

WATER RATE STUDY

BLACK & VEATCH PROJECT NO. 419073

PREPARED FOR



City of Tracy, CA

8 MAY 2026



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ERRATA AND CORRECTION NOTICE

Water Rate Study – April 2026 (Revised May 2026)

1. Purpose

This Errata and Correction Notice identifies and corrects a clerical error in the rate tables presented in the April 2026 Water Rate Study and ensures that all rate schedules accurately reflect the proposed financial plan and cost-of-service analysis.

2. Description of Error

After the Water Rate Study and Proposition 218 Notice were posted on the City's website, the City identified a clerical error in the published rate tables affecting Fiscal Years 2029-2031 (FY 2029-FY2031).

Specifically:

The fixed (meter) charges and volumetric (consumption) rates for FY 2029 were inadvertently escalated by approximately 32% relative to FY 2028.

This was incorrect because the proposed financial plan provides for a 5% increase in FY 2029.

This discrepancy resulted from a hard-coded table input error and is limited to the published rate tables.

3. Correction and Recalculation of Rate Schedule

The rate tables have been corrected to reflect:

FY 2029: 5% increase from FY 2028

FY 2030: recalculated as 5% increase from corrected FY 2029 values

FY 2031: recalculated as 5% increase from corrected FY 2030 values

Accordingly, the corrected rate trajectory for the later years is based on a consistent compounding of the adopted 5% annual adjustments beginning in FY 2029.

4. Confirmation of Underlying Analysis

The financial model, revenue requirements, and cost-of-service analysis remain correct and unchanged.

The intended rate revenue adjustment schedule remains:

32% in FY 2027

32% in FY 2028

5% in FY 2029

5% in FY 2030

5% in FY 2031

5. Corrected Rate Tables (FY 2029–FY 2031)

The corrected rate tables below supersede all previously published tables for FY 2029 through FY 2031. This includes Table 1-1, Table 5-2 and Table 5-3.

A. Fixed Monthly Charges

METER SIZE	EXISTING FY 2026	PROPOSED RATES				
		FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
	\$/MONTH	\$/MONTH	\$/MONTH	\$/MONTH	\$/MONTH	\$/MONTH
5/8"	18.50	22.11	29.18	30.64	32.17	33.78
3/4"	18.50	22.11	29.18	30.64	32.17	33.78
1"	30.90	30.13	39.77	41.76	43.85	46.04
1-1/2"	61.61	50.16	66.21	69.52	73.00	76.65
2"	98.61	74.20	97.94	102.84	107.98	113.38
3"	185.00	138.32	182.58	191.71	201.30	211.37
4"	308.40	210.45	277.79	291.68	306.26	321.57
6"	616.61	410.80	542.26	569.37	597.84	627.73
8"	986.61	651.23	859.62	902.60	947.73	995.12
10"	1,418.00	971.80	1,282.78	1,346.92	1,414.27	1,484.98

B. Volumetric Rate (Uniform Volume Charge)

CUSTOMER TYPE	EXISTING FY 2026	PROPOSED RATES				
		FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
	\$/CCF	\$/CCF	\$/CCF	\$/CCF	\$/CCF	\$/CCF
Volume Charges (\$/CCF)						
All Customers	N/A	2.95	3.89	4.08	4.28	4.49

CCF = Hundred cubic feet

FY 2027 and FY 2028: No Change

FY 2029: \$4.08 per CCF (corrected)

FY 2030: \$4.28 per CCF (recalculated)

FY 2031: \$4.49 per CCF (recalculated)

6. Applicability

This Errata section:

Supersedes all rate tables for FY 2029, FY 2030, and FY 2031 presented in the original report.

Establishes the corrected compounding basis for all subsequent years.

Is incorporated into the official administrative record supporting rate adoption.

All other sections of the Water Rate Study remain unchanged.

Table 5-4 has been renumbered to Table 6-1 following the numbering convention of the document and has been expanded to include a comparison of Proposed Rates to Existing Seasonal Summer Rates.

Other miscellaneous errors in formatting, spelling and abbreviation definitions have been updated, without affecting calculation or results.

1.0 Executive Summary

The City of Tracy (City) commissioned Black & Veatch Corporation (Black & Veatch) to perform a Water Rate Study (Study) for its Water Utility¹. The Study included the development of a five-year financial plan, a cost-of-service analysis, and the design of rates. The specific objectives of the Study were to:

- Assess whether projected revenues, based on current rates, will be sufficient to cover estimated costs and expenditures during the Study Period from July 1, 2026, to June 30, 2031. This timeframe corresponds to Fiscal Years (FYs) 2027 through 2031.
- Develop a five-year financial plan for the Water Utility that addresses ongoing operations and planned capital improvements. The plan should align with the City's near-term capital improvement program (CIP), staffing plan, and budgeting cycle.
- Calculate the cost of providing water service to different types of customers, considering each customer class's specific service needs.
- Design a rate schedule that generates enough revenue to meet financial requirements while fairly reflecting the cost of service for customers and legal considerations such as Proposition 218 and other applicable judicial decisions.

1.1 Financial Plan

The Utilities Division of the City's Public Works Department runs and maintains the municipal water system. The Water Utility is managed as a self-sustaining enterprise under the Water Fund, which is made up of two parts: Fund 511 covers operations and maintenance (O&M) costs, while Fund 513 is used for capital improvement projects (CIP). All income and expenses related to providing water service—including water supply, operations and maintenance, debt service, and capital improvements—are included in these funds. Because it is an enterprise fund, the Water Utility relies on the money collected from users' rates, not the City's General Fund, to pay for delivering safe and reliable drinking water and meeting regulatory, infrastructure, and long-term financial requirements.

The Water Utility's financial plan includes all sources of income, expenses for day-to-day operations, the cost of supplying water, money owed for loans, spending on upgrades and repairs, and other costs. The plan's revenue estimates are based on the

¹ The City of Tracy provides water, recycled water, and wastewater services to its rate payers. Recycled water activities, including operations, maintenance, and capital projects are not funded through the Water Fund, and hence, are not included as part of this Study.

City's past records and projections for how many customers and how much water they will use in the future.

Black & Veatch collaborated with the City to create a proposed financial plan covering five years starting July 1, 2026 (FY 2027) and concluding on June 30, 2031 (FY 2031). This financial plan is designed to support the Water Utility's ongoing operating and capital expenses, as well as debt obligations, while striving to minimize impacts on customers. Highlights of the plan are as follows:

- **Operation and Maintenance Expenses:** The Water Utility anticipates O&M expenses to increase from \$30.1M in FY 2027 to \$38.2M in FY 2031. Water costs include purchased water, water production, water treatment, conveyance, and billing activities needed to maintain the system.
- **Debt Service Payments:** The Water Utility currently pays debt service for a State Revolving Fund (SRF) loan and expects to take additional SRF loans in FY 2027 to fund its CIP. Additionally, the City plans to borrow \$1.0 million from the General Fund at a 2% interfund rate, making interest-only payments over five years and repaying principal in full at maturity. Total debt service payments increase from \$1.28M in FY 2027 to \$1.40M in FY 2031 reflecting payments of all loan obligations.
- **Capital Improvement Projects:** The CIP reflects a prioritized listing of capital needs that require immediate attention. The Water Utility plans to execute an average of \$13.7M annually in deferred and identified capital maintenance projects from FY 2027 to FY 2031, of which \$1.9M reflects projects identified in the Citywide Water System Master Plan ² and the remainder are pressing needs that have arisen since the completion of the Master Plan. The Jones Water Treatment Plant (JJWTP) Up Flow Clarifier Rehabilitation project (treatment) is a major component of the Capital Improvement Program, along with, transmission and distribution (T&D) pipeline renovations.
- **Reserves:** The financial plan incorporates an Enterprise Capital Replenishment Reserve (ECRR) at levels equivalent to one year of depreciation expense and a Rate Stabilization Reserve, initially funded by a \$1 million interfund loan from the General Fund, to be repaid by FY 2031. The City plans to update its reserve policy targets as follows:
 - Operating Reserve equal to 120 days of O&M
 - Enterprise Capital Replenishment Reserve equal to 2% of Net Capital Assets³

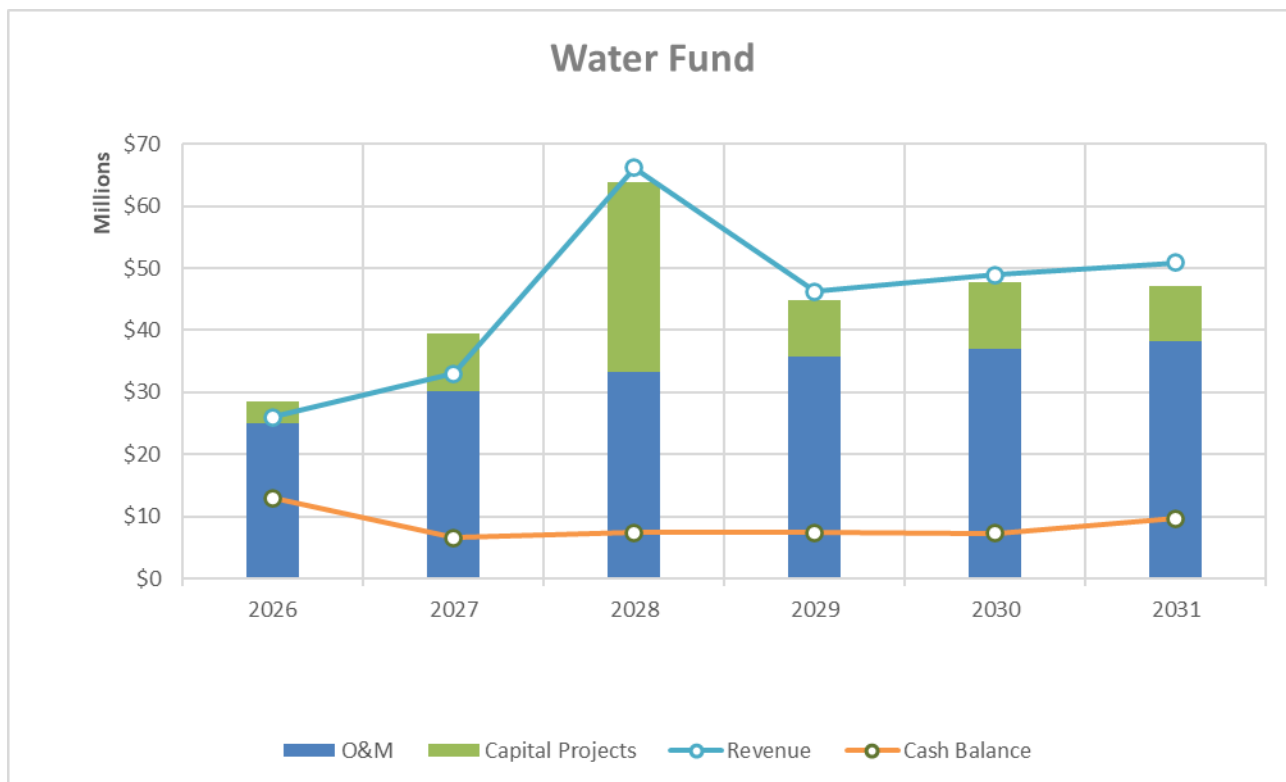
² City of Tracy. (2023). Citywide Water System Master Plan Update. Prepared by West Yost & Associates; adopted April 16, 2024. City of Tracy, California

³ 2% of Net Capital Assets is as reported in the Annual Comprehensive Financial Report.

- Rate Stabilization Reserve equal to 5% of the annual budget

The Water Utility is proposing revenue adjustments to allow the enterprise to meet operating and capital needs and reserve targets, as shown in Figure 1-1.

Figure 1-1 Water Utility Financial Plan



The proposed revenue adjustments required for the study period are as follows:

FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
32%	32%	5%	5%	5%

1.2 Cost-of-Service Analysis

The cost-of-service analysis typically allocates the costs to the various customer classes of service based on a defined methodology that helps establish the price nexus for providing service. The methodology used in the Study is specific to water operations. The following is a brief description of the methodology.

The City is adopting a uniform volumetric rate design and due to a lack of customer-level time-of-use data, the Study only uses the Base-Extra capacity Method to evaluate cost causation (identifying what drives costs) and proportionality (ensuring costs are fairly distributed) across different types of customers. However, the Study does not assign separate costs to maximum day or maximum hour components for rate design. Instead, volumetric costs are pooled and recovered through a single uniform charge per

hundred cubic feet (CCF), which is equal to 100 cubic feet or 1 unit, for all customers in all customer classes. The Study allocates costs into functional categories (customer, meter, volume, and public fire protection) consistent with industry practice.

1.3 Rate Design

The Right to Vote on Taxes Act, also known as Proposition 218, was passed by California voters in 1996 and added Article XIID to the California Constitution. This article provides the regulatory framework that guides and informs the rate-setting process. This cost-of-service study provides the cost justifications and nexus analysis to demonstrate compliance with Proposition 218⁴.

To minimize impacts, retain simplicity, and ensure the reasonable stability of revenue, Black & Veatch recommends the following rate structure.

- **Monthly Fixed Charge:** The Water Utility should consider retaining the monthly fixed charge based on meter sizes for all customer types, which recognizes that a portion of the services offered by the utility are fixed and not a result of water demand.
- **Consumption Charge:** The Water Utility should consider moving from its current tiered volume structure for residential customers to a uniform consumption rate for all customer types. Additionally, Black & Veatch recommends removing the Winter/Summer differentials.

1.4 Proposed Water Rates

The proposed rate structure retains the monthly fixed charge based on meter sizes for all customer types. In response to recent California appellate court decisions, the proposed rate structure eliminates tiered residential volume rate schedules and unifies all volume charges to a single Uniform Volume Charge. Table 1-1 summarizes the Water Utility's recommended five-year rate schedules for water services. If adopted, rates will be effective July 1st for each year starting in FY 2027 (July 1, 2026) through FY 2031 (June 30, 2031).

⁴ Black & Veatch is not a legal firm and interpretations of any legal requirements under Proposition 218 or other legislation should be reviewed by legal counsel.

