CITY OF UPLAND

Water and Wastewater Rate Study

REPORT / March 16, 2026

RAFTELIS

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March 16, 2026

Mr. Richard Gonzales
Deputy Director of Utilities
City of Upland
460 N. Euclid Avenue
Upland, CA 91786

Subject: Water and Wastewater Financial Plan Study Report

Dear Mr. Gonzales:

Raftelis is pleased to provide this Water and Wastewater Rate Study Report (Report) for the City of Upland (City) to develop a financial plan to help the City meet its annual expenses and provide fiscal stability, as well as to establish water and wastewater rates that are equitable and consistent with the cost of providing service.

The major objectives of the study include the following:

- Develop financial plans for the water and wastewater enterprises to ensure financial sufficiency, meet operation and maintenance (O&M) costs, ensure sufficient funding for capital replacement and refurbishment (R&R) needs, and improve the financial health of the enterprises
- Recommend sound and sufficient reserve funds
- Review current rate structures for the water and wastewater enterprises
- Recommend a five-year schedule of water and wastewater rates consistent with regulatory

The report summarizes the key findings and recommendations related to the development of the financial plans for water and wastewater utilities and the development of the updated water and wastewater rates.

It has been a pleasure working with you, and we thank you, Mr. Gonzales, and the City staff for the support provided during the course of this study.

Sincerely,

Sudhir Pardiwala, PE (CA)
Senior Principal

Nicholas Kennedy
Consultant

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1. Executive Summary

1.1. Background

In 2024, the City of Upland (City) engaged Raftelis to conduct a Water and Wastewater Rate Study (Study) to develop ten-year financial plans, conduct cost-of-service analyses, and develop five-year schedules for the water and wastewater utilities that are equitable and in compliance with Proposition 218.

This executive summary describes the rate study process, methodology, and recommendations for the City's water and wastewater rates. The City wishes to establish fair and equitable rates that:

- Meet the City's water and wastewater enterprise fiscal needs for operation and maintenance costs, capital replacement and refurbishment (R&R) costs, reserve goals, and ensure the financial health of each enterprise, and
- Prepare a five-year schedule of water and wastewater rates consistent with the cost of providing service.

The City occupies approximately 15 square miles and is located in the western end of San Bernardino County. It is bordered by the cities of Montclair and Claremont on the west, Ontario to the south, Rancho Cucamonga to the east, and the unincorporated areas of San Antonio Heights to the north. As of 2024, the City had a population of approximately 79,600.

The City's water enterprise serves the City of Upland. The City has access to local and imported water supply resources. Locally, the City has adjudicated groundwater water rights in the Chino, Cucamonga, and Six Basins. These adjudicated groundwater basins are actively managed and overseen by a designated Watermaster in accordance with their respective court decrees. The City water interests are a result of either a direct water right or indirectly through its shareholder interest (entitlement) in two private mutual water companies. The City has a stake in West End Consolidated Water Company (WECWC). The water received from WECWC is local groundwater. The City has a shareholder interest in San Antonio Water Company (SAWCo). Both local groundwater and surface water from San Antonio Canyon is provided by SAWCo. San Antonio Canyon surface water supply is subject to availability and is closely tied to rain and snowpack. This local surface water is treated at the City's San Antonio Water Treatment Plant. In addition to the local surface and groundwater supplies, the City invested in and acquired an interest in an 81 million gallons per day (mgd) imported water treatment plant, the Water Facilities Authority (WFA-JPA). The WFA water treatment plant receives Northern California State Project imported water from Metropolitan Water District of Southern California (MWD) through Inland Empire Utilities Agency (IEUA), an MWD member agency.

In 2013, IEUA completed regional pipeline facilities and began delivering recycled water. Recycled water is predominantly available in the southeastern sector of the City and is mostly used for large landscape irrigation areas, such as the Upland Hill Country Club Golf Course, City parks, several school grounds, and the Euclid Avenue median.

The sewer system is a gravity flow system consisting of approximately 210 miles of pipe ranging from 3 inches to 21 inches in diameter. The City provides sewer service to most businesses and residents within the City, as well as the unincorporated areas (San Antonio Heights) within the City's sphere of influence. Collected sewage is conveyed to the IEUA regional wastewater reclamation facilities for treatment and disposal of the effluent, sludge, and residual solids.

Several areas in the southwest quadrant of the City cannot be served by gravity flow through the City's system to the regional trunk sewer. The sewer mains in these areas are connected to the sewer systems of Montclair and Claremont. The City is responsible for operations and maintenance (O&M) of the system within its boundaries. In addition, the City pays a fee to the adjoining City or agency for the conveyance of City flows from these areas to the regional plants owned and operated by IEUA (for flows through the Montclair system) or Los Angeles County Sanitation District (LACSD) 21 (for flows through the Claremont system) for treatment.

1.2. Process

Raftelis developed water and wastewater financial plans for the City. The financial plans consider the total revenue adjustments needed to meet capital investment, operational expenses, debt service, and reserve policies during the five-year rate setting period. After developing the financial plans, Raftelis performed cost-of-service analyses to determine the water and wastewater rates based on the financial plans.

The current water rate consists of a bi-monthly service charge, a tiered volumetric rate for single-family customers, and uniform rates for multi-family residential, landscape, commercial, school, government, and recycled water customer classes. The bi-monthly service charge is designed to primarily collect costs that are relatively fixed, including such things as billing and customer service costs, meter reading, and meter maintenance. The volumetric rate recovers the remaining costs. Raftelis is not recommending any changes to the current rate structure.

The current wastewater rate structure consists of a City local sewer services charge per equivalent dwelling unit (EDU), and an Inland Empire Utilities Agency (IEUA) Sewer Treatment charge per EDU. For this rate study, Raftelis is making rate recommendations only for the City charge.

1.3. Proposed Water Financial Plan

This section of the report details the water enterprise's long-term financial plan, based on the projected revenues, expenses, debt service, and capital project costs. With assistance from City staff, Raftelis modeled the financial plan without revenue adjustments (status quo) and with proposed revenue adjustments to ensure the financial sustainability of the water utility. Raftelis projects that with no rate increases over the study period (FY 2026-FY 2034), the City will fall below the minimum reserve targets beginning in FY 2029. The City would also fail to meet its debt service requirements beginning in FY 2028. Raftelis worked with City staff to develop proposed revenue adjustments over the five-year-rate-setting period (Table 1-1). The proposed water revenue adjustments were selected to ensure the water operating fund has sufficient funds to cover annual expenses and to ensure reserve target levels are met. The first rate adjustment effective June 1, 2026, is the result of the cost of service with a 5% revenue adjustment, because these rates are calculated through the cost of service analysis, the bill impact will not equal 5% for all customers. All future year revenue adjustments and rates increase by the 5% shown below. Reserve targets are discussed in detail in Section 4.3. The proposed revenue adjustments for five years are shown in Table 1-1.

Table 1-1: Proposed Water Revenue Adjustments

Effective Date	Adjustment
June 1, 2026	5.0%
January 1, 2027	5.0%
January 1, 2028	5.0%
January 1, 2029	5.0%
January 1, 2030	5.0%

Figure 1-1 shows the proposed five-year water enterprise financial plan. Status quo revenue is shown by the solid line. Projected revenue is shown by the dashed line. Annual expenditures are shown by the columns. The green bars above the X-axis show the net cash used to build up the reserves and the green bars below the X-axis show reserves being spent to fund costs. Revenue from current rates is not enough to cover annual operating and maintenance costs or capital expenditures. Therefore, revenue adjustments are required to generate sufficient revenue to cover these costs over the study period.

Figure 1-1: Proposed Water Financial Plan

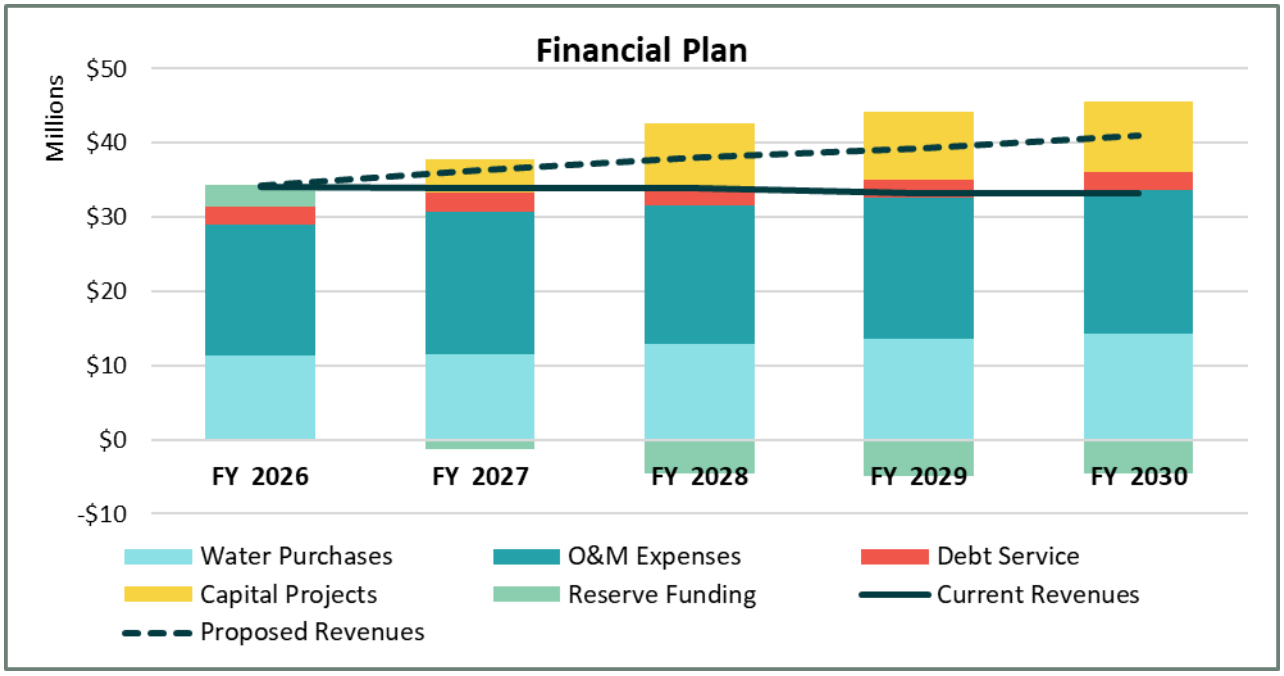


Figure 1-2 shows projected ending fund balances over the study period relative to the City's reserve targets. Maximum and minimum targets are shown. The minimum targets are met in all years of the rate-setting period.

Figure 1-2: Proposed Water Financial Plan – Projected Ending Balances

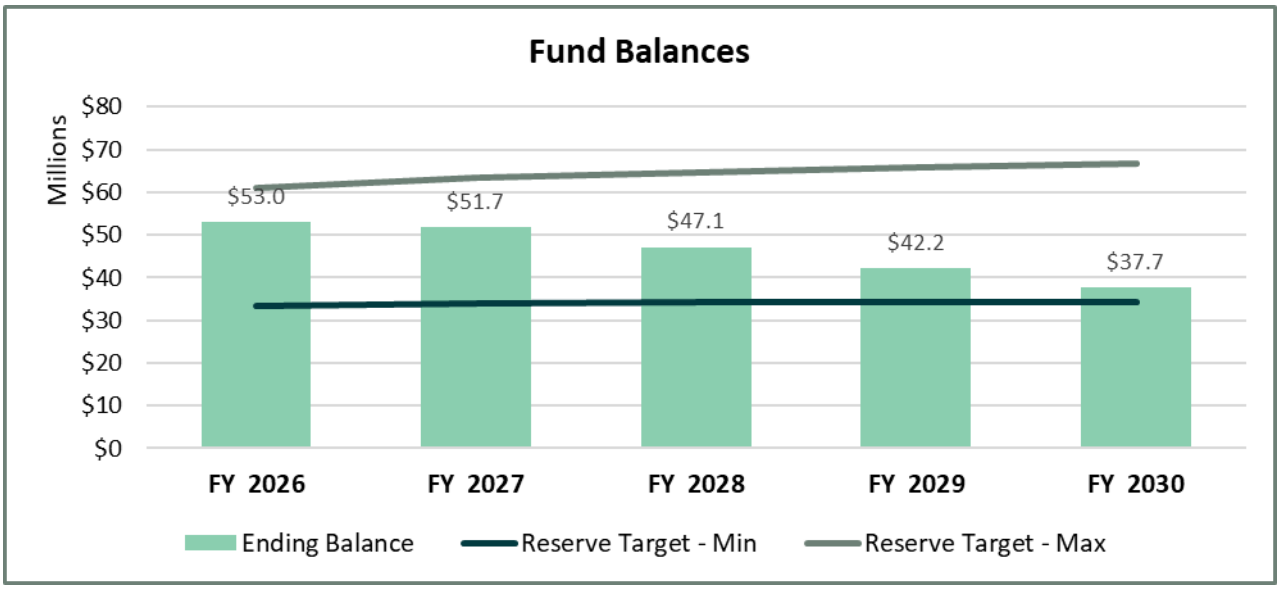
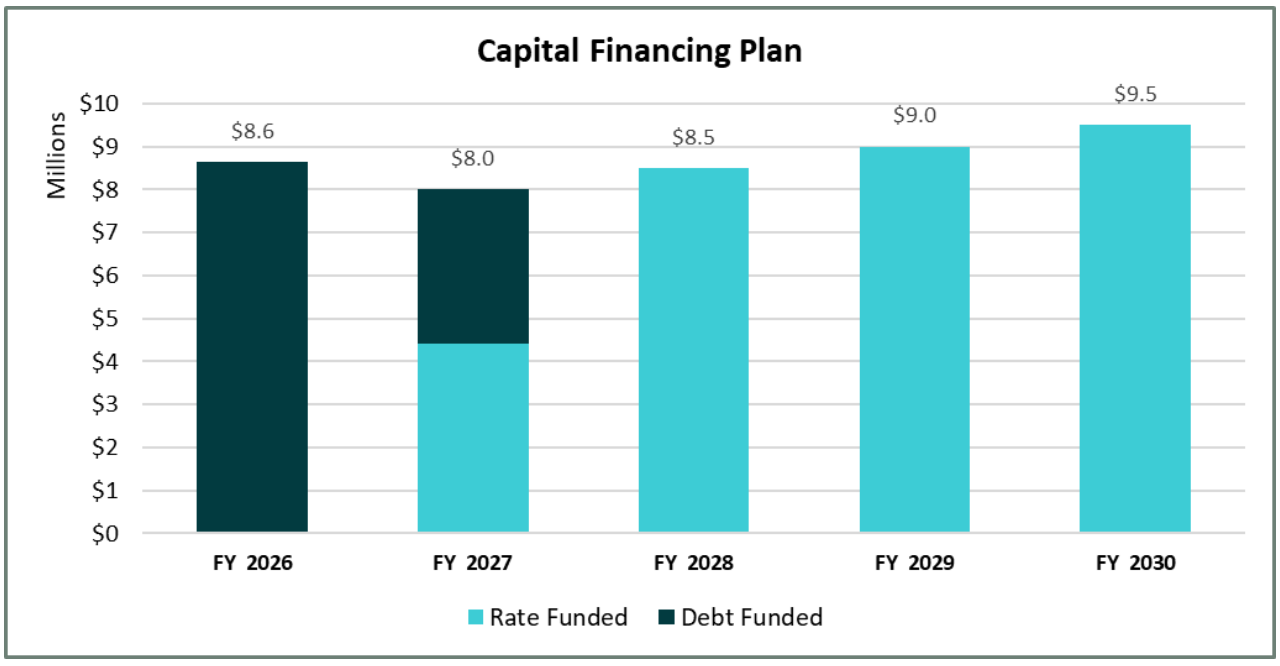


Figure 1-3 shows the proposed capital financing plan over the rate-setting period. The proposed financial plan assumes that capital projects will be funded through a combination of water rate revenues, cash reserves, and existing bond proceeds.

Figure 1-3: Water Capital Financing Plan



1.4. Proposed Water Rates

Table 1-2 shows the proposed five-year water rate schedule through FY 2030 for the bi-monthly service charge for potable and recycled water. Proposed FY 2026 rates are designed to collect about 5 percent more rate revenue than current FY 2025 rates. Proposed rates beginning in FY 2027 are calculated by increasing the prior year's proposed rates by the proposed annual revenue adjustments. All numbers are rounded up to the nearest cent to ensure adequate revenue recovery. Therefore, any manual bill calculations may not match the

precise results shown in the report. The service charges include the Meter Equivalent Unit (MEU) charge imposed by IEUA. Since those charges are not known for future years, any increases in those charges beyond the assumptions used in the rate study will be passed through to customers.

Table 1-2: Proposed Five-Year Water Rate Schedule, Bi-Monthly Service Charge

	Current	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Effective Date		June 1, 2026	January 1, 2027	January 1, 2028	January 1, 2029	January 1, 2030
Revenue Adjustment		5.0%	5.0%	5.0%	5.0%	5.0%
Bi-Monthly Fixed Charge						
Meter Size						
5/8"	$65.26	$67.36	$70.73	$74.27	$77.99	$81.89
3/4"	$82.68	$84.92	$89.17	$93.63	$98.32	$103.24
1"	$117.52	$120.03	$126.04	$132.35	$138.97	$145.92
1 1/2"	$204.72	$207.82	$218.22	$229.14	$240.60	$252.63
2"	$309.35	$313.16	$328.82	$345.27	$362.54	$380.67
3"	$588.33	$646.74	$679.08	$713.04	$748.70	$786.14
4"	$902.15	$1,138.32	$1,195.24	$1,255.01	$1,317.77	$1,383.66
6"	$1,773.93	$2,314.63	$2,430.37	$2,551.89	$2,679.49	$2,813.47
8"	$2,820.12	$4,948.14	$5,195.55	$5,455.33	$5,728.10	$6,014.51

Table 1-3 shows the proposed water volumetric rates. Single-family residential rates are tiered, and all other classes receive uniform rates. The cost of service analysis resulted in the Government customer class rate for FY 2026 decreasing based on their peaking factors. This rate only applies to City Government customers. The City is opting not to decrease it and retain its current rate for FY 2026. Future years increase by the 5% revenue adjustments. Any increases in potable and recycled water purchase costs from IEUA beyond the assumptions used in the study will be passed through to customers.

