

# CITY OF EL MONTE

## 2025 Water Rate Study

Final Report / October 6, 2025







October 6, 2025

Mr. Don Nguyen  
Public Works and Utilities Director  
City of El Monte  
11333 Valley Boulevard  
El Monte, CA 91731

**Subject: 2025 Water Rate Study Report**

Dear Mr. Nguyen,

Raftelis is pleased to provide this 2025 Water Rate Study Report to the City of El Monte. The overall goal of the study was to update water rates that are fair and equitable and aligned with Proposition 218 requirements.

The study's major objectives include the following:

- » Develop a five-year financial plan through fiscal year (FYE) 2030 that sufficiently funds the Water Enterprise's operating costs, debt obligations, and necessary capital expenditures
- » Propose equitable water rates for FYE 2026 to FYE 2030

This report contains an executive summary followed by a detailed derivation of the financial plan and proposed water rates. It has been a pleasure working with you and we would like to thank you and City staff for the support provided to Raftelis during this study.

Sincerely,

A handwritten signature in blue ink that reads 'Steve Gagnon'.

**Steve Gagnon, PE**  
Project Manager

**Lindsay Roth**  
Lead Analyst

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# 1. Executive Summary

## 1.1. Study Overview

The City of El Monte (City) provides potable water service to about 17% of its population through approximately 3,500 metered service connections. The City's Water Enterprise maintains an extensive system of water infrastructure that includes nine active wells and 42 miles of water distribution lines. The City's water supply consists solely of groundwater produced from the Main San Gabriel Basin, although imported replacement water must be purchased if the City produces groundwater in excess of its share of the Basin's operating safe yield (i.e. pumping rights). The operating safe yield is expected to decrease in the future, causing the City to purchase more expensive replacement water.

The City last conducted a water rate study in 2019, which established water rates over a five-year period through the end of calendar year 2024. The City engaged Raftelis in late 2024 to conduct a water rate study to establish proposed water rates over the next five years that are compliant with Proposition 218 and consistent with industry-standard cost of service principles. The study's major objectives include the following:

- » Develop a five-year financial plan through fiscal year (FYE) 2030 that sufficiently funds the Water Enterprise's operating costs, debt obligations, and necessary capital expenditures
- » Propose equitable water rates for FYE 2026 to FYE 2030

## 1.2. Existing Water Rates

The City's water customers are currently subject to the following charges for water service:

1. **Commodity Rates:** Volumetric rates are assessed per unit (one unit of water is 100 gallons i.e. one hgal) of water delivered within a bimonthly billing period based on an inclining two-tier rate structure. Up to 125 units of water per bimonthly billing period are charged at the lower Tier 1 rate. Any water use in excess of 125 units per bimonthly billing period is charged at the higher Tier 2 rate.
2. **Bimonthly Water Service Meter Base Charge:** This fixed charge based on meter size is assessed each bimonthly billing period.
3. **Bimonthly Private Fire Protection Water Service Charges:** This bimonthly fixed charge is only charged to dedicated private fire protection connections associated with state regulated buildings and some non-state regulated buildings as defined in the California Fire Code.

## 1.3. Financial Plan

Raftelis first performed a status quo (no rate increase) cash flow analysis to evaluate whether existing water rates can adequately fund the Water Enterprise's various expenses over the five-year study period. Raftelis projected the Water Enterprise's revenue requirement, which includes operations and maintenance (O&M) expenses, capital improvement plan (CIP) expenditures, existing debt service payments, and adequate levels of reserve funding over the study period. Raftelis projected that with no rate increases over the five-year study period, the Water Enterprise will deplete its cash reserves by FYE 2027 and fail to meet its debt coverage requirement in all five years. This demonstrates the need for revenue increases over the study period.

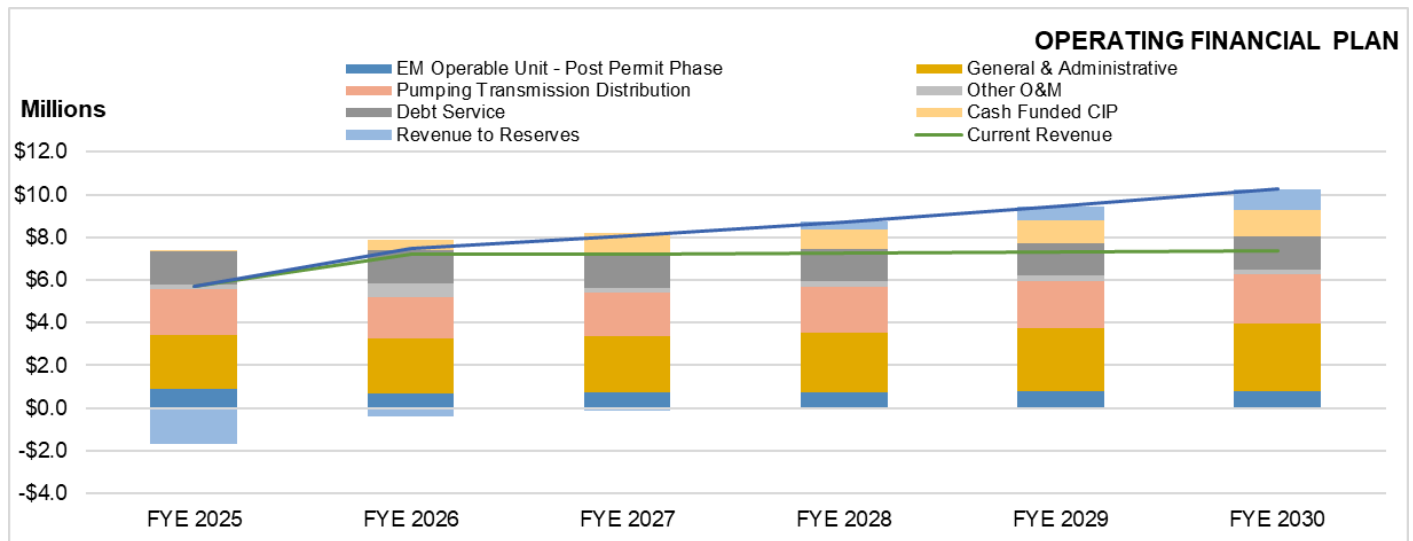
Raftelis worked with City staff to propose the following revenue adjustments over the five-year study period. The proposed revenue adjustments were selected to provide financial stability for the Water Enterprise while minimizing impacts to the City’s water ratepayers. Note that while the City’s fiscal year spans from July to June, each revenue adjustment is planned for January 1 of each year.

**Table 1-1: Proposed Five-Year Revenue Adjustments**

Fiscal Year	Effective Date	Revenue Adjustment
FYE 2026	January 1, 2026	7.75%
FYE 2027	January 1, 2027	7.75%
FYE 2028	January 1, 2028	7.75%
FYE 2029	January 1, 2029	7.75%
FYE 2030	January 1, 2030	7.75%

**Figure 1-1** shows the proposed financial plan that incorporates the proposed revenue adjustments above. Expenses are represented by stacked bars. O&M expenses include El Monte Operable Unit, General & Administrative, Pumping/Transmission/Distribution, and Other O&M expenses. Additional non-O&M related expenses include existing debt service and rate funded CIP. Projected revenues in the absence of any rate increase are represented by the green line, while projected revenues under the proposed revenue adjustments are represented by the blue line. **Figure 1-1** demonstrates the need for revenue adjustments, as current rates will not generate sufficient revenues to recover debt service payments and rate funded CIP expenditures in each year.

**Figure 1-1: Proposed Financial Plan**

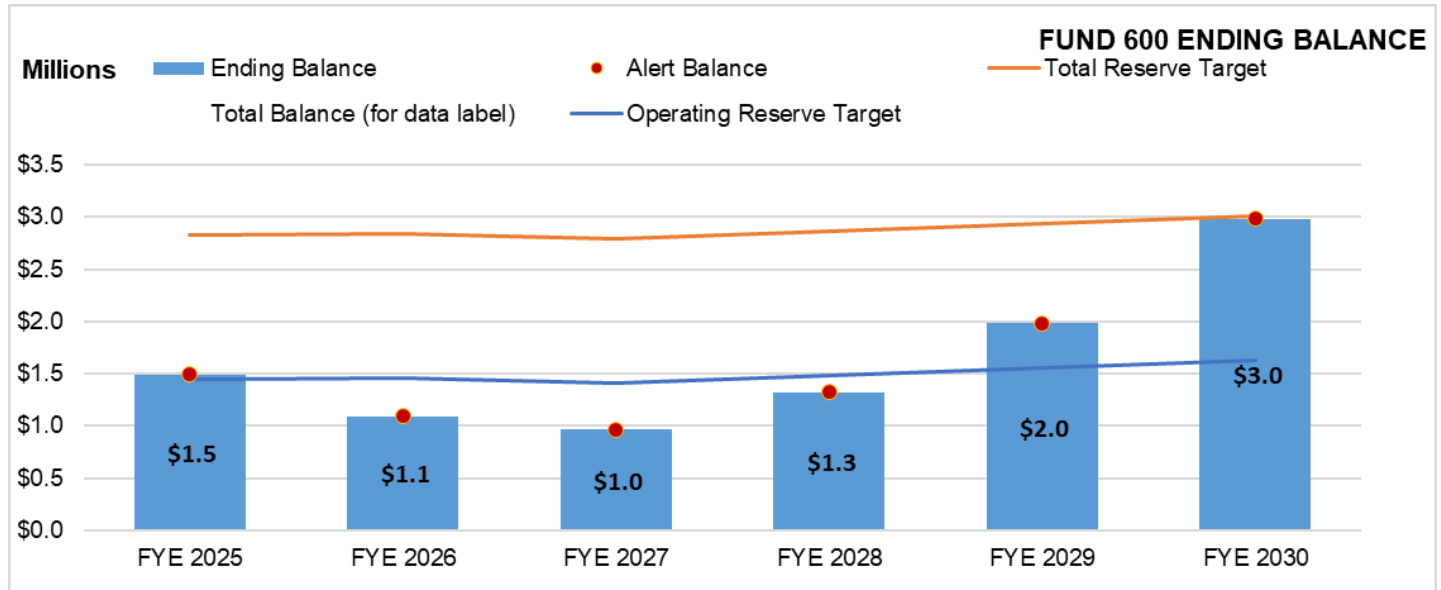


**Figure 1-2** shows the Water Enterprise’s projected ending cash balance (blue bars) under the proposed financial plan relative to two cash reserve targets. The City has not formally adopted reserve policies for the Water Enterprise. Raftelis therefore developed two reserve targets to use as benchmarks in evaluating the sufficiency of the Water Enterprise’s projected ending cash balances over the study period. The first reserve target shown below (see blue line) includes an operating reserve target of 25% of annual O&M (i.e. 90 days of O&M costs). Figure 1-2 shows that the City, if it were to spend all its budget and execute all capital projects as planned, would not meet its operating reserve

for the first three years of the study. However, it would surpass the operating reserve in the last two years of the study. The City could pare back capital expenses in the first three years to meet its operating reserve.

The recommended capital reserve target is equal to one year’s worth of average annual CIP expenditures and is added to the operating reserve to determine the total reserve target shown below (see red dashed line). The capital reserve target is intended to provide sufficient cash on hand for the City to expeditiously award CIP construction contracts and to reduce the financial impact of unexpected capital asset failure. The total reserve target is informed by Raftelis’ experience with similar water utilities in Southern California. To minimize customers bill impacts, Raftelis recommends a slow build-up towards the total reserve target over the five-year study period.

**Figure 1-2: Projected Ending Balances - Proposed Financial Plan**



## 1.4. Proposed Water Rates

So that customers pay in proportion to the cost of providing service, Raftelis performed a cost of service analysis for FYE 2026 (i.e. the rate-setting year also known as the test year) in accordance with industry-standard principles outlined by the American Water Works Association (AWWA) in its *Principles of Water Rates, Fees, and Charges: Manual of Water Supply Practices M1 Sixth Edition* (M1 Manual). Raftelis followed industry-standard cost of service principles outlined in the M1 Manual, which requires a clear nexus between the cost burden imposed by customers and the rates those customers are charged. The cost of service analysis takes into account water use characteristics by tier in order to allocate costs in proportion to the burden each customer class places on the water system.

The proposed rates shown are the same as the City’s existing rate structure. Current and proposed water rates over the study period are shown in **Table 1-2**. FYE 2026 proposed rates were established based on the results of the cost of service analysis. Proposed rates from FYE 2027 to FYE 2030 were established by increasing the prior fiscal year’s proposed rates by the corresponding revenue adjustment from **Table 1-1**. All rates are proposed to become effective on January 1 of each fiscal year.

**Table 1-2: Proposed Five-Year Rate Schedule**

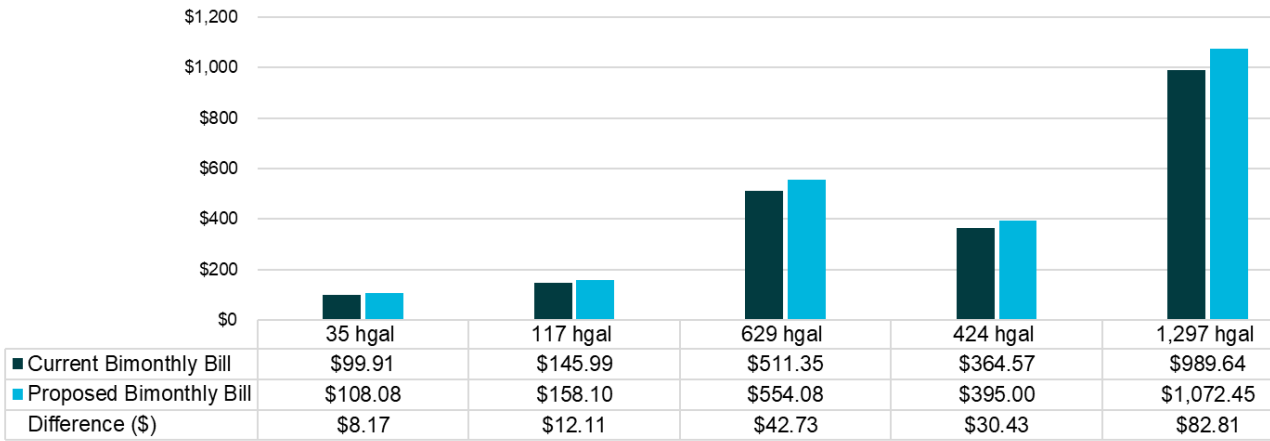
	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Revenue Adjustment		7.75%	7.75%	7.75%	7.75%	7.75%
Adjustment Month		January	January	January	January	January
Commodity Rates						
Tier	Current	January 1, 2026	January 1, 2027	January 1, 2028	January 1, 2029	January 1, 2030
Tier 1 (0-125 hgal)	\$0.562	\$0.610	\$0.657	\$0.708	\$0.763	\$0.822
Tier 2 (>125 hgal)	\$0.716	\$0.776	\$0.836	\$0.901	\$0.971	\$1.046
Bimonthly Water Service Meter Base Charges						
Meter Size	Current	January 1, 2026	January 1, 2027	January 1, 2028	January 1, 2029	January 1, 2030
5/8-inch	\$80.24	\$86.73	\$93.45	\$100.69	\$108.49	\$116.90
1-inch	\$168.68	\$181.58	\$195.65	\$210.81	\$227.15	\$244.75
1.5-inch	\$316.06	\$339.66	\$365.98	\$394.34	\$424.90	\$457.83
2-inch	\$492.94	\$529.36	\$570.39	\$614.60	\$662.23	\$713.55
3-inch	\$905.64	\$971.98	\$1,047.31	\$1,128.48	\$1,215.94	\$1,310.18
4-inch	\$1,495.20	\$1,604.30	\$1,728.63	\$1,862.60	\$2,006.95	\$2,162.49
6-inch	\$2,969.12	\$3,185.10	\$3,431.95	\$3,697.93	\$3,984.52	\$4,293.32
8-inch	\$4,737.80	\$5,082.07	\$5,475.93	\$5,900.31	\$6,357.58	\$6,850.29
10-inch	\$6,801.28	\$7,295.19	\$7,860.57	\$8,469.76	\$9,126.17	\$9,833.45
Bimonthly Private Fire Protection Water Service Charges						
Meter Size	Current	January 1, 2026	January 1, 2027	January 1, 2028	January 1, 2029	January 1, 2030
2-inch	\$48.52	\$51.49	\$55.48	\$59.78	\$64.41	\$69.40
3-inch	\$123.50	\$128.52	\$138.48	\$149.21	\$160.77	\$173.23
4-inch	\$252.82	\$261.38	\$281.64	\$303.47	\$326.99	\$352.33
6-inch	\$716.96	\$738.21	\$795.42	\$857.07	\$923.49	\$995.06
8-inch	\$1,517.48	\$1,560.64	\$1,681.59	\$1,811.91	\$1,952.33	\$2,103.64
10-inch	\$2,721.62	\$2,797.75	\$3,014.58	\$3,248.21	\$3,499.95	\$3,771.20

## 1.5. Customer Impacts

Figure 1-3 shows estimated bimonthly water bills under current FYE 2025 and proposed FYE 2026 rates for a residential customer with a 5/8-inch water meter at varying levels of bimonthly water use. Note that 120 hgal represents median residential bimonthly water use, and 137 hgal is the average.

Figure 1-3: Bimonthly Bill Impacts at Varying Levels of Use

### Bimonthly Bill Impacts for Commercial Customer with 5/8-inch Meter



■ Current Bimonthly Bill

■ Proposed Bimonthly Bill

# 2. Introduction

## 2.1. Water System Overview

The City of El Monte (City) provides potable water service to about 17% of the City's population through approximately 3,500 metered service connections. The City's remaining population receives water service from various private water providers. The City's Water Enterprise maintains an extensive system of water infrastructure that includes five active wells and 42 miles of water distribution lines. Because the City is largely built-out, anticipated growth in water accounts over the next five years is minimal.

The City's water supply consists solely of groundwater produced from the Main San Gabriel Basin (Basin). The Main San Gabriel Basin Watermaster (Watermaster) is the governing body tasked with management of the Basin's water resources, and has administered the Basin's water rights since adjudication in 1973. The Watermaster does not limit the quantity of water that parties within the Basin may pump. However, the City must purchase imported replacement water to offset annual groundwater production in excess of its proportional share of the Basin's operating safe yield (i.e. pumping rights). The City has previously avoided the need to purchase replacement water by maintaining water production below its proportional share of the operating safe yield. This study assume the basin safe yield is 140,000 acre feet of which the City's share is 1.41%.

The City began producing water in 2018 from the newly constructed Arden Groundwater Treatment Plant (AGTP). This water supply and treatment facility was constructed as part of the El Monte Operable Unit Project Agreement between the City and private parties responsible for groundwater pollution in the Basin. The project agreement stipulates that the responsible parties must reimburse the City for in-kind service costs to operate the AGTP. The City's operation of the AGTP represents an additional cost pressure on the Water Enterprise.