Table 1-1 Proposed Five-Year Water Rate Schedule

EFFECTIVE DATE	FY 2027 (07/01/2026)	FY 2028 (07/01/2027)	FY 2029 (07/01/2028)	FY 2030 (07/01/2029)	FY 2031 (07/01/2030)
Service Charge (\$/month)					
Meter Size					
5/8"	22.11	29.18	30.64	32.17	33.78
3/4"	22.11	29.18	30.64	32.17	33.78
1"	30.13	39.77	41.76	43.85	46.04
1 1/2"	50.16	66.21	69.52	73.00	76.65
2"	74.20	97.94	102.84	107.98	113.38
3"	138.32	182.58	191.71	201.30	211.37
4"	210.45	277.79	291.68	306.26	321.57
6"	410.80	542.26	569.37	597.84	627.73
8"	651.23	859.62	902.60	947.73	995.12
10"	971.80	1,282.78	1,346.92	1,414.27	1,484.98
Volume Charge (\$/CCF)					
All Customers	\$2.95	\$3.89	\$4.08	\$4.28	\$4.49

Note: The fiscal year runs from July 1st to June 30th. For example, FY 2027 covers the period from July 1, 2026, through June 30, 2027.

CCF = hundred cubic feet

1.5 Summary

The financial plan described herein reflects a balanced approach by the City to operate the Water Utility in a sustainable manner, while providing high quality services and minimizing customer bill impacts.

Increases in both Capital and Operating costs result in a required increase in revenue starting in FY 2027. The adjustments affect different customer classes in different ways. The key drivers for revenue and rate adjustments are:

- Address backlog of O&M needs and necessary capital improvements.
- Maintain a Debt Service coverage ratio of at least 1.2 times during the study period.
- Maintain Reserves as required by City policy.
- Address required Cost of Service rates allocation and distribution.
- Address Proposition 218 rate structure requirements.

Detailed explanations for these calculations are provided in the remainder of this report.

2.0 Introduction

2.1 Purpose

The purpose of this report is (1) to project the future revenues of the Water Utility under existing rates and charges, project operating expenses and capital financing revenue requirements, and to examine the adequacy of projected revenues to meet these revenue requirements through FY 2031; (2) to allocate these revenue requirements, or costs of service, for a representative test year in accordance with the respective service requirements that each class places on the systems; and (3) to develop a suitable schedule of water rates that will produce revenues adequate to meet the financial needs of the utility.

2.2 Water System

The Water Utility provides water services to over 28,000 residential and non-residential customers, with a population of about 96,000. The City obtains water from multiple sources:

- Untreated surface water from the Delta Mendota Canal (Central Valley Project) (treated at the City's John Jones Water Treatment Plant (JJWTP))
- Untreated surface water from Byron Bethany Irrigation District (BBID) pre-1914 rights (treated at the City's JJWTP)
- Treated surface water from the Stanislaus River via the South County Water Supply Project (SCWSP) (treated and delivered to the City by South San Joaquin Irrigation District [SSJID])
- Groundwater pumped from eight groundwater wells located within the City
- One Aquifer Storage Recovery (ASR) within the City

The JJWTP has treatment capacity for 30 million gallons per day (mgd). With the additional water sources fully allocated to the City, the system can provide up to a peak of 67 mgd. The City's existing potable water system includes 575 miles of transmission and distribution mains, eight groundwater wells, clearwells, storage tanks, booster pump stations, and pressure regulating stations. The Recycled Water program is not funded through the Water Fund.

2.3 Water Fund

The Water Utility is operated as a self-supporting enterprise under the Water Fund. Fund 511 (Water Operations) is funded primarily by user rates and covers O&M and routine capital maintenance. The Water Capital Fund (Fund 513) finances major Water Utility capital improvements. Growth-related CIP projects are identified and tracked separately from rate-funded projects. All growth-related projects are paid for through capacity and

impact fees, consistent with the City’s approach to having growth pay for growth. Consequently, only the rate-funded portion of CIP is included in this Study’s revenue requirement. As an enterprise fund, the Water Utility is financially independent from the General Fund and relies on user rates to fully recover the cost of providing safe, reliable drinking water in compliance with regulatory, infrastructure, and long-term financial requirements.

2.4 Methodology

The rate-setting methodology employed by Black & Veatch is consistent with industry guidelines established by AWWA’s *Principles of Water Rates, Fees, and Charges, M1 Manual, 7th Edition (M1 Manual)*. The manual is nationally recognized and provides recommendations and generally accepted practices in the water industry. The M1 Manual is used by rate practitioners as guidance on rate-making practices that can be used to address the unique circumstances of the communities served. An overview of the methodology is outlined below.

2.4.1 Financial Plan

Financial planning compares the projected revenues of the utility under existing conditions to its projected operating expenses and capital expenditures. This step tests the adequacy of the current rates to recover the utility’s forecasted costs. If shortfalls occur, revenue increases are recommended until the utility is financially stable.



Financial Planning
Establish operating and capital financing plans that fully fund activities

Cost of Service Analysis
Perform a cost-of-service analysis to determine if cost allocations are fair and equitable among customer classes



2.4.2 Cost-of-Service Analysis

The cost-of-service analysis builds a link between the utility’s cost of service and the proposed rates for each customer type. This process takes individual budget cost items and allocates them based on their function. Organizing the budget in terms of end function allows the creation of a nexus between the budget cost activity and the rate.

2.4.3 Rate Design

Rate design involves developing a rate structure that equitably and proportionately recovers costs from the customers. The rate structure should reflect a customer group's demand profile and be resilient and flexible enough to handle changing costs (i.e., operating and/or capital) and demand scenarios (i.e., customers change their demand on the system by contributing less or more flow). Rate equity is inherently built upon each customer's relative use of the system. By designing different rate components, the utility can balance affordability and equity.



Rate Design
Review the existing rate structure and design proposed rates that provide adequate revenues

Rate Adoption
Establish the basis for the proposed rates to be adopted in compliance with Proposition 218

Customer class analysis is consistent with the M1 Manual, which recommends evaluating cost causation and proportionality across different types of customers even when the utility applies a uniform volumetric rate. Proposition 218 requires that the total revenues from property-related fees not exceed the proportional cost of providing service to each parcel. Maintaining customer classes for analysis, while applying a uniform volumetric rate for rate design, satisfies both the M1 Manual's cost-causation principles and Proposition 218's proportionality requirements.

2.4.4 Rate Adoption

In California, public utilities must meet procedural requirements for adopting new or increased rates for property-related fees under Proposition 218. Proposition 218 states that the utility must hold a public hearing to consider the proposed rates and provide written notice to all customers at least 45 days before the hearing. Any property owner or customer of record directly liable to the public agency for payment of the property-related fees, under the applicable rate schedule, may submit a written protest to the new or increased rates until the close of the public hearing. While the City will accept protests from both property owners and customers, only one protest per parcel will be counted. The City Council may not adopt the proposed new or increased rates if written protests are submitted by a majority (more than 50 percent (50% + 1)) of the affected parcels.

3.0 Revenue and Revenue Requirements

To meet the costs associated with providing water services to its customers, the Water Utility derives revenue from a variety of sources, including water user charges (rates), backflow prevention fees, connection fees, interest earned from the investment of available funds, and other miscellaneous revenues. The Water Utility is constantly looking for other sources of revenue, such as grants and state revolving loans, to fund infrastructure investments and reduce the cost impact of these needed improvements on ratepayers.

Black & Veatch has projected the future revenue generated in the Study by analyzing historical and future system growth in terms of the number of accounts and billed water consumption. This section also projects the expenses, or revenue requirements, necessary to operate and maintain the system, invest in capital maintenance improvements, make debt service payments, and cover other water system expenses.

3.1 Customer Data

3.1.1 Number of Customers

The City provides water services to over 28,000 residential and non-residential customers. All customers connected to the public water system do so through metered connections. The City bills the customer based on the size of the metered connection and their consumption each month. The analysis conducted herein includes a review of historical accounts for all customer classes and the anticipated future growth within the City.

The City has seen a modest growth rate of 1.15% in population between 2020 and 2025 based on the State of California Department of Finance, E-5 Population and Housing Estimates and historical data. As customers typically move in and out of the City, the number of annual bills varies, and the number of accounts is estimated based on the total number of bills. Consistent with the City's Economic Development forecast, the analysis herein projects the total number of accounts to grow at about 1.15% per year for the entire Study period.

Table 3-1 summarizes the projected number of bills and accounts for the Water Utility.

Table 3-1 Projected Number of Annual Bills and Accounts

DESCRIPTION	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
	(Bills)	(Bills)	(Bills)	(Bills)	(Bills)	(Bills)
Residential	324,143	327,870	331,640	335,455	339,313	343,216
Multifamily	8,279	8,374	8,471	8,570	8,669	8,770
Commercial	10,830	10,954	11,078	11,206	11,334	11,464
Industrial	38	38	38	38	38	38
Irrigation	6,470	6,545	6,620	6,695	6,772	6,850
Construction	836	836	836	836	836	836
Total Bills	350,596	354,617	358,684	362,800	366,963	371,173
# Accounts	29,216	29,551	29,890	30,233	30,580	30,931

3.1.2 Billed Water Consumption

Table 3-2 shows the projected billed water consumption for the Study period. In determining the projected water consumption, Black & Veatch analyzed historical and recent water consumption patterns and demands. The July 2021 Urban Water Management Plan (UWMP) and the associated Water Shortage Contingency Plan (WSCP) were used as reference documents to define drought stages and shortage response actions, but the UWMP's long-term conservation targets were not directly applied to the baseline demand forecast used in this Study. Instead, the Study assumes that total billed consumption will generally increase as explained below. As of this report, the City is in the process of updating its Urban Water Management Plan.

In 2020, California entered a declared drought. On August 5, 2021, following the inclusion of San Joaquin County in California's Drought State of Emergency Proclamation, the City of Tracy declared a Drought Emergency and authorized implementation of Stage 3 water restrictions. These restrictions remain in place as of this report.

Many factors contribute to the City's annual consumption, including weather patterns and snow pack conditions. For this study, the increase in total water consumed reflects the growth in number of accounts (approximately 1.15%) multiplied by the average water use per account, as shown in Table 3-2. The City currently bills water consumption in hundred cubic feet (CCF).

Table 3-2 Projected Billed Water Consumption

DESCRIPTION	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
	(MCF)	(MCF)	(MCF)	(MCF)	(MCF)	(MCF)
Residential (Winter)	1,727.01	1,746.87	1,766.96	1,787.28	1,807.83	1,828.62
Residential (Summer)	2,592.88	2,622.70	2,652.86	2,683.37	2,714.23	2,745.44
Multifamily	515.51	521.44	527.44	533.50	539.64	545.84
Commercial	895.67	905.91	916.28	926.77	937.37	948.10
Industrial	496.55	496.55	496.55	496.55	496.55	496.55
Irrigation	981.47	992.76	992.76	992.76	992.76	992.76
Construction	62.20	62.91	62.91	62.91	62.91	62.91
Total Billed Usage	7,271.30	7,349.16	7,415.77	7,483.15	7,551.30	7,620.24

Note: Totals may not sum correctly due to rounding.

MCF = Million cubic feet

3.2 Revenue under Existing Rates

Water user rates serve as the Water Utility's primary revenue source. Therefore, the level of future rate revenue is important in developing a long-range financial plan. Future water rate revenues are calculated using the system growth for the number of accounts and billed water consumption multiplied by the applicable existing rates.

Table 3-3 presents the rates in effect during FY 2026 (which were approved by City Council on September 17, 2019, per Resolution 2019-189 as part of the City's 2017 Rate Study). The rates are composed of monthly fixed and consumption charges. The monthly fixed service charge is a fixed amount that increases by meter size and applies to all customer classes. The existing consumption charge is structured as an increasing block tiered rate for residential customers, with different block volume allowances during Summer and Winter. The remaining customer classes have a uniform rate per CCF year-round.

Table 3-3 Existing FY 2026 Water Rates

WATER RATES		EFFECTIVE OCTOBER 2019	
Service Charge (\$/month)			
Meter Size		Meter Size	
5/8"	\$18.50	3"	\$185.00
3/4"	\$18.50	4"	\$308.40
1"	\$30.90	6"	\$616.61
1 1/2"	\$61.61	8"	\$986.61
2"	\$98.61	10"	\$1,418.00
Volume Charge (\$/CCF)			
Residential	Winter	Summer	
	0-12 CCF	0-18 CCF	\$1.50
	13-19 CCF	19-29 CCF	\$2.00
	20-40 CCF	30-50 CCF	\$2.17
	41+ CCF	50+ CCF	\$2.33
Residential Multifamily			\$2.01
Commercial			\$2.18
High User			\$1.59
Irrigation			\$2.40
Construction			\$2.18
CCF = hundred cubic feet			

For the period under consideration for this study, the revenues under existing rates reflect the FY 2026 rate schedule, and are calculated as follows for each service:

- Monthly Fixed Service Charge = # Bills by Meter Size (Table 3-1) x Current Rate (Table 3-3)
- Commodity Charge = Consumption (Table 3-2) x Current Rate (Table 3-3)

Table 3-4 summarizes projected water rate revenue under existing rates. The projected Water Utility revenues under existing rates increase due to the growth in customer accounts from \$24.0M in FY 2026 to \$25.3M in FY 2031.

Table 3-4 Projected Water Revenue under Existing Rates

DESCRIPTION	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
	(\$000s)	(\$000s)	(\$000s)	(\$000s)	(\$000s)	(\$000s)
Residential	15,761.7	15,942.9	16,126.1	16,311.4	16,498.9	16,688.6
Multifamily	1,515.7	1,533.2	1,551.2	1,569.3	1,587.6	1,606.0
Commercial	2,658.6	2,688.4	2,718.5	2,749.2	2,780.3	2,811.7
Industrial	809.3	809.3	809.3	809.3	809.3	809.3
Irrigation	2,990.9	3,025.3	3,032.7	3,040.2	3,047.7	3,055.4
Construction	290.3	291.8	291.8	291.8	291.8	291.8
Total	\$24,026.5	\$24,290.9	\$24,529.6	\$24,771.2	\$25,015.7	\$25,262.8

Note: Totals may not sum correctly due to rounding.

3.3 Other Revenue

Other sources of operating revenue include service charges, interest earned from the investment of available funds, and miscellaneous revenues. In total, other operating revenues represent on average 9% of the Water Utility’s total revenue. The City anticipates these revenues will remain relatively constant for the Study period.

3.4 Operating and Maintenance Expenses

Concurrent to this study, the City carried out a staffing gap analysis study to assess staffing gaps and gradually bring utility staffing levels in line with the requirements of the water system and industry best practices.

The City of Tracy’s water utility is working to overcome years of understaffing in compliance, production and underground programs and deferred preventive maintenance. Interviews with City staff and a review of O&M activities highlighted the reactive nature of work being performed and the growing backlog of maintenance needs.

