

City of Milpitas, CA

Draft Water and Wastewater Rate Study
Study Report / December 2, 2022



December 2, 2022

Mr. Harris Siddiqui, PE
Principal Engineer
City of Milpitas
455 East Calaveras Boulevard
Milpitas, CA 95035

Subject: Water and Wastewater Rate Study

Dear Mr. Siddiqui,

Raftelis is pleased to provide this Draft Water and Wastewater Study Report to the City of Milpitas. The study's purpose was to develop a five-year proposed water and wastewater rate schedule for the City for Fiscal Year (FY) 2024 through FY 2028 that is fair and equitable.

The study's major goals are to:

- » Develop a five-year financial plan to ensure financial sufficiency, meet operating costs, fund the long-term Capital Improvement Plan (CIP) including the projects identified in the Master Plans adopted by the City in June 2022, and maintain prudent reserves.
- » Conduct a cost-of-service analysis to ensure a strong nexus between proposed water and wastewater rates and the cost to provide service to customers.

It has been a pleasure working with you, and we thank you and other City staff for the support provided to Raftelis during this study.

Sincerely,

A handwritten signature in black ink that reads 'Todd Cristiano'.

Todd Cristiano
Project Manager

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1. Executive Summary

1.1. Study Overview

Public water agencies in California typically conduct cost-of-service and rate studies to ensure there is a strong nexus between rates charged to customers and costs incurred to provide service, as required by Proposition 218. The City of Milpitas (City) last conducted a cost-of-service study in 2018, which was adopted in February 2019 and established rates through Fiscal Year (FY) 2023. The City engaged Raftelis in 2022 to conduct this Water and Wastewater Rate Study to establish proposed water and wastewater rates over a five-year period from FY 2024 to FY 2028. Note that the proposed rates presented in this study report may not be implemented until formally adopted by the City Council after a public hearing.

The major study objectives are to:

- » Develop a five-year financial plan that sufficiently funds the City's operations and maintenance (O&M) expenses, debt service payments, and Capital Improvement Plan (CIP) while adequately funding reserves and meeting debt coverage requirements.
- » Conduct a cost-of-service analysis that establishes a clear nexus between the cost to serve customers and the water rates charged to customers, per Proposition 218 requirements.
- » Review the City's existing water and wastewater rate structures and recommend changes as necessary.
- » Develop a five-year schedule of water rates that is fair, equitable, and compliant with Proposition 218.

1.2. Proposed Water Financial Plan

Raftelis conducted a status quo cash flow analysis to evaluate whether existing water rates can adequately fund the City's various expenses over the five-year study period. With the assistance of City staff, annual revenues, O&M expenses, debt service payments, and capital expenditures were projected through FY 2028. Raftelis projects that with no rate increases over the five-year study period, the City will fully deplete its reserves by the end of FY 2027. This demonstrates a clear need for revenue adjustments (i.e. water rate revenue increases relative to the status quo). Raftelis worked with City staff to develop the following proposed revenue adjustments over the five-year study period (see **Table 1-1**). The proposed revenue adjustments were selected to provide financial sufficiency for the City while minimizing impacts to City customers.

Table 1-1: Proposed Water Revenue Adjustments

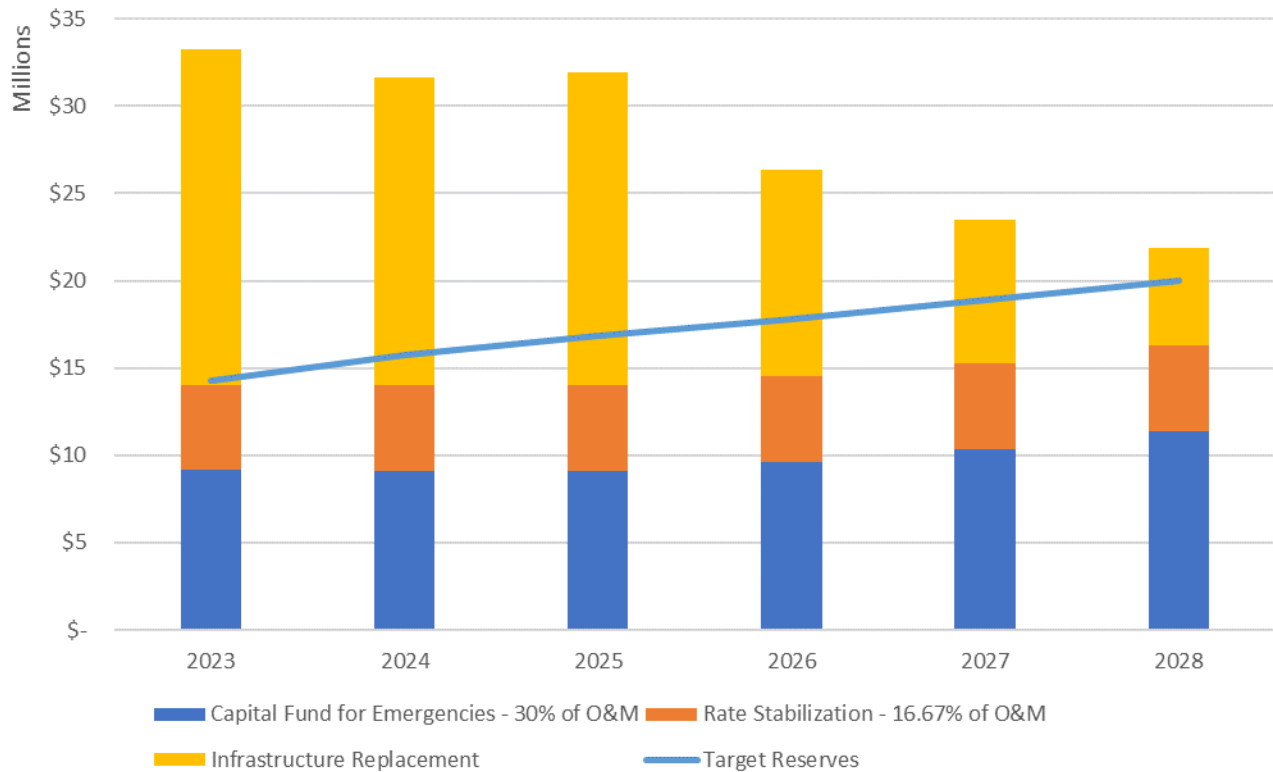
Line	Description	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
1	Effective Date of Revenue Adjustment	July 1, 2023	July 1, 2024	July 1, 2025	July 1, 2026	July 1, 2027
2	O&M Revenue Adjustment	4.9%	6.5%	6.5%	6.5%	6.5%
3	Capital Revenue Adjustment	5.0%	5.0%	5.0%	5.0%	5.0%
4	Average Bill Increase - 14 hcf	6.4%	6.4%	6.4%	6.4%	6.4%

Key factors influencing the need for proposed revenue adjustments include:

- » **Planned capital expenditures:** Projects scheduled over the next five years total about \$34M, including beginning work on the projects identified in the City's master plan.
- » **Increases in purchased water costs from SFPUC and SCVWD:** The City's cost to purchase treated water is expected to increase by an average of 8.6 percent per year over the study period, including a 12 percent increase in 2024.

Figure 1-1 shows projected ending balances over the study period relative to the City’s operating and total reserve targets under the proposed financial plan. Reserves are drawn down beginning in FY 2026 as work begins on the City’s master plan projects. Although not displayed on the chart below, the City is projected begin covering all expenses (contribute to reserves rather than drawing on them) in FY 2029. The use of reserves over this period will mitigate the impact on ratepayers while still maintaining a healthy fund balance.

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



1.2.1. PROPOSED WATER RATES

Table 1-2 shows the proposed five-year water rate schedule through FY 2028. Proposed FY 2024 rates are calculated based on the results of the cost of service analysis. Overall, FY 2024 O&M rates are designed to collect 4.9 percent more rate revenue than current FY 2023 rates; capital rates will collect 5 percent more. Proposed rates beginning in FY 2025 are calculated by simply increasing the prior year's proposed rates by the proposed annual revenue adjustments.

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

Line	Bi-Monthly Potable Fixed Charges	FY 2023		FY 2024		FY 2025		FY 2026		FY 2027		FY 2028	
1	5/8"	\$	34.10	\$	35.87	\$	38.21	\$	40.70	\$	43.35	\$	46.17
2	3/4"		51.14		47.03		50.09		53.35		56.82		60.52
3	1"		85.24		69.34		73.85		78.66		83.78		89.23
4	1 1/2"		170.48		125.14		133.28		141.95		151.18		161.01
5	2"		272.76		192.10		204.59		217.89		232.06		247.15
6	3"		511.43		404.13		430.40		458.38		488.18		519.92
7	4"		852.38		716.60		763.18		812.79		865.63		921.90
8	6"		1,704.76		1,464.29		1,559.47		1,660.84		1,768.80		1,883.78
9	8"		1,704.76		3,138.22		3,342.21		3,559.46		3,790.83		4,037.24
10	10"		1,704.76		4,700.56		5,006.10		5,331.50		5,678.05		6,047.13

Line	Volume Charges	FY 2023		FY 2024		FY 2025		FY 2026		FY 2027		FY 2028	
1	Potable	\$	6.70	\$	7.17	\$	7.64	\$	8.14	\$	8.67	\$	9.24
2	Recycled		4.51		5.41		5.77		6.15		6.55		6.98
3	Capital		1.08		1.14		1.20		1.26		1.33		1.40

1.3. Proposed Wastewater Financial Plan

Raftelis also conducted a similar analysis to evaluate whether existing wastewater rates can adequately fund the City's various expenses over the five-year study period. Raftelis projects that with no rate increases over the five-year study period, the City will fully deplete its reserves by the end of FY 2028. This demonstrates a clear need for revenue adjustments. Raftelis worked with City staff to develop the following proposed revenue adjustments over the five-year study period (see **Table 1-3**). The proposed revenue adjustments were selected to provide financial sufficiency for the City while minimizing impacts to City customers.

Table 1-3: Proposed Wastewater Revenue Adjustments

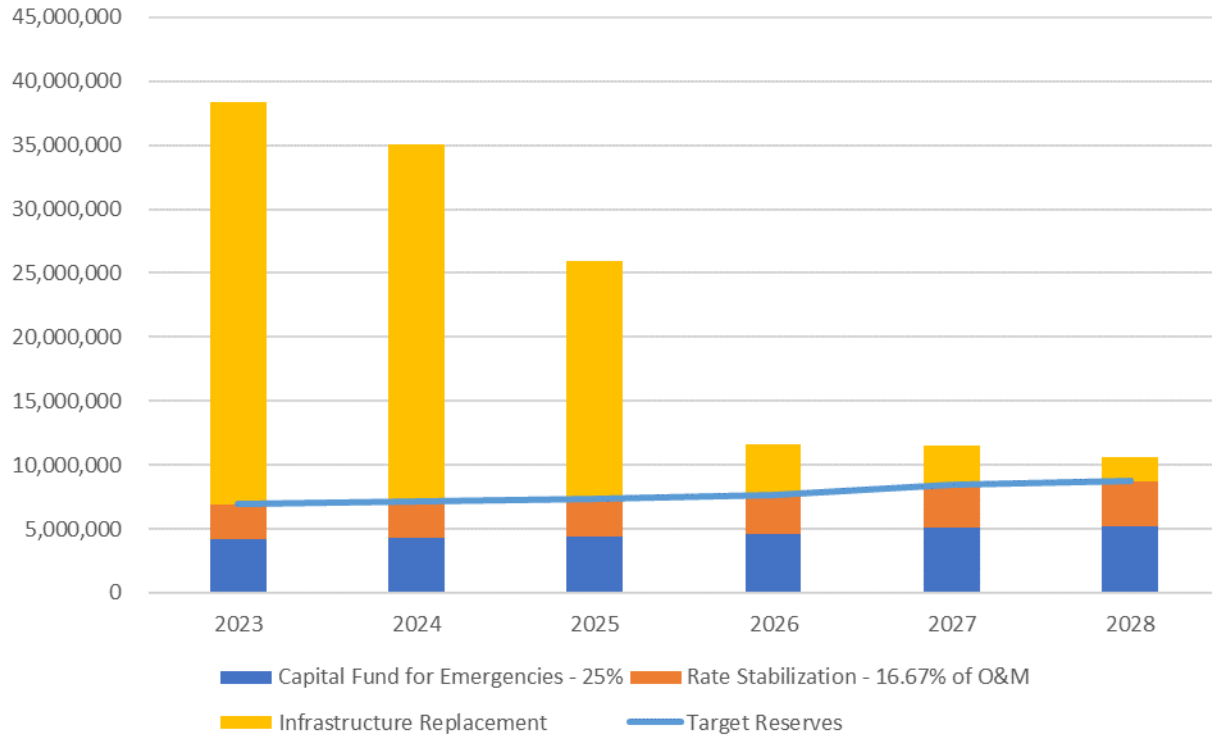
Line	Description	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
1	Effective Date of Revenue Adjustment	July 1, 2023	July 1, 2024	July 1, 2025	July 1, 2026	July 1, 2027
2	Revenue Adjustment	4.00%	4.00%	4.00%	4.00%	4.00%

Key factors influencing the need for proposed revenue adjustments include:

- » **San Jose Capital Expenditures:** The expense due to the City of San Jose related to capital projects at the wastewater treatment facility is expected to total approximately \$36M over the study period, peaking in FY 2025 at approximately \$11M.
- » **Replacement of the Force Main A Pipeline:** The large pipeline that conveys all of the City's wastewater to San Jose is approaching the end of its useful life and is recommended to be replaced to mitigate the risk of catastrophic failure in the near future. This is expected to cost approximately \$26M. Raftelis recommends the use of bonds to finance a portion of this project.

Figure 1-1 shows projected ending balances over the study period relative to the City’s operating and total reserve targets under the proposed financial plan. The City’s substantial reserves are heavily used over the study period to fund capital projects, including San Jose expenses and the Force Main A pipeline in FY 2026.

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



1.3.1. PROPOSED WASTEWATER RATES

Table 1-4 shows the proposed five-year water rate schedule through FY 2028. Proposed FY 2024 rates are calculated based on the results of the cost of service analysis. Overall, FY 2024 O&M rates are designed to collect 4 percent more rate revenue than current FY 2023 rates. Proposed rates beginning in FY 2025 are calculated by simply increasing the prior year's proposed rates by the proposed annual revenue adjustments.

