

City of Signal Hill

Water Rate Study

April 1, 2025



Tuesday, April 1, 2025

Mr. Thomas Bekele
Public Works Director
City of Signal Hill
2175 Cherry Ave
Signal Hill, CA 90755

Subject: Water Rate Study Report

Dear Mr. Bekele,

Raftelis is pleased to provide this Water Rate Study Report for the City of Signal Hill (City). This Report includes the development of a financial plan for the fiscal years FY 2025 through FY 2035 and proposed water rates for adoption and implementation for five years, beginning in July 2025.

The major objectives of the study include the following:

1. Development of a financial plan and proposed revenue adjustments to ensure financial sufficiency, reserves funding at satisfactory levels, and funding for planned capital investments.
2. Calculation of water rates that fully recover the City's cost of providing service.
3. Ensure long-term financial sustainability of the City's Water enterprise.

The Study details the financial inputs, estimates, projections, key findings, and recommendations which collectively develop the financial plan and corresponding proposed water rates.

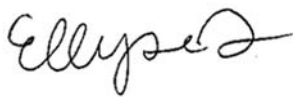
We thank you and other City staff for their support during this study.

Sincerely,

Raftelis Financial Consultants, Inc.



Kevin Kostiuik
Senior Manager



Ellyse Ritchie
Senior Consultant

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1. Executive Summary

1.1. Study Background

The City of Signal Hill (City) engaged Raftelis in 2024 to complete a Water Rate Study (Study) in conjunction with a Water Master Plan (WMP) Study, conducted by Dudek. The Study consisted of developing a long-range financial plan, evaluating financial policies, modeling financial alternatives to fund future capital re-investment, and calculating water rates for a five-year period. The Study incorporates updated inputs, estimates, and projections based on the most recently available financial information and customer billing data, as well as the capital improvement program (CIP) results of the WMP by Dudek.

The study encompasses a ten-year financial planning period from fiscal year (FY) 2025 to FY 2034 and five years of proposed rates, for adoption beginning July 1, 2025 and in July of every year thereafter. For the purposes of this study, FY 2026 is the year starting on July 1, 2025, and ending on June 30, 2026.

Raftelis collaborated closely with City staff to provide revenue adjustments that meet the City's objectives. The main objectives that informed the study include:

- » Development of a financial plan and proposed revenue adjustments to ensure cash reserves funding at proposed levels and funding for capital improvements.
- » Minimizing rate impacts to customers while maintaining adequate reserves for all years of the study.
- » Maintaining the existing water rate structure that customers know and that serves the City well.
- » Rates that fully recover the City Water enterprise's costs of providing water service.

1.2. Agency Overview

The City of Signal Hill's water department provides water service to a population of over 11,000 people through about 3,150 metered water connections. The City's water system consists of:

- » Approximately 50 miles of transmission and distribution pipeline;
- » One water treatment plant;
- » One MWD imported water connection;
- » Three groundwater production wells;
- » Three booster pump stations;
- » Three storage reservoirs.

Water supplied to the City comes from various sources, which include water from three groundwater wells, and supplemental water purchases from Metropolitan Water District of Southern California (MWD). The local groundwater supply originates from the San Gabriel mountains, which then flows down the San Gabriel River watershed and makes its way underground into the Central Basin. Upon the completion and permitting of Well No. 10, the City's wells will be capable of producing a combined flow of approximately 2,100 GPM and are expected to supply 70.0 percent of the City's water from FY 2026 onward.

1.3. Current Rates

The current rates, adopted in June 2020 and last updated in January 2024, were originally developed in a 2020 rate study. The City's existing water rate structure consists of the following components:

1. Monthly meter charge – for all water customers, based on meter size
2. Monthly private fire line charge – for all customers with private fire lines, based on fire line size
3. Water usage rate – for all customers, per one hundred cubic feet (CCF) of usage, customer class, and/or tier
 - a. Residential – two-tier rate structure
 - i. Single Family Residential (SFR)
 - ii. Multi-Family Residential (MFR)
 - b. Commercial, Industrial, and Institutional – three-tier rate structure
 - c. Irrigation – two-tier rate structure

Table 1-1 shows the City’s current monthly meter charges.

Table 1-1: Current Monthly Meter Service Charges (\$/Month)

A Line	B Meter Size	C FY 2025
1	5/8"	\$25.76
2	3/4"	\$25.76
3	1"	\$66.30
4	1 1/2"	\$146.15
5	2"	\$253.25
6	3"	\$567.40
7	4"	\$567.40
8	6"	\$567.40
9	8"	\$567.40
10	10"	\$1,810.06

The City imposes a fixed monthly fire line service charge on properties that are required to install¹ a private fire suppression system as a condition of extending or initiating water service, or where the customer or property owner has installed a private fire line for the purpose of fire protection. The rates for the monthly fire line service charge are established based on the diameter of the fire line serving a property. They are calculated to recover the costs associated with fire service capacity in the water distribution system. **Table 1-2** shows the City’s current monthly residential fire service charges.

Table 1-2: Current Monthly Residential Fire Service Charges (\$/Month)

A Line	B Fireline Diameter	C FY 2025
1	2"	\$121.79
2	4"	\$240.77
3	6"	\$362.01
4	8"	\$457.02
5	10"	\$457.02

Table 1-3 shows the City’s current monthly business private fire line charges.

¹ Installation of fire suppression is required by law.

Table 1-3: Current Monthly Business Fire Service Charges (\$/Month)

A Line	B Fireline Diameter	C FY 2025
1	2"	\$205.95
2	3"	\$205.95
3	4"	\$457.02
4	6"	\$457.02
5	8"	\$457.02
6	10"	\$457.02

The volumetric component of a customer's water bill is calculated based on the number of units of water delivered to a property, measured in CCF, multiplied by the rate(s) that vary by customer class and tier. The current tier widths and rates are shown in **Table 1-4**. The volumetric component of a customer's bill is determined by multiplying the amount of use in each tier by the associated rate.

Table 1-4: Current Water Usage Charges (\$/CCF)

A Line	B Class/Tier	C Monthly Tier (CCF)	D FY 2025 (\$/CCF)
Residential - Single Family			
1	Tier 1	0-15	\$4.38
2	Tier 2	>16	\$6.99
Residential - Multi-Family			
3	Tier 1	0-15	\$4.38
4	Tier 2	>16	\$6.99
Commercial, Industrial, and Institutional			
5	Tier 1	0-15	\$4.38
6	Tier 2	16-150	\$6.99
7	Tier 3	>151	\$10.29
Irrigation			
8	Tier 1	0-15	\$4.38
9	Tier 2	>16	\$6.66

1.4. Legal Framework²

The rate-making process for water agencies in California begins with a review of Proposition 218, the main legal framework in the State governing water rates.

² Raftelis does not practice law nor does it provide legal advice. The above discussion provides a general overview of Raftelis' understanding as rate practitioners and is labeled "legal framework" for literary convenience only. The DWP should consult with its legal counsel for specific guidance.

1.4.1.CALIFORNIA CONSTITUTION – ARTICLE XIII D, SECTION 6 (PROPOSITION 218)

Proposition 218 was enacted by voters in 1996 to ensure, in part, that fees and charges imposed for ongoing delivery of a service to a property (“property-related fees and charges”) are proportional to, and do not exceed, the cost of providing service. Water service fees and charges are property-related and subject to the provisions of Proposition 218. The principal requirements, as they relate to public water service fees and charges, are as follows:

1. Revenues derived from a property-related charge imposed by a public agency shall not exceed the costs required to provide the property-related service.
2. Revenues derived by the fee or charge shall not be used for any purpose other than that for which the fee or charge was imposed.
3. The amount of the fee or charge imposed upon any parcel shall not exceed the proportional cost of service attributable to the parcel.
4. No fee or charge may be imposed for a service unless that service is actually used or immediately available to the owner of property.
5. A written notice of the proposed fee or charge shall be mailed to the record owner of each parcel not less than 45 days prior to a public hearing, when the agency considers all written protests against the charge.

As stated in the American Water Works Association’s (AWWA) Manual of Water Supply Practices M1, *Principles of Water Rates, Fees, and Charges, Seventh Edition* (M1 Manual), “water rates and charges should be recovered from classes of customers in proportion to the cost of serving those customers.” Proposition 218 requires that water rates be supported by substantial, reliable evidence demonstrating compliance with the requirements described above.

1.5.Cost-Based Rate Setting Methodology

There are four primary steps to develop utility rates that align with Proposition 218. These steps are outlined below.

1.5.1.REVENUE REQUIREMENT DETERMINATION

The rate-making process starts by determining the base year (Test Year) revenue requirement, which for this Study is Fiscal Year 2025 which runs from July 1, 2024 through June 30, 2025. The revenue requirement should sufficiently fund the utility’s O&M expenses, debt service, capital expenses, and reserve funding. The revenue requirement represents the total cost to provide service.

1.5.2.COST OF SERVICE ANALYSIS (COS)

The annual cost of providing water service is distributed among customer classes commensurate with their service requirements. A COS analysis involves the following:

1. Identify the revenue requirement, as mentioned immediately above
2. Functionalize operating and capital costs. Examples of functions include supply, treatment, transmission, distribution, storage, meter servicing, and customer billing.
3. Allocate functionalized costs to cost components. Cost components may include supply, base delivery, maximum day, maximum hour³, conservation, fire protection, meter servicing, and customer servicing and billing costs.
4. Distribute the cost components. Distribute cost components, using unit rates, to customer classes in proportion to their demands and burdens on the water system. This is described in the M1 Manual published by AWWA.

³ Collectively maximum day and maximum hour costs are known as extra-capacity, or “peaking” costs

1.5.3.RATE DESIGN AND CALCULATIONS

Rates do more than simply recover costs. Within the legal framework and industry standards, properly designed rates should support and optimize a blend of utility objectives, so long as rates are cost-justified. In addition to communicating the price of water service, cost-justified rates act as a public information tool in communicating pricing objectives to customers.

1.5.4.RATE ADOPTION

Rate adoption is the last step of the rate-making process. Raftelis memorializes the rate study results in a study report which documents the basis upon which the rates were calculated, the rationale and justifications behind the proposed charges, any changes to rate structures, and anticipated financial impacts to ratepayers.

Changes to rates and impacts to ratepayers can happen for a variety of reasons, including, but not limited to: a change in the total costs to serve customers; changes to the areas in which operating and capital costs are incurred; changes to water system components; changes to a water system's customer base and demand patterns; changes in cost of service methodology; and changes to rate structures and design.

1.6.Cost of Service

As directed by the City, this study relies on the existing cost of service and adjusts water rates based on the results of the financial plan. All rates are increased proportionally based on the existing rates and rate structures.

1.7.Results and Recommendations

The results and recommendations that Raftelis developed in collaboration with City staff and Council include the following:

- » Planned revenue adjustments (gross revenue increases) not to exceed 15.0 percent per year in FY 2026 and FY 2027; 14.0 percent per year in FY 2028 and FY 2029; and 10.0 percent in FY 2030
- » A loan from the City's General Fund of \$3.0 million for partial funding of the Gundry Reservoir roof replacement project. This loan assumes a 20-year term at an interest rate of 3%
- » An alternative reserve policy targeted additional days of cash on hand to reduce financial risk and ensure execution of the CIP
- » Continuity of the existing rate structure and rate design

The proposed revenue adjustment for the rate-making year, FY 2026, is 15.0 percent. The revenue adjustment, or the percentage increase in total rate revenues, is determined by various factors that influence both the revenue adjustments and the water rates. The three main drivers affecting revenue adjustments for this Study include increased reserve funding, capital improvement projects, and inflationary pressure impacting operating and maintenance (O&M) and capital costs. Without additional revenue adjustments, the City cannot maintain existing or proposed reserve levels, achieve minimum debt service coverage requirements, or adequately fund long-term CIP expenditures.

Table 1-5 shows the recommended revenue adjustments for the study period.

Table 1-5: Recommended Revenue Adjustments

A	B	C	D
Line	Fiscal Year	Effective Month	Proposed Revenue Adjustment
1	FY 2026	July	15.0%
2	FY 2027	July	15.0%
3	FY 2028	July	14.0%
4	FY 2029	July	14.0%
5	FY 2030	July	10.0%

1.8. Proposed Rates

The proposed water rates are based on the recommended revenue adjustments described above. The proposed rates for FY 2026, the rate-setting year, are a result of applying the recommended FY 2026 increase to the existing rates. Rates for all years beyond FY 2026 are increased based on the proposed annual revenue adjustment in that year.

Table 1-6 shows the proposed monthly meter charges by meter size for the study period. All rates are rounded to the nearest penny.

Table 1-6: Proposed Monthly Meter Service Charges (\$/Month)

A	B	C	D	E	F	G
Line	Meter Size	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
1	5/8"	\$29.62	\$34.07	\$38.84	\$44.27	\$48.70
2	3/4"	\$29.62	\$34.07	\$38.84	\$44.27	\$48.70
3	1"	\$76.25	\$87.68	\$99.96	\$113.95	\$125.35
4	1 1/2"	\$168.07	\$193.28	\$220.34	\$251.19	\$276.31
5	2"	\$291.24	\$334.92	\$381.81	\$435.27	\$478.79
6	3"	\$652.51	\$750.39	\$855.44	\$975.20	\$1,072.72
7	4"	\$652.51	\$750.39	\$855.44	\$975.20	\$1,072.72
8	6"	\$652.51	\$750.39	\$855.44	\$975.20	\$1,072.72
9	8"	\$652.51	\$750.39	\$855.44	\$975.20	\$1,072.72
10	10"	\$2,081.57	\$2,393.80	\$2,728.94	\$3,110.99	\$3,422.09

Table 1-7 shows the proposed monthly Fire Service Charges for the study period for those connections to the system that have dedicated private firelines. All rates are rounded to the nearest penny.