The 2024 AWWA Utility Benchmarking report provides nationally used “Staffing Levels” which shows why this change is needed. For a community of roughly 100,000 people and an average-day water demand near 16 million gallons per day, comparable utilities typically staff in the mid-60s full-time equivalent (FTE) positions. The City entered FYs 2024 and 2025 with staffing in the mid-30s (34.6 FTEs), barely half the AWWA median. Independent staffing surveys and interviews have confirmed that staffing shortages have resulted in significant backlogs and unmet operational needs. These include overdue valve exercising and unidirectional flushing (UDF), hydrant inspections and

repairs, main break response and leak detection, a growing meter replacement and testing backlog that affects accurate meter reads, limits instrumentation and electrical (I/E), and programmable logic controller (PLC) coverage at wells and the treatment plant. These gaps have forced crews to work reactively, increasing the likelihood of service disruptions, slower repairs, and elevated compliance risks.

To address this, as summarized in Table 3-5, the City developed a phased staffing plan adding 29 positions over five years, organized by operational program so that each year's hires address the most urgent gaps first.

- In Year 1, the plan adds staff (5 FTEs) focused on distribution system maintenance, valve and hydrant programs, and basic regulatory compliance to begin reducing the oldest backlogged maintenance work orders.
- In Year 2, hiring (6 FTEs) expands into treatment operations, I/E, and field supervision, supporting more consistent plant monitoring and reducing equipment downtime.
- Year 3 introduces (9 FTEs) additional distribution technicians, leak detection staff, and meter technicians, which allows the City to begin fully restoring preventive maintenance cycles and actively reducing water leaks.
- In Year 4 (6 FTEs) and Year 5 (3 FTEs), the plan adds operations specialists, controls technicians, asset management support staff, and field maintenance positions, bringing the utility to roughly 64 full-time positions.

Modernizing the workforce also requires modernizing the tools they rely on. The City's plan includes implementing a Computerized Maintenance Management System (CMMS)—an asset-management software platform that schedules preventive maintenance, tracks work orders, stores equipment histories, and provides the data foundation needed for long-term capital planning. The O&M expenses also reflect the need for heavy equipment and replacement field tools such as leak-detection gear, a vacuum truck for safe excavation, a meter test bench, updated shoring equipment, and specialized shop tools necessary for reliable, timely field repairs.

On the financial side, the Water Operating Fund's O&M costs, excluding debt service, increased from about \$21.7 million in FY 2024 to about \$22.7 million in FY 2025, then rise as staffing and program work phase in: about \$24.9 million (FY 2026), about \$30.1 million (FY 2027), about \$33.3 million (FY 2028), about \$35.8 million (FY 2029), about \$37.1 million (FY 2030), and about \$38.2 million (FY 2031).

Table 3-5 Phased Staffing Plan

YEAR	FTE	COST & POSITIONS	PROGRAM AREAS	PRIMARY ACTIVITIES
1	5	(\$903,197) GIS/CMMS Support (1) Water Operations Supervisor (1) Electrician (0.5) Instrumentation Technician (0.5) Utilities Worker (UW) II – Valve & Flushing (2)	Admin, Production (Ops, I&E), Underground (Valves/Flushing)	Stand up CMMS and GIS asset registry; standardize ops/alarm response; begin valve exercising & UDF routes; restore basic electrical/instrumentation PM; smaller outage sum correctly prints and fewer discolored-water calls.
2	6	(\$1,035,492) Utility Maintenance Supervisor – Distribution (1) Senior UW – Meter Lead (1) UW II – Meter (1), Valve & Flushing (1), Testing (1) Electrician (1)	Underground (Field Supervision, Meters, Valves, Testing), Production (I&E)	Daily job planning & safety; launch meter replacement/testing cadence for revenue protection and NRW reduction; expand valve/UDF coverage; add testing for pressure/flow verification; full-time electrical coverage to reduce downtime.
3	9	(\$1,470,351) UW II – Main Repair (2), Meter (1), Testing (1), Valve & Flushing (1) PLC Programmer (1) Utilities Mechanic (UM) II (1) Senior Mechanic (1) Environmental Compliance Technician (1)	Underground (Mains, Meters, Valves, Testing), Production (Controls, Shop), Compliance	Stand up a dedicated main repair crew; scale meters/testing; sustain valve/UDF citywide; implement PLC standards to cut nuisance alarms; expand mechanical PM and in-house rebuilds; add compliance capacity (cross-connection, program reporting).
4	6	(\$969,255) PLC Programmer (1) UM II (1) UW II – Main Repair (1), Meter (1), Testing (1), Valve & Flushing (1)	Production (Controls, Shop), Underground (Mains, Meters, Valves, Testing)	Complete controls standardization and commissioning; sustain PM backlog reduction; keep break response times low; maintain steady-state meter/testing throughput; keep valves/UDF on preventive cycle.

YEAR	FTE	COST & POSITIONS	PROGRAM AREAS	PRIMARY ACTIVITIES
5	3	(\$483,239) Senior UW – Hydrants (1) UW II – Hydrants (1) Purchasing/Logistics (1)	Underground (Hydrants), Admin (Logistics)	Launch full hydrant inspection/repair program for fire-flow reliability; add logistics/warehouse support to cut job delays and rush-order premiums; lock in steady preventive cycles across field programs.
Total 5 yrs	29	(\$4,861,535)	–	Moves the City from the mid-30s to ≈63–64 O&M FTE—essentially at the AWWA median for a ~100k population / ~16 MGD system; enables a sustained shift from reactive to preventive operations.

The principal cost drivers are phased personnel growth supporting the needed programs, increases in purchased water, rising costs associated with supplies and field materials, utilities, and citywide internal services (fleet, information technology, and insurance). These investments in staffing, compliance, production and underground programs allow the City to transition from reactive work to a modern, reliable, data-driven water utility that meets industry standards and supports long-term system resilience.

The 5-year O&M proposed budget includes incremental expenses related to the addition of the 29 FTEs and additional supplies and materials that they will require during the Study Period. For example, additional crews will require vehicles and specialized trucks, repair and maintenance materials as well as computer equipment and certification training.

The City anticipates that O&M expenditures not directly related to the additional staff will escalate based on factors closely aligned with inflation for the area. Projections reflect a 3% annual increase, as an approximation based on the 10-year inflation average for the San Francisco Bay Area.

Table 3-6 summarizes the Water Utility's total projected O&M expenses for the Study period (including the hiring plan). These expenses include salaries and benefits, maintenance and operations, internal service charges, and routine annual capital expenditures.

Descriptions for the O&M categories (functional costs) show in Table 3-6 are as follows:

- **Personnel:** These costs represent salaries and benefits for water staff assigned to operate and maintain the water infrastructure system.
- **Contract Services:** These costs represent services provided by third parties including professional services, legal, and information technology (IT).
- **Purchased Water:** These costs include raw and potable water purchases from all sources including:
 - Untreated surface water from the Delta-Mendota Canal (Central Valley Project) (treated at the City's JJWTP)
 - Untreated surface water from Byron-Bethany Irrigation District pre-1914 rights (treated at the City's JJWTP)
 - Treated surface water from the Stanislaus River via the South County Water Supply Project (SCWSP) (treated and delivered to the City by the SSJID)

Directly sourced water consists of groundwater pumped from eight wells located within the City. They are projected to produce about 2,500-acre feet/year from a total consumption estimate of about 26,000-acre feet/year⁵.

- **Supplies & Equipment:** These costs represent supplies and materials, maintenance and repairs, travel & training, and general expenses.
- **Utilities:** These costs represent water, sewer, gas, power, and telephone.
- **Internal Service Charges:** These costs represent internal costs charged to the Water Utility by other City departments for support services, including customer service and billing, capital project administration, vehicle replacement, Information Technology (IT) charges, and insurance.
- **Transfers Out:** These costs represent scheduled transfers from the Water Fund to other City Funds such as costs incurred by the City on behalf of the Water Fund.
- **Other Payments:** These costs represent small capital expenditures for office equipment, fixtures, etc.

As shown in Table 3-6, the Water Utility's O&M expenses are projected to increase from \$30.1M in FY 2027 to \$38.2M in FY 2031.

Table 3-7 shows the projected additional O&M expenses related to the Staffing Plan already included in Table 3-6.

The incremental staffing costs from this plan, including fully burdened labor, tools, vehicles, training, and related support costs, are incorporated into the projections as adjustments within the O&M forecast. Materials increase as labor increase as the system becomes more proactive and can complete proactive maintenance. These staffing costs are phased in over five years, as shown in Table 3-7, and represent a key driver of the projected increase in personnel-related O&M expenses from FY 2027 through FY 2031.

⁵ City of Tracy. (2023). Citywide Water System Master Plan Update. Prepared by West Yost & Associates; adopted April 16, 2024. City of Tracy, California

Table 3-6 Water O&M Expenses

DESCRIPTION	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
	(\$000s)	(\$000s)	(\$000s)	(\$000s)	(\$000s)	(\$000s)
Personnel	7,392.0	8,640.6	11,518.2	13,025.7	13,730.0	14,286.4
Contracted Services	1,049.1	2,812.1	2,115.7	2,176.1	1,966.4	2,005.6
Purchased Water	7,100.0	8,247.8	8,577.7	8,877.9	9,233.0	9,510.0
Supplies/Equipment	1,853.3	2,655.0	3,138.7	3,599.0	3,856.1	3,914.8
Utilities	3,083.8	3,176.3	3,271.5	3,369.6	3,470.7	3,574.7
Internal Services	2,231.8	2,298.8	2,367.8	2,438.8	2,511.9	2,587.2
Capital	700.0	721.0	742.6	764.9	787.8	811.4
Transfers Out	1,524.6	1,524.6	1,524.6	1,524.6	1,524.6	1,524.6
Other Payments	10.0	10.3	10.6	10.9	11.2	11.5
Total	\$24,944.6	\$30,086.5	\$33,267.4	\$35,787.5	\$37,091.7	\$38,226.2

Note: Totals may not sum correctly due to rounding.

Table 3-7 Staffing Plan O&M Expenses

DESCRIPTION	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
	(\$000s)	(\$000s)	(\$000s)	(\$000s)	(\$000s)	(\$000s)
Personnel	0.0	1,027.0	3,676.3	4,948.6	5,410.5	5,717.4
Contracted Training	0.0	9.8	35.4	51.4	61.4	63.4
Materials	0.0	855.0	1,285.0	1,690.0	1,890.0	1,890.0
Total	\$0.0	\$1,891.8	\$4,996.7	\$6,690.0	\$7,361.9	\$7,670.8

Note: Totals may not sum correctly due to rounding.

3.5 Capital Improvement Program

The Water Utility annually develops a Capital Plan for the following budget year to identify water system needs, including assessments, inspections, maintenance, and rehabilitation and replacement (R&R) requirements. The budgeting effort includes key multi-year projects identified in the City's May 2023 Citywide Water System Master Plan in order to project financing and staffing needs. A 5-year projection was developed by the City for this Study.

In 2023, the City successfully completed its 20-year Citywide Water System Master Plan. This comprehensive document serves as the foundational strategy for ensuring the reliability and effectiveness of the City's water infrastructure over the coming decades. As detailed in Chapter 7 of the Master Plan, a series of projects were identified to address the existing deficiencies within the water system. The Master Plan recommended the immediate implementation of select projects, as well as the establishment of a renewal and replacement program.

While the Master Plan provides a comprehensive list of necessary projects and programs, it does not include a comprehensive study of the costs associated with repairing or replacing aging infrastructure. The plan does identify an additional \$211.9 million (in 2023 dollars) in projects required to support future growth. In accordance with the City's growth-pays-for-growth policy, these future growth-related costs will be funded through capacity and impact fees, not water user fees. This ensures that water user fees are reserved strictly for maintaining the existing system, not expanding it for future development.

Given the constraints on available funding for capital improvements, City staff developed a phased CIP for the study period. To align with budget realities, some CIP projects were deferred for future consideration. This phased approach allows the City to prioritize the most critical infrastructure needs while remaining fiscally responsible.

Table 3-8 summarizes the CIP for FY 2027 through FY 2031. The Water Utility is responsible for supplying, treating, and conveying water to its customers when and where it is needed. To support the levels of service that customers expect, capital improvements, upgrades, and Renewal and Replacement are needed. The CIP identifies both necessary projects, the estimated cost, and timing of such activities. Among the major activities included in the CIP is the JJWTP Up Flow Clarifier Rehabilitation project (treatment), along with transmission and distribution pipeline replacements.

The five-year CIP totals approximately \$68.5 million, averaging \$13.7 million per year. Of this total, approximately \$30 million represents the subset of CIP projects planned during the FY 2027–FY 2031 rate study period that are allocated to treatment and pipeline rehabilitation efforts. Under this plan, with the phased addition of FTEs over 5 years, the City will be able to complete many deferred maintenance and capital projects. The CIP reflects this as seen in the increases from FY26 to FY27 in the areas of machinery, equipment, and water lines. In prior years, the City could not complete sufficient CIP due to constraints in staffing and funding and now intends to remedy that deficit.

The City examines the water infrastructure system on an ongoing basis; therefore, the CIP might change based on the future needs.

Table 3-8 Water Capital Improvement Projects

DESCRIPTION	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
	(\$000s)	(\$000s)	(\$000s)	(\$000s)	(\$000s)	(\$000s)
Pumping	0.0	0.0	0.0	0.0	119.4	1,106.9
Building Construction	0.0	1,420.5	1,181.8	0.0	477.6	1,106.9
Machinery & Equipment	265.2	1,178.6	1,547.0	1,376.6	2,415.6	922.4
Planning/Design	0.0	0.0	225.1	0.0	0.0	369.0
Reservoirs	283.4	729.6	0.0	0.0	0.0	0.0
Water Lines	2,121.8	4,917.3	3,376.5	4,637.1	4,776.2	3,074.7
Valves, etc.	636.5	655.6	675.3	695.6	716.4	737.9
Treatment	265.2	382.5	23,579.4	2,260.6	2,089.6	1,721.8
Total	\$3,572.1	\$9,284.1	\$30,585.1	\$8,969.9	\$10,594.8	\$9,039.6

Note: Totals may not sum correctly due to rounding.

3.6 Transfers within the Water Fund

Since the Water Utility is composed of multiple funds, there will be transfers of money between the Water Operations (Fund 511), Water Capital (Fund 513), and the Water Revolving Loan (Fund 515) over the Study period.

3.7 Reserves

Establishing and maintaining reserves to address monthly operating variances, planning for large capital projects, and meeting emergencies, is recognized as not only a best management and financial practice by credit agencies and such bodies as the Government Finance Officers Association, but is a matter of prudence for a utility. Without reserves, a utility operates on a paycheck-to-paycheck basis and cannot execute necessary capital improvements without implementing sudden large rate increases that impact all rate payers. Minimizing rate impacts on customers requires planning and saving over a number of years to demonstrate credit-worthiness to fiscal agencies and mitigate rate shock.