Table 1-4: Proposed Five-Year Wastewater Rate Schedule

Line	Fixed Charge Schedule	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
1	Single-Family	124.14	128.44	133.58	138.93	144.49	150.27
2	Multi-Family	95.34	97.96	101.88	105.96	110.20	114.61
3	Mobile Home	78.28	97.61	101.52	105.59	109.82	114.22
4	Schools/Colleges	27.35	29.25	30.43	31.65	32.92	34.24
5	Motels and Hotels	27.35	29.25	30.43	31.65	32.92	34.24
6	General Office	27.35	29.25	30.43	31.65	32.92	34.24
7	City of Milpitas	27.35	29.25	30.43	31.65	32.92	34.24
8	Service Stations	27.35	29.25	30.43	31.65	32.92	34.24
9	Eat/Drink Establishments	27.35	29.25	30.43	31.65	32.92	34.24
10	Convalescent Hosp/Daycare	27.35	29.25	30.43	31.65	32.92	34.24
11	Personal Services, Laundrys	27.35	29.25	30.43	31.65	32.92	34.24
12	Electrical/Electronics	27.35	29.25	30.43	31.65	32.92	34.24
13	Machinery Manufacture	27.35	29.25	30.43	31.65	32.92	34.24
14	RockTenn (Jefferson Smurfit)	27.35	29.25	30.43	31.65	32.92	34.24
15	T. Marzetti Co.	27.35	29.25	30.43	31.65	32.92	34.24
16	Prudential Overall Supply	27.35	29.25	30.43	31.65	32.92	34.24
17	Evoqua Water Technologies	27.35	29.25	30.43	31.65	32.92	34.24
18	Elmwood Rehabilitation	27.35	29.25	30.43	31.65	32.92	34.24
19	Linear Technology	27.35	29.25	30.43	31.65	32.92	34.24
20	DS Waters of America	27.35	29.25	30.43	31.65	32.92	34.24
21	Magic Tech & Headway Tech	27.35	29.25	30.43	31.65	32.92	34.24
22	Lucky Pure Water	27.35	29.25	30.43	31.65	32.92	34.24
23	Milpitas Materials	27.35	29.25	30.43	31.65	32.92	34.24
24	Union Pacific Railroad	27.35	29.25	30.43	31.65	32.92	34.24
25	Cisco	27.35	29.25	30.43	31.65	32.92	34.24

Line	Volume Charge Schedule	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
1	Single-Family			-	-	-	-
2	Multi-Family			-	-	-	-
3	Mobile Home			-	-	-	-
4	Schools/Colleges	9.99	11.58	12.04	12.53	13.04	13.57
5	Motels and Hotels	5.75	5.64	5.88	6.12	6.37	6.63
6	General Office	6.84	6.92	7.20	7.49	7.79	8.11
7	City of Milpitas	5.80	5.59	5.82	6.06	6.31	6.57
8	Service Stations	5.70	5.61	5.84	6.08	6.33	6.59
9	Eat/Drink Establishments	9.06	10.88	11.32	11.78	12.26	12.76
10	Convalescent Hosp/Daycare	5.60	5.45	5.67	5.90	6.14	6.39
11	Personal Services, Laundrys	5.31	4.97	5.17	5.38	5.60	5.83
12	Electrical/Electronics	6.72	6.82	7.10	7.39	7.69	8.00
13	Machinery Manufacture	8.43	9.92	10.32	10.74	11.17	11.62
14	RockTenn (Jefferson Smurfit)	10.46	10.79	11.23	11.68	12.15	12.64
15	T. Marzetti Co.	12.09	11.17	11.62	12.09	12.58	13.09
16	Prudential Overall Supply	8.42	9.88	10.28	10.70	11.13	11.58
17	Evoqua Water Technologies	7.06	6.40	6.66	6.93	7.21	7.50
18	Elmwood Rehabilitation	6.69	7.78	8.09	8.42	8.76	9.12
19	Linear Technology	6.88	6.62	6.89	7.17	7.46	7.76
20	DS Waters of America	6.04	5.38	5.61	5.84	6.08	6.33
21	Magic Tech & Headway Tech	7.32	7.73	8.04	8.37	8.71	9.06
22	Lucky Pure Water	5.29	4.95	5.15	5.36	5.58	5.81
23	Milpitas Materials	5.29	4.95	5.15	5.36	5.58	5.81
24	Union Pacific Railroad	7.35	7.85	8.17	8.50	8.84	9.20
25	Cisco	6.72	6.82	7.10	7.39	7.69	8.00

1.4.Bill Impacts and Comparison

Figure 1-3 shows comparison of Single Family Residential bi-monthly bills with neighboring agencies. All bills are representative of a typical residential customer with a 5/8” meter using 14 HCF per bi-monthly billing period (equal to the average residential water use in the City). Note that many of the other agencies shown are either scheduled or expected to implement rate increases in FY 2024, which are not reflected in the graphs. Many other factors affect rates such as whether or not a water purveyor receives a portion of county property tax revenue, infrastructure age and condition, whether the system has to pump water up to higher elevations, water source, and the willingness of the agency to reinvest in the system to maintain infrastructure.

Figure 1-3: Single Family Residential Water Bill Comparison with Neighboring Agencies

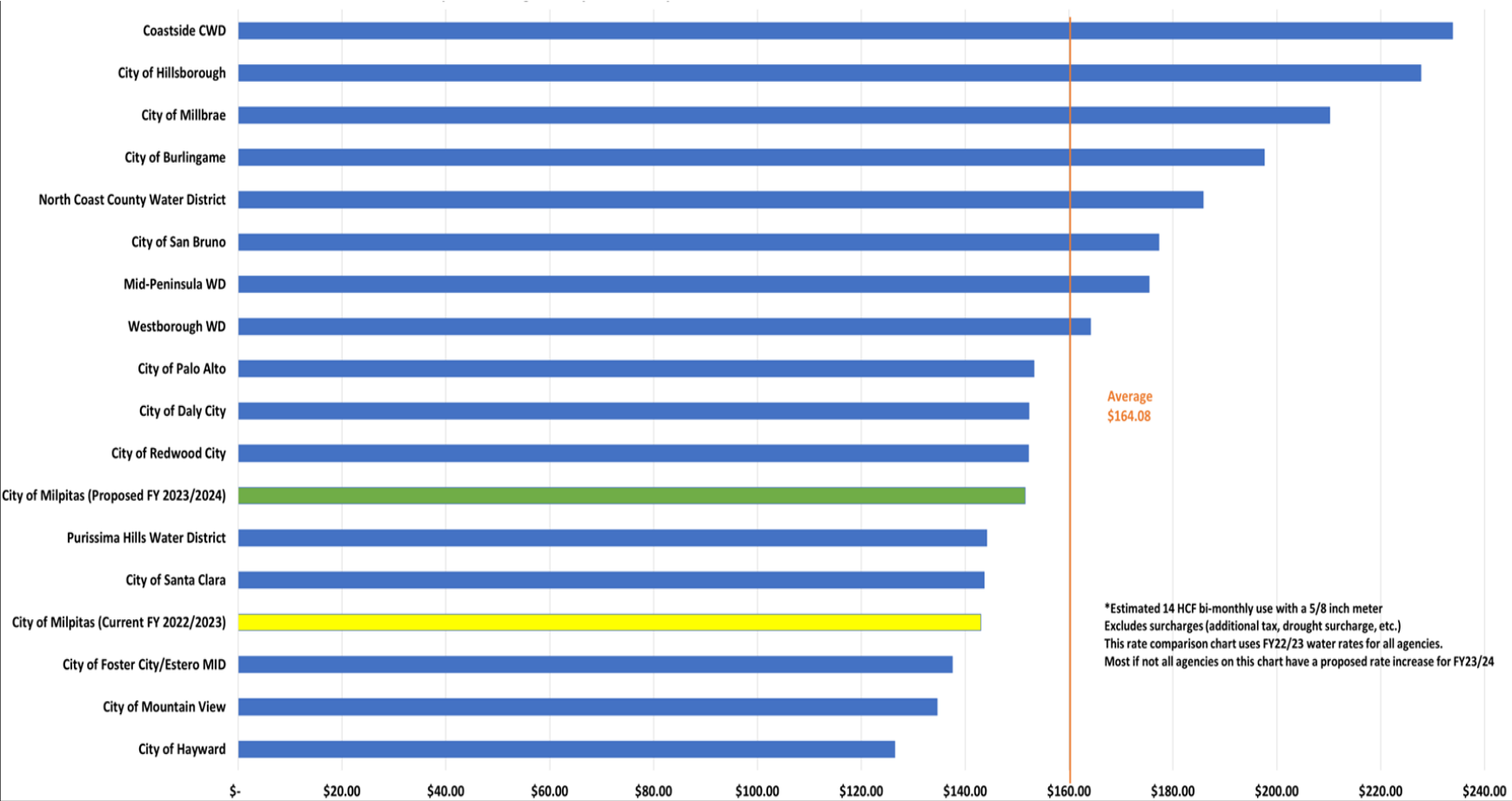
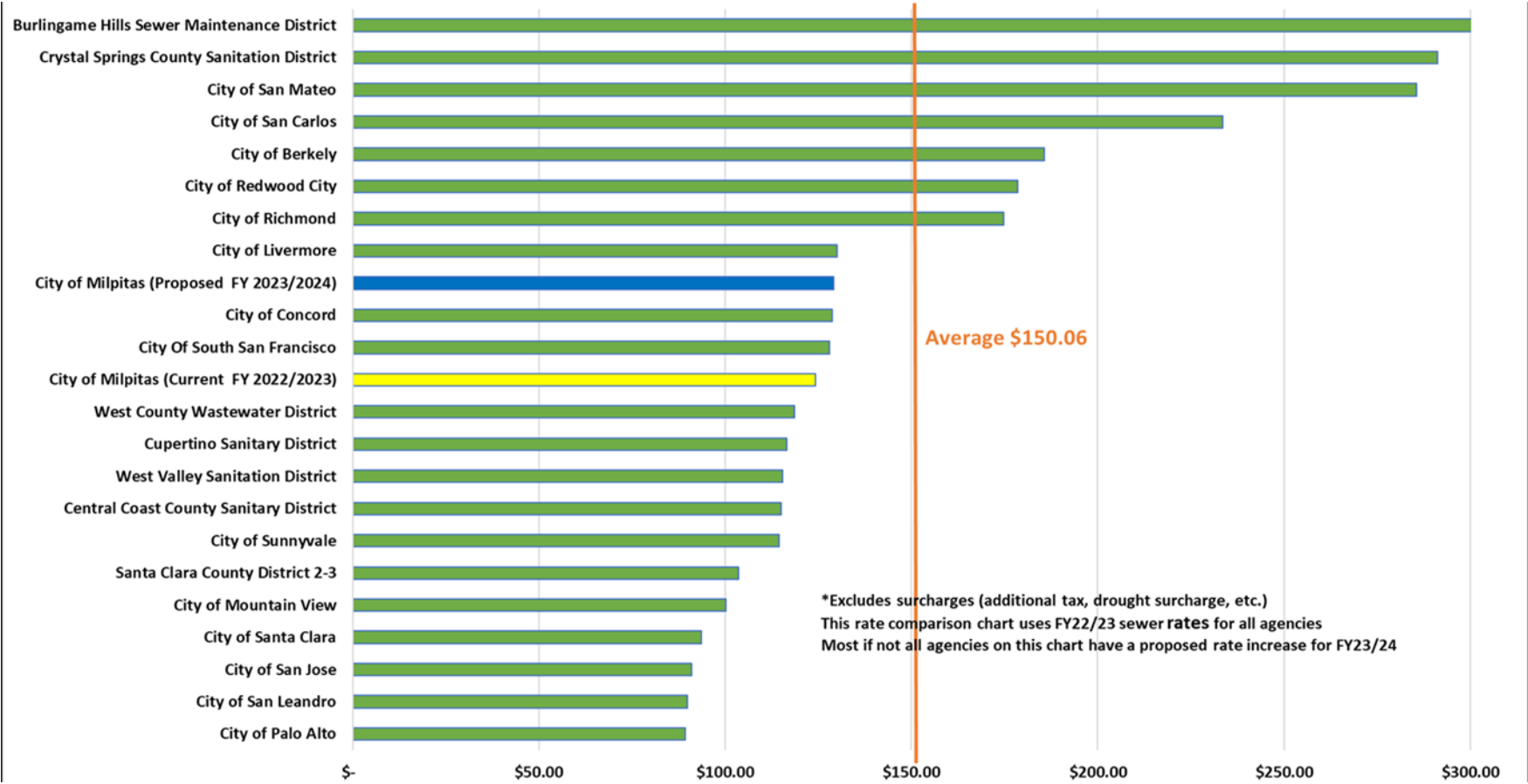


Figure 1-4: Single Family Residential Wastewater Bill Comparison with Neighboring Agencies



2. Introduction

2.1. Study Overview

Public water agencies in California typically perform a cost-of-service analysis to ensure that customers are appropriately charged for water and wastewater service commensurate with the cost to provide service. The City engaged Raftelis in 2022 to conduct this Water and Wastewater Rate Study to establish proposed water and wastewater rates for FY 2024 through FY 2028. Note that proposed rates cannot be implemented until formally adopted by the City Council after a public hearing. Proposition 218 requires that City customers must be mailed a public hearing notice detailing any proposed rate changes no fewer than 45 days before the public hearing.

Study Objectives

The major study objectives are to:

- » Develop a five-year financial plan that sufficiently funds the City's operations and maintenance (O&M) expenses, debt service payments, and capital expenditures while adequately funding reserves and meeting debt coverage requirements.
- » Conduct a cost of service analysis that establishes a clear nexus between the cost to serve customers and the water rates charged to customers, per Proposition 218 requirements.
- » Review the City's existing water and wastewater rate structures and recommend changes as necessary to ensure that proposed rates achieve financial sufficiency while furthering the City's policy goals of affordability and conservation.
- » Develop a five-year schedule of water and wastewater rates that are fair, equitable, and compliant with Proposition 218 requirements.

Reliance on City Provided Data

During this project, the City (and/or its representatives) provided Raftelis with a variety of technical information, including cost and revenue data. Raftelis reviewed the data provided for reasonableness but did not independently assess or test for the accuracy of such data – historic or projected. Raftelis has relied on this data in the formulation of our findings and subsequent recommendations, as well as in the preparation of this report. Raftelis also relied on cost allocation data provided by the City needed to complete the cost of service analysis.

There are often differences between actual and projected data. Some of the assumptions used for projections in this report will not be realized, and unanticipated events and circumstances may occur. Therefore, there are likely to be differences between the data or results projected in this report and actual results achieved, and those differences may be material. As a result, Raftelis takes no responsibility for the accuracy of data or projections provided by or prepared on behalf of the City, nor do we have any responsibility for updating this report for events occurring after the date of this report.

