defensible and equitable to recover these costs in proportion to meter capacity.

5.3 PROPOSED FY 2024 RATE DEVELOPMENT

REVENUE REQUIREMENT RECOVERY

Each cost causation component was attributed to specific monthly fixed charges or volumetric rates for recovery (see Table 5-1). This is necessary to ensure that the proposed rates are designed to collect the appropriate amount of revenue based on the proposed financial plan.

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Table 5-1: Revenue Requirement Recovery by Proposed Rates

Line	Cost Causation Component	Recovered by:
1	Customer Service	<i>Fixed Monthly Meter Charges; Fixed Monthly Private Fire Charges</i>
2	Meter Maintenance & Replacement	<i>Fixed Monthly Meter Charges; Fixed Monthly Private Fire Charges</i>
3	Meter Capacity	<i>Fixed Monthly Meter Charges</i>
4	Private Fire Protection	<i>Fixed Monthly Private Fire Charges</i>
5	Potable Water Supply	<i>Potable Volumetric Rates</i>
6	Base Delivery	<i>Potable Volumetric Rates</i>
7	Conservation	<i>Potable Volumetric Rates</i>
8	Recycled Water	<i>Recycled Volumetric Rates</i>
9	Infrastructure Charge	<i>Fixed Monthly Infrastructure Charges</i>
10	Revenue Offsets	<i>Potable and Recycled Volumetric Rates</i>

PROPOSED FY 2024 FIXED MONTHLY METER CHARGE CALCULATION

Proposed FY 2024 fixed monthly meter charges were calculated by summing the customer service, meter maintenance & replacement, and meter capacity unit costs from Table 4-17 (see Table 5-2). Customer service unit costs are applied uniformly to all meter sizes because cost causation from billing and customer service related activities does not vary by meter size. Meter maintenance & replacement and meter capacity unit costs are applied in proportion to meter capacity, as larger meters cost more to maintain and replace and have greater capacity. All proposed charges are rounded up to the nearest cent.

Table 5-2: Proposed FY 2024 Fixed Monthly Meter Charge Calculation

Line	Fixed Monthly Meter Charges	Meter Capacity Ratio	Customer Service	Meter Maintenance & Replacement ⁵⁵	Meter Capacity ⁵⁶	Proposed Charge
1	Single Family Residential	1.00	\$6.51	\$1.14	\$20.74	\$28.39
2	5/8-inch meter	1.00	\$6.51	\$1.14	\$20.74	\$28.39
3	1-inch meter	2.50	\$6.51	\$2.86	\$51.84	\$61.21
4	1.5-inch meter	5.00	\$6.51	\$5.72	\$103.68	\$115.91
5	2-inch meter	8.00	\$6.51	\$9.15	\$165.89	\$181.55
6	3-inch meter	15.00	\$6.51	\$17.15	\$311.05	\$334.71
7	4-inch meter	25.00	\$6.51	\$28.58	\$518.42	\$553.51
8	6-inch meter	50.00	\$6.51	\$57.16	\$1,036.83	\$1,100.51

⁵⁵ = meter capacity ratio × meter maintenance and replacement unit cost

⁵⁶ = meter capacity ratio × meter capacity unit cost

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Table 5-3: Comparison of Proposed FY 2024 vs. Current Fixed Monthly Meter Charges

Line	Fixed Monthly Meter Charges	Proposed Charge	Current Charge	Difference (\$)	Difference (%)
1	Single Family Residential	\$28.39	\$18.23	\$10.16	55.7%
2	5/8-inch meter	\$28.39	\$18.23	\$10.16	55.7%
3	1-inch meter	\$61.21	\$40.35	\$20.86	51.7%
4	1.5-inch meter	\$115.91	\$77.20	\$38.71	50.1%
5	2-inch meter	\$181.55	\$121.44	\$60.11	49.5%
6	3-inch meter	\$334.71	\$224.66	\$110.05	49.0%
7	4-inch meter	\$553.51	\$372.12	\$181.39	48.7%
8	6-inch meter	\$1,100.51	\$740.74	\$359.77	48.6%

PROPOSED FY 2024 FIXED MONTHLY INFRASTRUCTURE CHARGE CALCULATION

Proposed FY 2024 fixed monthly infrastructure charges were calculated by summing the infrastructure charge unit costs from Table 4-17 (see Table 5-4). Infrastructure charge unit costs were applied in proportion to meter capacity based on the proposed rate structure change outlined in Section 5.2. All proposed charges are rounded up to the nearest cent.

Table 5-4: Proposed FY 2024 Fixed Monthly Infrastructure Charge Calculation

Line	Fixed Monthly Infrastructure Charges	Meter Capacity Ratio	Proposed Charge
1	Single Family Residential	1.00	\$4.35
2	5/8-inch meter	1.00	\$4.35
3	1-inch meter	2.50	\$10.86
4	1.5-inch meter	5.00	\$21.72
5	2-inch meter	8.00	\$34.75
6	3-inch meter	15.00	\$65.16
7	4-inch meter	25.00	\$108.60
8	6-inch meter	50.00	\$217.19

Table 5-5: Comparison of Proposed FY 2024 vs. Current Fixed Monthly Infrastructure Charges

Line	Fixed Monthly Infrastructure Charges	Proposed Charge	Current Charge	Difference (\$)	Difference (%)
1	Single Family Residential	\$4.35	\$6.50	(\$2.15)	-33.1%
2	5/8-inch meter	\$4.35	\$6.50	(\$2.15)	-33.1%
3	1-inch meter	\$10.86	\$6.50	\$4.36	67.1%
4	1.5-inch meter	\$21.72	\$6.50	\$15.22	234.2%
5	2-inch meter	\$34.75	\$6.50	\$28.25	434.6%
6	3-inch meter	\$65.16	\$6.50	\$58.66	902.5%
7	4-inch meter	\$108.60	\$6.50	\$102.10	1570.8%
8	6-inch meter	\$217.19	\$6.50	\$210.69	3241.4%

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PROPOSED FY 2024 VOLUMETRIC RATE CALCULATION

Proposed FY 2024 volumetric rates were calculated by summing the potable water supply, base delivery, conservation, recycled water, and revenue offsets unit costs from Table 4-17 (see Table 5-6). The potable water supply, base delivery, and conservation unit costs reflect potable water system costs and are therefore not applied to recycled volumetric rates. Recycled water unit costs pertain solely to the recycled water system and are therefore not applied to the potable volumetric rates. Revenue offsets pertain to miscellaneous non-rate revenues and are applied uniformly as an offset to both potable and recycled volumetric rates. All proposed charges are rounded up to the nearest cent.

Table 5-6: Proposed FY 2024 Volumetric Rate Calculation

Line	Volumetric Rates	Potable Water Supply	Base Delivery	Conservation	Recycled Water	Revenue Offsets	Proposed Rate
1	Potable Water	\$1.20	\$1.66	\$0.03	N/A	(\$0.18)	\$2.72
2	Recycled Water	N/A	N/A	N/A	\$2.75	(\$0.18)	\$2.57

Table 5-7: Comparison of Proposed FY 2024 vs. Current Volumetric Rates

Line	Volumetric Rates	Proposed Rate	Current Rate	Difference (\$)	Difference (%)
1	Potable Water	\$2.72	\$2.12	\$0.60	28.3%
2	Recycled Water	\$2.57	\$2.39	\$0.18	7.5%

PROPOSED FY 2024 FIXED MONTHLY PRIVATE CHARGE CALCULATION

Proposed FY 2024 fixed private fire charges were calculated by summing the customer service, meter maintenance & replacement, and private fire protection unit costs from Table 4-17 (see Table 5-8). Customer service unit costs are applied uniformly to all connection sizes because cost causation from billing and customer service related activities does not vary by meter size. Meter maintenance and replacement and meter capacity unit costs are also applied uniformly, as all private fire connections have a dedicated 5/8-inch water meter. Private fire protection connection unit costs are applied in proportion to fire protection demand ratios, as larger connections require greater system capacity. All proposed charges are rounded up to the nearest cent.

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Table 5-8: Proposed FY 2024 Fixed Monthly Private Fire Charge Calculation

Line	Fixed Monthly Private Fire Charges	Meter Capacity Ratio	Fire Protection Demand Ratio	Customer Service	Meter Maintenance & Replacement	Private Fire Protection	Proposed Charge
1	1.5-inch connection	1.00	1.00	\$6.51	\$1.14	\$3.50	\$11.16
2	2-inch connection	1.00	2.13	\$6.51	\$1.14	\$7.46	\$15.12
3	4-inch connection	1.00	13.19	\$6.51	\$1.14	\$46.20	\$53.85
4	6-inch connection	1.00	38.32	\$6.51	\$1.14	\$134.20	\$141.85
5	8-inch connection	1.00	81.66	\$6.51	\$1.14	\$285.97	\$293.63
6	10-inch connection	1.00	146.85	\$6.51	\$1.14	\$514.28	\$521.94

Table 5-9: Comparison of Proposed FY 2024 vs. Current Fixed Monthly Private Fire Charges

Line	Fixed Monthly Private Fire Charges	Proposed Charge	Current Charge	Difference (\$)	Difference (%)
1	1.5-inch connection	\$11.16	\$14.75	(\$3.59)	-24.3%
2	2-inch connection	\$15.12	\$23.60	(\$8.48)	-35.9%
3	4-inch connection	\$53.85	\$44.25	\$9.60	21.7%
4	6-inch connection	\$141.85	\$73.74	\$68.11	92.4%
5	8-inch connection	\$293.63	\$147.46	\$146.17	99.1%
6	10-inch connection	\$521.94	\$339.16	\$182.78	53.9%

5.4 PROPOSED FIVE-YEAR WATER RATE SCHEDULE

A proposed five-year rate schedule was calculated by increasing the proposed FY 2024 rates and charges from Table 5-2, Table 5-4, Table 5-6, and Table 5-8 by the proposed FY 2025-FY 2028 revenue adjustment percentages from Table 3-15 (see Table 5-10). All proposed rates are rounded up to the nearest cent.