The Water Fund has two reserves:

- The Enterprise Capital Replenishment Reserve (ECRR) has a target goal of at least one year of depreciation expense and is intended to help offset costs associated

with the failure of a capital asset. The City has proposed to adjust the target goal to 2% of the Water Utility's Net Asset Value going forward⁶.

- Rate Stabilization Reserve will be implemented in FY 2027. This reserve is intended to help smooth out large rate increases and revenue/expenditure uncertainty in the multi-year forecast.
 - The Water Utility plans to receive a \$1M loan from the General Fund that will fund the Rate Stabilization Reserve and help offset a larger revenue increase in FY 2027.
 - The Rate Stabilization Reserve will accumulate revenue from rates to repay this loan by FY 2031.

In addition to these formal reserves, the Water Fund maintains an operating fund balance (working capital) to manage normal month to month fluctuations in revenues and expenditures; this working capital is intended to provide short-term liquidity and is distinct from the longer-term capital and rate stabilization reserves described above.

The Financial Director recommended to City Council on February 17, 2026, the implementation of the following target funding of reserves for future budget years:

- Maintain an Operating Reserve (Water Fund balance) equal to 120 days cash on hand.
- Modify the target balance of the ECRR to 2% of capital assets.
- Fund the Rate Stabilization Reserve at 5% of annual budget.

City Council directed staff to develop a rate plan based on the above funding targets.

3.8 Projected Operating Results

The Water Utility's revenue needs include O&M expenses, debt service, capital expenditures, and reserves. To understand the necessity of the proposed revenue increases, Black & Veatch examined a *status quo* scenario. In this situation, the utility would execute the proposed O&M, capital and reserve funding activities, but in the absence of any revenue adjustments. Cash flow projections shown in Table 3-9 indicate that without revenue increases, the utility will operate at a deficit, depleting fund balances to stay afloat. This scenario prevents funding of any reserves, leads to immediate cash shortages, and forces hard decisions regarding what activities must be deferred. Without new revenue, maintenance and capital projects will be postponed, potentially impacting customer levels of service.

⁶ Net Asset Value as defined here refers to the original cost of the asset less accumulated depreciation.

Table 3-9 Status Quo Water Utility Financial Plan

LINE No.	DESCRIPTION	BUDGET					
		FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
		(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)
Revenues							
1	Revenue Under Existing Rates	25.99	25.21	47.93	25.67	25.91	25.17
2	Transfers In	1.20	1.20	0.00	0.00	0.00	0.00
3	Total Income	\$27.19	\$26.41	\$47.93	\$25.67	\$25.91	\$25.17
Revenue Requirements							
4	O&M	24.94	30.09	33.27	35.79	37.09	38.23
5	Debt Service	1.27	1.28	1.46	1.41	1.41	1.40
6	Capital Projects	3.57	9.28	30.59	8.97	10.59	8.89
7	Total Revenue Requirements	\$29.79	\$40.65	\$65.31	\$46.17	\$49.10	\$48.51
8	Net Annual Balance	(\$2.60)	(\$14.24)	(\$17.38)	(\$20.50)	(\$23.19)	(\$23.34)
9	Beginning Balance	15.64	13.04	(1.20)	(18.58)	(39.08)	(62.27)
10	Ending Balance	\$13.04	(\$1.20)	(\$18.58)	(\$39.08)	(\$62.27)	(\$85.61)
11	ECRR	4.86	4.86	4.86	4.80	4.78	4.78
12	Ending Balance After Reserves	\$8.18	(\$6.06)	(\$23.44)	(\$43.88)	(\$67.05)	(\$90.39)
Note: Totals may not sum correctly due to rounding. ECRR = Enterprise Capital Replenishment Reserve							

The analysis performed for the Study indicates that the City should implement the proposed revenue increases shown in Table 3-10 if it wishes to cover expenses, meet debt obligations, maintain its treatment and distribution systems, and to keep the Water Utility in a balanced financial condition. The revenue increases represent the total revenue adjustment needed to meet revenue requirements. The revenue adjustment does not represent adjustments to the individual rates but reflects the overall level of revenue needed to meet the Water Utility's obligations.

The suggested revenue increases help the Water Utility meet the following goals:

- Meet budgeted operating obligations in the five FYs.

- Meet necessary and planned capital investments in the five FYs.
- Meet current and future debt service obligations.
- Maintain the reserve within its targets.

Table 3-10 summarizes the proposed Water Utility for the Study period. The financial plan consists of 1) Revenue and 2) Revenue Requirements.

Revenues

- Line 1 is the revenue under existing rates.
- Lines 2 through 6 are the additional revenues generated from the required annual increases. The additional revenue generated directly reflects the number of months the increase is effective for; therefore, the amount might be calculated at less than that stated amount.
- Line 8 is the total revenue generated from user charges.
- Line 13 represents other revenues including: interest income, transfers to and from the Water Fund, Rate Stabilization Reserves and other non-revenue operational income.
- Line 15 represents proposed debt financing.
- Line 16 represents the total revenues for the Water Utility.

Revenue Requirements

- Line 17 represents O&M expenses. The O&M expenses include water supply costs.
- Line 24 represents debt service requirements.
- Line 26 represents routine capital outlay and capital project expenditures.
- Line 27 represents the total revenue requirements for the Water Utility.
- Line 28 represents the net annual cash balance within the Water Fund.
- Line 30 represents the net cumulative cash balance.
- Line 33 represents the debt service coverage requirement of 1.20x. The debt service coverage requirement is set forth by the agency that lent the Water Utility money in the form of State Revolving Loans.

Table 3-10 Water Utility Financial Plan

LINE No.	DESCRIPTION	BUDGET					
		FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
		(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)
Revenue							
<i>Rate Revenue</i>							
1	Revenue Under Existing Rates	24.03	24.29	24.53	24.77	25.02	25.26
	Year	Months Effective	Revenue Adj.				
2	2027	12	32.00%	7.77	7.85	7.93	8.01
3	2028	12	32.00%		10.36	10.46	10.57
4	2029	12	5.00%			2.16	2.18
5	2030	12	5.00%				2.29
6	2031	12	5.00%				2.43
7	Revenues From Adjustments	0.00	7.77	18.21	20.55	23.04	25.69
8	Subtotal Rate Revenue	\$24.03	\$32.06	\$42.74	\$45.32	\$48.05	\$50.96
<i>Other Operating Revenues</i>							
9	Other Income	0.82	0.82	0.82	0.82	0.82	0.82
10	Interest Income	0.14	0.10	0.07	0.07	0.07	0.09
11	Rate Stabilization Reserve (a)	1.00	0.00	0.00	0.00	0.00	(1.00)
12	Transfers	1.20	1.20	0.00	0.00	0.00	0.00
13	Subtotal Other Operating Revenues	\$3.16	\$2.12	\$0.89	\$0.89	\$0.89	(0.09)
<i>Debt Financing</i>							
14	SRF Loans	0.00	0.00	22.51	0.00	0.00	0.00
15	Subtotal Debt Financing	\$0.00	\$0.00	\$22.51	\$0.00	\$0.00	\$0.00
16	Total Revenue	\$27.19	\$34.18	\$66.14	\$46.21	\$48.95	\$50.87

LINE No.	DESCRIPTION	BUDGET					
		FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
		(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)
Revenue Requirements							
<i>Operating & Maintenance</i>							
17	O&M Expenses	24.94	30.09	33.27	35.79	37.09	38.23
18	Subtotal O&M	24.94	30.09	33.27	35.79	37.09	38.23
<i>Debt Service</i>							
<i>Existing Debt Service</i>							
19	Existing SRF Loan	1.26	1.26	0.63	0.00	0.00	0.00
20	Total Existing Debt Service	1.26	1.26	0.63	0.00	0.00	0.00
<i>Proposed Debt Service</i>							
21	Proposed SRF Loans	0.00	0.00	0.81	1.39	1.39	1.39
22	Proposed Interfund Loans	0.01	0.02	0.02	0.02	0.02	0.01
23	Total Proposed Debt Service	0.01	0.02	0.83	1.41	1.41	1.40
24	Total Debt Service	1.27	1.28	1.46	1.41	1.41	1.40
<i>Capital Projects</i>							
25	Capital Improvement Program (b)	3.57	9.28	30.59	8.97	10.59	8.89
26	Total Capital Projects	3.57	9.28	30.59	8.97	10.59	8.89
27	Total Revenue Requirements	\$29.79	\$40.65	\$65.31	\$46.17	\$49.10	\$48.51
28	Net Annual Cash Balance	(\$2.60)	(\$6.47)	\$0.83	\$0.05	(\$0.15)	\$2.35
29	Beginning Fund Balance (c)	15.64	13.04	6.58	7.40	7.45	7.30
30	Net Cumulative Fund Balance	\$13.04	\$6.58	\$7.40	\$7.45	\$7.30	\$9.65

LINE No.	DESCRIPTION	BUDGET					
		FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
		(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)
31	ECRR (d)	4.86	4.86	4.86	4.80	4.78	4.78
32	Total Target Reserves	4.86	4.86	4.86	4.80	4.78	4.78
33	Debt Service Coverage (1.2x)	1.77x	3.20x	7.10x	7.39x	8.40x	9.02x

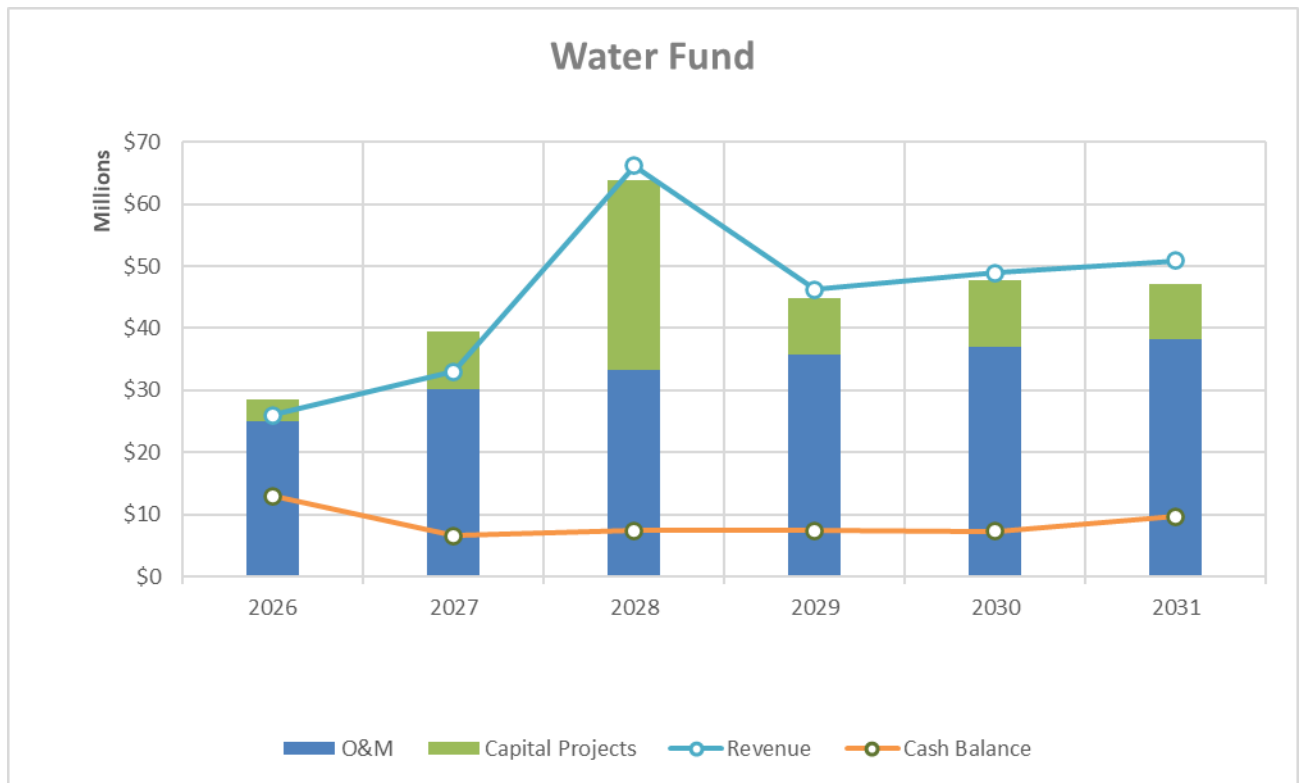
Notes:

- a. Reflects a \$1,000,000 loan from the General Fund to establish the Rate Stabilization Reserve in FY 2026.
- b. Excludes projects funded directly from Impact Fees.
- c. FY 2027 Beginning Balance reflects a \$1,000,000 loan from the General Fund to establish the Rate Stabilization Reserve in FY 2026.
- d. The ECRR has a current target goal of one year of capital depreciation expense.

Totals may not sum correctly due to rounding.

Figure 3-1 presents the proposed Water Utility Financial Plan.

Figure 3-1 Water Utility Financial Plan



4.0 Cost-of-Service Analysis

4.1 Cost of Service

The cost-of-service analysis requires recovery of the City’s needed revenues from water service rates, allocated to customer types according to the service rendered. An equitable rate structure allocates the capture of revenue requirements to customer types based on the quantity of water consumed, peak flows, the number of customer connections, and other relevant factors.

While customer classes are evaluated for cost-of-service purposes, the City has elected to treat all retail customers as a single volumetric class for rate design. Differentiation among classes is used only to:

- Allocate customer, meter, and fire protection costs for purposes of setting monthly fixed charges; and
- Assess overall proportionality among customer classes, consistent with Proposition 218 and the M1 Manual.

The use of customer classes in the cost-of-service analysis does not result in different volumetric rates by class. Instead, class-level analysis ensures that the uniform rate structure remains equitable and cost-based while retaining the simplicity and transparency of a single volumetric charge for all customers.

In analyzing the Water Utility’s cost of service for allocation, Black & Veatch selected the annual revenue requirements for FY 2027 as the test year requirements to demonstrate the development of cost-of-service water rates. Table 4-1 summarizes the total costs of service that need to be recovered from water user rates for FY 2027.