In the Study, Raftelis made rate calculations using the best estimates of the City's expected costs, planned capital improvements, and future customer demands. Making such calculations in advance is normal for public water providers because providers need to recover revenue matched to public budgets adopted in advance of their fiscal periods. For this reason, and others, achieving mathematical exactitude in rate calculations is virtually impossible. Instead, there are methods and techniques available to water providers that promote proportionality between the costs incurred to provide water service and the demand for that service. These methods and techniques are broadly referred to as "cost-of-service principles."

3. Legal Requirements and Rate Setting Methodology

3.1. Legal Requirements

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

As stated in the American Water Works Association's (AWWA) *Principles of Water Rates, Fees, and Charges: Manual of Water Supply Practices - M1 Seventh Edition* (Manual M1), "water rates and charges should be recovered from classes of customers in proportion to the cost of serving those customers." Raftelis follows industry-standard rate-setting methodologies set forth by the AWWA Manual M1 to ensure this study meets Proposition 218 requirements and establishes rates that do not exceed the proportionate cost of providing water services on a parcel basis. The methodology in the Manual M1 is a nationally recognized industry rate-making standard that courts have recognized as consistent with Proposition 218.

California Constitution Article X, Section 2

California Constitution Article X, Section 2 mandates that water resources be put to beneficial use and that the waste or unreasonable use of water be prevented through conservation. Section 106 of the Water Code declares that the highest priority use of water is for domestic purposes, with irrigation secondary. Thus, the management of water resources is part of the property-related service provided by public water suppliers to ensure the resource is available over time.

3.2. Rate-Setting Methodology

This study was conducted using industry-standard principles outlined by the AWWA Manual M1 and WEF Manual of Practice No. 27. The process and approach Raftelis utilized in the study to determine water rates is informed by the City's policy objectives, the current water and wastewater systems 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 City's revenues, expenses, capital project financing, annual debt service, and reserve funding. The financial plan is used to determine the revenue adjustment, which allows the City to recover adequate revenues to fund expenses and reserves.
2. **Revenue Requirement Determination:** After completing the financial plan, the rate-making process begins by determining the revenue requirement for the test year, also known as the rate-setting year. The test year for this study is FY 2024. The revenue requirement should sufficiently fund the City's operating costs, annual debt service (including coverage requirements), capital expenditures, and reserve funding as projected based on the annual budget estimates.
3. **Cost of Service Analysis:** The annual cost of providing water or wastewater service, or the revenue requirement, is then distributed to customer classes commensurate with their use of and burden on the water system. A cost of service analysis involves the following steps:
 - » Functionalize costs – the different components of the revenue requirement are categorized into functions such as supply, customer service, etc.
 - » Allocate to cost causation components – the functionalized costs are then allocated to cost causation components such as volume, bills, equivalent meters, etc.
 - » 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.
 - » Distribute cost components – the cost components are allocated to each customer class using the unit costs in proportion to their demand and burden on the system.
4. **Rate Design:** After allocating the revenue requirement to each customer class, the project team designs and calculates rates. Rates do more than simply recover costs; within the legal framework and industry standards, properly designed rates should support 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. **Administrative Record Preparation and Rate Adoption:** The final step in a rate study is to develop the administrative record in conjunction with the rate adoption process. This report serves as the administrative record for this study. The administrative record documents the study results and presents the methodologies, rationale, justifications, and calculations used to determine the proposed rates. A thorough and methodological administrative record serves two important functions: maintaining defensibility in a stringent legal environment and communicating the rationale for revenue adjustments and proposed rates to customers and key stakeholders.

4. Water Utility Key Inputs and Assumptions

Raftelis developed a rate model in Microsoft Excel to project financial and rate calculations over a five-year study period through FY 2028. The City's fiscal year spans from July 1 through June 30. Projections in future years were generally made based on FY 2022 or FY 2023 data using key assumptions outlined below. All assumptions were discussed with and reviewed by City staff to ensure that the City's unique characteristics were incorporated. Note that most table values shown throughout this report are rounded to the last digit shown and may therefore not add precisely to the totals shown.

4.1. Available Fund Balance

Table 4-1 presents the available fund balance as of the end of FY 2022 and beginning of FY 2023. The financial plan presented in this report does not propose to spend any of the Capital Reserve for Emergencies or Rate Stabilization Fund; however, portions of the existing Infrastructure Fund balance will be used for the construction of future capital projects identified in the master plan.

Table 4-1: FY 2023 Beginning Fund Balances

Line	Fund Description	Balance
Water Utility		
1	Capital for Emergencies	\$ 8,167,439
2	Rate Stabilization	4,538,374
3	CALPERS	822,539
4	Infrastructure	17,499,492
5	Total	\$ 31,027,844

4.2. Current Water Rates

Table 4-2 shows the current adopted rate schedule developed during the prior rate study. Customers are currently subject to two primary charges: 1) bi-monthly Fixed Meter Charges and 2) Volume Charges per hundred cubic feet (HCF)¹ of water delivered with separate O&M and Capital rates. Fixed Meter Charges vary based on meter size. Water used by all potable customers, regardless of customer class, are subject to the same volumetric rates. Recycled customers have a separate volumetric rate but pay the same fixed charge; these customers do not pay the capital volumetric charge.

¹ One HCF equals approximately 748 gallons.

Table 4-2: Current Water Rate Schedule

Line	Description	FY 2023
Bi-Monthly Fixed Charge (\$/period)		
1	5/8"	\$ 34.10
2	3/4"	51.14
3	1"	85.24
4	1 1/2"	170.48
5	2"	272.76
6	3"	511.43
7	4"	852.38
8	6"	1,704.76
9	8"	1,704.76
10	10"	1,704.76
Volume Charges (\$/hcf)		
11	Potable	\$ 6.70
12	Recycled	4.51
13	Capital Charge	1.08

4.3. Financial Assumptions

Inflationary assumptions were used to project O&M expenses beyond FY 2023. All inflationary factors were reviewed by City staff and are based on historical and anticipated cost increases. For O&M expenses, a general inflation rate of 4 percent is consistent with long-term changes in the Consumer Price Index (CPI), though recent inflation is above 3 percent. However, projections for imported water supply costs are based on projected wholesale water rate increases, as shown in detail below in **Table 5-7**. Interest earnings on cash reserves are projected assuming a 1 percent annual interest rate.

4.4. Projected Service Connections

Customer account growth projections are necessary to estimate water demand and rate revenues over the study period. City staff provided Raftelis with the number of water meters and fire lines by connection size for FY 2021; projections from 2021 data are based on forecasted growth rates per the City's Decision Support System Model (DSS) which was used in the adopted Urban Water Management Plan (2020 UWMP) and 2020 Water Shortage Contingency Plan (2020 WSCP). **Table 4-3** shows the projected number of bi-monthly bills issued by customer class and meter size in each year of the study period.

Table 4-3: Projected Number of Water Meters Under Existing Rate Structure

Line	Total Potable Bills	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
1	5/8"	74,878	75,079	75,080	75,081	75,082	75,083
2	3/4"	3,293	3,299	3,300	3,301	3,302	3,303
3	1"	8,003	8,015	8,093	8,171	8,249	8,327
4	1 1/2"	2,776	2,784	2,792	2,799	2,806	2,813
5	2"	3,390	3,405	3,420	3,433	3,446	3,459
6	3"	534	534	534	534	534	534
7	4"	362	363	364	364	364	364
8	6"	173	173	173	173	173	173
9	8"	263	263	263	263	263	263
10	10"	12	12	12	12	12	12
11	12"	-	-	-	-	-	-
12	Total	93,684	93,927	94,031	94,131	94,231	94,331

Line	Recycled	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
1	5/8"	-	-	-	-	-	-
2	3/4"	18	18	18	18	18	18
3	1"	66	66	66	66	66	66
4	1 1/2"	312	312	312	312	312	312
5	2"	858	858	858	858	858	858
6	3"	18	18	18	18	18	18
7	4"	54	54	54	54	54	54
8	6"	-	-	-	-	-	-
9	8"	-	-	-	-	-	-
10	10"	-	-	-	-	-	-
11	12"	-	-	-	-	-	-
12	Total	1,326	1,326	1,326	1,326	1,326	1,326

4.5. Projected Water Use and Supply

City staff provided Raftelis with total annual water use data by customer class for FY 2018 through FY 2021. Raftelis worked closely with City staff to develop water use projections for FY 2024 through FY 2028. Water demand projections depend on two key assumptions: account growth and water demand factor (i.e., water use per account). Beginning in FY 2021, annual water use was projected at the customer class level using an annual water demand growth rate to determine total annual water use. **Table 4-4** shows projected water use by customer class over the study period. The water use per account growth rate is forecasted at 0 percent through the study period.

Table 4-4: Projected Water Use Under Existing Rate Structure

Line	Customer Class Volume (hcf)	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
1	Single Family	1,218,854	1,222,358	1,222,358	1,222,358	1,222,358	1,222,358
2	Duplex	23,466	23,466	23,466	23,466	23,466	23,466
3	Condo/Townhouse	195,512	195,512	195,512	195,512	195,512	195,512
4	Multi-Family	624,235	624,235	643,914	663,594	683,273	702,953
5	Mobile Home	23,361	23,361	23,361	23,361	23,361	23,361
6	SCC/Ed Levin	3,970	3,970	3,970	3,970	3,970	3,970
7	City - Domestic	15,246	15,514	15,781	15,915	16,049	16,182
8	City - Irrigation	107,001	109,710	112,419	113,773	115,128	116,482
9	Commercial	367,078	368,166	369,254	370,342	371,430	372,518
10	Industrial	399,569	400,518	401,466	402,415	403,363	404,312
11	Institutional/Gov/Schools	77,945	79,096	80,248	80,632	81,016	81,400
12	Nonresidential Irrigation	217,184	217,475	217,766	218,201	218,637	219,073
13	Residential Irrigation	158,635	158,635	158,635	159,093	159,551	160,009
14	Recycled	467,686	467,686	467,686	467,686	467,686	467,686
15	Total	3,899,741	3,909,701	3,935,836	3,960,317	3,984,799	4,009,281

Raftelis calculated projected water purchase volumes from each water source based on direction from City Staff, as shown in **Table 4-6**. The City purchases treated water from the San Francisco Public Utilities Commission (SFPUC) and Valley Water (VW); recycled water is purchased from South Bay Water Recycling (SBWR).

Table 4-5 shows the water supply mix projected to meet water demand over the study period. Total water use (from **Table 4-4**) is adjusted to account for estimated water loss resulting from leaks in the water distribution system. Costs to purchase this water are forecasted in **Table 5-7**.

Table 4-5: Projected Water Supply Mix

Line	Wholesale Water Purchases	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Potable Volume Purchased							
1	Total Demand	3,432,055	3,442,015	3,468,150	3,492,632	3,517,114	3,541,595
2	Loss%	11.0%	11.0%	11.0%	11.0%	11.0%	11.0%
3	Equals: Total Demand (hcf)	3,856,242	3,867,433	3,896,798	3,924,305	3,951,813	3,979,321
Recycled Volume Purchased							
4	Total Demand	467,686	467,686	467,686	467,686	467,686	467,686
5	Loss%	11.0%	11.0%	11.0%	11.0%	11.0%	11.0%
6	Equals: Total Demand (hcf)	525,490	525,490	525,490	525,490	525,490	525,490
7	SFPUC Minimum Purchase	2,606,052	2,606,052	2,606,052	2,606,052	2,606,052	2,606,052
Water Purchases (hcf)							
8	SFPUC	2,606,052	2,606,052	2,606,052	2,606,052	2,606,052	2,606,052
9	SCVWD ²	1,250,190	1,261,381	1,290,746	1,318,253	1,345,761	1,373,269
10	SBWR	525,490	525,490	525,490	525,490	525,490	525,490
11	Total	4,381,732	4,392,922	4,422,287	4,449,795	4,477,303	4,504,810

5. Water Financial Plan

Section 5 details the development of a proposed five-year financial plan for the water utility over the study period. The following subsections include estimates and projections of annual revenues, O&M expenses, debt service payments, capital expenditures, and reserve funding through FY 2028. The overall purpose of the financial plan is to determine the annual rate revenue needed to achieve sufficient cash flow, maintain adequate reserves, and meet debt coverage requirements.

5.1. Revenues From Current Rates

The City's revenues consist of rate revenues, interest earnings on cash reserves, and other miscellaneous revenues. The rate revenue projections shown below assume that current FY 2023 rates are effective throughout the study period and therefore represent estimated revenues in the absence of any rate increase. This status quo scenario provides a baseline from which Raftelis evaluates the need for revenue adjustments (i.e., rate increases).

Calculated Water Rate Revenues

Raftelis projected water rate revenues from Fixed Meter Charges and Volume Charges for FY 2024 through FY 2028 based on current FY 2023 water rates, the projected number of water meters/private fire lines, and projected annual water use.