Table 1-7: Proposed Monthly Fire Service Charges (\$/Month)

A	B	C	D	E	F	G
Line	Fire Line Diameter	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Residential Fire Lines						
1	2"	\$140.06	\$161.07	\$183.62	\$209.32	\$230.26
2	4"	\$276.89	\$318.42	\$363.00	\$413.82	\$455.20
3	6"	\$416.31	\$478.76	\$545.78	\$622.19	\$684.41
4	8"	\$525.57	\$604.41	\$689.03	\$785.49	\$864.04
5	10"	\$525.57	\$604.41	\$689.03	\$785.49	\$864.04
Business Fire Lines						
6	2"	\$236.84	\$272.37	\$310.50	\$353.97	\$389.37
7	3"	\$236.84	\$272.37	\$310.50	\$353.97	\$389.37
8	4"	\$525.57	\$604.41	\$689.03	\$785.49	\$864.04
9	6"	\$525.57	\$604.41	\$689.03	\$785.49	\$864.04
10	8"	\$525.57	\$604.41	\$689.03	\$785.49	\$864.04
11	10"	\$525.57	\$604.41	\$689.03	\$785.49	\$864.04

Table 1-8 shows the proposed Water Usage Rates. The proposed rates for FY 2026 result from applying the recommended FY 2026 increase to the existing rates. Rates for all years beyond FY 2026 are adjusted based on the proposed annual revenue adjustment in that year. All customer are billed for water use on a monthly basis. All rates are rounded to the nearest penny.

Table 1-8: Proposed Water Usage Rates (\$/CCF)

A	B	C	D	E	F	G	H
Line	Class/Tier	Monthly Tier (CCF)	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Residential - Single Family							
1	Tier 1	0-15	\$5.04	\$5.80	\$6.61	\$7.54	\$8.29
2	Tier 2	>16	\$8.04	\$9.25	\$10.55	\$12.03	\$13.23
Residential - Multi-Family							
3	Tier 1	0-15	\$5.04	\$5.80	\$6.61	\$7.54	\$8.29
4	Tier 2	>16	\$8.04	\$9.25	\$10.55	\$12.03	\$13.23
Commercial, Industrial, and Institutional							
5	Tier 1	0-15	\$5.04	\$5.80	\$6.61	\$7.54	\$8.29
6	Tier 2	16-150	\$8.04	\$9.25	\$10.55	\$12.03	\$13.23
7	Tier 3	>151	\$11.83	\$13.60	\$15.50	\$17.67	\$19.44
Irrigation							
8	Tier 1	0-15	\$5.04	\$5.80	\$6.61	\$7.54	\$8.29
9	Tier 2	>16	\$7.66	\$8.81	\$10.04	\$11.45	\$12.60

1.9.Customer Impacts

Figure 1-1 shows the distribution of monthly customer bill impacts for all Residential customer bills based on the City's most recent customer billing data. Impacts are calculated for FY 2026, the first year of rate increases. It is

estimated that 60 percent of single-family residential bills (or 11,860 bills) will experience an increase to their monthly water bill of \$10 or less.

Figure 1-1: Monthly Customer Bill Impacts – Single Family Residential

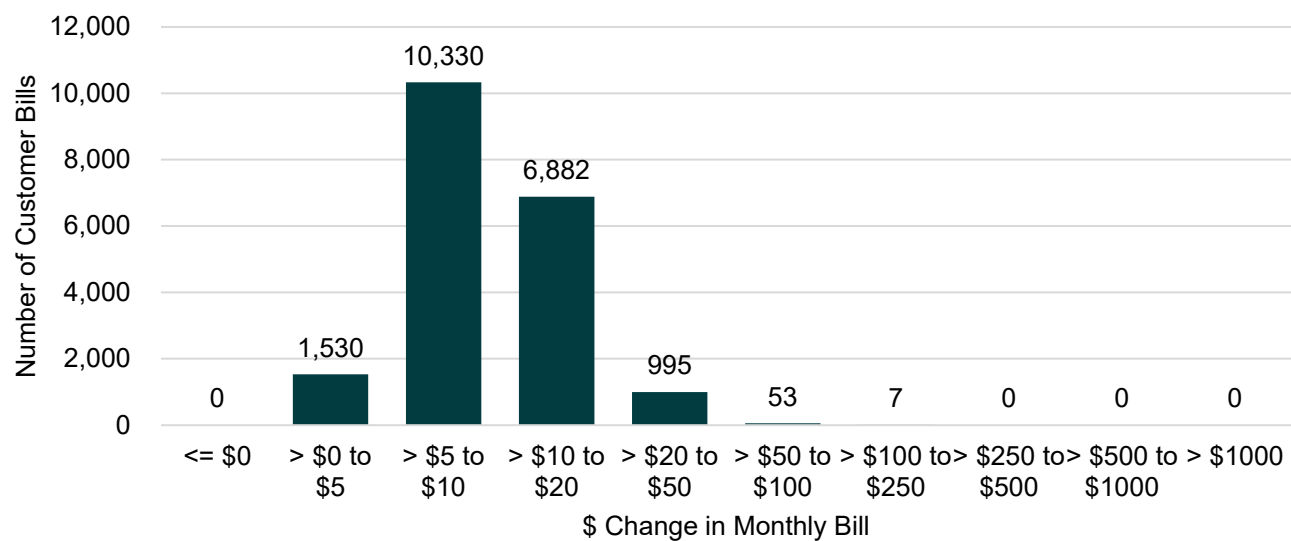


Figure 1-2 shows the monthly bill impacts at various levels of usage for a residential customer with a 3/4 -inch meter, based on the City’s FY 2023 customer billing data. The median residential customer bill is 6 CCF of water per month. A customer using 6 CCF per month would experience an increase of \$7.81 to their monthly water bill.

Figure 1-2: Monthly Bill Impacts at Various Levels of Usage – Residential, 3/4-inch Meter



2. Introduction

2.1. Study Background

The City of Signal Hill (City) engaged Raftelis in 2024 to complete a Water Rate Study (Study) in conjunction with a Water Master Plan (WMP) Study, conducted by Dudek. The Study consisted of developing a long-range financial plan, evaluating financial policies, modeling financial alternatives with which to fund future capital re-investment, and calculating water rates for a five-year period. The Study incorporates updated inputs, estimates, and projections based on the most recently available financial information and customer billing data, as well as the CIP results of the WMP by Dudek.

The Study encompasses a ten-year financial planning period from fiscal year (FY) 2025 to FY 2034 and five years of proposed rates, for implementation beginning July 1, 2025 and each July thereafter. For the purposes of this study, FY 2026 is the year starting on July 1, 2025, and ending on June 30, 2026.

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- » Development of a financial plan and proposed revenue adjustments to ensure cash reserves funding at proposed levels and funding for capital improvements.
- » Minimizing rate impacts to customers while maintaining adequate reserves for all years of the study.
- » Developing rates that are defensible, promote efficient use of water, and are easy for customers to understand.
- » Maintaining the existing water rate structure that customers know and that serves the City well
- » Rates that fully recover the City Water enterprise's costs of providing water service

2.2. Agency Overview

The City of Signal Hill's water department provides water service to a population of over 11,000 residents through about 3,150 metered water connections. The City's water system consists of:

- » Approximately 50 miles of transmission and distribution pipeline;
- » One water treatment plant;
- » One MWD imported water connection;
- » Three groundwater production wells;
- » Three booster pump stations;
- » Three storage reservoirs.

Water supplied to the City comes from various sources, which include water from three groundwater wells, and supplemental water purchases from MWD. The local groundwater supply originates from the San Gabriel mountains, which then flows down the San Gabriel River watershed and makes its way underground into the Central Basin. Current groundwater production and capacity details are as follows:

- » **Well No. 7:** Constructed in 1978, with an initial production capacity of 1,830 GPM. Production has declined to approximately 281 GPM as of FY 2023. The City plans to decommission and replace Well No. 7 within the next three years.

- » **Well No. 9:** Drilled in 2008 but was not brought online until 2018 due to groundwater discoloration issues. The well was designed with a capacity of 1,200 GPM but currently operates at 650 – 700 GPM. Restoration projects require redrilling and repacking to improve production rates.
- » **Well No. 10:** Completed in 2022 as a replacement for Well No. 8. It was designed to produce 1,200 GPM but remains inactive while awaiting final permitting.

Upon the completion and permitting of Well No. 10, local sources will be capable of producing a combined flow of approximately 2,100 GPM and are expected to supply 70.0 percent of the City's water from FY 2026 onward. The remaining 30.0 percent of supply will be purchased water from MWD.

3. Key Inputs and Estimates

3.1. Key Information Used in this Study

Raftelis developed a financial planning tool in Microsoft Excel to forecast financial calculations over the next 10 fiscal years. Projections in future years are generally made based on actual or estimated data for FY 2023 and the adopted budgets for FY 2024 using other key assumptions outlined below. Future estimates were discussed with, and reviewed by, City staff to ensure that the water system's local and unique characteristics are accurately accounted for.

The Study relies on the following critical information provided by City staff:

1. FY 2023 actual revenues and operating expenses.
2. FY 2024 budgeted revenues and operating expenses.
3. FY 2023 water use and customer account data (billing data detail).
4. Water source of supply production and cost estimates.
5. FY 2024 beginning cash fund balances.
6. A ten-year CIP schedule based on the results of the WMP.
7. Existing debt service obligations and debt coverage covenants.
8. Current and Proposed cash reserve policies

3.2. Current Rates

Current rates were developed as part of the 2019 Water Rate Study. Rates were increased in FY 2020 through FY 2024. Current rates were made effective on January 1, 2024 with no scheduled increase for January of FY 2025. The existing rate structure consists of two components: a fixed monthly service charge by meter size and a variable water usage consumption charge per hundred cubic feet (CCF⁴) of water use.

⁴ One CCF of water is equal to 748 gallons.

Table 3-1: Current Monthly Fixed Charges (\$/Month)

A Line	B Meter Size	C FY 2025
1	5/8"	\$25.76
2	3/4"	\$25.76
3	1"	\$66.30
4	1 1/2"	\$146.15
5	2"	\$253.25
6	3"	\$567.40
7	4"	\$567.40
8	6"	\$567.40
9	8"	\$567.40
10	10"	\$1,810.06

The City imposes a fixed monthly fire line service charge on properties that are required to install⁵ a private fire suppression system as a condition of extending or initiating water service, or where the customer or property owner has installed a private fire line for the purpose of fire protection. The rates for the monthly fire line service charge are established based on the diameter of the fire line serving a property and are calculated to recover the costs associated with fire service capacity in the water distribution system. The current rates for the monthly residential fire service charge for private fire lines are shown in **Table 3-2**.

Table 3-2: Current Monthly Residential Fire Service Charges (\$/Month)

A Line	B Fireline Diameter	C FY 2025
1	2"	\$121.79
2	4"	\$240.77
3	6"	\$362.01
4	8"	\$457.02
5	10"	\$457.02

Table 3-3 shows the City's current monthly business private fire line charges.

Table 3-3: Current Monthly Business Fire Service Charges (\$/Month)

A Line	B Fireline Diameter	C FY 2025
1	2"	\$205.95
2	3"	\$205.95
3	4"	\$457.02
4	6"	\$457.02
5	8"	\$457.02
6	10"	\$457.02

⁵ For certain types of land uses and residential construction installation of fire suppression is required by law.

The volumetric component of a customer's water bill is calculated based on the number of units of water delivered to a property (i.e., metered use), measured in CCF, multiplied by the rate(s) that vary by customer class and tier. The current tier widths and rates are shown in **Table 3-4**. The rates in **Table 3-4**, multiplied by the amount of use in each respective tier, determine the volumetric component of a customer's bill.

Table 3-4: Current Water Usage Rates (\$/CCF)

A Line	B Class/Tier	C Monthly Tier (CCF)	D FY 2025 (\$/CCF)
Residential - Single Family			
1	Tier 1	0-15	\$4.38
2	Tier 2	>16	\$6.99
Residential - Multi-Family			
3	Tier 1	0-15	\$4.38
4	Tier 2	>16	\$6.99
Commercial, Industrial, and Institutional			
5	Tier 1	0-15	\$4.38
6	Tier 2	16-150	\$6.99
7	Tier 3	>151	\$10.29
Irrigation			
8	Tier 1	0-15	\$4.38
9	Tier 2	>16	\$6.66

3.3.Escalation Factors

Escalation factors show projected increases in various cost categories across the study period, due to inflation. These factors are applied to all years beginning in FY 2025. Raftelis worked with City staff to escalate individual budget line items from the FY 2024 budget according to appropriate escalation factors. Inflationary assumptions are presented in **Table 3-5**. For long-term planning purposes, inflationary factors are constant.

General inflation is estimated at 3.0 percent per year based on the long-term change in the US Bureau of Labor Statistics Consumer Price Index-Urban (CPI-U). Salaries and benefits tend to outpace general inflation, and City staff have estimated 5.0 percent annual increases in these categories based on the Bureau of Labor Statistics published percent change in average weekly wages by state for 2024. This inflation factor includes cost of living adjustments and merit-based increases on salaries as well as retirement and insurance related to benefits. Electricity costs reflect the price of electricity for water production, system pumping, and other City energy uses. The City's long-term CIP is escalated using the 20-year average of the Handy-Whitman Index (HWI) of Public Utility Construction Costs for the Pacific Region of 5.0 percent. Water purchases from MWD are projected to increase 4.0 percent per year from FY 2026 through FY 2030 based on MWD's projected future rate increases.

To project non-operating revenues, the study assumes that all recurring non-rate (miscellaneous) revenues will remain constant, and that the interest earnings rate on cash reserves will average 2.5 percent per year through FY 2030. The Reserve Interest Rate escalation factor is also presented in **Table 3-5**.

Table 3-5: Escalation Factors

A Line	B Escalation Factors	C FY 2026	D FY 2027	E FY 2028	F FY 2029	G FY 2030
1	General Cost Inflation	3.0%	3.0%	3.0%	3.0%	3.0%
2	Salary	5.0%	5.0%	5.0%	5.0%	5.0%
3	Benefits	5.0%	5.0%	5.0%	5.0%	5.0%
4	Utilities	3.0%	3.0%	3.0%	3.0%	3.0%
5	Capital	5.0%	5.0%	5.0%	5.0%	5.0%
6	Water Purchase	4.0%	4.0%	4.0%	4.0%	4.0%
7	Reserve Interest Rate	2.5%	2.5%	2.5%	2.5%	2.5%

3.4. Proposed Reserve Funding

Reserve policies provide guidelines for sound financial management with an overall long-range perspective to maintain financial solvency, mitigate financial risks associated with revenue instability, volatile capital costs and emergencies, and provide routine working capital. These risks may include fiscal emergencies, water shortages, asset failures, and natural disasters among others. The City has adopted reserve policies to meet cash flow needs (operating). The City's current target reserve balance for the Water Fund is a fixed amount equal to \$1.5 million.