Table 1-3: Proposed Five-Year Water Rate Schedule, Volumetric ($/hcf)

	Current	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Effective Date		June 1, 2026	January 1, 2027	January 1, 2028	January 1, 2029	January 1, 2030
Revenue Adjustment		5.0%	5.0%	5.0%	5.0%	5.0%
Single Family						
Tier 1	$2.33	$2.40	$2.52	$2.65	$2.79	$2.93
Tier 2	$3.08	$3.21	$3.38	$3.55	$3.73	$3.92
Tier 3	$3.68	$3.73	$3.92	$4.12	$4.33	$4.55
Multi Family	$2.87	$3.17	$3.33	$3.50	$3.68	$3.87
Landscape	$3.17	$3.34	$3.51	$3.69	$3.88	$4.08
Commercial	$2.76	$3.16	$3.32	$3.49	$3.67	$3.86
Schools	$3.38	$3.29	$3.46	$3.64	$3.83	$4.03
Government	$3.47	$3.47	$3.65	$3.84	$4.04	$4.25
Recycled Water	$2.54	$2.64	$2.78	$2.92	$3.07	$3.23

1.4.1. Drought Rates

In times of drought or emergency water shortage, the City Council may declare mandatory water use restrictions. During times of mandatory water use restrictions, surcharges for consumption over the prescribed allocation may be imposed, as shown below to cover costs from reduced sales:

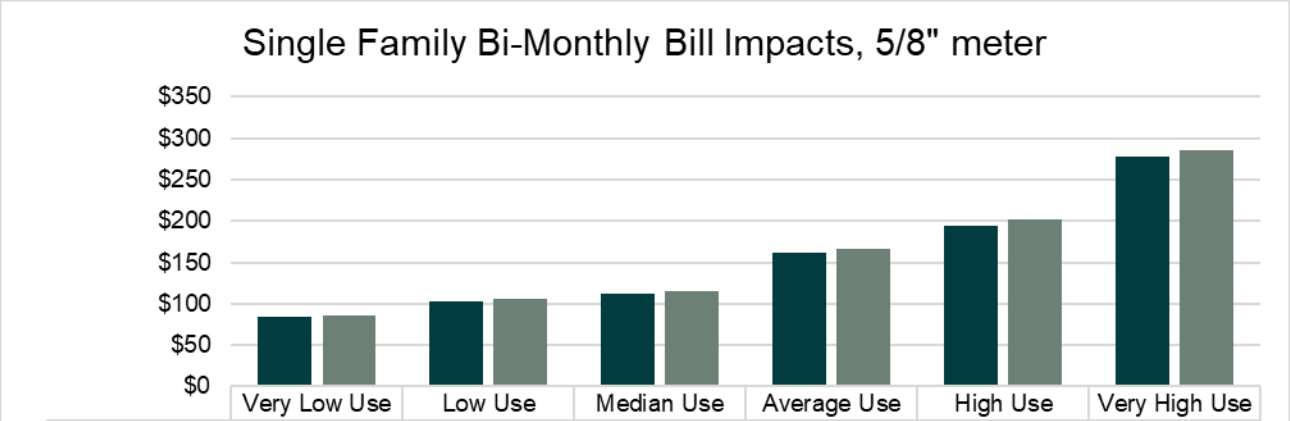
Table 1-4: Proposed Drought Surcharges

Customer Class	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Revenue Adjustments		5%	5%	5%	5%
0-10% Reduction					
Single Family					
Tier 1	$0.08	$0.08	$0.09	$0.09	$0.10
Tier 2	$0.10	$0.11	$0.11	$0.12	$0.12
Tier 3	$0.11	$0.12	$0.12	$0.13	$0.13
Multi Family	$0.10	$0.11	$0.11	$0.12	$0.12
Landscape	$0.10	$0.11	$0.11	$0.12	$0.12
Commercial	$0.10	$0.11	$0.11	$0.12	$0.12
Schools	$0.10	$0.11	$0.11	$0.12	$0.12
Government	$0.11	$0.12	$0.12	$0.13	$0.13
10-20% Reduction					
Single Family					
Tier 1	$0.24	$0.25	$0.26	$0.28	$0.29
Tier 2	$0.32	$0.34	$0.35	$0.37	$0.39
Tier 3	$0.37	$0.39	$0.41	$0.43	$0.45
Multi Family	$0.31	$0.33	$0.34	$0.36	$0.38
Landscape	$0.33	$0.35	$0.36	$0.38	$0.40
Commercial	$0.31	$0.33	$0.34	$0.36	$0.38
Schools	$0.33	$0.35	$0.36	$0.38	$0.40
Government	$0.34	$0.36	$0.37	$0.39	$0.41
20-30% Reduction					
Single Family					
Tier 1	$0.53	$0.56	$0.58	$0.61	$0.64
Tier 2	$0.71	$0.75	$0.78	$0.82	$0.86
Tier 3	$0.82	$0.86	$0.90	$0.95	$1.00
Multi Family	$0.70	$0.74	$0.77	$0.81	$0.85
Landscape	$0.74	$0.78	$0.82	$0.86	$0.90
Commercial	$0.70	$0.74	$0.77	$0.81	$0.85
Schools	$0.73	$0.77	$0.80	$0.85	$0.89
Government	$0.76	$0.80	$0.84	$0.88	$0.92
30-40% Reduction					
Single Family					
Tier 1	$0.86	$0.90	$0.95	$1.00	$1.05
Tier 2	$1.15	$1.21	$1.27	$1.33	$1.40
Tier 3	$1.33	$1.40	$1.47	$1.54	$1.62
Multi Family	$1.13	$1.19	$1.25	$1.31	$1.37
Landscape	$1.19	$1.25	$1.31	$1.38	$1.45
Commercial	$1.13	$1.19	$1.25	$1.31	$1.37
Schools	$1.18	$1.24	$1.30	$1.37	$1.43
Government	$1.24	$1.30	$1.37	$1.44	$1.51

Customer Class	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
40-50% Reduction					
Single Family					
Tier 1	$1.31	$1.38	$1.44	$1.52	$1.59
Tier 2	$1.75	$1.84	$1.93	$2.03	$2.13
Tier 3	$2.04	$2.14	$2.25	$2.36	$2.48
Multi Family	$1.73	$1.82	$1.91	$2.00	$2.10
Landscape	$1.82	$1.91	$2.01	$2.11	$2.21
Commercial	$1.73	$1.82	$1.91	$2.00	$2.10
Schools	$1.80	$1.89	$1.98	$2.08	$2.19
Government	$1.89	$1.98	$2.08	$2.19	$2.30

Figure 1-4 shows a comparison of a 5/8" meter single-family bill at different usage levels under the proposed FY 2026 rates and current FY 2026 rates.

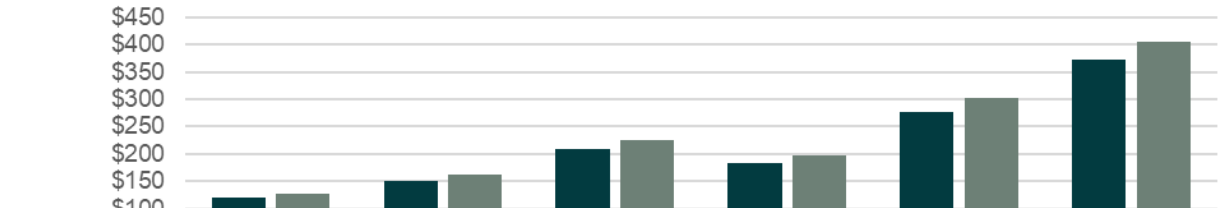
Figure 1-4: Single-Family Residential Bi-Monthly Bill Impacts, FY 2026



	Very Low Use	Low Use	Median Use	Average Use	High Use	Very High Use
Current	$83.90	$102.54	$111.86	$161.14	$195.02	$277.86
Proposed	$86.56	$105.76	$115.36	$166.72	$202.03	$286.26
Usage (hcf)	8	16	20	36	47	70
Difference ($)	$2.66	$3.22	$3.50	$5.58	$7.01	$8.40
Difference (%)	3.2%	3.1%	3.1%	3.5%	3.6%	3.0%

Figure 1-5 shows a comparison of a 5/8" meter with 3 dwelling units, multi-family bill at different usage levels under the proposed FY 2026 and current FY 2026 rates.

Figure 1-5: Multi-Family Residential Bi-Monthly Bill Impacts, FY 2026



	Very Low Use	Low Use	Median Use	Average Use	High Use	Very High Use
Current	$119.52	$151.09	$208.49	$182.66	$277.37	$372.08
Proposed	$127.02	$161.89	$225.29	$196.76	$301.37	$405.98
Usage (hcf)	18	29	49	40	73	106
Difference ($)	$7.50	$10.80	$16.80	$14.10	$24.00	$33.90
Difference (%)	6.3%	7.1%	8.1%	7.7%	8.7%	9.1%

Figure 1-6 shows a comparison of average non-residential customer bills for each customer class under the proposed FY 2026 rates and current FY 2026 rates.

Figure 1-6: Non-Residential Bi-Monthly Bill Impacts, FY 2026

	2" Landscape	2" Commercial	3" Schools	2" Government	2" Recycled Water
Current Bi-Monthly Bill	$1,146.23	$607.43	$2,626.47	$857.61	$2,762.99
Proposed Bi-Monthly Bill	$1,194.92	$654.44	$2,630.61	$861.42	$2,864.63
Usage (hcf)	264	108	603	158	966
Difference ($)	$48.69	$47.01	$4.14	$3.81	$101.64
Difference (%)	4.25%	7.74%	0.16%	0.44%	3.68%

1.5. Proposed Wastewater Financial Plan

Raftelis modeled a status quo financial plan to evaluate whether current wastewater rates can adequately fund the City's collection system expenses over the study period (FY 2026 – FY 2034). Using City-provided revenues, operating and maintenance expenses, debt service, and capital expenditures, Raftelis determined that, with no rate increases over the study period, the City will fail to meet its reserve targets in FY 2033 and

fully deplete its reserves by FY 2034. Under current rates, the City cannot fully fund its operating expenses, underscoring the need for revenue adjustments now to mitigate larger adjustments in the future and to ensure long-term sustainability for the wastewater enterprise.

Table 1-5 shows the proposed revenue adjustments for the wastewater enterprise.

Table 1-5: Proposed Wastewater Revenue Adjustments

Effective Date	Adjustment
July 1, 2026	4.0%
January 1, 2027	4.0%
January 1, 2028	4.0%
January 1, 2029	4.0%
January 1, 2030	4.0%

Figure 1-7 shows the proposed five-year wastewater enterprise financial plan graphically. Status quo revenue is shown by the solid line. Projected revenue is shown by the dashed line. Annual expenditures are shown by the columns. The green bars below the X-axis show reserves are drawn down year to year to fund capital costs. Revenue from current rates is not enough to cover annual operating and maintenance costs and capital expenditures. Therefore, revenue adjustments are required to generate sufficient revenue to cover these costs over the study period.

Figure 1-7: Proposed Wastewater Financial Plan

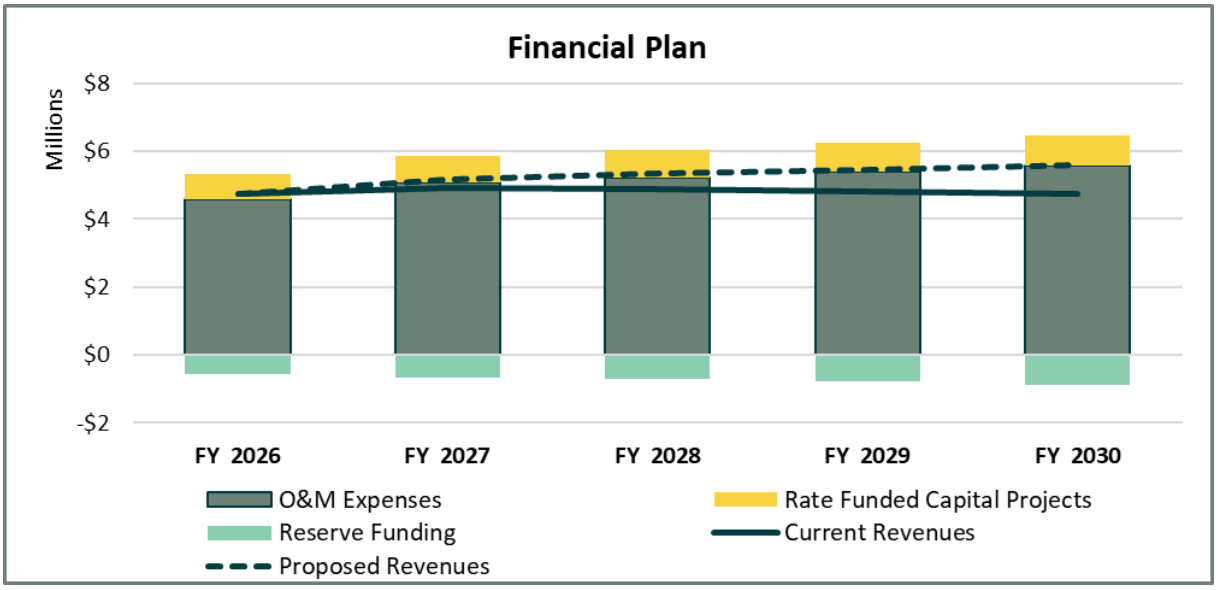


Figure 1-8 shows projected ending fund balances over the study period relative to the City's reserve targets. Maximum and minimum targets are shown. The minimum targets are met in all years, and the maximum target is met in all years except for FY 2032 – FY 2034, as reserves are drawn down to pay for necessary capital improvement projects. While the reserves exceed the maximum targets, it is still necessary to have small rate increases to ensure that the rate revenue will cover the operating expenses.

Figure 1-8: Projected Wastewater Fund Ending Balance

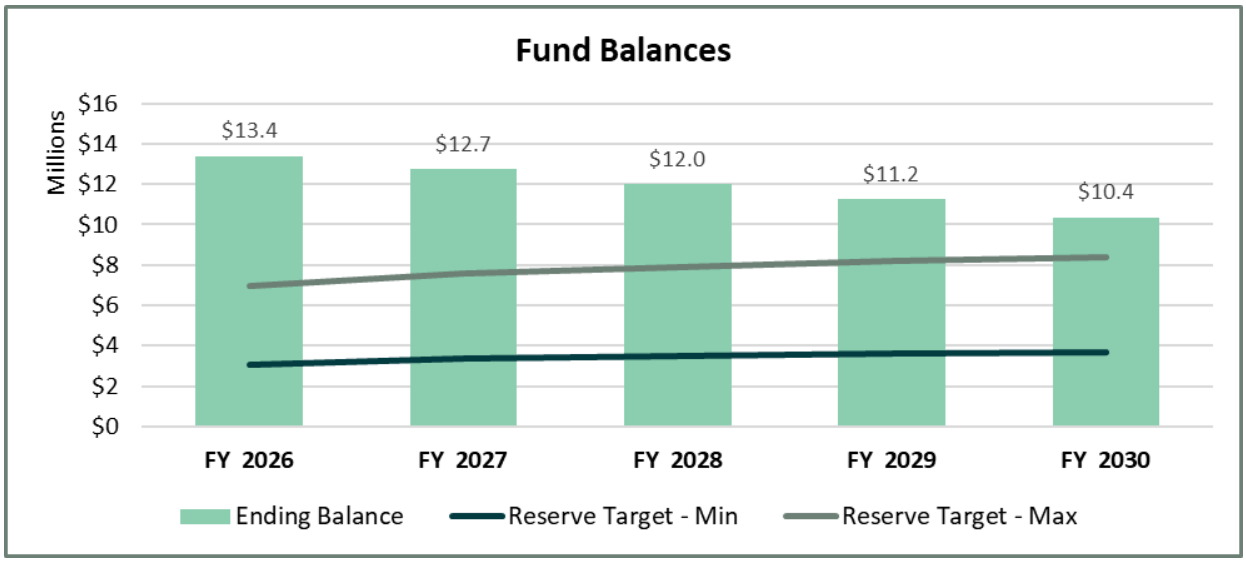
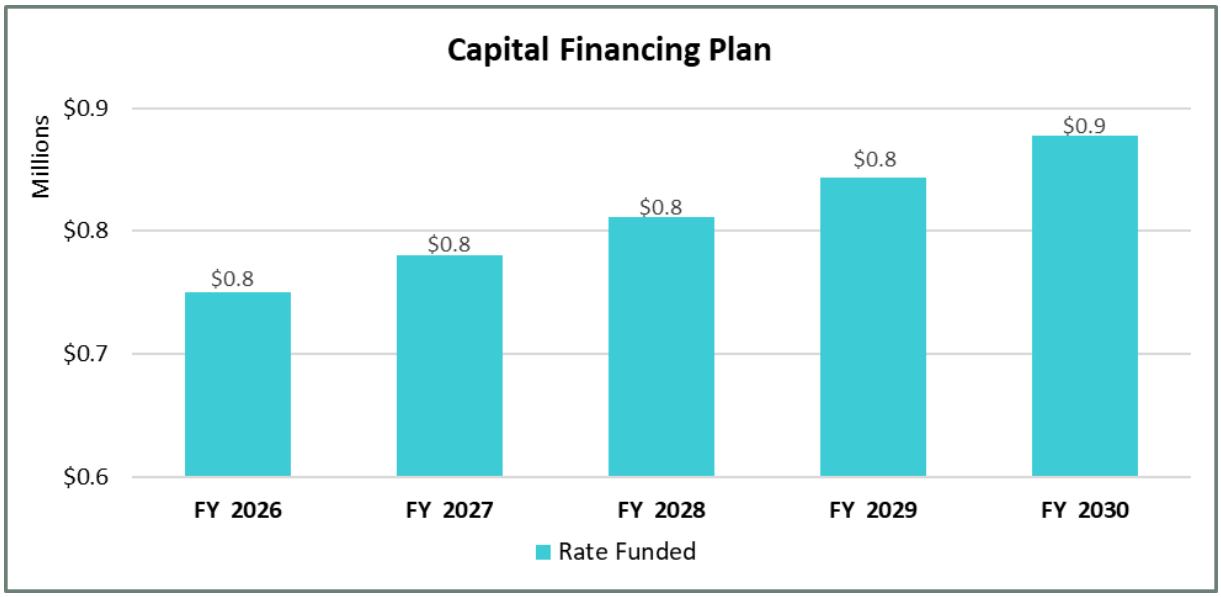


Figure 1-9 shows the proposed capital financing plan over the rate-setting period for the wastewater utility. The proposed financial plan assumes that all capital projects will be funded through rate revenue, with no plans to issue debt.

Figure 1-9: Wastewater Capital Financing Plan



1.6. Proposed Wastewater Rates

Table 1-6 shows the proposed five-year schedule of wastewater rates. Rates for FY 2026 reflect the cost-of-service analysis. Rates for all future years are equal to the prior year rates multiplied by the revenue adjustment. All numbers are rounded up to the nearest cent to ensure adequate revenue recovery. This rate study only proposes changes to the City Local Sewer Services Charge. San Antonio Heights customers are charged a rate 1.5 times the EDU rate based on an agreement between the City and San Antonio Heights. IEUA also imposes a per-EDU wastewater charge on the City, which the City passes through directly to its customers. The table below shows the City's rate for FY 27 through FY 2030 and IEUA rates for the current

fiscal year and FY 27. Subsequent year IEUA rates will be passed through to customers when IEUA updates them. The IEUA FY 2027 charge is effective July 1, 2026. Any increases in IEUA treatment costs will be passed through to customers in July each year as shown below.

Table 1-6: Proposed Five-Year Wastewater Rate Schedule

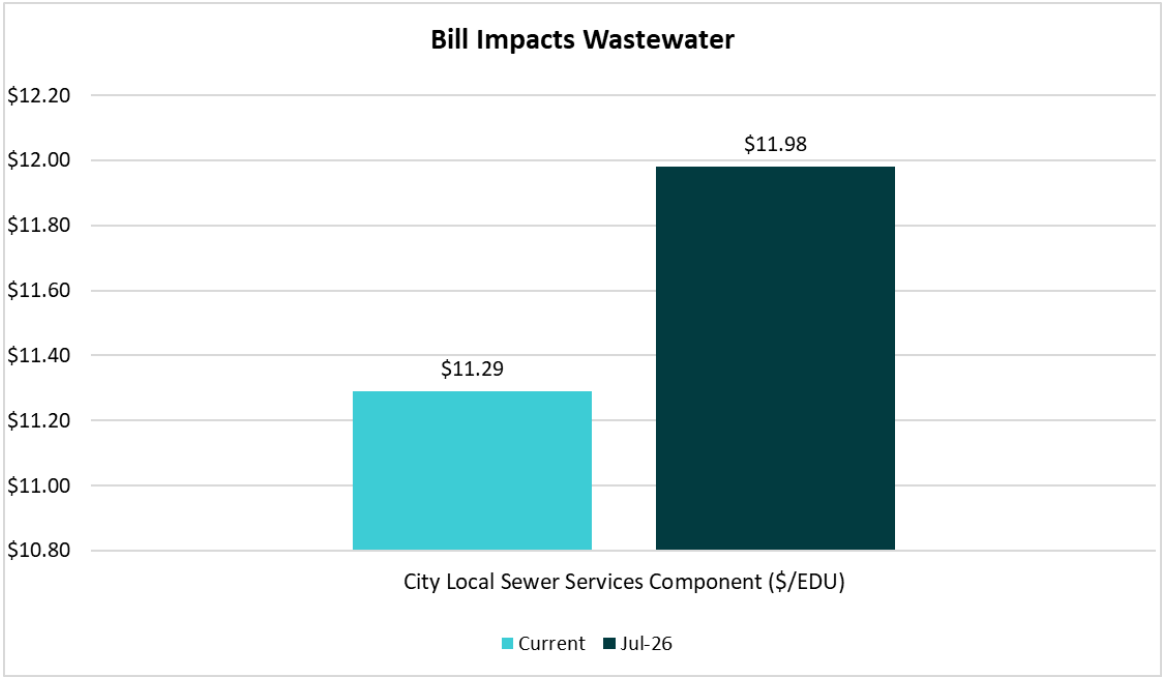
$/EDU Wastewater Charge	Current	FY 2027	FY 2027	FY 2028	FY 2029	FY 2030
Effective Date		July 1, 2026	January 1, 2027	January 1, 2028	January 1, 2029	January 1, 2030
Revenue Adjustment		4.0%	4.0%	4.0%	4.0%	4.0%
City Local Sewer Services Charges	$11.29	$11.98	$12.46	$12.96	$13.48	$14.02
Effective Date		July 1, 2026	January 1, 2027	July 1, 2027	July 1, 2028	July 1, 2029
IEUA Sewer Treatment Component (Pass-Through Rate)*	$25.78	$29.45	$29.45	Pass-through	Pass-through	Pass-through

** The City currently collects $25.78 per EDU for IEUA wastewater treatment services, although IEUA's current rate is $27.02 per EDU.*

It should be noted that the current EDU for multi-family customers is 0.7 per dwelling unit. Based on the actual housing density (number of people per household), the EDU for multi-family will be 0.89 EDU.