Table 5-1 shows projected Fixed Meter Charge revenues under current rates over the study period. Fixed Meter Charge revenues are calculated by connection size/type in each year as follows based on current FY 2023 water rates (from **Table 4-2**), and the projected number of water meters (from **Table 4-3**).

$$\text{Annual Fixed Meter Charge Revenue} = [\text{FY 2023 bi-monthly rate}] \times [\text{Number of connections}] \times [6 \text{ Bills per year}]$$

Table 5-1: Projected Fixed Meter Charge Revenues under Current Rates

Line	Customer Class	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
1	Single Family	\$ 2,797,383	\$ 2,805,226	\$ 2,805,226	\$ 2,805,226	\$ 2,805,226	\$ 2,805,226
2	Duplex	49,747	49,747	49,747	49,747	49,747	49,747
3	Condo/Townhouse	487,760	487,760	487,760	487,760	487,760	487,760
4	Multi-Family	880,171	880,171	886,564	892,957	899,350	905,743
5	Mobile Home	30,686	30,686	30,686	30,686	30,686	30,686
6	SCC/Ed Levin	10,229	10,229	10,229	10,229	10,229	10,229
7	City - Domestic	55,541	56,240	56,939	57,195	57,451	57,707
8	City - Irrigation	56,359	57,791	59,223	59,939	60,655	61,371
9	Commercial	707,410	709,098	710,786	712,474	714,161	715,849
10	Industrial	489,318	490,307	491,295	492,284	493,273	494,262
11	Institutional/Gov/Schools	132,971	134,369	135,767	136,040	136,313	136,585
12	Nonresidential Irrigation	320,667	321,110	321,553	322,269	322,985	323,701
13	Residential Irrigation	128,983	128,983	128,983	129,426	129,869	130,313
14	Recycled	348,998	348,998	348,998	348,998	348,998	348,998
15	Private Fire	173,053	173,053	173,053	173,053	173,053	173,053
16	Total	\$ 6,669,278	\$ 6,683,769	\$ 6,696,811	\$ 6,708,284	\$ 6,719,757	\$ 6,731,230

Table 5-2 shows projected Volume Charge revenues under current rates over the study period. Volume Charge revenues are calculated by customer class in each year as follows based on current FY 2023 water rates (from **Table 4-2**) and projected water use (from **Table 4-4**):

$$\text{Annual Volume Charge Revenue} = [\text{FY 2023 rate per HCF}] \times [\text{Annual Water Use in HCF}]$$

Table 5-2: Projected O&M Volume Charge Revenues Under Current Rates

Line	Customer Class	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
1	Single Family	\$ 8,166,319	\$ 8,189,799	\$ 8,189,799	\$ 8,189,799	\$ 8,189,799	\$ 8,189,799
2	Duplex	157,223	157,223	157,223	157,223	157,223	157,223
3	Condo/Townhouse	1,309,931	1,309,931	1,309,931	1,309,931	1,309,931	1,309,931
4	Multi-Family	4,182,371	4,182,371	4,314,224	4,446,077	4,577,930	4,709,783
5	Mobile Home	156,518	156,518	156,518	156,518	156,518	156,518
6	SCC/Ed Levin*	17,744	21,039	21,992	22,984	24,056	25,167
7	City - Domestic	102,150	103,942	105,734	106,630	107,526	108,422
8	City - Irrigation	716,906	735,056	753,205	762,280	771,355	780,430
9	Commercial	2,459,423	2,466,712	2,474,001	2,481,291	2,488,580	2,495,869
10	Industrial	2,677,112	2,683,467	2,689,823	2,696,178	2,702,533	2,708,888
11	Institutional/Gov/Schools	522,228	529,946	537,664	540,236	542,809	545,381
12	Nonresidential Irrigation	1,455,136	1,457,082	1,459,029	1,461,949	1,464,869	1,467,789
13	Residential Irrigation	1,062,857	1,062,857	1,062,857	1,065,924	1,068,992	1,072,059
14	Recycled	2,109,263	2,109,263	2,109,263	2,109,263	2,109,263	2,109,263
15	Private Fire	-	-	-	-	-	-
16	Total	\$ 25,095,182	\$ 25,165,207	\$ 25,341,263	\$ 25,506,283	\$ 25,671,383	\$ 25,836,523

Table 5-3: Projected Capital Charge Revenues Under Current Rates

Line	Customer Class	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
1	Single Family	\$ 1,316,362	\$ 1,320,147	\$ 1,320,147	\$ 1,320,147	\$ 1,320,147	\$ 1,320,147
2	Duplex	25,343	25,343	25,343	25,343	25,343	25,343
3	Condo/Townhouse	211,153	211,153	211,153	211,153	211,153	211,153
4	Multi-Family	674,173	674,173	695,427	716,681	737,935	759,189
5	Mobile Home	25,230	25,230	25,230	25,230	25,230	25,230
6	SCC/Ed Levin	4,287	4,287	4,287	4,287	4,287	4,287
7	City - Domestic	16,466	16,755	17,044	17,188	17,333	17,477
8	City - Irrigation	115,561	118,487	121,412	122,875	124,338	125,801
9	Commercial	396,444	397,619	398,794	399,969	401,144	402,319
10	Industrial	431,535	432,559	433,583	434,608	435,632	436,657
11	Institutional/Gov/Schools	84,180	85,424	86,668	87,083	87,498	87,912
12	Nonresidential Irrigation	234,559	234,873	235,187	235,657	236,128	236,599
13	Residential Irrigation	171,326	171,326	171,326	171,821	172,315	172,810
14	Recycled	-	-	-	-	-	-
15	Private Fire	-	-	-	-	-	-
16	Total	\$ 3,706,620	\$ 3,717,376	\$ 3,745,602	\$ 3,772,042	\$ 3,798,483	\$ 3,824,923

Other Revenues

Table 5-4 shows all other revenues. All FY 2023 other revenues are based on the latest information available to City staff and do not correspond directly to the City's adopted budget. Additional revenues from FY 2023 through FY 2027 were projected by Raftelis. Interest revenue is estimated beginning in FY 2024 based on estimated fund balances and an assumed interest rate. Water rate revenue from Ed Levin Park is set based on contract equal to the forecasted cost of purchasing water from SFPUC. All other revenues are forecasted to remain constant.

Table 5-4: Projected Other Revenues

Line	Other Revenue Detail	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Operating Fund							
1	Interest Income	\$ 81,674	\$ 91,474	\$ 76,050	\$ 38,365	\$ (18,825)	\$ (97,470)
2	Ed Levin Park	17,744	21,039	21,992	22,984	24,056	25,167
3	Private Fire Connections	173,053	173,053	173,053	173,053	173,053	173,053
4	Subtotal	\$ 272,472	\$ 285,566	\$ 271,094	\$ 234,402	\$ 178,284	\$ 100,750
Capital Fund							
5	Interest Income	\$ 174,995	\$ 192,354	\$ 174,753	\$ 173,334	\$ 107,018	\$ 62,646
6	Development Charges	500,000	300,000	300,000	300,000	300,000	300,000
7	Misc. Other	7,215	7,215	7,215	7,215	7,215	7,215
8	Subtotal	\$ 682,210	\$ 499,569	\$ 481,968	\$ 480,549	\$ 414,233	\$ 369,861
9	Total	\$ 954,682	\$ 785,135	\$ 753,062	\$ 714,951	\$ 592,517	\$ 470,611

Table 5-5 shows a summary of projected revenues under current rates over the study period. This represents expected revenues in the absence of any rate increase over the study period.

Table 5-5: Summary of Projected Revenues Under Current Rates

Line	Revenue Type	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Operating Fund							
1	Fixed Charge	\$ 6,496,225	\$ 6,510,716	\$ 6,523,758	\$ 6,535,231	\$ 6,546,704	\$ 6,558,177
2	Volume Charge	25,077,437	25,144,168	25,319,271	25,483,299	25,647,327	25,811,355
3	Other	272,472	285,634	270,417	232,898	175,872	97,342
4	Subtotal	\$ 31,846,134	\$ 31,940,518	\$ 32,113,445	\$ 32,251,428	\$ 32,369,903	\$ 32,466,874
Infrastructure Fund							
5	Capital Volume Charge	\$ 3,706,620	\$ 3,717,376	\$ 3,745,602	\$ 3,772,042	\$ 3,798,483	\$ 3,824,923
6	Other	682,210	499,569	481,968	480,549	414,233	369,861
7	Subtotal	\$ 4,388,830	\$ 4,216,945	\$ 4,227,570	\$ 4,252,592	\$ 4,212,716	\$ 4,194,784
8	Total	\$ 35,552,753	\$ 35,657,894	\$ 35,859,047	\$ 36,023,470	\$ 36,168,386	\$ 36,291,797

5.2. Operations and Maintenance Expenses

Table 5-6 shows O&M expenses by department over the study period. O&M expenses shown in FY 2023 are from the City's adopted FY 2023 budget with modifications to the water purchase cost and for additional employees related to the City's cross connection control program and SCADA management. All other projections beyond FY 2023 were developed based on inflationary assumptions discussed above.

Table 5-6: O&M Summary by Department

Line	O&M Summary	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
1	Administration	\$ 898,693	\$ 934,641	\$ 972,027	\$ 1,010,908	\$ 1,051,344	\$ 1,093,398
2	Utility Engineering	865,791	1,169,798	1,216,590	1,265,253	1,315,863	1,368,498
3	Utility Maintenance	2,381,145	2,476,391	2,575,446	2,678,464	2,785,603	2,897,027
4	Compliance	245,963	255,801	266,033	276,675	287,742	299,251
5	Water Purchases	21,079,197	23,595,942	25,604,553	27,286,825	29,128,667	31,115,101
6	Non-Departmental	1,234,538	1,283,920	1,335,276	1,388,687	1,444,235	1,502,004
7	Finance Administration	8,171	8,498	8,838	9,191	9,559	9,941
8	Fiscal Services	1,103,052	1,147,174	1,193,061	1,240,784	1,290,415	1,342,031
9	City Attorney	9,000	9,360	9,734	10,124	10,529	10,950
10	Transfer to General Fund	2,688,427	2,795,964	2,907,803	3,024,115	3,145,079	3,270,883
11	Total	\$ 30,513,977	\$ 33,677,488	\$ 36,089,361	\$ 38,191,025	\$ 40,469,036	\$ 42,909,084

Table 5-7 shows the detailed forecast of water purchase costs. The City purchases as much water as possible from VW while still meeting minimum purchase requirements from SFPUC. Costs include a fixed charge of approximately \$120,000 per month and volume rates for each unit of water purchased.

Table 5-7: Water Purchase Cost Detail

Line	Wholesale Water Rates	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Wholesale Volume Rates (hcf)							
1	SFPUC ³	4.76	5.30	5.54	5.79	6.06	6.34
2	SCVWD3 - Groundwater	4.23	4.82	5.51	5.98	6.50	7.07
3	Groundwater Production Charge	3.96	4.56	5.24	5.72	6.24	6.81
4	Treated water surcharge	0.26	0.26	0.26	0.26	0.26	0.26
5	SBWR	3.72	4.32	5.00	5.48	6.00	6.56
6	Groundwater Production Charge	3.96	4.56	5.24	5.72	6.24	6.81
7	Treated water surcharge	(0.24)	(0.24)	(0.24)	(0.24)	(0.24)	(0.24)
Wholesale Water Rate Increases							
8	SFPUC ³	15.9%	11.2%	4.5%	4.5%	4.5%	4.5%
9	SCVWD3 - Groundwater						
10	Groundwater Production Charge	15.0%	15.0%	15.0%	9.1%	9.1%	9.1%
11	Treated water surcharge	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	SBWR						
12	Groundwater Production Charge						
13	Treated water surcharge	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Wholesale Fixed Charges (Monthly)							
14	SFPUC Water Service Monthly Charge	\$ 14,022	\$ 14,022	\$ 14,022	\$ 14,022	\$ 14,022	\$ 14,022
15	BAWSCA Bond Monthly Surcharge	105,472	105,472	105,472	105,472	105,472	105,472
16	Annual Fixed Charge Total	1,433,928	1,433,928	1,433,928	1,433,928	1,433,928	1,433,928
Wholesale Water Total Costs							
17	400-910-4424 SF Wholesale Water	\$ 13,838,736	\$ 15,246,004	\$ 15,871,456	\$ 16,522,969	\$ 17,226,603	\$ 17,956,298
18	400-910-4425 SCVWD Wholesale Water	5,284,855	6,081,965	7,105,901	7,886,042	8,750,827	9,709,261
19	400-910-4427 Recycled Water Purchase	1,955,606	2,267,974	2,627,196	2,877,814	3,151,237	3,449,543
20	Total	21,079,197	23,595,942	25,604,553	27,286,825	29,128,667	31,115,101

5.3. Debt Service

Table 5-8 shows the City's existing debt service obligations associated with its outstanding Series 2019 bonds. These obligations are secured by a pledge of City revenues. The proposed financial plan assumes that no additional debt will be issued by the City over the study period.

Table 5-8: Schedule of Debt Service Payments

Line	Debt Service Forecast	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Series 2019 Debt Service							
1	Principal	\$ 315,000	\$ 325,000	\$ 340,000	\$ 355,000	\$ 375,000	\$ 395,000
2	Interest	732,050	719,450	706,450	689,450	671,700	652,950
3	Subtotal: Series 2019 Debt Service	\$ 1,047,050	\$ 1,044,450	\$ 1,046,450	\$ 1,044,450	\$ 1,046,700	\$ 1,047,950

5.4. Capital Improvement Plan

The City's adopted FY 2023 budget includes approximately \$1.5M in capital project costs. The City has also developed a long-term utility master plan that outlines capital project expenditures required through 2040 to address current and future system needs. These projects are shown in detail in **Table 5-9** and amount to approximately \$32M over the next five years. The projects are associated with distribution system reliability, aging infrastructure replacement, fire flow improvements, or system-wide reliability and safety. The capital costs assume an annual capital inflation factor of 6% per year. The final line of **Table 5-9** presents the total proposed annual capital spending to be funded from rates and the use of reserves.

Table 5-9: Capital Improvement Plan

Line	Capital Project	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
1	Fire Flow Pipeline Improvements	-	-	-	2,754,255	1,340,535	1,471,435
2	Interconnection - Fire Flow	-	-	-	-	479,000	-
3	Interconnection - Fire Flow	-	-	-	-	479,000	-
4	Interconnection - Fire Flow	-	-	-	-	14,000	-
5	Pipeline Condition Assessment	-	-	-	500,000	-	-
6	Detailed Facility Condition Assess	-	-	-	2,240,000	-	-
7	Water Meter Test Program	-	-	-	100,000	-	-
8	Ongoing Asset Renewal and Repl	-	-	-	1,684,667	1,684,667	1,684,667
9	Physical Security Updates - Perim	-	-	-	30,000	-	-
10	Site Security Protocols	-	-	-	20,000	-	-
11	Harden Critical Transmission Mair	-	-	-	-	-	2,000,000
12	ShakeAlert Participation	-	-	-	85,000	-	-
13	Previously Adopted Capital Project	1,515,000	4,090,000	2,790,000	530,000	1,905,000	-
14	Utility Billing System	-	300,000	-	-	-	-
15	Subtotal	\$ 1,515,000	\$ 4,390,000	\$ 2,790,000	\$ 7,943,922	\$ 5,902,202	\$ 5,156,102
16	CIP Inflation Factor	106.00%	112.36%	119.10%	123.87%	128.82%	133.97%
17	Total Proposed Capital Spending	\$ 1,605,900	\$ 4,932,604	\$ 3,322,935	\$ 9,839,791	\$ 7,603,233	\$ 6,907,789

5.5. Financial Policies

Utility-specific financial policies must be considered during the financial planning process. Financial policies typically define key financial metrics that an agency strives to meet or exceed.

Required Debt Coverage

The City must meet the minimum coverage requirements on its outstanding debt to ensure that it meets the associated debt covenants. The required debt service coverage ratio (DSCR) is 1.15, which means that the City's net revenue must amount to at least 1.15 times annual debt service. Net revenues equal revenues less O&M expenses. Annual debt service includes annual principal and interest payments on all outstanding debt.