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Table 5-10: Proposed Five-Year Water Rate Schedule

Proposed Water Rates	Current (2/14/2023)	Proposed FY 2024 (3/1/2024)	Proposed FY 2025 (1/1/2025)	Proposed FY 2026 (1/1/2026)	Proposed FY 2027 (1/1/2027)	Proposed FY 2028 (1/1/2028)
Fixed Monthly Meter Charges (All water meters)						
Single Family Residential (all meter sizes)	\$18.23	\$28.39	\$34.07	\$38.16	\$42.74	\$47.87
5/8-inch meter	\$18.23	\$28.39	\$34.07	\$38.16	\$42.74	\$47.87
1-inch meter	\$40.35	\$61.21	\$73.46	\$82.28	\$92.16	\$103.22
1.5-inch meter	\$77.20	\$115.91	\$139.10	\$155.80	\$174.50	\$195.44
2-inch meter	\$121.44	\$181.55	\$217.86	\$244.01	\$273.30	\$306.10
3-inch meter	\$224.66	\$334.71	\$401.66	\$449.86	\$503.85	\$564.32
4-inch meter	\$372.12	\$553.51	\$664.22	\$743.93	\$833.21	\$933.20
6-inch meter	\$740.74	\$1,100.51	\$1,320.62	\$1,479.10	\$1,656.60	\$1,855.40
Fixed Monthly Infrastructure Charges (Potable water meters only)						
Single Family Residential (all meter sizes)	\$6.50	\$4.35	\$5.22	\$5.85	\$6.56	\$7.35
5/8-inch meter	\$6.50	\$4.35	\$5.22	\$5.85	\$6.56	\$7.35
1-inch meter	\$6.50	\$10.86	\$13.04	\$14.61	\$16.37	\$18.34
1.5-inch meter	\$6.50	\$21.72	\$26.07	\$29.20	\$32.71	\$36.64
2-inch meter	\$6.50	\$34.75	\$41.70	\$46.71	\$52.32	\$58.60
3-inch meter	\$6.50	\$65.16	\$78.20	\$87.59	\$98.11	\$109.89
4-inch meter	\$6.50	\$108.60	\$130.32	\$145.96	\$163.48	\$183.10
6-inch meter	\$6.50	\$217.19	\$260.63	\$291.91	\$326.94	\$366.18
Volumetric Rates per CCF⁵⁷						
Potable Water	\$2.12	\$2.72	\$3.27	\$3.67	\$4.12	\$4.62
Recycled Water	\$2.39	\$2.57	\$3.09	\$3.47	\$3.89	\$4.36
Fixed Monthly Private Fire Charges (Dedicated private fire connections only)						
1.5-inch connection	\$14.75	\$11.16	\$13.40	\$15.01	\$16.82	\$18.84
2-inch connection	\$23.60	\$15.12	\$18.15	\$20.33	\$22.77	\$25.51
4-inch connection	\$44.25	\$53.85	\$64.62	\$72.38	\$81.07	\$90.80
6-inch connection	\$73.74	\$141.85	\$170.22	\$190.65	\$213.53	\$239.16
8-inch connection	\$147.46	\$293.63	\$352.36	\$394.65	\$442.01	\$495.06
10-inch connection	\$339.16	\$521.94	\$626.33	\$701.49	\$785.67	\$879.96

⁵⁷ It is recommended that the District retain the option to implement pass-through adjustments, pursuant to California Government Code 53756. Potable pass-through adjustments may be set equal to the difference in \$/CCF between actual WRD groundwater replenishment assessments and the projected unit costs from Table 3-7. Recycled pass-through adjustments may be set equal to the difference in \$/CCF between actual CBMWD wholesale water rates and the projected unit costs from Table 3-7. The District must notify all customers at least 30 days prior to implementation of any pass-through adjustments.

6. CUSTOMER BILL IMPACTS

6.1 SAMPLE MONTHLY WATER BILLS

Sample monthly bills based on the District’s current and proposed FY 2024 rates are shown below for single family residential customers under five different monthly water use levels (see Figure 6-1). Average monthly water use among the District’s single family residential customers is approximately 12 CCF.

Figure 6-1: Single Family Residential FY 2024 Monthly Bills at Varying Levels of Water Use



6.2 MONTHLY WATER BILL COMPARISON TO NEIGHBORING AGENCIES

The District’s current and proposed FY 2024 monthly bills for single family customers are compared to four neighboring water agencies below (see Figure 6-2). A five-year single family residential monthly bill comparison to the City of Pico Rivera Water Authority is also provided (see Figure 6-3). All monthly bills are based on the smallest meter size available and assume 12 CCF in monthly water use.

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Figure 6-2: FY 2024 Monthly Bill Comparison to Neighboring Agencies

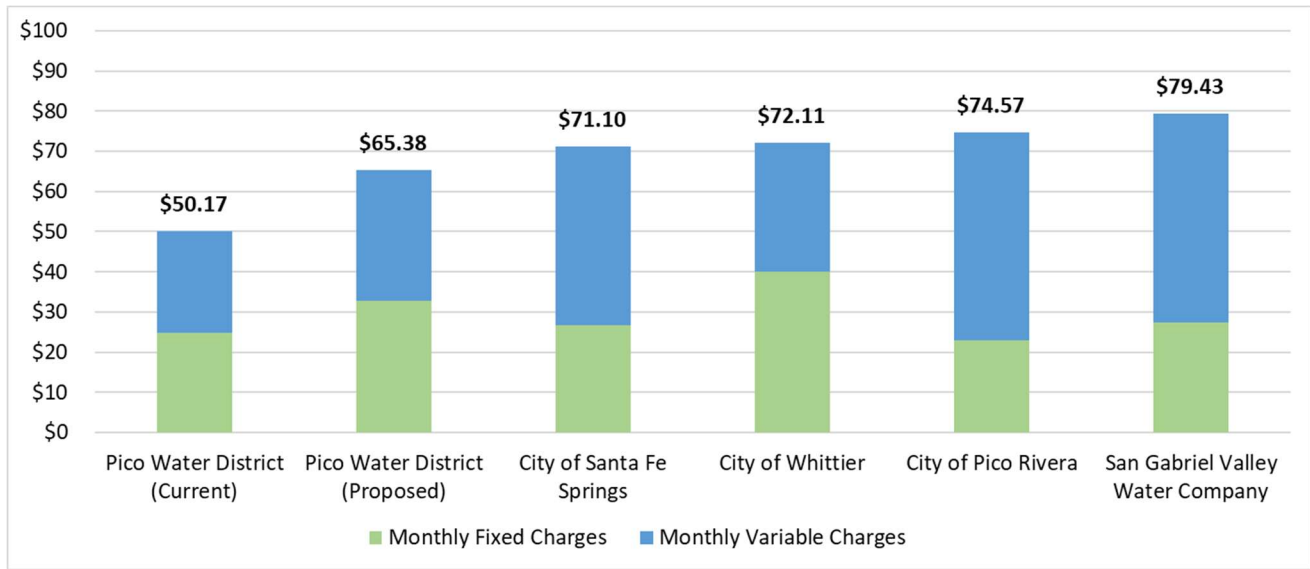
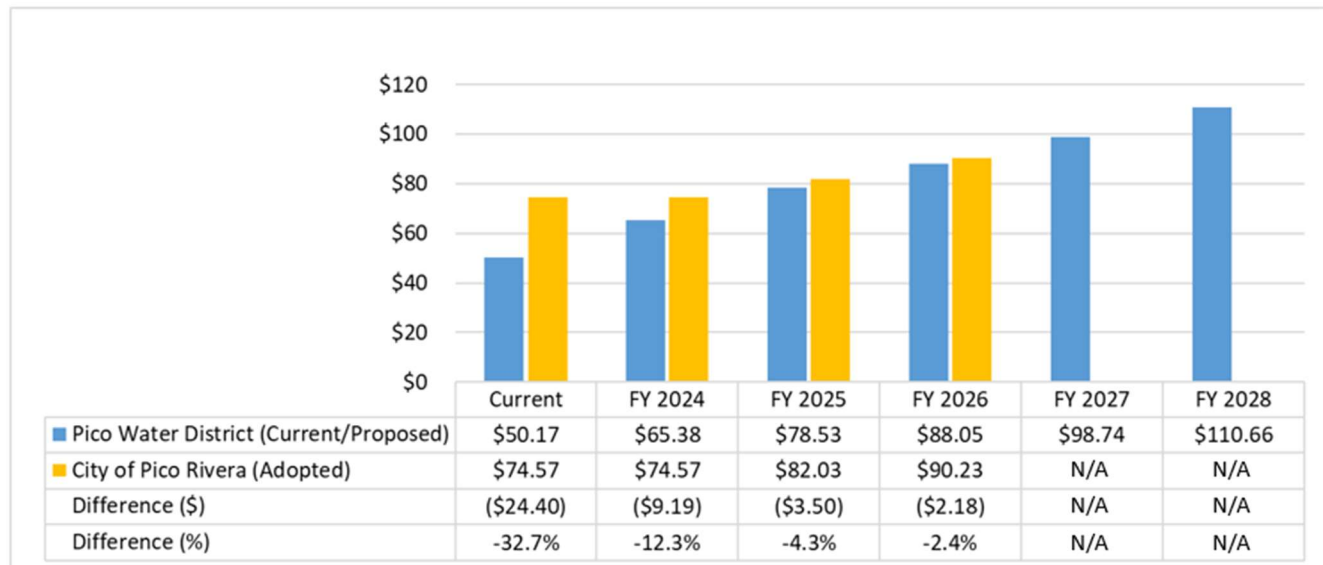


Figure 6-3: Five-Year Monthly Bill Comparison to City of Pico Rivera⁵⁸



⁵⁸ City of Pico Rivera bills are based on current FY 2024 rates plus 10% adopted annual rate increases through FY 2026. The City hasn't adopted water rates beyond FY 2026; therefore, no bills are shown in FY 2027 and FY 2028.