Raftelis worked with City staff to evaluate alternative reserve policies to reduce risk by meeting operating cash needs, but also to provide adequate funding of capital repairs and replacements (capital), and to provide an immediate source of funds if more expensive purchased water is required for short periods of time.

The proposed alternative reserve recommends revising the policy to the following:

- » Operating Reserve: equal to 90 days of O&M expenses, which equates to approximately \$1.5 million on average over the five-year rate-setting period. Unlike the fixed target of \$1.5 million, a 90-day operating reserve will naturally adjust over time to reflect changes in operating costs driven by inflationary pressure or cost structure changes.
- » Capital Reserve: equal to 50.0 percent (one-half of a year) of the inflation-adjusted 5-year average CIP. This will ensure funding to execute planned capital on time, mitigate any unexpected cost increases, and may provide flexibility on the timing of projects going forward. Like the operating reserve, the capital reserve adjusts over time due to the size of the rolling 5-year CIP and inflationary cost pressure.
- » Rate Stabilization: equal to 15 percent of annual volumetric (i.e. water use) rate revenues. This reserve provides a buffer for fluctuations in annual groundwater production versus purchased water from MWD.

An additional consideration for the recommended reserve policy is future planned external borrowing. Days cash on hand is one consideration of many for credit rating and creditworthiness. In Raftelis' experience with Municipal Advisory firms in California, 90 days' cash represents a minimum level of reserves required to secure external borrowing. The proposed reserve policy achieves, on average, 280 days cash on hand. **Table 3-6** shows the proposed reserve targets throughout the rate-setting period. By FY 2030, the proposed cash reserve target will increase to \$5.3 million.

Table 3-6: Proposed Cash Reserve Targets

A Line	B	D FY 2026	E FY 2027	F FY 2028	G FY 2029	H FY 2030
1	Operating Reserve					
2	O&M Expenses	\$5,841,404	\$6,055,457	\$6,277,828	\$6,508,861	\$6,748,913
3	90 Days Cash (of 365 days)	90/365	90/365	90/365	90/365	90/365
4	Annual Operating Reserve Target	\$1,440,346	\$1,493,126	\$1,547,958	\$1,604,925	\$1,664,115
5	Capital Reserve Fund					
6	5-Year Average CIP	\$4,853,045	\$4,936,236	\$5,309,998	\$5,680,326	\$6,290,076
7	50% Annual CIP	50.0%	50.0%	50.0%	50.0%	50.0%
8	Water Capital Reserve Fund Target	\$2,426,522	\$2,468,118	\$2,654,999	\$2,840,163	\$3,145,038
9	Rate Stabilization Reserve					
10	Current Commodity Rate Revenues	\$3,871,976	\$3,840,922	\$3,810,118	\$3,779,561	\$3,749,249
11	15% of Annual Commodity Rate Revenues	15.0%	15.0%	15.0%	15.0%	15.0%
12	Rate Stabilization Reserve Target	\$580,796	\$576,138	\$571,518	\$566,934	\$562,387
13	Total Cash Reserve Target	\$4,447,665	\$4,537,383	\$4,774,474	\$5,012,022	\$5,371,541

3.5. Projected Water Demand and Connection Growth

Two primary factors are used to estimate future water demand: account growth from new connections and water demand relative to the most recent year of use, FY 2023. The long-term financial plan projects 0.2 percent annual account growth for all customer classes through the study period based on the Master Plan completed by Dudek.

Water demand has declined from historical levels in the 2000s and 2010s due to improved efficiency, conservation efforts during prior drought cycles, and wet-year rainfall conditions, which depress demand in the short term. Considering cyclical wet and dry year conditions, annual baseline water demand is projected to gradually decline over the study period, averaging approximately 1,433 acre-feet (AF) in water sales per year. This assumption is based on the most recent three-year average water demand. Actual water sales in FY 2023 of 1,490 AFY were multiplied by the demand factor shown in

Table 3-7 for each customer class to achieve projected water use under baseline conditions in FY 2024 and beyond.

Table 3-7: Water Demand Factors

A Line	B Class	C FY 2024	D FY 2025	E FY 2026	F FY 2027	G FY 2028	H FY 2029	I FY 2030
1	Account Growth							
2	Residential - Single Family	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
3	Residential - Multi-Family	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
4	Commercial, Industrial, and Institutional	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
5	Irrigation	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
6	Water Usage Factor							
7	Residential - Single Family	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%
8	Residential - Multi-Family	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%
9	Commercial, Industrial, and Institutional	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%
10	Irrigation	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%
11	Total Water Demand Factor							
12	Residential - Single Family	-0.8%	-0.8%	-0.8%	-0.8%	-0.8%	-0.8%	-0.8%
13	Residential - Multi-Family	-0.8%	-0.8%	-0.8%	-0.8%	-0.8%	-0.8%	-0.8%
14	Commercial, Industrial, and Institutional	-0.8%	-0.8%	-0.8%	-0.8%	-0.8%	-0.8%	-0.8%
15	Irrigation	-0.8%	-0.8%	-0.8%	-0.8%	-0.8%	-0.8%	-0.8%
16	Total Water Sales (CCF)	643,957	638,792	633,669	628,587	623,546	618,545	613,584
17	<i>Total Water Sales (AF)</i>	<i>1,478</i>	<i>1,466</i>	<i>1,455</i>	<i>1,443</i>	<i>1,431</i>	<i>1,420</i>	<i>1,409</i>

Table 3-8 shows the estimated new connection growth rate and water sales for the Study period. Account growth is estimated at 0.2 percent per year based on past development and projected growth. The water demand factor represents projected per capita (or per connection) demands, relative to prior year.

The City expects a modest reduction in per capita demand over the planning horizon due to passive conservation activities including the routine replacement of indoor and outdoor fixtures with increasingly more efficient units. This demand factor assumes a 1.0 percent efficiency gain each year which yields a water demand factor of 99.0 percent (of prior year). For demand forecasting the water use rate considers both new connections and changes in per capita/per connection consumption. Currently, the City's water demand is approximately 17.4 CCF per month, and the single-family residential demand is approximately 7.4 CCF per month.

Table 3-8: Projected Water Connection Growth and Water Demand

A	B	D	E	F	G	H	I	J	K
Line	Water Use	Actual FY 2023	Projected FY 2024	Projected FY 2025	Projected FY 2026	Projected FY 2027	Projected FY 2028	Projected FY 2029	Projected FY 2030
1	New Connection Growth Rate		0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
2	Water Demand Factor		99.0%	99.0%	99.0%	99.0%	99.0%	99.0%	99.0%
3	Water Use Rate Factor		99.2%	99.2%	99.2%	99.2%	99.2%	99.2%	99.2%
4									
5	Metered Connections	3,161	3,167	3,174	3,180	3,187	3,193	3,199	3,206
6	Water Use (CCF)	649,163	643,957	638,792	633,669	628,587	623,546	618,545	613,584

Table 3-9 shows the projected number of water connections by meter size, by fiscal year. The number of connections each year changes based on the growth assumptions identified in Table 3-9.

Table 3-9: Projected Number of Water Meters, by Meter Size

A	B	C	D	E	F	G	H	I	J
Line	Meter Size	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
1	5/8"	28	28	28	28	28	28	28	29
2	3/4"	1,891	1,895	1,898	1,902	1,906	1,910	1,914	1,917
3	1"	653	655	656	657	658	660	661	662
4	1 1/2"	136	136	136	136	137	137	137	137
5	2"	327	328	329	329	330	331	331	332
6	3"	13	13	13	13	13	13	13	13
7	4"	2	2	2	2	2	2	2	2
6	6"	1	1	1	1	1	1	1	1
7	8"	0	0	0	0	0	0	0	0
8	10"	0	0	0	0	0	0	0	0
9	Total	4,630	4,641	4,652	4,663	4,673	4,684	4,695	4,695

Table 3-10 and Table 3-11 show estimated fire line accounts using the same growth assumptions as metered connections.

Table 3-10: Projected Number of Residential Fire Lines, by Line Size

A	B	C	D	E	F	G	H	I	J
Line	Line Size	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
1	2"	24	24	24	24	24	24	24	24
2	4"	4	4	4	4	4	4	4	4
3	6"	9	9	9	9	9	9	9	9
4	8"	0	0	0	0	0	0	0	0
5	10"	0	0	0	0	0	0	0	0
6	Total	37	37	37	37	37	37	38	38

Table 3-11: Projected Number of Business Fire Lines, by Line Size

A	B	C	D	E	F	G	H	I	J
Line	Line Size	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
1	2"	1	1	1	1	1	1	1	1
2	3"	2	2	2	2	2	2	2	2
3	4"	13	13	13	13	13	13	13	13
4	6"	32	32	32	32	32	32	33	33
5	8"	24	24	24	24	24	24	24	24
6	10"	7	7	7	7	7	7	7	7
7	Total	79	79	80	80	80	80	80	80

Water demand projections through FY 2030 are shown in **Table 3-12**. The water demand and revenue growth assumptions are identified in

Table 3-7. Column C in **Table 3-12** shows the FY 2023 actuals, which are used to project water use, by class, for FY 2024 through FY 2030. For planning purposes, water sales decline 0.8 percent each year (0.2 percent growth plus a negative 1.0 percent efficiency gain per capita), averaging 1,450 feet per year (AFY) through the study period.

Table 3-12: Projected Water Usage by Class and Tier

A Line	B Customer Usage (CCF)	C FY 2023	D FY 2024	E FY 2025	F FY 2026	G FY 2027	H FY 2028	I FY 2029	J FY 2030
1	Residential - Single Family								
2	Tier 1	130,528	129,481	128,443	127,413	126,391	125,377	124,372	123,374
3	Tier 2	15,228	15,106	14,985	14,865	14,745	14,627	14,510	14,393
4									
5	Residential - Multi-Family								
6	Tier 1	82,714	82,051	81,393	80,740	80,092	79,450	78,813	78,181
7	Tier 2	115,783	114,854	113,933	113,020	112,113	111,214	110,322	109,437
8									
9	Commercial, Industrial, and Institutional								
10	Tier 1	64,442	63,925	63,412	62,904	62,399	61,899	61,403	60,910
11	Tier 2	107,003	106,145	105,294	104,449	103,611	102,780	101,956	101,138
12	Tier 3	64,095	63,581	63,071	62,565	62,063	61,566	61,072	60,582
13									
14	Irrigation								
15	Tier 1	15,292	15,169	15,048	14,927	14,807	14,689	14,571	14,454
16	Tier 2	54,078	53,644	53,214	52,787	52,364	51,944	51,527	51,114
17									
18	Total Usage (CCF)	649,163	643,957	638,792	633,669	628,587	623,546	618,545	613,584
19	<i>Total Use (AF)</i>	<i>1,490</i>	<i>1,478</i>	<i>1,466</i>	<i>1,455</i>	<i>1,443</i>	<i>1,431</i>	<i>1,420</i>	<i>1,409</i>

3.6. Projected Water Supply

The high reliance on MWD Imported water in FY 2025 is due to the timing of the well projects occurring that year, which will cause the wells to supply a limited amount of water. The City's supply mix can vary from year to year. Simplifying assumptions are necessary to develop reasonable supply mix projections over the study. The best estimate of normal condition supplies is 70 percent groundwater and 30 percent MWD purchases.

Table 3-13 shows the water supply mix projected to meet water demand over the study period. Signal Hill staff provided Raftelis with the anticipated amount of water available from each source of supply over the study period based on groundwater well infrastructure and capacities, operational constraints, and projected customer water use. Raftelis then determined the projected supply mix based on the amount of water supply required to satisfy demand after water loss (due to physical leakage and apparent losses).

The high reliance on MWD Imported water in FY 2025 is due to the timing of the well projects occurring that year, which will cause the wells to supply a limited amount of water. The City's supply mix can vary from year to year. Simplifying assumptions are necessary to develop reasonable supply mix projections over the study. The best estimate of normal condition supplies is 70 percent groundwater and 30 percent MWD purchases.

Table 3-13: Projected Water Supply Mix

A Line	B Description	C FY 2023	D FY 2024	E FY 2025	F FY 2026	G FY 2027	H FY 2028	I FY 2029	J FY 2030
1	Water Supply Required to Meet Demand								
2	Water Demand (AF)	1,490	1,478	1,466	1,455	1,443	1,431	1,420	1,408
3	Water Loss	13.8%	14.1%	14.1%	14.1%	14.1%	14.1%	14.1%	14.1%
4	Required Water Supply (AF) ^[1]	1,729	1,720	1,706	1,693	1,679	1,666	1,652	1,639
5	Projected Water Supply Mix (%)								
6	Wells	50.0%	83.0%	10.0%	70.0%	70.0%	70.0%	70.0%	70.0%
8	MWD Import	50.0%	17.0%	90.0%	30.0%	30.0%	30.0%	30.0%	30.0%
9	Projected Water Supply Mix (AF)								
10	Wells	722	1,428	171	1,185	1,175	1,166	1,157	1,147
12	MWD Import	1,006	292	1,536	508	504	500	496	492
13	Total (AF)	1,729	1,720	1,706	1,693	1,679	1,666	1,652	1,639

4. Financial Plan

This section describes the development of the City Water Enterprise's long-range financial plan. To develop the financial plan, Raftelis projects annual revenues and expenses; models reserve balances; incorporates capital expenditures, debt service, and inflationary pressures; and calculates debt service coverage ratios to estimate the amount of any additional rate revenue required in each year of the study. This section includes a discussion of O&M expenses, the CIP, current and planned future debt service, reserve funding, projected revenue under existing rates, and the revenue adjustments required to ensure the fiscal sustainability and solvency of the Water Enterprise.

Revenue adjustments represent the gross increase in total rate revenues and can be considered the average rate increase for customers. Numbers shown in the tables of this section are rounded. Therefore, hand calculations based on the displayed numbers, such as summing or multiplying, may not equal the exact results shown in this report.