Reserve Targets

Prudent fiscal management requires that the City maintain reserve balances to provide sufficient working capital, maintain necessary cash on hand to efficiently award construction contracts, and provide funding during emergencies. The City's current policy consists of several targets:

- » **Capital Reserve for Emergencies:** The City's adopted O&M reserve target is 30 percent of annual O&M expenses. This is intended to ensure sufficient working capital during short-term fluctuations in cash flow.

- » **Rate Stabilization Reserve:** The target is 16.67 percent of annual operating expenses.
- » **CALPERS Reserve:** Twenty percent of any remaining annual surplus after meeting O&M expenses and the reserve targets above are transferred to the CALPERS fund.
- » **Infrastructure Fund:** The remaining 80 percent portion of any operating surplus is transferred to the Infrastructure funds to be spent on capital projects in future years.

5.6. Status Quo Financial Plan

In order to evaluate the need for revenue adjustments (i.e., rate increases), Raftelis first developed a status quo financial plan. The status quo financial plan assumes that current FY 2023 rates remain unchanged over the study period. **Table 5-10** combines projected operating revenues (from **Table 5-5**), O&M expenses (from **Table 5-6**), and water purchases (from **Table 5-7**) to generate cash flow, ending balance, and debt coverage projections under the status quo.

Under the status-quo financial plan, net cash change (revenue less total cash expenses) is negative for most years of the study period and results in a depletion of the Capital Reserve for Emergencies and Rate Stabilization Funds by the end of FY 2027. The status quo financial plan is insufficient to meet the City's needs. This demonstrates a clear need for revenue adjustments over the study period to increase rate revenues and achieve financial sustainability.

Table 5-10: Status Quo Operating Financial Plan

Line	Operating Cash Flow	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Inflows							
1	Rate Revenue	\$ 31,573,662	\$ 31,654,884	\$ 31,843,028	\$ 32,018,530	\$ 32,194,031	\$ 32,369,532
2	Other Misc. Revenue	272,472	405,634	395,217	362,690	310,856	237,725
3	Use of Reserves	-	1,616,971	3,851,116	5,809,805	7,964,149	10,301,827
4	Total	\$ 31,846,134	\$ 33,677,488	\$ 36,089,361	\$ 38,191,025	\$ 40,469,036	\$ 42,909,084
Outflows							
5	City O&M	\$ 9,434,780	\$ 10,081,546	\$ 10,484,808	\$ 10,904,200	\$ 11,340,368	\$ 11,793,983
6	Water Purchases	21,079,197	23,595,942	25,604,553	27,286,825	29,128,667	31,115,101
Reserve Contributions							
7	<i>Capital for Emergencies</i>	986,754	-	-	-	-	-
8	<i>Rate Stabilization</i>	345,403	-	-	-	-	-
9	<i>Pension</i>	-	-	-	-	-	-
10	Total	\$ 31,846,134	\$ 33,677,488	\$ 36,089,361	\$ 38,191,025	\$ 40,469,036	\$ 42,909,084
11	Rate Increase		0.0%	0.0%	0.0%	0.0%	0.0%
12	Cumulative Rate Increase		0.0%	0.0%	0.0%	0.0%	0.0%
13	Debt Service Coverage Ratio	4.81	2.01	(0.10)	(1.95)	(3.98)	(6.18)

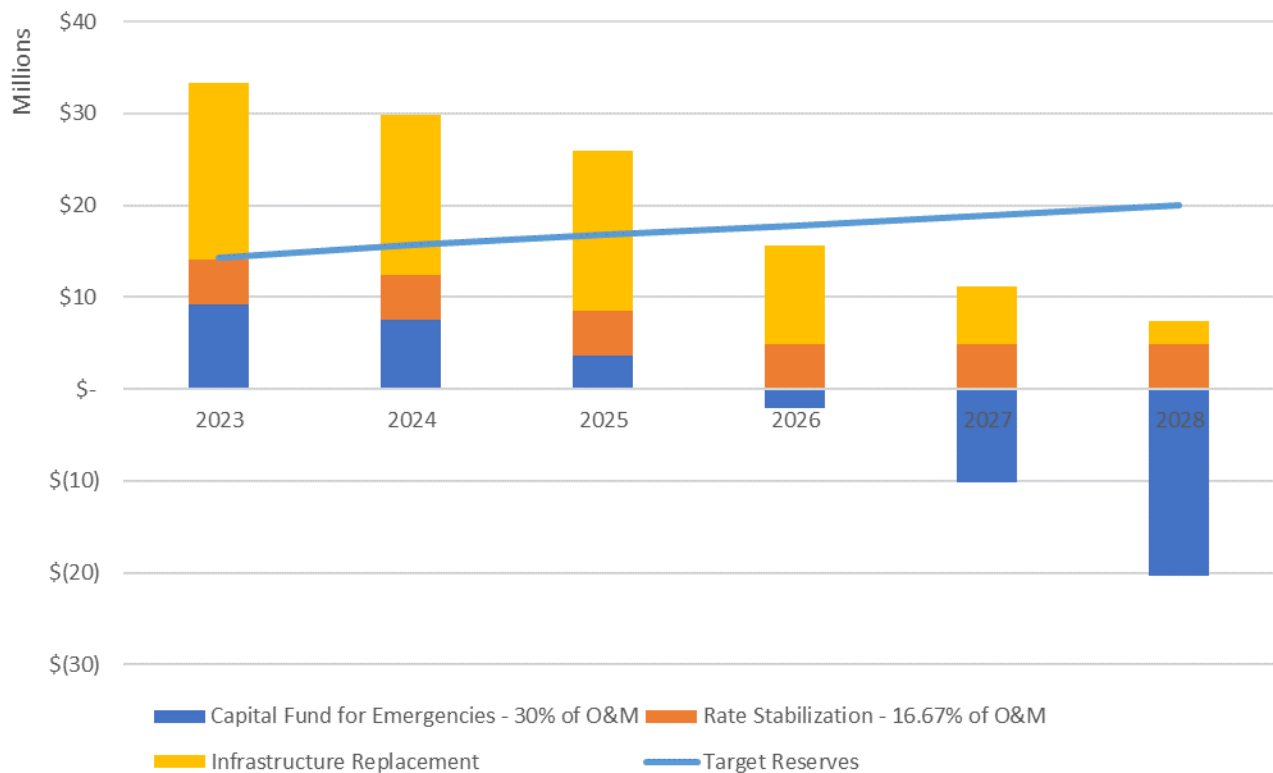
Table 5-11 presents the status quo capital financing plan. The City intends to use the dedicated capital charge, existing fund balance, and other miscellaneous revenues to make debt service payments (from **Table 5-8**) and finance the completion of its capital plan (from **Table 5-9**).

Table 5-11: Status Quo Capital Financial Plan

Line	Infrastructure Cash Flow	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Inflows							
1	Capital Charge Revenue	\$ 3,706,620	\$ 3,717,376	\$ 3,745,602	\$ 3,772,042	\$ 3,798,483	\$ 3,824,923
2	Developer Fees and Interest	682,210	499,569	481,968	480,549	414,233	369,861
3	Use of Infrastructure Reserves	-	1,760,109	141,815	6,631,650	4,437,218	3,760,956
4	Total	\$ 4,388,830	\$ 5,977,054	\$ 4,369,385	\$ 10,884,241	\$ 8,649,933	\$ 7,955,739
Outflows							
5	Capital Projects	\$ 1,605,900	\$ 4,932,604	\$ 3,322,935	\$ 9,839,791	\$ 7,603,233	\$ 6,907,789
6	Debt Service	1,047,050	1,044,450	1,046,450	1,044,450	1,046,700	1,047,950
7	Contribution to Infrastructure Reserves	1,735,880	-	-	-	-	-
8	Total	\$ 4,388,830	\$ 5,977,054	\$ 4,369,385	\$ 10,884,241	\$ 8,649,933	\$ 7,955,739

Figure 5-1 shows the City's projected ending balances under the status quo. The operating reserve targets are represented by blue line. Projected ending balances are represented by the stacked columns. The City's total reserves will fall below the operating target in FY 2026, with reserves to be fully depleted by the end of FY 2028.²

Figure 5-1: Status Quo Financial Plan – Projected Ending Operating and Capital Balances



² This scenario presents negative reserve balances in order to demonstrate the need for rate increases. The City is unable to implement any plan that results in negative reserves. This scenario should not be considered an alternative option.

Table 5-12: Status Quo Financial Plan – Projected Reserves

Line	End of Year Reserves	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
1	Capital for Emergencies	\$ 9,154,193	\$ 7,537,222	\$ 3,686,106	\$ (2,123,699)	\$ (10,087,848)	\$ (20,389,674)
2	Rate Stabilization	4,883,777	4,883,777	4,883,777	4,883,777	4,883,777	4,883,777
3	Pension	822,539	822,539	822,539	822,539	822,539	822,539
4	Infrastructure	19,235,372	17,475,263	17,333,448	10,701,798	6,264,581	2,503,625
5	Total	\$ 34,095,880	\$ 30,718,801	\$ 26,725,870	\$ 14,284,415	\$ 1,883,049	\$ (12,179,733)

5.7. Proposed Financial Plan

The status quo financial plan demonstrates that the City must increase its revenues from water rates over the study period in order to adequately fund its operating and capital expenditures, meet required debt coverage, and generate sufficient reserve funding. Raftelis worked closely with City staff to select the proposed annual revenue adjustments shown in **Table 5-13**. Revenue adjustments represent annual percentage increases in rate revenue relative to how much rate revenue would have been collected under the prior year's water rates.

Table 5-13: Proposed Revenue Adjustments

Line	Description	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
1	Effective Date of Revenue Adjustment	July 1, 2023	July 1, 2024	July 1, 2025	July 1, 2026	July 1, 2027
2	O&M Revenue Adjustment	4.9%	6.5%	6.5%	6.5%	6.5%
3	Capital Revenue Adjustment	5.0%	5.0%	5.0%	5.0%	5.0%
4	Average Bill Increase - 14 hcf	6.4%	6.4%	6.4%	6.4%	6.4%

Table 5-14 shows the proposed financial plan pro forma. Revenue adjustments over the study period generate significant increases in rate revenues over the study period. This results in positive net operating cash flow and sufficient debt coverage in all years.

Table 5-14: Proposed Operating Financial Plan

Line	Operating Cash Flow	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Inflows							
1	Rate Revenue	\$ 31,573,662	\$ 33,205,973	\$ 35,574,554	\$ 38,095,711	\$ 40,794,317	\$ 43,682,787
2	Other Misc. Revenue	272,472	405,634	410,728	415,671	425,139	439,154
3	Use of Reserves	-	65,881	104,080	-	-	-
4	Total	\$ 31,846,134	\$ 33,677,488	\$ 36,089,361	\$ 38,511,383	\$ 41,219,456	\$ 44,121,941
Outflows							
5	City O&M	\$ 9,434,780	\$ 10,081,546	\$ 10,484,808	\$ 10,904,200	\$ 11,340,368	\$ 11,793,983
6	Water Purchases	21,079,197	23,595,942	25,604,553	27,286,825	29,128,667	31,115,101
Reserve Contributions							
7	Capital for Emergencies	986,754	-	-	320,358	750,420	1,212,857
8	Rate Stabilization	345,403	-	-	-	-	-
9	Pension	-	-	-	-	-	-
10	Total	\$ 31,846,134	\$ 33,677,488	\$ 36,089,361	\$ 38,511,383	\$ 41,219,456	\$ 44,121,941
11	Rate Increase		4.9%	6.5%	6.5%	6.5%	6.5%
12	Cumulative Rate Increase		4.9%	11.7%	19.0%	26.7%	35.0%
13	Debt Service Coverage Ratio	4.81	3.67	3.85	4.49	5.13	5.82

Table 5-15: Proposed Capital Financial Plan

Line	Infrastructure Cash Flow	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Inflows							
1	Capital Charge Revenue	\$ 3,706,620	\$ 3,903,245	\$ 4,129,526	\$ 4,366,610	\$ 4,617,079	\$ 4,881,679
2	Developer Fees and Interest	682,210	499,569	483,826	486,266	425,952	389,883
3	Use of Infrastructure Reserves	-	1,574,240	-	6,031,365	3,606,902	2,684,177
4	Total	\$ 4,388,830	\$ 5,977,054	\$ 4,613,352	\$ 10,884,241	\$ 8,649,933	\$ 7,955,739
Outflows							
5	Capital Projects	\$ 1,605,900	\$ 4,932,604	\$ 3,322,935	\$ 9,839,791	\$ 7,603,233	\$ 6,907,789
6	Debt Service	1,047,050	1,044,450	1,046,450	1,044,450	1,046,700	1,047,950
7	Contribution to Infrastructure Reserves	1,735,880	-	243,968	-	-	-
8	Total	\$ 4,388,830	\$ 5,977,054	\$ 4,613,352	\$ 10,884,241	\$ 8,649,933	\$ 7,955,739

Figure 5-2 shows the City's projected ending balance under the proposed financial plan. The light blue line indicates the total target balance of 46.67 percent of O&M. The proposed financial plan will draw heavily on reserves as the master plan is implemented in FY 2026. Although not detailed in this report, projections indicate that the City will be able to cover all operating and capital expenses without the use of reserves beginning in FY 2029.