7. APPENDICES

7.1 APPENDIX A: DETAILED OPERATIONS & MAINTENANCE EXPENSE PROJECTIONS

Table 7-1: Detailed O&M Expense Projections

Line	Detailed O&M Expenses	GL Code	Projection Basis	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
1	Source of Supply							
2	Source of Supply Salaries & Wages	10-110-5001	<i>FY 2024 budget + salaries inflation</i>	\$70,000	\$73,500	\$77,175	\$81,034	\$85,085
3	Recycled Water	10-110-5009	<i>Direct water supply cost projections</i>	\$37,121	\$39,162	\$41,316	\$43,589	\$45,986
4	Ground Water Replenishment	10-110-5000	<i>Direct water supply cost projections</i>	\$1,114,521	\$1,175,820	\$1,240,490	\$1,308,717	\$1,380,696
5	Subtotal			\$1,221,642	\$1,288,482	\$1,358,981	\$1,433,339	\$1,511,767
6								
7	Pumping							
8	Pumping Salaries & Wages	10-120-5100	<i>FY 2024 budget + salaries inflation</i>	\$240,000	\$252,000	\$264,600	\$277,830	\$291,722
9	Pumping Maint - Well 2	10-120-5102	<i>FY 2024 budget + general inflation</i>	\$1,100	\$1,144	\$1,190	\$1,237	\$1,287
10	Pumping Maint - Well 4A	10-120-5105	<i>FY 2024 budget + general inflation</i>	\$1,100	\$1,144	\$1,190	\$1,237	\$1,287
11	Pumping Maint - Well 5A	10-120-5108	<i>FY 2024 budget + general inflation</i>	\$4,800	\$4,992	\$5,192	\$5,399	\$5,615
12	Pumping Maint - Well 6	10-120-5111	<i>FY 2024 budget + general inflation</i>	\$1,100	\$1,144	\$1,190	\$1,237	\$1,287
13	Pumping Maint - Well 7	10-120-5114	<i>FY 2024 budget + general inflation</i>	\$1,100	\$1,144	\$1,190	\$1,237	\$1,287
14	Pumping Maint - Well 8	10-120-5117	<i>FY 2024 budget + general inflation</i>	\$4,400	\$4,576	\$4,759	\$4,949	\$5,147
15	Pumping Maint - Well 10	10-120-5123	<i>FY 2024 budget + general inflation</i>	\$3,900	\$4,056	\$4,218	\$4,387	\$4,562
16	Pumping Maint - Reservoir	10-120-5128	<i>FY 2024 budget + general inflation</i>	\$14,100	\$14,664	\$15,251	\$15,861	\$16,495
17	Pumping Maint - Well 11	10-120-5125	<i>FY 2024 budget + general inflation</i>	\$20,000	\$20,800	\$21,632	\$22,497	\$23,397
18	Pumping Maint - Miscellaneous	10-120-5139	<i>FY 2024 budget + general inflation</i>	\$15,000	\$15,600	\$16,224	\$16,873	\$17,548
19	Power Exp - Well 2	10-120-5152	<i>FY 2024 budget + energy inflation</i>	\$800	\$880	\$968	\$1,065	\$1,171
20	Power Exp - Well 4A	10-120-5155	<i>FY 2024 budget + energy inflation</i>	\$2,000	\$2,200	\$2,420	\$2,662	\$2,928
21	Power Exp - Well 5A	10-120-5158	<i>FY 2024 budget + energy inflation</i>	\$30,000	\$33,000	\$36,300	\$39,930	\$43,923
22	Power Exp - Well 6	10-120-5161	<i>FY 2024 budget + energy inflation</i>	\$300	\$330	\$363	\$399	\$439
23	Power Exp - Well 7	10-120-5164	<i>FY 2024 budget + energy inflation</i>	\$1,100	\$1,210	\$1,331	\$1,464	\$1,611
24	Power Exp - Well 8	10-120-5167	<i>FY 2024 budget + energy inflation</i>	\$28,000	\$30,800	\$33,880	\$37,268	\$40,995
25	Power Exp - Well 9A	10-120-5172	<i>FY 2024 budget + energy inflation</i>	\$2,500	\$2,750	\$3,025	\$3,328	\$3,660

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Line	Detailed O&M Expenses	GL Code	Projection Basis	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
26	Power Exp - Reservoir	10-120-5178	<i>FY 2024 budget + energy inflation</i>	\$32,000	\$35,200	\$38,720	\$42,592	\$46,851
27	Power Exp - Well 10	10-120-5189	<i>FY 2024 budget + energy inflation</i>	\$5,000	\$5,500	\$6,050	\$6,655	\$7,321
28	Power Exp - Well 11	10-120-5192	<i>FY 2024 budget + energy inflation</i>	\$175,000	\$192,500	\$211,750	\$232,925	\$256,218
29	Subtotal			\$583,300	\$625,634	\$671,442	\$721,034	\$774,751
30								
31	Water Treatment							
32	Treatment Salaries & Wages	10-130-5200	<i>FY 2024 budget + salaries inflation</i>	\$20,000	\$21,000	\$22,050	\$23,153	\$24,310
33	Chemicals	10-130-5210	<i>FY 2024 budget + chemicals inflation</i>	\$39,800	\$41,790	\$43,880	\$46,073	\$48,377
34	Lab Testing	10-130-5220	<i>FY 2024 budget + general inflation</i>	\$37,000	\$38,480	\$40,019	\$41,620	\$43,285
35	Permits and Fees	10-130-5250	<i>FY 2024 budget + general inflation</i>	\$39,000	\$40,560	\$42,182	\$43,870	\$45,624
36	PFAS - Labor Increase	XX-XXX-XXXX	<i>PFAS estimates + salaries inflation</i>	\$0	\$16,000	\$16,800	\$17,640	\$18,522
37	PFAS - Automatic Valve Maintenance	XX-XXX-XXXX	<i>PFAS estimates + general inflation</i>	\$0	\$10,000	\$10,400	\$10,816	\$11,249
38	PFAS - Pre-Filter Replacements	XX-XXX-XXXX	<i>PFAS estimates + general inflation</i>	\$0	\$37,688	\$39,196	\$40,763	\$42,394
39	PFAS - Additional PFAS Sampling	XX-XXX-XXXX	<i>PFAS estimates + general inflation</i>	\$0	\$54,000	\$56,160	\$58,406	\$60,743
40	Subtotal			\$135,800	\$259,518	\$270,687	\$282,341	\$294,504
41								
42	Transmission & Distribution							
43	Trans & Distribution Salaries & Wages	10-140-5300	<i>FY 2024 budget + salaries inflation</i>	\$95,000	\$99,750	\$104,738	\$109,974	\$115,473
44	Field Supplies & Expense	10-140-5301	<i>FY 2024 budget + general inflation</i>	\$5,500	\$5,720	\$5,949	\$6,187	\$6,434
45	Safety Expense	10-140-5302	<i>FY 2024 budget + general inflation</i>	\$5,000	\$5,200	\$5,408	\$5,624	\$5,849
46	Small Tools Expense	10-140-5303	<i>FY 2024 budget + general inflation</i>	\$2,000	\$2,080	\$2,163	\$2,250	\$2,340
47	Cross Connection Expense	10-140-5304	<i>FY 2024 budget + general inflation</i>	\$500	\$520	\$541	\$562	\$585
48	Repair Services	10-140-5305	<i>FY 2024 budget + general inflation</i>	\$1,000	\$1,040	\$1,082	\$1,125	\$1,170
49	Backhoe - Repair & Maint	10-140-5306	<i>FY 2024 budget + general inflation</i>	\$1,600	\$1,664	\$1,731	\$1,800	\$1,872
50	Hydrants - Repair & Maint	10-140-5307	<i>FY 2024 budget + general inflation</i>	\$7,500	\$7,800	\$8,112	\$8,436	\$8,774
51	Main Lines - Repair & Maint	10-140-5308	<i>FY 2024 budget + general inflation</i>	\$7,500	\$7,800	\$8,112	\$8,436	\$8,774
52	Meters - Repair & Maint	10-140-5309	<i>FY 2024 budget + general inflation</i>	\$7,500	\$7,800	\$8,112	\$8,436	\$8,774
53	Service Lines - Repair & Maint	10-140-5310	<i>FY 2024 budget + general inflation</i>	\$8,200	\$8,528	\$8,869	\$9,224	\$9,593
54	Valves - Repair & Maint	10-140-5311	<i>FY 2024 budget + general inflation</i>	\$4,500	\$4,680	\$4,867	\$5,062	\$5,264
55	Misc - Trans & Distribution Maint	10-140-5312	<i>FY 2024 budget + general inflation</i>	\$13,000	\$13,520	\$14,061	\$14,623	\$15,208
56	First Aid Expense	10-140-5313	<i>FY 2024 budget + general inflation</i>	\$700	\$728	\$757	\$787	\$819