## 2.2. Study Objectives

The City last conducted a water rate study in 2019, which established water rates over a five-year period through the end of calendar year 2024. The City engaged Raftelis in December 2024 to conduct a water rate study to establish proposed water rates consistent with industry-standard cost of service principles. The study's major objectives include the following:

- » Develop a five-year financial plan through FYE 2030 that sufficiently funds the Water Enterprise's operating costs, debt obligations, and necessary capital expenditures
- » Perform a cost of service analysis to appropriately allocate costs for recovery by the City's water rates
- » Propose equitable water rates for FYE 2026 to FYE 2030

This report provides a detailed description of the financial plan development, the cost of service analysis, and the development of the proposed five-year water rate schedule. Assumptions, inputs, and calculations are clearly shown to provide a thorough and transparent description of how the proposed water rates were established. Numbers shown in tables are rounded. Therefore, recreating the calculations based on table values shown may not produce the exact results.

## 2.3. Rate-Setting Methodology

### Rate-Setting Methodology

This water rate study was conducted using industry-standard principles outlined by the AWWA M1 Manual. The process and approach Raftelis utilized in the study to determine water rates is informed by the City's policy objectives, the current water system and rates, and the legal requirements in California (namely, Proposition 218). The resulting financial plan, cost of service analysis, and rate design process follows five key steps, outlined below, to determine proposed rates that fulfill the City's objectives, meet industry standards, and comply with relevant regulations.

1. **Financial Plan:** The first study step is to develop a multi-year financial plan that projects the Water Enterprise's revenues, expenses, capital project financing, annual debt service, and reserve funding. The financial plan is used to determine the revenue adjustment, which allows the water utility to recover adequate revenues to fund expenses and reserves.
2. **Revenue Requirement Determination:** After completing the financial plan, we determine the revenue requirement for the test year, also known as the rate-setting year. The test year for this study is FYE 2026. The revenue requirement should sufficiently fund the Water Enterprise's operations and maintenance (O&M) costs, annual debt service, capital improvement plan (CIP) costs, and reserve funding as projected based on the Water Enterprise's FYE 2026 budget.
3. **Cost of Service Analysis:** The annual cost of providing water service, or the revenue requirement, is then distributed to customer classes and tiers commensurate with their use of and burden on the water system. A cost of service analysis involves the following steps:
  - a. Functionalize costs – the different components of the revenue requirement are categorized into functions such as supply, transmission and distribution (T&D), customer service and billing, etc.
  - b. Allocate to cost causation components – the functionalized costs are then allocated to cost causation components such as supply, base delivery, peaking, etc.
  - c. Develop unit costs – unit costs for each cost causation component are determined using units of service, such as total use, peaking units, equivalent meters, number of customers, etc. for each component.
  - d. Distribute cost components – the cost components are allocated to each customer class and tier using the unit costs in proportion to their demand and burden on the system.

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

4. **Rate Design:** After allocating the revenue requirement to each customer class and tier, the rate design and calculation process can begin. Rates do more than simply recover costs; within the legal framework and industry standards, properly designed rates should support and optimize the City's policy objectives. Rates also act as a public information tool in communicating these policy objectives to customers. This process also includes a rate impact analysis and sample customer bill impacts.
5. **Report Preparation and Rate Adoption:** The final step in a rate study is to develop a report in conjunction with the rate adoption process. The report documents the study results and presents the methodologies, rationale, justifications, and calculations used to determine the proposed rates. A thorough and

methodological report serves two important functions: maintaining defensibility in a stringent legal environment and communicating the rate adoption process to customers and important stakeholders.

# 3. Financial Plan

This section details the five-year financial plan development for the City’s Water Enterprise for the study period (FYE 2026 to FYE 2030). This includes the determination of annual revenues required from water rates based on annual cash flow and ending balance projections for the Water Enterprise. Assumptions and inputs related to projected revenues, operating expenses, debt service, capital expenditures, and reserve funding are clearly outlined in the following subsections.

## 3.1. Existing Water Rates

The City’s water customers are currently subject to the following charges for water service:

6. **Commodity Rates:** Volumetric rates are assessed per unit (one unit is equal to 100 gallons i.e. one hgal) of water delivered within a bimonthly billing period based on an inclining two-tier rate structure. Up to 125 units of water per bimonthly billing period are charged at the lower Tier 1 rate. Any water use in excess of 125 units per bimonthly billing period is charged at the higher Tier 2 rate.
7. **Bimonthly Water Service Meter Base Charge:** This fixed charge based on meter size is assessed each bimonthly billing period. Larger meter sizes are subject to higher fixed charge rates because they burden the water system with greater capacity-related and maintenance-related costs.
8. **Bimonthly Private Fire Protection Water Service Charges:** This bimonthly fixed charge is only charged to dedicated private fire protection connections associated with state regulated buildings and some non-state regulated buildings as defined in the California Fire Code. Fewer than five percent of the City’s water customer accounts are subject to this charge.

**Table 3-1** shows the existing rates for the three charges listed above. All rates shown below went into effect on January 1, 2025. The Commodity Rate tier allotments and fixed charge rates shown are all on a bimonthly basis.

**Table 3-1: Existing Water Rates and Charges**

Commodity Rates ( per 100 gallons)	
Tier	Current 2025 Rate
Tier 1 (0-125 hgal)	\$0.562
Tier 2 (>125 hgal)	\$0.716
Bimonthly Water Service Meter Base Charges	
Meter Size	Current 2025 Rate
5/8-inch	\$80.24
1-inch	\$168.68
1.5-inch	\$316.06
2-inch	\$492.94
3-inch	\$905.64
4-inch	\$1,495.20
6-inch	\$2,969.12
8-inch	\$4,737.80
10-inch	\$6,801.28
Bimonthly Private Fire Protection Water Service Charges	
Meter Size	Current 2025 Rate
2-inch	\$48.52
3-inch	\$123.50
4-inch	\$252.82
6-inch	\$716.96
8-inch	\$1,517.48
10-inch	\$2,721.62

### 3.2. Water Account and Use Assumptions

City staff provided the number of existing water meters and private fire protection connections as of FYE 2024. Approximately 83% of water meters are associated with residential customers, 15% with commercial/industrial customers, and 2% with irrigation customers. To ensure conservative rate revenue projections, Raftelis projected the number of accounts over the five-year study period assuming a modest 0.5% annual growth in water meters and 0% annual growth in the number of private fire protection connections. **Table 3-2** shows the actual number of water meters and private fire connections for FYE 2024 and projected values for FYE 2025 to FYE 2030 based on these growth assumptions.

**Table 3-2: Projected Number of Water Meters and Private Fire Service Connections**

	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028	FYE 2029	FYE 2030
<b>Meters subject to Bimonthly Water Service Meter Charge</b>							
<b>Meter Size</b>							
5/8-inch	2,690	2,704	2,717	2,731	2,745	2,758	2,772
1-inch	517	520	522	525	527	530	533
1.5-inch	99	99	100	100	101	101	102
2-inch	142	143	143	144	145	146	146
3-inch	6	6	6	6	6	6	6
4-inch	18	18	18	18	18	18	19
6-inch	6	6	6	6	6	6	6
8-inch	2	2	2	2	2	2	2
10-inch	0	0	0	0	0	0	0
<b>Total</b>	<b>3,480</b>	<b>3,498</b>	<b>3,515</b>	<b>3,533</b>	<b>3,551</b>	<b>3,568</b>	<b>3,586</b>
<i>Annual Change</i>		0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
<b>Bimonthly Private Fire Protection Char</b>							
<b>Meter Size</b>							
2-inch	0	0	0	0	0	0	0
3-inch	11	11	11	11	11	11	11
4-inch	45	45	45	45	45	45	45
6-inch	42	42	42	42	42	42	42
8-inch	21	21	21	21	21	21	21
10-inch	7	7	7	7	7	7	7
<b>Total</b>	<b>126</b>	<b>126</b>	<b>126</b>	<b>126</b>	<b>126</b>	<b>126</b>	<b>126</b>
<i>Annual Change</i>		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Raftelis projected annual water use by tier based on actual water use data provided by City staff for FYE 2024. FYE 2024 represents the most recent fiscal year in which complete water use data was available at the time the study was conducted. The City provided an estimate of FYE 2025 water use which is reflected in **Table 3-3**. For the purposes of the financial plan, no change in per account water consumption is assumed over the study period relative to FYE 2024. Annual increases in projected water use over the study period are solely due to the annual account growth factor applied to water meters over the study period (see **Table 3-2**). The increase in water use over the study period is therefore directly proportional to the increase in total number water meters, which is 0.5% per year. **Table 3-3** shows total water use in both hundreds of gallons and acre-feet. Approximately 37% of total water use falls within Tier 1, with the remaining 63% in Tier 2.

**Table 3-3: Projected Water Use by Tier**

	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028	FYE 2029	FYE 2030
A	B	C	D	E	F	G	H
<b>Water Use (hundreds of gallons)</b>							
Tier 1: 0-125 hundred gallons per bimonthly billing cycle	1,847,978 hgal	2,080,084 hgal	2,090,484 hgal	2,100,937 hgal	2,111,441 hgal	2,121,999 hgal	2,132,609 hgal
Tier 2: >125 hundred gallons per bimonthly billing cycle	3,167,255 hgal	3,565,063 hgal	3,582,888 hgal	3,600,802 hgal	3,618,806 hgal	3,636,901 hgal	3,655,085 hgal
<b>Total Water Usage (hundreds of gallons)</b>	<b>5,015,233 hgal</b>	<b>5,645,147 hgal</b>	<b>5,673,372 hgal</b>	<b>5,701,739 hgal</b>	<b>5,730,248 hgal</b>	<b>5,758,899 hgal</b>	<b>5,787,694 hgal</b>
<i>Total Water Use (Acre-feet)</i>	<i>1,539 AF</i>	<i>1,732 AF</i>	<i>1,741 AF</i>	<i>1,750 AF</i>	<i>1,759 AF</i>	<i>1,767 AF</i>	<i>1,776 AF</i>
<i>Annual Change in Water Usage</i>	<i>-2.8%</i>	<i>12.6%</i>	<i>0.5%</i>	<i>0.5%</i>	<i>0.5%</i>	<i>0.5%</i>	<i>0.5%</i>

### 3.3. Revenue under Existing Rates

The Water Enterprise’s revenue consist of rate revenues, interest earnings on cash reserves, and other revenue from rental income, miscellaneous fees, and other sources. City staff provided FYE 2026 budgeted revenue for the Water Enterprise. Raftelis then projected revenues for FYE 2027 to FYE 2030. The revenue projections shown in **Section 3.3** are based on existing 2025 water rates, and therefore represent estimated revenues in the absence of any rate increase. This status quo scenario provided a baseline from which Raftelis then evaluated the need for revenue adjustments (i.e. rate increases).

## Calculated Water Rate Revenue

Raftelis projected water rate revenue from all rates and charges for FYE 2026 to FYE 2030 based on the projected number of water meters/private fire protection connections, and projected annual water use by tier. Annual Commodity Rate revenue by tier was calculated by multiplying the current Commodity Rate per hgal (from **Table 3-1**) by the corresponding projected annual use in hgal (from **Table 3-3**). Annual Water Service Meter Base Charge and Private Fire Protection Water Service Charge revenue were calculated for each meter size by multiplying the current bimonthly rate (from **Table 3-1**) by the number of water meters/private fire protection connections (from **Table 3-2**) by six bimonthly billing periods per year. **Table 3-4** the projected revenue.

**Table 3-4: Projected Water Rate Revenue Under Existing Rates**

	FYE 2026	FYE 2027	FYE 2028	FYE 2029	FYE 2030
<b>Calculated Commodity Charge Revenues</b>					
Tier 1: 0-125 hundred gallons per bimonthly billing cycle	\$1,174,852	\$1,180,726	\$1,186,630	\$1,192,563	\$1,198,526
Tier 2: >125 hundred gallons per bimonthly billing cycle	\$2,565,348	\$2,578,175	\$2,591,065	\$2,604,021	\$2,617,041
<b>Total Calculated Commodity Charge Revenues</b>	<b>\$3,740,200</b>	<b>\$3,758,901</b>	<b>\$3,777,696</b>	<b>\$3,796,584</b>	<b>\$3,815,567</b>
<b>Bimonthly Water Service Meter Charge Revenues</b>					
<b>Meter Size</b>					
5/8-inch	\$1,308,251	\$1,314,792	\$1,321,366	\$1,327,973	\$1,334,613
1-inch	\$528,491	\$531,133	\$533,789	\$536,458	\$539,140
1.5-inch	\$189,622	\$190,570	\$191,523	\$192,480	\$193,443
2-inch	\$424,195	\$426,316	\$428,448	\$430,590	\$432,743
3-inch	\$32,930	\$33,095	\$33,260	\$33,426	\$33,593
4-inch	\$163,100	\$163,916	\$164,736	\$165,559	\$166,387
6-inch	\$107,960	\$108,500	\$109,042	\$109,587	\$110,135
8-inch	\$57,424	\$57,711	\$57,999	\$58,289	\$58,581
10-inch	\$0	\$0	\$0	\$0	\$0
<b>Bimonthly Water Service Meter Charge Revenues</b>	<b>\$2,811,973</b>	<b>\$2,826,033</b>	<b>\$2,840,163</b>	<b>\$2,854,364</b>	<b>\$2,868,636</b>
<b>Bimonthly Private Fire Protection Revenues</b>					
<b>Meter Size</b>	\$0	\$0	\$0	\$0	\$0
2-inch	\$8,151	\$8,151	\$8,151	\$8,151	\$8,151
3-inch	\$68,261	\$68,261	\$68,261	\$68,261	\$68,261
4-inch	\$180,674	\$180,674	\$180,674	\$180,674	\$180,674
6-inch	\$191,202	\$191,202	\$191,202	\$191,202	\$191,202
8-inch	\$114,308	\$114,308	\$114,308	\$114,308	\$114,308
10-inch	\$0	\$0	\$0	\$0	\$0
<b>Bimonthly Private Fire Protection Revenues</b>	<b>\$562,597</b>	<b>\$562,597</b>	<b>\$562,597</b>	<b>\$562,597</b>	<b>\$562,597</b>

## Revenues Assumptions

**Table 3-5** shows assumptions used to project interest earnings and other revenues for FYE 2027 to FYE 2030 based on FYE 2026 budgeted values. Interest earnings were calculated based on projected Water Enterprise ending balances (shown later in **Section 3.9**) and an assumed annual interest rate. Other revenues were projected based on an annual inflation factor with the exception of reimbursements. City staff informed Raftelis that budgeted reimbursements in FYE 2020 represent a one-time revenue that will not recur in subsequent years.

**Table 3-5: Revenue Assumptions**

<b>Revenue Assumptions</b>	
<b>Inflationary Factors for Revenues</b>	
Other Revenues	1.0%
<b>Interest Earnings</b>	
Reserve Interest Rate	2.0%

## Summary of Revenue under Existing Rates

Table 3-6 shows a summary of budgeted and projected revenue under existing rates. Projected water rate revenue from FYE 2026 to FYE 2030 were calculated previously in Table 3-4. Interest earnings and other revenues were projected based on assumptions shown in Table 3-5.

**Table 3-6: Revenue Summary under Existing Rates**

	FYE 2026	FYE 2027	FYE 2028	FYE 2029	FYE 2030
Fund 600 Revenue Summary	Projected	Projected	Projected	Projected	Projected
Water Sales	\$3,740,200	\$3,758,901	\$3,777,696	\$3,796,584	\$3,815,567
Domestic Meter Service Reader	\$2,811,973	\$2,826,033	\$2,840,163	\$2,854,364	\$2,868,636
Fire Meter Service Charges	\$562,597	\$562,597	\$562,597	\$562,597	\$562,597
Interest Earnings	\$25,577	\$20,348	\$22,641	\$32,707	\$49,111
Other Revenues	\$57,570	\$58,146	\$58,727	\$59,314	\$59,908
<b>TOTAL FUND 600 REVENUES</b>	<b>\$7,197,916</b>	<b>\$7,226,024</b>	<b>\$7,261,823</b>	<b>\$7,305,565</b>	<b>\$7,355,818</b>

## 3.4. Operations and Maintenance Expenses

The Water Enterprise’s O&M expenses consist of personnel costs, administrative costs, and other operating costs associated with water production, treatment, and delivery. City staff provided FYE 2026 budgeted expenses for the City’s Water Enterprise. For FYE 2026 to FYE 2030, Raftelis calculated Water Assessment costs based on water supply assumptions and projected all other O&M expenses based on annual inflationary factors.

### Inflationary Assumptions

Table 3-7 shows the O&M expense inflationary assumptions used to reasonably project future expenses for FYE 2027 to FYE 2030 based on the Water Enterprise’s FYE 2025 budget. The majority of expenses were increased by three percent per year relative to the FYE 2026 budget, with salary-related expenses escalated by five percent per year. The Water Assessments inflation factor was used to project Watermaster assessment rates, Water Quality Authority assessment rates, and State Water Resource Control Board (SWRCB) costs, all of which were used to project Water Assessment costs incurred by the Water Enterprise. The Los Angeles region Consumer Price Index (CPI) inflationary factor was used to project the maximum amount of in-kind service costs associated with the El Monte Operable Unit that the City must cover before reimbursement by the responsible parties.

**Table 3-7: O&M Expense Inflationary Assumptions**

Key Assumptions	FYE 2027	FYE 2028	FYE 2029	FYE 2030
<b>Inflationary Factors for O&amp;M Expenses</b>				
General	3.0%	3.0%	3.0%	3.0%
Salary	5.0%	5.0%	5.0%	5.0%
Benefits	5.0%	5.0%	5.0%	5.0%
Utilities	3.0%	3.0%	3.0%	3.0%
Replacement Water Assessment	3.1%	3.1%	3.1%	3.1%
Administration Assessment	5.0%	5.0%	5.0%	5.0%
In-Lieu Assessment	3.0%	3.0%	3.0%	3.0%
Water Resource Development Assessment	8.6%	8.6%	8.6%	8.6%
Water Quality Authority (WQA) Assessment	12.2%	12.2%	12.2%	12.2%
SWRCB Costs	3.0%	3.0%	3.0%	3.0%
Los Angeles CPI (EMOU)	3.0%	3.0%	3.0%	3.0%

## Calculated Water Assessment Costs

Raftelis calculated Water Assessments in FYE 2027 to FYE 2030 based on projected water demand and assessment rate information shown in **Table 3-8**. Water Assessment costs include:

- » Assessments paid to the Watermaster per acre-foot of total groundwater production (Administration, In-Lieu, and Water Resource Development Assessments)
- » Replacement Water Assessments paid to the Watermaster per acre-foot of annual groundwater production in excess of the City's proportional share of the Basin's operating safe yield plus any carryover from the prior year (i.e. replacement water)
- » Water Quality Authority Assessments paid to the San Gabriel Basin Water Quality Authority per acre-foot of prescriptive pumping rights
- » Fees paid to the SWRCB

Raftelis estimated total groundwater production in each year by applying a 13.4% water loss factor (estimated by Raftelis and City staff) to total potable water demand (from **Table 3-3**). Raftelis worked with City staff to estimate replacement water based on total groundwater production and the City's expected proportional share of the Basin's operating safe yield. The City also provided its prescriptive pumping rights in acre-feet to Raftelis. The City provided assessment rates throughout the study period for the Replacement Water Assessment and Water Resource Development Assessment. Administration, In-Lieu, and Water Quality Authority assessment rates were projected by escalating FYE 2026 rates by the Water Assessments inflation factor (from **Table 3-7**).