4.1. Factors Affecting Revenue Adjustments

The following four components constitute the City's revenue requirement and thus its water rates: operating and maintenance (O&M) expenses, CIP, debt service, and reserve funding. Future revenue requirements are influenced by many factors. The primary drivers in this study include:

1. **Inflation:** Recent inflationary pressure has been higher than experienced in the past 40 years. Utilities have experienced this pressure in costs from chemicals for water treatment, to capital construction, to personnel, and energy. Even in a normal inflationary environment, costs increase at an average rate of approximately 3 percent per year for general goods and services and 4 to 5 percent per year on construction and infrastructure.
2. **Changes in Normal-Condition Water Supplies:** After a period of reliance on MWD purchases the Water Enterprise will produce significantly more from local supplies. This supply switching will reduce the cost of water supply and represents a savings compared to recent year expenditures.
3. **Capital Funding:** The WMP has identified a 20-year schedule of CIP including projects like reservoir roof replacement, pipe replacement, and well rehabilitation among others. This CIP has been prioritized by Dudek and City staff and then modified further for incorporation into the Rate Study. Over the next 10 years the Rate Study includes an average of \$4.8 million per year in annual CIP (inflation-adjusted).
4. **Prudent Reserves:** The City's current target reserve balance represents a minimal amount of cash on hand for operating cash flow needs only. This Study recommends revising the policy to include 90 days O&M, a capital reserve, and a rate stabilization reserve. Supplementing the current policy will allow the City to be more financially resilient in emergencies and more capable of executing capital as planned.

4.2. Status Quo Financial Plan – No Revenue Adjustments

4.2.1. REVENUES

Rate revenues consist of Meter Service Charges (which vary by meter size) and variable Water Usage Charges for water use (which vary by class and tier). Current monthly Meter Service Charges are shown in **Table 1-1**. Private fire service charges are found in **Table 1-2** and **Table 1-3**. The tiered Water Usage Charges and tier widths are shown in **Table 1-4**. The volumetric component of a customer's water bill is calculated based on the number of units of water delivered to a property, measured in one hundred cubic feet (CCF), multiplied by the Water Usage Charges that vary by customer class and tier. Projected water use by customer class and tier is shown in **Table 3-12**.

The Water Enterprise derives some revenues from non-rate sources. These revenues consist of other operating, miscellaneous, and non-operating revenues and are summarized in Lines 7 – 10. **Table 4-1** shows rate revenue and non-rate revenues.

Table 4-1: Projected Water Revenues

A Line	B Revenues	C FY 2025	D FY 2026	E FY 2027	F FY 2028	G FY 2029	H FY 2030
1	Rate Revenues						
2	Fixed Revenues (Service Charges)	\$2,971,207	\$2,977,150	\$2,983,104	\$2,989,070	\$2,995,049	\$3,001,039
3	Variable Revenues (Usage Charges)	\$3,903,280	\$3,871,976	\$3,840,922	\$3,810,118	\$3,779,561	\$3,749,249
4	Total Rate Revenue	\$6,874,487	\$6,849,125	\$6,824,026	\$6,799,188	\$6,774,609	\$6,750,288
5							
6	Non-Rate Revenues						
7	Interest Income	\$251,339	\$157,580	\$116,843	\$88,926	\$84,731	\$80,385
8	Other Revenue	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
9	Miscellaneous Fees/Charges	\$39,957	\$39,957	\$39,957	\$39,957	\$39,957	\$39,957
10	Non-Operating Revenue	\$42,782	\$0	\$0	\$0	\$0	\$0
11	Total Revenue	\$7,218,565	\$7,056,662	\$6,990,827	\$6,938,072	\$6,909,298	\$6,880,629

4.2.2. OPERATING AND MAINTENANCE (O&M) EXPENSES

Total projected O&M expenses are shown in **Table 4-2** and are summarized by department. Expenses are projected from the City's Adopted FY 2024 budget. Expenses beyond FY 2024 use City estimated costs where known or rely on FY 2024 budgeted values escalated by the inflationary assumptions from **Table 3-5**. Note that Water Supply Costs utilize estimates of future source of supply mix and unit costs from

The high reliance on MWD Imported water in FY 2025 is due to the timing of the well projects occurring that year, which will cause the wells to supply a limited amount of water. The City's supply mix can vary from year to year. Simplifying assumptions are necessary to develop reasonable supply mix projections over the study. The best estimate of normal condition supplies is 70 percent groundwater and 30 percent MWD purchases.

Table 3-13.

Table 4-2: Projected O&M Expenses

A Line	B O&M Summary	C FY 2025	D FY 2026	E FY 2027	F FY 2028	G FY 2029	H FY 2030
1	Water Operations						
2	Salaries and Benefits	\$1,668,217	\$1,786,627	\$1,875,959	\$1,969,757	\$2,068,244	\$2,171,657
3	Maintenance and Operations	\$2,277,489	\$2,595,814	\$2,673,688	\$2,753,899	\$2,836,516	\$2,921,611
4	Water Supply Costs	\$2,351,315	\$1,350,064	\$1,393,119	\$1,437,551	\$1,483,402	\$1,530,718
5	Water Billing Administration						
6	Salaries and Benefits	\$22,628	\$23,759	\$24,947	\$26,194	\$27,504	\$28,879
7	Maintenance and Operations	\$82,615	\$85,141	\$87,744	\$90,428	\$93,195	\$96,047
8	Total O&M Expenses	\$6,402,263	\$5,841,404	\$6,055,457	\$6,277,828	\$6,508,861	\$6,748,913

4.2.2.1. Water Supply Costs

Table 4-3 shows the water supply mix projected to meet water demand over the study period. Signal Hill staff provided Raftelis with the anticipated amount of water available from each source of supply over the study period based on groundwater well infrastructure and capacities, operational constraints, and projected customer water use. Raftelis then determined the projected supply mix based on the amount of water supply required to satisfy demand after water loss (due to physical leakage and apparent losses).

The high reliance on MWD Imported water in FY 2025 is due to the timing of the well projects occurring that year, which will cause the wells to supply a limited amount of water. The City's supply mix can vary from year to year. Simplifying assumptions are necessary to develop reasonable supply mix projections over the study. The best estimate of normal condition supplies is 70 percent groundwater and 30 percent MWD purchases.

Table 4-3: Projected Water Supply Mix (Volume)

A Line	B Description	C FY 2025	D FY 2026	E FY 2027	F FY 2028	G FY 2029	H FY 2030
1	Water Demand (AF)	1,466	1,455	1,443	1,431	1,420	1,409
2	Water Loss	14.1%	14.1%	14.1%	14.1%	14.1%	14.1%
3	Required Water Supply (AF) ^[1]	1,706	1,693	1,679	1,666	1,652	1,639
4	Projected Water Supply Mix (%)						
5	Wells	10.0%	70.0%	70.0%	70.0%	70.0%	70.0%
6	MWD Import	90.0%	30.0%	30.0%	30.0%	30.0%	30.0%
8	Projected Water Supply Mix (AF)						
9	Wells	171	1,185	1,175	1,166	1,157	1,147
10	MWD Import	1,536	508	504	500	496	492
12	Total (AF)	1,706	1,693	1,679	1,666	1,652	1,639

Projected water production and water purchase costs are shown below in

Table 4-4. The table shows the costs associated with pumping and purchasing water, specifically groundwater and imported water from MWD. The costs consist of two categories for each water source: 1. fixed charges and 2. volumetric rates, represented in dollars per acre-foot.

For groundwater pumped from the City's wells there is no fixed annual charge. The volumetric rate for groundwater in FY 2025 is \$440 per acre-foot, with an annual escalation rate of 4 percent. The fixed rate for imported MWD water is assumed to be \$36,169 in FY 2025 and the volumetric rate for MWD water in FY 2025 is \$1,459 per acre-foot, which is also increased by 4 percent each year.

To estimate total cost, the table incorporates the projected production mix from **Table 4-3**, which details the proportion of water sourced from groundwater versus purchased water. The volumetric charges per acre-foot (lines 3 and 6) are multiplied by the respective sources (lines 8 and 9) to calculate the total volumetric costs for each source (lines 13 and 16). Line 17 sums the costs from lines 12 through 16, including the fixed costs.

Table 4-4: Projected Water Production and Purchase Costs (\$)

A Line	B	C FY 2025	D FY 2026	E FY 2027	F FY 2028	G FY 2029	H FY 2030
1	Groundwater Production Charges						
2	Annual Fixed Charges	\$0	\$0	\$0	\$0	\$0	\$0
3	Groundwater Pumping Charge (\$/AF)	\$440	\$458	\$476	\$495	\$515	\$535
4	MWD Import Charges						
5	Annual Fixed Charges	\$36,169	\$37,616	\$39,120	\$40,685	\$42,312	\$44,005
6	MWD Import Volumetric Rate (\$/AF)	\$1,459	\$1,517	\$1,578	\$1,641	\$1,706	\$1,775
7							
8	Projected Groundwater Production (AF)	171	1,185	1,175	1,166	1,157	1,147
9	Projected MWD Import (AF)	1,536	508	504	500	496	492
10							
11	Groundwater Production Costs						
12	Fixed Costs	\$0	\$0	\$0	\$0	\$0	\$0
13	Pumping Costs	\$75,069	\$542,116	\$559,279	\$576,985	\$595,252	\$614,097
14	MWD Import Costs						
15	Fixed Costs	\$36,169	\$37,616	\$39,120	\$40,685	\$42,312	\$44,005
16	Volumetric Costs	\$2,240,077	\$770,332	\$794,720	\$819,880	\$845,837	\$872,616
17	Total Water Supply Costs	\$2,351,315	\$1,350,064	\$1,393,119	\$1,437,551	\$1,483,402	\$1,530,718

4.2.3.CAPITAL IMPROVEMENT PROGRAM

The City has proposed approximately \$26.4 million in capital expenditures from FY 2025 to FY 2030. A summary of these capital expenditures is shown in

Table 4-5. The full detailed capital improvement plan is shown in **Appendix A: Inflated Ten-Year Capital Improvement Plan**. Key capital improvement projects include:

- » **The Gundry Reservoir Roof Replacement and Rehabilitation Project:** An inspection in March 2022 found the reservoir roof is failing, requiring a complete replacement and recoating. By late 2024, the reservoir roof and adjacent sand basin's condition has worsened, necessitating immediate action to ensure water quality and structural integrity.
- » **Asbestos Cement (AC) Replacement Pipeline Replacement:** The State Water Board requires the replacement of over 110,000 linear feet of AC pipes with cast iron.
- » **New Well Installation:** A new well will allow the city to meet average water demands without depending on imported MWD water.

The capital project costs in

Table 4-5 account for estimated construction cost inflation from **Table 3-5**. A significant portion of the City's projected capital expenditures are attributed to pipeline replacement, wells, and storage and reservoir projects.

Table 4-5: Projected Capital Improvement Plan (Summary by Type)

A Line	B Capital Improvement Plan	C FY 2025	D FY 2026	E FY 2027	F FY 2028	G FY 2029	H FY 2030
1	Storage	\$2,100,000	\$3,858,750	\$0	\$0	\$382,884	\$0
2	Pumping	\$0	\$110,250	\$0	\$0	\$0	\$0
3	Treatment	\$0	\$407,925	\$497,779	\$0	\$0	\$0
4	Wells	\$0	\$165,375	\$1,041,863	\$1,255,010	\$0	\$3,517,751
5	Meters	\$0	\$0	\$0	\$486,203	\$510,513	\$0
6	T&D	\$0	\$1,225,980	\$2,352,896	\$2,470,541	\$3,257,734	\$2,723,771
7	Total Inflated CIP	\$2,100,000	\$5,768,280	\$3,892,537	\$4,211,753	\$4,151,131	\$6,241,522

4.2.4.DEBT SERVICE

The City has four outstanding long-term debt obligations, one of which is retired after FY 2026. The City provided debt service schedules for each obligation. **Table 4-6** shows the annual debt service payment obligation for each existing debt instrument for each year of the rate-setting period.

Table 4-6: Existing Annual Debt Service

A Line	B	C FY 2025	D FY 2026	E FY 2027	F FY 2028	G FY 2029	H FY 2030
1	Revenue Bond						
2	Principal	\$530,000	\$545,000	\$0	\$0	\$0	\$0
3	Interest	\$42,800	\$10,900	\$0	\$0	\$0	\$0
4	General Fund Loan						
5	Principal	\$130,611	\$132,259	\$133,928	\$135,618	\$137,330	\$139,063
6	Interest	\$78,175	\$86,176	\$87,427	\$43,619	\$65,832	\$58,879
7	WRD Loan for Well 10 Construction						
8	Principal	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000
9	Interest	\$0	\$0	\$0	\$0	\$0	\$0
10	General Fund Loan						
11	Principal	\$95,000	\$95,000	\$95,000	\$95,000	\$95,000	\$95,000
12	Interest	\$47,500	\$45,125	\$42,750	\$40,375	\$38,000	\$35,625
13	Total Existing Debt Service	\$1,074,085	\$1,064,460	\$509,106	\$464,612	\$486,162	\$478,567

4.2.5.STATUS QUO FINANCIAL PLAN CASH FLOW

Table 4-7 shows the City's financial plan under the status quo (i.e., no rate increase scenario), which includes no revenue adjustments (Line 3) or any proposed revenue bond proceeds to offset rate-funded capital (Line 22). Revenues (Lines 1-7) are from **Table 4-1**. O&M expenses (Lines 9-17) are from **Table 4-2**. Annual debt service (Lines 20-21) is from **Table 4-6**. Rate funded capital expenditures (Line 22) are from **Table 4-11**.

While net operating revenue (Line 27) is positive from FY 2025 to FY 2030, net cash flow (Line 25) is negative from FY 2025 to FY 2030. This indicates that the City's existing revenues are sufficient to fund operating expenses, but not total costs inclusive of debt service and capital improvement expenses.