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Line	Detailed O&M Expenses	GL Code	Projection Basis	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
57	Uniforms	10-140-5314	<i>FY 2024 budget + general inflation</i>	\$5,000	\$5,200	\$5,408	\$5,624	\$5,849
58	Fuel Expense	10-140-5350	<i>FY 2024 budget + general inflation</i>	\$25,800	\$26,832	\$27,905	\$29,021	\$30,182
59	Veh Exp - 1183183 - 2005 Chev Util Trk	10-140-5352	<i>FY 2024 budget + general inflation</i>	\$600	\$624	\$649	\$675	\$702
60	Veh Exp - 1242776 - 2008 Ford Util Trk	10-140-5354	<i>FY 2024 budget + general inflation</i>	\$600	\$624	\$649	\$675	\$702
61	Veh Exp - 1455249 - 2015 Chev Trk	10-140-5357	<i>FY 2024 budget + general inflation</i>	\$500	\$520	\$541	\$562	\$585
62	Veh Exp - 1459257 - 2015 Chev Trk	10-140-5358	<i>FY 2024 budget + general inflation</i>	\$1,000	\$1,040	\$1,082	\$1,125	\$1,170
63	Veh Exp - 1491226 - 2016 Dodge Ram DmpTrk	10-140-5359	<i>FY 2024 budget + general inflation</i>	\$600	\$624	\$649	\$675	\$702
64	Veh Exp - 1555201 - 2019 Chev Trk	10-140-5360	<i>FY 2024 budget + general inflation</i>	\$500	\$520	\$541	\$562	\$585
65	Veh Exp - 1555202 - 2019 Chev Trk	10-140-5361	<i>FY 2024 budget + general inflation</i>	\$1,500	\$1,560	\$1,622	\$1,687	\$1,755
66	Veh Exp - Misc	10-140-5399	<i>FY 2024 budget + general inflation</i>	\$1,100	\$1,144	\$1,190	\$1,237	\$1,287
67	Subtotal			\$196,700	\$205,518	\$214,736	\$224,373	\$234,448
68								
69	Customer Accounts							
70	Meter Read & Svc Call Salaries & Wages	10-150-5400	<i>FY 2024 budget + salaries inflation</i>	\$35,000	\$36,750	\$38,588	\$40,517	\$42,543
71	Billing & Cust Svc Salaries & Wages	10-150-5403	<i>FY 2024 budget + salaries inflation</i>	\$133,800	\$140,490	\$147,515	\$154,890	\$162,635
72	Billing & Collection Supplies	10-150-5406	<i>FY 2024 budget + general inflation</i>	\$72,500	\$75,400	\$78,416	\$81,553	\$84,815
73	Billing Communication Expense	10-150-5407	<i>FY 2024 budget + general inflation</i>	\$7,400	\$7,696	\$8,004	\$8,324	\$8,657
74	Subtotal			\$248,700	\$260,336	\$272,522	\$285,284	\$298,649
75								
76	General & Administrative							
77	Gen & Admin Salaries & Wages	10-200-6000	<i>FY 2024 budget + salaries inflation</i>	\$358,300	\$376,215	\$395,026	\$414,777	\$435,516
78	Salaries - Sick Leave	10-200-6003	<i>FY 2024 budget + salaries inflation</i>	\$42,500	\$44,625	\$46,856	\$49,199	\$51,659
79	Salaries - Allowed Time	10-200-6006	<i>FY 2024 budget + salaries inflation</i>	\$18,900	\$19,845	\$20,837	\$21,879	\$22,973
80	Salaries - Vacation Pay	10-200-6009	<i>FY 2024 budget + salaries inflation</i>	\$44,500	\$46,725	\$49,061	\$51,514	\$54,090
81	Salaries - Holiday Pay	10-200-6012	<i>FY 2024 budget + salaries inflation</i>	\$41,000	\$43,050	\$45,203	\$47,463	\$49,836
82	Salaries - Standby Pay	10-200-6015	<i>FY 2024 budget + salaries inflation</i>	\$19,000	\$19,950	\$20,948	\$21,995	\$23,095
83	Salaries - Phone Allowance	10-200-6021	<i>FY 2024 budget + static inflation</i>	\$1,700	\$1,700	\$1,700	\$1,700	\$1,700
84	Salaries - Car Allowance	10-200-6024	<i>FY 2024 budget + salaries inflation</i>	\$8,400	\$8,400	\$8,400	\$8,400	\$8,400
85	Director Compensation	10-200-6200	<i>FY 2024 budget + static inflation</i>	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000
86	Travel/Mtgs - V. Caballero	10-200-6210	<i>FY 2024 budget + general inflation</i>	\$3,000	\$3,120	\$3,245	\$3,375	\$3,510
87	Trave/Mtgs - D. Gonzales	10-200-6211	<i>FY 2024 budget + general inflation</i>	\$3,000	\$3,120	\$3,245	\$3,375	\$3,510

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Line	Detailed O&M Expenses	GL Code	Projection Basis	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
88	Travel/Mtgs - D. Angelo	10-200-6218	<i>FY 2024 budget + general inflation</i>	\$3,000	\$3,120	\$3,245	\$3,375	\$3,510
89	Travel/Mtgs -R. Rodriguez	10-200-6217	<i>FY 2024 budget + general inflation</i>	\$3,000	\$3,120	\$3,245	\$3,375	\$3,510
90	Travel/Mtgs - E. Ramirez	10-200-6213	<i>FY 2024 budget + general inflation</i>	\$3,000	\$3,120	\$3,245	\$3,375	\$3,510
91	Travel/Mtgs - General Manager	10-190-6209	<i>FY 2024 budget + general inflation</i>	\$3,100	\$3,224	\$3,353	\$3,487	\$3,627
92	Other Board Expense	10-200-6280	<i>FY 2024 budget + general inflation</i>	\$2,600	\$2,704	\$2,812	\$2,925	\$3,042
93	Office Supplies & Expense	10-200-6300	<i>FY 2024 budget + general inflation</i>	\$11,300	\$11,752	\$12,222	\$12,711	\$13,219
94	Office Utilities	10-200-6301	<i>FY 2024 budget + energy inflation</i>	\$24,900	\$27,390	\$30,129	\$33,142	\$36,456
95	Prof Services - Accounting	10-200-6401	<i>FY 2024 budget + general inflation</i>	\$90,400	\$94,016	\$97,777	\$101,688	\$105,755
96	Prof Services - Computer	10-200-6402	<i>FY 2024 budget + general inflation</i>	\$5,400	\$5,616	\$5,841	\$6,074	\$6,317
97	Prof Services - Engineering	10-200-6403	<i>FY 2024 budget + general inflation</i>	\$3,100	\$3,224	\$3,353	\$3,487	\$3,627
98	Prof Services - Legal	10-200-6400	<i>FY 2024 budget + general inflation</i>	\$45,000	\$46,800	\$48,672	\$50,619	\$52,644
99	Prof Services - Misc	10-200-6409	<i>FY 2024 budget + general inflation</i>	\$4,000	\$4,160	\$4,326	\$4,499	\$4,679
100	Prof Services - Emergency Preparedness	10-200-6410	<i>FY 2024 budget + general inflation</i>	\$15,200	\$15,808	\$16,440	\$17,098	\$17,782
101	Prof Services - Licensing & Support	10-200-6404	<i>FY 2024 budget + general inflation</i>	\$28,200	\$29,328	\$30,501	\$31,721	\$32,990
102	Prof Services - Nobel GIS System	10-200-6412	<i>FY 2024 budget + general inflation</i>	\$24,100	\$25,064	\$26,067	\$27,109	\$28,194
103	Group Insurance - Health	10-200-6101	<i>FY 2024 budget + benefits inflation</i>	\$181,600	\$196,128	\$211,818	\$228,764	\$247,065
104	Group Insurance - Dental	10-200-6102	<i>FY 2024 budget + benefits inflation</i>	\$25,500	\$27,540	\$29,743	\$32,123	\$34,692
105	Group Insurance - Life	10-200-6103	<i>FY 2024 budget + benefits inflation</i>	\$5,000	\$5,400	\$5,832	\$6,299	\$6,802
106	Group Insurance - Vision	10-200-6104	<i>FY 2024 budget + benefits inflation</i>	\$4,400	\$4,752	\$5,132	\$5,543	\$5,986
107	Group Insurance - Health Retiree Over 65	10-200-6105	<i>FY 2024 budget + benefits inflation</i>	\$42,300	\$45,684	\$49,339	\$53,286	\$57,549
108	Workers Comp Insurance	10-200-6111	<i>FY 2024 budget + salaries inflation</i>	\$21,000	\$22,050	\$23,153	\$24,310	\$25,526
109	Property Insurance	10-200-6500	<i>FY 2024 budget + general inflation</i>	\$12,300	\$12,792	\$13,304	\$13,836	\$14,389
110	Earthquake Insurance	10-200-6501	<i>FY 2024 budget + general inflation</i>	\$16,000	\$16,640	\$17,306	\$17,998	\$18,718
111	Auto/General Liability Insurance	10-200-6502	<i>FY 2024 budget + general inflation</i>	\$31,100	\$32,344	\$33,638	\$34,983	\$36,383
112	CYBER SECURITY INS	10-200-6503	<i>FY 2024 budget + general inflation</i>	\$1,800	\$1,872	\$1,947	\$2,025	\$2,106
113	Payroll Taxes	10-200-6110	<i>FY 2024 budget + salaries inflation</i>	\$93,800	\$98,490	\$103,415	\$108,585	\$114,014
114	PERS - ER Paid Member	10-200-6121	<i>FY 2024 budget + salaries inflation</i>	\$48,200	\$50,610	\$53,141	\$55,798	\$58,587
115	PERS - ER Classic	10-200-6122	<i>FY 2024 budget + salaries inflation</i>	\$90,500	\$95,025	\$99,776	\$104,765	\$110,003
116	PERS - ER PEPRA	10-200-6123	<i>FY 2024 budget + salaries inflation</i>	\$33,800	\$35,490	\$37,265	\$39,128	\$41,084
117	PERS Unfunded Expense	10-200-6126	<i>FY 2024 budget/ detailed projections</i>	\$55,000	\$49,400	\$43,700	\$35,900	\$27,200
118	OPEB Expense	10-200-6130	<i>FY 2024 budget/ detailed projections</i>	\$0	\$50,000	\$50,000	\$50,000	\$50,000