Figure 5-2: Proposed Financial Plan – Projected Ending Balances

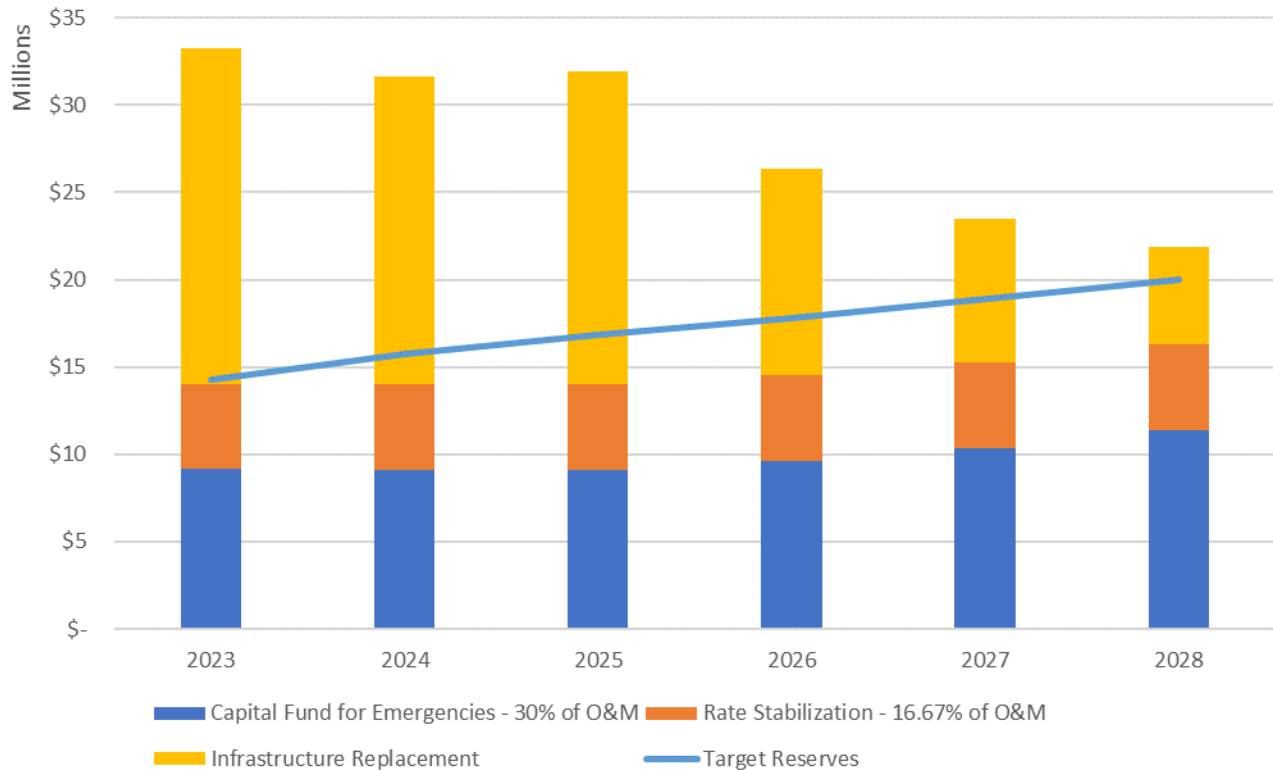


Table 5-16: Proposed Financial Plan – Projected Ending Balances

Line	End of Year Reserves	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
1	Capital for Emergencies	\$ 9,154,193	\$ 9,088,312	\$ 8,984,232	\$ 9,304,590	\$ 10,055,010	\$ 11,267,867
2	Rate Stabilization	4,883,777	4,883,777	4,883,777	4,883,777	4,883,777	4,883,777
3	Pension	822,539	822,539	822,539	822,539	822,539	822,539
4	Infrastructure	19,235,372	17,661,132	17,905,099	11,873,735	8,266,833	5,582,656
5	Total	\$ 34,095,880	\$ 32,455,759	\$ 32,595,647	\$ 26,884,640	\$ 24,028,159	\$ 22,556,839

6. Water Cost of Service Analysis

Section 6 details the cost of service (COS) analysis performed for FY 2024. The COS analysis allocates the overall rate revenue requirement to customer classes based on their proportion of use of and burden on the City's water system. This provides the basis for the development of proposed FY 2024 water rates.

6.1. Methodology

The first step in the COS analysis is to determine the revenue required from rates. The total revenue requirement is determined in the financial plan and the proposed revenue adjustments in **Section 5**. 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 AWWA Manual M1.

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

1. **Cost Component Allocation:** The revenue requirement is allocated to demand parameters and customer characteristics based on the design and functional parameters that characterize each expense.
2. **Unit Cost Development:** The revenue requirement for each cost component is divided by the appropriate units of service to determine the unit cost for each rate component.
3. **Distribution of Costs to Customer Classes:** The unit costs are applied to the units of service from each customer class to allocate the revenue requirement to customers in accordance with their impact on the water system.
4. **Rate Design:** The costs allocated to each class and the units of service for each class are used to develop fixed and volume charges.

6.2. Revenue Requirement

Table 6-1 shows the rate revenue requirement for FY 2024 (also referred to as the test year or rate-setting year). The revenue requirement is split into operating and capital categories which are later allocated to the O&M and capital rates. The expenses (Lines 1-4) are equal to FY 2024 expenses. The miscellaneous revenue (Line 6) includes interest earnings and miscellaneous revenues that are applied as offsets to the final rate revenue requirement. The contribution to reserves adjustment (Line 7) is equal to FY 2024 net cash change and represents the increase in the rate revenue requirement resulting from an addition to operating reserves and use of infrastructure reserves in FY 2024. All aforementioned values are from the proposed financial plan pro formas (**Table 5-14 and Table 5-15**). The final rate revenue requirement (Line 8) is calculated as follows:

Total revenue required from rates (Line 8) = Revenue requirements (Line 5) + Other Revenues (Line 6) + Reserves (Line 7)

Table 6-1: FY 2024 Revenue Required from Rates

Line	Description	Operating	Capital	Total
Expenses				
1	City O&M	\$ 10,081,546		\$ 10,081,546
2	Water Purchases	23,595,942		23,595,942
3	Debt Service		1,044,450	1,044,450
4	CIP Projects		4,932,604	4,932,604
5	Subtotal	\$ 33,677,488	\$ 5,977,054	\$ 39,654,542
6	Other Revenues	(405,634)	(499,569)	\$ (905,203)
7	Contribution to (from) Reserves	\$ (65,881)	\$ (1,574,240)	\$ (1,640,121)
8	Revenue Required from Rates	\$ 33,205,973	\$ 3,903,245	\$ 37,109,218

6.3. Allocation of Expenses to Rate Components

After determining the revenue requirement, the next step of the COS analysis is to allocate O&M to the various rate components:

- » **Potable Supply:** Part of the potable O&M volume rate intended to directly recover the cost of purchasing and pumping treated water.
- » **Recycled Supply:** part of the recycled O&M volume rate intended to directly recover the cost of purchasing water.
- » **Customer:** Part of the bi-monthly fixed charge that recovers the cost of providing customer service and billing. These costs are recovered from all customers equally, regardless of their size.
- » **Meter Capacity:** part of the bi-monthly fixed charge that recovers costs in proportion to the capacity of the customer meter size in recognition of the fact that customers with larger meters place a higher demand on the water system.

Table 6-2 shows the basis for allocating each O&M expense category to the various rate components. Most expense categories are allocated entirely to the corresponding cost causation component. The allocation basis for functional categories are as follows:

- » **Electricity:** Primarily related to operating pump stations to deliver potable water. This costs scales closely with the quantity of water used.
- » **Potable and Recycled Water Purchases:** Allocated directly to the corresponding cost components for those customers to ensure that the costs are recovered by the customers who use the water.
- » **Finance Administration and Fiscal Services:** These costs are related to customer service, billing, and general financial services. These services are provided to customers equally, regardless of their size or quantity of water used.

- » **Utility Engineering, Utility Maintenance, Compliance, and other Non-Departmental:** These are primarily allocated to the Meter Capacity rate component. Many engineering and maintenance expenses are related to providing capacity within the system and ensuring reliable service to all customers at all times, regardless of the amount of water used. Recovering these costs on a fixed basis also provides revenue stability for the City. A portion of these expenses (approximately \$120,000) are related to maintaining the recycled water distribution system and are therefore allocated to those customers alone.
- » **Administration, Transfer to General Fund, City Attorney, and Misc. Revenue:** These expenses and revenues are primarily allocated to the General rate component, which is reallocated to all other rate components on Line 18. The SBWR reimbursement of City operating costs related to the recycled water system is fully credited to recycled water customers.

Table 6-2: Allocation of Revenue Requirement

Line	Cost Center	FY 2024 Expense	Potable Volume	Recycled Volume	Customer	Meter Capacity	General	Capital
City O&M Expenses								
1	Administration	\$ 934,641					100.0%	
2	Utility Engineering	1,169,798		3.3%		96.7%		
3	Utility Maintenance	2,476,391		3.3%		96.7%		
4	Compliance	255,801				100.0%		
5	Non-Departmental	535,114				100.0%		
6	Electricity	748,805	100.0%					
7	Finance Administration	8,498			100.0%			
8	Fiscal Services	1,147,174			100.0%			
9	City Attorney	9,360					100.0%	
10	Transfer to General Fund	2,795,964					100.0%	
11	Subtotal City O&M	\$ 10,081,546						
Water Purchases								
12	Potable	21,327,968	100.0%					
13	Recycled	2,267,974		100.0%				
14	Subtotal Water Purchases	\$ 23,595,942						
15	Contribution to Reserves	(65,881)				100.0%		
16	Misc. Revenues	(405,634)		29.6%			70.4%	
17	Subtotal Operating Expenses	\$ 33,205,973	22,076,774	2,267,974	1,155,672	4,251,222	3,454,331	-
18	Reallocation of General	-	2,563,236	263,324	134,180	493,591	\$ (3,454,331)	
19	Total Operating Expenses	\$ 33,205,973	\$ 24,640,010	\$ 2,531,298	\$ 1,289,852	\$ 4,744,813	\$ -	\$ -
20	Capital Expenses	3,903,245						3,903,245
21	Total Units of Service		3,438,046	467,686	95,253	212,590		3,438,046
	<i>Units</i>		<i>Potable Volume (hcf)</i>	<i>Recycled Volume (hcf)</i>	<i>Number of Bills</i>	<i>5/8" Eq. Meters</i>		<i>Potable Volume (hcf)</i>
22	Unit Cost		\$ 7.17	\$ 5.41	\$ 13.54	\$ 22.32		\$ 1.14

7. Proposed Water Rates

Section 7 details the proposed water rate calculations. Proposed FY 2024 rates are calculated directly from the results of the COS allocations (from **Section 6**). All proposed rates beginning in FY 2025 are calculated by simply increasing the prior year's proposed rate by the annual revenue adjustment (from **Table 5-13**).

7.1. Proposed FY 2024 Fixed Meter Charges

Table 7-1 shows the detailed calculation of proposed FY 2024 Fixed Meter Charges which are based on Customer and Meter Capacity unit rates. Customer costs do not vary by connection type or size. Therefore, the Customer unit rate, previously derived in **Table 6-2**, is applied uniformly to all Fixed Meter Charges. Because Capacity costs vary by meter size based on hydraulic capacity, the unit cost is multiplied by the AWWA capacity ratio for each meter size. For example, the AWWA capacity ratio for a 1" meter is 1.67, which is multiplied by \$22.32 to derive the meter component cost of \$33.48. The two fixed charge components are added to derive the total proposed bi-monthly potable fixed charge. The fixed charge for recycled customers is simply the Customer component in order to recover customer service and billing costs without also recovering the potable O&M costs in the Meters component.

Table 7-1: Proposed FY 2024 Fixed Meter Charge Calculation

Line	Potable Fixed Charge		Total		Current	% Change	% Change
	Calculation	Customer	Meters	Proposed			
1	5/8"	\$ 13.54	\$ 22.32	\$ 35.87	\$ 34.10	5.2%	\$ 1.77
2	3/4"	13.54	33.48	47.03	51.14	-8.0%	(4.11)
3	1"	13.54	55.80	69.34	85.24	-18.7%	(15.90)
4	1 1/2"	13.54	111.60	125.14	170.48	-26.6%	(45.34)
5	2"	13.54	178.55	192.10	272.76	-29.6%	(80.66)
6	3"	13.54	390.58	404.13	511.43	-21.0%	(107.30)
7	4"	13.54	703.05	716.60	852.38	-15.9%	(135.78)
8	6"	13.54	1,450.74	1,464.29	1,704.76	-14.1%	(240.47)
9	8"	13.54	3,124.68	3,138.22	1,704.76	84.1%	1,433.46
10	10"	13.54	4,687.02	4,700.56	1,704.76	175.7%	2,995.80

7.2. Proposed FY 2024 Volume Charges

Table 7-2 shows the proposed FY 2024 Volume Charges as derived in **Table 6-2**.

Table 7-2: Proposed FY 2024 Volume Charge Calculation

Line	Rate	Proposed	Current	% Change	% Change
1	Potable	\$ 7.17	\$ 6.70	7.0%	\$ 0.47
2	Recycled	5.41	4.51	20.0%	0.90
3	Capital	1.14	1.08	5.1%	0.06

7.3. Proposed Five-Year Rate Schedule

Table 7-3 shows the proposed five-year schedule of water rates through FY 2027. Proposed FY 2024 Fixed Meter Charges (see **Table 7-1**) and Volume Charges (**Table 7-2**) were calculated in the preceding subsections. All proposed rates beginning in FY 2025 are calculated by increasing the prior year's proposed rate by the proposed annual revenue adjustment (from **Table 5-13**). Current FY 2023 water rates (from **Table 4-2**) are also shown.

Table 7-3: Proposed Five-Year Water Rate Schedule

Bi-Monthly Potable Fixed		FY 2023		FY 2024		FY 2025		FY 2026		FY 2027		FY 2028	
Line	Charges												
1	5/8"	\$	34.10	\$	35.87	\$	38.21	\$	40.70	\$	43.35	\$	46.17
2	3/4"		51.14		47.03		50.09		53.35		56.82		60.52
3	1"		85.24		69.34		73.85		78.66		83.78		89.23
4	1 1/2"		170.48		125.14		133.28		141.95		151.18		161.01
5	2"		272.76		192.10		204.59		217.89		232.06		247.15
6	3"		511.43		404.13		430.40		458.38		488.18		519.92
7	4"		852.38		716.60		763.18		812.79		865.63		921.90
8	6"		1,704.76		1,464.29		1,559.47		1,660.84		1,768.80		1,883.78
9	8"		1,704.76		3,138.22		3,342.21		3,559.46		3,790.83		4,037.24
10	10"		1,704.76		4,700.56		5,006.10		5,331.50		5,678.05		6,047.13

Bi-Monthly Recycled Fixed		FY 2023		FY 2024		FY 2025		FY 2026		FY 2027		FY 2028	
Line	Charges												
1	5/8"	\$	34.10	\$	13.54	\$	14.43	\$	15.37	\$	16.37	\$	17.44
2	3/4"		51.14		13.54		14.43		15.37		16.37		17.44
3	1"		85.24		13.54		14.43		15.37		16.37		17.44
4	1 1/2"		170.48		13.54		14.43		15.37		16.37		17.44
5	2"		272.76		13.54		14.43		15.37		16.37		17.44
6	3"		511.43		13.54		14.43		15.37		16.37		17.44
7	4"		852.38		13.54		14.43		15.37		16.37		17.44
8	6"		1,704.76		13.54		14.43		15.37		16.37		17.44
9	8"		1,704.76		13.54		14.43		15.37		16.37		17.44
10	10"		1,704.76		13.54		14.43		15.37		16.37		17.44

Line	Volume Charges	FY 2023		FY 2024		FY 2025		FY 2026		FY 2027		FY 2028	
1	Potable	\$	6.70	\$	7.17	\$	7.64	\$	8.14	\$	8.67	\$	9.24
2	Recycled		4.51		5.41		5.77		6.15		6.55		6.98
3	Capital		1.08		1.14		1.20		1.26		1.33		1.40

7.4. Bi-Monthly Bill Impacts

Table 7-4 shows sample bi-monthly bills for an average residential customer with a 5/8" meter using 14 hcf per bi-monthly billing period. **Table 7-5** presents a water bill under current and FY 2024 rates for a similar customer at different water use levels.

