

# CITY OF THOUSAND OAKS

## 2024 Water Enterprise Financial Plan Update

Final Report / August 17, 2023







August 17, 2023

City of Thousand Oaks  
Attn.: Clifford G. Finley, Public Works Director  
& Jaime Boscarino, Finance Director  
2100 Thousand Oaks Blvd  
Thousand Oaks, CA 91362

**Subject: 2024 Water Enterprise Financial Plan Update**

Dear Mr. Finley and Ms. Boscarino,

Raftelis is pleased to provide this report on the 2024 Water Enterprise Financial Plan Update Study (Study) to the City of Thousand Oaks (City). The Study involved a comprehensive update of the City's five-year water financial plan to determine proposed water rate increases for 2024 and 2025. We are confident that the update to the financial plan and revenue adjustments will result in fair and equitable rates for the City's water customers and comply with the requirements of Proposition 218.

It was a pleasure working with you, and we wish to express our thanks to you, Mr. Nader Heydari, Ms. Tara Tosatto, and other participating City staff members for the support and cooperation extended over the course of the Study. Should you have any questions, please do not hesitate to contact me.

Sincerely,

A handwritten signature in blue ink that reads 'Charles Diamond'.

**Charles Diamond**  
Project Manager  
Raftelis

# Table of Contents

<b>1.</b>	<b>Executive Summary .....</b>	<b>1</b>
1.1.	Study Background .....	1
1.2.	Objectives of the Study .....	1
1.3.	Results and Recommendations .....	1
<b>2.</b>	<b>Introduction .....</b>	<b>9</b>
2.1.	Study Background .....	9
2.2.	Objectives of the Study .....	9
2.3.	Legal Requirements and Rate-Setting Methodology .....	9
<b>3.</b>	<b>Financial Plan .....</b>	<b>11</b>
3.1.	General Assumptions .....	11
3.2.	Revenues from Current Rates .....	13
3.3.	O&M Expenses .....	18
3.4.	Capital Improvement Plan (CIP).....	22
3.5.	Debt Service .....	23
3.6.	Reserve Policy .....	23
3.7.	Status Quo Financial Plan .....	25
3.8.	Proposed Financial Plan .....	27
<b>4.</b>	<b>Proposed Rates .....</b>	<b>30</b>
4.1.	Proposed Monthly Fixed Charges .....	30
4.2.	Proposed Commodity Rates and Pumping Charges .....	30
4.3.	Bill Impacts .....	32

# List of Tables

Table 1-1: Reserve Policy .....	2
Table 1-2: Proposed Revenue Adjustments .....	3
Table 1-3: Proposed Monthly Fixed Meter Charges .....	5
Table 1-4: Proposed Monthly Fixed Private Fire Line Charges .....	5
Table 1-5: Proposed Commodity Rates and Pumping Charges .....	6
Table 3-1: Annual Cost Inflation Assumptions.....	11
Table 3-2: Projected Wholesale Water Cost Increases .....	12
Table 3-3: Account Growth Assumptions .....	12
Table 3-4: Current Monthly Fixed Meter Charges.....	13
Table 3-5: Current Commodity Rates and Pumping Charges.....	14
Table 3-6: Current Private Fire Line Fixed Charges .....	14
Table 3-7: Projected Number of Water Meters by Meter Size .....	15
Table 3-8: Projected Number of Private Fire Lines by Connection Size.....	15
Table 3-9: Projected Water Demand by Customer Class and Tier .....	16
Table 3-10: Revenue from Current Rates .....	17
Table 3-11: Projected Miscellaneous Revenue .....	17
Table 3-12: CMWD Wholesale Water Rates and Charges (Calendar Year Basis).....	19
Table 3-13: Projected Water Purchase Costs from CMWD (Fiscal Year Basis) .....	20
Table 3-14: Projected O&M Expenses .....	21
Table 3-15: Capital Improvement Plan .....	22
Table 3-16: Debt Service .....	23
Table 3-17: Reserve Policy .....	24
Table 3-18: Reserve Targets.....	25
Table 3-19: Status Quo Financial Plan Pro-Forma .....	26
Table 3-20: Proposed Revenue Adjustments .....	27
Table 3-21: Proposed Financial Plan Pro-Forma .....	28
Table 4-1: Proposed Monthly Fixed Meter Charges .....	30
Table 4-2: Proposed Monthly Fire Line Fixed Charges .....	30
Table 4-3: Proposed Commodity Rates and Pumping Charges .....	31

# List of Figures

Figure 1-1: Capital Improvement Plan Summary .....	2
Figure 1-2: Projected Ending Cash Balance.....	4
Figure 1-3: Proposed Financial Plan .....	4
Figure 1-4: 2024 Single Family Residential Monthly Bill Impacts – No Pumping Lifts .....	7
Figure 1-5: 2024 Single Family Residential Monthly Bill Impacts – One Pumping Lift.....	8
Figure 3-1: Actual and Projected Water Demand (Acre-Feet).....	13
Figure 3-2: Capital Improvement Plan Summary .....	23
Figure 3-3: Proposed Financial Plan .....	29
Figure 3-4: Projected Ending Cash Balance.....	29
Figure 4-1: 2024 Single Family Residential Monthly Bill Impacts – No Pumping Lifts .....	32
Figure 4-2: 2024 Single Family Residential Monthly Bill Impacts – One Pumping Lift.....	33

# List of Appendices

Appendix A: Detailed Five-Year Planned CIP Projects

Appendix B: Detailed Water Supply Pass-Through Calculations

Appendix C: Single Family Residential Bill Comparison To Neighboring Agencies

# List of Abbreviations

<u>Terms</u>	<u>Descriptions</u>
<b>AF</b>	Acre foot / Acre feet, 1 AF = 435.6 HCF
<b>AWWA</b>	American Water Works Association
<b>CIP</b>	Capital Improvement Plan
<b>City</b>	City of Thousand Oaks
<b>CMWD</b>	Calleguas Municipal Water District
<b>CY</b>	Calendar Year (January 1 – December 31)
<b>FY</b>	Fiscal Year (July 1 – June 30)
<b>HCF</b>	Hundred cubic feet or 100 cubic feet, 1 HCF = 748 gallons
<b>M1 Manual</b>	<i>Principles of Water Rates, Fees, and Charges: Manual of Water Supply Practices M1, Seventh Edition</i> (published by AWWA)
<b>MWD</b>	Metropolitan Water District of Southern California
<b>O&amp;M</b>	Operations and Maintenance
<b>Study</b>	2024 Water Enterprise Financial Plan Update
<b>SWP</b>	State Water Project

This page is intentionally left blank to facilitate two-sided printing.



# 1. Executive Summary

## 1.1. Study Background

The City of Thousand Oaks (City) conducts financial plan update studies every two years to develop updated five-year financial projections and proposed two-year rate schedules for the City's Water Enterprise. The City also conducts water cost of service updates approximately every five years to ensure that customers are appropriately charged in proportion to the costs incurred by the City to provide water service. The last financial plan and cost of service update was completed in 2021 and provided the basis for the City's adopted water rates in 2022 and 2023. Raftelis was engaged in 2023 to assist the City with a financial plan update to establish updated five-year financial plan projections and a proposed two-year water rate schedule for 2024 and 2025. The results of this 2024 Water Enterprise Financial Plan Update (Study) are documented in this report. A cost of service update was not conducted as part of this Study.

## 1.2. Objectives of the Study

The major objectives of the Study include the following:

- » Update the five-year financial plan for the Water Enterprise to ensure financial sufficiency, meet Operations & Maintenance (O&M) costs, ensure sufficient funding for Capital Improvement Plan (CIP) projects, and maintain the financial health of the Water Enterprise; and
- » Develop fair and equitable two-year rate adjustments for the City's water customers.

## 1.3. Results and Recommendations

### Reserve Policy

A reserve policy establishes cash reserve targets to ensure sufficient cash on hand to cope with uneven cash flow, unanticipated revenue shortfalls, asset failures, and other financial risks. It provides guidelines for sound financial management and helps utilities maintain financial solvency and mitigate financial risks over the long term. The City maintains three types of reserves for its Water Enterprise:

1. An **Operating Reserve** to provide working capital to support the utility's operation, maintenance, and administration.
2. A **Capital Reserve** to fund future obligations necessary to maintain reliable infrastructure.
3. An **Emergency Reserve** to allow the utility to provide uninterrupted service during a fiscal or physical emergency.

Raftelis does not recommend any changes to the City's existing reserve policies for the Water Enterprise at this time. Table 1-1 lists the Water Enterprise's existing reserve policies and associated reserve target levels for the current fiscal year.

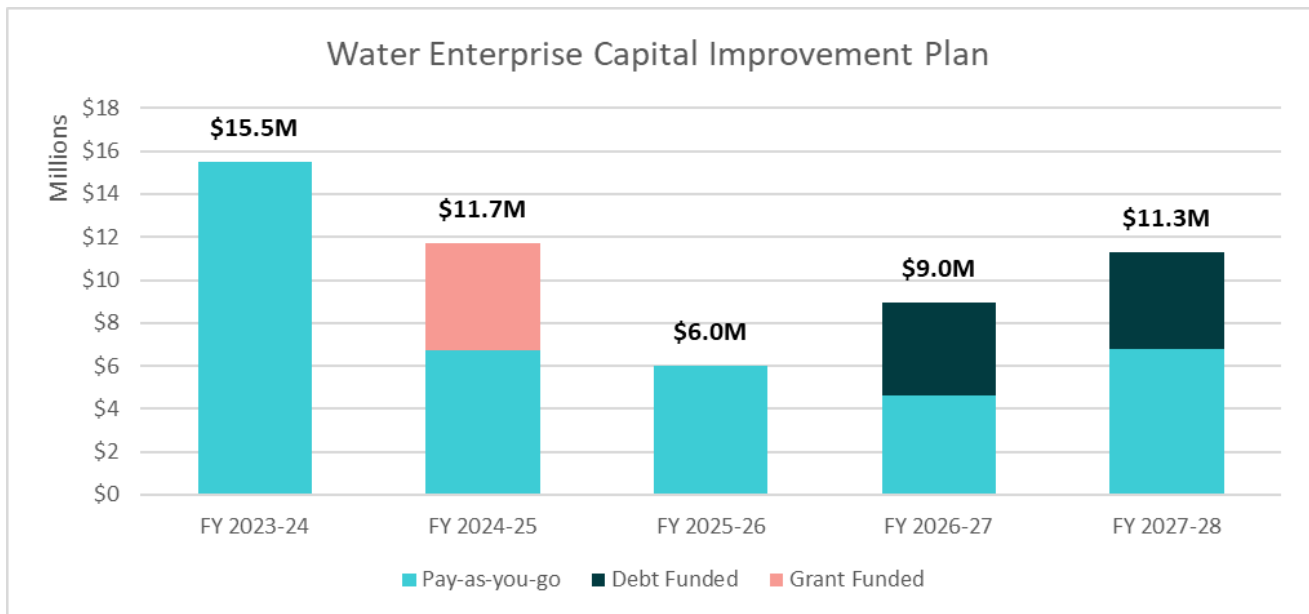
**Table 1-1: Reserve Policy**

	A	B	C
Line	Reserve	Reserve Target	FY 2023-24 Reserve Target (\$)
1	<b>Fund 611 – Water Operating</b>		
2	Operating	25% of the Operating Budget	\$7,091,420
3	<b>Fund 613 - Water Capital</b>		
4	Capital	Two years of annual average five-year CIP	\$21,381,335
5	Emergency	Replacement Cost of Wilder Reservoir (most critical asset)	\$6,072,934
6	<b>Total</b>		<b>\$34,545,689</b>

### Five-Year CIP Expenses

The City provided Raftelis with a five-year schedule of planned water CIP project costs through FY 2027-28, amounting to \$71.3M. Based on a historical comparison of planned versus executed water CIP, City staff and Raftelis determined that it would be most appropriate for Raftelis' financial plan projections to assume a 75% CIP execution factor over the study period. After applying the 75% execution factor, the total five-year CIP amounts to \$53.5M (see Figure 1-1). This averages approximately \$10.7M per year. CIP is assumed to be primarily funded by rates and reserves (i.e., pay-as-you-go). City staff directed Raftelis to assume that the battery energy storage project costs in FY 2024-25 will be partially funded by \$5M in grants and that approximately \$9M of groundwater utilization project costs in FY 2026-27 and FY 2027-28 will be funded through a new debt issuance and/or grant funding.

**Figure 1-1: Capital Improvement Plan Summary**



## Proposed Revenue Adjustments

To ensure that the Water Enterprise generates sufficient revenues to adequately recover its operating and capital expenses while maintaining cash reserves at or above the target reserve level by end of the five-year period, Raftelis recommends 3% annual revenue adjustments (i.e., uniform percentage rate increases) beginning in FY 2023-24. All proposed revenue adjustments are separate from and in addition to pass-through rate adjustments to recover increased costs resulting from wholesale water rate increases by Calleguas Municipal Water District (the City's wholesale water supplier). Raftelis recommends that the City continue to utilize pass-through adjustments to mitigate the financial risk from uncertain future wholesale water cost increases. All revenue adjustments are assumed to be implemented on January 1 of each fiscal year, as shown in Table 1-2. Raftelis evaluated various financial plan scenarios with City staff to develop the recommended revenue adjustments below. Key factors influencing the need for revenue adjustments include:

- » **Operating cost increases:** O&M expenses continue to increase yearly due to inflationary pressures, which have been significantly higher over the past few years across the global economy.
- » **Substantial capital needs:** Total five-year CIP expenses amount to \$53.5M, which represents a 14% increase in CIP relative to the prior financial plan update in 2021. Approximately 74% of all CIP expenses are assumed to be funded by rates and reserves, resulting in a need for the Water Enterprise to generate increased revenue from rates.
- » **Reduced water demand:** Baseline water demand in FY 2023-24 is 14% below what was assumed in the prior financial plan update in 2021. This is mainly due to the significant reduction in FY 2022-23 water demand relative to previous years. Reduced water demand results in decreased volumetric rate revenue. Because the Water Enterprise's costs (excluding wholesale water purchase costs) are largely fixed, reduced water demand has a negative impact on cash flow which can result in the need for higher rate increases.