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Line	Detailed O&M Expenses	GL Code	Projection Basis	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
119	Maint - General Plant	10-200-6600	<i>FY 2024 budget + general inflation</i>	\$1,000	\$1,040	\$1,082	\$1,125	\$1,170
120	Maint - District Office	10-200-6601	<i>FY 2024 budget + general inflation</i>	\$12,000	\$12,480	\$12,979	\$13,498	\$14,038
121	Maint - District Yard	10-200-6602	<i>FY 2024 budget + general inflation</i>	\$5,000	\$5,200	\$5,408	\$5,624	\$5,849
122	Dues & Subscriptions	10-200-6700	<i>FY 2024 budget + general inflation</i>	\$19,700	\$20,488	\$21,308	\$22,160	\$23,046
123	Noticing	10-200-6702	<i>FY 2024 budget + general inflation</i>	\$27,500	\$28,600	\$29,744	\$30,934	\$32,171
124	Education Expense	10-200-6705	<i>FY 2024 budget + general inflation</i>	\$3,500	\$3,640	\$3,786	\$3,937	\$4,095
125	Conservation Expense	10-200-6709	<i>FY 2024 budget + general inflation</i>	\$25,000	\$26,000	\$27,040	\$28,122	\$29,246
126	Election Costs	10-200-6850	<i>FY 2024 budget/ detailed projections</i>	\$0	\$60,000	\$0	\$62,000	\$0
127	Subtotal			\$1,597,600	\$1,781,861	\$1,800,600	\$1,944,101	\$1,967,868
128								
129	Non-Operating Expenses (excl. Debt Service)							
130	Annual Loan Fee Expense	10-200-8001	<i>FY 2024 budget/ detailed projections</i>	\$19,100	\$18,600	\$18,100	\$17,500	\$17,000
131	Rental House - Repair & Maint	10-200-8100	<i>FY 2024 budget + general inflation</i>	\$2,600	\$2,704	\$2,812	\$2,925	\$3,042
132	Subtotal			\$21,700	\$21,304	\$20,912	\$20,425	\$20,042
133								
134	Total O&M Expenses			\$4,005,442	\$4,442,653	\$4,609,879	\$4,910,896	\$5,102,028

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7.2 APPENDIX B: DETAILED FUNCTIONALIZATION OF FY 2024 OPERATIONS & MAINTENANCE EXPENSES

Table 7-2: Detailed Functionalization of FY 2024 O&M Expenses

Line	Detailed O&M Expenses	GL Code	FY 2024	Allocation to Functional Categories
1	Source of Supply			
2	Source of Supply Salaries & Wages	10-110-5001	\$70,000	96.78% to Potable Water Supply / 3.22% to Recycled Water
3	Recycled Water	10-110-5009	\$37,121	100% to Recycled Water
4	Ground Water Replenishment	10-110-5000	\$1,114,521	100% to Potable Water Supply
5	Subtotal		\$1,221,642	
6				
7	Pumping			
8	Pumping Salaries & Wages	10-120-5100	\$240,000	86.57% to Groundwater Wells / 13.43% to Storage
9	Pumping Maint - Well 2	10-120-5102	\$1,100	100% to Groundwater Wells
10	Pumping Maint - Well 4A	10-120-5105	\$1,100	100% to Groundwater Wells
11	Pumping Maint - Well 5A	10-120-5108	\$4,800	100% to Groundwater Wells
12	Pumping Maint - Well 6	10-120-5111	\$1,100	100% to Groundwater Wells
13	Pumping Maint - Well 7	10-120-5114	\$1,100	100% to Groundwater Wells
14	Pumping Maint - Well 8	10-120-5117	\$4,400	100% to Groundwater Wells
15	Pumping Maint - Well 10	10-120-5123	\$3,900	100% to Groundwater Wells
16	Pumping Maint - Reservoir	10-120-5128	\$14,100	100% to Storage
17	Pumping Maint - Well 11	10-120-5125	\$20,000	100% to Groundwater Wells
18	Pumping Maint - Miscellaneous	10-120-5139	\$15,000	100% to Groundwater Wells
19	Power Exp - Well 2	10-120-5152	\$800	100% to Groundwater Wells
20	Power Exp - Well 4A	10-120-5155	\$2,000	100% to Groundwater Wells
21	Power Exp - Well 5A	10-120-5158	\$30,000	100% to Groundwater Wells
22	Power Exp - Well 6	10-120-5161	\$300	100% to Groundwater Wells
23	Power Exp - Well 7	10-120-5164	\$1,100	100% to Groundwater Wells
24	Power Exp - Well 8	10-120-5167	\$28,000	100% to Groundwater Wells
25	Power Exp - Well 9A	10-120-5172	\$2,500	100% to Groundwater Wells
26	Power Exp - Reservoir	10-120-5178	\$32,000	100% to Storage
27	Power Exp - Well 10	10-120-5189	\$5,000	100% to Groundwater Wells

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Line	Detailed O&M Expenses	GL Code	FY 2024	Allocation to Functional Categories
28	Power Exp - Well 11	10-120-5192	\$175,000	100% to Groundwater Wells
29	Subtotal		\$583,300	
30				
31	Water Treatment			
32	Treatment Salaries & Wages	10-130-5200	\$20,000	100% to Treatment
33	Chemicals	10-130-5210	\$39,800	100% to Treatment
34	Lab Testing	10-130-5220	\$37,000	100% to Treatment
35	Permits and Fees	10-130-5250	\$39,000	100% to Treatment
36	PFAS - Labor Increase	XX-XXX-XXXX	\$0	100% to Treatment
37	PFAS - Automatic Valve Maintenance	XX-XXX-XXXX	\$0	100% to Treatment
38	PFAS - Pre-Filter Replacements	XX-XXX-XXXX	\$0	100% to Treatment
39	PFAS - Additional PFAS Sampling	XX-XXX-XXXX	\$0	100% to Treatment
40	Subtotal		\$135,800	
41				
42	Transmission & Distribution			
43	Trans & Distrib Salaries & Wages	10-140-5300	\$95,000	100% to Distribution
44	Field Supplies & Expense	10-140-5301	\$5,500	100% to Distribution
45	Safety Expense	10-140-5302	\$5,000	100% to Distribution
46	Small Tools Expense	10-140-5303	\$2,000	100% to Distribution
47	Cross Connection Expense	10-140-5304	\$500	100% to Distribution
48	Repair Services	10-140-5305	\$1,000	100% to Distribution
49	Backhoe - Repair & Maint	10-140-5306	\$1,600	100% to Distribution
50	Hydrants - Repair & Maint	10-140-5307	\$7,500	100% to Public Fire Hydrants
51	Main Lines - Repair & Maint	10-140-5308	\$7,500	100% to Distribution
52	Meters - Repair & Maint	10-140-5309	\$7,500	100% to Meter Maintenance & Replacement
53	Service Lines - Repair & Maint	10-140-5310	\$8,200	100% to Distribution
54	Valves - Repair & Maint	10-140-5311	\$4,500	100% to Distribution
55	Misc - Trans & Dist Maint	10-140-5312	\$13,000	100% to Distribution
56	First Aid Expense	10-140-5313	\$700	100% to Distribution
57	Uniforms	10-140-5314	\$5,000	100% to Distribution
58	Fuel Expense	10-140-5350	\$25,800	100% to Distribution