Table 7-4: Average Residential Bill Forecast

Line	Typical Bill - 14 hcf	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Water Charges							
1	Fixed Charge	\$ 34.10	\$ 35.87	\$ 38.21	\$ 40.70	\$ 43.35	\$ 46.17
2	Volume Charge	93.80	100.38	106.96	113.96	121.38	129.36
3	Capital Charge	15.12	15.96	16.80	17.64	18.62	19.60
4	Subtotal	\$ 143.02	\$ 152.21	\$ 161.97	\$ 172.30	\$ 183.35	\$ 195.13
5	Percent Change		6.4%	6.4%	6.4%	6.4%	6.4%

Table 7-5: Residential Bill Impacts at Varying Levels of Water Use

Use	Current		Proposed Rates		
	Bill	Bill	\$ Change	% Change	
0	\$ 34.10	\$ 35.87	\$ 1.77	5.2%	
1	41.88	44.18	2.30	5.5%	
2	49.66	52.49	2.83	5.7%	
3	57.44	60.80	3.36	5.8%	
4	65.22	69.11	3.89	6.0%	
5	73.00	77.42	4.42	6.1%	
6	80.78	85.73	4.95	6.1%	
7	88.56	94.04	5.48	6.2%	
8	96.34	102.35	6.01	6.2%	
9	104.12	110.66	6.54	6.3%	
10	111.90	118.97	7.07	6.3%	
11	119.68	127.28	7.60	6.4%	
12	127.46	135.59	8.13	6.4%	
13	135.24	143.90	8.66	6.4%	
14	143.02	152.21	9.19	6.4%	
15	150.80	160.52	9.72	6.4%	
16	158.58	168.83	10.25	6.5%	
17	166.36	177.14	10.78	6.5%	
18	174.14	185.45	11.31	6.5%	
19	181.92	193.76	11.84	6.5%	
20	189.70	202.07	12.37	6.5%	
21	197.48	210.38	12.90	6.5%	
22	205.26	218.69	13.43	6.5%	
23	213.04	227.00	13.96	6.6%	
24	220.82	235.31	14.49	6.6%	
25	228.60	243.62	15.02	6.6%	

8. Wastewater Utility Key Inputs and Assumptions

Raftelis developed a rate model in Microsoft Excel to project financial and rate calculations over a five-year study period through FY 2028. The City's fiscal year spans from July 1 through June 30. Projections in future years were generally made based on estimated FY 2023 data using key assumptions outlined below. All assumptions were discussed with and reviewed by City staff to ensure that the City's unique characteristics were incorporated. Note that most table values shown throughout this report are rounded to the last digit shown and may therefore not add precisely to the totals shown.

8.1. Available Fund Balance

Table 8-1 presents the available fund balance as of the end of FY 2022 and beginning of FY 2023. The financial plan presented in this report does not propose to spend any of the Capital Reserve for Emergencies or Rate Stabilization Fund; however, a significant portion of the existing Infrastructure Fund balance will be used for the construction of future capital projects identified in the master plan, particularly the Force Main A project in FY 2026.

Table 8-1: FY 2023 Beginning Fund Balances

Line	Fund Description	Balance
Wastewater Utility		
1	Capital Reserve for Emergencies	\$ 3,143,350
2	Rate Stabilization	2,095,986
3	CALPERS	3,164,653
4	Infrastructure	34,541,175
5	Total	\$ 42,945,164

8.2. Current Wastewater Rates

Table 8-2 shows the current adopted rate schedule developed during the prior rate study. Customers are currently subject to two primary charges: 1) bi-monthly Fixed Charges and 2) Volume Charges per hundred cubic feet (HCF)³ of water delivered. Fixed charges for the residential classes (Single Family, Multi-Family, and Mobile Homes) are charged per ERU⁴. Fixed charges for the commercial classes are levied on a per account basis. Only commercial customers are subject to a volumetric charge based on water use; this rate varies between classes depending on the unique wastewater quality characteristics of each class.

³ One HCF equals approximately 748 gallons.

⁴ ERU = Equivalent Residential Unit. One dwelling unit, such as a home, apartment, or condominium is one ERU.

Table 8-2: Current Wastewater Rate Schedule

Line	Customer Class	Fixed Charge	Volume Charge
1	Single-Family	\$ 124.14	\$ -
2	Multi-Family	95.34	-
3	Mobile Home	78.28	-
4	Schools/Colleges	27.35	9.99
5	Motels and Hotels	27.35	5.75
6	General Office	27.35	6.84
7	City of Milpitas	27.35	5.80
8	Service Stations	27.35	5.70
9	Eat/Drink Establishments	27.35	9.06
10	Convalescent Hosp/Daycare	27.35	5.60
11	Personal Services, Laundrys	27.35	5.31
12	Electrical/Electronics	27.35	6.72
13	Machinery Manufacture	27.35	8.43
14	RockTenn (Jefferson Smurfit)	27.35	10.46
15	T. Marzetti Co.	27.35	12.09
16	Prudential Overall Supply	27.35	8.42
17	Evoqua Water Technologies	27.35	7.06
18	Elmwood Rehabilitation	27.35	6.69
19	Linear Technology	27.35	6.88
20	DS Waters of America	27.35	6.04
21	Magic Tech & Headway Tech	27.35	7.32
22	Lucky Pure Water	27.35	5.29
23	Milpitas Materials	27.35	5.29
24	Union Pacific Railroad	27.35	7.35
25	Cisco	27.35	6.72

8.3. Financial Assumptions

Inflationary assumptions were used to project O&M expenses beyond FY 2023. All inflationary factors were reviewed by City staff and are based on historical and anticipated cost increases. For O&M expenses, a general inflation rate of 4 percent is consistent with long-term changes in the Consumer Price Index (CPI) and near term inflation forecasts from the Federal Reserve Bank of Philadelphia, though recent inflation is above this amount. Interest earnings on cash reserves are projected assuming a 1 percent annual interest rate.

8.4. Projected Service Connections

Customer account growth projections are necessary to estimate water demand and rate revenues over the study period. City staff provided Raftelis with the number of ERUs and commercial accounts for FY 2023; projections from 2023 data are based on forecasted growth rates detailed in the City's METRO plan. **Table 8-3** shows the projected number of units by customer class in FY 2023 and each year of the study period.

Table 8-3: Projected Number of Billed ERUs and Commercial Accounts

Line	Customer Class	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
1	Single-Family	75,240	75,459	75,678	75,813	75,949	76,084
2	Multi-Family	70,248	72,904	75,704	78,504	81,304	84,104
3	Mobile Home	3,126	3,126	3,126	3,126	3,126	3,126
4	Schools/Colleges	402	414	425	433	440	447
5	Motels and Hotels	156	157	157	158	158	159
6	General Office	2,226	2,234	2,242	2,251	2,259	2,268
7	City of Milpitas	228	235	241	245	250	254
8	Service Stations	252	253	254	255	256	257
9	Eat/Drink Establishments	1,026	1,030	1,033	1,037	1,041	1,045
10	Convalescent Hosp/Daycare	144	144	144	144	144	144
11	Personal Services, Laundrys	348	348	348	348	348	348
12	Electrical/Electronics	612	614	616	619	621	624
13	Machinery Manufacture	84	84	85	85	85	86
14	RockTenn (Jefferson Smurfit)	6	6	6	6	6	6
15	T. Marzetti Co.	12	12	12	12	12	12
16	Prudential Overall Supply	12	12	12	12	12	12
17	Evoqua Water Technologies (12	12	12	12	12	12
18	Elmwood Rehabilitation	30	30	30	30	30	30
19	Linear Technology	36	36	36	36	36	36
20	DS Waters of America	12	12	12	12	12	12
21	Magic Tech & Headway Tech	12	12	12	12	12	12
22	Lucky Pure Water	6	6	6	6	6	6
23	Milpitas Materials	6	6	6	6	6	6
24	Union Pacific Railroad	12	12	12	12	12	12
25	Cisco	30	30	30	30	30	30
26	Total	154,278	157,187	160,239	163,203	166,167	169,131

8.5. Projected Wastewater Volumes

City staff provided Raftelis with projected total annual wastewater use data by customer class for FY 2023. Raftelis worked closely with City staff to develop water use projections for FY 2024 through FY 2028. Demand projections depend on two key assumptions: account growth and water demand factor (i.e., water use per account). Beginning in FY 2023, annual water use was projected at the customer class level using an annual water demand growth rate to determine total annual water use. Billable wastewater volumes for commercial customers are based on water use with a return factor applied. Volumes for the residential classes in this Table are not used for revenue calculations, but are used below in the cost of service analysis. **Table 8-4** shows projected water use by customer class over the study period. The wastewater use per account growth rate is forecasted at 0 percent through the study period.

Table 8-4: Projected Wastewater Use

Line	Customer Class Volume	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
1	Single-Family	1,107,882	1,111,104	1,114,326	1,116,321	1,118,315	1,120,310
2	Multi-Family	825,451	856,655	889,556	922,457	955,359	988,260
3	Mobile Home	35,875	35,875	35,875	35,875	35,875	35,875
4	Schools/Colleges	17,572	18,084	18,596	18,913	19,230	19,546
5	Motels and Hotels	74,758	75,029	75,300	75,590	75,880	76,170
6	General Office	121,612	122,054	122,495	122,966	123,438	123,910
7	City of Milpitas	11,997	12,347	12,696	12,912	13,129	13,345
8	Service Stations	16,558	16,618	16,678	16,742	16,807	16,871
9	Eat/Drink Establishments	128,268	128,734	129,199	129,696	130,194	130,691
10	Convalescent Hosp/Daycare	14,960	14,960	14,960	14,960	14,960	14,960
11	Personal Services, Laundrys	23,340	23,340	23,340	23,340	23,340	23,340
12	Electrical/Electronics	108,597	108,991	109,385	109,806	110,227	110,648
13	Machinery Manufacture	3,685	3,698	3,711	3,726	3,740	3,754
14	RockTenn (Jefferson Smurfit)	4,271	4,271	4,271	4,271	4,271	4,271
15	T. Marzetti Co.	19,850	19,850	19,850	19,850	19,850	19,850
16	Prudential Overall Supply	10,354	10,354	10,354	10,354	10,354	10,354
17	Evoqua Water Technologies	30,363	30,363	30,363	30,363	30,363	30,363
18	Elmwood Rehabilitation	64,490	64,490	64,490	64,490	64,490	64,490
19	Linear Technology	71,587	71,587	71,587	71,587	71,587	71,587
20	DS Waters of America	609	609	609	609	609	609
21	Magic Tech & Headway Tech	38,085	38,085	38,085	38,085	38,085	38,085
22	Lucky Pure Water	838	838	838	838	838	838
23	Milpitas Materials	74	74	74	74	74	74
24	Union Pacific Railroad	1,254	1,254	1,254	1,254	1,254	1,254
25	Cisco	53,232	53,232	53,232	53,232	53,232	53,232
26	Total	2,785,561	2,822,493	2,861,123	2,898,310	2,935,498	2,972,686

9. Wastewater Financial Plan

Section 9 details the development of a proposed five-year financial plan for the wastewater utility over the study period. The following subsections include estimates and projections of annual revenues, O&M expenses, debt service payments, capital expenditures, and reserve funding through FY 2028. The overall purpose of the financial plan is to determine the annual rate revenue needed to achieve sufficient cash flow, maintain adequate reserves, and meet debt coverage requirements.

9.1. Revenues From Current Rates

The City’s revenues consist of rate revenues, interest earnings on cash reserves, and other miscellaneous revenues. The rate revenue projections shown below assume that current FY 2023 rates are effective throughout the study period and therefore represent estimated revenues in the absence of any rate increase. This status quo scenario provides a baseline from which Raftelis evaluates the need for revenue adjustments (i.e., rate increases).

Calculated Wastewater Rate Revenues

Raftelis projected wastewater rate revenues from Fixed ERU Charges and Volume Charges for FY 2024 through FY 2028 based on current FY 2023 rates, the projected number of ERUs and accounts, and projected annual wastewater use.