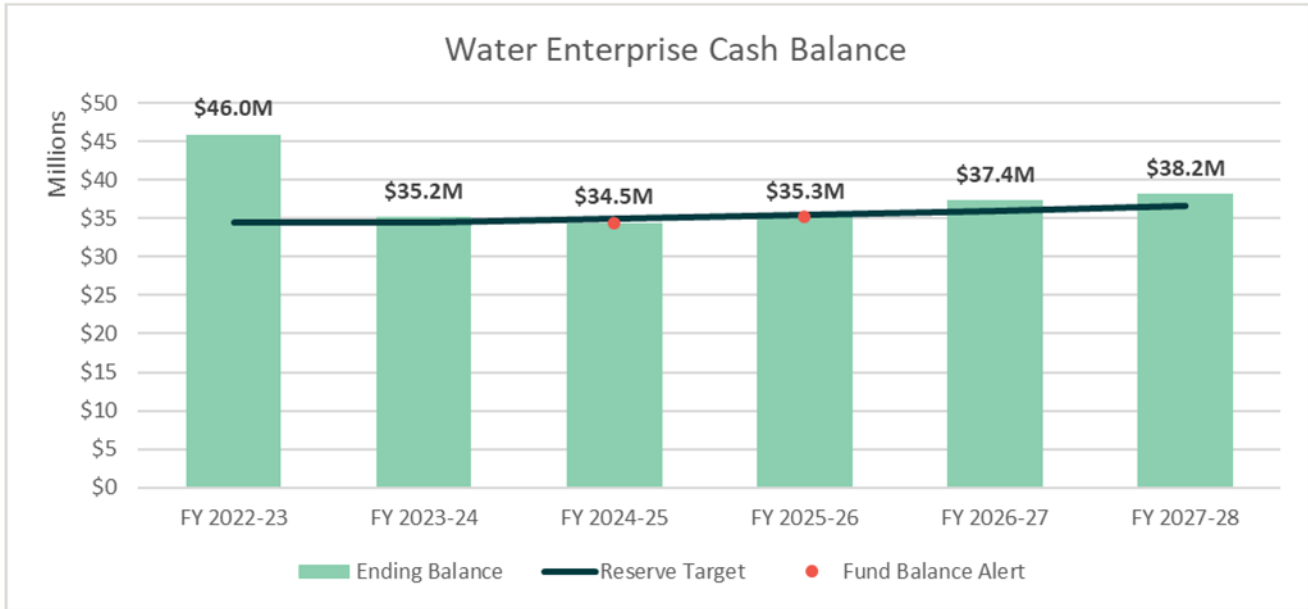
**Table 1-2: Proposed Revenue Adjustments**

	A	B	C
Line	Fiscal Year	Effective Month	Revenue Adjustment
1	FY 2023-24	Jan. 2024	3.0% + Wholesale Water Pass-Through Adjustment
2	FY 2024-25	Jan. 2025	3.0% + Wholesale Water Pass-Through Adjustment
3	FY 2025-26	Jan. 2026	3.0% + Wholesale Water Pass-Through Adjustment
4	FY 2026-27	Jan. 2027	3.0% + Wholesale Water Pass-Through Adjustment
5	FY 2027-28	Jan. 2028	3.0% + Wholesale Water Pass-Through Adjustment

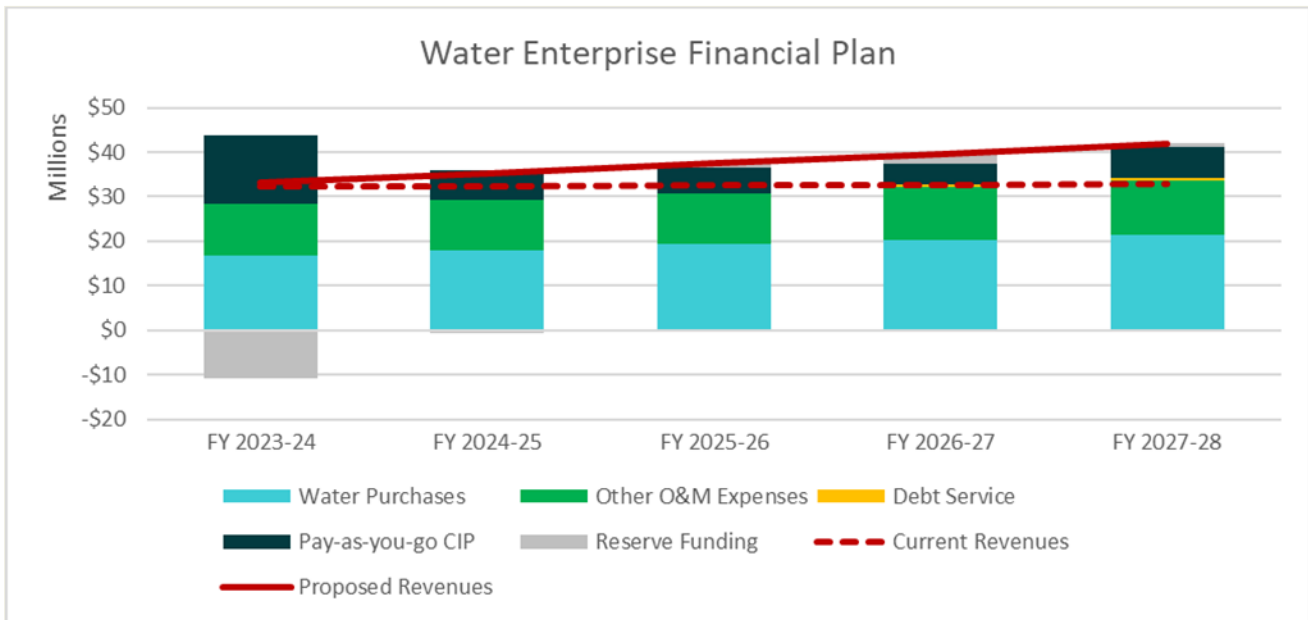
## Proposed Financial Plan

Under the proposed financial plan, ending cash reserves are projected to fall slightly below the reserve target in FY 2024-25 through FY 2025-26 before building back up to above the target level in FY 2026-27 (see Figure 1-2). This is primarily due to a significant drawdown in reserves in the first year to fund substantial CIP projects. Raftelis and City staff determined that the magnitude of revenue adjustments needed to maintain cash reserve levels above the target level in all years would result in unacceptably high bill impacts to the City's water customers and is unnecessary when looking at a five-year forecast. The proposed rate increases are necessary to ensure sufficient revenues to meet capital funding needs and maintain sufficient cash reserves. This is demonstrated in Figure 1-3, which compares current revenues (excluding proposed revenue adjustments) and proposed revenues (including proposed revenue adjustments) versus various funding requirements.

**Figure 1-2: Projected Ending Cash Balance**



**Figure 1-3: Proposed Financial Plan**



## Current Water Rate Structure

The City's current water rate structure consists of two primary components: 1) fixed meter charges that vary by meter size; and 2) volumetric commodity rates per hundred cubic feet (HCF) of water delivered. In addition, most customers are subject to a volumetric pumping charge per HCF that varies based on elevation zone. Customers with non-metered private fire lines (i.e., automatic fire sprinklers or private fire hydrants) are also subject to a separate monthly fixed charge for fire protection service, which varies based on connection size. Current rates effective in 2023 were established during the 2022 Water Enterprise Financial Plan Update. Note that financial plan projections are on a fiscal year basis but the City's water rates are adjusted on a calendar year basis to

maintain consistency with CMWD's wholesale water rate adjustments each January. No changes to the current water rate structure are recommended at this time.

## Proposed Water Rates

Although the financial plan spans a five-year period, the City only adopts water rates for two years at a time. Therefore, proposed water rates are presented for FY 2023-24 and FY 2024-25 only. All proposed water rates are assumed to be implemented in January of each fiscal year. Proposed revenue adjustments beyond FY 2024-25 are for planning purposes only and will be reevaluated during the next two-year water rate update.

The current monthly fixed charges (effective since January 2023) are increased by the 3% annual revenue adjustments and rounded up to the nearest cent to determine the proposed charges shown below in Table 1-3 and Table 1-4. Proposed commodity rates and pumping charges are shown in Table 1-5. Proposed commodity rates include 3% annual revenue adjustments plus an additional pass-through rate adjustment<sup>1</sup> to recover wholesale water rate increases. The component of the commodity rate increase resulting from the proposed revenue adjustments is referred to in Table 1-5 as the "City adjustment," and is calculated by multiplying the existing rate (excluding pass-through adjustments) by 3% and rounding up to the nearest cent.<sup>2</sup> Pass-through rate adjustments are applied separately as a uniform dollar increase to all commodity rates. Proposed pumping charges are calculated by increasing the existing rate by 3% per year and rounding up to the nearest cent.

**Table 1-3: Proposed Monthly Fixed Meter Charges**

	A	B	C	D
Line	Meter Size	Current (January 2023)	Proposed FY 2023-24 (January 2024)	Proposed FY 2024-25 (January 2025)
1	5/8 × 3/4-inch or 3/4-inch	\$26.77	\$27.58	\$28.41
2	1-inch	\$41.96	\$43.22	\$44.52
3	1.5-inch	\$79.93	\$82.33	\$84.80
4	2-inch	\$125.49	\$129.26	\$133.14
5	3-inch	\$269.76	\$277.86	\$286.20
6	4-inch	\$482.37	\$496.85	\$511.76
7	6-inch	\$991.12	\$1,020.86	\$1,051.49
8	Temporary Construction	\$269.76	\$277.86	\$286.20

**Table 1-4: Proposed Monthly Fixed Private Fire Line Charges**

	A	B	C	D
Line	Connection Size	Current (January 2023)	Proposed FY 2023-24 (January 2024)	Proposed FY 2024-25 (January 2025)
1	2-inch and smaller	\$2.27	\$2.34	\$2.42
2	3-inch	\$6.57	\$6.77	\$6.98
3	4-inch	\$13.98	\$14.40	\$14.84
4	6-inch	\$40.60	\$41.82	\$43.08
5	8-inch	\$86.50	\$89.10	\$91.78
6	10-inch	\$155.54	\$160.21	\$165.02
7	12-inch	\$251.25	\$258.79	\$266.56

<sup>1</sup> See Appendix B for details.

<sup>2</sup> City adjustments may slightly exceed 3.0% due to rounding up to the nearest cent to ensure adequate revenue recovery.

**Table 1-5: Proposed Commodity Rates and Pumping Charges**

Line	A	B	C	D	E
	Commodity Rates & Pumping Charges	Jan. 2024 Rate Adjustment (\$/HCF)	(%)	Jan. 2025 Rate Adjustment (\$/HCF)	(%)
1	<b><u>Single Family Residential Tier 1 (0-12 HCF/Month) Commodity Rate</u></b>				
2	Existing Rate	\$5.52		\$5.69	
3	City Adjustment	\$0.17	3.1%	\$0.18	3.2%
4	Tier 1 Rate Excluding Pass-through	\$5.69		\$5.87	
5					
6	Pass-through Adjustment	\$0.22	4.0%	\$0.54	5.4%
7	<b>Total Tier 1 Rate</b>	<b>\$5.91</b>	<b>7.1%</b>	<b>\$6.41</b>	<b>8.5%</b>
8					
9	<b><u>Single Family Residential Tier 2 (13-30 HCF/Month) Commodity Rate</u></b>				
10	Existing Rate	\$6.09		\$6.28	
11	City Adjustment	\$0.19	3.1%	\$0.19	3.0%
12	Tier 2 Rate Excluding Pass-through	\$6.28		\$6.47	
13					
14	Pass-through Adjustment	\$0.22	3.6%	\$0.54	4.9%
15	<b>Total Tier 2 Rate</b>	<b>\$6.50</b>	<b>6.7%</b>	<b>\$7.01</b>	<b>7.8%</b>
16					
17	<b><u>Single Family Residential Tier 3 (&gt;30 HCF/Month) Commodity Rate</u></b>				
18	Existing Rate	\$6.42		\$6.62	
19	City Adjustment	\$0.20	3.1%	\$0.20	3.0%
20	Tier 3 Rate Excluding Pass-through	\$6.62		\$6.82	
21					
22	Pass-through Adjustment	\$0.22	3.4%	\$0.54	4.7%
23	<b>Total Tier 3 Rate</b>	<b>\$6.84</b>	<b>6.5%</b>	<b>\$7.36</b>	<b>7.6%</b>
24					
25	<b><u>Multi-Family Residential, Non-Residential, &amp; Groundwater Commodity Rate</u></b>				
26	Existing Rate	\$5.87		\$6.05	
27	City Adjustment	\$0.18	3.1%	\$0.19	3.1%
28	Rate Excluding Pass-through	\$6.05		\$6.24	
29					
30	Pass-through Adjustment	\$0.22	3.7%	\$0.54	5.1%
31	<b>Total Rate</b>	<b>\$6.27</b>	<b>6.8%</b>	<b>\$6.78</b>	<b>8.1%</b>
32					
33	<b><u>Temporary Construction Commodity Rate</u></b>				
34	Existing Rate	\$6.42		\$6.62	
35	City Adjustment	\$0.20	3.1%	\$0.20	3.0%
36	Rate Excluding Pass-through	\$6.62		\$6.82	
37					
38	Pass-through Adjustment	\$0.22	3.4%	\$0.54	4.7%
39	<b>Total Rate</b>	<b>\$6.84</b>	<b>6.5%</b>	<b>\$7.36</b>	<b>7.6%</b>
40					
41	<b><u>Pumping Charges</u></b>				
42	Existing Rate (per Lift)	\$0.41		\$0.43	
43	City Adjustment	\$0.02	4.9%	\$0.02	4.7%
44	<b>Total Rate (per Lift)</b>	<b>\$0.43</b>	<b>4.9%</b>	<b>\$0.45</b>	<b>4.7%</b>

Bill Impacts

Sample monthly water bills are shown below for a single family residential customer with a 5/8 × 3/4-inch or 3/4-inch water meter at varying levels of monthly water use under both current rates (effective January 2023) and proposed FY 2023-24 rates (effective January 2024). Figure 1-4 shows sample bills for single family residential customers not subject to pumping charges (i.e., customers in elevation Zone P1). Figure 1-5 shows sample bills for single family residential customers subject to pumping charges of one lift per HCF (i.e., customers in elevation zones P2 and P3). Approximately 80% of all water use falls within these three elevation zones.

Figure 1-4: 2024 Single Family Residential Monthly Bill Impacts – No Pumping Lifts

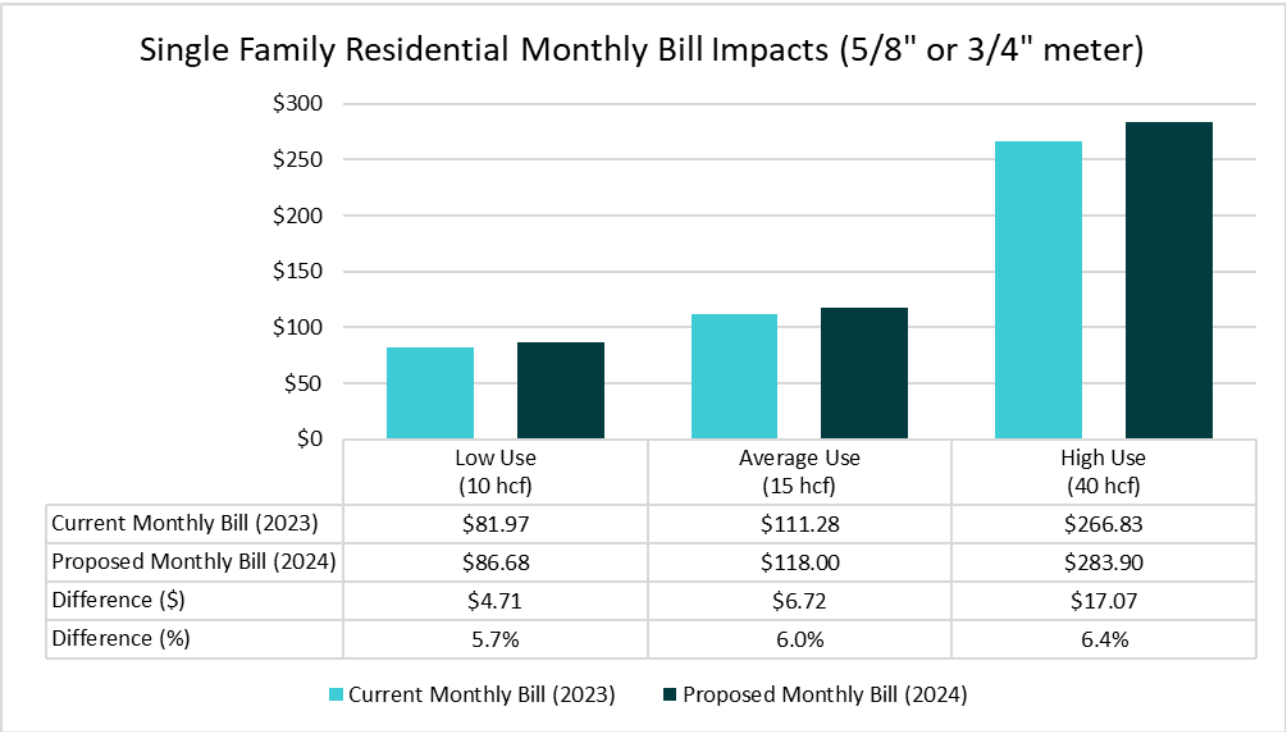
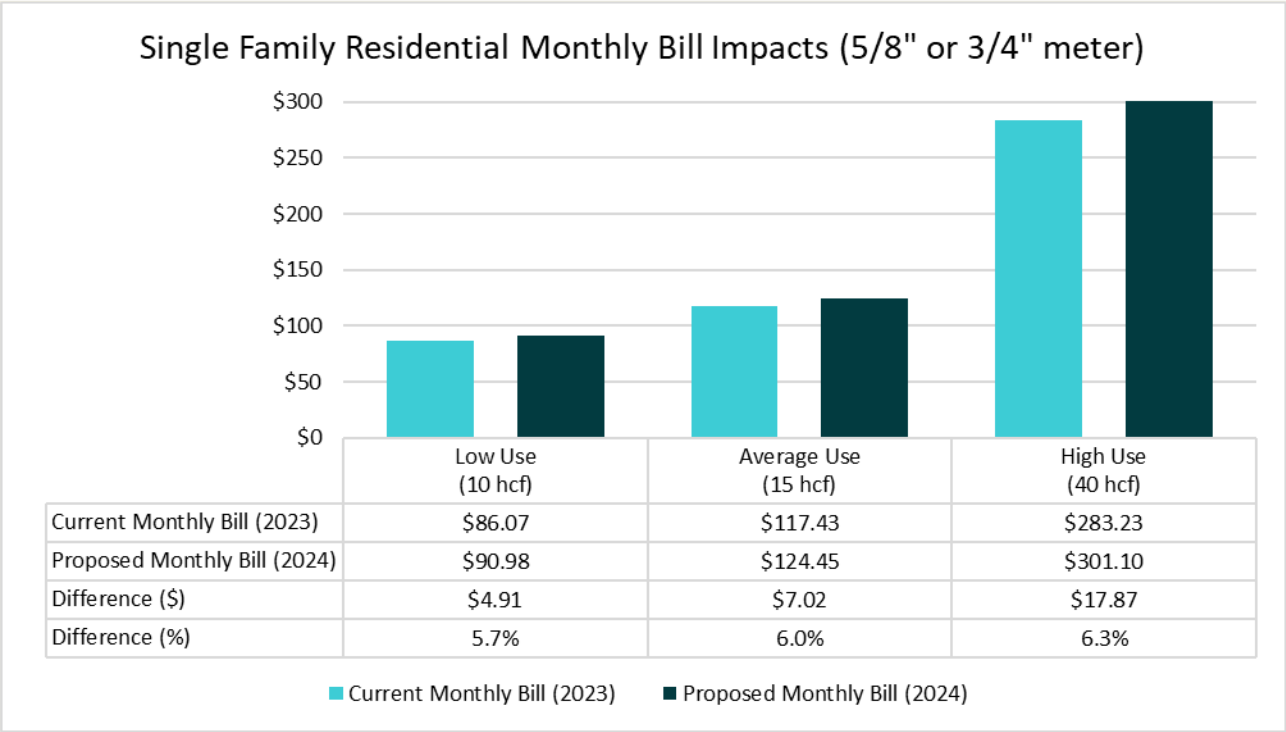