Figure 1-10 shows a bill comparison for current and FY 2027 proposed rates, effective July 1, 2026, for a wastewater EDU.

Figure 1-10: Wastewater EDU Bill Impact



2. Rate Setting Methodology

This study was conducted using industry-standard principles outlined by the American Water Works Association (AWWA) in the publication, Manual of Water Supply Practice M1, Principles of Water Rates, Fees, and Charges and in the Water Environment Federation (WEF) publication, Manual of Practice No. 27, Financing and Charges for Wastewater Systems. The process and approach Raftelis utilized in the study to determine water and wastewater rates is informed of the legal requirements in California (namely, Proposition 218). Additionally, Raftelis considered City's policy objectives and the current water and wastewater systems and rates insofar as such considerations are consistent with Proposition 218. The resulting financial plans, cost of service analyses, and rate design process follow five key steps, outlined below, to determine proposed rates that fulfill the City's objectives, meet industry standards, and align with relevant regulations.

1. **Financial Plan - Projections:** The first step is to develop a multi-year financial plan that projects the City's revenues, expenses, capital project financing, annual debt service, and reserve funding. The financial plan is used to determine the revenue adjustment, which allows the City to recover adequate revenues to fund expenses and reserves.

2. **Financial Plan - Revenue Requirement Determination:** After completing the financial plan, the rate-making process begins by determining the revenue requirement for the test year, also known as the rate-setting year. The test year for this study is FY 2026. The revenue requirement should sufficiently fund the City's operating costs, annual debt service (including coverage requirements), capital expenditures, and reserve funding as projected based on the annual budget estimates.

3. **Cost-of-Service Analysis:** The annual cost of providing water/wastewater service, or the revenue requirement, is then distributed to customer classes commensurate with their use of and burden on the water/wastewater system. A cost-of-service analysis involves the following steps:
    a. Functionalize costs—The different components of the revenue requirement are categorized into functions such as supply, transmission/collection, storage, customer service for water, and collection and customer service for wastewater.
    b. Allocate to cost causation components – the functionalized costs are then allocated to cost causation components such as supply, base delivery, peaking, etc. for water and collection, and customer service for wastewater.
    c. Develop unit costs – unit costs for each cost causation component are determined using units of service, such as total use, peaking units, equivalent meters, number of customers, etc., for each component.
    d. Distribute cost components – the cost components are allocated to each customer class using the unit costs in proportion to their units of service (demand and burden on the system).

    A water cost-of-service analysis also considers both the average water demand and peak demand. Peaking costs are incurred during periods of peak consumption, most often coinciding with summer water use. There are additional capacity-related costs associated with designing, constructing, operating, maintaining, and replacing facilities to meet peak demand. Peaking imposes additional costs on a water utility and is used to determine the cost burden from peaking-related facilities.

4. **Rate Design**: After allocating the revenue requirement to each customer class, the project team designs and calculates rates. Rates do more than simply recover costs; within the legal framework and industry standards, properly designed rates should support the City's policy objectives. Rates also act as a public information tool in communicating these policy objectives to customers. This process also includes a rate impact analysis and sample customer bill impacts.

5. **Administrative Record Preparation and Rate Adoption:** The final step in a rate study is to develop the administrative record (report) in conjunction with the rate adoption process. This report serves as the administrative record for this study. The administrative record documents the study results and presents the methodologies, rationale, justifications, and calculations used to determine the proposed rates. A thorough and methodological administrative record serves two important functions: maintaining defensibility in a stringent legal environment and communicating the rationale for revenue adjustments and proposed rates to customers and key stakeholders.

Values shown in report tables and figures are rounded to the digit shown. Therefore, any manual reproduction of the calculations shown may not match the precise results displayed in the report.

3. Key Inputs and Assumptions

The key assumptions outlined in this section of the report represent the global assumptions utilized in the Study to project the number of customer accounts, revenues, and expenses for future years. City staff provided data on customer accounts, usage, and actual revenues and expenses for FY 2024 – FY 2025 and budgeted revenues and expenses for FY 2026. The remaining years of the study were projected based on this information and the key assumptions shown in this section.

3.1. Current Water Rates

Table 3-1 shows the current water rate schedule. Water customers are currently charged a bi-monthly fixed charge and a commodity rate per hundred cubic feet (hcf) of water delivered. Fixed service charges vary based on meter size. Commodity rates vary by customer class. Single-family residential customers are charged based on a tiered rate structure, and all other classes have a uniform rate. Recycled water customers are charged the same fixed charge by meter size as potable water customers but have a class-specific uniform volumetric rate.

Table 3-1: Current Water Rate Structure

Bi-Monthly Fixed Charge	
Meter Size	$/bi-mo
5/8"	$65.26
3/4"	$82.68
1"	$117.52
1 1/2"	$204.72
2"	$309.35
3"	$588.33
4"	$902.15
6"	$1,773.93
8"	$2,820.12
Commodity Charge ($/hcf)	
Customer Class	
Single Family	
Tier 1	$2.33
Tier 2	$3.08
Tier 3	$3.68
Multi Family	$2.87
Landscape	$3.17
Commercial	$2.76
Schools	$3.38
Government	$3.47
Recycled Water	$2.54

3.2. Current Wastewater Rates

Table 3-2 shows the current wastewater rate schedule implemented in November 2024. All customer accounts are charged a fixed charge per EDU.

Table 3-2: Current Wastewater Rate Structure

Service Charges (Monthly $/EDU)	
City Local Sewer Services Charges	$11.29
IEUA Sewer Treatment Component (Pass-Through Rate)*	$25.78

** The City currently collects $25.78 per EDU for IEUA wastewater treatment services, although IEUA's adopted rate is $27.02 per EDU.*

3.3. Projected Service Connections

3.3.1. Water Connections

Table 3-3 shows the actual number of potable water accounts by meter size for FY 2025 and the projected number of accounts through the study period. Raftelis is assuming zero growth in customer accounts over the study period, as shown in the table. The zero growth in customer accounts is based on recent trends in the City, and future expectations provided by City staff. The number of accounts shown is used to forecast the amount of fixed revenue the City will receive from the bi-monthly service charge.

Table 3-3: Projected Number of Water Meters

Meter Size	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
5/8"	15,197	15,197	15,197	15,197	15,197	15,197
3/4"	810	810	810	810	810	810
1"	2,475	2,475	2,475	2,475	2,475	2,475
1 1/2"	545	545	545	545	545	545
2"	792	792	792	792	792	792
3"	65	65	65	65	65	65
4"	44	44	44	44	44	44
6"	10	10	10	10	10	10
8"	2	2	2	2	2	2
Total	**19,940**	**19,940**	**19,940**	**19,940**	**19,940**	**19,940**

3.3.2. Wastewater EDU's

Table 3-4 shows the current and projected wastewater dwelling units. The City provided Raftelis with the number of dwelling units for FY 2025. Raftelis is assuming no growth throughout the study period as shown below. The zero growth is based on recent trends and future expectations provided by City staff. The increase in EDUs in FY 2027 results from redefining the multi-family (MFR) EDU based on the residential density per household, which causes the MFR EDU to increase from 0.7 to 0.89.

Table 3-4: Projected Wastewater Dwelling Units

	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Number of EDUs	29,931	32,321	32,321	32,321	32,321

3.4. Water Use Assumptions

Water use has a significant impact on the water utility both in terms of costs and revenues. It is therefore important to use a normal year to project water use with the understanding that rate revenues will change depending on wet or dry years and the resulting revenue fluctuations will be accommodated by the rate stabilization reserve. The water use assumptions project actual FY 2025 water use, which was a normal year, and assume customer classes will continue to use water similarly. As shown in Table 3-5, there is no increased water demand in the study period.

Table 3-5: Water Use Assumptions

Customer Class	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Single Family	**3,786,229**	**3,786,229**	**3,786,229**	**3,786,229**	**3,786,229**	**3,786,229**
Tier 1	1,768,123	1,768,123	1,768,123	1,768,123	1,768,123	1,768,123
Tier 2	1,278,101	1,278,101	1,278,101	1,278,101	1,278,101	1,278,101
Tier 3	740,005	740,005	740,005	740,005	740,005	740,005
Multi Family	1,201,826	1,201,826	1,201,826	1,201,826	1,201,826	1,201,826
Landscape	1,101,882	1,101,882	1,101,882	1,101,882	1,101,882	1,101,882
Commercial	784,815	784,815	784,815	784,815	784,815	784,815
School	112,615	112,615	112,615	112,615	112,615	112,615
Government	120,755	120,755	120,755	120,755	120,755	120,755
Condominiums	102,339	102,339	102,339	102,339	102,339	102,339
Total Potable Usage (hcf)	**7,210,461**	**7,210,461**	**7,210,461**	**7,210,461**	**7,210,461**	**7,210,461**
Recycled Water Usage (hcf)	**267,548**	**267,548**	**267,548**	**267,548**	**267,548**	**267,548**

3.5. Water and Wastewater Financial Plan Assumptions

Table 3-6 shows the expense inflation factors which are used to project future operating and capital project expenses for the study period. These factors were determined with input from City staff based on historical and projected cost increases, and reference industry standard escalations under current market conditions. The inflation factors shown were applied in each year of the study period to project expenses in FY 2027 and beyond.

Table 3-6: Expense Inflation Factors

	FY 2027	FY 2028	FY 2029	FY 2030
General	3.0%	3.0%	3.0%	3.0%
Personnel	3.5%	3.5%	3.5%	3.5%
Benefits	5.0%	5.0%	5.0%	5.0%
Capital	4.0%	4.0%	4.0%	4.0%
Power	7.0%	7.0%	7.0%	7.0%

Table 3-7 shows inflation factors for water purchase rates, which are used to project rates for wholesale water costs in Table 4-4 and Table 4-5, when future rates were not available. All inflation projections are based on historical rate increases from the different agencies where the data was available, with the exception of WFA rates. The inflation factors shown for WFA are based on projected rate increases for Metropolitan MWD. WECWC, Six Basin, and Chino Basin are being inflated by a general inflation factor of 7% based on historical industry standard escalations.

Table 3-7: Water Purchase Inflation Factors

Inflation Factor	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
WFA ($/AF) Inflation	7.9%	18.4%	11.9%	4.4%	6.1%
WFA RTS Inflation	3.9%	4.8%	25.4%	12.6%	5.0%
WFA Capacity Charge	11.5%	4.1%	32.5%	18.0%	14.0%
SAWCo Water Availability Inflation	Provided	Provided	Provided	Provided	Provided
SAWCO ($/AF) Inflation	Provided	Provided	Provided	Provided	Provided
General Inflation for Water	7.0%	7.0%	7.0%	7.0%	7.0%
IEUA Recycled Direct Use	Provided	Provided	9.0%	9.0%	9.0%
IEUA Ground Water Recharge	Provided	Provided	5.0%	5.0%	5.0%
IEUA MEU	Provided	Provided	3.0%	3.0%	3.0%
IEUA Recycled Fixed Charge	Provided	3.0%	3.0%	3.0%	3.0%

4. Water Financial Plan

This section of the report details the water enterprise's long-term financial plan, based on the projected revenues, operating and maintenance (O&M) expenses, debt service, and capital project costs. Raftelis modeled the financial plan without revenue adjustments (status quo) and with proposed revenue adjustments to ensure the financial sustainability and solvency of the water utility. The results of the water financial plan are the proposed rates for five years based on the proposed revenue adjustments.

4.1. Current Revenue

The City's revenues consist of rate revenues, interest earnings, and other miscellaneous revenues. The rate revenue projections assume current rates are effective for each year of the study period. The rate revenue projections shown are assuming a June 1, 2026, effective date, with each year following being implemented on January 1.

4.1.1. Calculated Water Rate Revenues

Raftelis projected water rate revenues from fixed service charges and commodity charges for FY 2026 – FY 2030 based on current FY 2026 water rates, the projected number of water meters, and projected annual water use.

The City collects fixed bi-monthly service charges from customers based on meter size. Table 4-1 shows projected fixed service charge revenues under current rates over the study period. These revenues are calculated by multiplying the current water rates in Table 3-1 by the corresponding number of water meters in Table 3-3. This is then multiplied by 6 (number of bills per year) to arrive at the total.

Table 4-1: Projected Fixed Charge Revenues Under Current Rates

Meter Size	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
5/8"	$5,950,537	$5,950,537	$5,950,537	$5,950,537	$5,950,537
3/4"	$401,825	$401,825	$401,825	$401,825	$401,825
1"	$1,745,172	$1,745,172	$1,745,172	$1,745,172	$1,745,172
1 1/2"	$669,434	$669,434	$669,434	$669,434	$669,434
2"	$1,470,031	$1,470,031	$1,470,031	$1,470,031	$1,470,031
3"	$229,449	$229,449	$229,449	$229,449	$229,449
4"	$238,168	$238,168	$238,168	$238,168	$238,168
6"	$106,436	$106,436	$106,436	$106,436	$106,436
8"	$33,841	$33,841	$33,841	$33,841	$33,841
Total	**$10,844,893**	**$10,844,893**	**$10,844,893**	**$10,844,893**	**$10,844,893**

Table 4-2 shows projected volumetric revenues under current rates for the study period. Volumetric revenues are calculated by customer class based on current FY 26 water rates and projected water use (Table 3-5).

Annual Volume Charge Revenue = [FY 2026 rate per hcf] × [Annual Water Use in hcf

Table 4-2: Projected Commodity Revenue Under Current Rates

Customer Class	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Single Family	$10,779,496	$10,779,496	$10,779,496	$10,779,496	$10,779,496
Multi Family	$3,449,241	$3,449,241	$3,449,241	$3,449,241	$3,449,241
Landscape	$3,492,966	$3,492,966	$3,492,966	$3,492,966	$3,492,966
Commercial	$2,166,089	$2,166,089	$2,166,089	$2,166,089	$2,166,089
School	$380,639	$380,639	$380,639	$380,639	$380,639
Government	$419,020	$419,020	$419,020	$419,020	$419,020
Condominiums	$293,713	$293,713	$293,713	$293,713	$293,713
Total Commodity Revenue	**$20,981,163**	**$20,981,163**	**$20,981,163**	**$20,981,163**	**$20,981,163**
Recycled Water Commodity Revenue	**$679,572**	**$679,572**	**$679,572**	**$679,572**	**$679,572**

4.1.2. Other Revenues

Table 4-3 shows all other revenues for the water enterprise. FY 2026 revenues are based on the City provided budget, except for interest income. Values for all other years shown were projected. Interest revenue reflects a status quo scenario where no revenue adjustments are being added. All other miscellaneous revenues are non-inflated.

Table 4-3: Projected Other Water Enterprise Revenues (Status Quo)

Miscellaneous Revenues	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Other Operating Income	$113,200	$113,200	$113,200	$113,200	$113,200
Other Non-Operating Income	$489,600	$489,600	$489,600	$489,600	$489,600
Interest Income	$1,526,465	$1,507,963	$1,320,477	$687,602	$452,405
Total	**$2,129,265**	**$2,110,763**	**$1,923,277**	**$1,290,402**	**$1,055,205**

4.2. Annual Expenses

The City's expenses include water supply purchases, operations and maintenance expenses, capital expenses, and debt service. These costs are discussed in more detail below.

4.2.1. Total Operations and Maintenance Budget

4.2.1.1. Water Purchase Cost

The City obtains water from multiple sources, including Imported Water through the Water Facilities Authority (WFA), which receives water through the Metropolitan Water District (MWD). Groundwater from West End Consolidated Water Company (WECWC), San Antonio Water Company (SAWCo), Six Basin Water Master, and Chino Basin Water Master. The City also purchases recycled water from the IEUA for direct use and to recharge in Chino Basin.

Table 4-4 shows the projected unit costs for the water supply in Lines 28-50. The purchased water costs are calculated for each water source as shown below. If future year water purchase rates were not available, the current rate is inflated by the respective inflation factors shown in Table 3-7. These inflation factors are based on historical rate increases for the different water sources. The exception to this is that WFA rates are being inflated by the projected rate increases from MWD. If historical rate increases by agency were not available, a 7% inflation factor based on historical industry rate increases was applied to the rates.

Six Basin – Line 29 is calculated by multiplying the Six Basin supply in AF shown in Line 1 by the cost per AF in Line 11.
Chino Basin – Line 32 is calculated by multiplying Line 2 by Line 13. Line 33 is calculated multiplying Line 8 by Line 13.
WFA – Line 36 is calculated by multiplying Line 3 by Line 16. Line 37 is equal to Line 17. This charge is already annualized, so there is no calculation. Line 38 is calculated by multiplying the Monthly Readiness to serve charge in Line 18 by 12 (months). Line 39 is a provided value from WFA through FY 2029; FY 2030 is the average of the previous 5 years.
SAWCo – Line 42 is calculated by multiplying Line 4 by Line 20. Line 43 is calculated by multiplying the Monthly Readiness to Serve charge in Line 21 by 12 (months). Line 44 is calculated by multiplying the Monthly Water Available charge in Line 22 by 12 (months).
WECWC – Line 47 is calculated by multiplying Line 5 by Line 24. Line 48 is calculated by multiplying Line 25 by the number of shares (3,308).
IEUA – Line 50 is equal to Line 26. This total value was provided for FY 2025. It was calculated by multiplying the total number of MEUs (35,686) by 12 (months) by the rate ($1.14). The rate per MEU was provided by City staff for FY 2026 ($1.17) and FY 2027 ($1.20). This same calculation was done for these years, assuming the same number of MEUs. For subsequent years, the costs were inflated by 3%, based on historical IEUA MEU charge increases.

Table 4-4: Summary of Projected Potable Purchased Water Cost Expenses

Line	Potable Water Purchases	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
1	Six Basin	831	831	831	831	831
2	Chino Basin	1,641	1,641	1,641	1,641	1,641
3	WFA	3,858	3,858	3,858	3,858	3,858
4	SAWCo	8,815	8,815	8,815	8,815	8,815
5	WECWC	2,400	2,400	2,400	2,400	2,400
6	**Total Supply (AF)**	**17,545**	**17,545**	**17,545**	**17,545**	**17,545**
7						
8	**Groundwater Recharge (AF)**	**1,426**	**1,426**	**1,426**	**1,426**	**1,426**
9						
10	**Supply Costs**					
11	Six Basin ($/AF)	$32	$34	$37	$39	$42
12	Chino Basin					
13	Chino Basin ($/AF)	$125	$134	$143	$153	$164
14	Recycled Water AF Recharge Charge Total	$715	$769	$829	$895	$966
15	WFA					
16	MWD - Water Facilities Authority WFA ($/AF)	$1,069	$1,266	$1,417	$1,479	$1,569
17	Capacity Charge Obligation (Annualized)	$156,351	$162,821	$215,656	$254,474	$290,058
18	Readiness to Service Charges Monthly	$42,922	$44,977	$56,393	$63,470	$66,667
19	SAWCo					
20	SAWCO ($/AF)	$257	$270	$283	$296	$309
21	SAWCO RTS Monthly Charge	$29,810	$31,226	$32,709	$34,263	$35,891
22	SAWCO Water Available Monthly	$36,396	$38,090	$39,914	$41,825	$43,823
23	WECWC					
24	WECWC ($/AF)	$52	$56	$60	$64	$69
25	Rate per Share	$161	$172	$184	$197	$210
26	IEUA MEU Charge Total Charge	$501,031	$513,878	$529,295	$545,174	$561,529
27						
28	**Calculated Water Purchase Costs**					
29	Six Basin AF Charge Total	$26,671	$28,538	$30,536	$32,673	$34,960
30						
31	Chino Basin					
32	Chino Basin AF Charge Total	$205,565	$219,955	$235,352	$251,827	$269,454
33	Recycled Water AF Recharge Charge Total	$1,019,101	$1,095,999	$1,182,303	$1,275,758	$1,376,976
34						
35	WFA					
36	MWD - Water Facilities Authority (WFA) AF Charge Total	$4,124,498	$4,883,171	$5,465,799	$5,704,718	$6,052,617
37	Capacity Charge Obligation (Annualized)	$156,351	$162,821	$215,656	$254,474	$290,058
38	Readiness to Service Charge (Annualized)	$515,069	$539,727	$676,713	$761,645	$800,001
39	Capital Charge	$1,055,404	$212,400	$378,000	$378,000	$435,717
40						
41	SAWCo					
42	SAWCO AF Charge Total	$2,265,475	$2,380,669	$2,495,862	$2,611,056	$2,726,250
43	SAWCO RTS Monthly Charge (Annualized)	$357,722	$374,713	$392,512	$411,157	$430,687
44	SAWCO Water Available Charge (Annualized)	$436,757	$457,084	$478,974	$501,906	$525,881
45						
46	WECWC					
47	WECWC AF Charge Total	$125,823	$134,630	$144,054	$154,138	$164,928
48	WECWC Charge from Shares Total (3,308 shares)	$530,934	$568,099	$607,866	$650,417	$695,946
49						
50	IEUA MEU Charge Total Charge	$501,031	$513,878	$529,295	$545,174	$561,529
51						
52	**Total Potable Production Costs**	**$11,320,402**	**$11,571,684**	**$12,832,922**	**$13,532,942**	**$14,365,004**

Table 4-5 shows the projected recycled purchased water costs. Line 6 is calculated by multiplying the amount of recycled water (Line 1) by the rate shown in Line 3. Line 7 is calculated by multiplying the monthly fixed charge in Line 4 by 12. The sum of Lines 6 and 7 results in the total recycled purchase costs shown in Line 8 of Table 4-5

Table 4-5: Summary of Projected Recycled Purchased Water Cost Expenses

Line		FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
1	Recycled Water, AF	660	660	660	660	660
2						
3	IEUA Recycled Water Direct Use ($/AF)	$507	$552	$602	$656	$715
4	Recycled Water Monthly Fixed Charge ($)	$26,626	$27,425	$28,247	$29,095	$29,968
5						
6	IEUA Recycled Water Direct Use ($/AF)	$334,299	$364,388	$397,183	$432,930	$471,893
7	Recycled Water Monthly Fixed Charge ($)	$319,509	$329,094	$338,967	$349,136	$359,610
8	**Total Recycled Purchase Costs**	**$653,808**	**$693,482**	**$736,150**	**$782,066**	**$831,503**

4.2.1.2. Operating and Maintenance Expenses

The City provided Raftelis with its actual expenses for FY 2025 and budget for FY 2026. Customer service costs from the Public Works and Finance department are shown separately to match the City's budget. The City also provided adjustments in future years to account for changes in staffing and reductions in anticipated operating and maintenance expenses. To project the City's O&M expenses, Raftelis used the escalation factors shown in Table 3-6. Table 4-6 shows a summary of the budgeted and projected O&M.