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Line	Detailed O&M Expenses	GL Code	FY 2024	Allocation to Functional Categories
59	Veh Exp - 1183183 - 2005 Chev Util Trk	10-140-5352	\$600	100% to Distribution
60	Veh Exp - 1242776 - 2008 Ford Util Trk	10-140-5354	\$600	100% to Distribution
61	Veh Exp - 1455249 - 2015 Chev Trk	10-140-5357	\$500	100% to Distribution
62	Veh Exp - 1459257 - 2015 Chev Trk	10-140-5358	\$1,000	100% to Distribution
63	Veh Exp - 1491226 - 2016 Dodge Ram DmpTrk	10-140-5359	\$600	100% to Distribution
64	Veh Exp - 1555201 - 2019 Chev Trk	10-140-5360	\$500	100% to Distribution
65	Veh Exp - 1555202 - 2019 Chev Trk	10-140-5361	\$1,500	100% to Distribution
66	Veh Exp - Misc	10-140-5399	\$1,100	100% to Distribution
67	Subtotal		\$196,700	
68				
69	Customer Accounts			
70	Meter Read & Svc Call Salaries & Wages	10-150-5400	\$35,000	100% to Customer Service
71	Billing & Cust Svc Salaries & Wages	10-150-5403	\$133,800	100% to Customer Service
72	Billing & Collection Supplies	10-150-5406	\$72,500	100% to Customer Service
73	Billing Communication Expense	10-150-5407	\$7,400	100% to Customer Service
74	Subtotal		\$248,700	
75				
76	General & Administrative			
77	Gen & Admin Salaries & Wages	10-200-6000	\$358,300	100% to General & Admin
78	Salaries - Sick Leave	10-200-6003	\$42,500	4.28% to Customer Service / 8.28% to Potable Water Supply / 25.39% Groundwater Wells / 2.44% to Treatment / 3.94% to Storage / 11.61% to Distribution / 0.28% to Recycled Water / 43.79% to General & Admin
79	Salaries - Allowed Time	10-200-6006	\$18,900	4.28% to Customer Service / 8.28% to Potable Water Supply / 25.39% Groundwater Wells / 2.44% to Treatment / 3.94% to Storage / 11.61% to Distribution / 0.28% to Recycled Water / 43.79% to General & Admin
80	Salaries - Vacation Pay	10-200-6009	\$44,500	4.28% to Customer Service / 8.28% to Potable Water Supply / 25.39% Groundwater Wells / 2.44% to Treatment / 3.94% to Storage / 11.61% to Distribution / 0.28% to Recycled Water / 43.79% to General & Admin
81	Salaries - Holiday Pay	10-200-6012	\$41,000	4.28% to Customer Service / 8.28% to Potable Water Supply / 25.39% Groundwater Wells / 2.44% to Treatment / 3.94% to Storage / 11.61% to Distribution / 0.28% to Recycled Water / 43.79% to General & Admin
82	Salaries - Standby Pay	10-200-6015	\$19,000	4.28% to Customer Service / 8.28% to Potable Water Supply / 25.39% Groundwater Wells / 2.44% to Treatment / 3.94% to Storage / 11.61% to Distribution / 0.28% to Recycled Water / 43.79% to General & Admin

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Line	Detailed O&M Expenses	GL Code	FY 2024	Allocation to Functional Categories
83	Salaries - Phone Allowance	10-200-6021	\$1,700	4.28% to Customer Service / 8.28% to Potable Water Supply / 25.39% Groundwater Wells / 2.44% to Treatment / 3.94% to Storage / 11.61% to Distribution / 0.28% to Recycled Water / 43.79% to General & Admin
84	Salaries - Car Allowance	10-200-6024	\$8,400	4.28% to Customer Service / 8.28% to Potable Water Supply / 25.39% Groundwater Wells / 2.44% to Treatment / 3.94% to Storage / 11.61% to Distribution / 0.28% to Recycled Water / 43.79% to General & Admin
85	Director Compensation	10-200-6200	\$35,000	100% to General & Admin
86	Travel/Mtgs - V. Caballero	10-200-6210	\$3,000	100% to General & Admin
87	Travel/Mtgs - D. Gonzales	10-200-6211	\$3,000	100% to General & Admin
88	Travel/Mtgs - D. Angelo	10-200-6218	\$3,000	100% to General & Admin
89	Travel/Mtgs -R. Rodriguez	10-200-6217	\$3,000	100% to General & Admin
90	Travel/Mtgs - E. Ramirez	10-200-6213	\$3,000	100% to General & Admin
91	Travel/Mtgs - General Manager	10-190-6209	\$3,100	100% to General & Admin
92	Other Board Expense	10-200-6280	\$2,600	100% to General & Admin
93	Office Supplies & Expense	10-200-6300	\$11,300	100% to General & Admin
94	Office Utilities	10-200-6301	\$24,900	100% to General & Admin
95	Prof Services - Accounting	10-200-6401	\$90,400	100% to General & Admin
96	Prof Services - Computer	10-200-6402	\$5,400	100% to General & Admin
97	Prof Services - Engineering	10-200-6403	\$3,100	100% to General & Admin
98	Prof Services - Legal	10-200-6400	\$45,000	100% to General & Admin
99	Prof Services - Misc	10-200-6409	\$4,000	100% to General & Admin
100	Prof Services - Emergency Preparedness	10-200-6410	\$15,200	100% to General & Admin
101	Prof Services - Licensing & Support	10-200-6404	\$28,200	100% to General & Admin
102	Prof Services - Nobel GIS System	10-200-6412	\$24,100	100% to General & Admin
103	Group Insurance - Health	10-200-6101	\$181,600	4.28% to Customer Service / 8.28% to Potable Water Supply / 25.39% Groundwater Wells / 2.44% to Treatment / 3.94% to Storage / 11.61% to Distribution / 0.28% to Recycled Water / 43.79% to General & Admin
104	Group Insurance - Dental	10-200-6102	\$25,500	4.28% to Customer Service / 8.28% to Potable Water Supply / 25.39% Groundwater Wells / 2.44% to Treatment / 3.94% to Storage / 11.61% to Distribution / 0.28% to Recycled Water / 43.79% to General & Admin
105	Group Insurance - Life	10-200-6103	\$5,000	4.28% to Customer Service / 8.28% to Potable Water Supply / 25.39% Groundwater Wells / 2.44% to Treatment / 3.94% to Storage / 11.61% to Distribution / 0.28% to Recycled Water / 43.79% to General & Admin

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Line	Detailed O&M Expenses	GL Code	FY 2024	Allocation to Functional Categories
106	Group Insurance - Vision	10-200-6104	\$4,400	4.28% to Customer Service / 8.28% to Potable Water Supply / 25.39% Groundwater Wells / 2.44% to Treatment / 3.94% to Storage / 11.61% to Distribution / 0.28% to Recycled Water / 43.79% to General & Admin
107	Group Insurance - Health Retiree Over 65	10-200-6105	\$42,300	4.28% to Customer Service / 8.28% to Potable Water Supply / 25.39% Groundwater Wells / 2.44% to Treatment / 3.94% to Storage / 11.61% to Distribution / 0.28% to Recycled Water / 43.79% to General & Admin
108	Workers Comp Insurance	10-200-6111	\$21,000	4.28% to Customer Service / 8.28% to Potable Water Supply / 25.39% Groundwater Wells / 2.44% to Treatment / 3.94% to Storage / 11.61% to Distribution / 0.28% to Recycled Water / 43.79% to General & Admin
109	Property Insurance	10-200-6500	\$12,300	100% to General & Admin
110	Earthquake Insurance	10-200-6501	\$16,000	100% to General & Admin
111	Auto/General Liability Insurance	10-200-6502	\$31,100	100% to General & Admin
112	CYBER SECURITY INS	10-200-6503	\$1,800	100% to General & Admin
113	Payroll Taxes	10-200-6110	\$93,800	4.28% to Customer Service / 8.28% to Potable Water Supply / 25.39% Groundwater Wells / 2.44% to Treatment / 3.94% to Storage / 11.61% to Distribution / 0.28% to Recycled Water / 43.79% to General & Admin
114	PERS - ER Paid Member	10-200-6121	\$48,200	4.28% to Customer Service / 8.28% to Potable Water Supply / 25.39% Groundwater Wells / 2.44% to Treatment / 3.94% to Storage / 11.61% to Distribution / 0.28% to Recycled Water / 43.79% to General & Admin
115	PERS - ER Classic	10-200-6122	\$90,500	4.28% to Customer Service / 8.28% to Potable Water Supply / 25.39% Groundwater Wells / 2.44% to Treatment / 3.94% to Storage / 11.61% to Distribution / 0.28% to Recycled Water / 43.79% to General & Admin
116	PERS - ER PEPRA	10-200-6123	\$33,800	4.28% to Customer Service / 8.28% to Potable Water Supply / 25.39% Groundwater Wells / 2.44% to Treatment / 3.94% to Storage / 11.61% to Distribution / 0.28% to Recycled Water / 43.79% to General & Admin
117	PERS Unfunded Expense	10-200-6126	\$55,000	4.28% to Customer Service / 8.28% to Potable Water Supply / 25.39% Groundwater Wells / 2.44% to Treatment / 3.94% to Storage / 11.61% to Distribution / 0.28% to Recycled Water / 43.79% to General & Admin
118	OPEB Expense	10-200-6130	\$0	4.28% to Customer Service / 8.28% to Potable Water Supply / 25.39% Groundwater Wells / 2.44% to Treatment / 3.94% to Storage / 11.61% to Distribution / 0.28% to Recycled Water / 43.79% to General & Admin
119	Maint - General Plant	10-200-6600	\$1,000	100% to General & Admin
120	Maint - District Office	10-200-6601	\$12,000	100% to General & Admin
121	Maint - District Yard	10-200-6602	\$5,000	100% to General & Admin
122	Dues & Subscriptions	10-200-6700	\$19,700	100% to General & Admin
123	Noticing	10-200-6702	\$27,500	100% to Customer Service

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Line	Detailed O&M Expenses	GL Code	FY 2024	Allocation to Functional Categories
124	Education Expense	10-200-6705	\$3,500	100% to General & Admin
125	Conservation Expense	10-200-6709	\$25,000	100% to Conservation
126	Election Costs	10-200-6850	\$0	100% to General & Admin
127	Subtotal		\$1,597,600	
128				
129	Non-Operating Expenses (excl. Debt Service)			
130	Annual Loan Fee Expense	10-200-8001	\$19,100	100% to General & Admin
131	Rental House - Repair & Maint	10-200-8100	\$2,600	100% to General & Admin
132	Subtotal		\$21,700	
133				
134	Total O&M Expenses		\$4,005,442	

Notes:

- Salaries and wages within each budget department are allocated in proportion to the allocation of all other costs within that budget department.
- General & Administrative benefits are allocated in proportion to the overall allocation of salaries and wages across all budget departments.