Replacement Water Assessment costs in each year were calculated by multiplying required replacement water by the Replacement Water Assessment rate. Costs associated with the three Watermaster Assessments in each year were calculated by multiplying total groundwater production by the respective assessment rate. Water Quality Authority Assessment costs in each year were calculated by multiplying prescriptive pumping rights by the Water Quality Authority Assessment rate. SWRCB costs were calculated by escalating FYE 2024 actual expenses by the Water Assessments inflation factor (from **Table 3-7**). FYE 2027 to FYE 2030 are shown because the study uses budgeted water purchase costs for FYE 2026.

**Table 3-8: Projected Water Assessments**

Line	Required Potable Water Supply (AF)	FYE 2026	FYE 2027	FYE 2028	FYE 2029	FYE 2030
1	Potable Water Demand	0.0 AF	0.0 AF	0.0 AF	0.0 AF	0.0 AF
2	System Water Loss (%)	313.4%	13.4%	13.4%	13.4%	13.4%
3	Total Groundwater Production (AF)	2,011 AF	2,021 AF	2,031 AF	2,041 AF	2,051 AF
4	Replacement Water Required (AF)	0 AF	48 AF	58 AF	68 AF	79 AF
5	Prescriptive Pumping Rights	2,784 AF	2,784 AF	2,784 AF	2,784 AF	2,784 AF
6						
7	<b>Water Master Assessment Rates</b>					
8	Replacement Water Assessment	\$1,150 /AF	\$1,185 /AF	\$1,222 /AF	\$1,260 /AF	\$1,299 /AF
9	Administration Assessment	\$22 /AF	\$23 /AF	\$24 /AF	\$26 /AF	\$27 /AF
10	In-Lieu Assessment	\$5 /AF	\$5 /AF	\$5 /AF	\$6 /AF	\$6 /AF
11	Water Resource Development Assessment	\$199 /AF	\$217 /AF	\$235 /AF	\$255 /AF	\$277 /AF
12	Water Quality Authority (WQA) Assessment	\$25 /AF	\$28 /AF	\$32 /AF	\$36 /AF	\$40 /AF
13	SWRCB Costs	\$12,466 /AF	\$12,840 /AF	\$13,225 /AF	\$13,622 /AF	\$14,031 /AF
14						
15	<b>Calculated Water Assessments</b>					
16	Replacement Water Assessment (line 4 x 8)	\$0 /AF	\$57,049 /AF	\$71,163 /AF	\$86,161 /AF	\$102,085 /AF
17	Administration Assessment (line 3 x 9)	\$44,332 /AF	\$46,781 /AF	\$49,366 /AF	\$52,093 /AF	\$54,971 /AF
18	In-Lieu Assessment (line 3 x 10)	\$10,354 /AF	\$10,718 /AF	\$11,095 /AF	\$11,485 /AF	\$11,889 /AF
19	Water Resource Development Assessment (line 3 x 11)	\$401,046 /AF	\$437,598 /AF	\$477,482 /AF	\$521,001 /AF	\$568,487 /AF
20	Water Quality Authority (WQA) Assessment (line 5 x 12)	\$70,163 /AF	\$78,756 /AF	\$88,400 /AF	\$99,226 /AF	\$111,377 /AF
21	SWRCB Costs (from SWRCB)	\$12,466 /AF	\$12,840 /AF	\$13,225 /AF	\$13,622 /AF	\$14,031 /AF
22	<b>Total Calculated Water Assessments</b>	<b>\$538,361 /AF</b>	<b>\$643,742 /AF</b>	<b>\$710,731 /AF</b>	<b>\$783,588 /AF</b>	<b>\$862,840 /AF</b>

### Summary of O&M Expenses

Table 3-9 shows budgeted FYE 2026 O&M expenses. Projected expenses in FYE 2026 to FYE 2030 are based on inflationary assumptions (from Table 3-7) and calculated water assessments which are included in the General & Administrative line item (from Table 3-8).

**Table 3-9: O&M Expense Summary**

O&M Summary	FYE 2026	FYE 2027	FYE 2028	FYE 2029	FYE 2030
<b>Fund 600 O&amp;M Expenses</b>	<b>Budget</b>	<b>Projected</b>	<b>Projected</b>	<b>Projected</b>	<b>Projected</b>
EM Operable Unit - Post Permit Phase	\$708,800	\$732,190	\$756,388	\$781,424	\$807,327
General & Administrative	\$2,540,900	\$2,622,327	\$2,781,180	\$2,950,281	\$3,130,372
Pumping Transmission Distribution	\$1,963,800	\$2,045,787	\$2,131,372	\$2,220,718	\$2,313,998
Other Operating Expenses	\$637,411	\$251,500	\$253,045	\$254,636	\$256,275
<b>Total Fund 600 O&amp;M Expenses</b>	<b>\$5,850,911</b>	<b>\$5,651,805</b>	<b>\$5,921,984</b>	<b>\$6,207,059</b>	<b>\$6,507,972</b>

### 3.5. Existing Debt Service

Table 3-10 shows the Water Enterprise’s existing debt service. This includes annual debt service throughout the study period on the City’s 2018 Water Refunding Bonds. Other debt service includes projected payments to be made by the Water Enterprise to the City’s General Fund for a loan to establish the Water Authority. These payments were projected based on input from City staff. The Water Enterprise does not anticipate issuing any new debt over the study period.

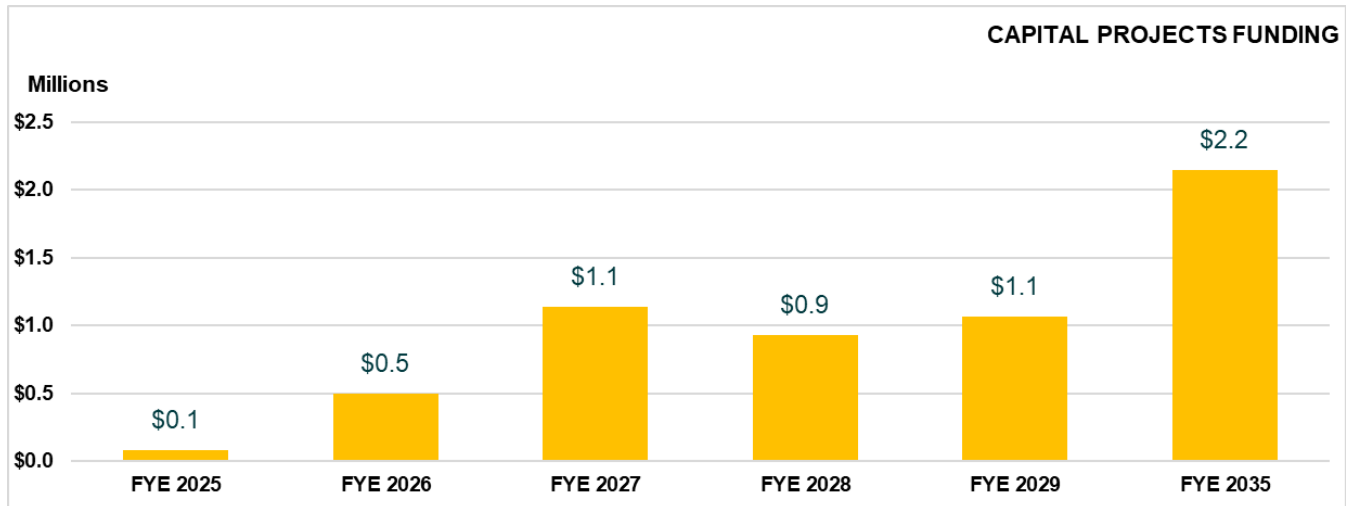
**Table 3-10: Existing Debt Service**

Existing Debt Service	FYE 2026	FYE 2027	FYE 2028	FYE 2029	FYE 2030
<b>Total Existing Debt Service</b>	<b>\$1,529,769</b>	<b>\$1,531,569</b>	<b>\$1,531,969</b>	<b>\$1,530,969</b>	<b>\$1,532,178</b>

### 3.6. Capital Improvement Plan

Figure 3-1 shows the projected capital improvement plan (CIP) expenditures over the study period. CIP expenditures fund the repair and replacement of the Water Enterprise’s existing capital assets (such as water line replacement and reservoir improvements). City staff provided the CIP expenditures. CIP expenditures in FYE 2026 through FYE 2030 are expected to be funded entirely by water rate revenue and reserves.

Figure 3-1: Projected CIP Expenditures



### 3.7. Financial Policies

#### Debt Coverage

The 2018 Water Refunding Bonds covenant includes a debt coverage ratio requirement of 1.25 for the Water Enterprise. The debt coverage ratio is calculated by dividing the Water Enterprise’s net revenues (Water Enterprise revenues less O&M expenses) by annual debt service (principal plus interest payments) associated with the 2018 Water Refunding Bonds.

#### Reserve Policies

Appropriate levels of reserves enable water utilities to ensure sufficient cash on hand to cover short-term operating costs, facilitate efficient initiation of construction contracts for CIP, reduce the risk of asset failure, and mitigate the impact of reduced Commodity Rate revenues during water supply shortages. The City has not formally adopted a reserve policy for its Water Enterprise. Raftelis therefore developed two reserve targets to use as benchmarks in evaluating the sufficiency of the Water Enterprise’s projected ending cash balances in each year over the study period.

The reserve targets shown in Table 3-11 include an operating reserve target of 25% of annual O&M (i.e. 90 days of O&M costs). The operating reserve represents a baseline target to ensure sufficient cash on hand to meet short-term operating costs. A capital reserve target equal to one year’s worth of average annual CIP expenditures is also included. The capital reserve target is intended to provide sufficient cash on hand to expeditiously award CIP construction contracts and to reduce the financial impact of unexpected capital asset failure. The combined reserve target is informed by Raftelis’ experience with similar water utilities in Southern California.

**Table 3-11: Target Reserve Levels**

	FYE 2026	FYE 2027	FYE 2028	FYE 2029	FYE 2030
<b>Water Authority Fund (600)</b>					
<b>Target Reserve Balances</b>					
Operating Reserve Target: 25% of annual O&M	\$1,462,728	\$1,412,951	\$1,480,496	\$1,551,765	\$1,626,993
Capital Reserve: 100% of annual average 10-year CIP	\$1,382,305	\$1,382,305	\$1,382,305	\$1,382,305	\$1,382,305
<b>Total Fund 600 Target Reserve Balance</b>	<b>\$2,845,032</b>	<b>\$2,795,256</b>	<b>\$2,862,801</b>	<b>\$2,934,069</b>	<b>\$3,009,298</b>

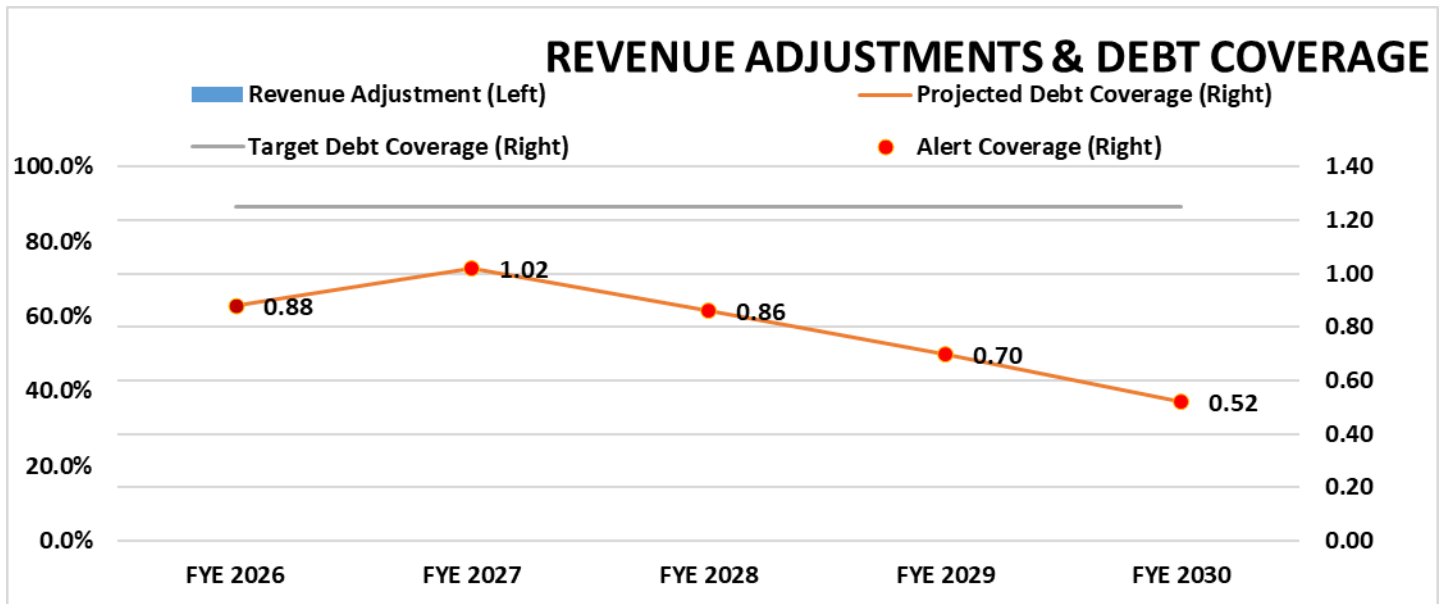
### 3.8. Status Quo Financial Plan

The status quo financial plan illustrates the Water Enterprise’s financial health in the absence of revenue adjustments (i.e. water rate increases) over the study period. Current water rates in effect as of FYE 2025 are assumed to remain unchanged over the study period under the status quo. Raftelis and City staff first evaluated the Water Enterprise’s cash flow and fund balances over the study period under the status quo before considering revenue adjustments.

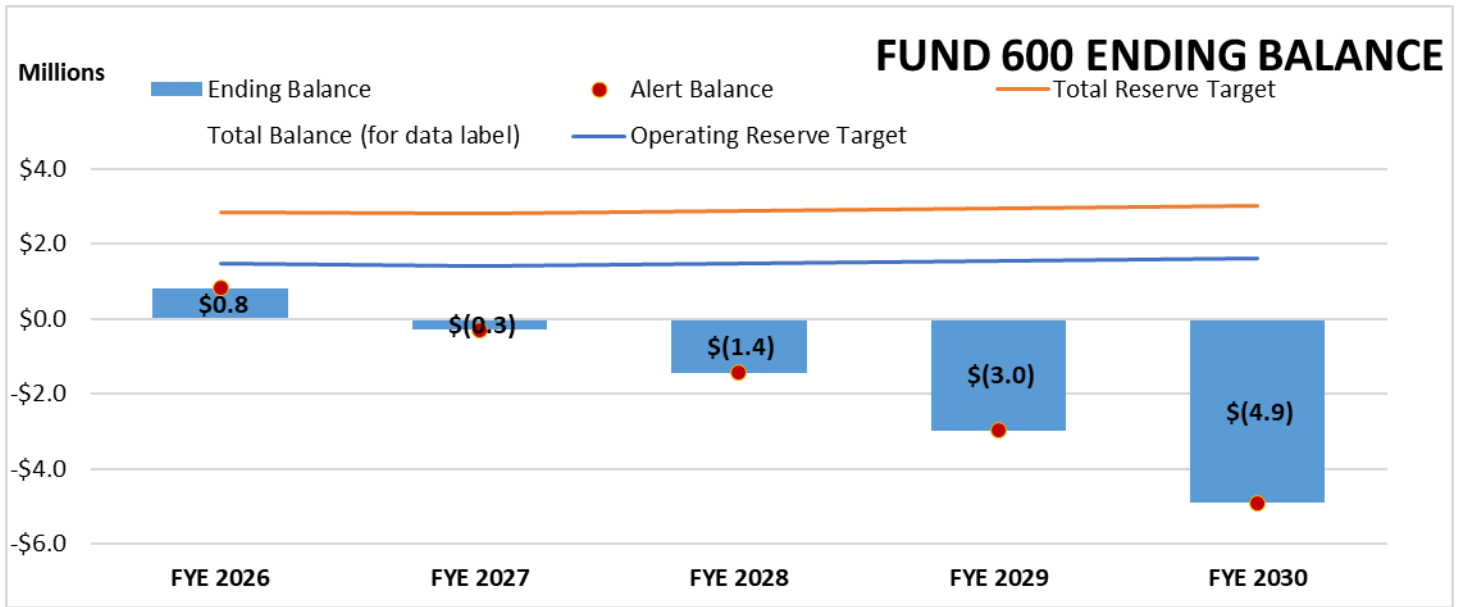
**Figure 3-2** shows that in the absence of revenue adjustments, the Water Enterprise is not projected to meet its required debt coverage requirement of 1.25 in any year over the study period.

**Figure 3-3** shows the Water Enterprise’s projected ending cash balance in each year over the study period under the status quo. The status quo financial plan demonstrates the need for revenue adjustments over the study period to meet debt coverage requirements and ensure sufficient cash reserves.

**Figure 3-2: Revenue Adjustments and Debt Coverage - Status Quo Financial Plan**



**Figure 3-3: Projected Ending Balances - Status Quo Financial Plan**



### 3.9. Proposed Financial Plan

Raftelis worked with City staff and City Council to select the proposed annual revenue adjustments shown in **Table 3-12**. The proposed revenue adjustments were selected to provide financial stability for the Water Enterprise while minimizing impacts to the City’s water ratepayers. Note that while the City’s fiscal year spans from July to June, each revenue adjustment is planned for January 1 of each year. Therefore, proposed rates in each fiscal year will only be in effect for the final six months of each fiscal year.