Table 4-6: Water Operations and Maintenance Expenses Projection

Potable Water O&M Expenses	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Administration	$4,755,502	$4,969,097	$5,126,325	$5,288,560	$5,455,962
Customer Service	$251,620	$290,336	$300,099	$310,191	$320,623
Meter Services	$1,304,653	$612,341	$662,896	$684,664	$707,150
Production and Storage	$3,216,797	$3,576,291	$2,613,559	$2,276,423	$1,810,409
Power	$1,804,100	$1,930,387	$2,065,514	$2,210,100	$2,364,807
Water Purchase Costs	$11,320,402	$11,571,684	$12,832,922	$13,532,942	$14,365,004
Transmission and Distribution	$3,855,524	$4,555,581	$4,709,450	$4,868,537	$5,033,020
WECWC Management Control	$355,569	$367,134	$379,077	$391,411	$404,149
Water Conservation	$379,130	$841,029	$792,074	$817,766	$892,360
Storm Water MGMT & Recharge	$725,553	$1,063,673	$1,097,724	$1,132,872	$1,169,152
PVPA	$4,275	$4,413	$4,555	$4,702	$4,853
Customer Service	$936,843	$966,665	$997,441	$1,029,204	$1,061,983
Total Potable Water O&M	**$28,909,967**	**$30,748,629**	**$31,581,637**	**$32,547,371**	**$33,589,474**

Recycled Water O&M Expenses	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Recycled Water Production	$653,808	$693,482	$736,150	$782,066	$831,503
Cross Connection	$52,860	$54,446	$56,079	$57,762	$59,494
Recycled Water Retrofit	$0	$0	$0	$0	$0
Capital Outlay	$0	$0	$0	$0	$0
Total Recycled Water Expenses	**$706,668**	**$747,928**	**$792,229**	**$839,827**	**$890,998**

4.2.2. Capital Improvement Plan

Table 4-7 shows the City's water capital improvement plan for the rate-setting period. Previously issued bond funds are available to fund projects in the first couple of years. The average annual cost of CIP projects is roughly $8.7M.

Table 4-7: Projected Capital Improvement Projects

Funding Source	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Existing Bond Funded	$8,637,740	$3,595,909	$0	$0	$0
Rate Funded	$0	$4,404,091	$8,500,000	$9,000,000	$9,500,000
Total CIP	**$8,637,740**	**$8,000,000**	**$8,500,000**	**$9,000,000**	**$9,500,000**

4.2.3. Existing Debt Service

Table 4-8 shows the existing debt service. The City currently has a water revenue refunding bond series 2021, water revenue refunding bond series 2022, and a State Water Resources Control Board (SWRCB) loan.

Table 4-8: Existing Water Debt Service

Existing Debt	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Water Revenue Refunding Bond Series 2021					
Principal	$622,000	$633,000	$642,000	$651,000	$658,000
Interest	$84,480	$75,068	$65,505	$55,808	$25,741
Water Revenue Refunding Bond Series 2022					
Principal	$900,000	$915,000	$935,000	$955,000	$970,000
Interest	$244,032	$226,608	$208,848	$190,704	$172,224
SWRCB Loan - Water					
Principal	$424,277	$432,338	$440,553	$448,923	$475,170
Interest	$294,388	$286,327	$278,113	$269,742	$243,496
Total Existing Debt Service	**$2,569,177**	**$2,568,341**	**$2,570,019**	**$2,571,177**	**$2,544,631**

4.3. Reserve Targets

The City maintains multiple water enterprise reserve funds.

Operating Reserve – The Operating Reserve is used primarily to meet ongoing cash flow requirements. The City's minimum reserve target is set at 20% of O&M expenses. The maximum target is set at 40% of O&M expenses.

Capital Reserve – The Capital Reserve is used to cover capital costs and any unexpected and unplanned infrastructure repairs and replacements not included in the budget, as well as to set aside money for future capital projects. The minimum target is set at 100% of the five-year average of capital projects. The maximum target is set at 200% of the five-year average of capital projects.

Debt Reserve – The Debt Reserve target is legally required for the City's SWRCB debt. The reserve level required is equal to the amount of the outstanding principal of the SWRCB debt.

Rate Stabilization Reserve – The Rate Stabilization Reserve is used to primarily to help reduce an annual revenue adjustment due to short-term spikes in costs or decreases in revenues from droughts. The City's minimum reserve target is set at 10% of rate revenue. The maximum target is set at 50% of the rate revenues.

4.4. Proposed Financial Plan and Revenue Adjustments

The proposed revenue adjustments shown in Table 4-9 are necessary to ensure adequate revenue to fund operating expenses, capital expenditures, and meet reserve targets. The first revenue adjustment is proposed to occur on June 1, 2026, with each following year being implemented on January 1. The proposed revenue adjustments would enable the City to meet operating costs, complete planned CIP projects, and meet all reserve targets throughout the study period.

Table 4-9: Proposed Water Revenue Adjustments

Effective Date	Adjustment
June 1, 2026	5.0%
January 1, 2027	5.0%
January 1, 2028	5.0%
January 1, 2029	5.0%
January 1, 2030	5.0%

Table 4-10 shows the projected water financial plan with the proposed revenue adjustments from FY 2026 through FY 2030. Line 1 shows the projected rate-revenue under current rates. Line 9 shows the total projected rate revenue, including the proposed revenue adjustments. Lines 11 through 13 show other revenue sources. The sum of all revenues is shown in Line 14. Lines 19 through 32 show O&M expenses by department. All O&M expenses except for purchased water reflect a 5% reduction from budgeted expenses based on historical utilization of budgets. The sum of O&M expenses is shown in Line 33. Lines 35 and 37 show debt service and rate-funded capital projects, respectively. The net cashflow (Line 39) is negative for all years except FY 2026, as the City draws down cash reserves to fund capital project costs and minimize rate impacts to customers.

Table 4-10: Water Financial Plan

Line	Water Financial Plan			FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
1	Revenue Under Existing Rates			$31,882,156	$31,826,056	$31,826,056	$31,826,056	$31,826,056
2	Revenue Adjustments							
3		Adjustment	Mo. Effective					
4	FY 2026	5.0%	1	$132,842	$1,591,303	$1,591,303	$1,591,303	$1,591,303
5	FY 2027	5.0%	6		$835,434	$1,670,868	$1,670,868	$1,670,868
6	FY 2028	5.0%	6			$877,206	$1,754,411	$1,754,411
7	FY 2029	5.0%	6				$921,066	$1,842,132
8	FY 2030	5.0%	6					$967,119
9	**Total Rate Revenue**			**$32,014,999**	**$34,252,793**	**$35,965,433**	**$37,763,705**	**$39,651,890**
10	Other Revenue							
11	Other Operating Income			$113,200	$113,200	$113,200	$113,200	$113,200
12	Other Non-Operating Income			$489,600	$489,600	$489,600	$489,600	$489,600
13	Interest Income			$1,528,457	$1,548,409	$1,460,628	$884,610	$790,987
14	**Total Other Revenue**			**$2,131,257**	**$2,151,209**	**$2,063,428**	**$1,487,410**	**$1,393,787**
15								
16	**Total Revenue**			**$34,146,256**	**$36,404,002**	**$38,028,861**	**$39,251,114**	**$41,045,677**
17								
18	O&M Expenses							
19	Administration			$4,755,502	$4,969,097	$5,126,325	$5,288,560	$5,455,962
20	Customer Service			$251,620	$290,336	$300,099	$310,191	$320,623
21	Meter Services			$1,304,653	$612,341	$662,896	$684,664	$707,150
22	Damage to City Property			$0	$0	$0	$0	$0
23	Production and Storage			$3,216,797	$3,576,291	$2,613,559	$2,276,423	$1,810,409
24	Power			$1,804,100	$1,930,387	$2,065,514	$2,210,100	$2,364,807
25	Water Purchase Costs			$11,320,402	$11,571,684	$12,832,922	$13,532,942	$14,365,004
26	Transmission and Distribution			$3,855,524	$4,555,581	$4,709,450	$4,868,537	$5,033,020
27	WECWC Management Control			$355,569	$367,134	$379,077	$391,411	$404,149
28	Water Conservation			$379,130	$841,029	$792,074	$817,766	$892,360
29	Debt Service			$0	$0	$0	$0	$0
30	Storm Water MGMT & Recharge			$725,553	$1,063,673	$1,097,724	$1,132,872	$1,169,152
31	PVPA			$4,275	$4,413	$4,555	$4,702	$4,853
32	Customer Service			$936,843	$966,665	$997,441	$1,029,204	$1,061,983
33	**Total - O&M Expenses**			**$28,909,967**	**$30,748,629**	**$31,581,637**	**$32,547,371**	**$33,589,474**
34								
35	Debt Service			$2,569,177	$2,568,341	$2,570,019	$2,571,177	$2,544,631
36								
37	Rate Funded CIP			$0	$4,404,091	$8,500,000	$9,000,000	$9,500,000
38								
39	**Net Cashflow**			**$2,667,112**	**-$1,317,059**	**-$4,622,795**	**-$4,867,434**	**-$4,588,428**

Figure 4-1 shows the proposed five-year water enterprise financial plan in graphical form. Status quo revenue is shown by the solid line. Projected revenue is shown by the dashed line. Annual expenditures are shown by the columns. The green bar above the X-axis shows the net cash used to build up the reserves and the green bars below the X-axis show reserves being spent to fund costs. Revenue from current rates is not enough to cover annual operating and maintenance costs or capital expenditures. Therefore, revenue adjustments are required to generate sufficient revenue to cover these costs over the study period.

Figure 4-1: Proposed Water Financial Plan

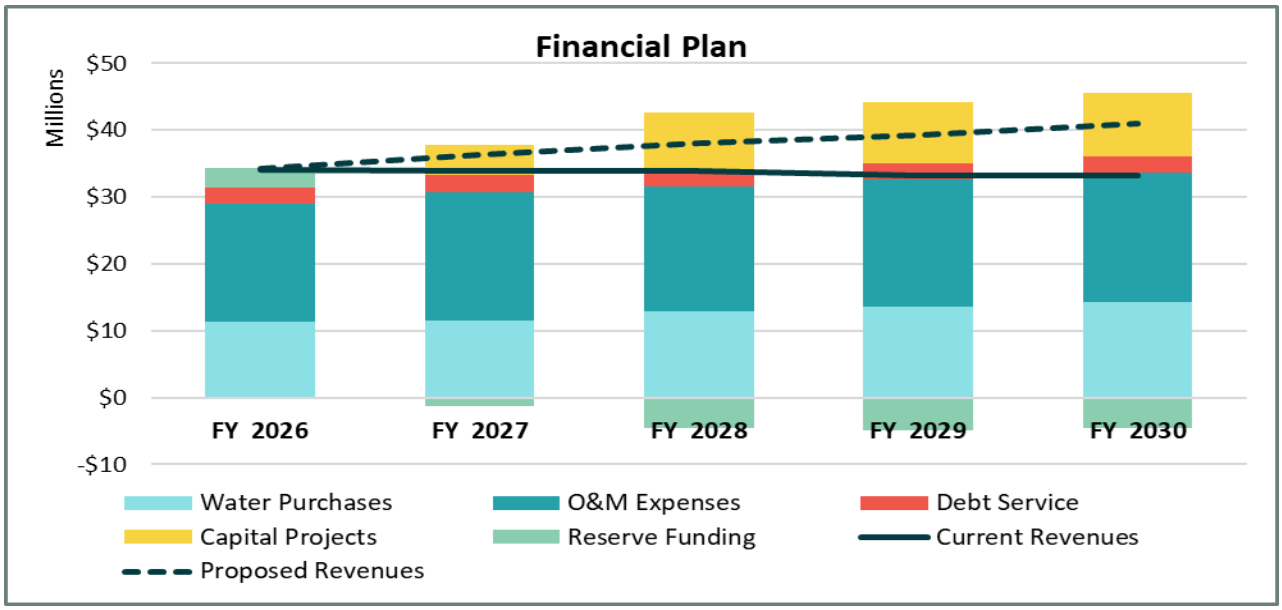


Figure 4-2 shows projected ending fund balances over the study period relative to the City's reserve targets. Maximum and minimum targets are shown. The minimum targets are met in all years of the rate-setting period.

Figure 4-2: Projected Water Ending Fund Balance

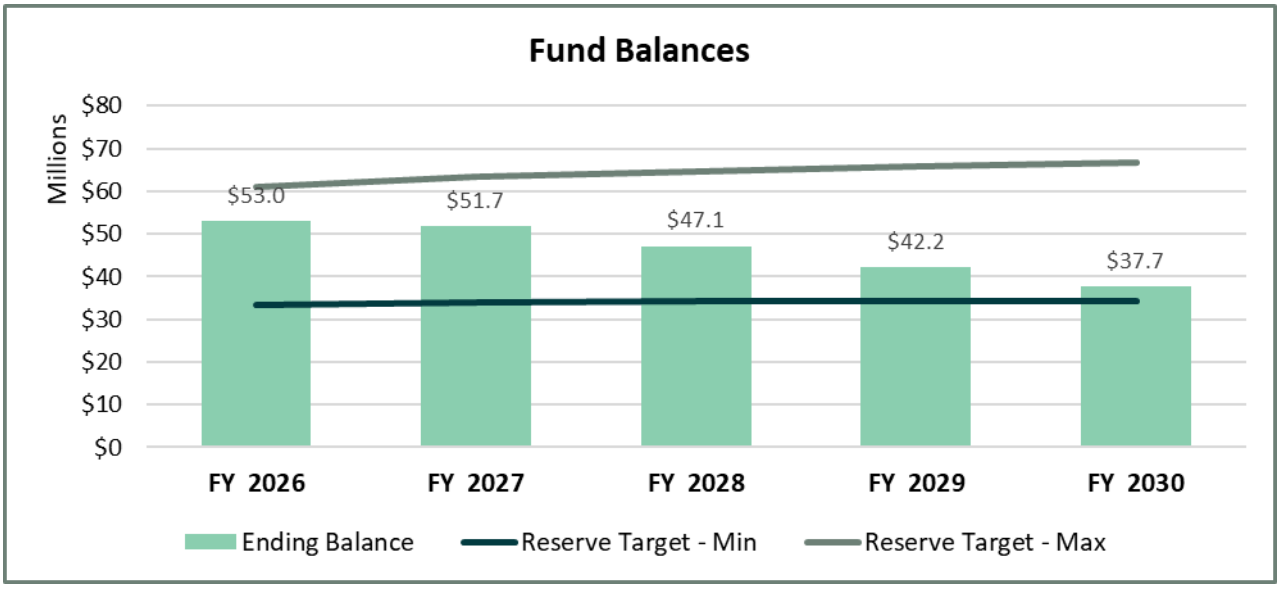
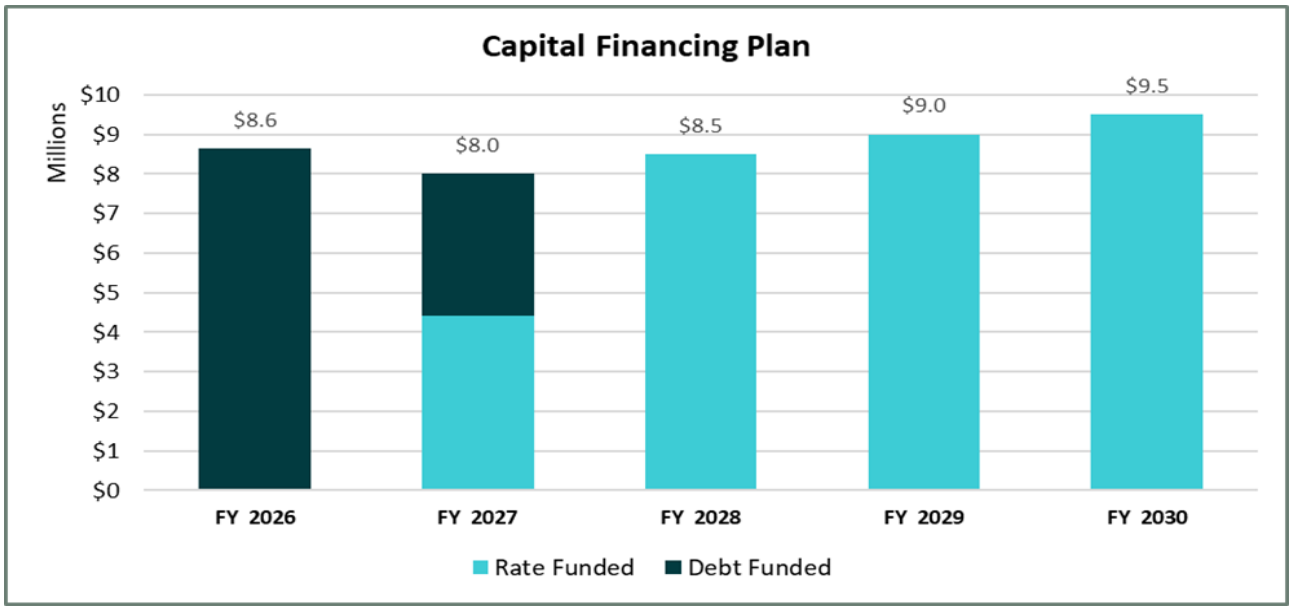


Figure 4-3 shows the proposed capital financing plan over the rate-setting period. The proposed financial plan assumes that capital projects will be funded through a combination of water rate revenues, cash reserves, and bond proceeds.

Figure 4-3: Projected Water Capital Plan



5. Water Cost-of-Service Analysis

This section of the report details the cost-of-service analysis and rate calculation process to determine the proposed water rates. The goal of this process is to determine the cost of providing water service to each of the City's water customer classes and to ensure equity and fairness among the various classes.

After determining a utility's revenue requirement, the next step in a cost-of-service analysis is to functionalize its O&M costs to the following functions:

- **Supply** – cost of pumping groundwater
- **Production** - the cost of operation and maintenance of wells
- **Pumping** – cost of pumping water through the system
- **Distribution** – cost associated with pipes, pumps, mains, etc.
- **Distribution Storage** – cost associated with storing treated water
- **Meter Maintenance** – costs associated with meter maintenance and replacement
- **Customer Service** – costs associated with meter reading, billing, and customer service
- **General and Administration (G&A)** – general and administrative costs incurred by the City

The functionalization of costs allows us to better allocate the costs to the cost causation components and calculate the bi-monthly service charges and commodity rates.