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7.3 APPENDIX C: DETAILED FUNCTIONALIZATION OF CURRENT CAPITAL ASSETS

Table 7-3: Detailed Functionalization of Current Capital Assets

Line	Asset ID	Description	Year Acquired	Inflationary Adjustment	Net Book Value	Replacement Cost Less Depreciation	Allocation to Functional Categories
1	201901	Server - Power Edge T620	2019	118.1%	\$1,729	\$2,042	100% to General & Admin
2	201902	2019 Hydrants	2019	118.1%	\$6,060	\$7,159	100% to Public Fire Hydrants
3	201903	2019 Meter Replacements	2019	118.1%	\$87,585	\$103,471	100% to Meter Maintenance & Replacement
4	201904	Valve Replacement - 9300 Ex Road	2019	118.1%	\$12,656	\$14,952	100% to Distribution
5	201905	Tyler Software and Implementation	2019	118.1%	\$15,474	\$18,281	100% to Customer Service
6	201906	Well # 10 Rehab 2019	2019	118.1%	\$142,907	\$168,827	100% to Groundwater Wells
7	201907	Well #10 Fencing	2019	118.1%	\$18,131	\$21,419	100% to Groundwater Wells
8	201908	Mainline Extension - Durfee Ave. (Whittier to Beverly)	2019	118.1%	\$687,613	\$812,332	100% to Distribution
9	201909	Mainline Extension - Whittier Blvd.	2019	118.1%	\$1,771,184	\$2,092,439	100% to Distribution
10	202001	2020 Smart Meters	2020	116.2%	\$93,268	\$108,410	100% to Meter Maintenance & Replacement
11	202002	2020 Meter Replacements	2020	116.2%	\$65,592	\$76,241	100% to Meter Maintenance & Replacement
12	202003	Diesel Generator	2020	116.2%	\$142,412	\$165,533	100% to Groundwater Wells
13	202004	Land Improvements - Well 9 Demo at Res. Site	2020	116.2%	\$35,188	\$40,901	100% to Groundwater Wells
14	202005	Well 8 Fencing	2020	116.2%	\$6,022	\$6,999	100% to Groundwater Wells
15	202006	Booster #1 Replacement	2020	116.2%	\$25,793	\$29,980	100% to Transmission
16	202007	Mainline Extension Whittier Blvd	2020	116.2%	\$147,400	\$171,331	100% to Distribution
17	202101	2021 Meter Replacements	2021	109.8%	\$23,328	\$25,624	100% to Meter Maintenance & Replacement
18	202102	Well 11	2021	109.8%	\$3,836,532	\$4,214,123	100% to Groundwater Wells
19	202103	Mainline extension - Layman	2021	109.8%	\$509,458	\$559,598	100% to Distribution
20	202104	Mainline extension - Beverly Blvd	2021	109.8%	\$849,788	\$933,424	100% to Distribution
21	202105	Mainline extension - Stephens Street	2021	109.8%	\$319,722	\$351,188	100% to Distribution
22	202106	Mainline extension - Burma Road	2021	109.8%	\$195,704	\$214,965	100% to Distribution
23	202107	Mainline extension - Rosemead	2021	109.8%	\$49,648	\$54,534	100% to Distribution

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Line	Asset ID	Description	Year Acquired	Inflationary Adjustment	Net Book Value	Replacement Cost Less Depreciation	Allocation to Functional Categories
24	202108	Reservoir Building Retaining wall	2021	109.8%	\$7,154	\$7,858	100% to Storage
25	202109	Well 11 Discharge Line	2021	109.8%	\$34,112	\$37,469	100% to Groundwater Wells
26	202110	8700 Whitter Blvd Water Service	2021	109.8%	\$7,058	\$7,752	100% to Distribution
27	202111	4937 Durfee - 2 Inch Water Service - 4937 Durfee	2021	109.8%	\$7,068	\$7,763	100% to Distribution
28	202112	Beverly/Rosemead Water Services	2021	109.8%	\$22,353	\$24,553	100% to Distribution
29	202301	9200 Whittier Blvd fire hydrant line	2022	102.5%	\$61,902	\$63,426	100% to Public Fire Hydrants
30	202302	LA County Sheriff Fire Sprinklers fire service installation	2022	102.5%	\$44,215	\$45,304	100% to Private Fire Protection
31	202303	Well # 5 Fencing/Gate	2022	102.5%	\$8,080	\$8,279	100% to Groundwater Wells
32	202304	2023 Meter Replacements	2023	100.0%	\$14,089	\$14,089	100% to Meter Maintenance & Replacement
33	202305	2023 Valve Replacements	2023	100.0%	\$17,488	\$17,488	100% to Distribution
34	202306	Well #11 Block Wall Fence	2022	102.5%	\$14,515	\$14,873	100% to Groundwater Wells
35	202307	Domestic Services (4) - Havenwood	2022	102.5%	\$15,885	\$16,276	100% to Distribution
36	202308	Well 11 Generator	2022	102.5%	\$41,527	\$42,550	100% to Groundwater Wells
37	202309	Mainline services	2022	102.5%	\$6,835	\$7,003	100% to Distribution
38	202310	Well 8 Rehab - New variable frequency drive	2022	102.5%	\$107,334	\$109,977	100% to Groundwater Wells
39	202311	2023 Chevy Silverado	2023	100.0%	\$48,052	\$48,052	100% to Distribution
40	202312	Tank Roof Hatch Upgrade	2022	102.5%	\$10,325	\$10,579	100% to Storage
41	202313	Mainline Repairs	2023	100.0%	\$14,220	\$14,220	100% to Distribution
42	202314	Well 4 Rehab Usable Parts	2022	102.5%	\$36,419	\$37,315	100% to Groundwater Wells
43	3010	2019 Chev Colorado #74	2018	120.5%	\$12,127	\$14,610	100% to Distribution
44	3011	2019 Chev Colorado #76	2018	120.5%	\$12,127	\$14,610	100% to Distribution
45	5058	CATE RESERVOIR	1959	1672.2%	\$29,243	\$488,989	100% to Storage
46	5106	DISTR. LINES & MAINS	1974	659.8%	\$1,045	\$6,898	100% to Distribution
47	5109	DISTR. LINES & MAINS	1975	602.5%	\$1,601	\$9,644	100% to Distribution
48	5112	DISTR. LINES & MAINS	1976	555.1%	\$4,278	\$23,748	100% to Distribution
49	5116	DISTR. LINES & MAINS	1977	517.4%	\$4,180	\$21,628	100% to Distribution

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Line	Asset ID	Description	Year Acquired	Inflationary Adjustment	Net Book Value	Replacement Cost Less Depreciation	Allocation to Functional Categories
50	5119	DISTR. LINES & MAINS	1978	480.1%	\$71,532	\$343,416	100% to Distribution
51	5130	DISTR. LINES & MAINS	1981	377.0%	\$6,445	\$24,297	100% to Distribution
52	5133	DISTR. LINES & MAINS	1982	348.4%	\$9,926	\$34,583	100% to Distribution
53	5137	DISTR. LINES & MAINS	1983	327.8%	\$19,419	\$63,651	100% to Distribution
54	5147	DISTR. LINES & MAINS	1985	317.7%	\$32,695	\$103,869	100% to Distribution
55	5156	DISTR. LINES & MAINS	1986	310.3%	\$19,552	\$60,668	100% to Distribution
56	5174	DISTR. L&M-MASTER PLAN	1987	302.5%	\$525,747	\$1,590,262	100% to Distribution
57	5175	DISTR. LINES & MAINS	1987	302.5%	\$32,749	\$99,059	100% to Distribution
58	5178	DISTR. LINES & MAINS	1988	294.9%	\$2,273	\$6,704	100% to Distribution
59	5183	DISTR. LINES & MAINS	1989	288.8%	\$16,042	\$46,325	100% to Distribution
60	5185	HYDRANTS	1989	288.8%	\$1,642	\$4,743	100% to Public Fire Hydrants
61	5186	DISTR. LINES & MAINS	1990	281.6%	\$71,756	\$202,094	100% to Distribution
62	5201	DISTR. LINES & MAINS	1991	275.6%	\$164,194	\$452,583	100% to Distribution
63	5213	DISTR. LINES & MAINS	1994	246.4%	\$19,092	\$47,050	100% to Distribution
64	5221	DISTR. LINES & MAINS	1996	237.1%	\$150,511	\$356,918	100% to Distribution
65	5223	HYDRANTS	1996	237.1%	\$2,455	\$5,822	100% to Public Fire Hydrants
66	5226	DISTR. LINES & MAINS	1997	228.8%	\$58,680	\$134,233	100% to Distribution
67	5228	HYDRANTS	1997	228.8%	\$2,121	\$4,852	100% to Public Fire Hydrants
68	5229	DISTR. LINES & MAINS	1998	225.1%	\$48,889	\$110,060	100% to Distribution
69	5237	DISTR. LINES & MAINS	1999	220.0%	\$9,428	\$20,737	100% to Distribution
70	5243	SAND SEPARATOR WELL #4A	1999	220.0%	\$946	\$2,081	100% to Groundwater Wells
71	5249	DISTR. LINES & MAINS	2001	210.1%	\$79,885	\$167,844	100% to Distribution
72	5260	DISTR. LINES & MAINS	2002	203.8%	\$52,430	\$106,874	100% to Distribution
73	5293	Block Wall Fence 190' x 6' [Dist Yard]	2005	179.0%	\$1,275	\$2,281	100% to General & Admin
74	5308	Block Wall - Well #2	2006	171.9%	\$944	\$1,623	100% to Groundwater Wells
75	5309	DISTR. LINES & MAINS	2006	171.9%	\$16,849	\$28,971	100% to Distribution