Figure 1-5: 2024 Single Family Residential Monthly Bill Impacts – One Pumping Lift





## 2. Introduction

### 2.1. Study Background

The City conducts financial plan update studies every two years to develop updated five-year financial projections and proposed two-year rate schedules for the City's Water Enterprise. The City also conducts water cost of service updates approximately every five years to ensure that customers are appropriately charged in proportion to the costs incurred by the City to provide water service. The last financial plan and cost of service update was completed in 2021 and provided the basis for the City's adopted water rates in 2022 and 2023. Raftelis was engaged in 2023 to assist the City with a financial plan update to establish updated five-year financial projections and a proposed two-year water rate schedule for 2024 and 2025. The results of this 2024 Water Enterprise Financial Plan Update (Study) are documented in this report. A cost of service update was not conducted as part of this Study.

### 2.2. Objectives of the Study

The major objectives of the Study include the following:

- » Update the five-year financial plan for the Water Enterprise to ensure financial sufficiency, meet Operations & Maintenance (O&M) costs, ensure sufficient funding for Capital Improvement Plan (CIP) projects, and maintain the financial health of the Water Enterprise; and
- » Develop fair and equitable two-year rate adjustments for the City's water customers.

### 2.3. Legal Requirements and Rate-Setting Methodology

#### California Constitution - Article XIII D, Section 6 (Proposition 218)

Proposition 218, reflected in the California Constitution as Article XIII D, was enacted in 1996 to ensure that rates and fees are reasonable and proportional to the cost of providing service. The principal requirements, as they relate to public water service, are as follows:

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

As stated in *Principles of Water Rates, Fees, and Charges: Manual of Water Supply Practices M1, Seventh Edition* (M1 Manual) published by the American Water Works Association (AWWA), "water rates and charges should be recovered from classes of customers in proportion to the cost of serving those customers." Proposition 218 requires that water rates cannot be "arbitrary and capricious," meaning that the rate-setting methodology must be sound and that there must be a nexus between the costs and the rates charged. The 2022 Water Enterprise Financial Plan and Cost of Service Study followed industry-standard rate-setting methodologies set forth in the M1 Manual to ensure that the City's current water rates do not exceed the proportionate cost of providing water services.

## **Tiered Rates**

The City currently has an “inclining” tier rate structure (which is synonymous with “increasing block” rate structures and “tiered” rates) in place for single family residential customers. When properly designed and differentiated by customer class, tiered rates allow a water utility to send conservation price signals to customers. Due to heightened interest in water conservation and efficiency of water use, inclining tier water rates have gained widespread use, especially in relatively water-scarce regions like Southern California. Tiered rates meet the requirements of Proposition 218 if the rates reasonably reflect the proportionate cost of providing service to each tier.

# 3. Financial Plan

The five-year financial plan includes projections of Water Enterprise revenues, O&M expenses, CIP expenses, debt service payments, and reserve funding. The overall purpose of the financial plan is to determine the annual water rate revenues required to achieve sufficient cash flow, maintain adequate reserves, and meet any debt service coverage requirements. The key outcome of the financial plan update is to identify the required annual increases in water rates needed to maintain the financial sufficiency of the City's Water Enterprise.

## 3.1. General Assumptions

The five-year study period spans from FY 2023-24 to FY 2027-28. Various assumptions incorporated into the updated financial plan projections were determined based on recommendations from Raftelis and/or direction from City staff. These assumptions include cost inflation, wholesale water purchase cost increases, customer account growth, and water demand projections, as outlined below.

### Cost Inflation

Inflationary assumptions are shown below in Table 3-1. Except for wholesale water purchase costs, Raftelis utilized the City's adopted budgets for FY 2023-24 and FY 2024-25 as a baseline for all other O&M expenses and then escalated expenses beyond FY 2024-25 based on the inflationary increases shown below in Lines 1-3. CIP expenses are escalated beginning next fiscal year in FY 2024-25 based on the "Capital" inflationary category in Line 4.

Table 3-1: Annual Cost Inflation Assumptions

	A	B	C	D	E	F
Line	Inflationary Categories	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28
1	General	N/A	N/A	2.5%	2.5%	2.5%
2	Salary/Benefits	N/A	N/A	3.2%	3.2%	3.2%
3	Electricity	N/A	N/A	3.0%	3.0%	3.0%
4	Capital	N/A	3.0%	3.0%	3.0%	3.0%

### Wholesale Water Purchase Cost Increases

The City's entire potable water supply is currently purchased from Calleguas Municipal Water District (CMWD). CMWD is a local wholesale water agency that receives imported water deliveries from Northern California via the State Water Project (SWP) from the Metropolitan Water District of Southern California (MWD). Wholesale water supply purchases from CMWD constitute over half of the Water Enterprise's total O&M expenses. These wholesale water purchase costs include a Capacity Reservation Charge, Readiness-to-Serve Charge, and Full Service Treated Tier 1 Rates that the City must pay to CMWD. CMWD has adopted rates and charges through 2024 as of the time of this Study. Beyond 2024, assumed annual increases in each of these charges are based on projections provided by CMWD during its April 27, 2023, purveyor meeting, shown in Table 3-2. The assumed wholesale cost increases are on a calendar year (CY) basis, as CMWD wholesale rates are adjusted each January.

**Table 3-2: Projected Wholesale Water Cost Increases**

	A	C	D	E	F	G
Line	Wholesale Water Costs	CY 2024 Adopted	CY 2025 Projected	CY 2026 Projected	CY 2027 Projected	CY 2028 Projected
1	CMWD Capacity Reservation Charge	8.7%	4.7%	8.1%	1.7%	4.1%
2	CMWD Readiness-to-Serve Charge	10.1%	10.3%	5.4%	1.5%	7.2%
3	CMWD Full Service Treated Tier 1 Rate	6.0%	6.8%	5.9%	5.5%	5.4%

### Account Growth

The assumed annual growth in the number of metered connections to the City's water system due to new development and redevelopment is shown in Table 3-3. Assumed single family residential and multi-family residential account growth is based on expected development and was provided by City staff. No account growth is assumed for temporary construction<sup>3</sup> and groundwater<sup>4</sup> accounts. For all other non-residential customer classes, annual account growth of 0.5% is based on projected customer growth between 2020 and 2045 from the City's 2020 Urban Water Management Plan.

**Table 3-3: Account Growth Assumptions**

	A	B	C	D	E	F
Line	Customer Class	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28
1	Single Family Residential	0.2%	0.2%	0.2%	0.2%	0.2%
2	Multi-Family Residential	1.0%	1.0%	1.0%	1.0%	1.0%
3	Commercial	0.5%	0.5%	0.5%	0.5%	0.5%
4	Irrigation	0.5%	0.5%	0.5%	0.5%	0.5%
5	Temporary Construction	0.0%	0.0%	0.0%	0.0%	0.0%
6	Groundwater	0.0%	0.0%	0.0%	0.0%	0.0%
7	Private Fire Connections	0.5%	0.5%	0.5%	0.5%	0.5%

### Water Demand

Assumed customer water demand critically impacts the financial plan projections, most notably by impacting volumetric rate revenues and wholesale purchases water costs. Figure 3-1 shows actual annual customer water demand in acre-feet (AF) over the past five years,<sup>5</sup> as well as projected water demand over the five-year study period. The five-year historical annual average is 9,040 AF. However, water demand decreased by approximately one-third in FY 2022-23, most likely due to the extreme drought and the implementation of water restrictions by the City during the first half of the fiscal year, as well as reduced outdoor watering during the exceptionally rainy period during the second half of the fiscal year.

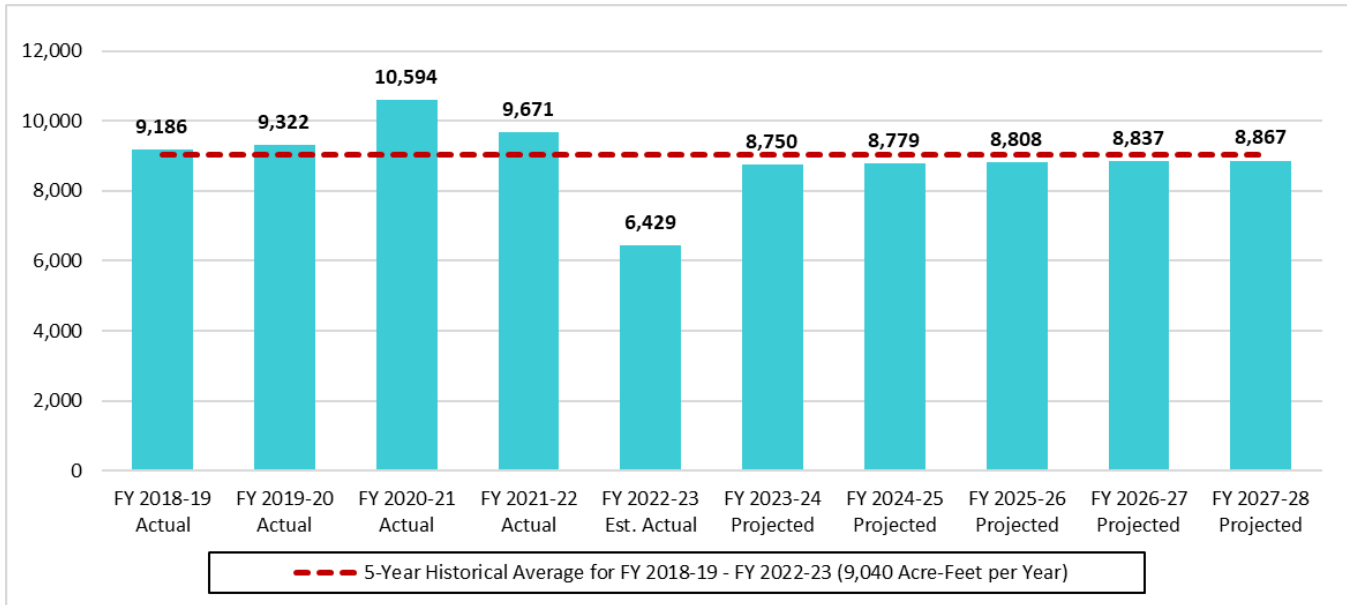
For the financial plan update, it is critical to use sufficiently conservative water demand projections to avoid overestimation of volumetric rate revenue. City staff evaluated FY 2022-23 water demand patterns against other historical years. Based on this analysis, City staff directed Raftelis to assume 8,750 AF in baseline water demand in FY 2023-24, which is approximately 3% below the five-year historical average. All water demand increases beyond FY 2023-24 are in proportion to the account growth assumptions from Table 3-3 and are shown in greater detail for each customer class in Section 3.2.

<sup>3</sup> It is assumed that construction activity will remain level across the five-year study period.

<sup>4</sup> The groundwater customer class consists of a single City-owned account supplied with groundwater from the City's Hillcrest Drive well, which provides water exclusively for street median irrigation.

<sup>5</sup> FY 2022-23 water demand of 6,429 AF is the best available estimated actual value as of July 2023 and may be subject to future refinement.

**Figure 3-1: Actual and Projected Water Demand (Acre-Feet)**



## 3.2. Revenues from Current Rates

### Current Rates

The City's current water rate structure consists of two primary components: 1) fixed meter charges that vary by meter size; and 2) volumetric commodity rates per hundred cubic feet (HCF) of water delivered. In addition, most customers are subject to a volumetric pumping charge per HCF that varies based on elevation zone. Current rates in effect in 2023 were established during the 2022 Water Enterprise Financial Plan Update. Note that financial plan projections are on a fiscal year basis, but that the City's water rates are adjusted on a calendar year basis to maintain consistency with CMWD's wholesale water rate adjustments each January.

Table 3-4 shows current monthly fixed meter charges by meter size. Fixed meter charges are designed to recover costs associated with billing, customer service, meter maintenance, and a portion of capacity-related costs.

**Table 3-4: Current Monthly Fixed Meter Charges**

	A	B
Line	Fixed Charges (by Meter Size)	Current Monthly Charge (Jan. 1, 2023)
1	5/8 × 3/4-inch or 3/4-inch	\$26.77
2	1-inch	\$41.96
3	1.5-inch	\$79.93
4	2-inch	\$125.49
5	3-inch	\$269.76
6	4-inch	\$482.37
7	6-inch	\$991.12
8	Temporary Construction	\$269.76

Current commodity rates and pumping charges for all customer classes are shown in Table 3-5. Single family residential customers are subject to tiered commodity rates. The first 12 HCF per month is charged at the lowest Tier 1 rate. The next 18 HCF per month is charged at the higher Tier 2 rate. All water use in excess of 30 HCF per month is charged at the highest Tier 3 rate. All other customers are subject to uniform commodity rates (i.e., no tiers).

Pumping charges are assessed per HCF per lift. The number of lifts each customer is subject to is based on designated elevation zones, as customers in higher elevation zones are responsible for more pumping costs associated with transporting water across elevation gradients. Customers in elevation zone P1 are not subject to pumping charges. Customers in elevation zones P2 and P3 are subject to pumping charges for one lift per hcf (i.e., \$0.41 per HCF). Customers in elevation zone P4 are subject to pumping charges for two lifts per hcf (i.e., \$0.82 per HCF). Customers in elevation zone P5 are subject to pumping charges for three lifts per HCF (i.e., \$1.23 per hcf).