5.1. Revenue Requirement Determination

Table 5-1 shows the net revenue requirement from rates for FY 2026. The total revenue requirement shown in Line 18 is equal to operating expenses and capital-related expenses (cash-funded capital plus debt service). Revenue offsets, totaled in Line 11, comprise miscellaneous revenues and interest income and reduce the total revenue required from rates. The adjustment transfers out of reserves and reduces the revenue requirement. The mid-year increase on Line 15 reflects that the FY 2026 revenue adjustment occurs partway through the fiscal year and adds to the revenue requirement to annualize the rate revenue. The net revenue required from rates on Line 18 is equal to Line 5 minus Lines 11 and 16.

Table 5-1: Revenue Requirement Determination, FY 2026

Line	Revenue Requirement - FY 2026	Operating	Capital	Total
1	Revenue Requirements			
2	O&M Expenses	$28,909,967	$0	$28,909,967
3	Debt Service	$0	$2,569,177	$2,569,177
4	Rate Funded CIP	$0	$0	$0
5	Total - Revenue Requirements	$28,909,967	$2,569,177	$31,479,144
6				
7	Revenue Offsets			
8	Other Operating Income	$113,200	$0	$113,200
9	Other Non-Operating Income	$489,600	$0	$489,600
10	Interest Income	$1,528,457	$0	$1,528,457
11	Total - Revenue Offsets	$2,131,257	$0	$2,131,257
12				
13	Less Adjustments			
14	Transfer from (to) Reserves	$0	-$2,667,112	-$2,667,112
15	Adjustment to Annualize Rate Increase	-$1,461,266	$0	-$1,461,266
16	Total - Less Adjustments	-$1,461,266	-$2,667,112	-$4,128,378
17				
18	**Total Revenue to be Recovered from Rates**	**$28,239,975**	**$5,236,289**	**$33,476,264**

5.2. Allocation of Functionalized Net Revenue Requirements to Cost Components

After functionalizing the net revenue requirements, the next step is to allocate the functionalized net revenue requirements to the following cost components.

- Supply– variable costs associated with providing water supplies for all customers
- Base–fixed costs associated with providing service under average demand conditions
- Peaking (Max Day and Peak Hour) – costs associated with meeting demand in excess of average use
- Customer Service– the costs associated with meter reading, billing, and customer service
- Equivalent Meters– costs associated with meter capacity, maintenance, and replacement
- Capital – capital-related costs

5.2.1. Peaking Factors

Water demand varies from parcel to parcel. Water systems have to be designed to meet the highest levels of demand placed on the system. Components of the water system are therefore oversized compared to the requirement for average demands. For example, reservoirs are designed to meet maximum day requirements, and distribution lines are designed to meet instantaneous peak demands or peak hour demands. Therefore, peaking plays a significant part in the costs of operating and constructing a water system. Demonstrating that rates are proportional to the demands and associated costs that customer classes place on the utility system is critical to ensure that rates align with the intent of Proposition 218. The capital and operating costs of the system must then be allocated to customer classes in proportion to the demands they place on the system. For costs recovered through a water utility's fixed meter charge, costs are allocated either over all accounts or by meter size, depending on the type of expense. Variable costs are allocated among customer classes based on the demands they place on the water system and the cost of water supplies.

Peaking costs are computed for a maximum day and peak hour. The maximum day (max day) demand is the maximum amount of water used in a single day in a year. The peak hour or max hour demand is the maximum amount of water used in a single hour on the maximum day. Different facilities, such as distribution and treatment facilities (and the O&M costs associated with those facilities), are designed to meet peak hour and max day demands, respectively. Therefore, extra capacity[1] costs include the O&M and capital costs associated with meeting peak customer demand. This method is consistent with AWWA Manual M1 and is widely used in the water industry for cost-of-service analyses. Importantly, it ensures that average and below-average users pay rates that reflect the level of capital investment necessary to serve them.

We know from experience that different classes have different peaking factors. Typically, the single family residential (SFR) class is different from the multi-family class, primarily because of irrigation requirements for the SFR class. Commercial and multi-family peaking factors are relatively close. Raftelis reviewed the usage by billing cycle to determine max day peaking factors for different classes by identifying the maximum usage in a billing period in a year to the average usage in a year. This represents the max day peak for each class. The max hour peak factor is determined here by multiplying the customer max day by the ratio of the system max hour to max day. The system max day and max hour factors are described below.

Table 5-2 shows the system-wide peaking factors used to derive the cost component allocation bases for base and peaking costs. These factors were derived from the production data provided by the City. Base costs represent average daily demand during the year and are represented by the factor 1.00. The max day and max hour factors are based on the City's production information. The allocation bases (Columns C, D, and E) are calculated using the equations outlined below the table.

Table 5-2: Water System Peaking Factors

Line	(A) System-Wide Peaking Factors	(B) Peaking Factor	(C) Base	(D) Max Day	(E) Max Hour	(F) Total
1	Base	1.00	100%	0%	0%	100%
2	Max Day	1.47	68%	32%	0%	100%
3	Max Hour	2.06	49%	23%	29%	100%

The max day allocations are calculated as follows:

- Base Delivery: B1 / B2 x 100% = C2
- Max Day: 100% - C2 = D2

The peak hour allocations are calculated as follows:

- Base Delivery: B1 / B3 x 100% = C3
- Max Day: (B2 – B1) / B3 x 100% = D3
- Peak Hour: 100% - C3 – D3 = E3

These factors indicate the additional capacity required to meet demand above average daily use. As demand and capacity increase, facilities and pipelines must also be sized to meet those demands. This increases costs

[1] The terms extra capacity, peaking and capacity costs are used interchangeably.

to construct, maintain, and replace. These allocations are used to assign certain functionalized costs to the cost causation components including production and transmission & distribution.

5.2.2. Operating and Capital Allocation

The next step in the cost-of-service analysis is to determine the operating and capital cost allocations by cost component. The cost components for water include Base, Max Day, Max Hour, Supply, Conservation, Meters, Customer Service, Revenue Offsets, and General.

Table 5-3 shows the operating costs by functional component in Lines 14-25. These costs are allocated by the corresponding percentages shown in lines 1-12. Allocations for each function are based on the engineering design of each component, for example, wells (production) are designed for max day requirements and are allocated to max day, similarly reservoirs are designed for max day and are allocated to max day. The design of different system components is used for allocation purposes.

Table 5-3: Allocation of Net Operation & Maintenance to Cost Components

Line	O&M Allocation	Allocation Basis	Base	Max Day	Max Hour	Supply	Conservation	Meters	Customer	General	Total
1	Administration	General	0%	0%	0%	0%	0%	0%	35%	65%	100%
2	Customer Service	Customer Service	0%	0%	0%	0%	0%	0%	100%	0%	100%
3	Meter Services	Meters	0%	0%	0%	0%	0%	100%	0%	0%	100%
4	Damage to City Property	General	0%	0%	0%	0%	0%	0%	35%	65%	100%
5	Supply	Supply	0%	0%	0%	96%	0%	4%	0%	0%	100%
6	Production and Storage	Max Day	68%	32%	0%	0%	0%	0%	0%	0%	100%
7	Transmission and Distribution	Max Hour	49%	23%	29%	0%	0%	0%	0%	0%	100%
8	WECWC Management Control	Supply	0%	0%	0%	96%	0%	4%	0%	0%	100%
9	Water Conservation	Conservation	0%	0%	0%	0%	100%	0%	0%	0%	100%
10	Storm Water MGMT & Recharge	General	0%	0%	0%	0%	0%	0%	35%	65%	100%
11	PVPA	General	0%	0%	0%	0%	0%	0%	35%	65%	100%
12	Customer Service	Customer Service	0%	0%	0%	0%	0%	0%	100%	0%	100%
13											
14	Administration	General	$0	$0	$0	$0	$0	$0	$1,664,426	$3,091,076	$4,755,502
15	Customer Service	Customer Service	$0	$0	$0	$0	$0	$0	$251,620	$0	$251,620
16	Meter Services	Meters	$0	$0	$0	$0	$0	$1,304,653	$0	$0	$1,304,653
17	Damage to City Property	General	$0	$0	$0	$0	$0	$0	$0	$0	$0
18	Supply	Supply	$0	$0	$0	$12,599,522	$0	$524,980	$0	$0	$13,124,502
19	Production and Storage	Max Day	$2,191,327	$1,025,469	$0	$0	$0	$0	$0	$0	$3,216,797
20	Transmission and Distribution	Max Hour	$1,876,027	$877,919	$1,101,578	$0	$0	$0	$0	$0	$3,855,524
21	WECWC Management Control	Supply	$0	$0	$0	$341,346	$0	$14,223	$0	$0	$355,569
22	Water Conservation	Conservation	$0	$0	$0	$0	$379,130	$0	$0	$0	$379,130
23	Storm Water MGMT & Recharge	General	$0	$0	$0	$0	$0	$0	$0	$725,553	$725,553
24	PVPA	General	$0	$0	$0	$0	$0	$0	$1,496	$2,779	$4,275
25	Customer Service	Customer Service	$0	$0	$0	$0	$0	$0	$936,843	$0	$936,843
26	**Total O&M Expenses**		**$4,067,354**	**$1,903,388**	**$1,101,578**	**$12,940,868**	**$379,130**	**$1,843,856**	**$2,854,384**	**$3,819,408**	**$28,909,967**
27	O&M Allocation		14.1%	6.6%	3.8%	44.8%	1.3%	6.4%	9.9%	13.2%	100%

Table 5-4 shows the allocation of asset value by function to the cost components using the allocations shown in Lines 1-5. The total value in each line is multiplied by the corresponding percentages to arrive at the costs shown in Lines 7-11. Line 13 is determined by taking the weighted proportion of the total capital asset costs by each cost component.

Table 5-4: Allocation of Asset Value to Cost Components

Line	Asset Allocation	Allocation Basis	Base	Max Day	Max Hour	Supply	Conservation	Meters	Customer	General	Total
1	Supply	Supply	0%	0%	0%	96%	0%	4%	0%	0%	100%
2	Distribution	Max Hour	49%	23%	29%	0%	0%	0%	0%	0%	100%
3	Distribution Storage	Max Hour	49%	23%	29%	0%	0%	0%	0%	0%	100%
4	Meter	Meters	0%	0%	0%	0%	0%	100%	0%	0%	100%
5	General/Admin	General	0%	0%	0%	0%	0%	0%	35%	65%	100%
6											
7	Supply	Supply	$0	$0	$0	$344,057	$0	$14,336	$0	$0	$358,392
8	Distribution	Max Hour	$50,207,308	$23,495,375	$29,481,073	$0	$0	$0	$0	$0	$103,183,756
9	Distribution Storage	Max Hour	$57,947,859	$27,117,700	$34,026,223	$0	$0	$0	$0	$0	$119,091,782
10	Meter	Meters	$0	$0	$0	$0	$0	$4,518,403	$0	$0	$4,518,403
11	General/Admin	General	$0	$0	$0	$0	$0	$0	$10,766,222	$19,994,411	$30,760,633
12	**Total Assets**		**$108,155,166**	**$50,613,075**	**$63,507,297**	**$344,057**	**$0**	**$4,532,739**	**$10,766,222**	**$19,994,411**	**$257,912,967**
13	Asset Allocation		42%	20%	25%	0%	0%	2%	4%	8%	100%

Table 5-5 shows the net revenue requirement allocated to the cost components. Operating costs are allocated by the same percentages shown in the last line in Table 5-3. Similarly, the capital revenue requirement in Table 5-1 is allocated as shown on Line 13 in Table 5-4. The revenue offsets, over which the City has discretion, are allocated to the cost centers based on the allocation of operating costs excluding supply costs. The resulting net revenue requirement allocation is shown in the last line of the table. This allocation is further adjusted to reallocate General and Administration costs. This results in an adjusted net revenue requirement allocation shown in the last line.

Table 5-5: Adjusted Cost of Service

Revenue Requirement	Base	Max Day	Max Hour	Supply	Conservation	Meters	Fire Protection	Customer Service	Revenue Offset	General	Total
Operating Revenue Requirement	$4,272,940	$1,999,596	$1,157,258	$13,594,969	$398,294	$1,937,054	$0	$2,998,660	$0	$4,012,462	$30,371,233
Capital Revenue Requirement	$2,195,825	$1,027,574	$1,289,360	$6,985	$0	$92,026	$0	$218,582	$0	$405,937	$5,236,289
Revenue Offsets	$0	$0	$0	$0	$0	$0	$0	$0	-$1,214,183	-$917,074	-$2,131,257
Total - Cost of Service	**$6,468,765**	**$3,027,170**	**$2,446,618**	**$13,601,954**	**$398,294**	**$2,029,080**	**$0**	**$3,217,242**	**-$1,214,183**	**$3,501,325**	**$33,476,264**
Allocation of General Costs	$1,287,828	$602,661	$487,083	$0	$79,294	$403,958	$0	$640,502	$0	-$3,501,325	$0
Total - Adjusted Cost of Service	**$7,756,593**	**$3,629,831**	**$2,933,700**	**$13,601,954**	**$477,587**	**$2,433,038**	**$0**	**$3,857,743**	**-$1,214,183**	**$0**	**$33,476,264**

5.3. Derivation of Units of Service

5.3.1. Equivalent Meters

Table 5-6 shows the total equivalent meters. These totals are used as a denominator in developing unit costs for the rate components of the bi-monthly fixed service charges.

Table 5-6: Equivalent Meters

Meter Size	Meter Count	AWWA Capacity Ratio	Equivalent Meters
5/8"	15,197	1.00	15,197
3/4"	810	1.50	1,215
1"	2,475	2.50	6,188
1 1/2"	545	5.00	2,725
2"	792	8.00	6,336
3"	65	17.50	1,138
4"	44	31.50	1,386
6"	10	65.00	650
8"	2	140.00	280
10"	0	210.00	0
Total	**19,940**		**35,114**

5.3.2. Unit Costs of Service

Customer class demands vary depending on their respective usage characteristics. For example, the demand characteristics of a single-family residential customer will differ from the demand characteristics of an irrigation customer. Peak demands are a key difference in usage characteristics of customer classes. Raftelis used detailed customer billing data, by billing cycle, from FY 2025, which was provided by City staff, to assess the demand characteristics by customer class. The concept of proportionality requires that cost allocations consider both the average quantity of water consumed (base demand) and the peak rate at which it is consumed (peak demands). The use of peak demands in the cost allocation process is consistent with cost-of-service principles because a water system is designed, constructed, and operated to meet peak demands. These additional peaking costs must be allocated to customer classes in proportion to their peak usage characteristics to ensure costs are being appropriately passed on.

Single-family use is shown by tiers. The tiers are defined and explained in Section 6.2 of this report. The max day peaking factors for customer classes, average and peak billing period use, are shown below in Table 5-7. Bi-monthly data is used as a proxy for the max day data for different classes. This is a reasonable proxy for our analysis because we are comparing the peaks for different classes to allocate the costs proportionately, and comparing the billing cycle data provides a reasonable basis for the analysis. Establishing peaking characteristics is important to ensure that customer class rates reflect their proportionate share of costs for the use of the system. In the residential class, multi-family and condominium peaking factors are very similar based on FY 2025 water consumption data provided by City staff, and are grouped together in Table 6-4, under Multi-Family.

Table 5-7: Calculation of Class Specific Peaking Factors

Class-Specific Peaking Factors	Bi-monthly Tiers	Avg Bi-Month	Max Bi-Month	Peaking Factor
Single Family				
Tier 1	0-20	251,817	284,481	1.13
Tier 2	21-50	182,028	260,839	1.43
Tier 3	51+	105,392	195,822	1.86
Multi Family	All Use	186,154	218,937	1.18
Landscape	All Use	105,796	168,239	1.59
Commercial	All Use	114,647	132,659	1.16
School	All Use	14,479	21,278	1.47
Government	All Use	18,061	28,951	1.60
Condominiums	All Use	15,238	17,569	1.15
Recycled	All Use	37,473	68,234	1.82

Table 5-8 shows the units of service for each customer class and tier. Column A shows the projected annual use for FY 2026. Column B shows the average daily use. This is calculated by taking the value in Column A and dividing it by 365 days.

Max day and max hour extra capacity requirements for different customer classes are derived from the water consumption data provided by the City. Max hour data is determined by using the City's max hour factor and applying it to the max day factor for each class and tier. This provides a reasonable basis for allocating the max hour costs among the classes. These data are used to allocate peaking costs based on customer class-specific water use patterns during peak demand periods. Max day total capacity (Column D) is the average daily use (Column B) multiplied by the max day capacity factor (Column C). Max day extra capacity

(Column E) is the difference between the max day total capacity (Column D) and the average daily use (Column B). Max hour total capacity (Column G) is the average daily use (Column B) multiplied by the max hour capacity factor (Column F). Max hour extra capacity (Column H) is the difference between the max hour total capacity (Column G) and the max day total capacity (Column D).

Table 5-8: Units of Service

Line	Customer Class	Annual Use (hcf) (A)	Average Daily Use (hcf/day) (B)	Peaking Factor (C)	Max Day Total Capacity (hcf/day) (D)	Extra Capacity (hcf/day) (E)	Peaking Factor (F)	Max Hour Total Capacity (hcf/day) (G)	Extra Capacity (hcf/day) (H)	Number of Equiv. Meters (I)	Number of Customers (J)
	Single Family	3,786,229	10,373		14,257	3,884		19,960	5,703		
1	Tier 1 0-20	1,768,123	4,844	1.13	5,473	628	1.58	7,662	2,189		
2	Tier 2 21-50	1,278,101	3,502	1.43	5,018	1,516	2.01	7,025	2,007		
3	Tier 3 51+	740,005	2,027	1.86	3,767	1,740	2.60	5,274	1,507		
4											
5	Multi Family	1,201,826	3,293	1.18	3,873	580	1.65	5,422	1,549		
6	Landscape	1,101,882	3,019	1.59	4,801	1,782	2.23	6,721	1,920		
7	Commercial	784,815	2,150	1.16	2,488	338	1.62	3,483	995		
8	School	112,615	309	1.47	453	145	2.06	635	181		
9	Government	120,755	331	1.60	530	199	2.24	742	212		
10	Condominiums	102,339	280	1.15	323	43	1.61	453	129		
11											
12	**Total Potable**	**7,210,461**	**19,755**		**26,725**	**6,971**		**37,416**	**10,690**	**35,114**	**19,940**
13											
14	**Recycled**	**267,548**	**733**	**1.82**	**1,335**	**602**	**2.55**	**1,869**	**534**	-	-

Table 5-9 shows the reallocation of peaking costs. Starting with the cost of service values from Table 5-5, peaking costs represent the capacity of the system to meet peak demands. Meters are sized based on the peak demands of a customer; therefore, a portion of the peaking costs is assigned to meters. To maintain the current level of revenue stability, approximately 75% of max day and max hour costs are assigned to meters. The remaining costs are assigned to the commodity rate to recognize that system size is also dependent on water use. Applying these adjustments results in the total shown on Line 10 and repeated on Line 1 of Table 5-10.

Table 5-9: Reallocation of Peaking Costs

			Fixed		Commodity						
Line	Cost Components	Cost of Service	Meter	Customer	Base	Max Day	Max Hour	Supply	Conservation	Offset	Total
1	Base	$7,756,593	0%		100%						100%
2	Max Day	$3,629,831	76%			24%					100%
3	Max Hour	$2,933,700	75%				25%				100%
4	Supply	$13,601,954	0%					100%			100%
5	Conservation	$477,587							100%		100%
6	Meters	$2,433,038	100%								100%
8	Customer Service	$3,857,743		100%							100%
9	Revenue Offset	-$1,214,183								100%	100%
10	**Total**	**$33,476,264**	**$7,397,852**	**$3,857,743**	**$7,756,593**	**$871,160**	**$727,558**	**$13,601,954**	**$477,587**	**-$1,214,183**	**$33,476,264**

Table 5-10 divides the adjusted cost of service for FY 2026 by the respective units of service for each cost component to determine the unit cost for each component.