**Table 3-12: Proposed Five-Year Revenue Adjustments**

Fiscal Year	Effective Date	Revenue Adjustment
FYE 2026	January 1, 2026	7.75%
FYE 2027	January 1, 2027	7.75%
FYE 2028	January 1, 2028	7.75%
FYE 2029	January 1, 2029	7.75%
FYE 2030	January 1, 2030	7.75%

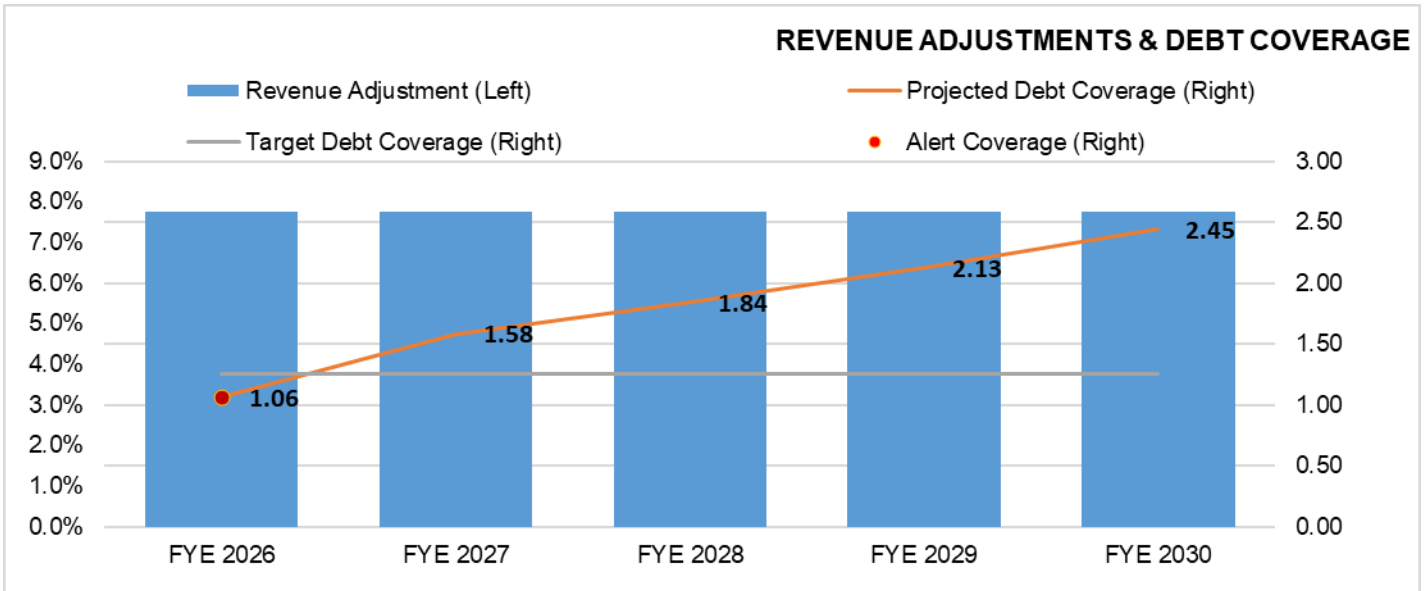
**Table 3-13** shows the proposed five-year financial plan in proforma format. Total revenue (Line 20) includes revenue under existing rates (from **Table 3-6**) plus additional rate revenue resulting from the proposed revenue adjustments in **Table 3-12**. Total operating expenses (Line 30) include O&M expenses (from **Table 3-9**) and existing debt service (from **Table 3-10**). The net operating cash flow (Line 32) is equal to total revenue less total operating expenses. City staff provided the Water Enterprise’s beginning cash balance for FYE 2025. Raftelis projected ending cash balances (Line 38) over the study period by adding net operating cash flow to the beginning fund balance and subtracting cash funded CIP expenses (from **Figure 3-1**). Calculated debt coverage is equal to net revenues (Line 45) divided by 2018 Water Refunding Bonds debt service (Line 46).

**Table 3-13: Proposed Financial Plan Proforma**

Water Authority Fund (600) Operating Cash Flow		FYE 2026	FYE 2027	FYE 2028	FYE 2029	FYE 2030
Line	Description					
1	<b>Revenue At Current Charges</b>					
2	Water Sales	\$3,740,200	\$3,758,901	\$3,777,696	\$3,796,584	\$3,815,567
3	Domestic Meter Service Revenue	\$2,811,973	\$2,826,033	\$2,840,163	\$2,854,364	\$2,868,636
4	Private Fire Protection Charge Revenues	\$562,597	\$562,597	\$562,597	\$562,597	\$562,597
5						
6	<b>Additional Revenue Increases</b>					
7						
8	Fiscal Year					
9	FYE 2026	\$275,697	\$553,934	\$556,485	\$559,050	\$561,627
10	FYE 2027		\$298,432	\$599,613	\$602,376	\$605,153
11	FYE 2028			\$323,041	\$649,060	\$652,052
12	FYE 2029				\$349,681	\$702,586
13	FYE 2030					\$378,518
14	<b>Total Additional Revenue</b>	<b>\$275,697</b>	<b>\$852,365</b>	<b>\$1,479,140</b>	<b>\$2,160,167</b>	<b>\$2,899,937</b>
15						
16	Total Rate Revenue (incl. Revenue Increase)	\$7,390,467	\$7,999,896	\$8,659,595	\$9,373,712	\$10,146,737
17						
18	Interest	\$25,577	\$20,348	\$22,641	\$32,707	\$49,111
19	Other Revenues	\$57,570	\$58,146	\$58,727	\$59,314	\$59,908
20	<b>TOTAL REVENUE</b>	<b>\$7,473,614</b>	<b>\$8,078,389</b>	<b>\$8,740,963</b>	<b>\$9,465,733</b>	<b>\$10,255,755</b>
21						
22	<b>OPERATING EXPENSES</b>					
23	EM Operable Unit - Post Permit Phase	\$708,800	\$732,190	\$756,388	\$781,424	\$807,327
24	Utilities	\$0	\$0	\$0	\$0	\$0
25	General & Administrative	\$2,540,900	\$2,622,327	\$2,781,180	\$2,950,281	\$3,130,372
26	Pumping Transmission Distribution	\$1,963,800	\$2,045,787	\$2,131,372	\$2,220,718	\$2,313,998
27	Lease of Water Facility	\$637,411	\$251,500	\$253,045	\$254,636	\$256,275
28	Existing Debt Service	\$1,529,769	\$1,531,569	\$1,531,969	\$1,530,969	\$1,532,178
29	Proposed Debt Service	\$0	\$0	\$0	\$0	\$0
30	<b>TOTAL OPERATING EXPENSES</b>	<b>\$7,380,680</b>	<b>\$7,183,374</b>	<b>\$7,453,953</b>	<b>\$7,738,028</b>	<b>\$8,040,150</b>
31						
32	<b>NET OPERATING CASH FLOW before CAPITAL EXPENSES</b>	<b>\$92,934</b>	<b>\$895,016</b>	<b>\$1,287,009</b>	<b>\$1,727,705</b>	<b>\$2,215,605</b>
33						
<b>Fund Balances</b>		<b>FYE 2026</b>	<b>FYE 2027</b>	<b>FYE 2028</b>	<b>FYE 2029</b>	<b>FYE 2030</b>
34	<b>Water Authority Fund (600)</b>					
35	Beginning Balance	\$1,492,349	\$1,090,883	\$964,252	\$1,322,443	\$1,980,915
36	Net Operating Cash Flow	\$92,934	\$895,016	\$1,287,009	\$1,727,705	\$2,215,605
37	Cash Funded CIP	(\$494,400)	(\$1,021,647)	(\$928,818)	(\$1,069,233)	(\$1,217,238)
38	<b>Ending Balance - Water Authority Fund (600)</b>	<b>\$1,090,883</b>	<b>\$964,252</b>	<b>\$1,322,443</b>	<b>\$1,980,915</b>	<b>\$2,979,281</b>
39						
40	<b>Target Reserve Balances</b>					
41	Operating Reserve Target: 25% of annual O&M	\$1,462,728	\$1,412,951	\$1,480,496	\$1,551,765	\$1,626,993
42	Capital Reserve: 100% of annual average 10-year CIP	\$1,382,305	\$1,382,305	\$1,382,305	\$1,382,305	\$1,382,305
43	<b>Total Fund 600 Target Reserve Balance</b>	<b>\$2,845,032</b>	<b>\$2,795,256</b>	<b>\$2,862,801</b>	<b>\$2,934,069</b>	<b>\$3,009,298</b>
44						
<b>Debt Coverage Calculation</b>		<b>FYE 2026</b>	<b>FYE 2027</b>	<b>FYE 2028</b>	<b>FYE 2029</b>	<b>FYE 2030</b>
45	Net Revenues	\$1,622,703	\$2,426,585	\$2,818,978	\$3,258,674	\$3,747,783
46	Debt Service - 2018 Water Refunding Bonds	\$1,529,769	\$1,531,569	\$1,531,969	\$1,530,969	\$1,532,178
47						
48	<b>Calculated Debt Coverage</b>	<b>1.06</b>	<b>1.58</b>	<b>1.84</b>	<b>2.13</b>	<b>2.45</b>
49	<i>Required Debt Coverage</i>	1.25	1.25	1.25	1.25	1.25

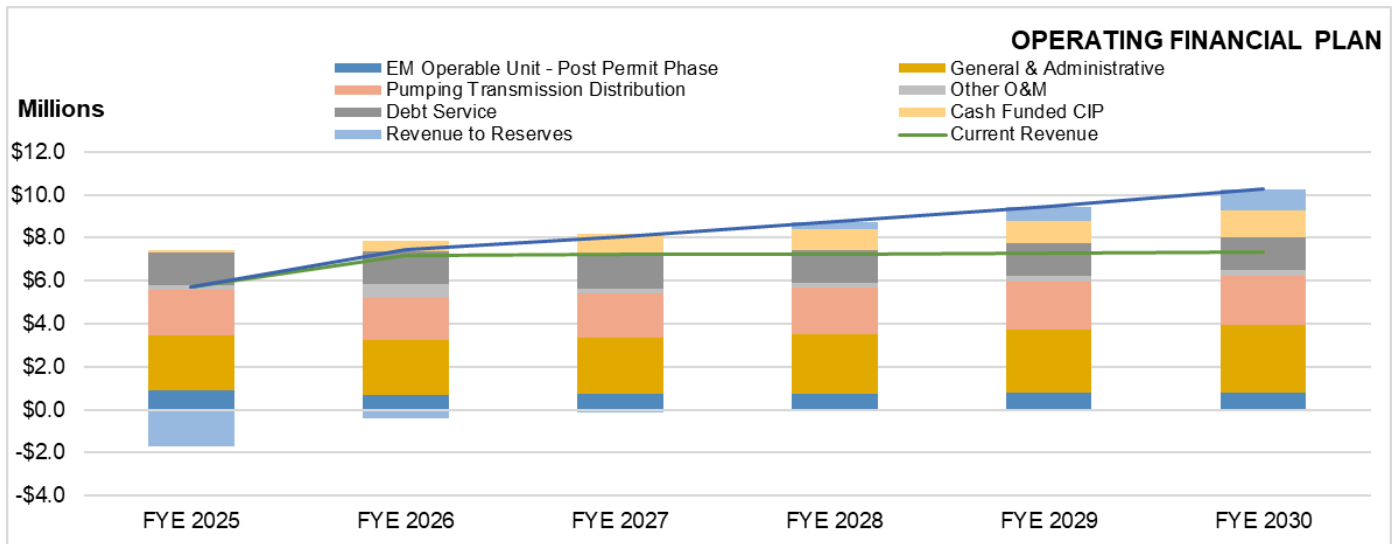
Figure 3-4 shows proposed revenue adjustments (blue bars) on the left axis and projected coverage (orange line) on the right axis relative to the 1.25 target debt coverage ratio (gray line).

**Figure 3-4: Revenue Adjustments and Debt Coverage - Proposed Financial Plan**



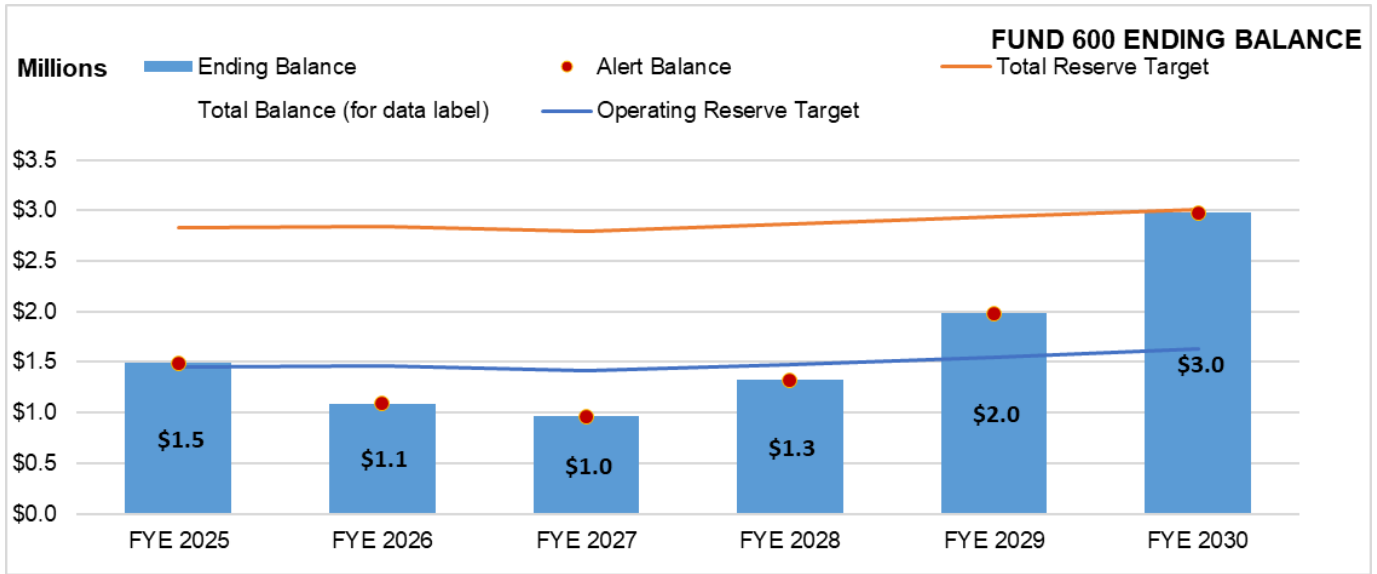
**Figure 3-5** summarizes the tabular results from **Table 3-13** in graphical format. O&M expenses, debt service, cash funded CIP, and revenues to (or from) reserves are represented by stacked bars. Revenue under current rates are represented by the green line, while revenue inclusive of the proposed revenue adjustments are represented by the blue line.

**Figure 3-5: Proposed Financial Plan**



**Figure 3-6** shows the Water Enterprise’s projected ending cash balance (blue bars) relative to its operating reserve target (blue line) and combined operating and capital total reserve target (orange line) from **Table 3-11**. The proposed financial plan results in projected ending balances that are below the operating reserve target for three years. However the City would cut back on capital spending and /or if the City does not fully spend its budget, the reserves will be higher than projected. The selected financial plan slowly builds up reserves to the total reserve target to avoid substantial upfront bill impacts to ratepayers.

Figure 3-6: Projected Ending Balances - Proposed Financial Plan



# 4. Cost of Service

**Section 4** details the cost of service (COS) analysis performed for the City’s Water Enterprise. The COS analysis allocates the overall rate revenue requirement to all customer classes and tiers based on their proportion of use of and burden on the system.

## 4.1. Process and Approach

The first step in the COS analysis is to determine the revenue required from rates. The total revenue requirement is determined as a result of the financial plan and the proposed revenue adjustments in **Section 3**. The framework and methodology utilized to develop the COS analysis and to apportion the revenue requirement to each customer class and tier is informed by the processes outlined in the M1 Manual.

COS analyses are tailored specifically to meet the unique needs of each water system. However, there are four distinct steps in every COS analysis to recover costs from customers in an accurate, equitable, and defensible manner:

1. **Cost functionalization:** O&M expenses and capital assets are categorized by their function in the system. Functions include supply, treatment, transmission and distribution, billing and customer service, etc.
2. **Cost causation component allocation:** the functionalized costs are then allocated to cost causation components based on their burden on the system. The cost causation components include supply, base delivery, peaking, meters, customer, etc. The revenue requirement is allocated accordingly to the cost causation components and results in the total revenue requirement for each cost causation component.
3. **Unit cost development:** the revenue requirement for each cost causation component is divided by the appropriate units of service to determine the unit cost for each cost causation component.
4. **Revenue requirement distribution:** the unit cost is utilized to distribute the revenue requirement for each cost causation component to customer classes and/or tiers based on their individual service units. The City does not differentiate its Commodity Rates by customer class, but does have a two-tiered rate structure.

## 4.2. Revenue Requirement

**Table 4-1** shows the rate revenue requirement for FYE 2026 (also referred to as the test year or rate-setting year). The revenue requirement is split into the Operating and Capital categories (Columns C and D), which are later allocated based on O&M expenses and capital assets respectively.

The revenue requirement (Line 20) is calculated using FYE 2026 expenses. The cash balance adjustment (Line 9) is equal to negative FYE 2026 net operating cash flow (**Table 3-13**, Line 32 minus Cash Funded CIP shown in line 37). The adjustment to annualize the rate increase (Line 10) is due to the proposed FYE 2026 revenue adjustment occurring in the middle of the fiscal year (January 2026). The revenue offsets (Lines 16-17) include interest earnings and other non-rate revenues that are applied as offsets to the final rate revenue requirement. The final rate revenue requirement (Line 19) is calculated as follows:

$$\text{Total revenue required from rates (Line 20)} = \text{Revenue requirements (Line 6)} - \text{Adjustments (Line 11)} - \text{Revenue offsets (Line 18)}$$

**Table 4-1: Proposed Revenue Requirement**

A	B	C	D	E
Line	Description	Operating	Capital	Total
1	<b>Revenue Requirements</b>			
2	O&M Expenses	\$5,850,911	\$0	\$5,850,911
3	Existing Debt Service	\$0	\$1,529,769	\$1,529,769
4	Proposed Debt Service	\$0	\$0	\$0
5	Cash Funded CIP	\$0	\$494,400	\$494,400
6	<b>Total Revenue Requirements</b>	<b>\$5,850,911</b>	<b>\$2,024,169</b>	<b>\$7,875,080</b>
7				
8	<b>Less Adjustments</b>			
9	Cash Balance	\$0	\$401,466	\$401,466
10	Mid-Year Increase	\$0	(\$275,697)	(\$275,697)
11	<b>Total Less Adjustments</b>	<b>\$0</b>	<b>\$125,769</b>	<b>\$125,769</b>
12				
13	<b>Revenue Required before Revenue Offsets</b>	<b>\$5,850,911</b>	<b>\$1,898,400</b>	<b>\$7,749,311</b>
14				
15	<b>Less Revenue Offsets</b>			
16	Interest	\$25,577	\$0	\$25,577
17	Other Revenues	\$57,570	\$0	\$57,570
18	<b>Total Less Revenue Offsets</b>	<b>\$83,147</b>	<b>\$0</b>	<b>\$83,147</b>
19				
20	<b>Total Revenue to be Recovered from Rates</b>	<b>\$5,767,764</b>	<b>\$1,898,400</b>	<b>\$7,666,164</b>

### 4.3. Functionalization and Allocation of Expenses

After determining the revenue requirement, the next step of the COS analysis is to allocate the O&M expenses and capital assets to the following functions:

- » **Water Purchase Costs** – cost of Water Assessments
- » **Supply** – other water-supply related costs
- » **Treatment** – costs of water treatment
- » **Transmission & Distribution** –costs related to the City’s water distribution system
- » **Billing & Customer Service** –costs of meter reading, billing, and other customer services
- » **Meter Replacement/ Repair** – costs associated with purchasing, maintaining, and servicing water meters as well as some costs related to system capacity
- » **Conservation** – costs relating to efforts to reduce customers’ water use
- » **Direct Fire** – costs of fire protection
- » **General** - costs for general operational expenses which cannot be categorized under any of the above

The functionalization of costs allows for the allocation of costs to the cost causation components. Some cost causation components correspond directly to a functional category listed above. The cost causation components include:

- » **Water Purchase Costs** - cost of Water Assessments
- » **Supply** – other costs associated with water supply
- » **Base**– costs associated with providing water under average water demand conditions
- » **Peaking** (Max Day and Max Hour) – costs associated with providing water under peak demand conditions
- » **Conservation** – costs associated with the City’s recycled water system
- » **Customer** – costs associated with customer service and billing

- » **Meters** – costs associated with purchasing, maintaining, and servicing water meters as well as some costs related to system capacity
- » **Direct Fire Costs** – costs of fire protection
- » **General** – costs that do not have any direct cost causation
- » **Revenue Offsets** – non-rate revenues (such as interest income) with no direct association with specific expenses or services

## 4.4. Peaking Factors

Peaking costs are divided into maximum day (Max Day) and maximum hour (Max Hour) demand. The Max Day demand is the maximum amount of water used in a single day in a year. The Max Hour demand is the maximum use in an hour on the Max Day. **Table 4-2** shows the system-wide peaking factors used to derive the cost component allocation bases for Base, Max Day, and Max Hour costs. Base use is considered average daily demand over one year, which has been normalized to a factor of 1.00 (Column C, Line 1). The Max Day peaking factor (Column C, Line 2) indicates that the Max Day demand is 1.55 times greater than the average daily demand. Similarly, the Max Hour peaking factor (Column C, Line 3) shows that the Max Hour demand is 2.65 times greater than average demand. The allocation bases (Columns D to F) are calculated using the equations outlined below. Columns are represented in these equations as letters, and rows are represented as numbers. For example, Column D, Line 2 is shown as D2.