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Table 4-1 Cost of Service Revenue from Rates

LINE No.	DESCRIPTION	OPERATING EXPENSES	CAPITAL COST	TOTAL COST
		(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)
Revenue Requirements				
1	O&M Expenses	30.09	0	30.09
2	Debt Service	0	1.28	1.28
3	Capital Projects	0	9.28	9.28
4	Subtotal	\$30.09	\$10.56	\$40.65
Less Revenue Requirements Met from Other Sources				
5	Other Income	0.82	0	0.82
6	Miscellaneous	0	0	0
7	Interest	0.10	0	0.10
8	Transfers	1.20	0	1.20
9	Subtotal	\$2.12	\$0	\$2.12
Adjustments				
10	Adjustment for Annual Cash Balance	6.47	0	6.47
11	Subtotal	\$6.47	\$0	\$6.47
12	COS to be Recovered from Rates	\$21.50	\$10.56	\$32.06

Note: Totals may not sum correctly due to rounding

The total revenue requirement is shown in Line 4 matches Table 3-7, Line 27. As shown in Line 9, we deduct revenues from other sources to derive the net revenue requirement recovered through rates. Line 10 represents the net annual cash balance during the Fiscal Year. This number is positive if the enterprise is drawing down funds already in the Water Utility. The number will be negative if the enterprise is replacing funds. In this case, the \$6.47M figure indicates that the forecast shows a negative annual cash balance for the year (expenses are greater than revenues) and this shortfall is being met from the Water Fund cumulative balance.

4.2 Functional Cost Components

The first step in conducting a cost-of-service analysis involves analyzing the cost of providing water service by system function to allocate the costs to the various customer types properly and, subsequently, design rates. As a basis for allocating costs of service among customer types, the study initially separates costs into the following five basic functional cost components: Base, Extra Capacity, Customer, Supply, and Direct Assignment, based on the 2023 Citywide Water Master Plan. However, because the City does not have customer-level time-of-use data and is implementing a uniform

volumetric rate rather than tiered pricing, the study pools the costs associated with maximum day or maximum hour components with other volume components for rate design. The effective functional cost components can be described as follows:

- Customer costs are those expenditures that tend to vary in proportion to the number of customers connected to the system.
- Meter Costs include meter reading, billing, collecting, accounting, maintenance, and capital costs associated with meters and services.
- Volume Costs include:
 - Base costs represent operating and capital costs of the system associated with service to customers to the extent required under constant or average annual demand conditions without the elements necessary to meet water consumption variations or peak demands.
 - Extra Capacity costs represent operating and capital costs incurred to meet peaking demands. Peaking demands represent water consumption more than the average rate of use.
 - Water Supply costs are associated with paying for treated and untreated water from all sources

4.3 Allocation to Cost Components

The next step of the cost-of-service process involves allocating each cost element to functional cost components based on the parameter or parameters having the most significant influence on the magnitude of that cost element. O&M expenses are allocated directly to appropriate cost components. A detailed allocation of the City's existing plant investment is used as a proxy for allocating capital and replacement costs to the functional components.

4.3.1 Allocation of Operating and Maintenance Expenses

When allocating O&M expenses, the M1 Manual refers to functional cost components. Simply put, these costs correspond to the activities that the Water Utility undertakes to provide its customers with water: identify the water supply source, pump it, treat it, distribute it to customers, bill for services, and collect revenues. Where possible, the O&M expenses for FY 2027 are directly allocated to the cost components that generate the cost to the extent possible.

For those costs that are not directly allocated to one cost center, Black & Veatch identified cost elements specific to certain functions and assigned them based on the factors noted in Section 4.1.

The elements applicable to all operational costs within an expense category were allocated based on the average of all other costs within the same category (Personnel, Contract Services, Water Plant Operations). The elements applicable to all operational activities were allocated based on the average of all other costs. Miscellaneous revenues and Other adjustments were also allocated on the average of all other costs. The direct assignment represents fire protection. Table 4-2 shows the allocation basis for operating costs, and Table 4-3 shows the total allocation of operating costs serving water customers. Table 4-4 shows the allocation basis for operating costs, and Table 4-5 shows the total allocation of operating costs serving water customers pooling together the costs associated with maximum day or maximum hour components with other volume components for rate design purposes.

4.3.2 Allocation of Capital Investments

In allocating the capital investment for FY 2027, the existing fixed assets are considered an appropriate proxy for where the utility has spent money in the past and will continue to invest in the future. Proposed CIP projects are allocated directly to cost components to the extent possible. The allocation of costs in this manner provides a basis for annual investment in water system facilities. Using the existing fixed assets and CIP, the capital costs can be allocated using the total net system investment distribution across the functional cost components.

Table 4-6 shows the allocation basis for capital expenditures, and Table 4-7 shows the allocation of existing system investment serving water customers. Table 4-8 shows the allocation basis for capital expenditures, and Table 4-9 shows the allocation of existing system investment serving water customers pooling together the costs associated with maximum day or maximum hour components with other volume components for rate design purposes.

The total net system investment of \$798.0M shown on Line 11 for the Water Utility represents the Test Year Replacement cost of the system in service for existing fixed assets and proposed CIP. Replacement costs were derived using the Handy-Whitman Index of Public Utility Construction Costs⁷ for the Western Region and the Engineering News Record, ENR Construction Cost Index⁸. The total net system investment reflects the Water Utility's fixed asset list ending June 30, 2023.

⁷ Whitman, Requardt & Associates, LLP. (Year). *Handy-Whitman Index of Public Utility Construction Costs*. Baltimore, MD: Whitman, Requardt & Associates.

⁸ Engineering News-Record (ENR) Construction Cost Index (CCI), published by BNP Media.

Table 4-2 Allocation Basis for O&M Expenditures (Base, Extra Capacity)

LINE No.	OPERATING EXPENSE	TOTAL	BASE	MAX DAY	MAX HOUR	METERS	CUSTOMER	FIRE	BASIS
		%	%	%	%	%	%	%	
1	Personnel	100%	32%	25%	8%	11%	24%	1%	Avg O&M (Personnel)
2	Public Works Admin	100%	0%	0%	0%	20%	80%	0%	Customer
3	Water Distribution	100%	33%	24%	41%	0%	0%	1%	T&D
4	Utility Billing	100%	0%	0%	0%	0%	100%	0%	Utility Billing
5	Water Plant Maintenance	100%	35%	14%	4%	46%	0%	0%	Avg O&M w/o Billing
6	Water Wells & Pumps	100%	58%	41%	0%	0%	0%	1%	Pumping
7	Utilities Lab	100%	58%	41%	0%	0%	0%	1%	Treatment
8	Water Plant Operations	100%	58%	41%	0%	0%	0%	1%	Treatment
9	Contracted Services	100%	26%	22%	3%	16%	31%	1%	Avg O&M (Contract)
10	Public Works Admin	100%	0%	0%	0%	20%	80%	0%	Customer
11	Water Distribution	100%	33%	24%	41%	0%	0%	1%	T&D
12	Utility Billing	100%	0%	0%	0%	0%	100%	0%	Utility Billing
13	Water Plant Maintenance	100%	37%	10%	4%	33%	15%	0%	Average O&M
14	Water Wells & Pumps	100%	58%	41%	0%	0%	0%	1%	Pumping
15	Utilities Lab	100%	58%	41%	0%	0%	0%	1%	Treatment
16	Water Plant Operations	100%	58%	41%	0%	0%	0%	1%	Treatment
17	Supplies & Equipment	100%	37%	10%	4%	33%	15%	0%	Average O&M
18	Utilities	100%	37%	10%	4%	33%	15%	0%	Average O&M
19	Water Plant Operations	100%	37%	10%	4%	33%	15%	0%	Average O&M
20	Internal Service Charges	100%	0%	0%	0%	100%	0%	0%	Meters & Services
21	Water Distribution	100%	33%	24%	41%	0%	0%	1%	T&D
22	Utility Billing	100%	0%	0%	0%	0%	100%	0%	Utility Billing
23	Water Wells & Pumps	100%	58%	41%	0%	0%	0%	1%	Pumping
24	Utilities Lab	100%	58%	41%	0%	0%	0%	1%	Treatment

LINE No.	OPERATING EXPENSE	TOTAL	BASE	MAX DAY	MAX HOUR	METERS	CUSTOMER	FIRE	BASIS
		%	%	%	%	%	%	%	
25	Water Plant Operations	100%	58%	41%	0%	0%	0%	1%	Treatment
26	Water Contracts	100%	85%	0%	0%	15%	0%	0%	Purchased Water
27	Water Contracts (Fixed)	100%	0%	0%	0%	100%	0%	0%	Purchased Water (Fixed)
28	SD-Annual O&M Fee	100%	0%	0%	0%	100%	0%	0%	Meters & Services
29	Utilities-Non-Discretionary	100%	0%	0%	0%	100%	0%	0%	Meters & Services
30	Capital Outlay	100%	33%	24%	41%	0%	0%	1%	T&D
31	Transfers Out	100%	0%	0%	0%	20%	80%	0%	Customer
32	Other Payments	100%	37%	10%	4%	33%	15%	0%	Average O&M

Table 4-3 Allocation of O&M Expenditures (Base, Extra Capacity)

LINE NO.	OPERATING EXPENSE	TOTAL	BASE	MAX DAY	MAX HOUR	METERS	CUSTOMER	FIRE PROTECTION
		(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)
1	Personnel	1.84	0.59	0.47	0.15	0.19	0.44	0.01
2	Public Works Admin	0.86	-	-	-	0.17	0.69	-
3	Water Distribution	1.14	0.38	0.28	0.47	-	-	0.01
4	Utility Billing	0.82	-	-	-	-	0.82	-
5	Water Plant Maintenance	1.09	0.39	0.16	0.05	0.50	-	0.00
6	Water Wells & Pumps	0.31	0.18	0.13	-	-	-	0.00
7	Utilities Lab	0.52	0.30	0.21	-	-	-	0.01
8	Water Plant Operations	2.06	1.19	0.85	-	-	-	0.02
9	Contracted Services	1.75	0.46	0.39	0.05	0.29	0.55	0.01
10	Public Works Admin	0.17	-	-	-	0.03	0.14	-
11	Water Distribution	0.03	0.01	0.01	0.01	-	-	0.00
12	Utility Billing	0.09	-	-	-	-	0.09	-
13	Water Plant Maintenance	0.33	0.12	0.03	0.01	0.11	0.05	0.00
14	Water Wells & Pumps	0.04	0.02	0.02	-	-	-	0.00
15	Utilities Lab	0.10	0.06	0.04	-	-	-	0.00
16	Water Plant Operations	0.25	0.15	0.10	-	-	-	0.00
17	Supplies & Equipment	2.66	0.98	0.26	0.11	0.89	0.41	0.01
18	Utilities	1.12	0.41	0.11	0.05	0.37	0.17	0.00
19	Water Plant Operations	2.01	0.74	0.20	0.08	0.67	0.31	0.01
20	Internal Service Charges	2.04	-	-	-	2.04	-	-
21	Water Distribution	0.06	0.02	0.01	0.02	-	-	0.00
22	Utility Billing	0.01	-	-	-	-	0.01	-
23	Water Wells & Pumps	0.01	0.00	0.00	-	-	-	0.00
24	Utilities Lab	0.01	0.01	0.01	-	-	-	0.00

LINE NO.	OPERATING EXPENSE	TOTAL	BASE	MAX DAY	MAX HOUR	METERS	CUSTOMER	FIRE PROTECTION
		(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)
25	Water Plant Operations	0.17	0.10	0.07	-	-	-	0.00
26	Water Contracts	9.19	-	-	0.00	0.78	-	4.44
27	Water Contracts (Fixed)	3.02	-	-	-	3.02	-	-
28	SD-Annual O&M Fee	0.05	-	-	-	0.05	-	-
29	Utilities-Non-Discretionary	0.05	-	-	-	0.05	-	-
30	Capital Outlay	0.72	0.24	0.17	0.30	-	-	0.01
31	Transfers Out	1.52	-	-	-	0.30	1.22	-
32	Other Payments	0.01	0.00	0.00	0.00	0.00	0.00	-
33	Total O&M Expenses	\$34.53	\$6.34	\$3.51	\$1.30	\$9.49	\$ 4.90	\$ 0.10
	Less Other Revenues							
34	Miscellaneous Revenues	2.12	0.78	0.21	0.09	0.71	0.33	0.01
35	Other Adjustments	6.47	2.38	0.64	0.27	2.17	1.00	0.02
36	Net Operating Expenses	\$25.95	\$3.18	\$2.67	\$0.95	\$6.62	\$ 3.58	\$0.07

Note: Totals may not sum correctly due to rounding

Table 4-4 Allocation Basis for O&M Expenditures (Volume, Customer, Fire Protection)

LINE No.	OPERATING EXPENSE	TOTAL	VOLUME	METERS	CUSTOMER	FIRE PROTECTION	BASIS
		%	%	%	%	%	
1	Personnel	100%	65%	11%	24%	1%	Average O&M (Personnel)
2	Public Works Admin	100%	0%	20%	80%	0%	Customer
3	Water Distribution	100%	99%	0%	0%	1%	T&D
4	Utility Billing	100%	0%	0%	100%	0%	Utility Billing
5	Water Plant Maintenance	100%	54%	46%	0%	0%	Average O&M w/o Billing
6	Water Wells & Pumps	100%	99%	0%	0%	1%	Pumping
7	Utilities Lab	100%	99%	0%	0%	1%	Treatment
8	Water Plant Operations	100%	99%	0%	0%	1%	Treatment
9	Contracted Services	100%	52%	16%	31%	1%	Average O&M (Contract)
10	Public Works Admin	100%	0%	20%	80%	0%	Customer
11	Water Distribution	100%	99%	0%	0%	1%	T&D
12	Utility Billing	100%	0%	0%	100%	0%	Utility Billing
13	Water Plant Maintenance	100%	51%	33%	15%	0%	Average O&M
14	Water Wells & Pumps	100%	99%	0%	0%	1%	Pumping
15	Utilities Lab	100%	99%	0%	0%	1%	Treatment
16	Water Plant Operations	100%	99%	0%	0%	1%	Treatment
17	Supplies & Equipment	100%	51%	33%	15%	0%	Average O&M
18	Utilities	100%	51%	33%	15%	0%	Average O&M
19	Water Plant Operations	100%	51%	33%	15%	0%	Average O&M
20	Internal Service Charges	100%	0%	100%	0%	0%	Meters & Services
21	Water Distribution	100%	99%	0%	0%	1%	T&D
22	Utility Billing	100%	0%	0%	100%	0%	Utility Billing
23	Water Wells & Pumps	100%	99%	0%	0%	1%	Pumping
24	Utilities Lab	100%	99%	0%	0%	1%	Treatment