Table 5-10: Calculation of Unit Costs

Line	Unit Costs	Total	Meter	Customer	Base	Max Day	Max Hour	Supply	Conservation	Offset
1	**Cost of Service**	**$33,476,264**	**$7,397,852**	**$3,857,743**	**$7,756,593**	**$871,160**	**$727,558**	**$13,601,954**	**$477,587**	**-$1,214,183**
2										
3	**Units of Service**		**210,684**	**119,640**	**7,210,461**	**6,971**	**10,690**	**7,210,461**	**7,210,461**	**1,768,123**
4			Annual equiv. meters	Annual bills	Annual use (hcf)	Peak capacity (hcf/day)	Peak capacity (hcf/day)	Annual use (hcf)	Annual use (hcf)	Use in Res Tier 1
5										
6	**Unit Cost**		**$35.11**	**$32.24**	**$1.08**	**$124.97**	**$68.06**	**$1.89**	**$0.07**	**-$0.69**
7			equiv. meter	bill	hcf	hcf/day	hcf/day	hcf	hcf	hcf

6. Proposed Water Rates and Charges

6.1. Proposed Bi-Monthly Service Charge

The City's water charges include a bi-monthly service charge based on meter size, and a commodity rate based on water use. The service charge has been calculated to recover the fixed costs the City incurs to provide the service, such as billing and collection, customer service, meter reading, meter maintenance, and a portion of costs associated with meeting peak demands. The volumetric charge recovers the balance of the remaining costs.

Recycled water customers receive the same bi-monthly fixed charge as potable water customers, based on meter size, because they use the potable system when recycled water may not be available. They receive a volumetric charge specific to the class, based on the cost of the recycled water purchased.

The Meter component is derived based on total equivalent meters. Therefore, the meter unit cost in Line 6 of Table 5-10 is multiplied by the capacity ratio for each meter size to appropriately reflect the share of cost by meter size. The Customer cost does not vary by meter size, and therefore, the Customer unit cost shown in Line 6 of Table 5-10 is applied uniformly across all meter sizes. These two components determine the proposed bi-monthly service charge shown below.

Table 6-1: Bi-Monthly Service Charge Derivation

Meter Size	Capacity Ratio	Meter	Customer	Proposed Bi-Monthly Charge
5/8"	1.00	$34.91	$32.24	**$67.16**
3/4"	1.50	$52.37	$32.24	**$84.62**
1"	2.50	$87.28	$32.24	**$119.53**
1 1/2"	5.00	$174.57	$32.24	**$206.82**
2"	8.00	$279.31	$32.24	**$311.56**
3"	17.50	$610.98	$32.24	**$643.23**
4"	31.50	$1,099.77	$32.24	**$1,132.02**
6"	65.00	$2,269.37	$32.24	**$2,301.62**
8"	140.00	$4,887.87	$32.24	**$4,920.12**

6.2. Proposed Commodity Rates

Raftelis recommends that the City retain its current rate structure with tiered rates for single-family customers and uniform rates for the remaining customers. Single-family usage is more homogenous and lends itself well to tiering, recognizing the costs of providing service in each tier. Non-single-family customers are of varying sizes and demands and are not homogeneous and therefore charged uniform rates. The current 10 hcf per month in Tier 1 provides a family of four using an average of 55 gpd indoor, about 10 hcf. Therefore, the first tier is retained at 10 hcf per month or 20 hcf bi-monthly. The second tier provides average water use in summer, and the third tier covers any additional usage.

The tiers are selected so that the peaking characteristics of each tier are clearly defined. Tier 1 represents indoor use, which is pretty consistent throughout the year, and the associated costs can be readily determined. Tier 2 primarily represents average irrigation use, and Tier 3 represents larger irrigation use for single-family customers. Tiers are selected to ensure the costs associated with peaking can be clearly determined and spread based on the cost of service. It should be noted that the costs for providing water in each tier are calculated based on the tiers and the use in each tier. This ensures that the appropriate peaking factor is used and also that the type of use is considered in the tier definitions.

The City's water commodity rates consist of five components: Base, Peaking, Supply, Conservation, and Offset. The following subsections will present the calculations for each of the components.

6.2.1. Base-Delivery Unit Cost

The Base component is applied uniformly across all units of water and is equal to the Base unit cost in Table 5-10, Line 6.

6.2.2. Supply Unit Cost

Table 6-2 show the calculation of the unit cost for each source of water. The water purchase costs for each source (Lines 1 and 2) were provided by City staff and are divided by the estimated demand from each source (Line 3) to calculate the unit costs (Line 5). Line 6 takes the $/AF value in Line 5 and divides it by 435.6 to convert to a $/hcf rate. Table 6-3 shows the supply unit cost calculation for each customer class and tier. A non-differentiated unit supply cost is being used, meaning that all customer classes pay the same amount for the supply unit cost. This cost is shown in the last column on Line 6 of Table 6-2. It is calculated by dividing the total costs by the total demand.

Table 6-2: Potable Water Supply Cost

Line	Unit Costs of Water	Six Basin	WECWC	SAWCo	Chino Basin	WFA	Total
1	**Cost of Water**	$28,888	$711,342	$3,314,277	$1,326,452	$6,337,645	$11,718,604
2	**Cost of Power**	$109,519	$316,324	$1,161,911	$216,346		$1,804,100
3	Quantity of Water, AF	784	2,264	8,316	1,548	3,640	16,552
4	Quantity of Water, hcf	341,443	986,192	3,622,442	674,492	1,585,598	7,210,167
5	Unit Cost , $/AF	$176.57	$453.92	$538.26	$996.37	$1,741.10	$816.97
6	Unit Cost $/hcf	$0.41	$1.04	$1.24	$2.29	$4.00	$1.88

The water from each supply is allocated proportionally to the use in class as a whole. In the single-family class, the water is allocated so that the first tier gets the benefit of the lowest cost sources of water, and the next tier gets the next lowest cost water, and so on. The results are shown in Table 6-3.

Table 6-3: Supply Component Calculation

Line	Customer Classes	Water Use (hcf)	% of Water Use	Six Basin	WECWC	SAWCo	Chino Basin	WFA	Total Demand	Total Cost	Supply Unit Cost
1	Single Family	3,786,229	53%	179,293	517,851	1,902,152	354,177	832,601	3,786,075	$7,100,801	$1.88
2	Tier 1	1,768,123	25%	179,293	517,851	1,070,979	0	0	1,768,123	$1,935,698	$1.09
3	Tier 2	1,278,101	18%	0	0	831,173	354,177	92,751	1,278,101	$2,207,919	$1.73
4	Tier 3	740,005	10%	0	0	0	0	739,850	739,850	$2,957,185	$4.00
5											
6	Multi Family	1,201,826	17%	56,911	164,377	603,782	112,423	264,285	1,201,777	$2,253,939	$1.88
7	Landscape	1,101,882	15%	52,178	150,707	553,571	103,074	242,307	1,101,837	$2,066,501	$1.88
8	Commercial	784,815	11%	37,164	107,341	394,281	73,414	172,583	784,783	$1,471,864	$1.88
9	School	112,615	2%	5,333	15,403	56,576	10,534	24,764	112,610	$211,201	$1.88
10	Government	120,755	2%	5,718	16,516	60,666	11,296	26,554	120,750	$226,467	$1.88
11	Condominiums	102,339	1%	4,846	13,997	51,414	9,573	22,505	102,335	$191,929	$1.88
12											
13	**Total Water Available by Source (hcf)**	**7,210,461**	**100%**	**341,443**	**986,192**	**3,622,442**	**674,492**	**1,585,598**	**7,210,167**	**$13,522,704**	**$1.88**

6.2.3. Peaking Unit Cost

Table 6-4 shows the peaking unit cost calculation for each customer class and tier. Peaking costs are the sum of max day and max hour costs for each class and tier. This is calculated by multiplying the unit rates shown for max day and max hour from Line 6 of Table 5-10 by the corresponding extra capacity value in column E of Table 5-8 for max day, and by the corresponding extra capacity value shown in column H for max hour. Peaking costs are divided by annual use to determine the Peaking unit cost for each class and tier. Due to similar patterns in peaking factors, residential accounts in condominiums are combined with multi-family accounts.

Table 6-4: Peaking Unit Cost Calculation

Peaking Unit Cost	Annual Use (hcf)	Peaking Costs	Unit Cost
Single Family	**3,786,229**	**$873,534**	**$0.23**
Tier 1 0-20	1,768,123	$227,509	$0.13
Tier 2 21-50	1,278,101	$326,071	$0.26
Tier 3 51+	740,005	$319,955	$0.43
Multi Family	**1,304,165**	**$192,052**	**$0.15**
Landscape	**1,101,882**	**$353,365**	**$0.32**
Commercial	**784,815**	**$109,949**	**$0.14**
Schools	**112,615**	**$30,451**	**$0.27**
Government	**120,755**	**$39,365**	**$0.33**
Total	**7,210,461**	**$1,598,717**	

6.2.4. Conservation Component

The conservation unit rate recovers costs of the City's water conservation program. Costs include staffing and education and outreach. Since the conservation program is targeted to reduce demand on the system to benefit the availability of water to larger users, the total single-family conservation cost is applied to single-family residential Tier 3 only. All other customer classes receive a uniform conservation rate. This component is shown in Table 5-10, Line 6 under the column labeled conservation.

6.2.5. Offset Component

The offset component is applied to single-family residential Tier 1 only. It is equal to the Offset unit cost (Table 5-10, Line 6). The offset helps provide affordability in Tier 1.

6.2.6. Recycled Water Commodity Rates

Recycled water customers have a specific commodity rate based on the cost of purchasing the recycled water, shown in Table 4-6. Table 6-5 shows the recycled water expenses the City incurs, and the units of recycled water used for FY 2026. By dividing these values, you arrive at the proposed FY 2026 commodity rate for recycled water customers.

Table 6-5: Derivation of Recycled Water Commodity Rates

Recycled Commodity Rates ($/hcf)	
	Proposed Rate
Recycled Water Operating Expenses	$706,668
Recycled Water Units (hcf)	267,548
Recyled Water Commodity Rate ($/hcf)	**$2.64**

6.2.7. Proposed FY 2026 Commodity Rates

To calculate the FY 2026 commodity rate for each customer class, the components mentioned above are summed to arrive at a total commodity rate. Table 6-6 shows the calculation for the FY 2026 commodity rate. The total rate is rounded up to the nearest cent to ensure adequate cost recovery. It should be noted that the Government customer class cost of service results resulted in a decrease from their current rate. This rate applies only to City Government customers. The City has opted to maintain its current rate and not reduce the commodity charge, as shown in Table 6-8. All future years for the customer class will increase by the proposed revenue adjustments.

Table 6-6: Derivation of FY 2026 Commodity Rates ($/hcf)

Commodity Charges	Base	Peaking	Supply	Conservation	Offset	Proposed
Single Family						
Tier 1	$1.08	$0.13	$1.88		-$0.69	**$2.40**
Tier 2	$1.08	$0.26	$1.88			**$3.21**
Tier 3	$1.08	$0.43	$1.88	$0.34		**$3.73**
Multi Family	$1.08	$0.15	$1.88	$0.07		**$3.17**
Landscape	$1.08	$0.32	$1.88	$0.07		**$3.34**
Commercial	$1.08	$0.14	$1.88	$0.07		**$3.16**
School	$1.08	$0.27	$1.88	$0.07		**$3.29**
Government	$1.08	$0.33	$1.88	$0.07		**$3.35**
Recycled Rate						**$2.64**

6.3. Proposed 5-Year Water Rate Schedule

Table 6-7 shows the proposed 5-year rate schedule of fixed water charges. Table 6-8 shows the proposed 5-year schedule of commodity water rates. The Government customer class is opting to retain its current rate instead of the resulting rate from the cost of service analysis, which resulted in a lower rate. All other rates for FY 2026 are the result of the cost-of-service analysis, while future years are multiplied by the revenue adjustment. Rates are rounded up to the nearest cent. The proposed FY 2026 rates are effective June 1, 2026. Each following year is effective January 1st. The service charges include the Meter Equivalent Unit (MEU) charge imposed by IEUA. Since those charges are not known for future years, any increases in those charges beyond the assumptions used in the rate study will be passed through to customers. Any increases in potable and recycled water purchase costs from IEUA beyond the assumptions used in the study will be passed through to customers.

Table 6-7: Proposed 5-year Service Charge Rate Schedule, ($/Bi-Monthly)

Service Charges (Bi-Monthly)	Current	Proposed FY 2026	Proposed FY 2027	Proposed FY 2028	Proposed FY 2029	Proposed FY 2030
5/8"	*$65.26*	$67.36	$70.73	$74.27	$77.99	$81.89
3/4"	*$82.68*	$84.92	$89.17	$93.63	$98.32	$103.24
1"	*$117.52*	$120.03	$126.04	$132.35	$138.97	$145.92
1 1/2"	*$204.72*	$207.82	$218.22	$229.14	$240.60	$252.63
2"	*$309.35*	$313.16	$328.82	$345.27	$362.54	$380.67
3"	*$588.33*	$646.74	$679.08	$713.04	$748.70	$786.14
4"	*$902.15*	$1,138.32	$1,195.24	$1,255.01	$1,317.77	$1,383.66
6"	*$1,773.93*	$2,314.63	$2,430.37	$2,551.89	$2,679.49	$2,813.47
8"	*$2,820.12*	$4,948.14	$5,195.55	$5,455.33	$5,728.10	$6,014.51

Table 6-8: Proposed 5-year Commodity Rate Schedule, ($/hcf)

Commodity Charges	Current	Proposed FY 2026	Proposed FY 2027	Proposed FY 2028	Proposed FY 2029	Proposed FY 2030
Single Family						
Tier 1	*$2.33*	$2.40	$2.52	$2.65	$2.79	$2.93
Tier 2	*$3.08*	$3.21	$3.38	$3.55	$3.73	$3.92
Tier 3	*$3.68*	$3.73	$3.92	$4.12	$4.33	$4.55
Multi Family	*$2.87*	$3.17	$3.33	$3.50	$3.68	$3.87
Landscape	*$3.17*	$3.34	$3.51	$3.69	$3.88	$4.08
Commercial	*$2.76*	$3.16	$3.32	$3.49	$3.67	$3.86
Schools	*$3.38*	$3.29	$3.46	$3.64	$3.83	$4.03
Government	*$3.47*	$3.47	$3.65	$3.84	$4.04	$4.25
Recycled Water	*$2.54*	$2.64	$2.78	$2.92	$3.07	$3.23

7. Drought Rates

Raftelis calculated a demand reduction surcharge (drought rates or drought surcharge) in order to recover the revenue shortfall that occurs because of demand reductions during water shortage scenarios.

Drought rates may take effect during times of declared drought, where certain levels of reduction are mandated. Drought rates are charged to each unit of water used and are calculated to recover costs through volumetric revenue due to reduced water use. The changes to the drought rates are different at different reduction levels based on the projected revenue shortfall.

To determine the demand reduction surcharge, the first step is to project the water demand reduction for each customer class under different levels of shortage. Table 7-1 shows the projected water demand for each customer class and tier at different levels of reduction. Raftelis analyzed individual customer usage data, assuming that customers using more water are expected to reduce more since they have more discretionary water use. The analysis calculates the increase in commodity rates that must be applied to all usage, including the tiers, for each reduction stage. Note that the reduction achieved under each drought stage is lower than the maximum targeted at each level but falls near or within each range.

Table 7-1: Projected Water Demand by Usage Reduction

Customer Class	Bi-Monthly Tier	Proposed Rates	FY 2026	% Reduction	0-10% Reduction	% Reduction	10-20% Reduction	% Reduction	20-30% Reduction	% Reduction	30-40% Reduction	% Reduction	40-50% Reduction
Single Family													
Tier 1	0-20	$2.40	1,768,123	-5.0%	1,679,717	-7.0%	1,644,355	-10.0%	1,591,311	-15.0%	1,502,905	-24.0%	1,343,774
Tier 2	21-50	$3.21	1,278,101	-15.0%	1,086,386	-20.0%	1,022,481	-30.0%	894,671	-40.0%	766,861	-50.0%	639,051
Tier 3	51+	$3.73	740,005	-20.0%	592,004	-40.0%	444,003	-60.0%	296,002	-80.0%	148,001	-95.0%	37,000
Subtotal Single Family			**3,786,229**	**-11.3%**	**3,358,107**	**-17.8%**	**3,110,838**	**-26.5%**	**2,781,984**	**-36.1%**	**2,417,766**	**-46.7%**	**2,019,824**
Multi Family		$3.17	1,304,165	-8.0%	1,199,832	-12.0%	1,147,665	-25.0%	978,124	-25.0%	978,124	-25.0%	978,124
Landscape		$3.34	1,101,882	-10.0%	991,694	-25.0%	826,412	-35.0%	716,223	-50.0%	550,941	-70.0%	330,565
Commercial		$3.16	784,815	-8.0%	722,030	-12.0%	690,637	-25.0%	588,611	-35.0%	510,130	-40.0%	470,889
Schools		$3.29	112,615	-8.0%	103,606	-12.0%	99,101	-25.0%	84,461	-35.0%	73,200	-40.0%	67,569
Government		$3.47	120,755	-8.0%	111,095	-12.0%	106,264	-25.0%	90,566	-35.0%	78,491	-40.0%	72,453
Subtotal Non-Single Family			**3,424,232**	**-8.6%**	**3,128,256**	**-16.2%**	**2,870,080**	**-28.2%**	**2,457,986**	**-36.0%**	**2,190,885**	**-43.9%**	**1,919,599**
Total Potable Water (hcf)			7,210,461		6,486,363		5,980,918		5,239,969		4,608,651		3,939,424
Demand Reduction Achieved					-10.0%		-17.1%		-27.3%		-36.1%		-45.4%

The next step is to estimate the water supply cost savings that result when there is a reduction in demand. Table 7-2 shows the estimated percentage reduction from each water source for each reduction stage. In the first stage, it is expected that the City would reduce WFA usage so that it still will use a minimum of 2,000 ac-ft per year. Any remaining reduction is applied uniformly to all the remaining sources. The variable costs associated with each supply are used to determine the cost savings. Almost all other costs are fixed; therefore, no other costs are included in the analysis. Table 7-3 shows the estimated cost savings in the water supply costs for each stage due to the reduction in usage.

Table 7-2: Percentage Reduction by Water Source

% Reduction	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
Groundwater	-0.2%	-9%	-15%	-14%	-18%
WFA	-45%	0%	0%	0%	0%

Table 7-3: Estimated Cost Savings by Usage Reduction

	FY 2026	0-10% Reduction	10-20% Reduction	20-30% Reduction	30-40% Reduction	40-50% Reduction
Supply (AF)						
Six Basin	784	782	712	608	520	427
WECWC	2,264	2,259	2,055	1,757	1,503	1,234
SAWCo	8,316	8,297	7,550	6,455	5,521	4,532
Chino Basin	1,548	1,545	1,406	1,202	1,028	844
WFA	3,640	2,009	2,009	2,009	2,009	2,009
Total Potable Supply (AF)	**16,552**	**14,892**	**13,732**	**12,031**	**10,582**	**9,046**
		-10.0%	-7.8%	-12.4%	-12.0%	-14.5%
Variable Cost ($/AF)						
Six Basin	$171.82	$171.82	$171.82	$171.82	$171.82	$171.82
WECWC	$300.22	$300.22	$300.22	$300.22	$300.22	$300.22
SAWCo	$396.72	$396.72	$396.72	$396.72	$396.72	$396.72
Chino Basin	$979.81	$979.81	$979.81	$979.81	$979.81	$979.81
WFA	$1,068.96	$1,068.96	$1,068.96	$1,068.96	$1,068.96	$1,068.96
Total Variable Costs	**$9,521,726**	**$7,765,791**	**$7,259,831**	**$6,518,126**	**$5,886,164**	**$5,216,254**
Cost Savings		$1,755,935	$2,261,895	$3,003,600	$3,635,562	$4,305,472

The final step is to calculate the drought surcharge, shown in Table 7-4. First, the projected potable water revenue is calculated by multiplying the demand projections from Table 7-1 for each level of reduction in use and the proposed water rates in FY 2026. The revenue shortfall is determined by comparing this revenue for each reduction level with the FY 2026 revenues. Next, we add the estimated cost savings from Table 7-3 for each reduction level. The net revenue is the sum of the revenue shortfall and cost savings. The percent revenue shortfall is then the shortfall divided by the projected variable revenue. The percentages shown will be applied to all water usage rates in place throughout the duration of the shortage.