The Max Day allocations are calculated as follows:

- » Base Delivery:  $C1 / C2 \times 100\% = D2$
- » Max Day:  $(C2 - C1) / C2 \times 100\% = E2$

The Max Hour allocations are calculated as follows:

- » Base Delivery:  $C1 / C3 \times 100\% = D3$
- » Max Day:  $(C2 - C1) / C3 \times 100\% = E3$
- » Max Hour:  $(C3 - C2) / C3 \times 100\% = F3$

**Table 4-2: System Peaking Factor Allocations**

A	B	C	D	E	F	G
Line	System Peaking Factors	Factors	Base	Max Day	Max Hour	Total
1	Base	1.00	100.0%			<b>100.0%</b>
2	Max Day	1.55	64.5%	35.5%	0.0%	<b>100.0%</b>
3	Max Hour	2.65	37.7%	20.8%	41.5%	<b>100.0%</b>

## 4.5. O&M Allocation

**Table 4-3** shows the allocation of O&M expenses to each cost causation component. The cost allocation (line 12) is used in subsequent steps of the COS analysis to allocate the operating revenue requirement. Prior to allocating costs to cost causation components, Raftelis functionalized the FYE 2026 Water Enterprise O&M budget (shown in detail in **Appendix B**). The results are shown in Column C, Lines 1-9 in which total FYE 2026 O&M expenses are summarized by function.

Costs by function were then allocated to each cost causation component based on the percentages shown in Columns D-M, Lines 1-9. Water Purchase Costs, Billing & Customer Service, Meter Replacement/ Repair, Conservation, Direct Fire, and General functionalized costs were fully allocated to the corresponding cost causation component. For example, costs functionalized as Water Purchase Costs were allocated 100% to the Water Purchase Costs cost causation component. Supply costs were allocated 80% to Supply and 20% to Max Day based on input from City staff which indicated that the wells are operating in such a manner to meet Max Day demand. Treatment costs were allocated to the cost causation components based on Max Day peaking factor allocations (**Table 4-2**, Line 2). Transmission & Distribution costs were allocated to the cost causation components based on Max Hour peaking factor allocations (**Table 4-2**, Line 3), as transmission and distribution infrastructure is typically designed to withstand Max Hour demands. Total O&M Expenses by cost causation component (Line 10) is calculated by multiplying functionalized expenses (Column C) by the corresponding allocation percentage and then summing across all functions for each cost causation component. The final O&M allocation (Line 12) used to allocate the operating revenue requirement is calculated by dividing O&M expenses allocated to each cost causation component (Columns D-M, Line 10) by total FYE 2026 O&M expenses (Column C, Line 10).

**Table 4-3: O&M Cost Allocation**

A		B	C	D	E	F	G	H	I	J	K	L	M	N
O&M Allocation			COST CAUSATION COMPONENTS											
Line	Functions	FY 2026 Amount	Water Purchase Costs	Supply	Base	Max Day	Max Hour	Con-servation	Customer	Meters	Direct Fire Costs	General	Total	
1	Water Purchase Costs	\$650,000	100.0%										100.0%	
2	Supply	\$644,907		80.0%	0.0%	20.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	
3	Treatment	\$841,287		0.0%	64.5%	35.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	
4	Transmission & Distribution	\$864,072		0.0%	37.7%	20.8%	41.5%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	
5	Billing & Customer Service	\$371,802		0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	100.0%	
6	Meter Replacement/ Repair	\$451,810		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%	
7	Conservation	\$244,731		0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	
8	Direct Fire	\$27,995		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	100.0%	
9	General	\$1,754,306		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	
10	<b>TOTAL FUND 600 O&amp;M EXPENSES</b>	<b>\$5,850,911</b>	<b>\$650,000</b>	<b>\$515,926</b>	<b>\$868,831</b>	<b>\$606,838</b>	<b>\$358,671</b>	<b>\$244,731</b>	<b>\$371,802</b>	<b>\$451,810</b>	<b>\$27,995</b>	<b>\$1,754,306</b>	<b>\$5,850,911</b>	
11														
12	<b>O&amp;M Allocation to Cost Causation Components</b>		<b>11.1%</b>	<b>8.8%</b>	<b>14.8%</b>	<b>10.4%</b>	<b>6.1%</b>	<b>4.2%</b>	<b>6.4%</b>	<b>7.7%</b>	<b>0.5%</b>	<b>30.0%</b>	<b>100.0%</b>	

## 4.6. Capital Allocation

**Table 4-4** shows the allocation of capital assets to each cost component. Capital assets are utilized in COS analyses to allocate capital costs to the cost causation components. We use the distribution of total capital assets because the distribution of a short-term CIP projects can be heavily weighted to specific cost causation components. For example, the City may have several projects that are supply related in the near term. Capital assets remain relatively stable and are more representative of the City’s investments in its water system. City staff provided Raftelis with a detailed asset listing that included the Original Cost of each individual fixed asset. Raftelis calculated the Replacement Cost Less Depreciation (RCLD) of each asset based on Original Cost, year purchased, and useful life using the Engineering News-Record’s 20-City Average Cost Construction Index (CCI) to account for capital cost inflation. RCLD is often utilized in capital asset analyses because it takes into consideration inflation and depreciation when valuing assets. As part of the capital asset analysis, Raftelis also assigned each individual asset to a functional category. Total asset value (RCLD) by functional category is shown in Column C, Lines 1-7 of **Table 4-4**.

The capital assets are allocated to the various cost causation components using the same methodology described in **Section 4.5** to allocate O&M costs. Asset value by functional category (Column C) is allocated to each cost causation component (Columns D-M) based on percentages identical to those shown in **Table 4-3**. Allocation percentages for each cost causation component are multiplied by the capital asset value for each functional category and summed to determine the capital asset value allocated to each cost causation component. The capital allocation in Line 10 represents the proportion of total asset value within each cost causation component and is used subsequently in the COS analysis to allocate capital revenue requirements.

**Table 4-4: Capital Cost Allocation**

A	B	C	D	E	F	G	H	I	J	K	L	M	N
Capital Allocation to Cost Causation Components		Valuation Method:	COST CAUSATION COMPONENTS										
Line	Assets	RCLD	Water Purchase Costs	Supply	Base	Max Day	Max Hour	Conservation	Customer	Meters	Direct Fire Costs	General	Total
1	Supply	\$59,104,914		80.0%	0.0%	20.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
2	Treatment	\$1,607,744		0.0%	64.5%	35.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
3	Transmission & Distribution	\$12,916,499		0.0%	37.7%	20.8%	41.5%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
4	Billing & Customer Service	\$0		0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	100.0%
5	Meter Replacement/ Repair	\$209,456		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%
6	Conservation	\$0		0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%
7	General	\$1,481,616		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
8	<b>Total Asset Value (RCLD)</b>	<b>\$75,320,230</b>	<b>\$0</b>	<b>\$47,283,931</b>	<b>\$5,911,405</b>	<b>\$15,072,255</b>	<b>\$5,361,566</b>	<b>\$0</b>	<b>\$0</b>	<b>\$209,456</b>	<b>\$0</b>	<b>\$1,481,616</b>	<b>\$75,320,230</b>
9													
10	<b>Capital Allocation to Cost Causation Components</b>			<b>62.8%</b>	<b>7.8%</b>	<b>20.0%</b>	<b>7.1%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.3%</b>	<b>0.0%</b>	<b>2.0%</b>	<b>100.0%</b>

## 4.7. Revenue Offset Allocation

**Table 4-5** shows the revenue offset allocation to each cost causation component. Revenue offsets are miscellaneous, non-rate revenues that are used to offset the rate revenue requirement. Some non-rate revenues are allocated directly to the most closely associated cost causation component. Other revenues, such as rental income, are not directly linked to a service that the Water Enterprise provides to its water customers. These revenues are therefore allocated to the Revenue Offsets cost causation component (Column M), which can be utilized to provide offsets to specific customer classes and/or tiers. The Revenue Offsets cost causation component was not included in the O&M or capital allocations, as it only applies to revenues. The methodology as described previously for the O&M and capital allocations was utilized to determine the amount of revenue offsets allocated to each cost causation component (**Table 4-5**, Line 10) and the final revenue offset allocation percentages are utilized in the next step of the COS analysis (**Table 4-5**, Line 12).

**Table 4-5: Revenue Offset Allocation**

Revenue Offset Allocation to Cost Causation Components													
A	B	C	D	E	F	G	H	I	J	K	L	M	N
			COST CAUSATION COMPONENTS										
Line	Non-Rate Revenues	FY 2026 Amount	Supply	Base	Max Day	Max Hour	Con-servation	Customer Service	Meters	Direct Fire Costs	General	Revenue Offsets	Total
1	600-11-4601 Interest Income	\$25,577	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	100.0%
2	600-11-4621 Rental Income	\$30,300	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
3	600-67-4791 Miscellaneous Revenue	\$5,050	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
4	600-67-4801 Water Sales	N/A	<i>Excluded from Revenue Offsets</i>										
5	600-67-4802 Penalties	\$15,150	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
6	600-67-4807 Fire Flow Testing	\$2,020	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%
7	600-67-4808 Domestic Meter Service Reader	N/A	<i>Excluded from Revenue Offsets</i>										
8	600-67-4809 Fire Meter Service Charge	N/A	<i>Excluded from Revenue Offsets</i>										
9	600-67-4812 New Water Meter Installation	\$5,050	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	100.0%
10	<b>Total Non-Rate Revenues</b>	<b>\$83,147</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$5,050</b>	<b>\$2,020</b>	<b>\$25,577</b>	<b>\$50,500</b>	<b>\$83,147</b>
11													
12	<b>Capital Allocation to Cost Causation Components</b>		<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>6.1%</b>	<b>2.4%</b>	<b>30.8%</b>	<b>60.7%</b>	<b>100.0%</b>

## 4.8. Units of Service

**Section 4.8** shows the unit of service determination. Units of service are used to convert total costs allocated to each cost causation component into unit costs, which are incorporated into the proposed rate calculations.

### Peaking Units of Service

Peaking units of service are used to develop Max Day and Max Hour unit costs. **Table 4-6** shows the calculation of peaking units of service. Estimated FYE 2026 water use by tier (Column D) was previously determined in **Table 3-3**. Projected use by tier (Column C) is divided by 365 days to determine average daily use (Column D). Average daily use in Column D is then multiplied by the Max Day factor<sup>1</sup> in Column E to determine Max Day Capacity (Column F). Max Day Extra Capacity (Column G) is determined by subtracting average daily use (Column D) from Max Day Capacity (Column F). Max Hour Extra Capacity (Column J) is similarly calculated. Max Hour Capacity (Column I) equals average daily use (Column D) multiplied by the Max Hour Capacity Factor (Column H). Max Hour Extra Capacity (Column J) equals Max Hour Capacity (Column I) less Max Day Capacity (Column F). Raftelis estimated peaking units for fire protection (Line 3) based on design criteria from the City’s 2010 Water Master Plan Update.<sup>2</sup>

**Table 4-6: Use and Peaking Units of Service**

A	B	C	D	D	E	F	G	H	I	J
Line	Customer Class	FY 2026 Annual Use (hgal)	Average Daily Use (hgal)	Bi-monthly Peaking Factor	Maximum Day Capacity Factor	Total Max Day Capacity (hgal/day)	Max Day Extra Capacity (hgal/day)	Maximum Hour Capacity Factor	Total Max Hour Capacity (hgal/day)	Max Hour Extra Capacity (hgal/day)
1	Tier 1	2,090,484	5,727	1.08	1.36	7,774	2,047	2.32	13,291	5,517
2	Tier 2	3,582,888	9,816	1.33	1.67	16,421	6,605	2.86	28,075	11,654
3	Total Fire Protection						18,000			68,400
4	<b>Total</b>	<b>5,673,372</b>	<b>15,543</b>	<b>2.41</b>	<b>3.03</b>	<b>24,195</b>	<b>26,652</b>	<b>5.18</b>	<b>41,366</b>	<b>85,571</b>

### Equivalent Meters

Equivalent meter units are used to allocate meter-related costs equitably. Larger meters impose larger demands; are more expensive to install, maintain, and replace than smaller meters; and require greater capacity in the water system. Equivalent meter units are based on meter hydraulic capacity and are calculated to represent the potential demand on the water system compared to a base meter size. A ratio of hydraulic capacity is calculated by dividing larger meter capacities by the base meter capacity. The base meter in this study is the 5/8” meter, which is the smallest meter size.

**Table 4-7** shows the equivalent meters for the test year (FYE 2026). The capacity in gallons per minute (gpm) is based on data from the M1 Manual (Column B). The capacity ratios (Column C) are calculated by dividing the capacity for each meter size by the capacity for the 5/8-inch meter. The projected number of meters (Column D) was determined in **Table 3-2**. Equivalent meters (Column F) equal the capacity meter ratio Column (D) multiplied by the number of meters (Column E).

<sup>1</sup>Raftelis estimated Max Day and Max Hour factors for Tier 1 and Tier 2 usage based on FYE 2018 account level water usage data.

<sup>2</sup>Raftelis calculated Max Hour and Max Day Extra Capacity associated with fire projection based on system design criteria intended to provide capacity for a fire lasting five hours and requiring 6,000 gallons per minute of water usage.

*Max Day Extra Capacity = 6,000 gpm x (60 min. /hr.) x 5 hrs. x (0.01 hgal/gal) = 18,000 hgal/day*

*Max Hour Extra Capacity = 6,000 gpm x (60 min. /hr.) x (24 hrs. /day) x (0.01 hgal/gal) – 18,000 hgal/day = 68,400 hgal/day*

**Table 4-7: Equivalent Meters Subject to Water Service Meter Base Charges**

A	B	C	D	E	F
Line	Meter Size	Hydraulic Capacity (gpm) Assumes Compound Meters	Hydraulic Capacity Meter Ratio	Number of Meters	Equivalent Meters
1	5/8-inch	20	1.0	2,717	2,717
2	1-inch	50	2.5	522	1,305
3	1.5-inch	100	5.0	100	500
4	2-inch	160	8.0	143	1,147
5	3-inch	300	15.0	6	91
6	4-inch	500	25.0	18	455
7	6-inch	1,000	50.0	6	303
8	8-inch	1,600	80.0	2	162
9	10-inch	2,300	115.0	0	0
10	<b>Total</b>			<b>3,515</b>	<b>6,680</b>

**Equivalent Fire Lines**

Similar to equivalent water meters, private fire connections (i.e. fire lines) and public fire hydrant counts are also converted to equivalent lines based on fire line capacities. **Table 4-8** shows the equivalent lines for private fire lines and public fire hydrants. The fire line demand potential (Column D) is determined based on the Hazen-Williams equation for flow through pressure conduits, as explained in the M1 Manual. The flow potential is dependent on the diameter of the fire line raised to the power of 2.63. Note that each fire hydrant has either two or three connections. City staff provided number of hydrants by connection size/type (Column E, Lines 1-2). The projected number of fire lines (Column E, Lines 5-10) are from **Table 3-2**. Equivalent demand (Column F) equals fire demand potential (Column D) multiplied by number of fire hydrants/fire lines (Column E).

**Table 4-8: Equivalent Fire Lines**

A	B	C	D	E	F
Line	Fire Line Size - Public Hydrants	Fire Demand Potential Outlet Size	Selected Fire Demand	Number of Fire Hydrants	Equivalent Demand
1	Fire Hydrant, 2- 4" Ports and 1- 2.5" Port	87.77	87.77	58.50	5,135
2	Fire Hydrant, 1- 4" Ports and 1- 2.5" Port	49.45	49.45	331.50	16,393
3	<b>Total</b>			<b>390</b>	<b>21,528</b>
4	<b>Fire Line Size - Private Fire</b>	<b>Fire Demand Potential</b>		<b>Number of Lines</b>	<b>Equivalent Demand</b>
5	2-inch	6.19		0	0
6	3-inch	17.98		11	198
7	4-inch	38.32		45	1,724
8	6-inch	111.31		42	4,675
9	8-inch	237.21		21	4,981
10	10-inch	426.58		7	2,986
11	<b>Total</b>			<b>126</b>	<b>14,565</b>
12					<b>36,092</b>
13	<b>Percent Allocated to Public Fire Protection</b>				<b>60%</b>
14	<b>Percent Allocated to Private Fire Protection</b>				<b>40%</b>

## 4.9. Unit Cost of Service Calculation

**Table 4-9** shows the revenue requirement allocation from **Table 4-1**. The total operating revenue requirement in **Table 4-9**, Column O, Line 1 of **Table 4-9** is equal to the operating revenue requirement less adjustments (Column C, Line 13) from **Table 4-1**. The total operating revenue requirement is allocated to the various cost causation components in Columns C-N, Line 1 of **Table 4-9** based on the O&M allocation percentages from Columns D-M, Line 12 of **Table 4-3**.

The total Capital revenue requirement in Column O, Line 2 of **Table 4-9** is equal to the capital revenue requirement less adjustments (Column D, Line 13) from **Table 4-1**. The total capital revenue requirement is allocated to the various cost causation components in Columns E-N, Line 2 of **Table 4-9** based on the capital allocation percentages from Columns D-M, Line 10 of **Table 4-4**.