LINE No.	OPERATING EXPENSE	TOTAL	VOLUME	METERS	CUSTOMER	FIRE PROTECTION	BASIS
		%	%	%	%	%	
25	Water Plant Operations	100%	99%	0%	0%	1%	Treatment
26	Water Contracts	100%	85%	15%	0%	0%	Purchased Water
27	Water Contracts (Fixed)	100%	0%	100%	0%	0%	Purchased Water (Fixed)
28	SD-Annual O&M Fee	100%	0%	100%	0%	0%	Meters & Services
29	Utilities-Non-Discretionary	100%	0%	100%	0%	0%	Meters & Services
30	Capital Outlay	100%	99%	0%	0%	1%	T&D
31	Transfers Out	100%	0%	20%	80%	0%	Customer
32	Other Payments	100%	51%	33%	15%	0%	Average O&M

Table 4-5 Allocation of O&M Expenditures (Volume, Customer, Fire Protection)

LINE No.	OPERATING EXPENSE	TOTAL	VOLUME	METERS	CUSTOMER	FIRE PROTECTION
		(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)
1	Personnel	1.84	1.05	0.19	0.44	0.01
2	Public Works Admin	0.86	-	0.17	0.69	-
3	Water Distribution	1.14	0.66	-	-	0.01
4	Utility Billing	0.82	-	-	0.82	-
5	Water Plant Maintenance	1.09	0.54	0.50	-	0.00
6	Water Wells & Pumps	0.31	0.30	-	-	0.00
7	Utilities Lab	0.52	0.51	-	-	0.01
8	Water Plant Operations	2.06	2.04	-	-	0.02
9	Contracted Services	1.75	0.86	0.29	0.55	0.01
10	Public Works Admin	0.17	-	0.03	0.14	-
11	Water Distribution	0.03	0.02	-	-	0.00
12	Utility Billing	0.09	-	-	0.09	-
13	Water Plant Maintenance	0.33	0.16	0.11	0.05	0.00
14	Water Wells & Pumps	0.04	0.04	-	-	0.00
15	Utilities Lab	0.10	0.10	-	-	0.00
16	Water Plant Operations	0.25	0.25	-	-	0.00
17	Supplies & Equipment	2.66	1.24	0.89	0.41	0.01
18	Utilities	1.12	0.52	0.37	0.17	0.00
19	Water Plant Operations	2.01	0.94	0.67	0.31	0.01
20	Internal Service Charges	2.04	-	2.04	-	-
21	Water Distribution	0.06	0.03	-	-	0.00
22	Utility Billing	0.01	-	-	0.01	-
23	Water Wells & Pumps	0.01	0.01	-	-	0.00
24	Utilities Lab	0.01	0.01	-	-	0.00

LINE No.	OPERATING EXPENSE	TOTAL	VOLUME	METERS	CUSTOMER	FIRE PROTECTION
		(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)
25	Water Plant Operations	0.17	0.16	-	-	0.00
26	Water Contracts	5.23	4.44	0.78	-	-
27	Water Contracts (Fixed)	3.02	-	3.02	-	-
28	SD-Annual O&M Fee	0.05	-	0.05	-	-
29	Utilities-Non-Discretionary	0.05	-	0.05	-	-
30	Capital Outlay	0.72	0.42	-	-	0.01
31	Transfers Out	1.52	-	0.30	1.22	-
32	Other Payments	0.01	0.00	0.00	0.00	-
33	Total O&M Expenses	\$30.09	\$14.29	\$9.49	\$4.90	\$0.10
	Less Other Revenues					
34	Miscellaneous Revenues	2.12	0.99	0.71	0.33	0.01
35	Other Adjustments	6.47	3.02	2.17	1.00	0.02
36	Net Operating Expenses	\$21.50	\$10.29	\$6.62	\$3.58	\$ 0.07

Note: Totals may not sum correctly due to rounding

Table 4-6 Allocation Basis for Capital Costs (Base, Extra Capacity)

LINE No.	PLANT ASSETS	BASE	MAX DAY	MAX HOUR	METERS	CUSTOMER	FIRE PROTECTION	BASIS
		%	%	%	%	%	%	
1	Land	47%	29%	24%	0%	0%	1%	Average Net Plant
2	Wells	99%	0%	0%	0%	0%	1%	Wells
3	Pumping	58%	41%	0%	0%	0%	1%	Pumping
4	Reservoirs	58%	41%	0%	0%	0%	1%	Reservoirs
5	Treatment	58%	41%	0%	0%	0%	1%	Treatment
6	Transmission & Distribution	33%	24%	41%	0%	0%	1%	T&D
7	Meters & Services	0%	0%	0%	100%	0%	0%	Meters & Services
8	Hydrants	0%	0%	0%	0%	0%	100%	Hydrants
9	Flume	100%	0%	0%	0%	0%	0%	Flume
10	General Plant	47%	29%	24%	0%	0%	1%	Average Net Plant

Table 4-7 Allocation of Capital Costs (Base, Extra Capacity)

LINE No.	PLANT ASSETS	TOTAL	BASE	MAX DAY	MAX HOUR	METERS	CUSTOMER	FIRE PROTECTION
		(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)
1	Land	0.48	0.22	0.14	0.11	0.00	0.00	0.01
2	Wells	52.73	52.20	0.00	0.00	0.00	0.00	0.53
3	Pumping	18.35	10.61	7.56	0.00	0.00	0.00	0.18
4	Reservoirs	17.23	9.96	7.10	0.00	0.00	0.00	0.17
5	Treatment	249.50	144.27	102.73	0.00	0.00	0.00	2.50
6	Transmission & Distribution	457.69	153.25	110.48	189.39	0.00	0.00	4.58
7	Meters & Services	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	Hydrants	0.32	0.00	0.00	0.00	0.00	0.00	0.32
9	Flume	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	General Plant	1.69	0.79	0.48	0.40	0.00	0.00	0.02
11	Total Plant Assets	\$797.99	\$371.30	\$228.48	\$189.91	\$0.00	\$0.00	\$8.30
12	Net Capital Cost	\$10.56	\$4.91	\$ 3.02	\$2.51	\$0.00	\$0.00	\$0.00
	Less Other Revenues							
13	Miscellaneous Revenues	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	Other Adjustments	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	Net Capital Expenses	\$10.56	\$4.91	\$ 3.02	\$2.51	\$0.00	\$0.00	\$0.00

Note: Totals may not sum correctly due to rounding.

Table 4-8 Allocation Basis for Capital Costs (Volume, Customer, Fire Protection)

LINE No.	PLANT ASSETS	VOLUME	METERS	CUSTOMER	FIRE PROTECTION	BASIS
		%	%	%	%	
1	Land	99%	0%	0%	1%	Average Net Plant
2	Wells	99%	0%	0%	1%	Wells
3	Pumping	99%	0%	0%	1%	Pumping
4	Reservoirs	99%	0%	0%	1%	Reservoirs
5	Treatment	99%	0%	0%	1%	Treatment
6	Transmission & Distribution	99%	0%	0%	1%	T&D
7	Meters & Services	0%	100%	0%	0%	Meters & Services
8	Hydrants	0%	0%	0%	100%	Hydrants
9	Flume	100%	0%	0%	0%	Flume
10	General Plant	99%	0%	0%	1%	Average Net Plant

Table 4-9 Allocation of Capital Costs (Volume, Customer, Fire Protection)

LINE No.	PLANT ASSETS	TOTAL	VOLUME	METERS	CUSTOMER	FIRE PROTECTION
		(\$Millions)	(\$Millions)	(\$Millions)	(\$Millions)	(\$Millions)
1	Land	0.48	0.48	0.00	0.00	0.01
2	Wells	52.73	52.20	0.00	0.00	0.53
3	Pumping	18.35	18.17	0.00	0.00	0.18
4	Reservoirs	17.23	17.06	0.00	0.00	0.17
5	Treatment	249.50	247.00	0.00	0.00	2.50
6	Transmission & Distribution	457.69	453.11	0.00	0.00	4.58
7	Meters & Services	0.00	0.00	0.00	0.00	0.00
8	Hydrants	0.32	0.00	0.00	0.00	0.32
9	Flume	0.00	0.00	0.00	0.00	0.00
10	General Plant	1.69	1.67	0.00	0.00	0.02
11	Total Plant Assets	\$797.99	\$789.69	\$0.00	\$0.00	\$8.30
12	Net Capital Cost	\$10.56	\$10.45	\$0.00	\$0.00	\$0.00
	Less Other Revenues					
13	Miscellaneous Revenues	0.00	0.00	0.00	0.00	0.00
14	Other Adjustments	0.00	0.00	0.00	0.00	0.00
15	Net Capital Expenses	\$10.56	\$10.45	\$0.00	\$0.00	\$0.00

Note: Totals may not sum correctly due to rounding.

4.4 Units of Service

Practically speaking, the water that customers receive from their taps is a blend of the different sources of water purchased or treated by the City. In other words, the unit cost of water supply is essentially the same for all customer types. While the cost of delivering water may differ, for example, it is likely more expensive to deliver water during peak periods of demand, because the City does not track customer-level time-of-use information, it is not possible to determine different costs of delivery for different customer types. Therefore, for this study, to recognize the cost of service, each customer class receives an equivalent share of base, maximum day, peak hour, customer costs, water supply, and fire protection.

Following the allocation of costs, the total cost responsibility for each customer class is developed using unit costs of service for each cost function and subsequently assigning those costs to the customer types based on the respective service requirements of each. The number of units of service required by each customer class provides a means for the proportionate distribution of costs previously allocated to respective cost categories.

- Base costs vary with the volume of water consumed and distributed to the customers on that basis.
- Extra Capacity costs are those associated with meeting peak demand rates of water use and distributed to the customers based on the system-wide capacity requirements. The analysis used the peaking factors developed in the 2023 Water System Master Plan across all customer classes.
- Customer costs are those associated with operating and maintaining the water meters and generating and distributing customer bills. Customer costs are distributed on the number of bills for each customer.
- Meter & service costs are distributed based on the estimated number of equivalent meters for each customer, which relies on the total number of meters serving respective types and the hydraulic capacity ratio of the meters to the ¾" inch meter. The equivalent meter ratios adopted in this analysis are consistent with City meter types and the M1 Manual.
- Water Supply costs vary with the volume of water consumed and distributed to the customers on that basis.
- Public Fire Protection cost allocations are based on equivalent meters.

Table 4-10 summarizes the estimated FY 2027 units of service for different customer types.

4.5 Cost-of-Service Allocations

While not resulting in different rates by customer class, costs are evaluated for proportionality. The Study applies the unit costs of service to each customer class’s respective service requirements to determine the cost of service for each customer class. The total unit costs of service applied to the respective requirements for each customer class results in the total cost of service for each customer class.

4.5.1 Units Costs of Service

The FY 2027 unit cost of service for each functional cost component is simply the total cost divided by the applicable units of service, as shown in Table 4-11, on Line 3. The total costs represent the cost that rates need to recover, as demonstrated in Table 4-1, Line 12. The net O&M cost includes O&M (including water purchase) less revenue from other sources and adjustments. Line 5 represents the unit costs for the entire water system regardless of customer class. After that, the unit costs are used to allocate the costs to the specific customer classes.

4.5.2 Distribution of Costs of Service to Customer Types

Applying the unit costs to the units for each customer class produces the customer class costs. This process is illustrated in Table 4-12, in which unit costs are applied to the customer class units of service for FY 2027. The costs attributable to each customer class reflect the functional cost components described in Section 4.1. Each customer class places a burden on the system in different ways; thus, the allocation of the units is representative of this burden. Table 4-13 reflects the resulting costs applied to customer classes pooling the costs of peaking into the volume component. Since the allocated unit costs are distributed using system-wide capacity requirements, the resulting burden per unit is relatively uniform among customer classes. This supports the City’s decision to implement uniform volume rates as described in the Rate Design section of this report.

An example of the application of unit costs is shown below for illustrative purposes.

Figure 4-1 Allocated Cost Example

	Volume Component
Unit Cost (Table 4-13)	\$ 2.95
All Customer Usage (Table 4-10)	x 7,344,662
Total Allocated Cost	\$ 21,688,400

Please note that the numbers within the tables are rounded, yet the calculations are done based on non-rounded values; therefore, results might vary.

Table 4-10 Units of Service (Base, Extra Capacity)

LINE No.	DESCRIPTION	CONSUMPTION		MAXIMUM DAY		MAXIMUM DAY			METERS	CUSTOMER	FIRE	
		ANNUAL	AVG. DAY	FACTOR	TOTAL	EXTRA	FACTOR	TOTAL				EXTRA
COLUMN REFERENCE		(MCF)	(MCF/DAY)		(MCF/DAY)	(MCF/DAY)		(MCF/DAY)	(MCF/DAY)	(EMs)	(BILLS)	(EMs)
		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
1	Residential	4,369.6	11.97	1.7	20.35	8.38	2.9	34.72	14.37	38,063	327,869	0
2	Multi-Family	521.4	1.43	1.7	2.43	1.00	2.9	4.14	1.71	2,199	8,374	0
3	Commercial	901.4	2.47	1.7	4.20	1.73	2.9	7.16	2.96	4,327	10,927	0
4	Industrial	496.6	1.36	1.7	2.31	0.95	2.9	3.95	1.63	83	38	0
5	Irrigation	992.8	2.72	1.7	4.62	1.90	2.9	7.89	3.26	2,805	6,545	0
6	Construction	62.9	0.17	1.7	0.29	0.12	2.9	0.50	0.21	747	836	0
7	Subtotal	7,344.6	20.12	0	34.21	14.09	0	58.35	24.15	48,224	354,590	0
8	Public Fire											300,000
9	Subtotal											300,000
10	Total System	7,344.6	20.12	0	34.21	14.09	0	58.35	24.15	48,224	354,590	300,000

Note: Totals may not sum correctly due to rounding

MCF = Million cubic feet

EM = Equivalent Meter

Table 4-11 Unit Cost of Service (Base, Extra Capacity)

LINE No.	DESCRIPTION	TOTAL	BASE	MAX DAY	MAX HOUR	METERS	CUSTOMER	FIRE PROTECTION
		(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)
1	Net Operating Expense	21.50	7.62	2.67	0.95	6.62	3.58	0.07
2	Capital Costs	10.56	4.91	3.02	2.51	0	0	0.11
3	Total Cost of Service	\$32.06	\$12.54	\$5.69	\$3.46	\$6.62	\$3.58	\$0.18
4	Units of Service		7,344.6	14.09	24.15	48,224	354,590	300,000
			MCF	MCF/DAY	MCF/DAY	EM	BILLS	EM
5	Cost per Unit [(Line 3/Line 4) x 1000]		\$1.71	\$403.96	\$143.26	\$136.89	\$10.09	\$0.61
			PER CCF	PER CCF/DAY		PER EQ. METER	PER BILL	PER EQ. METER
Note: Totals may not sum correctly due to rounding.					MCF = Million cubic feet		CCF = Hundred cubic feet	

Table 4-12 Distribution of Costs to Customer Types (Base, Extra Capacity)

LINE NO.	DESCRIPTION	TOTAL	BASE	MAX DAY	MAX HOUR	METERS	CUSTOMER	FIRE
		(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)
	Cost per Unit		\$1.71	\$403.96	\$143.26	\$136.89	\$10.09	\$0.61
			PER CCF	PER CCF/DAY	PER CCF/DAY	PER EM	PER BILL	PER EM
	Residential							
1	Units		4,369,570	8,380	14,366	38,063	327,869	
2	Allocated costs of service	21.42	7.46	3.39	2.06	5.21	3.31	
	Multi-Family							
3	Units		521,439	1,000	1,714	2,199	8,374	
4	Allocated costs of service	1.93	0.89	0.40	0.25	0.30	0.08	
	Commercial							
5	Units		901,416	1,729	2,964	4,335	10,927	
6	Allocated costs of service	3.37	1.54	0.70	0.42	0.59	0.11	
	Industrial							
7	Units		496,549	952	1,632	83	38	
8	Allocated costs of service	1.48	0.85	0.38	0.23	0.01	0.00	
	Irrigation							
9	Units		992,759	1,904	3,264	2,897	6,545	
10	Allocated costs of service	3.39	1.69	0.77	0.47	0.40	0.07	
	Construction							
11	Units		62,913	121	207	747	836	
12	Allocated costs of service	0.30	0.11	0.05	0.03	0.10	0.01	
	Fire Service							
13	Units							300,000
14	Allocated costs of service	0.18						0.18
15	Total Cost of Service	\$32.06	\$8.10	\$5.69	\$3.46	\$ 6.62	\$3.58	\$4.44

Notes: Totals may not sum correctly due to rounding.