**Table 3-5: Current Commodity Rates and Pumping Charges**

	A	B
Line	Volumetric Rates & Charges	Current Rate (Jan. 1, 2023)
1	<b><u>Commodity Rates (\$/HCF)</u></b>	
2	Single Family Residential Tier 1 (0-12 HCF/month)	\$5.52
3	Single Family Residential Tier 2 (13-30 HCF/month)	\$6.09
4	Single Family Residential Tier 3 (>30 HCF/month)	\$6.42
5	Multi-Family Residential, Non-Residential, & Groundwater	\$5.87
6	Temporary Construction	\$6.42
7		
8	<b><u>Pumping Charges (\$/HCF)</u></b>	
9	Pumping Charge per Lift	\$0.41

Customers with non-metered private fire lines (i.e., automatic fire sprinklers or private fire hydrants) are also subject to a separate monthly fixed charge for fire protection service, which varies based on connection size (see Table 3-6).

**Table 3-6: Current Private Fire Line Fixed Charges**

	A	B
Line	Private Fire Line Fixed Charges (by Connection Size)	Current Monthly Charge (Jan. 1, 2023)
1	2-inch and smaller	\$2.27
2	3-inch	\$6.57
3	4-inch	\$13.98
4	6-inch	\$40.60
5	8-inch	\$86.50
6	10-inch	\$155.54
7	12-inch	\$251.25

## Projected Billing Units of Service

Billing units of service include the number of metered water connections, private fire line connections, and water use in HCF. The projected number of water meters (see Table 3-7) and private fire lines (see Table 3-8) are determined over the study period by increasing FY 2022-23 actuals by the annual account growth percentages from Table 3-3. Projected water use by customer class and tier (see Table 3-9) is consistent with water sales assumptions shown previously in Figure 3-1. The proportion of water use within each customer class and tier in FY 2023-24 is based on FY 2021-22 actual water use data. Beyond FY 2023-24, water use is assumed to increase solely due to projected account growth assumptions from Table 3-3. HCFs per lift shown in Line 19 of Table 3-9 represent the units of service subject to pumping charges. Projected HCFs per lift are assumed to change in proportion to total projected water use each year.

**Table 3-7: Projected Number of Water Meters by Meter Size**

	A	B	C	D	E	F	G
Line	Meter Size	FY 2022-23 Actual	FY 2023-24 Projected	FY 2024-25 Projected	FY 2025-26 Projected	FY 2026-27 Projected	FY 2027-28 Projected
1	5/8 × 3/4-inch or 3/4-inch	15,418	15,450	15,483	15,515	15,547	15,580
2	1-inch	1,069	1,072	1,075	1,078	1,081	1,084
3	1.5-inch	363	365	367	369	371	374
4	2-inch	317	319	321	323	325	327
5	3-inch	41	41	42	42	42	42
6	4-inch	24	24	24	24	25	25
7	6-inch	9	9	9	9	9	9
8	Temporary Construction	17	17	17	17	17	17
9	<b>Total</b>	<b>17,258</b>	<b>17,298</b>	<b>17,338</b>	<b>17,378</b>	<b>17,418</b>	<b>17,458</b>

**Table 3-8: Projected Number of Private Fire Lines by Connection Size**

	A	B	C	D	E	F	G
Line	Connection Size	FY 2022-23 Actual	FY 2023-24 Projected	FY 2024-25 Projected	FY 2025-26 Projected	FY 2026-27 Projected	FY 2027-28 Projected
1	2-inch and smaller	0	0	0	0	0	0
2	3-inch	7	7	7	7	7	7
3	4-inch	105	106	106	107	107	108
4	6-inch	103	104	104	105	105	106
5	8-inch	19	19	19	19	19	19
6	10-inch	1	1	1	1	1	1
7	12-inch	0	0	0	0	0	0
8	<b>Total</b>	<b>235</b>	<b>236</b>	<b>237</b>	<b>239</b>	<b>240</b>	<b>241</b>

**Table 3-9: Projected Water Demand by Customer Class and Tier**

	A	B	C	D	E	F
Line	Customer Class	FY 2023-24 Projected	FY 2024-25 Projected	FY 2025-26 Projected	FY 2026-27 Projected	FY 2027-28 Projected
1	<b>Single Family Residential (HCF)</b>					
2	Tier 1	932,109	933,973	935,841	937,713	939,588
3	Tier 2	859,046	860,764	862,486	864,211	865,939
4	Tier 3	806,613	808,226	809,842	811,462	813,085
5	<b>Subtotal</b>	<b>2,597,768</b>	<b>2,602,964</b>	<b>2,608,170</b>	<b>2,613,386</b>	<b>2,618,613</b>
6						
7	<b>All Other Customers (HCF)</b>					
8	Multi-Family Residential	272,777	275,505	278,260	281,042	283,853
9	Commercial	415,499	417,577	419,665	421,763	423,872
10	Irrigation	520,280	522,881	525,495	528,123	530,763
11	Temporary Construction	3,715	3,715	3,715	3,715	3,715
12	Groundwater	1,461	1,461	1,461	1,461	1,461
13	<b>Subtotal</b>	<b>1,213,732</b>	<b>1,221,138</b>	<b>1,228,596</b>	<b>1,236,104</b>	<b>1,243,664</b>
14						
15	<b>Total Water Demand (HCF)</b>	<b>3,811,500</b>	<b>3,824,102</b>	<b>3,836,765</b>	<b>3,849,490</b>	<b>3,862,277</b>
16	Total Water Demand (AF)	8,750	8,779	8,808	8,837	8,867
17						
18	<b>Pumping Units of Service</b>					
19	HCFs per Lift ( <i>All Pumping Zones</i> )	3,208,304	3,218,912	3,229,571	3,240,282	3,251,045

### Revenue from Current Rates

The water rate revenue projections shown in Table 3-10 assume that current 2023 rates remain in effect throughout the five-year study period, thus representing estimated rate revenues without any rate increases. This status quo scenario provides a baseline from which Raftelis evaluated the need for rate increases.

Fixed charge revenue includes charges from fixed meter charges and private fire line fixed charges. Annual fixed charge revenue is calculated by multiplying the number of connections (from Table 3-7 and Table 3-8) by the appropriate monthly fixed charge (from Table 3-4 and Table 3-6) and then multiplying by twelve months. For example, the monthly fixed charge revenue from customers with a 5/8 × 3/4-inch or 3/4-inch water meter in FY 2023-24 is calculated as follows:

$$\text{Current Monthly Fixed Charge} \times \text{Number of Connections} \times 12 \text{ Months} = \text{Annual Fixed Charge Revenue}$$

$$\$26.77 \times 15,450 \times 12 = \$5.3M$$

Volumetric rate revenue includes commodity rates and pumping charges. Annual volumetric rate revenue is calculated by multiplying the number of projected billing units (from Table 3-9) by the current 2023 rate per HCF (from Table 3-5). For example, the commodity rate revenue from commercial water use in FY 2023-24 is calculated as follows:

$$\text{Projected Commercial Water Use} \times \text{Current Commodity Rate} = \text{Annual Commodity Rate Revenue}$$

$$415,499 \text{ HCF} \times \$5.87 \text{ per HCF} = \$2.4M$$



**Table 3-10: Revenue from Current Rates**

	A	B	C	D	E	F
Line	Customer Class	FY 2023-24 Projected	FY 2024-25 Projected	FY 2025-26 Projected	FY 2026-27 Projected	FY 2027-28 Projected
1	<b>Fixed Charge Revenue</b>					
2	Single Family Residential	\$5,268,503	\$5,279,040	\$5,289,598	\$5,300,177	\$5,310,778
3	Multi-Family	\$363,292	\$366,925	\$370,594	\$374,300	\$378,043
4	Commercial	\$567,641	\$570,479	\$573,332	\$576,198	\$579,079
5	Irrigation	\$490,012	\$492,462	\$494,924	\$497,399	\$499,886
6	Construction	\$55,031	\$55,031	\$55,031	\$55,031	\$55,031
7	Private Fire Protection	\$90,386	\$90,838	\$91,293	\$91,749	\$92,208
8	<b>Subtotal</b>	<b>\$6,834,865</b>	<b>\$6,854,775</b>	<b>\$6,874,772</b>	<b>\$6,894,855</b>	<b>\$6,915,025</b>
9						
10	<b>Volumetric Rate Revenue</b>					
11	Single Family Residential	\$15,555,288	\$15,586,399	\$15,617,572	\$15,648,807	\$15,680,104
12	Multi-Family	\$1,601,200	\$1,617,212	\$1,633,384	\$1,649,718	\$1,666,215
13	Commercial	\$2,438,981	\$2,451,176	\$2,463,432	\$2,475,749	\$2,488,128
14	Irrigation	\$3,054,041	\$3,069,311	\$3,084,658	\$3,100,081	\$3,115,582
15	Construction	\$23,850	\$23,850	\$23,850	\$23,850	\$23,850
16	Groundwater	\$8,577	\$8,577	\$8,577	\$8,577	\$8,577
17	Pumping Charges	\$1,315,405	\$1,319,754	\$1,324,124	\$1,328,516	\$1,332,929
18	<b>Subtotal</b>	<b>\$23,997,342</b>	<b>\$24,076,279</b>	<b>\$24,155,596</b>	<b>\$24,235,297</b>	<b>\$24,315,384</b>
19						
20	<b>Total</b>	<b>\$30,832,207</b>	<b>\$30,931,054</b>	<b>\$31,030,368</b>	<b>\$31,130,152</b>	<b>\$31,230,409</b>

### Miscellaneous Revenue

In addition to revenue from rates, the Water Enterprise receives miscellaneous revenues from different sources such as connection fees, interest income, and other miscellaneous revenues shown in Table 3-11. All miscellaneous revenues except interest income are set equal to the adopted budget in FY 2023-24 and FY 2024-25 and then held constant thereafter to ensure sufficiently conservative revenue projections. Interest income is set equal to the adopted budget in FY 2023-24 and FY 2024-25, and in subsequent years is calculated based on projected changes in Water Enterprise cash reserve levels.

**Table 3-11: Projected Miscellaneous Revenue**

	A	B	C	D	E	F
Line	Miscellaneous Revenue	FY 2023-24 Budget	FY 2024-25 Budget	FY 2025-26 Projected	FY 2026-27 Projected	FY 2027-28 Projected
1	Interest Income	\$809,000	\$809,000	\$791,153	\$809,291	\$859,558
2	Connection Fees	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000
3	Interest/Penalty Water Receivable	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000
4	Water Door Tagging Fees	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000
5	Other Miscellaneous Revenue	\$70,500	\$65,500	\$65,500	\$65,500	\$65,500
6	Backflow Prevention Charges	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000
7	Rental of City Facilities	\$33,000	\$33,000	\$33,000	\$33,000	\$33,000
8	Meter Installation Charges	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000
9	Fire Flow Surcharges	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
10	<b>Total</b>	<b>\$1,477,500</b>	<b>\$1,472,500</b>	<b>\$1,454,653</b>	<b>\$1,472,791</b>	<b>\$1,523,058</b>

### 3.3. O&M Expenses

#### Wholesale Water Purchase Costs

Wholesale water purchases from CMWD constitute over half of the Water Enterprise's total O&M expenses. Wholesale water purchase costs incurred by the City include CMWD Capacity Reservation Charges, CMWD Readiness-to-Serve Charges, and Full Service Treated Tier 1 Rates. Capacity Reservation Charges and Readiness-to-Serve Charges are allocated by CMWD to the City and other CMWD wholesale customers based on historical peak water use and ten-year rolling average water use, respectively. However, these two charges are treated as fixed charges for the purposes of the financial plan projections. Full Service Treated Tier 1 Rates are assessed per AF of water delivered to the City by CMWD. Table 3-12 shows adopted CMWD wholesale rates and charges for 2023 and 2024 and projections for 2025-2028 (based on cost escalation assumptions from Table 3-2). CMWD charges are shown on calendar year basis, as CMWD adjusts its rates each January.

Table 3-13 shows projected wholesale water purchase costs on a fiscal year basis for the purposes of the financial plan. CMWD fixed charges are estimated on a fiscal year basis by taking the average of the two corresponding calendar year charges (from Table 3-12). Costs associated with the Full Service Treated Tier 1 Rate are projected on a fiscal year basis under the assumption that approximately 56% of water purchases are delivered during the first half of the fiscal year (i.e., July-December).<sup>6</sup> Detailed explanations of the calculations presented in Table 3-13 are provided in footnotes.

Note that the City's current water rates ordinance includes a "pass-through" provision that allows the City to adjust its water rates to recover any cost increases resulting from CMWD wholesale water rate increases. This mitigates the risk of uncertain future CMWD rate increases. Automatic pass-through adjustments to the City's water rates are allowed through the provisions of Government Code Section 53756. Raftelis recommends that the City continue to utilize its existing pass-through provision to directly pass through any CMWD wholesales water rate increases to the City's water customers. Detailed pass-through cost calculations are presented in Appendix B. Pass-through costs represent the portion of wholesale water purchase costs incurred due to increases in CMWD rates and charges beyond 2023 adopted levels. Financial plan projections assume that all pass-through costs will be recovered from the City's water customers via annual "pass-through adjustments" to the proposed commodity rates. All pass-through adjustments are separate from and in addition to proposed "revenue adjustments" (i.e., uniform percentage rate increases) presented in subsequent sections.

---

<sup>6</sup> Based on the three-year average from 2020-2022.