Total revenue offsets in Column N, Line 3 of **Table 4-9** is equal to the revenue offsets in Column E, Line 18 of **Table 4-1**. Total revenue offsets are allocated to the various cost causation components in Columns C-M, Line 3 of **Table 4-9** based on the revenue offset allocation percentages in Columns D-M, Line 21 of **Table 4-5**.

Lines 1-3 in **Table 4-9** are summed to determine the preliminary COS allocation to each cost causation component in Line 4. General costs are then reallocated to all other cost causation components (excluding Water Purchase Costs and Revenue Offsets) proportionally in Line 6 based on the percentages shown in Line 5. Lines 4 and 6 are summed to determine the adjusted cost of service (Line 7), which represents the preliminary allocation of the total rate revenue requirement to each cost causation component. This preliminary allocation is shown as a percentage of the total rate revenue requirement in Line 8.

**Table 4-9: Adjusted Cost Service by Cost Causation Component**

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Line	Cost of Service Allocation	Allocation Bases	Water Purchase Costs	Supply	Base	Max Day	Max Hour	Con-Servation	Customer Service	Meter Service	Direct Fire Costs	General & Admin-istrative	Revenue Offset	Total
1	Operating Expenses	O&M	\$650,000	\$515,926	\$868,831	\$606,838	\$358,671	\$244,731	\$371,802	\$451,810	\$27,995	\$1,754,306	\$0	\$5,850,911
2	Capital Expenses	Capital		\$1,191,762	\$148,993	\$379,887	\$135,135	\$0	\$0	\$5,279	\$0	\$37,343	\$0	\$1,898,400
3	Revenue Offset	Revenue Offsets		\$0	\$0	\$0	\$0	\$0	\$0	-\$5,050	-\$2,020	-\$25,577	-\$50,500	-\$83,147
4	<b>Total Cost of Service</b>		<b>\$650,000</b>	<b>\$1,707,688</b>	<b>\$1,017,824</b>	<b>\$986,725</b>	<b>\$493,806</b>	<b>\$244,731</b>	<b>\$371,802</b>	<b>\$452,039</b>	<b>\$25,975</b>	<b>\$1,766,073</b>	<b>-\$50,500</b>	<b>\$7,666,164</b>
5	<b>Percent Excluding Gen &amp; Admin</b>			32.2%	19.2%	18.6%	9.3%	4.6%	7.0%	8.5%	0.5%			
6	Allocation of General Admin			\$568,975	\$339,123	\$328,761	\$164,528	\$81,540	\$123,879	\$150,612	\$8,655	-\$1,766,073		
7	<b>Total Adjusted Cost of Service</b>		<b>\$650,000</b>	<b>\$2,276,663</b>	<b>\$1,356,947</b>	<b>\$1,315,487</b>	<b>\$658,335</b>	<b>\$326,271</b>	<b>\$495,681</b>	<b>\$602,652</b>	<b>\$34,630</b>	<b>\$0</b>	<b>-\$50,500</b>	<b>\$7,666,164</b>
8	<i>Total Adjusted Cost of Service %</i>		8%	30%	18%	17%	9%	4%	6%	8%	0%	0%	-1%	100%

**Table 4-10** shows the reallocation of peaking costs (extra capacity costs) related to fire protection. This is necessary as public fire protection peaking costs are reallocated to the Meter Service cost causation component and private fire protection peaking costs are reallocated to Private Fire costs (a cost causation component introduced in **Table 4-11**). The adjusted cost of service for Max Day and Max Hour in Line 1 (from **Table 4-9**, Columns G-H, Line 7) is divided by total peaking units of service in Line 2 (from **Table 4-6**, Columns G and J, Line 4) to determine a preliminary peaking unit cost in **Table 4-10**,

Line 3. The preliminary peaking unit costs (Line 3) are multiplied by the units of service associated with fire protection (from **Table 4-6**, Columns G and J, Line 3) to determine peaking costs allocated to fire protection (Line 5). Equivalent fire demand associated with public hydrants and private fire protection in Lines 7-8 (from **Table 4-8**, Column F, Lines 3 and 11) is shown proportionally as percentages in Lines 9-10. The allocation of peaking costs to public and private fire protection in Lines 12-13 is calculated by multiplying the allocated cost of service for fire protection (Line 5) by the corresponding allocation percentages to public (Line 9) and private fire protection (Line 10).

**Table 4-10: Allocation of Fire-Related Peaking Costs**

A	B	C	D	E
Line	Fire Protection Cost Allocation	Max Day	Max Hour	Total
1	Adjusted Cost of Service	\$1,315,487	\$658,335	<b>\$1,973,821</b>
2	Units of Service (hgal/day)	26,652	85,571	
3	Unit Cost of Service (\$/hgal/day)	\$49.36	\$7.69	
4	Units of Service for a Fire (hgal/day)	18,000	68,400	
5	<b>Allocated Cost of Service for Fire Protection</b>	<b>\$888,444.08</b>	<b>\$526,231.19</b>	<b>\$1,414,675</b>
6				
7	Equivalent Fire Demand - Public Hydrant	21,528	21,528	
8	Equivalent Fire Demand - Private Fire Protection	14,565	14,565	
9	<b>% Allocation to Public Hydrants</b>	<b>60%</b>	<b>60%</b>	
10	<b>% Allocation to Private Fire Protection</b>	<b>40%</b>	<b>40%</b>	
11				
12	<b>Public Fire Protection</b>	<b>\$ 529,924</b>	<b>\$ 313,877</b>	<b>\$ 843,801</b>
13	<b>Private Fire Service</b>	<b>\$ 358,520</b>	<b>\$ 212,354</b>	<b>\$ 570,874</b>

**Table 4-11** shows the calculation of unit costs by cost causation component. The cost of service allocated to each cost causation component (Line 1) was previously determined in **Table 4-9**, Line 7. Columns F-G, Line 2 show the reallocation of private fire protection peaking costs (from **Table 4-10**, Columns C-D, Line 13) to Private Fire (Column N, Line 2). Private Fire is a cost causation component used in calculating proposed Private Fire Protection Water Service Charges. An additional \$8,000 of Direct Fire Costs (Column K, Line 2) associated with administration of private fire backflow prevention<sup>3</sup> is reallocated to the Private Fire Costs Causation Component (Column N, Line 2). Columns F-G, Line 3 show the reallocation of public hydrant capacity costs (from **Table 4-10**, Columns C-D, Line 12) to Meter Service (Column J, Line 3). Remaining Direct Fire Costs (Column K, Line 3) were also

<sup>3</sup> City staff provided Raftelis with an estimate of \$5,000 in annual costs associated with administration of private fire backflow prevention.

reallocated to Meter Service (Column J, Line 3). Additional reallocations are shown in Lines 4-5. Line 4 shows the reallocation of 45% of non-fire peaking costs (Columns F-G, Line 4) to Meter Service (Column J, Line 4). Line 5 shows the reallocation of 18% of Base costs (Columns D-E, Line 5) to Meter Service (Column J, Line 5). These reallocations achieve the City’s objective of maintaining fixed charge revenues at approximately 45% of total rate revenue in order to maintain revenue stability. Lines 1-5 are summed to determine the final adjusted cost of service in Line 6.

Unit costs of service (Line 11) used in the proposed rate calculations in **Section 5** are calculated by dividing the final adjusted cost of service (Line 6) by the units of service (Line 8). Total projected FYE 2026 water use in hgal (from **Table 4-6**, Column C, Line 4) is the unit of service for the following cost causation components: Water Purchase Costs, Supply, Base, and Conservation. The units of service for Max Day and Max Hour are Tier 1 and Tier 2 extra capacity requirements in hgal per day (from **Table 4-6**, Columns G and J, Lines 1-2). Customer Service units of service equal projected number of water meters in FYE 2026 (from **Table 4-7**, Column E, Line 10). Meter Service units of service equal projected equivalent meters in FYE 2026 (from **Table 4-7**, Column F, Line 10). Revenue Offset units of service equal projected FYE 2026 Tier 1 use (from **Table 4-6**, Column C, Line 1), as revenue offsets are only applied to Tier 1 use in **Section 5**. Private Fire units of service and unit cost (Column N, Lines 8 and 11) are not shown, as the derivation of Private Fire costs (Column N, Line 6) into proposed Private Fire Protection Water Service Charges is shown in greater detail in **Section 5**.

**Table 4-11: Unit Cost of Service by Cost Causation Component**

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Line	Cost of Service Allocation	Water Purchase Cost	Supply	Base	Max Day	Max Hour	Con-Servation	Customer Service	Meter Service	Direct Fire Costs	General & Administrative	Revenue Offset	Private Fire	Total
1	Cost of Service	\$650,000	\$2,276,663	\$1,356,947	\$1,315,487	\$658,335	\$326,271	\$495,681	\$602,652	\$34,630	\$0	-\$50,500		\$7,666,164
2	Private Fire Protection				(\$358,520)	(\$212,354)				(\$8,357)			\$579,231	\$0
3	Allocation of Public Fire to Meter Service (Fixed Charge)				(\$529,924)	(\$313,877)			\$870,074	(\$26,273)	\$0			\$0
4	Extra Capacity Costs in Proportion to Meter Capacity				(\$85,408)	(\$26,421)			\$111,829					\$0
5	Reallocation of Base Costs by Meter Size		\$0	(\$949,863)					\$949,863					\$0
6	<b>Total Adjusted Cost of Service</b>	<b>\$650,000</b>	<b>\$2,276,663</b>	<b>\$407,084</b>	<b>\$341,634</b>	<b>\$105,683</b>	<b>\$326,271</b>	<b>\$495,681</b>	<b>\$2,534,418</b>	<b>\$0</b>	<b>\$0</b>	<b>-\$50,500</b>	<b>\$579,231</b>	<b>\$7,666,164</b>
7														
8	<b>Unit of Service</b>	5,673,372	5,673,372	5,673,372	8,652	17,171	5,673,372	3,515	6,680	0	0	2,090,484	7.6%	
9		hgal	hgal	hgal	hgal/day	hgal/day	hgal	bills/yr	equiv meters			Tier 1 hgal		
10														
11	<b>Unit Cost of Service Rates</b>	<b>\$0.115</b>	<b>\$0.401</b>	<b>\$0.072</b>	<b>\$39.486</b>	<b>\$6.155</b>	<b>\$0.058</b>	<b>\$141.007</b>	<b>\$379.392</b>			<b>-\$0.024</b>		

## 4.10. Cost to Serve All Customer Classes

**Table 4-12** shows the final cost of service by cost causation component recovered by Commodity Rates, Water Service Meter Base Charges, and Private Fire Protection Charges. Total cost of service (Line 5) was previously determined in **Table 4-11**, Line 6. The following cost causation components are recovered by Commodity Rates: Water Purchase Costs, Supply, Base, Max Day, Max Hour, Conservation, and Revenue Offsets (Tier 1 only). Water Service Meter Base Charges recover Customer Service and Meter Service costs. Private Fire Protection Water Service Charges recover Private Fire costs. Commodity Rate cost recovery by tier was calculated based on the share of projected FYE 2026 water use and extra capacity requirements falling within

each tier. Note however that Revenue Offsets are allocated solely to Tier 1 water use to help improve affordability for essential indoor water use (which generally falls within Tier 1).

**Table 4-12: Cost to Serve by Customer Charge**

A	B	C	D	E	F	G	H	I	J	K	L	M	
Line	All Customers	Water Purchase Use (hgal) Cost	Supply	Base	Max Day	Max Hour	Con- Servation	Customer Service	Meter Service	Revenue Offset	Private Fire	Total	
1	Water Service Meter Base Charge							\$495,681	\$2,534,418			\$3,030,099	
2	Tier 1 Commodity Charge	2,090,484	\$239,507	\$838,889	\$149,999	\$80,816	\$33,956	\$120,222		-\$50,500		\$1,412,890	
3	Tier 2 Commodity Charge	3,582,888	\$410,493	\$1,437,774	\$257,085	\$260,818	\$71,727	\$206,049				\$2,643,944	
4	Private Fire Protection Water Service Charge										\$579,231	\$579,231	
5	<b>Total Cost of Service</b>	5,673,372	\$650,000	\$2,276,663	\$407,084	\$341,634	\$105,683	\$326,271	\$495,681	\$2,534,418	-\$50,500	\$579,231	<b>\$7,666,164</b>

# 5. Proposed Water Rates

**Section 5** details the proposed water rate calculations. FYE 2026 proposed rates are calculated based on the results of the COS analysis (from **Section 4**). All rates beyond FYE 2026 are calculated by simply increasing the prior year proposed rate by the annual revenue adjustment (from **Table 3-12**).

Raftelis and City Staff discussed the existing rate structure and decided to make no changes. Therefore, all proposed rates shown are consistent with the City's existing rate structure.

## 5.1. Commodity Rate Calculation

The proposed Commodity Rates calculated for the test year (FYE 2026) include five distinct "unit rates" that are summed to determine the proposed rate per hgal. The five unit rates, which incorporate one or more cost causation components, are:

- » **Water Purchase Cost Rate:** Includes the Water Purchase cost causation component
- » **Average Delivery Rate:** Includes the Supply and Base cost causation components
- » **Peaking Rate:** Includes the Max Hour and Max Day cost causation components
- » **Conservation Rate:** Includes the Conservation cost causation component
- » **Revenue Offset Rate:** Includes the Revenue Offset cost causation component

### Water Purchase Cost Unit Rate

The Water Purchase unit cost causation component was previously calculated in **Table 4-11**, Column C, Line 11. Raftelis developed different Water Purchase Cost unit rates for each tier. Because the City is expecting to purchase replacement water in the future to replenish the Basin's aquifer, replacement water costs were allocated to Tier 2.

**Table 5-1** shows the unit cost calculation per hgal for Watermaster assessments on water production within the City's share of the Basin's operating safe yield and for replacement water assessments on groundwater production in excess of the City's share of the operating safe yield. FYE 2028 water supply projections in Line 1 (from **Table 3-8**, Lines 3-4) and water cost information in Line 4 (from **Table 3-8**, Lines 16-19) were used as FYE 2028 was representative of replacement water requirements over the five-year study period. The percentage of water supply within and above the City's share of the operating safe yield is shown in Line 2, which are then applied to total FYE 2028 water use in Column E, Line 3 to determine water use within and above the operating safe yield in Columns C-D, Line 3.

FYE 2028 water supply costs in Line 4 associated with Watermaster assessments (from **Table 3-8**, Lines 17-19) and replacement water assessments (from **Table 3-8**, Line 16) are shown proportionally as percentages in Line 5. These percentages are applied to the total Water Purchase Cost revenue requirement in Column E, Line 6 (from **Table 4-12**, Column C, Line 5) to determine the share of the revenue requirement within and above the operating safe yield in Columns C-D, Line 6. The water supply revenue requirement (Line 6) is divided by FYE 2028 use by source (Line 3) to determine unit costs per hgal (Line 7). Note that the total unit cost (Column E, Line 7) matches the Water Purchase unit cost causation component from **Table 4-11**, Column C, Line 11.

**Table 5-1: Water Purchase Unit Cost by Source**

A	B	C	C	D	E
Line	Description		Groundwater - San Gabriel Basin	Replacement Water	Total
1	Acre Feet (AF)		1,972	58	2,031
2	Percent of Supply		97%	3%	100%
3	Water Use by Source (hcf)		5,510,666	162,707	5,673,372
4	Water Cost - Mid Year of Study		\$639,568	\$71,163	\$710,731
5	Proportion of Water Cost		90%	10%	100%
6	Water Supply Reveune Requirement		\$584,918	\$65,082	\$650,000
7	<b>Unit Cost (\$/ hcf)</b>		<b>\$0.106</b>	<b>\$0.400</b>	<b>\$0.115</b>

**Table 5-2**, Column F shows the calculation of Water Purchase Cost unit rates for each tier. Unit rates within and above the City’s share of the operating safe yield are shown in Line 1 in Columns D and E respectively (from **Table 5-1**, Line 7). Water within the City’s share of the operating safe yield is allocated to Tier 1, as shown in Column D, Line 2. The remaining water supply within the operating safe yield is allocated to Tier 2 (Column D, Line 3), with replacement water allocated to the remaining Tier 2 demand (Column E, Line 3). The unit rates in Columns F, Lines 2-3, are calculated based on a weighted average of the unit costs (Columns D-F, Line 1). For example, the Tier 2 unit rate in Column F, Line 3 is calculated:

$$[\$0.106/hgal \times 3,420,181 hgal + \$0.400/hgal \times 162,707 hgal] / 3,582,868 hgal = \$0.112/hgal$$

**Table 5-2: Water Purchase Cost Unit Rate**

A	B	C	D	E	F
Line	Water Purchase Cost Allocation	Use (hcf)	Groundwater - San Gabriel Basin Watermaster	Replacement Water	Unit Cost
1	<b>Unit Cost (\$/hgal)</b>		<b>\$0.106</b>	<b>\$0.400</b>	
2	Tier 1	2,090,484	2,090,484	0	<b>\$0.106</b>
3	Tier 2	3,582,888	3,420,181	162,707	<b>\$0.119</b>
4	<b>Total</b>	<b>5,673,372</b>	<b>5,510,666</b>	<b>162,707</b>	<b>\$0.115</b>

### Average Delivery Unit Rate

The Average Delivery unit rate is not differentiated by tier and simply equals the sum of the Supply and Base unit cost causation components (from **Table 4-11**, Column D-E, Line 11). As stated previously, Supply costs include all other supply-related costs not pertaining to Water Assessments (which are classified as Water Purchase Costs). **Table 5-3** shows the Average Delivery unit rate in Column C, Line 3.

**Table 5-3: Average Delivery Unit Rate**

A	B	C
Line	All Classes	Average Delivery Rate
1	Tier 1	\$0.473
2	Tier 2	\$0.473

### Peaking Unit Rate

**Table 5-4** shows the calculation of peaking unit rates for each tier based on Max Day and Max Hour unit costs (peaking costs shown in Column C). The peaking costs shown in Column C are the addition of Columns F and G from

**Table 4-12**. The total use, in Column D was established in **Table 5-2**. The peaking unit rate for each tier is calculated by dividing total peaking costs (Column C) by water use as shown in Column E.

**Table 5-4: Peaking Unit Rates**

A	B	C	D	E
Line	Customer Class	Peaking Costs	Use (hcf)	Peaking Rates (\$/hgal)
1				
2	Tier 1	\$114,773	2,090,484	<b>\$0.055</b>
3	Tier 2	\$332,544	3,582,888	<b>\$0.093</b>

### Conservation and Revenue Offset Unit Rates

**Table 5-5** shows the Conservation and Revenue Offset unit rates, which are simply equal to the Conservation and Revenue Offset unit cost causation components respectively (from **Table 4-11**, Columns H and M, Line 11). The conservation rate is applied to Tier 2 because the City’s conservation program is focused on higher water users and therefore Tier 2 users cause these costs. Revenue Offset unit rates are applied to Tier 1 use as previously discussed. Revenue Offset unit rates are used to reduce the proposed Tier 1 Commodity Rate and are therefore shown as negative.