Table 4-7: Status Quo Financial Plan

A Line	B	C FY 2025	D FY 2026	E FY 2027	F FY 2028	G FY 2029	H FY 2030
1	Revenues						
2	Water Sales and Service Charges	\$6,874,487	\$6,849,125	\$6,824,026	\$6,799,188	\$6,774,609	\$6,750,288
3	Revenue Adjustments	\$0	\$0	\$0	\$0	\$0	\$0
4	Other Operating Revenue	\$49,957	\$49,957	\$49,957	\$49,957	\$49,957	\$49,957
5	Interest Income	\$251,339	\$109,153	\$0	\$0	\$0	\$0
6	Transfers In	\$42,782	\$0	\$0	\$0	\$0	\$0
7	Total – Revenues	\$7,218,565	\$7,008,235	\$6,873,984	\$6,849,146	\$6,824,567	\$6,800,245
8							
9	O&M Expenses						
10	Water Operations						
11	Salaries and Benefits	\$1,668,217	\$1,786,627	\$1,875,959	\$1,969,757	\$2,068,244	\$2,171,657
12	Maintenance and Operations	\$2,277,489	\$2,595,814	\$2,673,688	\$2,753,899	\$2,836,516	\$2,921,611
13	Water Supply Costs	\$2,351,315	\$1,350,064	\$1,393,119	\$1,437,551	\$1,483,402	\$1,530,718
14	Water Billing Administration						
15	Salaries and Benefits	\$22,628	\$23,759	\$24,947	\$26,194	\$27,504	\$28,879
16	Maintenance and Operations	\$82,615	\$85,141	\$87,744	\$90,428	\$93,195	\$96,047
17	Total - O&M Expenses	\$6,402,263	\$5,841,404	\$6,055,457	\$6,277,828	\$6,508,861	\$6,748,913
18							
19	Debt and Capital						
20	Existing Debt Service	\$1,074,085	\$1,064,460	\$509,106	\$464,612	\$486,162	\$478,567
21	Proposed Debt Service	\$0	\$0	\$0	\$0	\$0	\$0
22	Rate Funded Capital	\$2,100,000	\$5,768,280	\$3,892,537	\$4,211,753	\$4,151,131	\$6,241,522
23	Total - Debt and Capital	\$3,174,085	\$6,832,740	\$4,401,643	\$4,676,366	\$4,637,293	\$6,720,089
24							
25	Net Cash Flow	-\$2,357,784	-\$5,665,909	-\$3,583,116	-\$4,105,049	-\$4,321,587	-\$6,668,757
26							
27	Net Operating Revenue	\$816,302	\$1,166,831	\$818,526	\$571,317	\$315,706	\$51,332
28	Calculated Debt Coverage ⁶	107%	165%	546%	381%	210%	34%
29	Target Debt Coverage	125%	125%	125%	125%	125%	125%

4.2.6.STATUS QUO UNRESTRICTED CASH BALANCE PROJECTIONS

⁶ The calculated debt service coverage ratio excludes General Fund loan obligations.

Table 4-8 shows the City’s fund balances under the status quo scenario. Without additional revenue the fund balances are just above the existing reserve target level of \$1.5 million starting in FY 2026 (Column D, Line 21). The City’s funds are depleted by the end FY 2027 (Column E, Line 19) and fall below zero.

Table 4-8: Unrestricted Cash Balances – Status Quo Financial Plan

A Line	B Water Fund Balances	C FY 2025	D FY 2026	E FY 2027	F FY 2028	G FY 2029	H FY 2030
1	Beginning Balance	\$9,556,849	\$7,199,066	\$1,533,157	-\$2,049,960	-\$6,155,008	-\$10,476,596
2							
3	Sources of Funds						
4	Rate Revenues	\$6,874,487	\$6,849,125	\$6,824,026	\$6,799,188	\$6,774,609	\$6,750,288
5	Revenue Adjustments	\$0	\$0	\$0	\$0	\$0	\$0
6	Miscellaneous Revenue	\$92,739	\$49,957	\$49,957	\$49,957	\$49,957	\$49,957
7	Interest Income	\$251,339	\$109,153	\$0	\$0	\$0	\$0
8	Total - Sources of Funds	\$7,218,565	\$7,008,235	\$6,873,984	\$6,849,146	\$6,824,567	\$6,800,245
9							
10	Uses of Funds						
11	Water Operations O&M	\$3,945,706	\$4,382,441	\$4,549,647	\$4,723,656	\$4,904,760	\$5,093,268
12	Water Supply Costs	\$2,351,315	\$1,350,064	\$1,393,119	\$1,437,551	\$1,483,402	\$1,530,718
13	Water Billing Administration O&M	\$105,243	\$108,900	\$112,691	\$116,622	\$120,699	\$124,926
14	Existing Debt	\$1,074,085	\$1,064,460	\$509,106	\$464,612	\$486,162	\$478,567
15	Proposed Debt Service	\$0	\$0	\$0	\$0	\$0	\$0
16	Rate Funded Capital	\$2,100,000	\$5,768,280	\$3,892,537	\$4,211,753	\$4,151,131	\$6,241,522
17	Total - Uses of Funds	\$9,576,349	\$12,674,144	\$10,457,100	\$10,954,194	\$11,146,154	\$13,469,002
18							
19	Ending Balance	\$7,199,066	\$1,533,157	-\$2,049,960	-\$6,155,008	-\$10,476,596	-\$17,145,353
20	Proposed Reserve Target	\$4,176,502	\$4,447,665	\$4,537,383	\$4,774,474	\$5,012,022	\$5,371,541
21	Over/(Under) Reserve Target	\$3,022,563	-\$2,914,508	-\$6,587,342	-\$10,929,482	-\$15,488,618	-\$22,516,894

4.3. Proposed Financial Plan

4.3.1. FINANCIAL PLAN ADJUSTMENTS

Table 4-9 displays the proposed revenue adjustments for the recommended financial plan. The financial plan shows projected revenue adjustments for FY 2025 through FY 2030 rate adoption period is five years. The current financial plan shows that revenue adjustments are required to adequately fund all current and projected O&M expenses, debt obligations, capital reinvestment, and achieve reserve policy targets.

Table 4-9: Recommended Revenue Adjustments

A Line	B Fiscal Year	C Effective Month	D Proposed Revenue Adjustment	E Proposed Borrowing
1	FY 2026	July	15.0%	\$3.0M ⁷
2	FY 2027	July	15.0%	
3	FY 2028	July	14.0%	
4	FY 2029	July	14.0%	
5	FY 2030	July	10.0%	

4.3.2. EXISTING AND PROPOSED DEBT SERVICE

The City has four outstanding long-term debt obligations. The proposed financial plan also assumes a \$3 million loan from the City's General Fund as a bridge loan for the Gundry Reservoir Roof Replacement project. The City provided debt service schedules for each existing obligation (lines 1 through 12). **Table 4-6** shows the annual debt service payment obligation for each debt instrument for FY 2025 and each year of the rate-setting period.

Table 4-10: Existing and Proposed Future Annual Debt Service

A Line	B Description	C FY 2025	C FY 2026	D FY 2027	E FY 2028	F FY 2029	G FY 2030
1	Revenue Bond						
2	Principal	\$530,000	\$545,000	\$0	\$0	\$0	\$0
3	Interest	\$42,800	\$10,900	\$0	\$0	\$0	\$0
4	General Fund Loan						
5	Principal	\$130,611	\$132,259	\$133,928	\$135,618	\$137,330	\$139,063
6	Interest	\$78,175	\$86,176	\$87,427	\$43,619	\$65,832	\$58,879
7	WRD Loan for Well 10 Construction						
8	Principal	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000
9	Interest	\$0	\$0	\$0	\$0	\$0	\$0
10	General Fund Loan						
11	Principal	\$95,000	\$95,000	\$95,000	\$95,000	\$95,000	\$95,000
12	Interest	\$47,500	\$45,125	\$42,750	\$40,375	\$38,000	\$35,625
13	Proposed FY 2025 General Fund Loan						
14	Principal	\$111,647	\$114,997	\$118,446	\$122,000	\$125,660	\$129,430
15	Interest	\$90,000	\$86,651	\$83,201	\$79,647	\$75,987	\$72,218
16	Total Existing and Proposed Debt Service	\$1,275,732	\$1,266,107	\$710,753	\$666,260	\$687,809	\$680,214

4.3.3. CAPITAL FINANCING PLAN

Table 4-11 shows the capital financing plan for the study period. Storage projects are funded with a mix of a loan from the General Fund and rate revenues, while the rest of the capital improvement plan will be funded through rate revenue and reserves.

⁷ The \$3,000,000 loan proceed is a General Fund bridge loan for the Gundry Reservoir Roof project.

Table 4-11: Capital Financing Plan

A Line	B Capital Financing Plan	C FY 2025	D FY 2026	E FY 2027	F FY 2028	G FY 2029	H FY 2030
1	Rate Funded	\$2,100,000	\$2,768,280	\$3,892,537	\$4,211,753	\$4,151,131	\$6,241,522
2	Debt Funded	\$0	\$3,000,000	\$0	\$0	\$0	\$0
3	Total	\$2,100,000	\$5,768,280	\$3,892,537	\$4,211,753	\$4,151,131	\$6,241,522

4.3.4.PROPOSED FINANCIAL PLAN

The revenue adjustments detailed in

Table 4-9 allow for full funding of all operating expenses and capital expenditures, and achieve reserve policy targets within the 10-year planning period. Total revenue adjustments (Line 3) are equal to the sum of annual revenue adjustments (

Table 4-9) for each year. Although net cash flow (Line 25) is negative each year apart from FY 2029 (Column G), the utility is able to draw on existing reserves to fund operations and capital improvements.

Table 4-12: Proposed Financial Plan

A Line	B	C FY 2025	D FY 2026	E FY 2027	F FY 2028	G FY 2029	H FY 2030
1	Revenues						
2	Water Sales and Service Charges	\$6,874,487	\$6,849,125	\$6,824,026	\$6,799,188	\$6,774,609	\$6,750,288
3	Revenue Adjustments	\$0	\$1,027,369	\$2,200,749	\$3,451,608	\$4,869,054	\$6,011,759
4	Other Operating Revenue	\$49,957	\$49,957	\$49,957	\$49,957	\$49,957	\$49,957
5	Interest Income	\$251,339	\$157,580	\$116,843	\$88,926	\$84,731	\$80,385
6	Transfers In	\$42,782	\$0	\$0	\$0	\$0	\$0
7	Total - Revenues	\$7,218,565	\$8,084,031	\$9,191,575	\$10,389,680	\$11,778,352	\$12,892,389
8							
9	O&M Expenses						
10	Water Operations						
11	Salaries and Benefits	\$1,668,217	\$1,786,627	\$1,875,959	\$1,969,757	\$2,068,244	\$2,171,657
12	Maintenance and Operations	\$2,277,489	\$2,595,814	\$2,673,688	\$2,753,899	\$2,836,516	\$2,921,611
13	Water Supply Costs	\$2,351,315	\$1,350,064	\$1,393,119	\$1,437,551	\$1,483,402	\$1,530,718
14	Water Billing Administration						
15	Salaries and Benefits	\$22,628	\$23,759	\$24,947	\$26,194	\$27,504	\$28,879
16	Maintenance and Operations	\$82,615	\$85,141	\$87,744	\$90,428	\$93,195	\$96,047
17	Total - O&M Expenses	\$6,402,263	\$5,841,404	\$6,055,457	\$6,277,828	\$6,508,861	\$6,748,913
18							
19	Debt and Capital						
20	Existing Debt Service	\$1,074,085	\$1,064,460	\$509,106	\$464,612	\$486,162	\$478,567
21	Proposed Debt Service	\$0	\$201,647	\$201,647	\$201,647	\$201,647	\$201,647
22	Rate Funded Capital	\$2,100,000	\$2,768,280	\$3,892,537	\$4,211,753	\$4,151,131	\$6,241,522
23	Total - Debt and Capital	\$3,174,085	\$4,034,387	\$4,603,290	\$4,878,013	\$4,838,940	\$6,921,736
24							
25	Net Cash Flow	-\$2,357,784	-\$1,791,761	-\$1,467,172	-\$766,161	\$430,551	-\$778,260
26							
27	Net Operating Revenue	\$816,302	\$2,242,626	\$3,136,118	\$4,111,852	\$5,269,491	\$6,143,476
28	Calculated Debt Coverage ⁸	107%	360%	1518%	2151%	2883%	3457%
29	Target Debt Coverage	125%	125%	125%	125%	125%	125%

4.3.5.PROPOSED RESERVE FUNDING

Reserve policies guide sound financial management by maintaining solvency, mitigating financial risks, and providing routine working capital. The City's existing fixed reserve balance of \$1.5 million is recommended to be revised to 90 days of O&M expenses, plus additional reserves for capital and rate stabilization, as mentioned in **Section 3.4**. This approach ensures preparedness for emergencies and financial stability, with a targeted reserve increase from \$4.2 million in FY 2025 to \$5.3 million by FY 2030, as shown in **Table 4-13**.

The proposed alternative reserve recommends revising the policy to the following:

⁸ The calculated debt service coverage ratio excludes General Fund loan obligations.

- » Operating Reserve: equal to 90 days of O&M expenses, which equates to approximately \$1.5 million on average over the five-year rate-setting period. Unlike the fixed target of \$1.5 million, a 90-day operating reserve will naturally adjust over time to reflect changes in operating costs driven by inflationary pressure or cost structure changes.
- » Capital Reserve: equal to 50.0 percent (one-half of a year) of the inflation-adjusted 5-year average CIP. This will ensure funding to execute planned capital on time, mitigate any unexpected cost increases, and may provide flexibility on the timing of projects going forward. Like the operating reserve, the capital reserve adjusts over time due to the size of the rolling 5-year CIP and inflationary cost pressure.
- » Rate Stabilization: equal to 15 percent of annual volumetric (i.e. water use) rate revenues. This reserve provides a buffer for fluctuations in annual groundwater production versus purchased water from MWD.

Table 4-13: Proposed Cash Reserve Targets

A Line	B	C FY 2025	D FY 2026	E FY 2027	F FY 2028	G FY 2029	H FY 2030
1	Operating Reserve						
2	O&M Expenses	\$6,402,263	\$5,841,404	\$6,055,457	\$6,277,828	\$6,508,861	\$6,748,913
3	90 Days Cash (of 365 days)	90/365	90/365	90/365	90/365	90/365	90/365
4	Annual Operating Reserve Target	\$1,578,640	\$1,440,346	\$1,493,126	\$1,547,958	\$1,604,925	\$1,664,115
5	Capital Reserve Fund						
6	5-Year Average CIP	\$4,024,740	\$4,853,045	\$4,936,236	\$5,309,998	\$5,680,326	\$6,290,076
7	50% Annual CIP	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
8	Water Capital Reserve Fund Target	\$2,012,370	\$2,426,522	\$2,468,118	\$2,654,999	\$2,840,163	\$3,145,038
9	Rate Stabilization Reserve						
10	Current Commodity Rate Revenues	\$3,903,280	\$3,871,976	\$3,840,922	\$3,810,118	\$3,779,561	\$3,749,249
11	15% of Annual Commodity Rate Revenues	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
12	Rate Stabilization Reserve Target	\$585,492	\$580,796	\$576,138	\$571,518	\$566,934	\$562,387
13	Total Cash Reserve Target	\$4,176,502	\$4,447,665	\$4,537,383	\$4,774,474	\$5,012,022	\$5,371,541

4.3.6.UNRESTRICTED CASH BALANCE PROJECTIONS

Table 4-14 shows the City Water Fund's projected cash balances, with the proposed revenue adjustments from

Table 1-5. The projected ending balance drops below the proposed reserve funding target mentioned in **Section 4.3.5**, but remains above the minimum target of ~\$1.5 million (approximately 90 days O&M) and reaches the full reserve target by FY 2034 as shown in **Figure 4-3**. Foregoing achieving the reserve targets in all years allows the City to mitigate otherwise larger rate increases.