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Line	Asset ID	Description	Year Acquired	Inflationary Adjustment	Net Book Value	Replacement Cost Less Depreciation	Allocation to Functional Categories
76	5311	HYDRANTS	2006	171.9%	\$6,700	\$11,520	100% to Public Fire Hydrants
77	5312	DISTR. LINES & MAINS	2007	167.3%	\$72,745	\$121,703	100% to Distribution
78	5314	HYDRANTS	2007	167.3%	\$41,244	\$69,001	100% to Public Fire Hydrants
79	5317	Well # 10 Rehab	2007	167.3%	\$55,360	\$92,617	100% to Groundwater Wells
80	5318	Compressor - Airman S/N B4-6B44579	2007	167.3%	\$620	\$1,037	100% to Distribution
81	5325	Paving Wells #2 & #8 [Partial]	2008	160.4%	\$112	\$180	100% to Groundwater Wells
82	5326	DISTR. LINES & MAINS	2008	160.4%	\$685,635	\$1,099,585	100% to Distribution
83	5328	HYDRANTS	2008	160.4%	\$30,656	\$49,164	100% to Public Fire Hydrants
84	5329	DISTR. LINES & MAINS	2009	155.5%	\$131,058	\$203,807	100% to Distribution
85	5330	METERS & SERVICES	2009	155.5%	\$15,225	\$23,676	100% to Meter Maintenance & Replacement
86	5331	HYDRANTS	2009	155.5%	\$38,721	\$60,214	100% to Public Fire Hydrants
87	5332	Building Remodel - Phase 1	2009	155.5%	\$96,021	\$149,322	100% to General & Admin
88	5338	Well #5 Rehab	2009	155.5%	\$32,023	\$49,799	100% to Groundwater Wells
89	5341	Paving Wells #2, #7, #8, #10 & Reservoir	2009	155.5%	\$3,187	\$4,956	100% to Groundwater Wells
90	5342	Well #10 Rehab	2010	151.5%	\$12,471	\$18,888	100% to Groundwater Wells
91	5343	Well #8 Rehab	2010	151.5%	\$22,798	\$34,530	100% to Groundwater Wells
92	5344	DISTR. LINES & MAINS	2010	151.5%	\$72,572	\$109,918	100% to Distribution
93	5345	METERS & SERVICES	2010	151.5%	\$14,549	\$22,036	100% to Meter Maintenance & Replacement
94	5346	HYDRANTS	2010	151.5%	\$53,052	\$80,354	100% to Public Fire Hydrants
95	5348	Complete Paving Wells #7, #8, #10 & Reservoir	2010	151.5%	\$777	\$1,177	100% to Groundwater Wells
96	5349	DISTR. LINES & MAINS	2011	146.9%	\$69,519	\$102,148	100% to Distribution
97	5350	METERS & SERVICES	2011	146.9%	\$21,620	\$31,768	100% to Meter Maintenance & Replacement
98	5351	HYDRANTS	2011	146.9%	\$13,287	\$19,524	100% to Public Fire Hydrants
99	5354	Building Remodel - Phase 11	2011	146.9%	\$69,816	\$102,585	100% to General & Admin
100	5357	DISTR. LINES & MAINS	2012	143.2%	\$101,318	\$145,066	100% to Distribution
101	5358	METERS & SERVICES	2012	143.2%	\$41,461	\$59,363	100% to Meter Maintenance & Replacement

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Line	Asset ID	Description	Year Acquired	Inflationary Adjustment	Net Book Value	Replacement Cost Less Depreciation	Allocation to Functional Categories
102	5359	HYDRANTS	2012	143.2%	\$45,115	\$64,595	100% to Public Fire Hydrants
103	5361	Booster #2 Regulating Valve & Gate Valve	2012	143.2%	\$1,970	\$2,820	100% to Transmission
104	5362	Building Remodel - Phase 111 [Pkg Lot/Paving]	2012	143.2%	\$12,273	\$17,573	100% to General & Admin
105	5363	Valve Turning Machine w/ Trailer	2012	143.2%	\$2,091	\$2,994	100% to Distribution
106	5364	DISTR. LINES & MAINS	2013	139.6%	\$178,495	\$249,170	100% to Distribution
107	5365	METERS & SERVICES	2013	139.6%	\$115,339	\$161,007	100% to Meter Maintenance & Replacement
108	5366	HYDRANTS	2013	139.6%	\$47,204	\$65,894	100% to Public Fire Hydrants
109	5367	Booster #3 Regulating Valve & Gate Valve	2013	139.6%	\$2,204	\$3,076	100% to Transmission
110	5373	220 Gal Vacuum Skid	2013	139.6%	\$12,320	\$17,198	100% to Distribution
111	5374	Reservoir Rehab - Phase I	2013	139.6%	\$71,192	\$99,380	100% to Storage
112	5376	Mobile emergency generator for Wells	2013	139.6%	\$37,610	\$52,502	100% to Groundwater Wells
113	5378	Well #10 - VFD	2014	135.9%	\$11,794	\$16,029	100% to Groundwater Wells
114	5379	Upgrade Electrical Well #8 - Generator	2014	135.9%	\$1,818	\$2,471	100% to Groundwater Wells
115	5380	Emergency Gen Connection upgrade	2014	135.9%	\$11,004	\$14,955	100% to Groundwater Wells
116	5381	DISTR. LINES & MAINS	2014	135.9%	\$17,696	\$24,050	100% to Distribution
117	5382	METERS & SERVICES	2014	135.9%	\$145,392	\$197,599	100% to Meter Maintenance & Replacement
118	5383	HYDRANTS	2014	135.9%	\$54,313	\$73,815	100% to Public Fire Hydrants
119	5384	Well #10 Rehab-Remove Pump	2014	135.9%	\$61,938	\$84,178	100% to Groundwater Wells
120	5387	Guard Rail-entry hatch - Reservoir	2015	132.8%	\$878	\$1,166	100% to Storage
121	5388	Inter-tie Emergency Connect w/ CPR	2015	132.8%	\$70,919	\$94,185	100% to Transmission
122	5389	Update Storage Garage - Well #1 Demo	2015	132.8%	\$4,822	\$6,404	100% to Groundwater Wells
123	5390	DISTR. LINES & MAINS	2015	132.8%	\$574,316	\$762,729	100% to Distribution
124	5391	METERS & SERVICES	2015	132.8%	\$9,285	\$12,331	100% to Meter Maintenance & Replacement
125	5392	HYDRANTS	2015	132.8%	\$10,614	\$14,096	100% to Public Fire Hydrants
126	5394	METERS & SERVICES	2016	128.9%	\$64,266	\$82,848	100% to Meter Maintenance & Replacement
127	5395	HYDRANTS	2016	128.9%	\$49,590	\$63,928	100% to Public Fire Hydrants

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Line	Asset ID	Description	Year Acquired	Inflationary Adjustment	Net Book Value	Replacement Cost Less Depreciation	Allocation to Functional Categories
128	5397	Paving Well #8	2016	128.9%	\$4,103	\$5,289	100% to Groundwater Wells
129	5401	METERS & SERVICES	2017	124.1%	\$4,911	\$6,096	100% to Meter Maintenance & Replacement
130	5403	Well #10 Re-Roof and Wood Repairs	2017	124.1%	\$5,672	\$7,040	100% to Groundwater Wells
131	5406	HYDRANTS	2017	124.1%	\$4,557	\$5,656	100% to Public Fire Hydrants
132	5415	HYDRANTS	2017	124.1%	\$5,342	\$6,631	100% to Public Fire Hydrants
133	5418	METERS & SERVICES	2017	124.1%	\$3,125	\$3,879	100% to Meter Maintenance & Replacement
134	5419	METERS & SERVICES	2017	124.1%	\$3,284	\$4,076	100% to Meter Maintenance & Replacement
135	5461	Re-Roof Garage - Yard	2017	124.1%	\$7,620	\$9,458	100% to General & Admin
136	5462	2" Water Main Replaced	2018	120.5%	\$3,791	\$4,568	100% to Distribution
137	5463	Cate Reservoir Paving	2018	120.5%	\$10,865	\$13,089	100% to Storage
138	5464	Shenandoah Neighborhood Pipeline Replacement	2018	120.5%	\$608,587	\$733,206	100% to Distribution
139	5465	Rosemead & Danbridge Mainline Repair	2018	120.5%	\$21,911	\$26,397	100% to Distribution
140	5470	SCADA System & Equipment	2018	120.5%	\$27,332	\$32,929	100% to Treatment
141	5471	Catherine & Lindsey Ave	2019	118.1%	\$381,818	\$451,071	100% to Distribution
142	5472	Fire Hydrant - 9531 Beverly Rd	2019	118.1%	\$4,670	\$5,517	100% to Public Fire Hydrants
143	5473	Fire Hydrant - 9417 Stephens	2019	118.1%	\$4,568	\$5,397	100% to Public Fire Hydrants
144	5475	3" Boring Tool & Service Line Splitter Kit	2019	118.1%	\$7,819	\$9,237	100% to Distribution
145	8010	Rental House Improvements	2017	124.1%	\$4,977	\$6,178	100% to General & Admin
146	8011	Rental House Remodel	2017	124.1%	\$55,807	\$69,270	100% to General & Admin
147	Total				\$15,531,664	\$21,586,243	

Notes:

- Capital assets associated with land and water rights are excluded.
- Replacement cost less depreciation = inflationary adjustment × net book value.

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