Table 7-4: Drought Rates by Usage Reduction

	FY 2026	Up to 10% Reduction	Up to 20% Reduction	Up to 30% Reduction	Up to 40% Reduction	Up to 50% Reduction
Projected Variable Revenue	$22,190,445	$19,850,493	$18,160,252	$15,740,118	$13,686,633	$11,580,881
Revenue Shortfall		-$2,339,952	-$4,030,193	-$6,450,327	-$8,503,812	-$10,609,564
Cost Savings		$1,755,935	$2,261,895	$3,003,600	$3,635,562	$4,305,472
Net Revenue to be Recovered		-$584,017	-$1,768,298	-$3,446,727	-$4,868,250	-$6,304,092
% Commodity Rate Increase		**3%**	**10%**	**22%**	**36%**	**54%**

Table 7-5 shows the proposed drought surcharges for each year of the study period. The surcharges are calculated by taking the FY 2026 proposed volumetric rate for each class and tier shown in Table 6-8 and increasing them by the percentage shown above for each reduction stage. The surcharge for FY 2026 is the difference between this new calculated rate and the proposed rate from Table 6-8. For future years, the surcharge for FY 2026 shown below is increased by the proposed revenue adjustments of 5% each year.

Table 7-5: Proposed Drought Surcharges

Customer Class	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Revenue Adjustments		5%	5%	5%	5%
0-10% Reduction					
Single Family					
Tier 1	$0.08	$0.08	$0.09	$0.09	$0.10
Tier 2	$0.10	$0.11	$0.11	$0.12	$0.12
Tier 3	$0.11	$0.12	$0.12	$0.13	$0.13
Multi Family	$0.10	$0.11	$0.11	$0.12	$0.12
Landscape	$0.10	$0.11	$0.11	$0.12	$0.12
Commercial	$0.10	$0.11	$0.11	$0.12	$0.12
Schools	$0.10	$0.11	$0.11	$0.12	$0.12
Government	$0.11	$0.12	$0.12	$0.13	$0.13
10-20% Reduction					
Single Family					
Tier 1	$0.24	$0.25	$0.26	$0.28	$0.29
Tier 2	$0.32	$0.34	$0.35	$0.37	$0.39
Tier 3	$0.37	$0.39	$0.41	$0.43	$0.45
Multi Family	$0.31	$0.33	$0.34	$0.36	$0.38
Landscape	$0.33	$0.35	$0.36	$0.38	$0.40
Commercial	$0.31	$0.33	$0.34	$0.36	$0.38
Schools	$0.33	$0.35	$0.36	$0.38	$0.40
Government	$0.34	$0.36	$0.37	$0.39	$0.41
20-30% Reduction					
Single Family					
Tier 1	$0.53	$0.56	$0.58	$0.61	$0.64
Tier 2	$0.71	$0.75	$0.78	$0.82	$0.86
Tier 3	$0.82	$0.86	$0.90	$0.95	$1.00
Multi Family	$0.70	$0.74	$0.77	$0.81	$0.85
Landscape	$0.74	$0.78	$0.82	$0.86	$0.90
Commercial	$0.70	$0.74	$0.77	$0.81	$0.85
Schools	$0.73	$0.77	$0.80	$0.85	$0.89
Government	$0.76	$0.80	$0.84	$0.88	$0.92
30-40% Reduction					
Single Family					
Tier 1	$0.86	$0.90	$0.95	$1.00	$1.05
Tier 2	$1.15	$1.21	$1.27	$1.33	$1.40
Tier 3	$1.33	$1.40	$1.47	$1.54	$1.62
Multi Family	$1.13	$1.19	$1.25	$1.31	$1.37
Landscape	$1.19	$1.25	$1.31	$1.38	$1.45
Commercial	$1.13	$1.19	$1.25	$1.31	$1.37
Schools	$1.18	$1.24	$1.30	$1.37	$1.43
Government	$1.24	$1.30	$1.37	$1.44	$1.51

Customer Class	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
40-50% Reduction					
Single Family					
Tier 1	$1.31	$1.38	$1.44	$1.52	$1.59
Tier 2	$1.75	$1.84	$1.93	$2.03	$2.13
Tier 3	$2.04	$2.14	$2.25	$2.36	$2.48
Multi Family	$1.73	$1.82	$1.91	$2.00	$2.10
Landscape	$1.82	$1.91	$2.01	$2.11	$2.21
Commercial	$1.73	$1.82	$1.91	$2.00	$2.10
Schools	$1.80	$1.89	$1.98	$2.08	$2.19
Government	$1.89	$1.98	$2.08	$2.19	$2.30

8. Wastewater Financial Plan

This section of the report details the wastewater enterprise's long-term financial plan, based on the projected revenues, expenses, debt service, and capital project costs. Raftelis modeled the financial plan without revenue adjustments (status quo) and with proposed revenue adjustments to ensure the financial sustainability of the wastewater utility. The results of the water financial plan are the proposed rates for five years based on the proposed revenue adjustments.

8.1. Current Rate Revenue

The City's revenues consist of rate revenues, interest earnings on cash reserves, and other miscellaneous revenues. The rate revenue projection shown below assumes that current FY 2026 rates are in effective throughout the study period. This status quo scenario provides a baseline from which Raftelis evaluates the need for revenue adjustments.

8.1.1. Calculated Wastewater Rate Revenues

Raftelis projected wastewater rates revenues from the City's monthly charge per EDU for the study period based on current wastewater rates, and the projected number of equivalent dwelling units (EDUs).

The City collects fixed bi-monthly charges from its customers based on the number of EDUs. San Antonio Heights customers are charged a rate 1.5 times the EDU rate based on the additional infrastructure needed to provide service to customers in that area and is based on an agreement between the City and San Antonio Heights. Table 8-1 shows projected rate revenues the City will collect under current rates for the rate-setting period.

Table 8-1: Projected Rate Revenues Under Current Wastewater Rates

Sewer Rate Revenue	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
City Local Sewer Services Charges	$4,032,427	$4,356,224	$4,356,224	$4,356,224	$4,356,224
SA Heights Sewer Services Charges, 1.5 times the rate	$22,557	$22,557	$22,557	$22,557	$22,557
Total City Local Services Charge Revenue	**$4,054,984**	**$4,378,781**	**$4,378,781**	**$4,378,781**	**$4,378,781**

8.1.2. Other Revenues

Table 8-2 shows the projected miscellaneous revenues for the wastewater enterprise, assuming no revenue adjustments.

Table 8-2: Projected Other Wastewater Enterprise Revenues, Status Quo

Line Item	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Other Operating Revenue	$150,800	$152,308	$153,831	$155,369	$156,923
Interest Income	$552,567	$382,077	$350,927	$260,712	$177,254
Total Other Revenue	**$703,367**	**$534,385**	**$504,758**	**$416,081**	**$334,177**

8.2. Annual Expenses – Wastewater

The City's annual expenses include operations and maintenance expenses and capital expenses. This section discusses the expenses in detail.

8.2.1. Total Operations and Maintenance Budget

The City provided Raftelis with its actual expenses for FY 2025 and budget for FY 2026. The City also provided adjustments in future years to account for changes in staffing and reductions in anticipated operating and maintenance expenses. To project the City's O&M expenses, Raftelis used the escalation factors shown in Table 3-6. Table 8-3 shows a summary of the budgeted and projected O&M.

Table 8-3: Summary of Projected Wastewater Operations and Maintenance Expenses

Line Item	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Customer Service	$89,000	$91,670	$94,420	$97,253	$100,170
Maintenance & Operations	$3,185,302	$3,645,893	$3,766,296	$3,890,697	$4,019,230
Sewer - Residential	$946,840	$977,125	$1,008,384	$1,040,650	$1,073,953
Sewer - Non-Residential	$341,280	$352,811	$364,734	$377,061	$389,806
Capital Projects	$5,650	$5,876	$6,111	$6,355	$6,610
Total	**$4,568,072**	**$5,073,376**	**$5,239,945**	**$5,412,016**	**$5,589,770**

8.2.2. Capital Improvement Plan

Table 8-4 shows the City's capital improvement plan for wastewater capital projects through FY 2030. The plan averages roughly $810,000 a year over the study period.

Table 8-4: Projected Wastewater Capital Improvement Projects

	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Total Rate Funded CIP	$750,000	$780,000	$811,200	$843,648	$877,394

8.2.3. Existing and Proposed Debt Service

The City currently has no existing debt for the wastewater utility. Raftelis is not proposing any new debt issuances.

8.3. Reserve Targets

The City maintains multiple wastewater enterprise reserve funds.

Operating Reserve – The Operating Reserve is used primarily to meet ongoing cash flow requirements. The City's minimum reserve target is set at 25% of O&M expenses. The maximum target is set at 50% of O&M expenses.

Capital Reserve – The Capital Reserve is used to cover capital costs and any unexpected and unplanned infrastructure repairs and replacements not included in the budget as well as to set aside money for future capital projects. The minimum target is set at 100% of the five-year average of capital projects. The maximum target is set at 300% of the five-year average of capital projects.

Rate Stabilization Reserve – The Rate Stabilization Reserve is used primarily to help reduce an annual revenue adjustment due to short-term spikes in costs. The City's minimum reserve target is set at 25% of rate revenues. The maximum target is set at 50% of rate revenues.

8.4. Proposed Financial Plan and Revenue Adjustments

The proposed revenue adjustments are necessary to ensure adequate revenue to fund the wastewater enterprises' operating expenses. The first revenue adjustment is effective on July 1, 2026, with each following year effective on January 1. The proposed revenue adjustments would allow the City to cover its O&M costs. The CIP projects are mostly funded through the existing reserves. Table 8-5 shows the proposed wastewater revenue adjustments for the five-year rate-setting period. Even though the wastewater enterprise has adequate reserves, revenue adjustments are still needed to ensure that rate revenues cover operating expenses over the next five years.

Table 8-5: Proposed Wastewater Revenue Adjustments

Effective Date	Adjustment
July 1, 2026	4.0%
January 1, 2027	4.0%
January 1, 2028	4.0%
January 1, 2029	4.0%
January 1, 2030	4.0%

Table 8-6 shows the wastewater cashflow for the study period, taking into account the revenue adjustments shown above in Table 8-5. Line 1 shows the projected wastewater rate-revenue under existing rates. Line 9 shows the total rate-revenue including the proposed revenue adjustments. Line 14 shows total wastewater fund revenue, including miscellaneous revenues and interest. Line 24 shows total O&M expenses. Line 26 shows rate funded capital costs for each year. The wastewater enterprise does not have any current debt service, and Raftelis is not proposing to issue any. Line 28 shows the net cash flow. As shown, each year of the rate-setting period results in a negative cashflow. This is the result of reserves being drawn upon to minimize customer bill impacts.

Table 8-6: Wastewater Cashflow

Line	Item			FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
1	Revenue Under Existing Rates			$4,054,984	$4,378,781	$4,378,781	$4,378,781	$4,378,781
2	Revenue Adjustments							
3		Adjustment	Mo. Effective					
4	FY 2026	0.0%	12	$0	$0	$0	$0	$0
5	FY 2027	4.0%	12		$175,151	$175,151	$175,151	$175,151
6	FY 2027	4.0%	6		$91,079	$182,157	$182,157	$175,151
7	FY 2028	4.0%	6			$94,722	$189,444	$189,163
8	FY 2029	4.0%	6				$98,511	$196,730
9	FY 2030	4.0%	6					$102,300
10	**Total Rate Revenue**			**$4,054,984**	**$4,645,011**	**$4,830,812**	**$5,024,044**	**$5,217,277**
11	Other Revenue							
12	Other Operating Revenue			$150,800	$152,308	$153,831	$155,369	$156,923
13	Interest Income			$552,567	$386,070	$365,814	$287,206	$213,817
14	**Total Other Revenue**			$703,367	$538,378	$519,645	$442,575	$370,740
15								
16	**Total Revenue**			**$4,758,351**	**$5,183,389**	**$5,350,457**	**$5,466,619**	**$5,588,016**
17								
18	O&M Expenses							
19	Customer Service			$89,000	$91,670	$94,420	$97,253	$100,170
20	Maintenance & Operations			$3,185,302	$3,645,893	$3,766,296	$3,890,697	$4,019,230
21	Sewer - Residential			$946,840	$977,125	$1,008,384	$1,040,650	$1,073,953
22	Sewer - Non-Residential			$341,280	$352,811	$364,734	$377,061	$389,806
23	Capital Projects			$5,650	$5,876	$6,111	$6,355	$6,610
24	**Total O&M Expenses**			**$4,568,072**	**$5,073,376**	**$5,239,945**	**$5,412,016**	**$5,589,770**
25								
26	Rate Funded CIP			$750,000	$780,000	$811,200	$843,648	$877,394
27								
28	**Net Cash Flow**			**-$559,720**	**-$669,986**	**-$700,688**	**-$789,044**	**-$879,147**

Figure 8-1 shows the proposed five-year financial plan for the wastewater enterprise. Status quo revenue is shown by the solid line. Projected revenue is shown by the dashed line. Annual expenditures are shown by the columns. The green bars below the X-axis show reserves are drawn down year to year to fund capital costs. Revenue from current rates is not enough to cover annual operating and maintenance costs. Therefore, revenue adjustments are required to generate sufficient revenue to cover these costs over the study period.

Figure 8-1: Proposed Wastewater Financial Plan

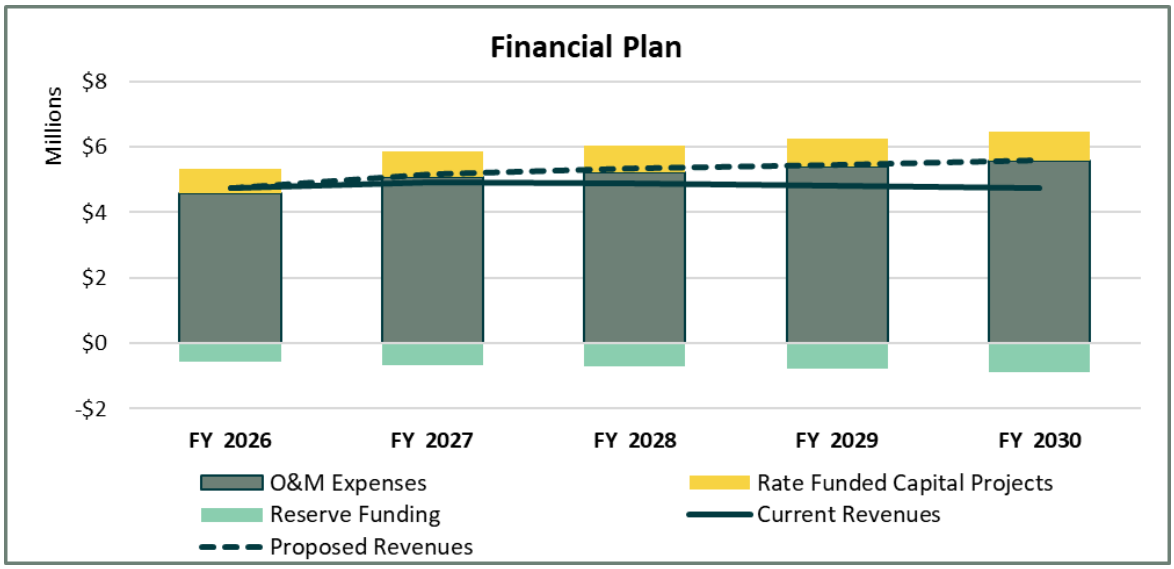


Figure 8-2 shows the projected wastewater capital improvement plan for the study period. The City does not plan to issue debt to pay for future CIP.

Figure 8-2: Projected Wastewater Capital Plan and Funding Sources

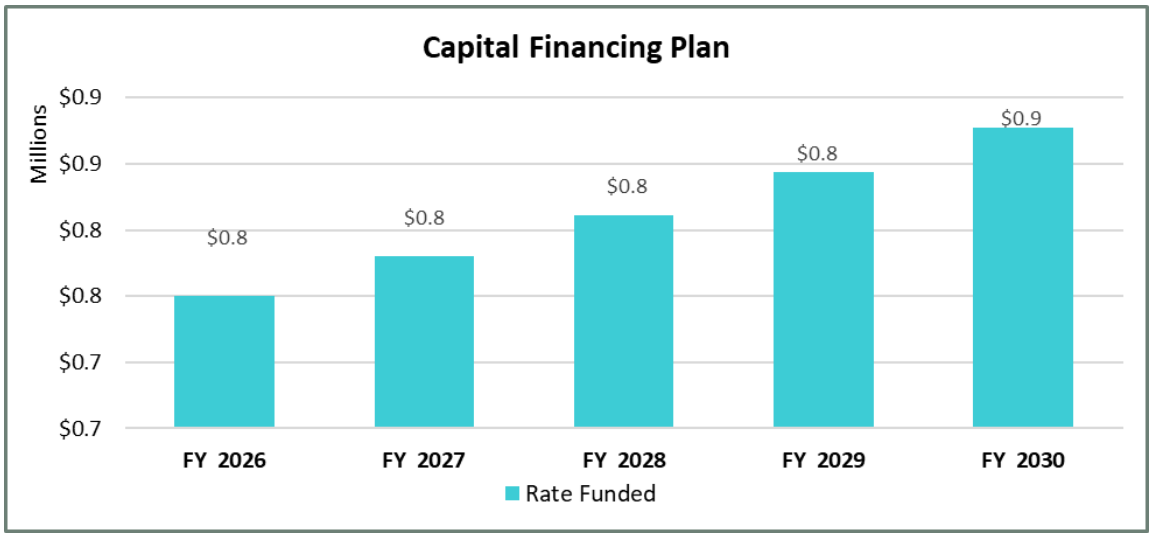
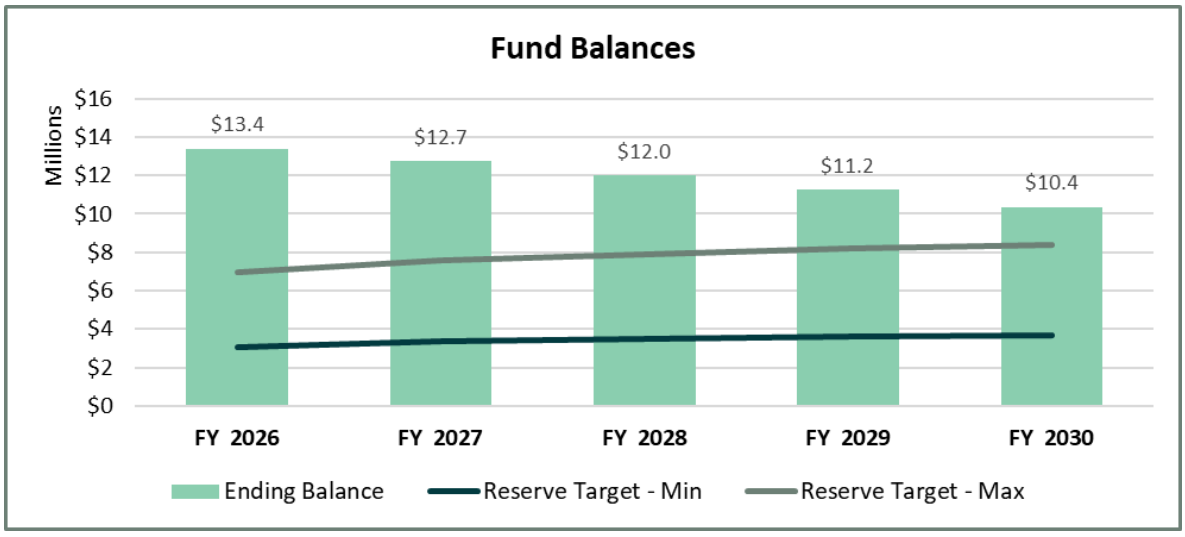


Figure 8-3 shows the projected wastewater enterprise ending balance for each year of the study period. The gray line represents the maximum reserve targets, and the black line represents the minimum reserve targets. The green bars represent the ending fund balance for each year of the study period. The balances are being drawn down to fund the CIP.

Figure 8-3: Projected Wastewater Fund Ending Balance



9. Wastewater Cost-of-Service Analysis

The cost-of-service analysis utilized to develop the wastewater rates followed the guidelines for allocating costs outlined in the WEF Manual No. 27.

Using these principles, the revenue requirement is distributed to customers. This section details the cost-of-service analysis for the City's wastewater collection system.

9.1. Revenue Requirement Determination

The first step of the cost-of-service analysis is to determine the revenue requirement for the test year, or rate-setting year. The test year of this study is FY 2026. The total revenue requirement shown in Line 5 is equal to operating expenses (Table 8-6, Line 24), and capital expenses (Table 8-6, Line 26) for FY 2026. Revenue offsets in Line 11 are equal to (Table 8-6, Line 14) for FY 2026. These reduce the total revenue required from rates. The transfer to or from reserves (Line 14) is subtracted to account for the draw from reserves. The adjustment to annualize rate increase (Line 15) is to account for the revenue adjustment occurring part way through the fiscal year and helps determine the rate as if the rate were calculated for the whole year, in this case since the revenue adjustment is applied to the whole year, it is zero. The total revenue to be recovered from rates is equal to Line 5 minus Line 11 and Line 16.