Table 4-14: Unrestricted Cash Balances - Proposed Financial Plan

A Line	B Water Fund Balances	C FY 2025	D FY 2026	E FY 2027	F FY 2028	G FY 2029	H FY 2030
1	Beginning Balance	\$9,556,849	\$7,199,066	\$5,407,305	\$3,940,133	\$3,173,972	\$3,604,523
2							
3	Sources of Funds						
4	Rate Revenues	\$6,874,487	\$6,849,125	\$6,824,026	\$6,799,188	\$6,774,609	\$6,750,288
5	Revenue Adjustments	\$0	\$1,027,369	\$2,200,749	\$3,451,608	\$4,869,054	\$6,011,759
6	Miscellaneous Revenue	\$92,739	\$49,957	\$49,957	\$49,957	\$49,957	\$49,957
7	Interest Income	\$251,339	\$157,580	\$116,843	\$88,926	\$84,731	\$80,385
8	Total - Sources of Funds	\$7,218,565	\$8,084,031	\$9,191,575	\$10,389,680	\$11,778,352	\$12,892,389
9							
10	Uses of Funds						
11	Water Operations O&M	\$3,945,706	\$4,382,441	\$4,549,647	\$4,723,656	\$4,904,760	\$5,093,268
12	Water Supply Costs	\$2,351,315	\$1,350,064	\$1,393,119	\$1,437,551	\$1,483,402	\$1,530,718
13	Water Billing Administration O&M	\$105,243	\$108,900	\$112,691	\$116,622	\$120,699	\$124,926
14	Existing Debt	\$1,074,085	\$1,064,460	\$509,106	\$464,612	\$486,162	\$478,567
15	Proposed Debt Service	\$0	\$201,647	\$201,647	\$201,647	\$201,647	\$201,647
16	Rate Funded Capital	\$2,100,000	\$2,768,280	\$3,892,537	\$4,211,753	\$4,151,131	\$6,241,522
17	Total - Uses of Funds	\$9,576,349	\$9,875,792	\$10,658,747	\$11,155,841	\$11,347,801	\$13,670,649
18							
19	Ending Balance	\$7,199,066	\$5,407,305	\$3,940,133	\$3,173,972	\$3,604,523	\$2,826,263
20	Proposed Reserve Target	\$4,176,502	\$4,447,665	\$4,537,383	\$4,774,474	\$5,012,022	\$5,371,541
21	Over/(Under) Reserve Target	\$3,022,563	\$959,640	-\$597,249	-\$1,600,502	-\$1,407,499	-\$2,545,278

Figure 4-1 through **Figure 4-4** display the proposed financial plan in graphical format through FY 2035.

Figure 4-1 shows the target debt coverage requirement as the dotted line and the standard debt coverage as the blue line. The figures show the full 10-year financial plan which includes the five years for rate adoption (FY 2026-2030) as well as years six to ten (FY 2031-2035) for planning purposes. With the proposed financial plan, the City is projected to exceed its target coverage requirement in all plan years.

Figure 4-1: Projected Debt Coverage

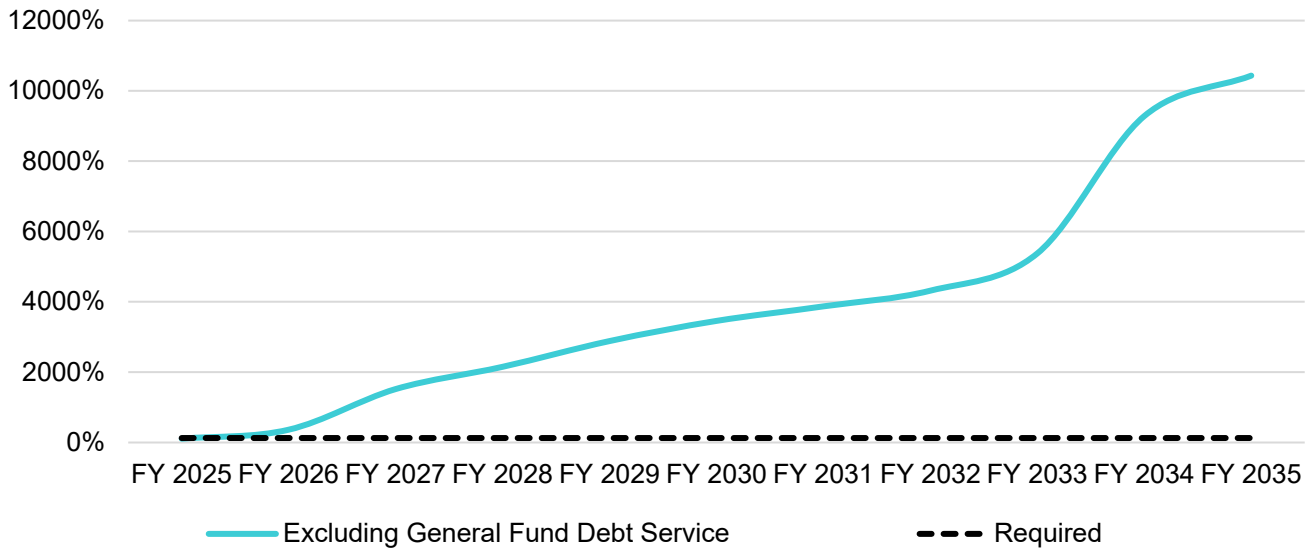


Figure 4-2 illustrates the proposed Operating Financial Plan. It compares existing and proposed revenues with projected expenses. The expenses (bars) represent O&M expenses, water production costs, other operating expenses, rate-funded capital costs, and net cash to/from reserves (i.e. “Reserve Funding”). Total revenues at existing and proposed rates are shown by the solid and dotted lines respectively. **Figure 4-2** shows that current revenue from existing rates will not fully recover future total expenses.

Figure 4-2: Proposed Operating Financial Plan

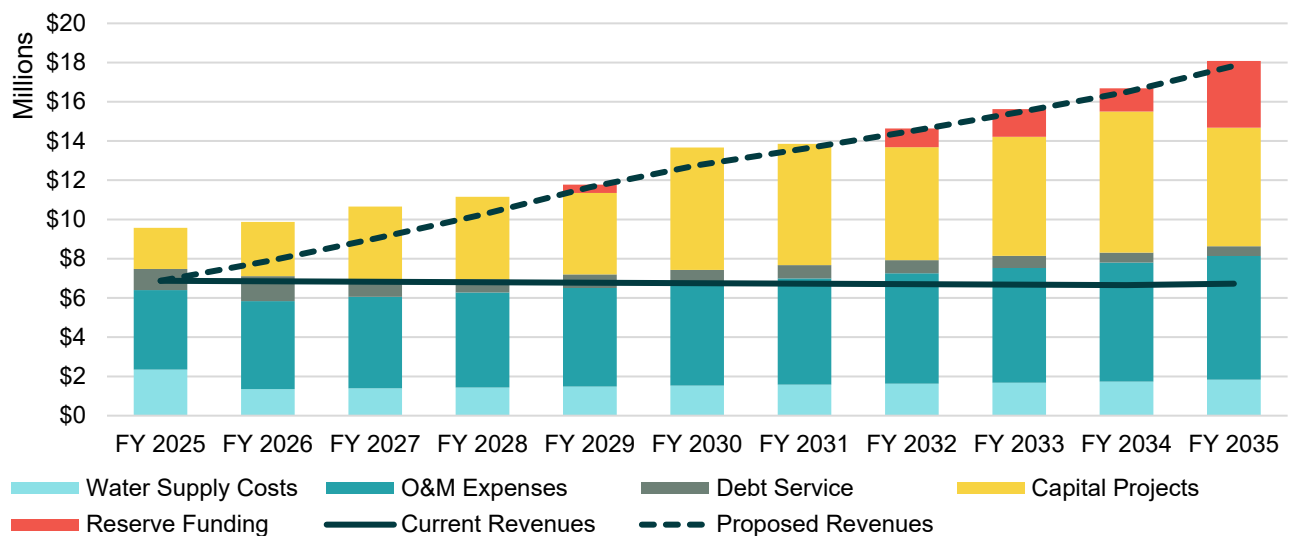


Figure 4-3 shows the Water Fund’s projected ending cash balance by fiscal year. The green bars indicate the projected ending balance, while the dotted and solid black lines indicate the existing and proposed target balances, respectively. With the proposed financial plan, the City achieves the proposed target fund balance in FY 2034.

Figure 4-3: Projected Ending Fund Balances

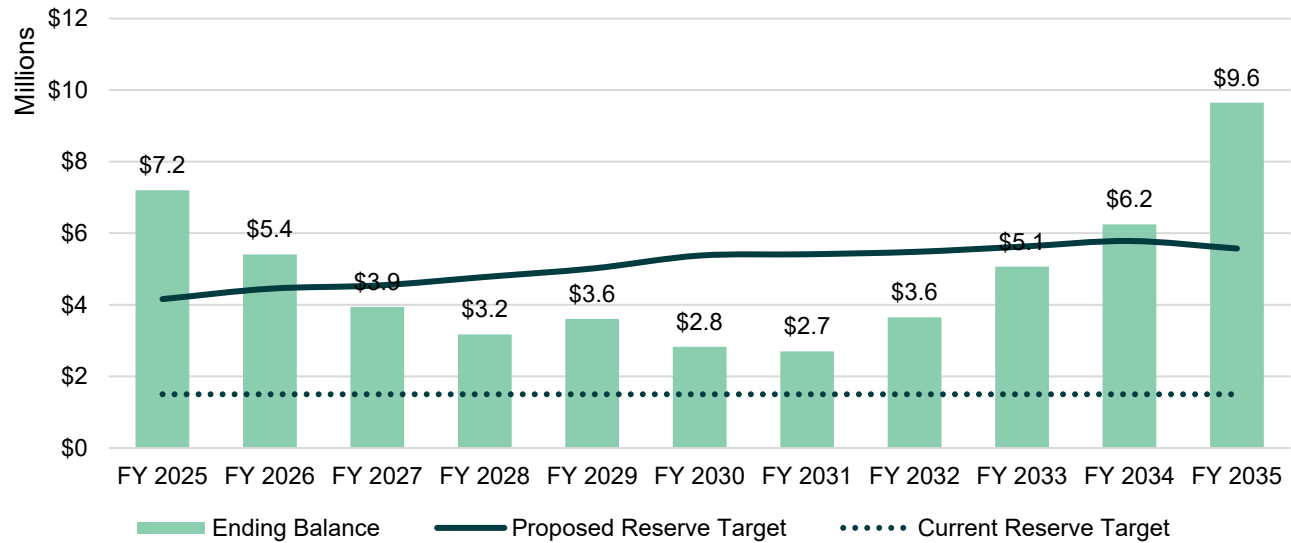
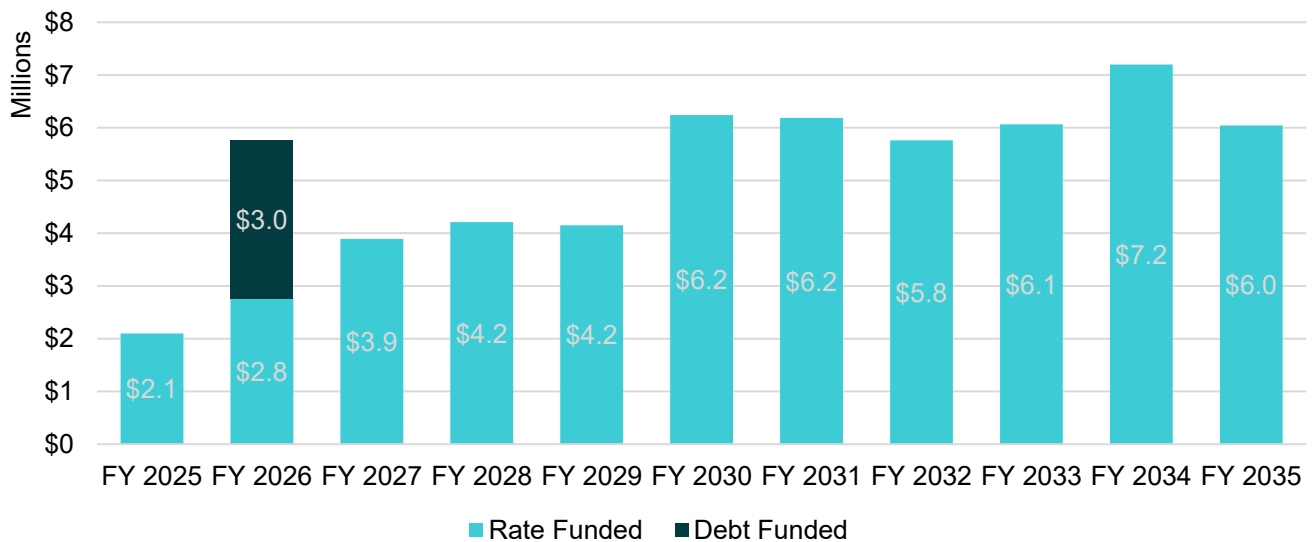


Figure 4-4 shows the annual planned CIP by funding source. The dark blue bars represent debt-funded (in this case, General Fund-loaned) capital and the light blue bars indicate rate-funded capital on a pay-as-you-go (PAYGO) cash basis.

Figure 4-4: Proposed Capital Improvement Program and Funding



5. Proposed Rates

This section calculates the proposed rates based on the financial plan results in the previous section. The proposed revenue adjustments are applied *across-the-board* to the existing rates and rate structure. The first year of rates is proposed for implementation FY 2026 (July 1, 2025).

5.1. Monthly Meter Service Charges

The City will maintain the current schedule of Meter Service Charges by meter size for all customers. **Table 5-1** shows the proposed schedule of rates by meter size for the five-year rate-setting period. The charges incorporate the proposed annual rate increases across all meter sizes for each year, beginning in FY 2026. All rates are rounded to the nearest whole penny.