**Table 3-12: CMWD Wholesale Water Rates and Charges (Calendar Year Basis)**

	A	C	C	D	E	F	G
Line	Description	CY 2023 Adopted	CY 2024 Adopted	CY 2025 Projected	CY 2026 Projected	CY 2027 Projected	CY 2028 Projected
1	<b>CMWD Fixed Charges</b>						
2	Capacity Reservation Charge	\$784,846	\$853,487	\$893,746	\$966,212	\$982,315	\$1,022,574
3	Readiness-to-Serve Charge	\$856,086	\$942,817	\$1,039,516	\$1,095,924	\$1,112,041	\$1,192,623
4	<b>Subtotal</b>	<b>\$1,640,932</b>	<b>\$1,796,304</b>	<b>\$1,933,262</b>	<b>\$2,062,136</b>	<b>\$2,094,356</b>	<b>\$2,215,197</b>
5							
6	<b>CMWD Volumetric Rates</b>						
7	Full Service Treated Tier 1 Rate (\$/AF)	\$1,632	\$1,730	\$1,848	\$1,957	\$2,064	\$2,175

**Table 3-13: Projected Water Purchase Costs from CMWD (Fiscal Year Basis)**

	A	C	C	D	E	F
Line	Description	FY 2023-24 Projected	FY 2024-25 Projected	FY 2025-26 Projected	FY 2026-27 Projected	FY 2027-28 Projected
1	<b>CMWD Fixed Charges</b>					
2	Capacity Reservation Charge	\$819,167	\$873,616	\$929,979	\$974,263	\$1,002,445
3	Readiness-to-Serve Charge	\$899,452	\$991,167	\$1,067,720	\$1,103,982	\$1,152,332
4	<b>Total Fixed Charges</b>	<b>\$1,718,618</b>	<b>\$1,864,783</b>	<b>\$1,997,699</b>	<b>\$2,078,246</b>	<b>\$2,154,777</b>
5						
6	<b>CMWD Volumetric Rates</b>					
7	<u>Annual Water Purchases from CMWD</u>					
8	Water Demand excl. Groundwater (AF)	8,747	8,776	8,805	8,834	8,863
9	Water Loss (%)	3.30%	3.30%	3.30%	3.30%	3.30%
10	Required Water Purchases from CMWD (AF) <sup>7</sup>	9,045	9,075	9,105	9,135	9,166
11						
12	<u>Semi-Annual Water Purchases (%)</u>					
13	Water Purchases from Jul to Dec	56.1%	56.1%	56.1%	56.1%	56.1%
14	Water Purchases from Jan to June	43.9%	43.9%	43.9%	43.9%	43.9%
15						
16	<u>Semi-Annual Water Purchases (AF)</u>					
17	Water Purchases from Jul to Dec <sup>8</sup>	5,072	5,089	5,106	5,123	5,140
18	Water Purchases from Jan to June <sup>9</sup>	3,973	3,986	3,999	4,013	4,026
19						
20	<u>Semi-Annual Full Service Treated Tier 1 Rates (\$/AF)</u>					
21	Tier 1 Rate from Jul to Dec	\$1,632	\$1,730	\$1,848	\$1,957	\$2,064
22	Tier 1 Rate from Jan to June	\$1,730	\$1,848	\$1,957	\$2,064	\$2,175
23						
24	<u>Semi-Annual Full Service Treated Tier 1 Charges</u>					
25	Charges from July to Dec <sup>10</sup>	\$8,277,536	\$8,803,618	\$9,435,248	\$10,024,915	\$10,608,166
26	Charges from Jan to Dec <sup>11</sup>	\$6,873,489	\$7,366,603	\$7,826,947	\$8,282,278	\$8,756,692
27	<b>Total Volumetric Charges</b>	<b>\$15,151,026</b>	<b>\$16,170,220</b>	<b>\$17,262,196</b>	<b>\$18,307,193</b>	<b>\$19,364,858</b>
28						
29	<b>Total Water Purchase Costs<sup>12</sup></b>	<b>\$16,869,644</b>	<b>\$18,035,003</b>	<b>\$19,259,895</b>	<b>\$20,385,439</b>	<b>\$21,519,635</b>

<sup>7</sup> = [Line 8] ÷ [100% - Line 9]

<sup>8</sup> = [Line 10] × [Line 13]

<sup>9</sup> = [Line 10] × [Line 14]

<sup>10</sup> = [Line 17] × [Line 21]

<sup>11</sup> = [Line 18] × [Line 22]

<sup>12</sup> = [Line 4] + [Line 27]

## Projected O&M Expenses

In addition to wholesale water purchase costs, the Water Enterprise's O&M expenses include the cost of operating and maintaining water system facilities. Additional O&M expenses include customer service, billing, and other administrative costs. Table 3-14 summarizes projected O&M expenses for the Water Enterprise over the study period. Except for wholesale water purchases costs, projected O&M expenses in FY 2023-24 and FY 2024-25 are set equal to the adopted budget and thereafter increased by the annual inflationary increases from Table 3-1. Water purchase costs from CMWD were previously developed in Table 3-13 and differ from the City's adopted budget in FY 2023-24 and FY 2024-25.

**Table 3-14: Projected O&M Expenses**

	A	B	C	D	E	F
Line	O&M Expenses	FY 2023-24 Budget*	FY 2024-25 Budget*	FY 2025-26 Projected	FY 2026-27 Projected	FY 2027-28 Projected
1	Water Purchases	\$16,869,644	\$18,035,003	\$19,259,895	\$20,385,439	\$21,519,635
2	Salaries	\$3,608,892	\$3,809,608	\$3,931,516	\$4,057,324	\$4,187,159
3	Professional/Contractual Services	\$2,917,883	\$2,909,061	\$2,981,788	\$3,056,332	\$3,132,741
4	Fringe Benefits	\$1,932,209	\$1,964,287	\$2,027,144	\$2,092,012	\$2,158,957
5	Capital Outlay	\$1,062,000	\$216,000	\$70,000	\$71,750	\$73,544
6	Supplies and Equipment	\$870,535	\$829,325	\$850,062	\$871,317	\$893,103
7	Utilities	\$644,055	\$644,055	\$664,404	\$685,407	\$707,084
8	Repairs and Maintenance	\$245,622	\$221,605	\$227,354	\$233,253	\$239,306
9	Asset Replacement Funding	\$239,057	\$276,985	\$283,910	\$291,007	\$298,283
10	Insurance and Claims	\$232,300	\$274,050	\$280,901	\$287,924	\$295,122
11	Equipment/Building Rental	\$80,220	\$80,330	\$82,338	\$84,397	\$86,507
12	Training and Memberships	\$68,565	\$68,565	\$70,279	\$72,036	\$73,837
13	Use of Asset Replacement	(\$405,300)	(\$81,676)	(\$70,000)	(\$71,750)	(\$73,544)
14	<b>Total</b>	<b>\$28,365,681</b>	<b>\$29,247,198</b>	<b>\$30,659,589</b>	<b>\$32,116,448</b>	<b>\$33,591,732</b>

\*Water Purchases in FY 2023-24 and FY 2024-25 are based on Raftelis' projections and differ from the adopted budget.

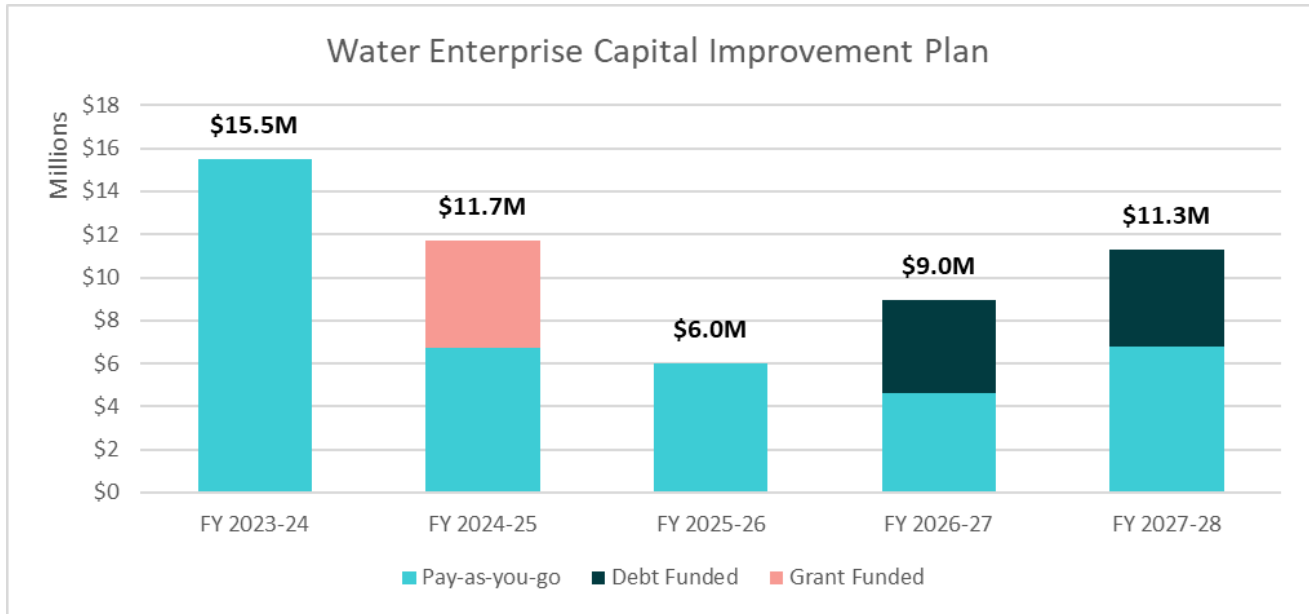
### 3.4. Capital Improvement Plan (CIP)

The City provided Raftelis with a five-year schedule of planned CIP project costs through FY 2027-28, amounting to \$71.3M after incorporating 3% annual inflationary adjustments (from Table 3-1) See Appendix A for detailed costs by project. Based on a historical comparison of planned versus executed water CIP, City staff and Raftelis determined that it would be most appropriate for Raftelis' financial plan projections to assume a 75% CIP execution factor over the study period. After applying the 75% execution factor, the total five-year CIP amounts to \$53.5M (approximately \$10.7M per year on average). CIP over the study period is assumed to be primarily funded by rates and reserves (i.e., pay-as-you-go). City staff directed Raftelis to assume that battery energy storage project costs in FY 2024-25 will receive partial grant funding, and that groundwater utilization project costs in FY 2026-27 and FY 2027-28 will be funded through a new debt issuance and/or grant funding. CIP assumptions are outlined in Table 3-15 and summarized in Figure 3-2.

**Table 3-15: Capital Improvement Plan**

	A	B	C	D	E	F
Line	Capital Improvement Plan	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28
1	<b>Planned CIP</b>					
2	Fund 612	\$270,000	\$6,371,580	\$127,308	\$109,273	\$1,125,509
3	Fund 613	\$20,392,125	\$9,253,520	\$7,845,356	\$11,853,902	\$13,922,544
4	<b>Total Planned CIP</b>	<b>\$20,662,125</b>	<b>\$15,625,100</b>	<b>\$7,972,664</b>	<b>\$11,963,175</b>	<b>\$15,048,053</b>
5						
6	<b>CIP Execution</b>					
7	CIP Execution Factor	75%	75%	75%	75%	75%
8	Executed CIP	\$15,496,594	\$11,718,825	\$5,979,498	\$8,972,381	\$11,286,040
9	Non-Executed CIP	\$5,165,531	\$3,906,275	\$1,993,166	\$2,990,794	\$3,762,013
10						
11	<b>Executed CIP by Funding Source</b>					
12	Pay-as-you-go	\$15,496,594	\$6,718,825	\$5,979,498	\$4,601,473	\$6,784,004
13	Grant Funded	\$0	\$5,000,000	\$0	\$0	\$0
14	Debt Funded	\$0	\$0	\$0	\$4,370,908	\$4,502,035
15	<b>Total Executed CIP</b>	<b>\$15,496,594</b>	<b>\$11,718,825</b>	<b>\$5,979,498</b>	<b>\$8,972,381</b>	<b>\$11,286,040</b>

**Figure 3-2: Capital Improvement Plan Summary**



### 3.5. Debt Service

The City's Water Enterprise currently has no outstanding debt. As shown previously in Table 3-15, approximately \$9M in planned groundwater utilization CIP project costs in FY 2026-27 and FY 2027-28 are assumed to be fully financed with debt. Raftelis' estimate of the annual debt service assumes a 20-year term, 5% interest rate, 2% issuance costs, and level principal plus interest payments. It is assumed that debt service payments will commence in FY 2026-27 upon issuance of the new bond. Annual debt service over the study period is summarized in Table 3-16 below.

**Table 3-16: Debt Service**

	A	B	C	D	E	F
Line	Debt Service	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28
1	Existing Debt Service	\$0	\$0	\$0	\$0	\$0
2	Proposed Debt Service	\$0	\$0	\$0	\$726,518	\$726,518
3	Total	\$0	\$0	\$0	\$726,518	\$726,518

### 3.6. Reserve Policy

A reserve policy is a written document that provides a basis for a water utility to cope with unanticipated reductions in revenues, fluctuations in costs of providing services, asset failures, and natural disasters. It provides guidelines for sound financial management with an overall long-range perspective to maintain financial solvency and mitigate financial risks. A sound policy also sets funds aside for routine repair and replacement of capital assets as they age and for new capital projects. Adopting and adhering to a sustainable reserve policy enhances financial management transparency and may help to achieve or maintain a specific credit rating for future debt issues.

The appropriate amount of reserves and reserve types are determined by various factors, such as the size of the operating budget, the amount of debt, the type of rate structure, the frequency of customer billing, and the risk of natural disasters. Thus, most reserves tend to fall into the following categories: operating, rate stabilization, capital,

and emergency reserves. The City currently maintains three reserves for the Water Enterprise. Raftelis recommends that the City maintain these three existing reserve policies described below.

### Operating Reserve Target (Fund 611)

The purpose of an operating reserve is to provide working capital to support the utility's operation, maintenance, and administration. From a risk management perspective, the operating reserve supports the Water Enterprise's cash flow needs during normal operations and ensures that operations can continue should there be significant events that impact cash flows. Raftelis recommends that the City maintain its existing Water Enterprise operating reserve target of 90 days cash (i.e., approximately 25% of annual O&M expenses) to ensure adequate working capital for operating expenses.

### Capital Reserve Target (Fund 613)

Capital reserves are used to fund future obligations necessary for maintaining reliable infrastructure. Because water utilities are highly capital-intensive, it is important to accurately estimate long-term CIP costs and develop a reserve to fund the repair and eventual replacement of the system assets and new capital projects. Raftelis recommends that the City maintain its existing Water Enterprise capital reserve target, equal to two years of annual average five-year CIP. This reserve target is intended to ensure that the City has cash reserves on hand to award construction contracts flexibly and efficiently and to reduce the potential need for debt financing of CIP projects.

### Emergency Reserve Target (Fund 613)

The purpose of an emergency reserve is to allow the utility to provide uninterrupted service after a fiscal emergency, natural disaster, or facility failure. An emergency reserve decreases risk by recognizing the high capital costs of facilities and setting aside adequate funds to restore service after an unanticipated event or replace an essential facility. Raftelis recommends that the City maintain its existing Water Enterprise emergency reserve target, equal to the replacement cost of the water system's most critical asset (Wilder Reservoir). Raftelis recommends that this reserve target be reevaluated periodically as the water system ages.

### Water Enterprise Reserve Targets

Table 3-17 summarizes the existing reserve policies and associated FY 2023-24 reserve target levels for the Water Enterprise's operating, capital, and emergency reserves. Table 3-18 shows annual reserve target levels for each year of the study period.

**Table 3-17: Reserve Policy**

	A	B	C
Line	Reserve	Reserve Target	FY 2023-24 Reserve Target (\$)
1	<b>Fund 611 – Water Operating</b>		
2	Operating	25% of Operating Budget	\$7,091,420
3	<b>Fund 613 - Water Capital</b>		
4	Capital	Two years of annual average five-year CIP	\$21,381,335
5	Emergency	Replacement Cost of Wilder Reservoir (most critical asset)	\$6,072,934
6	<b>Total</b>		<b>\$34,545,689</b>



**Table 3-18: Reserve Targets**

	A	B	C	D	E	F
Line	Reserves	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28
1	Operating Reserve	\$7,091,420	\$7,311,800	\$7,664,897	\$8,029,112	\$8,397,933
2	Capital Reserve	\$21,381,335	\$21,381,335	\$21,381,335	\$21,381,335	\$21,381,335
3	Emergency Reserve	\$6,072,934	\$6,255,122	\$6,442,776	\$6,636,059	\$6,835,141
4	<b>Total</b>	<b>\$34,545,689</b>	<b>\$34,948,257</b>	<b>\$35,489,008</b>	<b>\$36,046,506</b>	<b>\$36,614,409</b>

### 3.7. Status Quo Financial Plan

To evaluate the need for future rate increases, Raftelis first developed a status quo financial plan. The status quo financial plan assumes that current 2023 water rates remain unchanged over the five-year study period. Table 3-19 combines projected Water Enterprise rate revenue (from Table 3-10), miscellaneous revenues (from Table 3-11), pass-through revenue (from Appendix B), O&M expenses (from Table 3-14), CIP expenses (from Table 3-15), and debt service (from Table 3-16) to project cash flow, cash reserve levels, and debt service coverage ratios. The status quo financial plan shows that without any rate increases over the next five years, the Water Enterprise is projected to fail to meet its total reserve target beginning in FY 2024-25 and to continuously draw down its cash reserves through FY 2027-28.