**Table 5-5: Conservation and Revenue Offset Unit Rates**

A	B	C	D
Line	Description	Tier 1	Tier 2
1	Conservation Unit Rate	\$0.000	\$0.091
2	Revenue Offset Unit Rate	-\$0.024	\$0.000

### Proposed FYE 2026 Commodity Rates Calculation

**Table 5-6** shows the final calculation of proposed FYE 2026 Commodity Rates by tier. The five unit rates in Columns C-G (from **Table 5-2** through **Table 5-5**) are summed to determine the total proposed FYE 2026 rate by tier (Column H). The difference between proposed (Column H) and current rates (Column I) is shown in Column J.

**Table 5-6: FYE 2026 Proposed Commodity Rates**

A	B	C	D	E	F	G	H	I	J
Line	Customer Class	Water Purchase Rate	Average Delivery Rate	Peaking Rates (\$/hgal)	Conservation Rate	Revenue Offset	Proposed Total Rate (\$/hgal)	Current Rate	Difference
1	Tier 1	\$0.106	\$0.473	\$0.055	\$0.000	-\$0.024	<b>\$0.610</b>	<b>\$0.562</b>	\$0.048
2	Tier 2	\$0.119	\$0.473	\$0.093	\$0.091	\$0.000	<b>\$0.776</b>	<b>\$0.716</b>	\$0.060

## 5.2. Water Service Meter Base Charge Calculation

Water Service Meter Base Charges are designed to recover costs allocated to the Meter Service and Customer Service cost causation components. **Table 5-7** shows the Meter Service and Customer Service unit charge calculation based on unit cost causation components for Meter Service and Customer Service in Line 1 (from **Table 4-11**, Columns I-J, Line 11). The unit cost causation components for Meter Service and Customer Service are annualized costs recovered by each unit of service. Unit cost causation components (Line 1) are divided by six bimonthly billing periods per year (Line 2) to determine the unit charge per bimonthly billing period (Line 3).

**Table 5-7: Meter Service and Customer Service Unit Charge Calculations**

A	B	C	D
Line	Description	Meter Service	Customer Service
1	Unit Cost Causation Component	\$379.39	\$141.01
2	Bimonthly Billing Periods Per Year	6	6
3	Unit Charge	<b>\$63.23</b>	<b>\$23.50</b>

**Table 5-8** shows the calculation of proposed FYE 2026 bimonthly Water Service Meter Charge rates by meter size. Meter Service costs vary by meter size based on meter capacity. Therefore, hydraulic capacity meter ratios in Column C (from **Table 4-7**, Column C) are used to increase the Meter Service charges in proportion to meter capacity. Customer Service costs do not vary based on meter size and are therefore applied equally to all meter sizes. The Meter Service charge (Column D) is calculated by multiplying the Meter Service unit charge (from **Table 5-7**, Column C, Line 3) by the corresponding hydraulic capacity meter ratio (Column C). Customer Service charges (Column E), which do not vary by meter size, equal the Customer Service unit charge from **Table 5-7**, Column D, Line 3. The proposed FYE 2026 bimonthly charge (Column F) is the sum of the Meter Service charge (Column D) and Customer Service charge (Column E). The difference between proposed (Column F) and current bimonthly charges (Column G) is shown in Column H.

**Table 5-8: FYE 2026 Proposed Water Service Meter Base Charge Calculation**

A	B	C	D	E	F	G	H
Line	Meter Size	Hydraulic Capacity (gpm) Assumes Compound Meters	Meter Service	Customer Bill	Proposed Bi-Monthly Fixed Charge	Current Charges	Difference (\$)
1	5/8-inch	20	\$63.23	\$23.50	<b>\$86.73</b>	<b>\$80.24</b>	\$6.49
2	1-inch	50	\$158.08	\$23.50	<b>\$181.58</b>	<b>\$168.68</b>	\$12.90
3	1.5-inch	100	\$316.16	\$23.50	<b>\$339.66</b>	<b>\$316.06</b>	\$23.60
4	2-inch	160	\$505.86	\$23.50	<b>\$529.36</b>	<b>\$492.94</b>	\$36.42
5	3-inch	300	\$948.48	\$23.50	<b>\$971.98</b>	<b>\$905.64</b>	\$66.34
6	4-inch	500	\$1,580.80	\$23.50	<b>\$1,604.30</b>	<b>\$1,495.20</b>	\$109.10
7	6-inch	1,000	\$3,161.60	\$23.50	<b>\$3,185.10</b>	<b>\$2,969.12</b>	\$215.98
8	8-inch	1,600	\$5,058.56	\$23.50	<b>\$5,082.07</b>	<b>\$4,737.80</b>	\$344.27
9	10-inch	2,300	\$7,271.69	\$23.50	<b>\$7,295.19</b>	<b>\$6,801.28</b>	\$493.91

### 5.3. Private Fire Protection Water Service Charge Calculation

Private Fire Protection Water Service Charges are designed to recover costs allocated to the Private Fire cost causation component. Private Fire costs are further distinguished in this subsection between Fire Backflow Administration costs and all other Private Fire costs. **Table 5-9** shows the calculation of Private Fire (i.e. non-backflow related) and Fire Backflow Administration unit charges. Reducing the total FYE 2026 Private Fire Revenue Requirement in Line 1 (from **Table 4-11**, Columns N, Line 6) by \$8,357 in backflow-related costs (Line 2)<sup>4</sup> provides remaining Private Fire costs (Line 3) recovered by the Private Fire unit charge. These remaining costs (Line 5) are divided by equivalent private fire demand in Line 6 (from **Table 4-8**, Column F, Line 11) and then divided again by six bimonthly billing periods per year (Line 7) to determine the Private Fire charge per unit of potential fire line demand (Line 8). The Fire Backflow Administration unit charge (Line 13) is similarly calculated by dividing total Fire Backflow Administration costs by total projected private fire connections in Line 11 (from **Table 4-8**, Column E, Line 11) and then dividing again by six bimonthly billing periods (Line 12).

<sup>4</sup> City staff estimated that \$8,357 in annual operating expenses are associated with private fire backflow administration.

**Table 5-9: Private Fire Protection Unit Charge Calculations**

A	B	C
Line	Description	FY 2026
1	Total FYE 2026 Private Fire Revenue Requirement	\$579,231
2	Less Backflow Administration Costs	(\$8,357)
3	<b>Remaining Private Fire Costs</b>	<b>\$570,874</b>
4		
5	Remaining Private Fire Costs	\$570,874
6	Equivalent Private Fire Demand	14,565
7	Bimonthly Billing Periods per Year	6
8	<b>Private Fire Unit Charge</b>	<b>\$6.53</b>
9		
10	Fire Backflow Administration Costs	\$8,357
11	Number of Private Fire Connections	126
12	Bimonthly Billing Periods per Year	6
13	<b>Fire Backflow Administration Unit Charge</b>	<b>\$11.05</b>

**Table 5-10** shows the calculation of proposed FYE 2026 bimonthly Private Fire Protection Water Service Charge rates by connection size. Private Fire costs vary by connection size based on potential fire line demand. Therefore, the Private Fire charge (Column F) is calculated by multiplying the Private Fire charge per unit of potential demand in Column D (from **Table 5-9**, Column C, Line 8) by potential demand in Column C (from **Table 4-8**, Column C). Fire Backflow Administration charges (Column E), which do not vary by connection size, equal the Customer Fire Backflow Administration unit charge from **Table 5-9**, Column C, Line 13. The proposed FYE 2026 bimonthly charge (Column F) is the sum of the Private Fire charge (Column D) and Fire Backflow Administration charge (Column E). The difference between proposed and current bimonthly charges) is shown in Column H.

**Table 5-10: FYE 2026 Proposed Private Fire Protection Water Service Charge Calculation**

A	B	C	D	E	F	G	H
Line	Private Fire Connection Size	Potential Demand	Private Fire	Fire Backflow Admin	Total Bi-Monthly Rate	Current Rate	\$ Difference
1	2-inch	6.19	\$40.44	\$11.05	<b>\$51.49</b>	<b>\$48.52</b>	\$2.97
2	3-inch	17.98	\$117.47	\$11.05	<b>\$128.52</b>	<b>\$123.50</b>	\$5.02
3	4-inch	38.32	\$250.33	\$11.05	<b>\$261.38</b>	<b>\$252.82</b>	\$8.56
4	6-inch	111.31	\$727.16	\$11.05	<b>\$738.21</b>	<b>\$716.96</b>	\$21.25
5	8-inch	237.21	\$1,549.59	\$11.05	<b>\$1,560.64</b>	<b>\$1,517.48</b>	\$43.16
6	10-inch	426.58	\$2,786.70	\$11.05	<b>\$2,797.75</b>	<b>\$2,721.62</b>	\$76.13

## 5.4. Proposed Five-Year Rate Schedule

**Table 5-11** shows current FYE 2025 water rates and proposed water rates for FYE 2026 to FYE 2030. Current FYE 2025 rates (Column C) were shown previously in **Table 3-1**. Proposed FYE 2026 Commodity Rates (Column D, Lines 4-5) were calculated in **Table 5-6**. Proposed FYE 2026 Water Service Meter Charges (Column D, Lines 9-17) were calculated in **Table 5-8**. Proposed FYE 2026 Private Fire Protection Water Service Charges (Column D, Lines 21-26) were calculated in **Table 5-10**. All rates beyond FYE 2026 (Columns E-H) were calculated by increasing the

prior year proposed rate or charge by the corresponding revenue adjustment in Line 1 (from **Table 3-12**). Commodity Rates are rounded to the nearest tenth of a cent. All fixed charges are rounded to the nearest cent.

**Table 5-11: Proposed Five-Year Rate Schedule**

A	B	C	D	E	F	G	H
Line	Fiscal Year	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
1	Revenue Adjustment		7.75%	7.75%	7.75%	7.75%	7.75%
2	<b>Commodity Rates</b>						
3	<b>Tier</b>	<b>Current</b>	<b>January 1, 2026</b>	<b>January 1, 2027</b>	<b>January 1, 2028</b>	<b>January 1, 2029</b>	<b>January 1, 2030</b>
4	Tier 1 (0-125 h	\$0.562	\$0.610	\$0.657	\$0.708	\$0.763	\$0.822
5	Tier 2 (>125 h	\$0.716	\$0.776	\$0.836	\$0.901	\$0.971	\$1.046
6							
7	<b>Bimonthly Water Service Meter Base Charges</b>						
8	<b>Meter Size</b>	<b>Current</b>	<b>January 1, 2026</b>	<b>January 1, 2027</b>	<b>January 1, 2028</b>	<b>January 1, 2029</b>	<b>January 1, 2030</b>
9	5/8-inch	\$80.24	\$86.73	\$93.45	\$100.69	\$108.49	\$116.90
10	1-inch	\$168.68	\$181.58	\$195.65	\$210.81	\$227.15	\$244.75
11	1.5-inch	\$316.06	\$339.66	\$365.98	\$394.34	\$424.90	\$457.83
12	2-inch	\$492.94	\$529.36	\$570.39	\$614.60	\$662.23	\$713.55
13	3-inch	\$905.64	\$971.98	\$1,047.31	\$1,128.48	\$1,215.94	\$1,310.18
14	4-inch	\$1,495.20	\$1,604.30	\$1,728.63	\$1,862.60	\$2,006.95	\$2,162.49
15	6-inch	\$2,969.12	\$3,185.10	\$3,431.95	\$3,697.93	\$3,984.52	\$4,293.32
16	8-inch	\$4,737.80	\$5,082.07	\$5,475.93	\$5,900.31	\$6,357.58	\$6,850.29
17	10-inch	\$6,801.28	\$7,295.19	\$7,860.57	\$8,469.76	\$9,126.17	\$9,833.45
18							
19	<b>Bimonthly Private Fire Protection Water Service Charges</b>						
20	<b>Meter Size</b>	<b>Current</b>	<b>January 1, 2026</b>	<b>January 1, 2027</b>	<b>January 1, 2028</b>	<b>January 1, 2029</b>	<b>January 1, 2030</b>
21	2-inch	\$48.52	\$51.49	\$55.48	\$59.78	\$64.41	\$69.40
22	3-inch	\$123.50	\$128.52	\$138.48	\$149.21	\$160.77	\$173.23
23	4-inch	\$252.82	\$261.38	\$281.64	\$303.47	\$326.99	\$352.33
24	6-inch	\$716.96	\$738.21	\$795.42	\$857.07	\$923.49	\$995.06
25	8-inch	\$1,517.48	\$1,560.64	\$1,681.59	\$1,811.91	\$1,952.33	\$2,103.64
26	10-inch	\$2,721.62	\$2,797.75	\$3,014.58	\$3,248.21	\$3,499.95	\$3,771.20

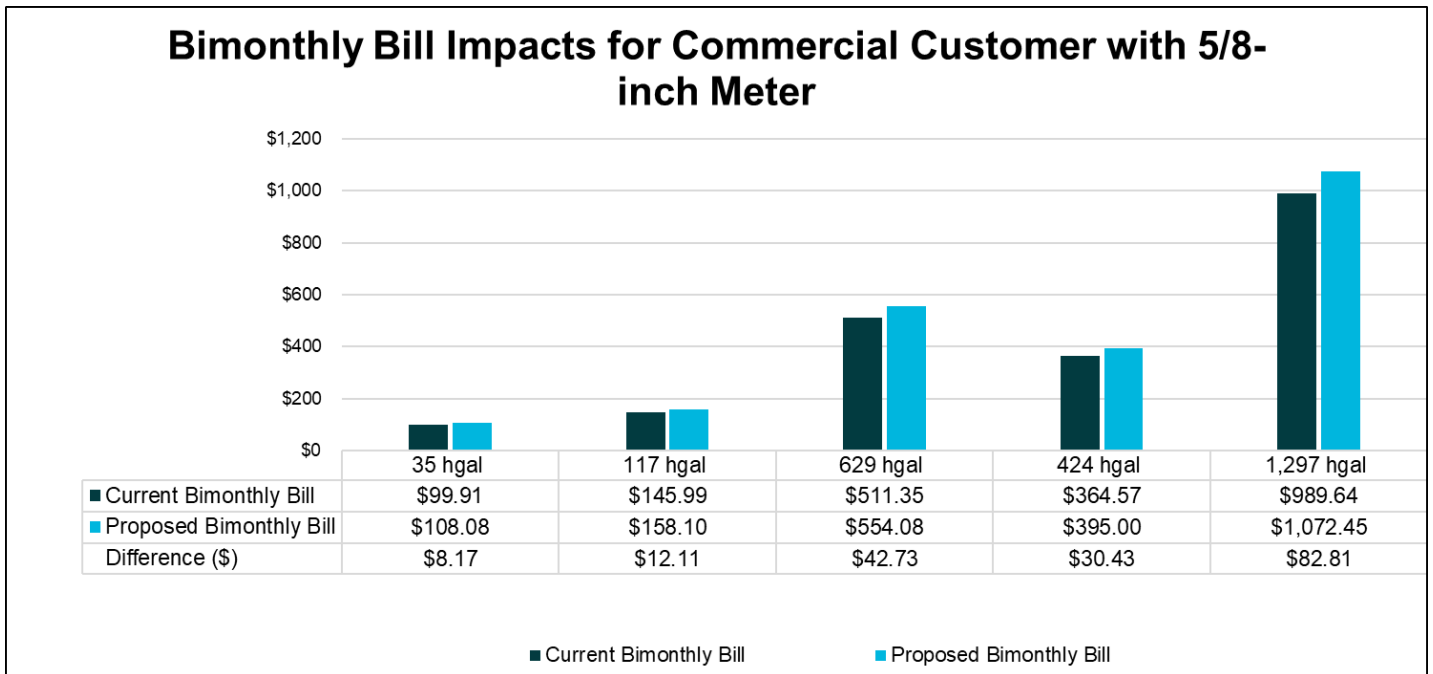
# 6. Customer Impacts

## 6.1. Bimonthly Bill Impacts

Figure 6-1 shows estimated bimonthly bills under current rates and proposed FYE 2026 rates for customers with a 5/8-inch water meter at varying levels of bimonthly water use. Note that nearly all residential customers in the City have a 5/8-inch meter. The bill impact assumes the following levels of water use:

- » 25<sup>th</sup> percentile: 74 hgal
- » Median: 120 hgal
- » Average: 137 hgal
- » 75<sup>th</sup> percentile: 178 hgal
- » 90<sup>th</sup> percentile: 245 hgal

Figure 6-1: Bimonthly Bill Impacts at Varying Levels of Use



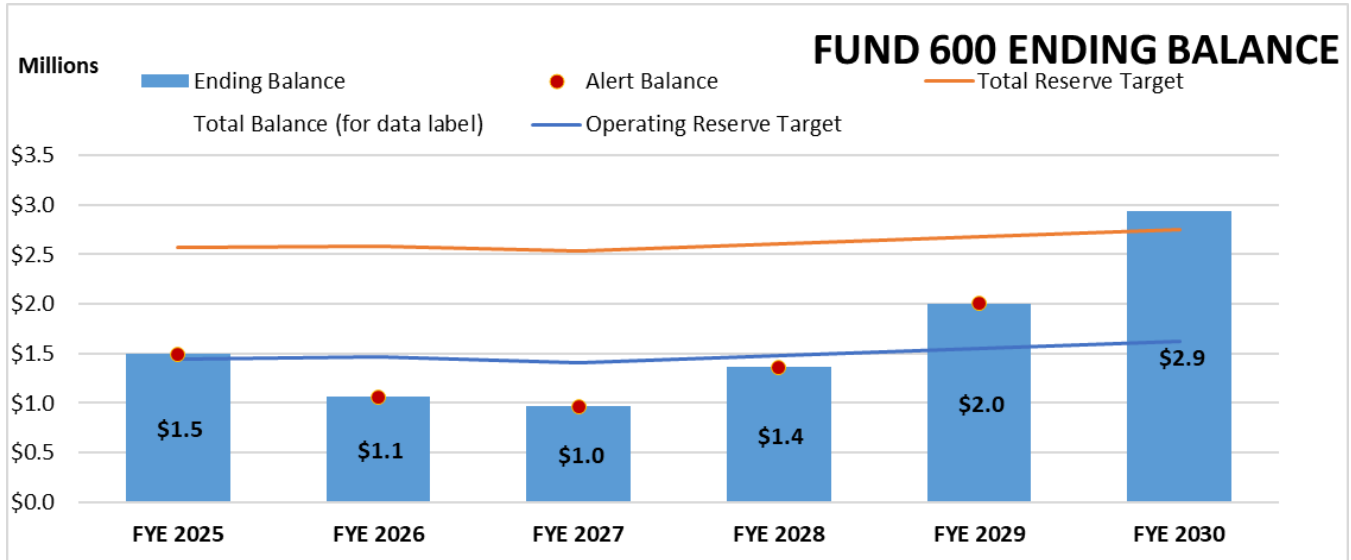
# APPENDICES

# 7. Appendices

## 7.1. Appendix A: 7% Revenue Increases and 80% Capital Execution

A second revenue increase alternative is 7% but with an 80% capital execution factor. The rates and charges for this scenario were derived in the same manner as those derived for the 7.75% scenario shown in the main body of the report. The typical bill impact is \$12 bimonthly instead of \$13.21.