Table 5-1: Current and Proposed Monthly Meter Service Charges

A	B	C	D	E	F	G	H
Line	Meter Size	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
1	5/8"	\$25.76	\$29.62	\$34.07	\$38.84	\$44.27	\$48.70
2	3/4"	\$25.76	\$29.62	\$34.07	\$38.84	\$44.27	\$48.70
3	1"	\$66.30	\$76.25	\$87.68	\$99.96	\$113.95	\$125.35
4	1 1/2"	\$146.15	\$168.07	\$193.28	\$220.34	\$251.19	\$276.31
5	2"	\$253.25	\$291.24	\$334.92	\$381.81	\$435.27	\$478.79
6	3"	\$567.40	\$652.51	\$750.39	\$855.44	\$975.20	\$1,072.72
7	4"	\$567.40	\$652.51	\$750.39	\$855.44	\$975.20	\$1,072.72
8	6"	\$567.40	\$652.51	\$750.39	\$855.44	\$975.20	\$1,072.72
9	8"	\$567.40	\$652.51	\$750.39	\$855.44	\$975.20	\$1,072.72
10	10"	\$1,810.06	\$2,081.57	\$2,393.80	\$2,728.94	\$3,110.99	\$3,422.09

5.2. Fire Service Charges

Table 5-2 and **Table 5-3** show the proposed Fire Service Charges for the study period for those connections to the system that have a dedicated private fireline. All rates are increased by the proposed revenue adjustments and are rounded to the nearest penny.

Table 5-2: Current and Proposed Residential Fire Service Charges

A	B	C	D	E	F	G	H
Line	Fireline Diameter	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
1	2"	\$121.79	\$140.06	\$161.07	\$183.62	\$209.32	\$230.26
2	4"	\$240.77	\$276.89	\$318.42	\$363.00	\$413.82	\$455.20
3	6"	\$362.01	\$416.31	\$478.76	\$545.78	\$622.19	\$684.41
4	8"	\$457.02	\$525.57	\$604.41	\$689.03	\$785.49	\$864.04
5	10"	\$457.02	\$525.57	\$604.41	\$689.03	\$785.49	\$864.04

Table 5-3: Current and Proposed Commercial Fire Service Charges

A	B	C	D	E	F	G	H
Line	Fireline Diameter	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
1	2"	\$205.95	\$236.84	\$272.37	\$310.50	\$353.97	\$389.37
2	3"	\$205.95	\$236.84	\$272.37	\$310.50	\$353.97	\$389.37
3	4"	\$457.02	\$525.57	\$604.41	\$689.03	\$785.49	\$864.04
4	6"	\$457.02	\$525.57	\$604.41	\$689.03	\$785.49	\$864.04
5	8"	\$457.02	\$525.57	\$604.41	\$689.03	\$785.49	\$864.04
6	10"	\$457.02	\$525.57	\$604.41	\$689.03	\$785.49	\$864.04

5.3. Consumption Charges

The City will maintain the current structure and schedule of Water Use Charges by class and tier for Residential, Commercial, and Irrigation customers. **Table 5-4.** shows the five-year Water Usage Charges by customer class and tier. The charges incorporate the proposed annual revenue adjustments across all rates, beginning in FY 2026. All rates are shown in dollars per hundred cubic feet of water consumed (\$/CCF). All rates are rounded to the nearest whole penny.

Table 5-4: Current and Proposed Consumption Charges (\$/CCF)

A	B	C	D	E	F	G	H	I
Line	Class/Tier	Monthly Tier (CCF)	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
1	Residential - Single Family							
2	Tier 1	0-15	\$4.38	\$5.04	\$5.80	\$6.61	\$7.54	\$8.29
3	Tier 2	>15	\$6.99	\$8.04	\$9.25	\$10.55	\$12.03	\$13.23
4								
5	Residential - Multi-Family							
6	Tier 1	0-15	\$4.38	\$5.04	\$5.80	\$6.61	\$7.54	\$8.29
7	Tier 2	>15	\$6.99	\$8.04	\$9.25	\$10.55	\$12.03	\$13.23
8								
9	Commercial, Industrial, and Institutional							
10	Tier 1	0-15	\$4.38	\$5.04	\$5.80	\$6.61	\$7.54	\$8.29
11	Tier 2	15-150	\$6.99	\$8.04	\$9.25	\$10.55	\$12.03	\$13.23
12	Tier 3	>150	\$10.29	\$11.83	\$13.60	\$15.50	\$17.67	\$19.44
13								
14	Irrigation							
15	Tier 1	0-15	\$4.38	\$5.04	\$5.80	\$6.61	\$7.54	\$8.29
16	Tier 2	>15	\$6.66	\$7.66	\$8.81	\$10.04	\$11.45	\$12.60

6. Customer Bill Impacts

6.1. Monthly Water Bill Impacts

Figure 6-1 shows sample monthly water bills for single-family residential customers with a 3/4-inch water meter at varying levels of water use under both current rates and proposed FY 2026 rates. Approximately 82.0 percent of single-family residential customers have a 3/4-inch water meter. The five water use levels shown are defined in **Table 6-1**, and were calculated based on account-level single-family residential (SFR) water billing data for FY 2023. At proposed rates, the median water user at 6 CCF would anticipate a \$7.81 monthly bill impact. Note that bill impacts vary based on both the volume of water use and the size of the metered connection.

Figure 6-1: Single Family Residential Monthly Water Bill Impacts (FY 2023)

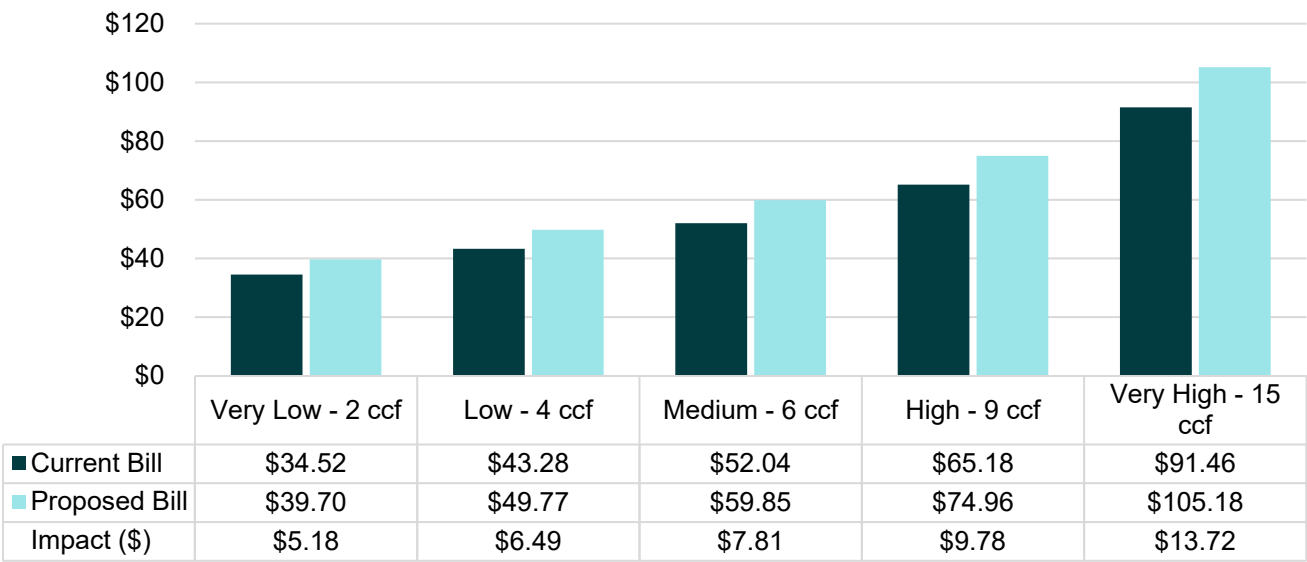


Table 6-1: FY 2023 Water Use per Account - Single Family Residential

Single-Family Residential Water Use	CCF/Month
10 th Percentile	2 CCF
30 th Percentile	4 CCF
50 th Percentile (Median)	6 CCF
70 th Percentile	9 CCF
90 th Percentile	15 CCF

Figure 6-2 shows sample monthly water bills for commercial, industrial, and institutional (CII) customers with a 3/4-inch water meter at varying levels of water use under both current rates and proposed FY 2026 rates. The five water use levels shown are defined in **Table 6-2**, and were calculated based on account-level CII water billing data for FY 2023.

Figure 6-2: Commercial Monthly Water Bill Impacts (FY 2023)

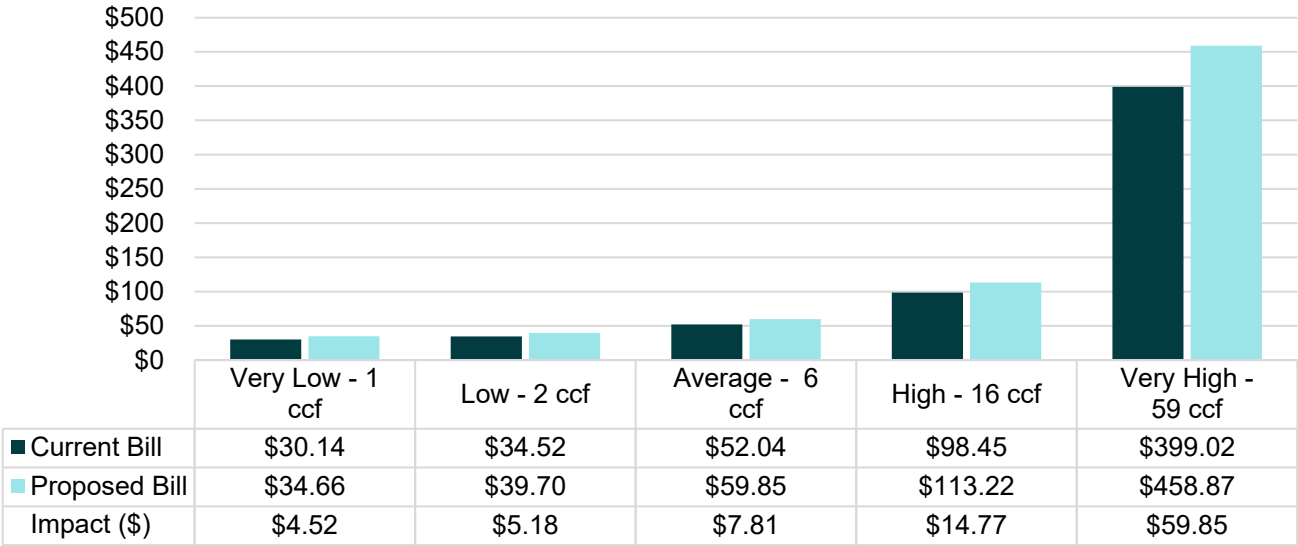


Table 6-2: FY 2023 Water Use per Account - CII

CII Water Use	CCF/Month
10 th Percentile	1 CCF
30 th Percentile	2 CCF
50 th Percentile (Median)	6 CCF
70 th Percentile	16 CCF
90 th Percentile	59 CCF

7. Appendix A: Inflated Ten-Year Capital Improvement Plan

A Line	B Project Description	C Priority	D FY 2025	E FY 2026	F FY 2027	G FY 2028	H FY 2029	I FY 2030	J FY 2031	K FY 2032	L FY 2033	M FY 2034	N FY 2035	O Total
1	Gundry reservoir roof replacement and coating	High	\$2,100,000	\$3,858,750	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,958,750
2	Electrical upgrades at Hilltop PS	High	\$0	\$110,250	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$110,250
3	SCADA upgrades	High	\$0	\$77,175	\$497,779	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$574,954
4	Well 9 - Rehab	High	\$0	\$165,375	\$173,644	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$339,019
5	Rehab of Well 7	High	\$0	\$0	\$868,219	\$911,630	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,779,848
6	New well installation	High	\$0	\$0	\$0	\$319,070	\$0	\$3,517,751	\$3,324,275	\$0	\$0	\$0	\$0	\$7,161,096
7	Automated Meter Reading (AMR)	Medium	\$0	\$0	\$0	\$486,203	\$510,513	\$0	\$0	\$0	\$0	\$0	\$0	\$996,715
8	Temple reservoir soil removal / upgrades	Medium	\$0	\$0	\$0	\$0	\$382,884	\$0	\$0	\$0	\$0	\$0	\$0	\$382,884
9	Gundry pump station rehabilitation	Medium	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,393,220	\$0	\$0	\$0	\$1,393,220
10	Disinfection improvements at Gundry	Medium	\$0	\$330,750	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$330,750
11	Lakewood water line by-pass	Medium	\$0	\$0	\$0	\$0	\$663,666	\$0	\$0	\$0	\$0	\$0	\$0	\$663,666
12	Well 9 Treatment Bypass	Medium	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,365,169	\$2,910,292	\$0	\$0	\$4,275,461
13	Valve replacement	Medium	\$0	\$385,875	\$578,813	\$607,753	\$638,141	\$670,048	\$703,550	\$738,728	\$775,664	\$814,447	\$855,170	\$6,768,188
14	Cast iron/asbestos cement pipeline replacement	Medium	\$0	\$840,105	\$1,774,083	\$1,862,788	\$1,955,927	\$2,053,723	\$2,156,410	\$2,264,230	\$2,377,442	\$2,496,314	\$2,621,129	\$20,402,150
15	Site security for Well 10	Medium	\$0	\$0	\$0	\$24,310	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$24,310
16	Upsize pipelines on hydrants that do not meet fireflow requirements	Medium	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,889,120	\$0	\$3,889,120
17	Gundry Reservoir Treatment Enhancement	Low	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
18	Rehab MWD connection to Hilltop	Low	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,453,788	\$1,453,788
19	Temple reservoir expansion	Low	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
20	Hilltop Disinfection Station	Low	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,111,721	\$1,111,721
21	Total Capital Projects - Inflated		\$2,100,000	\$5,768,280	\$3,892,537	\$4,211,753	\$4,151,131	\$6,241,522	\$6,184,234	\$5,761,346	\$6,063,397	\$7,199,881	\$6,041,808	\$57,615,891

8. Appendix B: Ten-Year Enterprise Financial Plan

Raftelis evaluated proposed financial plan options with City staff based on a ten-year planning horizon through FY 2035. Because the proposed water rate schedule presented in this report is for the next five fiscal years only, financial plan results shown in **Section 4.2** only extend through FY 2030 for display purposes and to improve clarity. **Appendix B** provides a ten-year Water enterprise financial plan projection as a supplement. Note that all revenue

adjustments shown below beyond FY 2030 are for planning purposes only and will be revisited during the next rate study (to establish proposed water rates beyond FY 2030).