Table 3-19: Status Quo Financial Plan Pro-Forma

	A	B	C	D	E	F
Line	Description	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28
1	<b>Revenues</b>					
2	Revenue from Existing Rates	\$30,832,207	\$30,931,054	\$31,030,368	\$31,130,152	\$31,230,409
3	Revenue Adjustments	\$0	\$0	\$0	\$0	\$0
4	Miscellaneous Revenue <sup>13</sup>	\$1,477,500	\$1,472,500	\$1,421,712	\$1,383,875	\$1,353,720
5	Pass-Through Revenue	\$368,870	\$1,379,298	\$2,560,537	\$3,634,164	\$4,701,029
6	<b>Total Revenues</b>	<b>\$32,678,577</b>	<b>\$33,782,852</b>	<b>\$35,012,617</b>	<b>\$36,148,191</b>	<b>\$37,285,158</b>
7						
8	<b>O&amp;M Expenses</b>					
9	Salaries & Benefits	\$5,541,101	\$5,773,895	\$5,958,660	\$6,149,337	\$6,346,115
10	Purchased Water Costs	\$16,869,644	\$18,035,003	\$19,259,895	\$20,385,439	\$21,519,635
11	Other O&M	\$5,954,937	\$5,438,300	\$5,441,035	\$5,581,672	\$5,725,982
12	<b>Total O&amp;M Expenses</b>	<b>\$28,365,681</b>	<b>\$29,247,198</b>	<b>\$30,659,589</b>	<b>\$32,116,448</b>	<b>\$33,591,732</b>
13						
14	<b>Net Revenues<sup>14</sup></b>	<b>\$4,312,895</b>	<b>\$4,535,654</b>	<b>\$4,353,028</b>	<b>\$4,031,743</b>	<b>\$3,693,426</b>
15						
16	<b>Debt Service</b>					
17	Existing Debt Service	\$0	\$0	\$0	\$0	\$0
18	Proposed Debt Service	\$0	\$0	\$0	\$726,518	\$726,518
19	<b>Total Debt Service</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$726,518</b>	<b>\$726,518</b>
20						
21	<b>CIP Expenses</b>					
22	Pay-as-you-go	\$15,496,594	\$6,718,825	\$5,979,498	\$4,601,473	\$6,784,004
23	Grant Funded	\$0	\$5,000,000	\$0	\$0	\$0
24	Debt Funded	\$0	\$0	\$0	\$4,370,908	\$4,502,035
25	<b>Total CIP Expenses</b>	<b>\$15,496,594</b>	<b>\$11,718,825</b>	<b>\$5,979,498</b>	<b>\$8,972,381</b>	<b>\$11,286,040</b>
26						
27	<b>Net Cash Flow<sup>15</sup></b>	<b>(\$11,183,698)</b>	<b>(\$2,183,171)</b>	<b>(\$1,626,470)</b>	<b>(\$1,296,248)</b>	<b>(\$3,817,097)</b>
28						
29	<b>Cash Reserves</b>					
30	Beginning Balance	\$45,959,469	\$34,775,771	\$32,592,600	\$30,966,130	\$29,669,882
31	Net Cash Flow	(\$11,183,698)	(\$2,183,171)	(\$1,626,470)	(\$1,296,248)	(\$3,817,097)
32	<b>Ending Balance</b>	<b>\$34,775,771</b>	<b>\$32,592,600</b>	<b>\$30,966,130</b>	<b>\$29,669,882</b>	<b>\$25,852,785</b>
33	<i>Target Balance</i>	<i>\$34,545,689</i>	<i>\$34,948,257</i>	<i>\$35,489,008</i>	<i>\$36,046,506</i>	<i>\$36,614,409</i>
34	<i>Target Balance Check</i>	<i>Above</i>	<i>Below</i>	<i>Below</i>	<i>Below</i>	<i>Below</i>
35						
36	<b>Debt Coverage</b>					
37	Projected Debt Coverage <sup>16</sup>	N/A	N/A	N/A	5.55	5.08
38	<i>Target Debt Coverage</i>	<i>1.25</i>	<i>1.25</i>	<i>1.25</i>	<i>1.25</i>	<i>1.25</i>
39	<i>Debt Coverage Check</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>Above</i>	<i>Above</i>

<sup>13</sup> Miscellaneous revenue is slightly lower than the amount shown in Table 3-11 due to decreased interest income under the status quo financial plan.

<sup>14</sup> = [Line 6] – [Line 12]

<sup>15</sup> = [Line 14] – [Line 19] – [Line 22]

<sup>16</sup> = [Line 14] ÷ [Line 19]

## 3.8. Proposed Financial Plan

### Recommendations and Proposed Revenue Adjustments

The status quo financial plan demonstrates that current water rates (plus pass-through adjustments) are insufficient to support the Water Enterprise's financial needs over the next five years. To ensure that the Water Enterprise generates sufficient revenues to adequately recover its operating and capital expenses while maintaining cash reserves above the target reserve level by the end of the five-year period, Raftelis recommends 3% annual revenue adjustments (i.e., uniform percentage rate increases) beginning in FY 2023-24. All proposed revenue adjustments are separate from and in addition to pass-through rate adjustments. The revenue adjustments are assumed to be implemented on January 1 of each fiscal year, as shown in Table 3-20. Raftelis evaluated various financial plan scenarios with City staff to develop the recommended revenue adjustments below. Key factors influencing the need for revenue adjustments include:

- » **Operating cost increases:** O&M expenses continue to increase yearly due to inflationary pressures, which have been significantly higher over the past few years across the global economy.
- » **Substantial capital needs:** Total five-year CIP expenses amount to \$53.5M, which represents a 14% increase in CIP relative to the prior financial plan update in 2021. Approximately 74% of all CIP expenses are assumed to be funded by rates and reserves, resulting in substantial pressure on the Water Enterprise to generate increased revenue from rates.
- » **Reduced water demand:** Baseline water demand in FY 2023-24 is 14% below what was assumed in the prior financial plan update in 2021. This is mainly due to the significant reduction in FY 2022-23 water demand relative to previous years. Reduced water demand results in decreased volumetric rate revenue. Because the Water Enterprise's costs (excluding CMWD wholesale water purchase costs) are largely fixed, reduced water demand has a negative impact on cash flow and can result in the need for higher rate increases.

**Table 3-20: Proposed Revenue Adjustments**

	A	B	C
Line	Fiscal Year	Effective Month	Revenue Adjustment
1	FY 2023-24	Jan. 2024	3.0%
2	FY 2024-25	Jan. 2025	3.0%
3	FY 2025-26	Jan. 2026	3.0%
4	FY 2026-27	Jan. 2027	3.0%
5	FY 2027-28	Jan. 2028	3.0%

### Proposed Financial Plan

The proposed financial plan is shown in Table 3-21. Revenue from existing rates (Line 2) represents projected rate revenues in the absence of any rate increases. Revenue adjustments (Line 3) represent the cumulative increase in rate revenues resulting from the proposed 3% revenue adjustments. Pass-through rate adjustments are shown separately in Line 5. Under the proposed financial plan, ending cash reserves are projected to fall slightly below the reserve target in FY 2024-25 through FY 2025-26 before building back up to above the reserve target level in FY 2026-27. This is primarily due to a significant drawdown in reserves in the first year to fund substantial CIP projects. Raftelis and City staff determined that the magnitude of revenue adjustments needed to maintain cash reserve levels above the target level in all years would result in unacceptably high bill impacts to the City's water customers.

**Table 3-21: Proposed Financial Plan Pro-Forma**

	A	B	C	D	E	F
Line	Description	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28
1	<b>Revenues</b>					
2	Revenue from Existing Rates	\$30,832,207	\$30,931,054	\$31,030,368	\$31,130,152	\$31,230,409
3	Revenue Adjustments	\$462,483	\$1,405,816	\$2,383,551	\$3,396,857	\$4,446,943
4	Miscellaneous Revenue	\$1,477,500	\$1,472,500	\$1,454,653	\$1,472,791	\$1,523,058
5	Pass-Through Revenue	\$368,870	\$1,379,298	\$2,560,537	\$3,634,164	\$4,701,029
6	<b>Total Revenues</b>	<b>\$33,141,060</b>	<b>\$35,188,669</b>	<b>\$37,429,110</b>	<b>\$39,633,964</b>	<b>\$41,901,438</b>
7						
8	<b>O&amp;M Expenses</b>					
9	Salaries & Benefits	\$5,541,101	\$5,773,895	\$5,958,660	\$6,149,337	\$6,346,115
10	Purchased Water Costs	\$16,869,644	\$18,035,003	\$19,259,895	\$20,385,439	\$21,519,635
11	Other O&M	\$5,954,937	\$5,438,300	\$5,441,035	\$5,581,672	\$5,725,982
12	<b>Total O&amp;M Expenses</b>	<b>\$28,365,681</b>	<b>\$29,247,198</b>	<b>\$30,659,589</b>	<b>\$32,116,448</b>	<b>\$33,591,732</b>
13						
14	<b>Net Revenues<sup>17</sup></b>	<b>\$4,775,378</b>	<b>\$5,941,471</b>	<b>\$6,769,520</b>	<b>\$7,517,516</b>	<b>\$8,309,707</b>
15						
16	<b>Debt Service</b>					
17	Existing Debt Service	\$0	\$0	\$0	\$0	\$0
18	Proposed Debt Service	\$0	\$0	\$0	\$726,518	\$726,518
19	<b>Total Debt Service</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$726,518</b>	<b>\$726,518</b>
20						
21	<b>CIP Expenses</b>					
22	Pay-as-you-go	\$15,496,594	\$6,718,825	\$5,979,498	\$4,601,473	\$6,784,004
23	Grant Funded	\$0	\$5,000,000	\$0	\$0	\$0
24	Debt Funded	\$0	\$0	\$0	\$4,370,908	\$4,502,035
25	<b>Total CIP Expenses</b>	<b>\$15,496,594</b>	<b>\$11,718,825</b>	<b>\$5,979,498</b>	<b>\$8,972,381</b>	<b>\$11,286,040</b>
26						
27	<b>Net Cash Flow<sup>18</sup></b>	<b>(\$10,721,215)</b>	<b>(\$777,354)</b>	<b>\$790,023</b>	<b>\$2,189,524</b>	<b>\$799,184</b>
28						
29	<b>Cash Reserves</b>					
30	Beginning Balance	\$45,959,469	\$35,238,254	\$34,460,900	\$35,250,922	\$37,440,446
31	Net Cash Flow	(\$10,721,215)	(\$777,354)	\$790,023	\$2,189,524	\$799,184
32	<b>Ending Balance</b>	<b>\$35,238,254</b>	<b>\$34,460,900</b>	<b>\$35,250,922</b>	<b>\$37,440,446</b>	<b>\$38,239,630</b>
33	<i>Target Balance</i>	<i>\$34,545,689</i>	<i>\$34,948,257</i>	<i>\$35,489,008</i>	<i>\$36,046,506</i>	<i>\$36,614,409</i>
34	<i>Target Balance Check</i>	<i>Above</i>	<i>Below</i>	<i>Below</i>	<i>Above</i>	<i>Above</i>
35						
36	<b>Debt Coverage</b>					
37	Projected Debt Coverage <sup>19</sup>	N/A	N/A	N/A	10.35	11.44
38	<i>Target Debt Coverage</i>	<i>1.25</i>	<i>1.25</i>	<i>1.25</i>	<i>1.25</i>	<i>1.25</i>
39	<i>Debt Coverage Check</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>Above</i>	<i>Above</i>

<sup>17</sup> = [Line 6] – [Line 12]

<sup>18</sup> = [Line 14] – [Line 19] – [Line 22]

<sup>19</sup> = [Line 14] ÷ [Line 19]

The proposed financial plan is summarized below in graphical format. Figure 3-3 compares current and proposed revenues versus various funding needs (note that negative reserve funding represents a drawdown of cash reserves). Figure 3-4 compares projected ending cash reserves versus the total reserve target each year.

Figure 3-3: Proposed Financial Plan

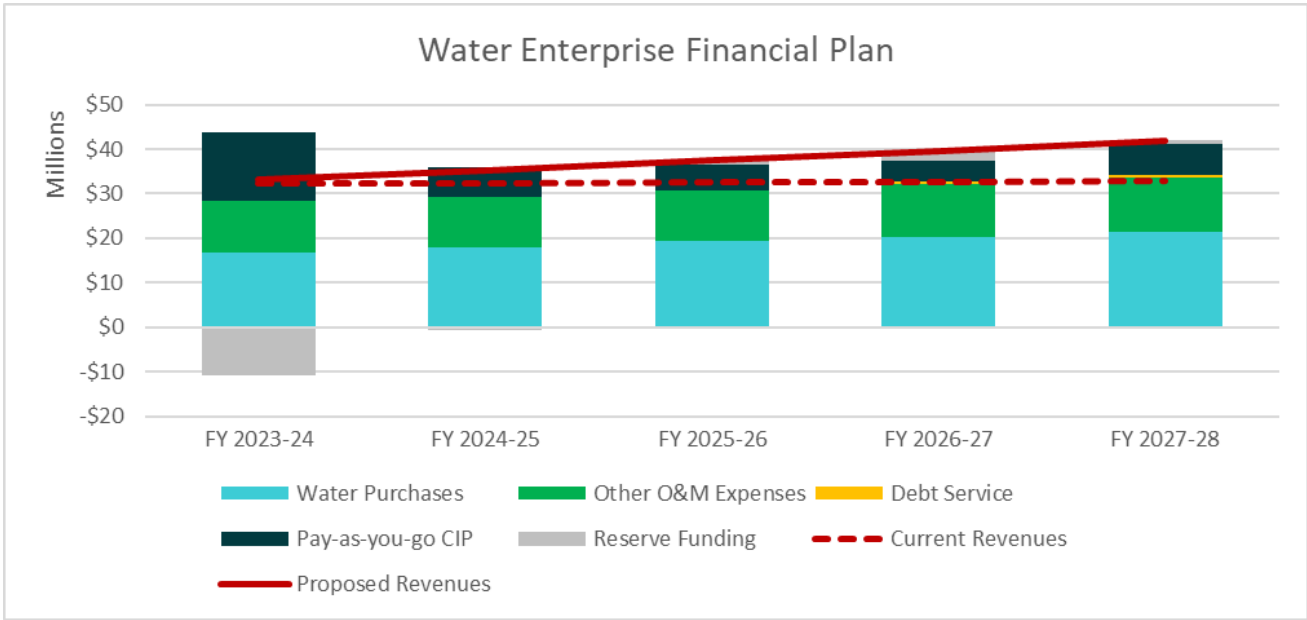
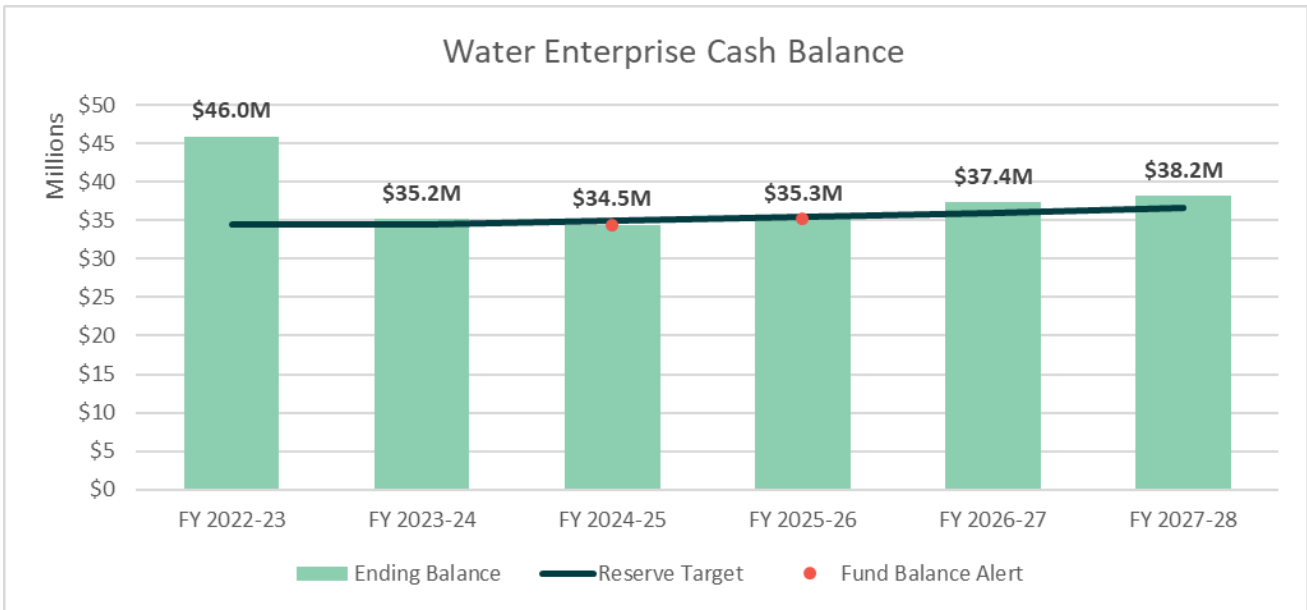


Figure 3-4: Projected Ending Cash Balance



# 4. Proposed Rates

Although the financial plan spans a five-year period, the City only adopts water rates for two years at a time. Therefore, proposed water rates are presented below for FY 2023-24 and FY 2024-25 only. All proposed water rates are assumed to be implemented in January of each fiscal year. Proposed revenue adjustments beyond FY 2024-25 are for planning purposes only and will be reevaluated during the next two-year water rate update.