CCF = Hundred cubic feet.

EM = Equivalent Meter

Table 4-13 Distribution of Costs to Customer Types (Volume, Customer, Fire Protection)

LINE NO.	DESCRIPTION	TOTAL	VOLUME	METERS	CUSTOMER	FIRE
		(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)
	Cost per Unit		\$2.95 PER CCF	\$136.89 PER EM	\$10.09 PER BILL	\$0.61 PER EM
	Residential					
1	Units		4,369,570	38,063	327,869	
2	Allocated costs of service	21.42	12.90	5.21	3.31	
	Multi-Family					
3	Units		521,439	2,199	8,374	
4	Allocated costs of service	1.93	1.54	0.30	0.08	
	Commercial					
5	Units		901,416	4,335	10,927	
6	Allocated costs of service	3.37	2.66	0.59	0.11	
	Industrial					
7	Units		496,549	83	38	
8	Allocated costs of service	1.48	1.47	0.01	0.00	
	Irrigation					
9	Units		992,759	2,897	6,545	
10	Allocated costs of service	3.39	2.93	0.40	0.07	
	Construction					
11	Units		62,913	747	836	
12	Allocated costs of service	0.30	0.19	0.10	0.01	
	Fire Service					
13	Units					300,000
14	Allocated costs of service	0.18				0.18
15	Total Cost of Service	\$32.06	\$21.69	\$ 6.62	\$3.58	\$0.18
Note: Totals may not sum correctly due to rounding.			CCF = Hundred cubic feet	EM = Equivalent Meter		

4.6 AB 755 Compliance

California Assembly Bill 755 requires that water utilities conduct a water usage demand analysis and identify the cost of water service for the top 10% of water users. The City's 2023 Master Plan in part addresses this requirement through a comprehensive review of water demand, which includes a detailed examination of current demand patterns and provides forecasts for future system demand. For this study, Black & Veatch analyzed the City's billing data to identify the top 10% of water users. These customers collectively account for approximately 52.8% of the City's total water use. Of these users, about 74% represent non-residential accounts.

The cost of water service for the highest users is determined by the water system cost-of-service analysis. Based on the City's operational and cost structure, Black & Veatch calculated that the cost to provide 1 CCF of water is \$2.95, as reflected in Table 4-13. This cost encompasses expenses for purchasing water, operating wells, and treating water to potable standards.

Applying these rates to the top 10% of customers, the City's annual cost to provide water service is approximately \$14.2 million. Black & Veatch notes this figure reflects an average cost and not the marginal cost of providing water. In other words, if these customers were to leave the City, revenues would decrease by this amount, but since many are fixed, expenses would not decrease in direct proportion to the reduction in customers.

5.0 Rate Design

The initial consideration in deriving rates for water service is establishing equitable charges for the customers commensurate with the cost of providing that service.

5.1 Existing Rates

The Water Utility's existing rate structure consists of a fixed component in the form of a monthly service charge and a variable component in the form of a consumption charge. The monthly fixed service charge is based on meter size. The fixed charge is applied regardless of consumption. The consumption charge is based on units of consumption (1 unit = 1 CCF = 748 gallons) Table 3-3, presented earlier in this report, summarizes the existing water rates.

5.2 Proposed Rates

The cost-of-service analysis described in the preceding sections of this report provides a basis for the design of water rates.

Black & Veatch notes that while the cost-of-service analysis evaluates the cost responsibility of each customer type based on their respective demand characteristics, the City has elected to treat all retail customers as a single class. The detailed class-by-class cost-of-service results provide assurance that the proposed uniform commodity charge is consistent with the overall cost of providing service and that the total revenue recovered through rates does not exceed the total cost of service.

5.2.1 Monthly Fixed Service Charge

The Water Utility provides water service to approximately 28,000 water service accounts. These customers have dedicated water line connections to the water system. Therefore, water charges include fixed components of water supply costs, public fire service costs, meter maintenance, and the cost of issuing bills. The following is a derivation of the different cost components that comprise the total charge.

5.2.1.1 Water Monthly Fixed Charge Components

- **Meter & Services Cost:** The water system incurs direct operating and maintenance costs associated with meter servicing and maintenance of customer connections. The total meter & service costs are allocated based on equivalent meters. The equivalent meters are based on meter ratios determined using maximum operating capacities, as shown in the M1 Manual Table 9-1. Using meter ratios, we recognize that as meter size increases, so do the meter and services costs.
- **Customer Billing Cost:** The water system incurs direct operating costs associated with customer billing, such as meter reading, customer bills, customer service, etc. To customer billing costs are allocated based on the number of bills generated.

- **Fire Protection Costs:** The water system incurs annual direct operating and maintenance costs associated with fire protection for items such as servicing fire laterals and fire hydrants and for capacity associated with fire demands. Therefore, total fire protection costs are allocated based on meter sizes. Using meter ratios, we recognize that as meter size increases, so do the maintenance and capacity costs.

Table 5-1 demonstrates the cost elements incorporated into the monthly service charge for FY 2027. Table 5-2 shows the five-year fixed service charge rate schedule. Cost trends and distribution (O&M and capital investment) for the fixed costs of the utility are similar for each year of the Study Period and therefore, the COS allocations derived for FY 2027 are applied to the remaining study period years.

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Table 5-1 Costs within the Water Monthly Fixed Charge

METER SIZE	METER UNIT COST	FIRE PROTECTION UNIT COST	METER RATIO	ADJUSTED UNIT COST	BILLING UNIT COST	BILL RATIO	ADJUSTED UNIT COST	TOTAL SERVICE CHARGE
	PER EQ. METER	PER EQ. METER		\$		PER BILL	\$	\$/MONTH
5/8" x 3/4"	11.41	0.61	1.00	12.02	10.09	1.00	10.09	\$22.11
1"	11.41	0.61	1.67	20.04	10.09	1.00	10.09	\$30.12
1-1/2"	11.41	0.61	3.33	40.07	10.09	1.00	10.09	\$50.16
2"	11.41	0.61	5.33	64.11	10.09	1.00	10.09	\$74.20
3"	11.41	0.61	10.67	128.23	10.09	1.00	10.09	\$138.31
4"	11.41	0.61	16.67	200.36	10.09	1.00	10.09	\$210.44
6"	11.41	0.61	33.33	400.71	10.09	1.00	10.09	\$410.80
8"	11.41	0.61	53.33	641.14	10.09	1.00	10.09	\$651.22
10"	11.41	0.61	80.00	961.70	10.09	1.00	10.09	\$971.79

Table 5-2 Existing and Proposed Water Monthly Service Charge

METER SIZE	EXISTING	PROPOSED RATES				
	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
	\$/MONTH	\$/MONTH	\$/MONTH	\$/MONTH	\$/MONTH	\$/MONTH
5/8"	18.50	22.11	29.18	30.64	32.17	33.78
3/4"	18.50	22.11	29.18	30.64	32.17	33.78
1"	30.90	30.13	39.77	41.76	43.85	46.04
1-1/2"	61.61	50.16	66.21	69.52	73.00	76.65
2"	98.61	74.20	97.94	102.84	107.98	113.38
3"	185.00	138.32	182.58	191.71	201.30	211.37
4"	308.40	210.45	277.79	291.68	306.26	321.57
6"	616.61	410.80	542.26	569.37	597.84	627.73
8"	986.61	651.23	859.62	902.60	947.73	995.12
10"	1,418.00	971.80	1,282.78	1,346.92	1,414.27	1,484.98

5.2.2 Consumption Charge

This consumption charge is designed to recover costs associated with water supply, base, and extra capacity demands. These include fixed and variable costs incurred by the water system while providing the average annual usage and peaking demands. While many costs are fixed, such as personnel and direct charges, variable costs represent most of the costs through water production and purchase.

Several recent court cases have called into question how the ability of water utilities to satisfy the requirements of Proposition 218 with respect to setting Tiered volume rates. Based on direction from the City, the proposed consumption charge consists of a Uniform Volume Charge per CCF for all customers and all customer classes. This eliminates the Winter/ Summer rate schedules from the Residential customer class, eliminates the 4-tier increasing block rate structure, and unifies the consumption charge for all user classes. The consumption charge was developed to recover the costs identified for each customer class in Table 4-8.

Table 5-3 shows the five-year consumption rate schedule for water. Cost trends and distribution are similar for each year of the Study Period therefore, the COS allocations for the variable portion of cost derived for FY 2027 are applied to the remaining study period years.

Table 5-3 Existing and Proposed Consumption Charges

CUSTOMER TYPE	EXISTING FY 2026	PROPOSED RATES				
		FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
	\$/CCF	\$/CCF	\$/CCF	\$/CCF	\$/CCF	\$/CCF
Volume Charges (\$/CCF)						
All Customers	N/A	2.95	3.89	4.08	4.28	4.49
Residential (Winter)						
0–12 CCF	1.50	N/A	N/A	N/A	N/A	N/A
13–19 CCF	2.00	N/A	N/A	N/A	N/A	N/A
20–40 CCF	2.17	N/A	N/A	N/A	N/A	N/A
40+ CCF	2.33	N/A	N/A	N/A	N/A	N/A
Residential (Summer)						
0-18 CCF	1.50	N/A	N/A	N/A	N/A	N/A
19-29 CCF	2.00	N/A	N/A	N/A	N/A	N/A
30-50 CCF	2.17	N/A	N/A	N/A	N/A	N/A
50+ CCF	2.33	N/A	N/A	N/A	N/A	N/A
Multi-Family	2.01	N/A	N/A	N/A	N/A	N/A
Commercial	1.92	N/A	N/A	N/A	N/A	N/A
Industrial	1.59	N/A	N/A	N/A	N/A	N/A
Irrigation	2.40	N/A	N/A	N/A	N/A	N/A
Construction	2.18	N/A	N/A	N/A	N/A	N/A

CCF = Hundred cubic feet

6.0 Bill Impacts and Comparisons

Table 6-1 compares typical monthly bills under the existing FY 2025 rates and the proposed schedule of water rates for FY 2027 derived in this Study. The typical single-family residential has a ¾" meter and uses between 10 to 16 CCF of water per month with an average near 13 CCF of water per month. Table 6-1 compares the bill increase resulting from the increase in the fixed charge corresponding to a ¾" meter plus the increased cost of consumption per CCF under different levels of usage.

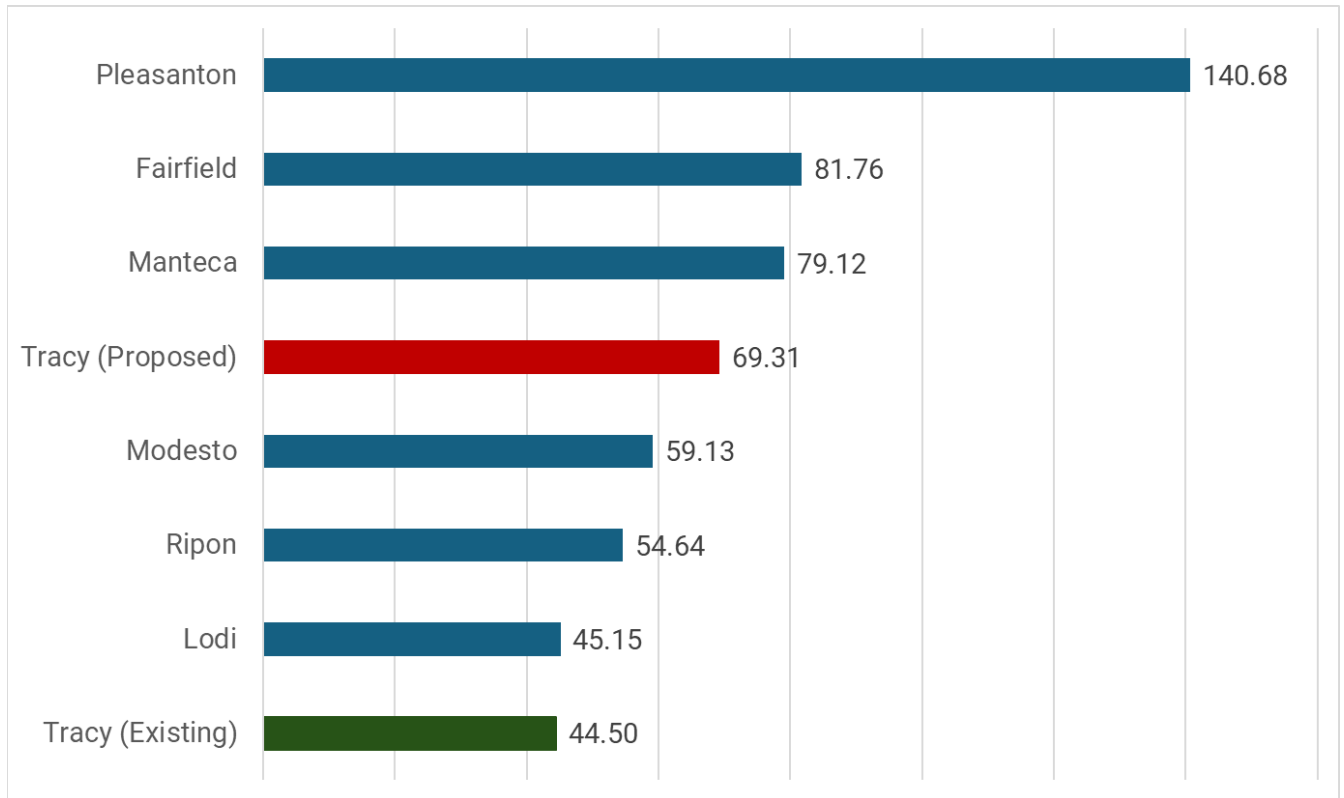
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Table 6-1 Typical Water Monthly Bill