The ten-year financial projections are based on the same set of assumptions as the five-year financial projections and are based on the best data available at the time of this Study. Assumptions become less reliable and more uncertain over an extended time horizon and new and refined data becomes available; additionally Proposition 218 only allows agencies to adopt and implement rates for a maximum period of five years. Actual revenue requirements for fiscal years beyond FY 2030 will be determined in the next five-year rate study. Depending on actual revenues and expenses incurred during this five-year rate setting period, projected revenue increases in years 6-10 year may vary from today’s estimates. Items which will impact years 6-10 include future water supply and demand conditions, actual capital costs incurred, actual cost inflation, and future debt terms on any future external borrowing.

Table 8-1: Ten-Year Water Financial Plan Assumptions

Line	Fiscal Year	Revenue Adjustment	Proposed Debt Issuance
1	FY 2026	15.0%	\$3,000,000 ⁹
2	FY 2027	15.0%	\$0
3	FY 2028	14.0%	\$0
4	FY 2029	14.0%	\$0
5	FY 2030	10.0%	\$0
6	FY 2031	7.0%	\$0
7	FY 2032	7.0%	\$0
8	FY 2033	7.0%	\$0
9	FY 2034	7.0%	\$0
10	FY 2035	7.0%	\$0

⁹ The \$3,000,000 loan proceed is a General Fund bridge loan for the Gundry Reservoir Roof project.

Table 8-2: Ten-Year Water Enterprise Financial Plan

A Line	B	C FY 2025	D FY 2026	E FY 2027	F FY 2028	H FY 2029	H FY 2030	I FY 2031	J FY 2032	K FY 2033	L FY 2034	M FY 2035
1	Revenues											
2	Water Sales and Service Charges	\$6,874,487	\$6,849,125	\$6,824,026	\$6,799,188	\$6,774,609	\$6,750,288	\$6,726,221	\$6,702,407	\$6,678,844	\$6,655,531	\$6,723,407
3	Revenue Adjustments	\$0	\$1,027,369	\$2,200,749	\$3,451,608	\$4,869,054	\$6,011,759	\$6,880,484	\$7,805,221	\$8,789,746	\$9,838,086	\$11,104,747
4	Total Water Rate Revenue	\$6,874,487	\$7,876,494	\$9,024,775	\$10,250,797	\$11,643,664	\$12,762,047	\$13,606,705	\$14,507,628	\$15,468,590	\$16,493,617	\$17,828,154
5												
6	Connection Charges	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7	Other Operating Revenue	\$49,957	\$49,957	\$49,957	\$49,957	\$49,957	\$49,957	\$49,957	\$49,957	\$49,957	\$49,957	\$49,957
8	Interest Income	\$251,339	\$157,580	\$116,843	\$88,926	\$84,731	\$80,385	\$69,039	\$79,335	\$108,969	\$141,426	\$198,684
9												
10	Non-Operating Revenue	\$42,782	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
11	Total - Revenues	\$7,218,565	\$8,084,031	\$9,191,575	\$10,389,680	\$11,778,352	\$12,892,389	\$13,725,700	\$14,636,920	\$15,627,516	\$16,685,000	\$18,076,796
12												
13	O&M Expenses											
14	Water Operations											
15	Salaries and Benefits	\$1,668,217	\$1,786,627	\$1,875,959	\$1,969,757	\$2,068,244	\$2,171,657	\$2,280,240	\$2,394,251	\$2,513,964	\$2,639,662	\$2,771,645
16	Maintenance and Operations	\$2,277,489	\$2,595,814	\$2,673,688	\$2,753,899	\$2,836,516	\$2,921,611	\$3,009,260	\$3,099,538	\$3,192,524	\$3,288,299	\$3,386,948
17	Water Supply Costs	\$2,351,315	\$1,350,064	\$1,393,119	\$1,437,551	\$1,483,402	\$1,530,718	\$1,579,546	\$1,629,935	\$1,681,935	\$1,735,596	\$1,834,848
18	Water Billing Administration											
19	Salaries and Benefits	\$22,628	\$23,759	\$24,947	\$26,194	\$27,504	\$28,879	\$30,323	\$31,839	\$33,431	\$35,103	\$36,858
20	Maintenance and Operations	\$82,615	\$85,141	\$87,744	\$90,428	\$93,195	\$96,047	\$98,988	\$102,021	\$105,147	\$108,370	\$111,694
21	Total - O&M Expenses	\$6,402,263	\$5,841,404	\$6,055,457	\$6,277,828	\$6,508,861	\$6,748,913	\$6,998,357	\$7,257,584	\$7,527,001	\$7,807,031	\$8,141,994
22												
23	Net Revenue (excluding Debt)	\$816,302	\$2,242,626	\$3,136,118	\$4,111,852	\$5,269,491	\$6,143,476	\$6,727,343	\$7,379,336	\$8,100,516	\$8,877,969	\$9,934,802
24												
25	Debt Service											
26	Existing Debt Service	\$1,074,085	\$1,064,460	\$509,106	\$464,612	\$486,162	\$478,567	\$470,906	\$463,178	\$417,883	\$297,520	\$289,587
27	Proposed Debt Service	\$0	\$201,647	\$201,647	\$201,647	\$201,647	\$201,647	\$201,647	\$201,647	\$201,647	\$201,647	\$201,647

A	B	C	D	E	F	H	H	I	J	K	L	M
Line		FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035
28	Total - Debt Service	\$1,074,085	\$1,266,107	\$710,753	\$666,260	\$687,809	\$680,214	\$672,553	\$664,825	\$619,530	\$499,167	\$491,234
29												
30	Net Revenue (After Debt Service)	-\$257,784	\$976,519	\$2,425,365	\$3,445,592	\$4,581,682	\$5,463,262	\$6,054,790	\$6,714,511	\$7,480,986	\$8,378,802	\$9,443,568
31												
32	Capital Projects											
33	Rate Funded CIP	\$2,100,000	\$2,768,280	\$3,892,537	\$4,211,753	\$4,151,131	\$6,241,522	\$6,184,234	\$5,761,346	\$6,063,397	\$7,199,881	\$6,041,808
34	Total - Capital Projects	\$2,100,000	\$2,768,280	\$3,892,537	\$4,211,753	\$4,151,131	\$6,241,522	\$6,184,234	\$5,761,346	\$6,063,397	\$7,199,881	\$6,041,808
35												
36	Net Cash Flow	-\$2,357,784	-\$1,791,761	-\$1,467,172	-\$766,161	\$430,551	-\$778,260	-\$129,445	\$953,164	\$1,417,588	\$1,178,922	\$3,401,760
37												
38	Debt Service Coverage											
41	Excluding General Fund Debt	107%	360%	1518%	2151%	2883%	3457%	3870%	4318%	5377%	9282%	10434%
42	Target	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%

Figure 8-1: 10-Year Capital Improvement Program and Funding

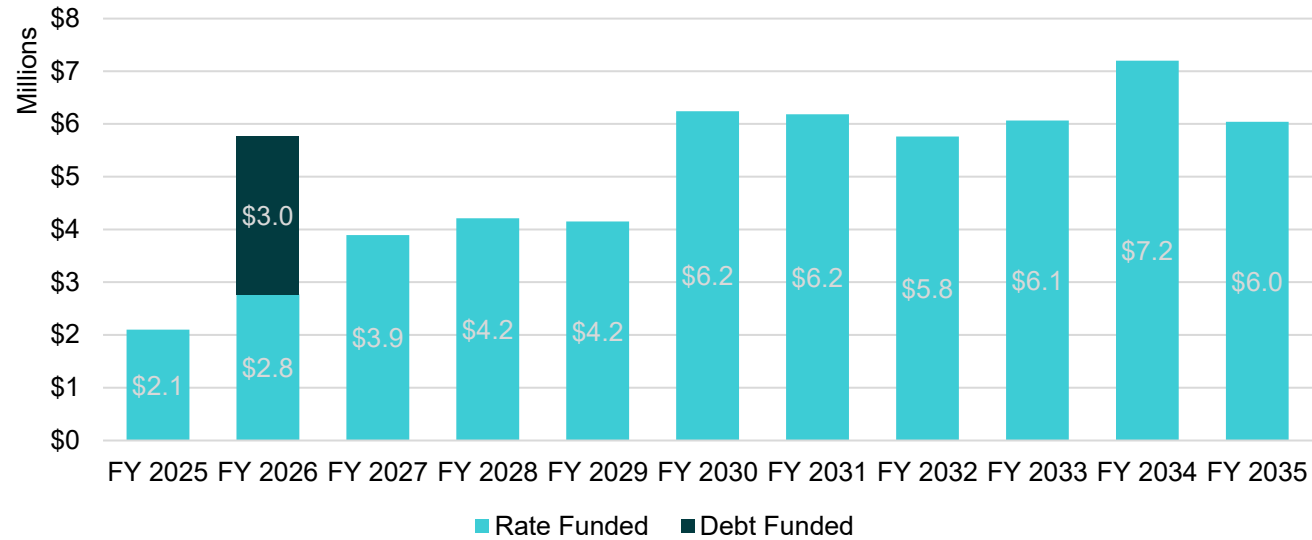


Figure 8-2: 10-Year Water Projected Debt Coverage

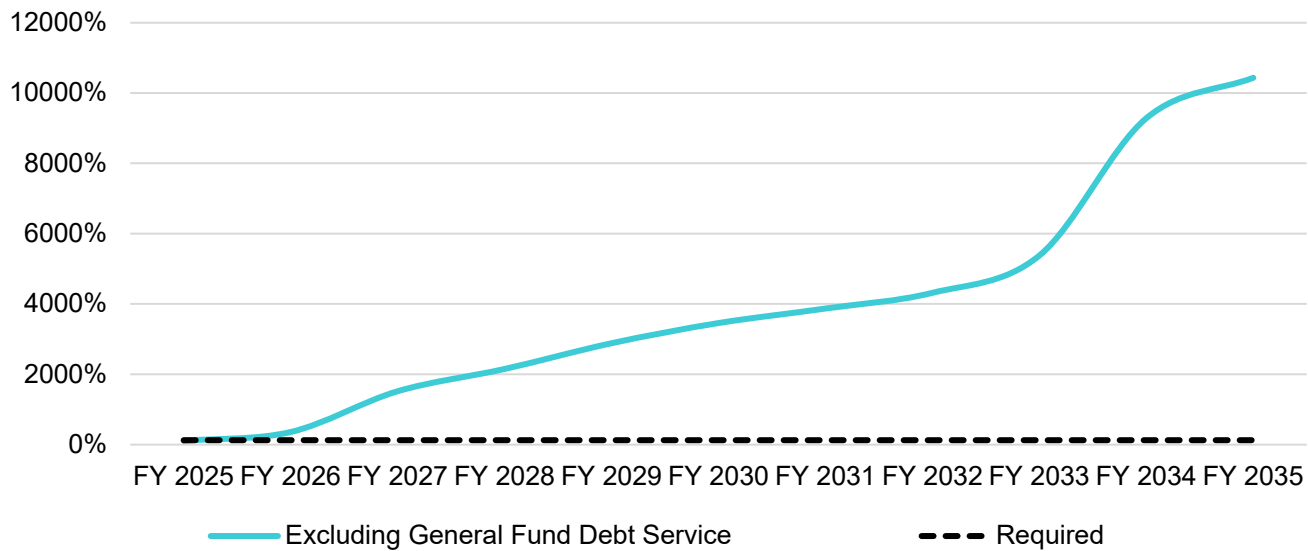


Figure 8-3: 10-Year Water Enterprise Projected Ending Balances

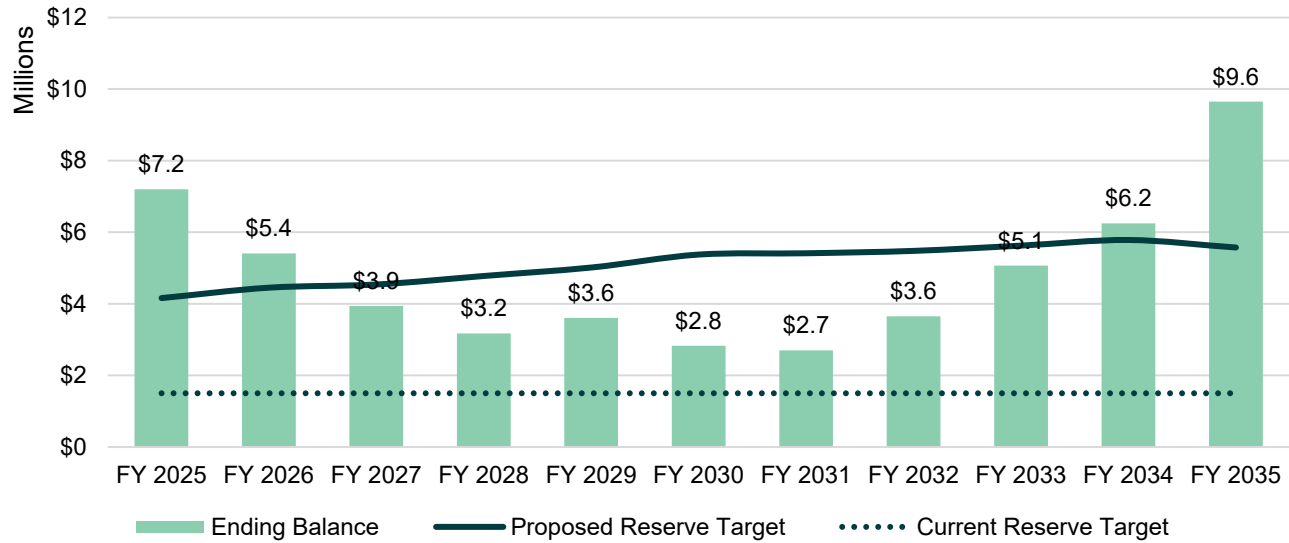


Figure 8-4: 10-Year Water Enterprise Operating Financial Plan