## 4.1. Proposed Monthly Fixed Charges

The current monthly fixed charges (effective since January 2023) are increased by 3% per year (per Table 3-20) and rounded up to the nearest cent to determine the proposed charges shown below in Table 4-1 and Table 4-2.

**Table 4-1: Proposed Monthly Fixed Meter Charges**

	A	B	C	D
Line	Meter Size	Current (January 2023)	Proposed FY 2023-24 (January 2024)	Proposed FY 2024-25 (January 2025)
1	5/8 × 3/4-inch or 3/4-inch	\$26.77	\$27.58	\$28.41
2	1-inch	\$41.96	\$43.22	\$44.52
3	1.5-inch	\$79.93	\$82.33	\$84.80
4	2-inch	\$125.49	\$129.26	\$133.14
5	3-inch	\$269.76	\$277.86	\$286.20
6	4-inch	\$482.37	\$496.85	\$511.76
7	6-inch	\$991.12	\$1,020.86	\$1,051.49
8	Temporary Construction	\$269.76	\$277.86	\$286.20

**Table 4-2: Proposed Monthly Fire Line Fixed Charges**

	A	B	C	D
Line	Connection Size	Current (January 2023)	Proposed FY 2023-24 (January 2024)	Proposed FY 2024-25 (January 2025)
1	2-inch and smaller	\$2.27	\$2.34	\$2.42
2	3-inch	\$6.57	\$6.77	\$6.98
3	4-inch	\$13.98	\$14.40	\$14.84
4	6-inch	\$40.60	\$41.82	\$43.08
5	8-inch	\$86.50	\$89.10	\$91.78
6	10-inch	\$155.54	\$160.21	\$165.02
7	12-inch	\$251.25	\$258.79	\$266.56

## 4.2. Proposed Commodity Rates and Pumping Charges

Proposed commodity rates and pumping charges are shown in Table 4-3. Proposed commodity rates include 3% annual revenue adjustments (per Table 3-20) plus an additional pass-through rate adjustment to recover CMWD wholesale rate increases (per Appendix B). The component of the commodity rate increase resulting from the proposed revenue adjustments is referred to in Table 4-3 as the “City adjustment,” and is calculated by multiplying the existing rate (excluding pass-through adjustments) by 3% and rounding up to the nearest cent. Pass-through rate adjustments are applied as a uniform dollar increase to all commodity rates. The pass-through rate adjustment is \$0.22 per HCF in 2024 and \$0.54 per HCF in 2025. Proposed pumping charges are calculated by increasing the

existing rate by 3% per year and rounding up to the nearest cent. Note that City adjustments may slightly exceed 3.0% due to rounding up to the nearest cent to ensure adequate revenue recovery.

**Table 4-3: Proposed Commodity Rates and Pumping Charges**

	A	B	C	D	E
Line	Commodity Rates & Pumping Charges	Jan. 2024 Rate Adjustment (\$/HCF)	(%)	Jan. 2025 Rate Adjustment (\$/HCF)	(%)
1	<b><u>Single Family Residential Tier 1 (0-12 HCF/Month) Commodity Rate</u></b>				
2	Existing Rate	\$5.52		\$5.69	
3	City Adjustment	\$0.17	3.1%	\$0.18	3.2%
4	Tier 1 Rate Excluding Pass-through	\$5.69		\$5.87	
5					
6	Pass-through Adjustment	\$0.22	4.0%	\$0.54	5.4%
7	<b>Total Tier 1 Rate</b>	<b>\$5.91</b>	<b>7.1%</b>	<b>\$6.41</b>	<b>8.5%</b>
8					
9	<b><u>Single Family Residential Tier 2 (13-30 HCF/Month) Commodity Rate</u></b>				
10	Existing Rate	\$6.09		\$6.28	
11	City Adjustment	\$0.19	3.1%	\$0.19	3.0%
12	Tier 2 Rate Excluding Pass-through	\$6.28		\$6.47	
13					
14	Pass-through Adjustment	\$0.22	3.6%	\$0.54	4.9%
15	<b>Total Tier 2 Rate</b>	<b>\$6.50</b>	<b>6.7%</b>	<b>\$7.01</b>	<b>7.8%</b>
16					
17	<b><u>Single Family Residential Tier 3 (&gt;30 HCF/Month) Commodity Rate</u></b>				
18	Existing Rate	\$6.42		\$6.62	
19	City Adjustment	\$0.20	3.1%	\$0.20	3.0%
20	Tier 3 Rate Excluding Pass-through	\$6.62		\$6.82	
21					
22	Pass-through Adjustment	\$0.22	3.4%	\$0.54	4.7%
23	<b>Total Tier 3 Rate</b>	<b>\$6.84</b>	<b>6.5%</b>	<b>\$7.36</b>	<b>7.6%</b>
24					
25	<b><u>Multi-Family Residential, Non-Residential, &amp; Groundwater Commodity Rate</u></b>				
26	Existing Rate	\$5.87		\$6.05	
27	City Adjustment	\$0.18	3.1%	\$0.19	3.1%
28	Rate Excluding Pass-through	\$6.05		\$6.24	
29					
30	Pass-through Adjustment	\$0.22	3.7%	\$0.54	5.1%
31	<b>Total Rate</b>	<b>\$6.27</b>	<b>6.8%</b>	<b>\$6.78</b>	<b>8.1%</b>
32					
33	<b><u>Temporary Construction Commodity Rate</u></b>				
34	Existing Rate	\$6.42		\$6.62	
35	City Adjustment	\$0.20	3.1%	\$0.20	3.0%
36	Rate Excluding Pass-through	\$6.62		\$6.82	
37					
38	Pass-through Adjustment	\$0.22	3.4%	\$0.54	4.7%
39	<b>Total Rate</b>	<b>\$6.84</b>	<b>6.5%</b>	<b>\$7.36</b>	<b>7.6%</b>
40					
41	<b><u>Pumping Charges</u></b>				
42	Existing Rate (per Lift)	\$0.41		\$0.43	
43	City Adjustment	\$0.02	4.9%	\$0.02	4.7%
44	<b>Total Rate (per Lift)</b>	<b>\$0.43</b>	<b>4.9%</b>	<b>\$0.45</b>	<b>4.7%</b>

### 4.3. Bill Impacts

Sample monthly water bills are shown below for a single family residential customer with a 5/8 × 3/4-inch or 3/4-inch water meter at varying levels of monthly water use under both current rates (effective January 2023) and proposed FY 2023-24 rates (effective January 2024). Figure 4-1 shows sample bills for single family residential customers not subject to pumping charges (i.e., customers in elevation Zone P1). Figure 4-2 shows sample bills for single family residential customers subject to pumping charges of one lift per HCF (i.e., customers in elevation zones P2 and P3). Approximately 80% of all water use falls within these three elevation zones.

Figure 4-1: 2024 Single Family Residential Monthly Bill Impacts – No Pumping Lifts

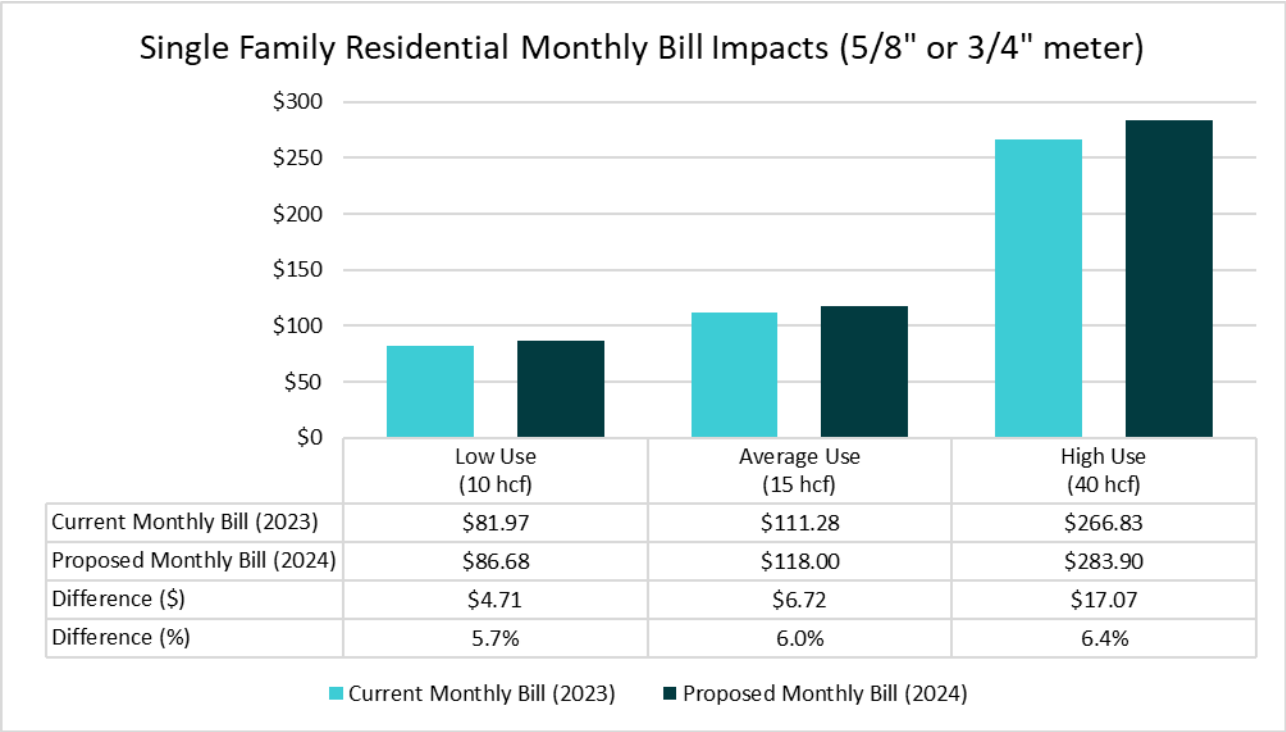
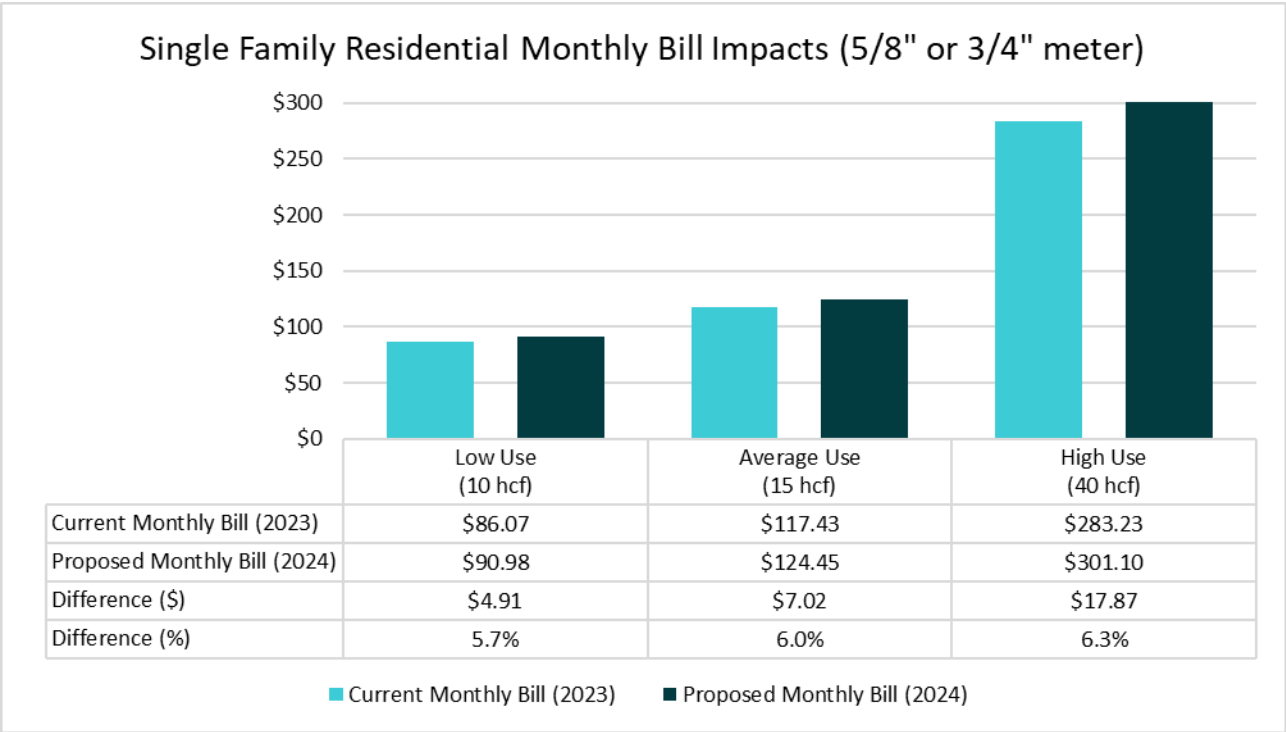




Figure 4-2: 2024 Single Family Residential Monthly Bill Impacts – One Pumping Lift