Table 9-1: Wastewater Revenue Requirement

Line	Revenue Requirement - FY 2027	Operating	Capital	Total
1	**Revenue Requirements**			
2	O&M Expenses	$5,073,376		$5,073,376
3	Debt Service		$0	$0
4	Rate Funded CIP		$780,000	$780,000
5	**Total - Revenue Requirements**	**$5,073,376**	**$780,000**	**$5,853,376**
6				
7	**Revenue Offsets**			
8	Other Operating Revenue	$152,308		$152,308
9	Non-Operating Revenue	$0		$0
10	Interest Income	$386,070		$386,070
11	**Total - Revenue Offsets**	**$538,378**	**$0**	**$538,378**
12				
13	**Less Adjustments**			
14	Transfer from (to) Reserves	$669,986		$669,986
15	Adjustment to Annualize Rate Increase	$0		$0
16	**Total - Less Adjustments**	**$669,986**	**$0**	**$669,986**
17				
18	**Total Revenue to be Recovered from Rates**	**$3,865,011**	**$780,000**	**$4,645,011**

9.2. Operating and Capital Cost Allocation

In order to allocate the City's revenue requirements to cost causation components, Raftelis functionalized expenses.

Table 9-2 shows the functional allocations of O&M expenses and assets. Table 9-3 and Table 9-4 use these percentages by multiplying the total shown in each row, which are the functionalized values, by the corresponding percentage to allocate the costs. Table 9-3 and Table 9-4 show the percentage allocation of costs.

Table 9-2: Wastewater Percentage Allocations

Function	Collection	Customer Service and Fixed Capacity Related Costs	General	Total
Collection	100%			100%
Customer Service		100%		100%
General & Admin			100%	100%

Table 9-3: Wastewater O&M Cost Allocation

O&M Expenses	Collection	Customer Service and Fixed Capacity Related Costs	General	Total
Collection	$4,126,624	$0	$0	$4,126,624
Customer Service	$0	$374,738	$0	$374,738
General & Admin	$0	$0	$572,013	$572,013
Total	**$4,126,624**	**$374,738**	**$572,013**	**$5,073,376**
Operating Allocation %	**81%**	**7%**	**11%**	

Table 9-4: Wastewater Capital Asset Allocation

Asset Allocation	Collection	Customer Service and Fixed Capacity Related Costs	General	Total
Collection	$31,578,205	$0	$0	$31,578,205
Customer Service	$0	$0	$0	$0
General & Admin	$0	$0	$791,568	$791,568
Total	**$31,578,205**	**$0**	**$791,568**	**$32,369,773**
Asset Allocation %	**98%**	**0%**	**2%**	

9.3. Derivation of Units of Service

9.3.1. Unit Costs of Service

Raftelis calculated unit costs for each cost component by assessing the total number of EDUs. Table 9-5 shows the units of service and unit costs calculations for the City's wastewater collection system. General costs are reallocated to Collection and Customer components based on their proportional percentage of the total cost of service. After the reallocation of general costs, the adjusted cost of service is divided by the units of service (EDUs). Since the City charges wastewater accounts on an EDU basis, the net revenue requirement for each cost component is divided by the total number of EDUs to derive the unit cost. The proposed charges per EDU are shown in the last two rows of the table for the annual and monthly costs, respectively. The sum of Columns B, C, and D equals the total cost per EDU shown in Column A. It is important to note that this value is rounded up to the nearest cent in future tables.

Table 9-5: Units of Service, FY 2027

Customer Class	(A) 2027	(B) Collection	(C) Customer	(D) Revenue Offsets	(E) General	(F) Total
Operating Cost	$4,403,389	$3,581,666	$325,251	$0	$496,473	$4,403,389
Capital Cost	$780,000	$760,926	$0	$0	$19,074	$780,000
Revenue Offsets	$0	$0	$0	-$538,378	$0	-$538,378
Total Cost of Service	**$5,183,389**	**$4,342,591**	**$325,251**	**$0**	**$515,547**	**$4,645,011**
Percent excluding General Costs		93%	7%	0%		
Allocation of General Costs	$0	$479,624	$35,923	$0	$0	$0
Total Cost of Service	**$4,645,011**	**$4,822,216**	**$361,174**	**-$538,378**	**$0**	**$4,645,011**
Units of Service (EDUs)	32,321	32,321	32,321	32,321		
Unit Cost/year	**$143.72**	**$149.20**	**$11.17**	**-$16.66**		
Unit Cost/Month	**$11.98**	**$12.43**	**$0.93**	**-$1.39**		

10. Wastewater Rates

10.1. Wastewater Test Year Rate Derivation

Raftelis calculated updated wastewater rates for FY 2027. The revenue requirement is divided by the number of EDUs to determine the monthly charge per EDU as shown above in Table 9-5. The total rate is shown in the last line of the column labeled FY 2027. This value is the sum of all rate components.

Currently, multi-family residential accounts are charged 70% of the EDU rate. Raftelis proposes to change this percentage to 89%, based on a dwelling density analysis, which shows the household density of a multi-family residence is roughly 89% that of a single-family residence.

Table 10-1 shows the test year, FY 2027 service charges effective July 1, 2026, for wastewater customers on a per-EDU basis.

Table 10-1: Sewer Services Charge ($/EDU)

EDU Charges	Jul-26
City Local Sewer Services Component ($/EDU)	$11.98
IEUA Sewer Treatment Component (Pass-Through Rate	$29.45

10.2. Proposed Five-Year Wastewater Rate Schedule

Table 10-2 shows the proposed 5-year wastewater rate schedule. July 2026 rates reflect the cost-of-service. Rates for future years equal the FY 2027 rates multiplied by the revenue adjustment for the given year. Rates are rounded up to the nearest cent. San Antonio Heights customers are charged a rate 1.5 times the EDU rate based on an agreement between the City and San Antonio Heights. Wastewater customers also pay a monthly fee to IEUA for treatment. This rate is passed through each year, based on the cost to treat the wastewater. The IEUA FY 2027 charge is effective July 1, 2026. Any increases in IEUA treatment costs will be passed through to customers in July each year as shown below.

Table 10-2: Proposed 5-Year Wastewater Rate Schedule

$/EDU Wastewater Charges	Current	FY 2027	FY 2027	FY 2028	FY 2029	FY 2030
Effective Date		July 1, 2026	January 1, 2027	January 1, 2028	January 1, 2029	January 1, 2030
City Local Sewer Services Charges ($/EDU)	$11.29	$11.98	$12.46	$12.96	$13.48	$14.02
Effective Date		July 1, 2026	January 1, 2027	July 1, 2027	July 1, 2028	July 1, 2029
IEUA Sewer Treatment Component (Pass-Through Rate)*	$25.78	$29.45	$29.45	Pass-through	Pass-through	Pass-through

** The City currently collects $25.78 per EDU for IEUA wastewater treatment services, although IEUA's adopted rate is $27.02 per EDU.*

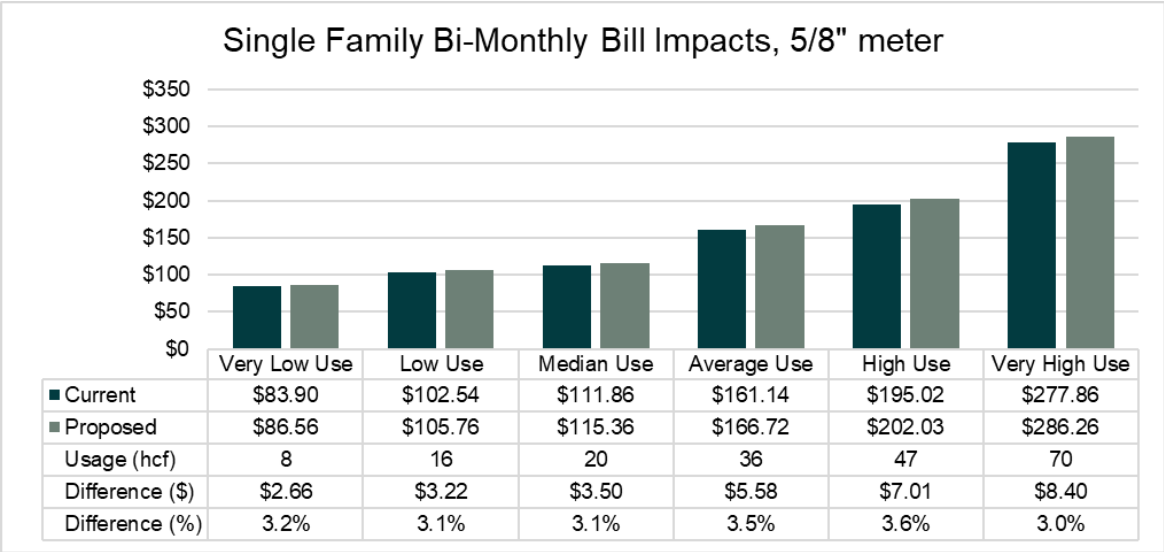
11. Customer Impact Analysis & Neighboring Agency Comparison

11.1. Customer Bill Impacts

11.1.1. Water

Figure 11-1: shows a comparison of a 5/8" meter single-family residential bill at different usage levels for proposed FY 2026 rates, and for current rates.

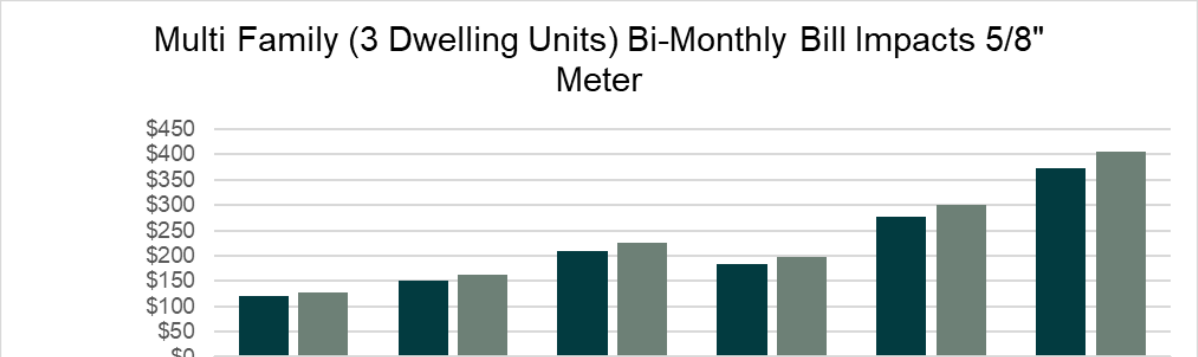
Figure 11-1: Single-Family Residential Bi-Monthly Bill Impact



	Very Low Use	Low Use	Median Use	Average Use	High Use	Very High Use
Current	$83.90	$102.54	$111.86	$161.14	$195.02	$277.86
Proposed	$86.56	$105.76	$115.36	$166.72	$202.03	$286.26
Usage (hcf)	8	16	20	36	47	70
Difference ($)	$2.66	$3.22	$3.50	$5.58	$7.01	$8.40
Difference (%)	3.2%	3.1%	3.1%	3.5%	3.6%	3.0%

Figure 11-2 shows a comparison of a 5/8" meter with 3 dwelling units, multi-family residential bill at different usage levels for proposed FY 2026, and for current rates.

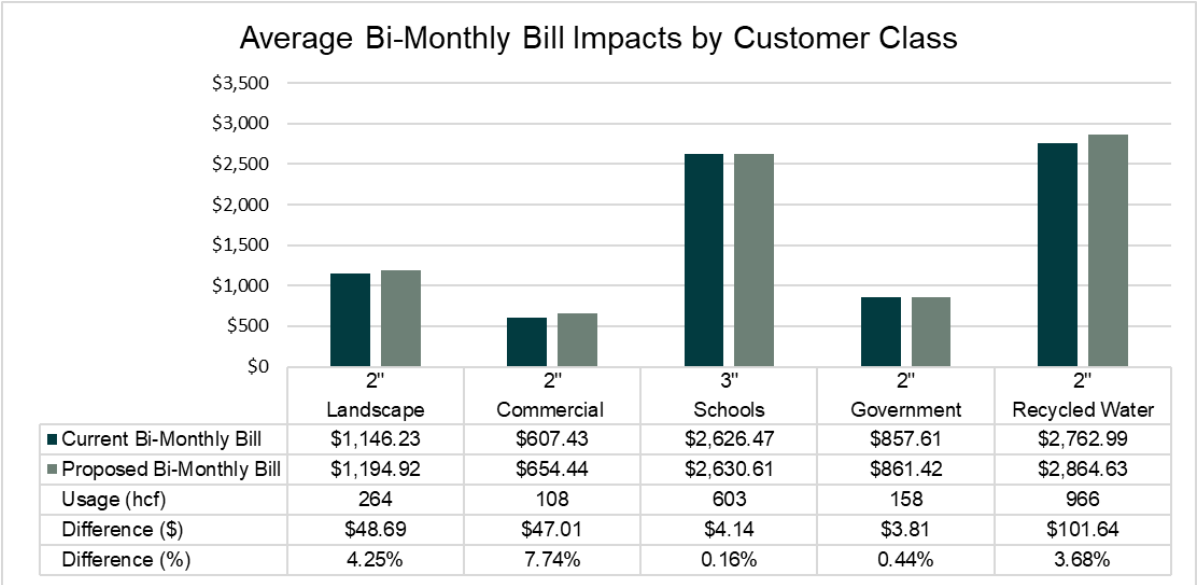
Figure 11-2: Multi-Family Residential Bi-Monthly Bill Impact



	Very Low Use	Low Use	Median Use	Average Use	High Use	Very High Use
Current	$119.52	$151.09	$208.49	$182.66	$277.37	$372.08
Proposed	$127.02	$161.89	$225.29	$196.76	$301.37	$405.98
Usage (hcf)	18	29	49	40	73	106
Difference ($)	$7.50	$10.80	$16.80	$14.10	$24.00	$33.90
Difference (%)	6.3%	7.1%	8.1%	7.7%	8.7%	9.1%

Figure 11-3 shows a comparison of average non-residential customer bills for each customer class under the proposed FY 2026 rates and current FY 2026 rates.

Figure 11-3: Non-Residential Bi-Monthly Bill Impact

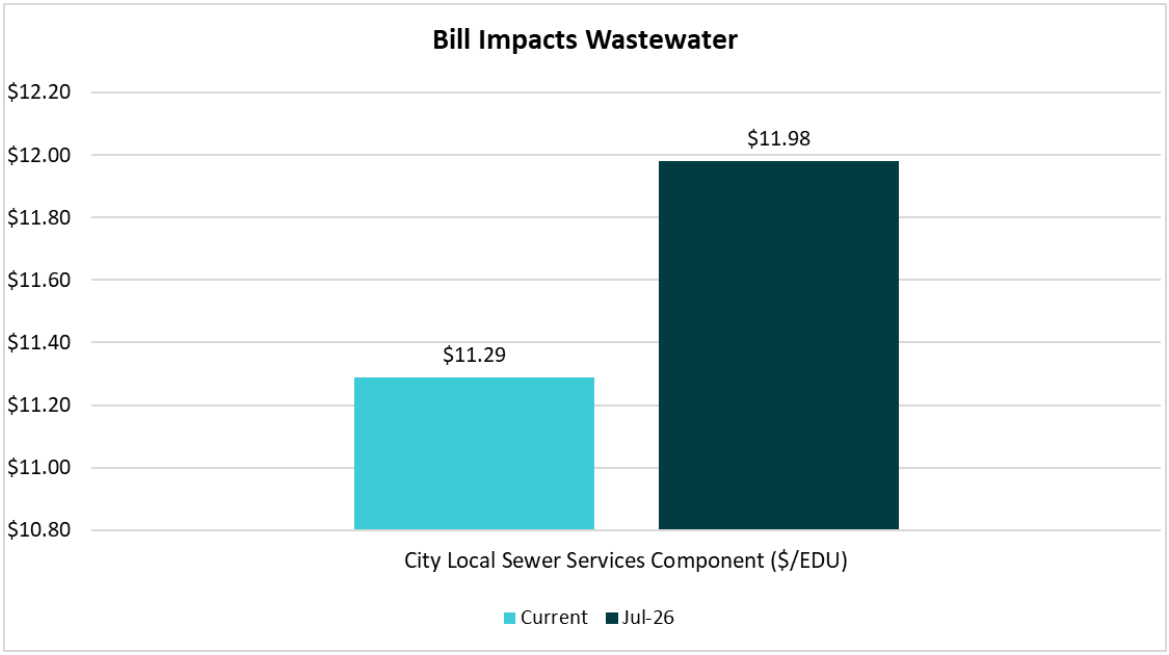


	2" Landscape	2" Commercial	3" Schools	2" Government	2" Recycled Water
Current Bi-Monthly Bill	$1,146.23	$607.43	$2,626.47	$857.61	$2,762.99
Proposed Bi-Monthly Bill	$1,194.92	$654.44	$2,630.61	$861.42	$2,864.63
Usage (hcf)	264	108	603	158	966
Difference ($)	$48.69	$47.01	$4.14	$3.81	$101.64
Difference (%)	4.25%	7.74%	0.16%	0.44%	3.68%

11.1.2. Wastewater

Figure 11-4: shows the monthly bill impact per EDU, comparing current rates to proposed FY 2027 rates.

Figure 11-4: Wastewater Monthly EDU Charge Bill Impact

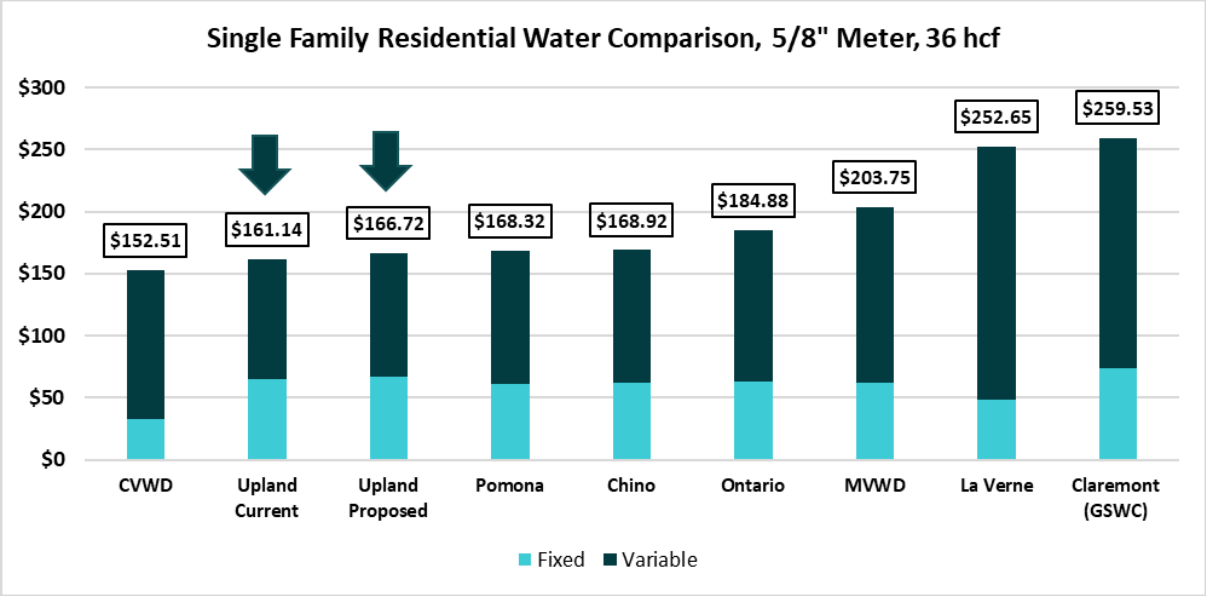


11.2. Neighboring Agency Comparison

11.2.1. Water

Figure 11-5 shows a comparison to neighboring agencies for a single-family residential bi-monthly bill. These comparisons are based on a 5/8" meter and 36 hcf of water consumption over a 2-month period.

Figure 11-5: Neighboring Water Comparison, Single-Family



11.2.2. Wastewater

Figure 11-6 shows a comparison to neighboring wastewater agencies for a single-family residential monthly bill. These comparisons are for one EDU or assume 18 hcf of wastewater discharge for a single-family residence.

Figure 11-6: Neighboring Wastewater Comparison, Single-Family