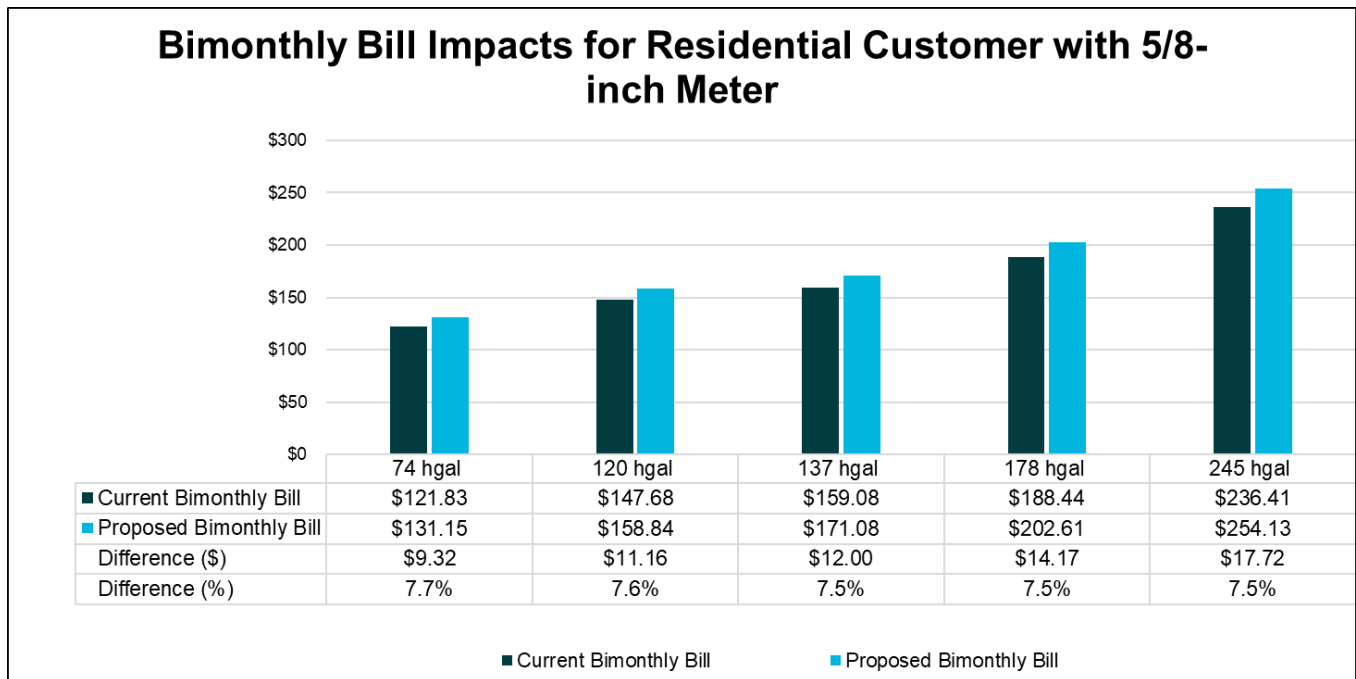
Figure 7-1: Projected Ending Balances – Alternative Financial Plan



**Table 7-1: Alternative Five-Year Rate Schedule**

A	B	C	D	E	F	G	H
Line	Fiscal Year	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
1	Revenue Adjustment		7.00%	7.00%	7.00%	7.00%	7.00%
2	<b>Commodity Rates</b>						
3	<b>Tier</b>	<b>Current</b>	<b>January 1, 2026</b>	<b>January 1, 2027</b>	<b>January 1, 2028</b>	<b>January 1, 2029</b>	<b>January 1, 2030</b>
4	Tier 1 (0-125 f	\$0.562	\$0.602	\$0.644	\$0.689	\$0.737	\$0.789
5	Tier 2 (>125 h	\$0.716	\$0.769	\$0.823	\$0.881	\$0.943	\$1.009
6							
7	<b>Bimonthly Water Service Meter Base Charges</b>						
8	<b>Meter Size</b>	<b>Current</b>	<b>January 1, 2026</b>	<b>January 1, 2027</b>	<b>January 1, 2028</b>	<b>January 1, 2029</b>	<b>January 1, 2030</b>
9	5/8-inch	\$80.24	\$86.60	\$92.66	\$99.15	\$106.09	\$113.52
10	1-inch	\$168.68	\$181.18	\$193.86	\$207.43	\$221.95	\$237.49
11	1.5-inch	\$316.06	\$338.79	\$362.51	\$387.89	\$415.04	\$444.09
12	2-inch	\$492.94	\$527.94	\$564.90	\$604.44	\$646.75	\$692.02
13	3-inch	\$905.64	\$969.27	\$1,037.12	\$1,109.72	\$1,187.40	\$1,270.52
14	4-inch	\$1,495.20	\$1,599.74	\$1,711.72	\$1,831.54	\$1,959.75	\$2,096.93
15	6-inch	\$2,969.12	\$3,175.93	\$3,398.25	\$3,636.13	\$3,890.66	\$4,163.01
16	8-inch	\$4,737.80	\$5,067.35	\$5,422.06	\$5,801.60	\$6,207.71	\$6,642.25
17	10-inch	\$6,801.28	\$7,274.00	\$7,783.18	\$8,328.00	\$8,910.96	\$9,534.73
18							
19	<b>Bimonthly Private Fire Protection Water Service Charges</b>						
20	<b>Meter Size</b>	<b>Current</b>	<b>January 1, 2026</b>	<b>January 1, 2027</b>	<b>January 1, 2028</b>	<b>January 1, 2029</b>	<b>January 1, 2030</b>
21	2-inch	\$48.52	\$51.20	\$54.78	\$58.61	\$62.71	\$67.10
22	3-inch	\$123.50	\$127.66	\$136.60	\$146.16	\$156.39	\$167.34
23	4-inch	\$252.82	\$259.54	\$277.71	\$297.15	\$317.95	\$340.21
24	6-inch	\$716.96	\$732.87	\$784.17	\$839.06	\$897.79	\$960.64
25	8-inch	\$1,517.48	\$1,549.27	\$1,657.72	\$1,773.76	\$1,897.92	\$2,030.77
26	10-inch	\$2,721.62	\$2,777.30	\$2,971.71	\$3,179.73	\$3,402.31	\$3,640.47

**Figure 7-2: Alternative Bimonthly Bill Impacts at Varying Levels of Use**



## 7.2. Appendix B: FYE 2026 Functionalized O&M Expenses

O&M Allocation to Cost Causation Components (1/4)			FUNCTIONS									
Fund 600 O&M Expenses		FY 2026 Amount	Water Purchase Costs	Supply	Treatment	Transmission & Distribution	Billing & Customer Service	Meter Replacement/Repair	Con-servation	Direct Fire	General	Total
<b>600-67-679 EM Operable Unit - Post Permit Phase</b>												
600-67-679-5111	Salaries - Full Time	\$35,800	0.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
600-67-679-5132	Salaries - Overtime	\$45,000	0.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
600-67-679-5144	Incentive Pay	\$1,000	0.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
600-67-679-5201	Group Insurance	\$0	0.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
600-67-679-5202	Dental Insurance	\$0	0.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
600-67-679-5203	Vision Insurance	\$0	0.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
600-67-679-5204	Employee Supplemental Insurance Policies	\$0	0.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
600-67-679-5206	Life Insurance	\$0	0.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
600-67-679-5208	Retiree Medical Insurance	\$0	0.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
600-67-679-5222	Medicare	\$600	0.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
600-67-679-5225	Retirement Contribution	\$0	0.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
600-67-679-5252	Workers Compensation Insurance	\$6,000	0.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
600-67-679-5253	General Liability Insurance	\$8,100	0.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
600-67-679-5291	Other Employee Benefits	\$0	0.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
600-67-679-6111	General Contract Services	\$200,000	0.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
600-67-679-6125	Legal Services	\$30,000	0.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
600-67-679-6160	Water Assessment	\$75,000	0.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
600-67-679-6161	Water Quality Testing	\$85,000	0.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
600-67-679-6211	Materials & Supplies	\$7,500	0.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
600-67-679-6220	Other Services (non-contract)	\$0	0.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
600-67-679-6311	Office Equipment Maintenance	\$5,000	0.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
600-67-679-6415	Utilities - Electricity	\$200,000	0.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
600-67-679-8131	Machinery & Equipment	\$0	0.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
<b>Total - EM Operable Unit- Post Permit Phase</b>		<b>\$699,000</b>	<b>\$0</b>	<b>\$349,500</b>	<b>\$349,500</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$699,000</b>
<b>Sewer Maintenance Division 693</b>												
600-67-693-5111	Salaries - Full Time	\$0	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
600-67-693-5132	Salaries - Overtime	\$0	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
600-67-693-5144	Medicare	\$0	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
600-67-693-5181	Workers Compensation Insurance	\$0	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
600-67-693-5201	Employee Supplemental Insurance	\$0	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
600-67-693-5202	Dental Insurance	\$0	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
600-67-693-5203	Vision	\$0	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
600-67-693-5204	Emp Supplemental	\$0	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
600-67-693-5206	Life	\$0	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
600-67-693-5222	Meidcare	\$0	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
600-67-693-5226	Supplemental Retirement	\$0	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
600-67-693-5252	Workers Comp	\$0	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
600-67-693-5253	General Liability	\$0	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
600-67-693-5255	Holiday Pay	\$0	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
600-67-693-5257	Vacation Pay	\$0	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
<b>Total - Utilities</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

O&M Allocation to Cost Causation Components (2/4)

Fund 600 O&M Expenses			FUNCTIONS										Total
			Water Purchase	Supply	Treatment	Transmission & Distribution	Billing & Customer Service	Meter Replacement/ Repair	Con-servation	Direct Fire	General		
FY 2026 Amount	Costs												
<b>600-67-695</b>	<b>GENERAL &amp; ADMINISTRATIVE</b>												
600-67-695-5111	Salaries - Full Time	\$983,200	0.0%	5.0%	5.0%	0.0%	19.6%	23.8%	12.9%	0.85%	33.0%	100.0%	
600-67-695-5125	Salaries - Part Time	\$0	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
600-67-695-5132	Overtime	\$15,000	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
600-67-695-5134	Cafeteria Plan Overtime	\$0	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
600-67-695-5141	Workers' Compensation Salary Cont.	\$0	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
600-67-695-5144	Incentive Pay	\$31,100	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
600-67-695-5181	Car Allowance	\$6,800	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
600-67-695-5201	Group Insurance	\$189,000	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
600-67-695-5202	Dental Insurance	\$8,700	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
600-67-695-5203	Vision Insurance	\$1,900	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
600-67-695-5204	Employee Supplemental Insurance Policies	\$7,200	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
600-67-695-5206	Life Insurance	\$9,600	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
600-67-695-5208	Retiree Medical Insurance	\$0	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
600-67-695-5222	Medicare	\$15,100	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
600-67-695-5225	Ret. Contribution - Unit Retiree Medical	\$0	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
600-67-695-5226	Supplemental Retirement - PARS	\$4,500	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
600-67-695-5227	Deferred Compensation	\$9,400	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
600-67-695-5229	Post 1978 CalPERS Retirement	\$5,000	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
600-67-695-5252	Workers Compensation Insurance	\$22,400	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
600-67-695-5253	General Liability Insurance	\$218,800	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
600-67-695-5255	Holiday Payoff	\$3,500	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
600-67-695-5256	Sick Leave Payoff	\$1,700	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
600-67-695-5257	Vacation Payoff	\$15,000	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
600-67-695-5291	Other Employee Benefits	\$0	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
600-67-695-6110	Contract Staffing	\$0	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
600-67-695-6111	Contract Services	\$200,000	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
600-67-695-6115	Professional Services	\$0	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
600-67-695-6123	Copier Lease	\$0	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
600-67-695-6160	Water Assessment	\$650,000	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	
600-67-695-6211	Office Supplies	\$6,000	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
600-67-695-6213	Postage	\$0	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
600-67-695-6215	General Supplies	\$0	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
600-67-965-6218	Office Equipment - Non-Capital	\$5,000	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
600-67-695-6220	Other Services (non-contract)	\$30,000	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
600-67-695-6221	Dues & Subscription	\$10,000	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
600-67-695-6226	Advertising & Publishing	\$15,000	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
600-67-695-6231	Local Conferences & Meetings	\$2,000	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
600-67-695-6241	Out of Town Conferences	\$10,000	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
600-67-695-6245	Training	\$10,000	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
600-67-695-6248	Uniforms & Safety Equipment	\$0	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
600-67-695-6256	Bank Service Charges	\$45,000	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
600-67-695-6261	Computer Supplies & Software	\$0	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	

O&M Allocation to Cost Causation Components (3/4)

			FUNCTIONS										
			Water Purchase				Transmission &	Billing &	Meter	Con-	Direct Fire	General	Total
Fund 600 O&M Expenses		FY 2026 Amount	Costs	Supply	Treatment	Distribution	Customer Service	Replacement/ Repair	Conservation				
<b>600-67-695</b>	<b>GENERAL &amp; ADMINISTRATIVE</b>												
600-67-695-6311	Equipment Maintenance & Repairs	\$0	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
600-67-695-6321	Computer Maintenance & Repairs	\$0	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
600-67-695-6331	Property Maintenance & Repairs	\$10,000	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
600-67-695-6341	Bad Debt Expense	\$0	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
600-67-695-6398	Amortization Expense	\$0	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
600-67-695-6412	Cell Phone/Smart Phone	\$0	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
600-67-695-7215	Write off of Bad Debts	\$0	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
600-67-695-8131	Machinery & Equipment	\$0	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
600-67-695-8132	Vehicle	\$0	0.0%	5.0%	5.0%	0.0%	19.8%	24.0%	13.0%	0.0%	33.3%	100.0%	
<b>Total - General &amp; Administrative</b>		<b>\$2,540,900</b>	<b>\$650,000</b>	<b>\$94,127</b>	<b>\$94,127</b>	<b>\$0</b>	<b>\$371,802</b>	<b>\$451,810</b>	<b>\$244,731</b>	<b>\$8,357</b>	<b>\$625,945</b>	<b>\$2,540,900</b>	
							14.6%		9.6%	0.33%			
<b>600-67-696</b>	<b>PUMPING TRANSMISSION DISTRIBUTION</b>												
600-67-696-5111	Salaries - Full Time	\$524,200	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-5125	Salaries - Part Time	\$0	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-5132	Overtime	\$150,000	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-5134	Cafeteria Plan Overtime	\$0	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-5141	Workers' Compensation Salary Cont.	\$36,000	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-5144	Incentive Pay	\$9,900	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-5145	Essential Worker Premium Pay	\$0	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-5201	Group Insurance	\$133,300	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-5202	Dental Insurance	\$1,700	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-5203	Vision Insurance	\$700	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-5204	Employee Supplemental Insurance Policies	\$7,200	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-5206	Life Insurance	\$7,100	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-5208	Retiree Medical Insurance	\$0	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-5222	Medicare	\$8,400	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-5225	Ret. Contribution - Unit Retiree Medical	\$0	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-5226	Supplemental Retirement	\$700	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-5227	Deferred Compensation	\$400	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-5229	Post 1978 CalPERS Retirement	\$4,000	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-5252	Workers Compensation Insurance	\$88,200	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-5253	General Liability Insurance	\$117,500	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-5255	Holiday Payoff	\$5,700	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-5256	Sick Leave Pay Off	\$100	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-5257	Vacation Pay Off	\$5,000	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-5291	Other Employee Benefits	\$0	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-6111	Contract Services	\$200,000	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-6161	Water Quality Testing	\$62,500	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-6197	Unanticipated Costs	\$0	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-6211	Materials & Supplies	\$200,000	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-6215	General Supplies	\$0	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-6217	Carbon Supply	\$0	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-6218	Office Equipment - Non Capital	\$0	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-6220	Other Services (non-contract)	\$0	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	

O&M Allocation to Cost Causation Components (4/4)

Fund 600 O&M Expenses	FY 2026 Amount	FUNCTIONS										Total	
		Water Purchase Costs	Supply	Treatment	Transmission & Distribution	Billing & Customer Service	Meter Replacement/Repair	Con-servation	Direct Fire	General			
<b>600-67-696 PUMPING TRANSMISSION DISTRIBUTION</b>													
600-67-696-6220 Other Services (non-contract)	\$0	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-6221 Dues And Subscriptions	\$0	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-6241 Travel & Conferences	\$8,000	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-6245 Training	\$8,000	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-6248 Uniforms/Safety Equipment	\$12,000	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-6258 Tools & Minor Equipment	\$0	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-6265 Fuel & Oil	\$25,000	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-6266 Special Departmental Expense	\$0	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-6311 Office Equipment Maintenance	\$12,000	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-6315 Equipment Maintenance	\$0	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-6335 Vehicle Maintenance & Repair	\$10,000	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-6344 Permits, Assessments & Taxes	\$0	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-6399 Depreciation Expense	\$0	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-6411 Utilities - Telephone	\$10,000	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-6412 Cell Phone/Smart Phone	\$6,000	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-6413 iPad/Tablet Monthly Fee	\$0	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-6415 Utilities - Electricity	\$208,000	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-6416 Utilities - Water	\$2,200	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-8131 Machinery & Equipment Water Meters	\$0	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
600-67-696-8132 Vehicle	\$100,000	0.0%	10.0%	20.0%	44.0%	0.0%	0.0%	0.0%	0.0%	1.0%	25.0%	100.0%	
<b>Total - Pumping Transmission Distribution</b>	<b>\$1,963,800</b>	<b>\$0</b>	<b>\$196,380</b>	<b>\$392,760</b>	<b>\$864,072</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$19,638</b>	<b>\$490,950</b>	<b>\$1,963,800</b>	
<b>Other Operating Expenses</b>													
600-06-697-6115 Professional Services (Water Rate Study)	\$0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	
600-67-855-6125 Legal Services	\$0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	
600-67-196-7355 Lease of Water Facility (Warehouse)	\$200,000	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	
600-67-321-8145 Computer Equipment & Software	\$387,411	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	
600-67-677-6111 Contractual Services	\$50,000	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	
XXX-XX-XXXX Placeholder	\$0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	
XXX-XX-XXXX Placeholder	\$0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	
<b>Total - Other Operating Expenses</b>	<b>\$637,411</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$637,411</b>	<b>\$637,411</b>	
<b>TOTAL FUND 600 O&amp;M EXPENSES</b>	<b>\$5,841,111</b>	<b>\$650,000</b>	<b>\$640,007</b>	<b>\$836,387</b>	<b>\$864,072</b>	<b>\$371,802</b>	<b>\$451,810</b>	<b>\$244,731</b>	<b>\$27,995</b>	<b>\$1,754,306</b>	<b>\$5,841,111</b>		