# APPENDICES

## APPENDIX A: DETAILED FIVE-YEAR PLANNED CIP PROJECTS

	A	B	C	D	E	F	G
Line	Capital Improvement Plan	Project No.	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28
1	<b>Fund 612 - Capital Programs</b>						
2	CARRYOVER - Municipal Service Center Microgrid Project	CI5585	\$150,000	\$0	\$0	\$0	\$0
3	Municipal Service Center Security Upgrades	CI5696	\$90,000	\$0	\$0	\$0	\$0
4	Municipal Service Center Emergency Power Upgrades	CI5697	\$30,000	\$154,500	\$0	\$0	\$0
5	Conejo Valley Groundwater Development Implementation	CI5453	\$0	\$0	\$0	\$109,273	\$1,125,509
6	Emergency Water Interconnects	CI5514	\$0	\$37,080	\$127,308	\$0	\$0
7	Battery Energy Storage at Pump Stations	CI5702	\$0	\$6,180,000	\$0	\$0	\$0
8	<b>Subtotal - Fund 612</b>		<b>\$270,000</b>	<b>\$6,371,580</b>	<b>\$127,308</b>	<b>\$109,273</b>	<b>\$1,125,509</b>
9							
10	<b>Fund 613 - Water Capital Facility Replacement</b>						
11	Municipal Service Center Parking Lot Repaving	CI5459	\$0	\$0	\$397,838	\$0	\$0
12	Emergency Communications Network	CI5549	\$25,000	\$0	\$0	\$0	\$0
13	Municipal Service Center Fire Alarm & System Upgrade	CI5584	\$75,000	\$0	\$0	\$0	\$0
14	CARRYOVER - Municipal Service Center Fire Alarm & System Upgrade	CI5584	\$12,500	\$0	\$0	\$0	\$0
15	Municipal Service Center Storm Water Quality Improvements	CI5661	\$120,000	\$0	\$0	\$0	\$0
16	Electric Vehicle Charging at the Municipal Service Center	CI5710	\$111,900	\$0	\$0	\$0	\$0
17	Solar Canopy Expansion at the Municipal Service Center	CI5718	\$0	\$0	\$0	\$546,364	\$0
18	Hill Canyon Treatment Plant and Water Facilities Pavement Preservation	MI2626	\$250,000	\$0	\$0	\$0	\$0
19	Thousand Oaks Boulevard (Phase II) Streetscape Improvements	CI5627	\$0	\$0	\$95,481	\$708,087	\$0
20	CARRYOVER - Woolsey Fire Landscape Restoration	MI2593	\$1,000,000	\$0	\$0	\$0	\$0
21	Bus and Car Wash	CI5468	\$237,500	\$0	\$0	\$0	\$0
22	Freeway Reservoir Access Road Improvements	CI5280	\$225,000	\$1,133,000	\$0	\$0	\$0
23	Wilbur Court Waterline Relocation	CI5286	\$0	\$133,900	\$0	\$0	\$0
24	La Granada Reservoir Improvements	CI5292	\$1,450,000	\$0	\$0	\$0	\$0
25	CARRYOVER - La Granada Reservoir Improvements	CI5292	\$1,385,225	\$0	\$0	\$0	\$0
26	Wilder Reservoir Improvements	CI5294	\$400,000	\$1,957,000	\$0	\$0	\$0
27	Sunset Reservoir Number 2 and 3 Improvements	CI5295	\$0	\$0	\$0	\$218,545	\$1,463,161
28	Waterline Looping Installation	CI5305	\$0	\$0	\$0	\$437,091	\$0
29	Rolling Oaks Reservoir Retrofit Improvements	CI5318	\$0	\$0	\$0	\$0	\$1,035,468
30	CARRYOVER - Groundwater Utilization Project	CI5395	\$1,000,000	\$0	\$0	\$4,370,908	\$4,502,035
31	Grissom Reservoir Number 1 and 2 Improvements	CI5402	\$0	\$0	\$318,270	\$1,311,272	\$0
32	Freeway Reservoir Improvements	CI5448	\$0	\$206,000	\$1,220,035	\$0	\$0
33	Conejo Valley Groundwater Development Implementation	CI5453	\$0	\$0	\$0	\$109,273	\$1,125,509
34	Water Security Cameras at City Reservoirs	CI5456	\$0	\$824,000	\$0	\$0	\$0
35	Pipeline Upgrades Near Calleguas Turnouts Phase I	CI5493	\$0	\$0	\$0	\$655,636	\$0
36	Pipeline Upgrades Near Calleguas Turnouts Phase II	CI5494	\$0	\$0	\$0	\$0	\$675,305
37	Calleguas Turnouts Regulating Valve Upgrades	CI5495	\$0	\$0	\$159,135	\$0	\$0
38	Emergency Water Interconnects	CI5514	\$0	\$55,620	\$190,962	\$0	\$0

	A	B	C	D	E	F	G
Line	Capital Improvement Plan	Project No.	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28
39	Site Improvements at Reservoirs and Pump Stations	CI5520	\$950,000	\$0	\$0	\$0	\$0
40	CARRYOVER - Site Improvements at Reservoirs and Pump Stations	CI5520	\$1,150,000	\$0	\$0	\$0	\$0
41	Permanent Disinfection Boosting Systems Installation	CI5534	\$1,000,000	\$0	\$0	\$0	\$0
42	Emergency Water System Improvements	CI5591	\$0	\$0	\$53,045	\$218,545	\$0
43	Automated Meter Replacement Program FY 2023-25	CI5598	\$1,500,000	\$1,545,000	\$0	\$0	\$0
44	Hydrant Replacement FY 2023-25	CI5599	\$500,000	\$0	\$0	\$0	\$0
45	Water Mainline Replacement Program FY 2025-2028	CI5642	\$0	\$0	\$1,591,350	\$1,639,091	\$1,688,263
46	Water Systems Miscellaneous Improvements FY 2023-25	CI5645	\$400,000	\$412,000	\$0	\$0	\$0
47	Polybutylene Service Replacement FY 2023-2025	CI5646	\$950,000	\$0	\$0	\$0	\$0
48	Valve Replacement FY 2023-25	CI5648	\$800,000	\$721,000	\$0	\$0	\$0
49	Pump Replacement/Upgrade FY 2023-25	CI5650	\$200,000	\$206,000	\$0	\$0	\$0
50	Hydropneumatic Stations Backup Pump Replacements	CI5672	\$2,000,000	\$0	\$0	\$0	\$0
51	Pump Stations Fire Hardening	CI5673	\$200,000	\$2,060,000	\$0	\$0	\$0
52	Pump Replacement/Upgrade FY 2025-28	CI5674	\$0	\$0	\$212,180	\$218,545	\$225,102
53	Water Distribution System Pressure Monitoring Improvements	CI5675	\$0	\$0	\$583,495	\$0	\$0
54	Water Systems Miscellaneous Improvements FY 2025-28	CI5676	\$0	\$0	\$424,360	\$437,091	\$450,204
55	Automated Meter Replacement Program FY 2025-28	CI5677	\$0	\$0	\$212,180	\$218,545	\$225,102
56	Hydrant Replacements FY 2025-28	CI5678	\$0	\$0	\$530,450	\$0	\$562,754
57	Honeysuckle Court Water Main Replacement	CI5679	\$225,000	\$0	\$0	\$0	\$0
58	Polybutylene Service Replacement FY 2025-28	CI5688	\$0	\$0	\$1,007,855	\$0	\$1,069,233
59	Valve Replacement FY 2025-28	CI5689	\$0	\$0	\$848,720	\$764,909	\$900,407
60	Emergency Generators at Erbes Rd and Lone Oak Pump Station	CI5738	\$1,500,000	\$0	\$0	\$0	\$0
61	Ventu Pump Station Electrical Improvements and Upgrades	CI5739	\$1,500,000	\$0	\$0	\$0	\$0
62	Lead Service Line Inventory	MI2641	\$250,000	\$0	\$0	\$0	\$0
63	Water System Hydraulic Model Upgrade/Update Project	MI2651	\$300,000	\$0	\$0	\$0	\$0
64	Citywide Water Mainline Replacement Study	MI2662	\$500,000	\$0	\$0	\$0	\$0
65	SCADA System Optimization	MI2665	\$175,000	\$0	\$0	\$0	\$0
66	<b>Subtotal - Fund 613</b>		<b>\$20,392,125</b>	<b>\$9,253,520</b>	<b>\$7,845,356</b>	<b>\$11,853,902</b>	<b>\$13,922,544</b>
67							
68	<b>Total Planned CIP</b>		<b>\$20,662,125</b>	<b>\$15,625,100</b>	<b>\$7,972,664</b>	<b>\$11,963,175</b>	<b>\$15,048,053</b>

## APPENDIX B: DETAILED WATER SUPPLY PASS-THROUGH CALCULATIONS

	A	C	C	D	E	F	G
Line	Description	Base Year	Year 1	Year 2	Year 3	Year 4	Year 5
1	<b>CMWD Fixed Charges (CY Basis)</b>	<b>CY 2023</b>	<b>CY 2024</b>	<b>CY 2025</b>	<b>CY 2026</b>	<b>CY 2027</b>	<b>CY 2028</b>
2	Capacity Reservation Charge	\$784,846	\$853,487	\$893,746	\$966,212	\$982,315	\$1,022,574
3	Readiness-to-Serve Charge	\$856,086	\$942,817	\$1,039,516	\$1,095,924	\$1,112,041	\$1,192,623
4	<b>Total Fixed Charges</b>	<b>\$1,640,932</b>	<b>\$1,796,304</b>	<b>\$1,933,262</b>	<b>\$2,062,136</b>	<b>\$2,094,356</b>	<b>\$2,215,197</b>
5							
6	<b>CMWD Volumetric Charges (CY Basis)</b>	<b>CY 2023</b>	<b>CY 2024</b>	<b>CY 2025</b>	<b>CY 2026</b>	<b>CY 2027</b>	<b>CY 2028</b>
7	Water Demand excl. Groundwater (AF)	7,728	8,763	8,792	8,821	8,850	8,880
8	Water Loss (%)	3.30%	3.30%	3.30%	3.30%	3.30%	3.30%
9	Required Water Purchases from CMWD (AF) <sup>20</sup>	7,992	9,062	9,092	9,122	9,152	9,183
10	Full Service Treated Tier 1 Rates (\$/AF)	\$1,632	\$1,730	\$1,848	\$1,957	\$2,064	\$2,175
11	<b>Full Service Treated Tier 1 Charges<sup>21</sup></b>	<b>\$13,043,222</b>	<b>\$15,677,107</b>	<b>\$16,801,851</b>	<b>\$17,851,863</b>	<b>\$18,890,444</b>	<b>\$19,972,558</b>
12							
13	<b>Water Supply Pass-Through Calculations (CY Basis)</b>	<b>CY 2023</b>	<b>CY 2024</b>	<b>CY 2025</b>	<b>CY 2026</b>	<b>CY 2027</b>	<b>CY 2028</b>
14	Total Water Purchase Costs <sup>22</sup>	\$14,684,154	\$17,473,411	\$18,735,113	\$19,913,998	\$20,984,799	\$22,187,756
15	Water Demand excl. Groundwater (HCF)	3,366,504	3,817,105	3,829,742	3,842,440	3,855,199	3,868,021
16	Water Supply Unit Cost (\$/HCF) <sup>23</sup>	\$4.36	\$4.58	\$4.89	\$5.18	\$5.44	\$5.74
17	Incremental Pass-Through Rate (\$/HFC) <sup>24</sup>	\$0.00	\$0.22	\$0.32	\$0.29	\$0.26	\$0.29
18	Cumulative Pass-Through Rate (\$/HFC) <sup>25</sup>	\$0.00	\$0.22	\$0.54	\$0.83	\$1.09	\$1.38
19	Pass-Through Revenue (Calendar Year Basis) <sup>26</sup>	\$0	\$839,763	\$2,068,061	\$3,189,225	\$4,202,167	\$5,337,868
20							
21	<b>Pass-Through Revenue (FY Basis)</b>		<b>FY 2023-24</b>	<b>FY 2024-25</b>	<b>FY 2025-26</b>	<b>FY 2026-27</b>	<b>FY 2027-28</b>
22	Water Purchases from July to Dec (%)		56.1%	56.1%	56.1%	56.1%	56.1%
23	Water Purchases from Jan to Jun (%)		43.9%	43.9%	43.9%	43.9%	43.9%
24							
25	Water Purchases from July to Dec (\$) <sup>27</sup>		\$0	\$470,894	\$1,159,656	\$1,788,344	\$2,356,347
26	Water Purchases from Jan to Jun (\$) <sup>28</sup>		\$368,870	\$908,405	\$1,400,881	\$1,845,820	\$2,344,682
27	<b>Pass-Through Revenue (Fiscal Year Basis)</b>		<b>\$368,870</b>	<b>\$1,379,298</b>	<b>\$2,560,537</b>	<b>\$3,634,164</b>	<b>\$4,701,029</b>

<sup>20</sup> = [Line 7] ÷ [100% - Line 8]

<sup>21</sup> = [Line 9] × [Line 10]

<sup>22</sup> = [Line 4] + [Line 11]

<sup>23</sup> = [Line 14] ÷ Line 15]

<sup>24</sup> Annual incremental change in Line 16

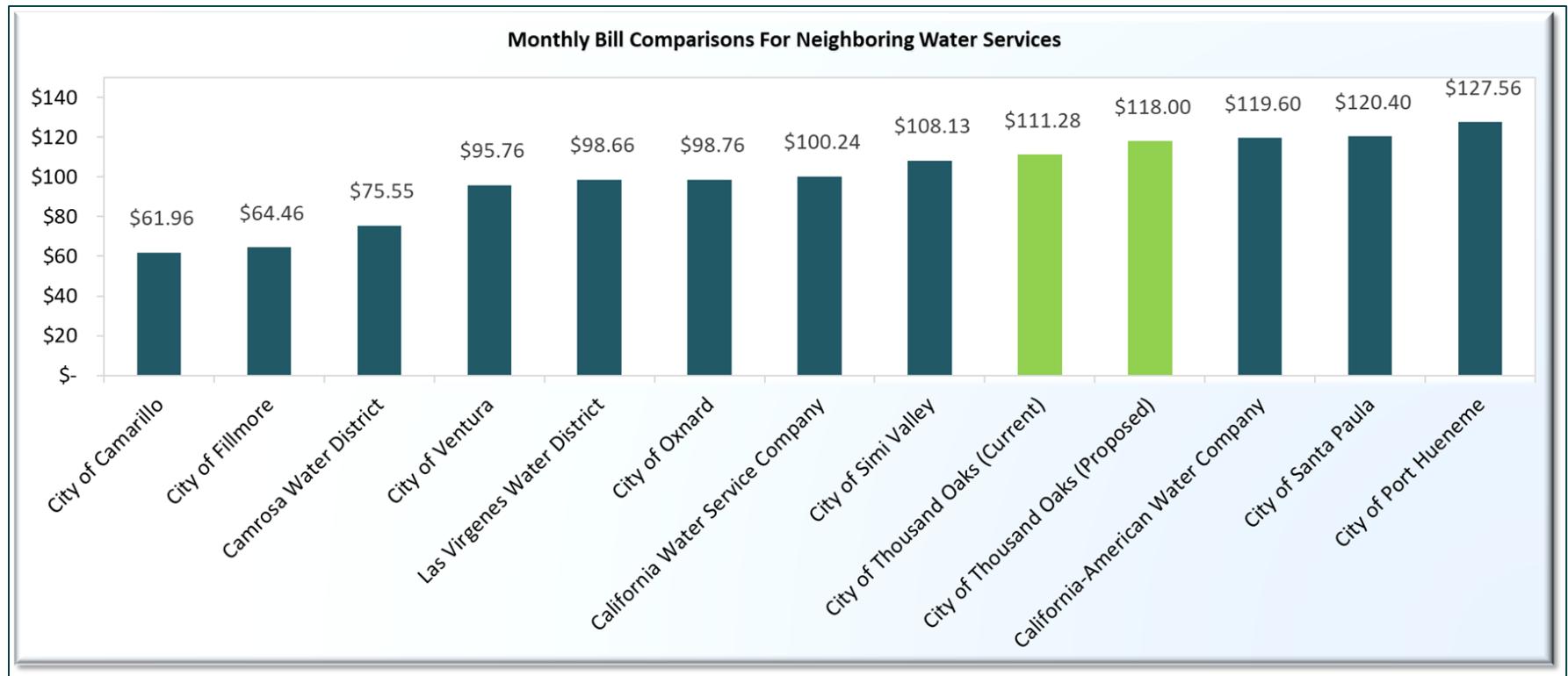
<sup>25</sup> = [Line 16] – [\$4.36]

<sup>26</sup> = [Line 15] × [Line 18]

<sup>27</sup> 56.1% of prior calendar year pass-through revenue in Line 19

<sup>28</sup> 43.9% of current calendar year pass-through revenue in Line 19

## APPENDIX C: SINGLE FAMILY RESIDENTIAL BILL COMPARISON TO NEIGHBORING AGENCIES



### Notes:

1. All bills shown are monthly.
2. All bills assume a meter size of 5/8-inch, 3/4-inch, or 5/8 × 3/4-inch and monthly water use of 15 HCF.
3. The City of Thousand Oaks current bill is based on FY 2022-23 rates effective January 1, 2023.
4. The City of Thousand Oaks proposed bill is based on FY 2023-24 proposed rates effective January 1, 2024.
5. The City of Thousand Oaks current and proposed bills do not include pumping charges (i.e., representative of customers in elevation zone P1).
6. All other agency bills are based on current rates as of July 2023.