PER UNIT USAGE	EXISTING STRUCTURE			PROPOSED STRUCTURE			BILL INCREASE
	FIXED CHARGE	VOLUME CHARGE	TOTAL	FIXED CHARGE	VOLUME CHARGE	TOTAL	
CCF	\$	\$	\$	\$	\$	\$	\$
Typical Bill by Consumption (Winter)							
0	\$18.50	\$0.00	\$18.50	\$22.11	\$0.00	\$22.11	\$3.61
1	18.50	1.50	20.00	22.11	2.95	25.06	\$5.06
2	18.50	3.00	21.50	22.11	5.90	28.01	\$6.51
3	18.50	4.50	23.00	22.11	8.85	30.96	\$7.96
5	18.50	7.50	26.00	22.11	14.75	36.86	\$10.86
10	18.50	15.00	33.50	22.11	29.50	51.61	\$18.11
13	18.50	20.00	38.50	22.11	38.35	60.46	\$21.96
16	18.50	26.00	44.50	22.11	47.20	69.31	\$24.81
20	18.50	34.17	52.67	22.11	59.00	81.11	\$28.44
30	18.50	55.87	74.37	22.11	88.50	110.61	\$36.24
40	18.50	77.57	96.07	22.11	118.00	140.11	\$44.04
50	18.50	100.87	119.37	22.11	147.50	169.61	\$50.24
Typical Bill by Consumption (Summer)							
0	\$18.50	\$0.00	\$18.50	\$22.11	\$0.00	\$22.11	\$3.61
1	18.50	1.50	20.00	22.11	2.95	25.06	\$5.06
2	18.50	3.00	21.50	22.11	5.90	28.01	\$6.51
3	18.50	4.50	23.00	22.11	8.85	30.96	\$7.96
5	18.50	7.50	26.00	22.11	14.75	36.86	\$10.86
10	18.50	15.00	33.50	22.11	29.50	51.61	\$18.11
13	18.50	19.50	38.00	22.11	38.35	60.46	\$22.46
16	18.50	24.00	42.50	22.11	47.20	69.31	\$26.81
20	18.50	31.00	49.50	22.11	59.00	81.11	\$31.61
30	18.50	51.17	69.67	22.11	88.50	110.61	\$40.94
40	18.50	72.87	91.37	22.11	118.00	140.11	\$48.74
50	18.50	94.57	113.07	22.11	147.50	169.61	\$56.54

Figure 6-1 compares the proposed bill resulting from the increase corresponding to a ¾” meter plus using 16 CCF per month with peer cities surveyed during the course of the Study. While the typical customer in the City uses nearly 13 CCF per month, the available data indicates a 16 CCF typical customer for other cities and thus the use of this amount for comparison. The survey reflects that the City of Tracy typical user would go from having the lowest bill among peers, to having a bill near the median. Black & Veatch notes that surveys represent a moment in time and it is likely that some of these peer cities will also be reviewing their financial needs and possibly rate structures to meet ongoing obligations and regulatory requirements.

Figure 6-1 Peer City Water Rate Comparison (\$/month)



7.0 Report Limitations

Black & Veatch Corporation (Black & Veatch) has prepared this report for the City of Tracy (City), and it is based on information not within the control of Black & Veatch. The City has not requested Black & Veatch to make an independent analysis, verify the information provided to us, or render an independent judgment of the validity of the information provided by others. Because of this, Black & Veatch cannot, and does not, guarantee the accuracy thereof to the extent that such information, data, or opinions were based on information provided by others.

In conducting these analyses and in forming an opinion of the projection of future financial operations summarized in this report, Black & Veatch made certain assumptions on the conditions, events, and circumstances that may occur in the future. The methodology utilized in performing the analyses follows generally accepted practices for such projections. Such assumptions and methodologies are reasonable and appropriate for the purpose for which they are used. While we believe the assumptions are reasonable and the projection methodology valid, actual results may differ materially from those projected, as influenced by the conditions, events, and circumstances that occur. Such factors may include the City's ability to execute the capital improvement program as scheduled and within budget, regional climate and weather conditions affecting water demand, and adverse legislative, regulatory, or legal decisions (including environmental laws and regulations) affecting the City's ability to manage the system and meet water quality requirements.

Appendix A. Extended Financial Plan (FY 2032 – FY 2036)

LINE NO.	DESCRIPTION	FY 2032	FY 2033	FY 2034	FY 2035	FY 2036																																	
		(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)																																	
Revenue																																							
<i>Rate Revenue</i>																																							
1	Revenue Under Existing Rates	25.51	25.77	26.02	26.28	26.54																																	
	<table border="1"> <thead> <tr> <th>Year</th> <th>Months Effective</th> <th>Revenue Adj.</th> </tr> </thead> <tbody> <tr> <td>2027</td> <td>12</td> <td>32.00%</td> </tr> <tr> <td>2028</td> <td>12</td> <td>32.00%</td> </tr> <tr> <td>2029</td> <td>12</td> <td>5.00%</td> </tr> <tr> <td>2030</td> <td>12</td> <td>5.00%</td> </tr> <tr> <td>2031</td> <td>12</td> <td>5.00%</td> </tr> <tr> <td>2032</td> <td>12</td> <td>3.00%</td> </tr> <tr> <td>2033</td> <td>12</td> <td>3.00%</td> </tr> <tr> <td>2034</td> <td>12</td> <td>3.00%</td> </tr> <tr> <td>2035</td> <td>12</td> <td>3.00%</td> </tr> <tr> <td>2036</td> <td>12</td> <td>3.00%</td> </tr> </tbody> </table>	Year	Months Effective	Revenue Adj.	2027	12	32.00%	2028	12	32.00%	2029	12	5.00%	2030	12	5.00%	2031	12	5.00%	2032	12	3.00%	2033	12	3.00%	2034	12	3.00%	2035	12	3.00%	2036	12	3.00%					
Year	Months Effective	Revenue Adj.																																					
2027	12	32.00%																																					
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2034	12	3.00%																																					
2035	12	3.00%																																					
2036	12	3.00%																																					
2		8.16	8.24	8.33	8.41	8.49																																	
3		10.78	10.88	10.99	11.10	11.21																																	
4		2.22	2.24	2.27	2.29	2.31																																	
5		2.33	2.36	2.38	2.40	2.43																																	
6		2.45	2.47	2.50	2.52	2.55																																	
7		1.54	1.56	1.57	1.59	1.61																																	
8			1.61	1.62	1.64	1.65																																	
9				1.67	1.69	1.70																																	
10					1.74	1.75																																	
11						1.81																																	
12	Revenues From Adjustments	27.49	29.37	31.33	33.38	35.52																																	
13	Subtotal Rate Revenue	\$53.00	\$55.13	\$57.35	\$59.66	\$62.06																																	
<i>Other Operating Revenues</i>																																							
14	Other Income	0.82	0.82	0.82	0.82	0.82																																	
15	Interest Income	0.12	0.16	0.24	0.33	0.43																																	
16	Rate Stabilization Reserve (a)	(1.50)	(1.00)	0.00	0.00	0.00																																	
17	Transfers	0.00	0.00	0.00	0.00	0.00																																	
18	Subtotal Other Operating Revenues	(\$0.56)	(\$0.02)	\$1.06	\$1.15	\$1.25																																	

LINE NO.	DESCRIPTION	FY 2032	FY 2033	FY 2034	FY 2035	FY 2036
		(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)
	<i>Debt Financing</i>					
19	SRF Loans	0.00	0.00	0.00	0.00	0.00
20	Subtotal Debt Financing	\$0.00	\$0.00	\$0.001	\$0.00	\$0.00
21	Total Revenue	\$52.44	\$55.11	\$58.41	\$60.80	\$63.31
	Revenue Requirements					
	<i>Operating & Maintenance</i>					
22	O&M Expenses	37.38	38.45	39.56	40.70	41.88
23	Subtotal O&M	37.38	38.45	39.56	40.70	41.88
	<i>Debt Service</i>					
	Existing Debt Service					
24	Existing SRF Loan	0.00	0.00	0.00	0.00	0.00
25	Total Existing Debt Service	0.00	0.00	0.00	0.00	0.00
	Proposed Debt Service					
26	Proposed SRF Loans	1.39	1.39	1.39	1.39	1.39
27	Proposed Interfund Loans	0.00	0.00	0.00	0.00	0.00
28	Total Proposed Debt Service	1.39	1.39	1.39	1.39	1.39
29	Total Debt Service	1.39	1.39	1.39	1.39	1.39
	<i>Capital Projects</i>					
30	Capital Improvement Program (b)	11.43	7.99	8.74	9.00	9.27
31	Total Capital Projects	7.99	8.74	9.00	9.27	11.43
32	Total Revenue Requirements	\$50.20	\$47.84	\$49.69	\$51.09	\$52.53

LINE NO.	DESCRIPTION	FY 2032	FY 2033	FY 2034	FY 2035	FY 2036
		(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)	(\$MILLIONS)
33	Net Annual Cash Balance	\$2.24	\$7.28	\$8.72	\$9.71	\$10.77
34	Beginning Fund Balance (c)	9.65	11.89	19.17	27.89	37.60
35	Net Cumulative Fund Balance	\$11.89	\$19.17	\$27.89	\$37.60	\$48.37
36	ECRR (d)	6.27	6.20	6.21	6.21	6.22
37	Total Target Reserves	6.27	6.20	6.21	6.21	6.22
38	Debt Service Coverage (1.2x)	10.83x	11.98x	13.55x	14.46x	15.41x

Notes:

- a. Reflects a \$1,000,000 loan from the General Fund to establish the Rate Stabilization Reserve in FY 2026.
- b. Excludes projects funded directly from Impact Fees.
- c. FY 2027 Beginning Balance reflects a \$1,000,000 loan from the General Fund to establish the Rate Stabilization Reserve in FY 2026.
- d. The ECRR has a current target goal of one year of capital depreciation expense.

Totals may not sum correctly due to rounding.

Appendix B. Detailed Capital Improvement Program (FY 2026 – FY 2036)

LINE NO.	CAPITAL PROJECT	CATEGORY	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
			(\$000s)	(\$000s)	(\$000s)	(\$000s)	(\$000s)	(\$000s)
1	Replace Media Filter- WTP	Treatment	265.2	273.2	281.4	289.8	298.5	307.5
2	Up Flow Clarifier Rehab - Build	Treatment	0.0	0.0	22,510.2	0.0	0.0	0.0
3	Larch Rd 12" Water Line Replacement	Water Lines	2,121.8	2,185.5	0.0	0.0	0.0	0.0
4	BF Sisk Dam	Reservoirs	283.4	729.6	0.0	0.0	0.0	0.0
5	CMMS Implementation	Machinery & Equipment	265.2	0.0	0.0	0.0	0.0	0.0
6	Valve Replacement Program	Valves, etc.	636.5	655.6	675.3	695.6	716.4	737.9
7	Annual Lateral Replacement	Water Lines	0.0	2,731.8	2,813.8	2,898.2	2,985.1	3,074.7
8	Drying Bed Rehab	Treatment	0.0	0.0	562.8	1,738.9	1,791.1	0.0
9	Security System Implementation for City's Water Facilities - Build	Building Construction	0.0	1,092.7	1,125.5	0.0	0.0	0.0
10	Maint Bldg Remodel	Building Construction	0.0	327.8	0.0	0.0	0.0	0.0
11	Maint Machine Building	Building Construction	0.0	0.0	56.3	0.0	0.0	0.0
12	Lincoln Well Rehab	Water Lines	0.0	0.0	562.8	1,738.9	1,791.1	0.0
13	Cordes Ranch Chemical System Fix	Treatment	0.0	109.3	225.1	231.9	0.0	0.0
14	Clearwell 3 - Master Plan listed Design	Planning/Design Capital	0.0	0.0	225.1	0.0	0.0	0.0
15	Air Handler Upgrades	Building Construction	0.0	0.0	0.0	0.0	477.6	491.9
16	PRS Automation	Pumping	0.0	0.0	0.0	0.0	119.4	1,106.9
17	Total		\$3,572.1	\$9,284.1	\$30,585.3	\$8,969.9	\$10,594.8	\$9,039.5

Note: Totals may not sum correctly due to rounding.

LINE NO.	CAPITAL PROJECT	CATEGORY	FY 2032	FY 2033	FY 2034	FY 2035	FY 2036
			(\$000s)	(\$000s)	(\$000s)	(\$000s)	(\$000s)
1	Replace Media Filter- WTP	Treatment	316.7	326.2	336	346.1	356.4
2	Up Flow Clarifier Rehab - Build	Treatment	0	0	0	0	0
3	Larch Rd 12" Water Line Replacement	Water Lines	0	0	0	0	0
4	BF Sisk Dam	Reservoirs	0	0	0	0	0
5	CMMS Implementation	Machinery & Equipment	0	0	0	0	0
6	Valve Replacement Program	Valves, etc.	0	0	0	0	0
7	Annual Lateral Replacement	Water Lines	3,166.9	3,261.9	3,359.8	3,460.6	3,564.4
8	Drying Bed Rehab	Treatment	0	0	0	0	0
9	Security System Implementation for City's Water Facilities - Build	Building Construction	0	0	0	0	0
10	Maint Bldg Remodel	Building Construction	0	0	0	0	0
11	Maint Machine Building	Building Construction	0	0	0	0	0
12	Lincoln Well Rehab	Water Lines	0	0	0	0	0
13	Cordes Ranch Chemical System Fix	Treatment	0	0	0	0	0
14	Clearwell 3 - Master Plan listed Design	Planning/Design Capital	0	0	0	0	0
15	Air Handler Upgrades	Building Construction	0	0	0	0	0
16	PRS Automation	Pumping	1,140.1	0	0	0	0
17	Total		\$11,907.7	\$8,481.1	\$3,695.8	\$3,806.7	\$3,920.8

Note: Totals may not sum correctly due to rounding.