Table 9-1 shows projected Fixed Charge revenues under current rates over the study period. Fixed Charge revenues are calculated by customer class in each year as follows based on current FY 2023 rates (from **Table 8-2**), the projected number of ERUs and accounts (from **Table 8-3**).

$$Annual\ Fixed\ Charge\ Revenue = [FY\ 2023\ bi-monthly\ rate] \times [Number\ of\ units] \times [6\ Bills\ per\ year]$$

Table 9-1: Projected Fixed Charge Revenues under Current Rates

Line	Customer Class	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
1	Single-Family	\$ 9,340,294	\$ 9,367,460	\$ 9,394,626	\$ 9,411,442	\$ 9,428,259	\$ 9,445,075
2	Multi-Family	6,697,444	6,950,622	7,217,574	7,484,526	7,751,478	8,018,430
3	Mobile Home	244,703	244,703	244,703	244,703	244,703	244,703
4	Schools/Colleges	10,995	11,315	11,635	11,833	12,032	12,230
5	Motels and Hotels	4,267	4,282	4,298	4,314	4,331	4,347
6	General Office	60,881	61,102	61,323	61,559	61,795	62,031
7	City of Milpitas	6,236	6,417	6,599	6,711	6,824	6,936
8	Service Stations	6,892	6,917	6,942	6,969	6,996	7,022
9	Eat/Drink Establishments	28,061	28,163	28,265	28,374	28,482	28,591
10	Convalescent Hosp/Daycare	3,938	3,938	3,938	3,938	3,938	3,938
11	Personal Services, Laundrys	9,518	9,518	9,518	9,518	9,518	9,518
12	Electrical/Electronics	16,738	16,799	16,860	16,925	16,989	17,054
13	Machinery Manufacture	2,297	2,306	2,314	2,323	2,332	2,341
14	RockTenn (Jefferson Smurfit)	164	164	164	164	164	164
15	T. Marzetti Co.	328	328	328	328	328	328
16	Prudential Overall Supply	328	328	328	328	328	328
17	Evoqua Water Technologies (Sien	328	328	328	328	328	328
18	Elmwood Rehabilitation	821	821	821	821	821	821
19	Linear Technology	985	985	985	985	985	985
20	DS Waters of America	328	328	328	328	328	328
21	Magic Tech & Headway Tech	328	328	328	328	328	328
22	Lucky Pure Water	164	164	164	164	164	164
23	Milpitas Materials	164	164	164	164	164	164
24	Union Pacific Railroad	328	328	328	328	328	328
25	Cisco	821	821	821	821	821	821
26	Total	\$ 16,437,352	\$ 16,718,629	\$ 17,013,681	\$ 17,298,222	\$ 17,582,763	\$ 17,867,305

Table 9-2 shows projected Volume Charge revenues under current rates over the study period. Volume Charge revenues are calculated by customer class in each year as follows based on current FY 2023 wastewater rates (from Table 8-2) and projected wastewater use (from **Table 8-4**):

$$\text{Annual Volume Charge Revenue} = [\text{FY 2023 rate per HCF}] \times [\text{Annual Wastewater Use in HCF}]$$

Table 9-2: Projected Volume Charge Revenues Under Current Rates

Line	Customer Class	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
1	Single-Family	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2	Multi-Family	-	-	-	-	-	-
3	Mobile Home	-	-	-	-	-	-
4	Schools/Colleges	175,549	180,661	185,774	188,938	192,103	195,268
5	Motels and Hotels	429,856	431,415	432,974	434,641	436,308	437,975
6	General Office	831,829	834,846	837,864	841,090	844,316	847,541
7	City of Milpitas	69,584	71,610	73,636	74,891	76,145	77,400
8	Service Stations	94,381	94,723	95,066	95,432	95,798	96,164
9	Eat/Drink Establishments	1,162,110	1,166,326	1,170,541	1,175,048	1,179,555	1,184,061
10	Convalescent Hosp/Daycare	83,774	83,774	83,774	83,774	83,774	83,774
11	Personal Services, Laundrys	123,937	123,937	123,937	123,937	123,937	123,937
12	Electrical/Electronics	729,772	732,419	735,066	737,896	740,727	743,557
13	Machinery Manufacture	31,060	31,173	31,286	31,406	31,527	31,647
14	RockTenn (Jefferson Smurfit)	44,677	44,677	44,677	44,677	44,677	44,677
15	T. Marzetti Co.	239,984	239,984	239,984	239,984	239,984	239,984
16	Prudential Overall Supply	87,178	87,178	87,178	87,178	87,178	87,178
17	Evoqua Water Technologies (Sien	214,363	214,363	214,363	214,363	214,363	214,363
18	Elmwood Rehabilitation	431,438	431,438	431,438	431,438	431,438	431,438
19	Linear Technology	492,516	492,516	492,516	492,516	492,516	492,516
20	DS Waters of America	3,679	3,679	3,679	3,679	3,679	3,679
21	Magic Tech & Headway Tech	278,785	278,785	278,785	278,785	278,785	278,785
22	Lucky Pure Water	4,433	4,433	4,433	4,433	4,433	4,433
23	Milpitas Materials	390	390	390	390	390	390
24	Union Pacific Railroad	9,218	9,218	9,218	9,218	9,218	9,218
25	Cisco	357,718	357,718	357,718	357,718	357,718	357,718
26	Total	\$ 5,896,229	\$ 5,915,263	\$ 5,934,297	\$ 5,951,432	\$ 5,968,567	\$ 5,985,702

Other Revenues

Table 9-3 shows all other revenues. All FY 2023 other revenues are based on the latest information available to City staff and do not correspond directly to the City's adopted budget. Additional revenues from FY 2023 through FY 2027 were projected by Raftelis. Interest revenue is estimated beginning in FY 2024 based on estimated fund balances and an assumed interest rate. All other revenues are forecasted to remain constant.

Table 9-3: Projected Other Revenues

Line	Other Revenue Detail	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Operating Fund							
1	Interest Income	102,932	69,132	71,576	74,094	76,644	84,713
2	Subtotal	\$ 102,932	\$ 69,132	\$ 71,576	\$ 74,094	\$ 76,644	\$ 84,713
Infrastructure Fund							
3	Interest Income	\$ 450,000	\$ 314,099	\$ 271,880	\$ 162,733	\$ (7,199)	\$ (49,374)
4	Development Fees	750,000	250,000	250,000	250,000	250,000	250,000
5	Subtotal	\$ 1,200,000	\$ 564,099	\$ 521,880	\$ 412,733	\$ 242,801	\$ 200,626
6	Total	\$ 1,302,932	\$ 633,232	\$ 593,456	\$ 486,827	\$ 319,445	\$ 285,339

Table 9-4 shows a summary of projected revenues under current rates over the study period. This represents expected revenues in the absence of any rate increase over the study period.

Table 9-4: Summary of Projected Revenues Under Current Rates

Line	Revenue Type	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Operating Fund							
1	Fixed Charge	\$16,437,352	\$16,718,629	\$17,013,681	\$17,298,222	\$17,582,763	\$17,867,305
2	Volume Charge	5,896,229	5,915,263	5,934,297	5,951,432	5,968,567	5,985,702
3	Other	102,932	69,132	71,576	74,094	76,644	84,713
4	Subtotal	\$22,436,512	\$22,703,024	\$23,019,554	\$23,323,748	\$23,627,974	\$23,937,719
Infrastructure Fund							
5	Other	\$ 1,200,000	\$ 564,099	\$ 521,880	\$ 412,733	\$ 242,801	\$ 200,626
6	Subtotal	\$ 1,200,000	\$ 564,099	\$ 521,880	\$ 412,733	\$ 242,801	\$ 200,626
7	Total	\$23,636,512	\$23,267,123	\$23,541,434	\$23,736,481	\$23,870,775	\$24,138,345

9.2. Operations and Maintenance Expenses

Table 9-5 shows O&M expenses by department over the study period. O&M expenses shown in FY 2023 are from the City's adopted FY 2023 budget with modifications to the wastewater treatment cost based on the latest information from the City of San Jose, the wastewater treatment provider for the City of Milpitas as well as the addition of personnel related to SCADA operation. All projections beyond FY 2023 were developed based on inflationary assumptions above.

Table 9-5: O&M Summary by Department

Line	O&M Summary	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
1	Administration	\$ 1,625,083	\$ 1,690,087	\$ 1,757,690	\$ 1,827,998	\$ 1,901,118	\$ 1,977,162
2	Utility Engineering	480,513	519,108	559,248	581,618	604,882	629,078
3	Utility Maintenance	1,583,788	1,647,140	1,713,025	1,781,546	1,852,808	1,926,921
4	Compliance	191,878	199,553	207,535	215,836	224,470	233,449
5	Wastewater Treatment	6,997,426	7,277,323	7,568,416	7,871,153	8,185,999	8,513,439
6	Non-Departmental	1,124,227	1,169,196	1,215,964	1,264,602	1,315,187	1,367,794
7	Finance Administration	24,778	25,769	26,800	27,872	28,987	30,146
8	Fiscal Services	686,527	713,988	742,547	772,249	803,139	835,265
9	City Attorney	-	-	-	-	-	-
10	Transfer to General Fund	1,444,869	1,502,664	1,562,770	1,625,281	1,690,292	1,757,904
11	Total	\$ 14,159,089	\$ 14,744,828	\$ 15,353,996	\$ 15,968,156	\$ 16,606,882	\$ 17,271,157

9.3. Capital Improvement Plan

The City's adopted FY 2023 budget includes approximately \$600 thousand in capital project costs. The City has also developed a long-term utility master plan that outlines capital project expenditures required through 2040 to address current and future system needs.

Capital costs related to improvements at the regional wastewater treatment plant are also included in the City's CIP. San Jose provided a forecast of capital expenses; these are expected to peak at approximately \$11M in FY 2025 before decreasing to historical levels of \$2-3M per year.

A significant driver of the City's proposed rate increases is the replacement of Force Main A. The Force Main A (FMA) is a 50-year steel pipeline which conveys sewage flows from the City to the San Jose treatment facility. The pipeline is one of two critical pipelines connected to the Main Lift Sewer Pump Station from which all Milpitas sewage flows are pumped. The pipe crosses Coyote Creek after it leaves the pump station and runs through an easement on City of San Jose property, to the treatment plant. The pipeline is in a corrosive environment and is approaching the end of its useful life. Staff recommends that this pipeline be replaced as soon as possible. The study assumes that this project, totaling \$26 million, will be completed in FY 2026.

These projects are shown in detail in **Table 9-6** and amount to approximately \$80M over the study period. The final line presents the total proposed annual capital spending.

Table 9-6: Capital Improvement Plan

Line	Capital Project	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
1	Sanitary Sewer Pipeline Improvements	\$ -	\$ -	\$ -	\$ 995,743	\$ 1,417,288	\$ 2,912,640
2	Ongoing Sanitary Sewer CCTV	-	200,000	100,000	100,000	-	-
3	CCTV Improvements	-	333,333	333,333	333,333	333,333	333,333
4	Forcemain A Design	-	-	939,400	-	-	-
5	Forcemain A Construction	-	-	-	25,160,600	-	-
6	San Jose Capital	6,655,953	6,836,915	11,329,085	6,379,020	3,009,097	2,519,945
7	Previously Adopted Capital Projects	579,000	350,000	250,000	250,000	250,000	-
8	Utility Billing System		300,000				
9	Subtotal	\$ 7,234,953	\$ 8,020,248	\$12,951,818	\$33,218,696	\$ 5,009,718	\$ 5,765,918
10	CIP Inflation Factor	106.00%	112.36%	119.10%	123.87%	128.82%	133.97%
11	Total Proposed Capital Spending	\$ 7,669,050	\$ 9,011,551	\$15,425,823	\$41,146,559	\$ 6,453,534	\$ 7,724,780

9.1. Debt Service

Table 9-7 shows the City's existing debt service obligations associated with its outstanding Series 2017 and Series 2019 bonds. These obligations are secured by a pledge of City revenues. The proposed financial plan assumes that the City will issue a \$20M bond in FY 2026 to finance the replacement of Force Main A. Debt service for this future bond was provided by the City's financial advisor, assuming a 20 year repayment period and 7% interest rate⁵.

Table 9-7: Debt Service

Line	Debt Service Forecast	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Existing Debt - Series 2017							
1	Principal	\$ 515,000	\$ 535,000	\$ 560,000	\$ 590,000	\$ 615,000	
2	Interest	124,950	101,625	74,250	45,500	15,375	
3	Subtotal: Existing Debt - Series 2017	\$ 639,950	\$ 636,625	\$ 634,250	\$ 635,500	\$ 630,375	\$ -
Existing Debt - Series 2019							
4	Principal	\$ 505,000	\$ 535,000	\$ 560,000	\$ 585,000	\$ 615,000	\$ 645,000
5	Interest	1,286,325	1,260,325	1,232,950	1,204,325	1,174,325	1,142,825
6	Subtotal: Existing Debt - Series 2019	\$ 1,791,325	\$ 1,795,325	\$ 1,792,950	\$ 1,789,325	\$ 1,789,325	\$ 1,787,825
7	Total Existing Debt	\$ 2,431,275	\$ 2,431,950	\$ 2,427,200	\$ 2,424,825	\$ 2,419,700	\$ 1,787,825
8	Proposed Debt Service	\$ -	\$ -	\$ -	\$ -	\$ 1,302,904	\$ 1,884,550
9	Total Debt Service	\$ 2,431,275	\$ 2,431,950	\$ 2,427,200	\$ 2,424,825	\$ 3,722,604	\$ 3,672,375

⁵ Raftelis also conducted a sensitivity analysis to compare the impact of varying interest rates, bond terms, and project costs. The impact on rates over the full period of changes in financing assumptions is minimal; differences in actual debt service financing assumptions when issued will require only small changes, if any, to the proposed rates.

9.2. Financial Policies

Utility-specific financial policies must be considered during the financial planning process. Financial policies typically define key financial metrics that an agency strives to meet or exceed.

Required Debt Coverage

The City must meet the minimum coverage requirements on its outstanding debt to ensure that it meets the associated debt covenants. The required debt service coverage ratio (DSCR) is 1.15, which means that the City's net revenue must amount to at least 1.15 times annual debt service. Net revenues equal revenues less O&M expenses. Annual debt service includes annual principal and interest payments on all outstanding debt.

Reserve Targets

Prudent fiscal management requires that the City maintain reserve balances to provide sufficient working capital, maintain necessary cash on hand to efficiently award construction contracts, and provide funding during emergencies. The City's current policy consists of several targets:

- » **Capital Reserve for Emergencies:** The City's adopted O&M reserve target is 25 percent of annual O&M expenses. This is intended to ensure sufficient working capital during short-term fluctuations in cash flow.
- » **Rate Stabilization Reserve:** The target is 16.67 percent of annual operating expenses.
- » **CALPERS Reserve:** Twenty percent of any remaining annual surplus after meeting O&M expenses and the reserve targets above are transferred to the CALPERS fund.
- » **Infrastructure Fund:** The remaining 80 percent portion of any operating surplus is transferred to the Infrastructure funds to be spent on capital projects in future years.

9.3. Status Quo Financial Plan

In order to evaluate the need for revenue adjustments (i.e., rate increases), Raftelis first developed a status quo financial plan. The status quo financial plan assumes that current FY 2023 rates remain unchanged over the study period.

Table 9-8 combines projected operating revenues (from **Table 9-4**), and O&M expenses (from **Table 9-5**), and debt service (from **Table 9-7**) to generate cash flow, ending balance, and debt coverage projections under the status quo.

Under the status-quo financial plan, net cash change (revenue less total cash expenses) is negative for most years of the study period and results in a near complete depletion of the City's reserves in Capital Reserve for Emergencies, Rate Stabilization, and Infrastructure Funds by the end of FY 2027. The status quo financial plan is insufficient to meet the City's needs. This demonstrates a clear need for revenue adjustments over the study period to increase rate revenues and achieve financial sustainability.

Table 9-8: Status Quo Operating Financial Plan

Line	Operating Cash Flow	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Inflows							
1	Rate Revenue	\$22,333,580	\$22,633,892	\$22,947,978	\$23,249,654	\$23,551,330	\$23,853,006
2	Other Misc. Revenue	102,932	69,132	71,576	74,094	76,644	84,713
3	Total	\$22,436,512	\$22,703,024	\$23,019,554	\$23,323,748	\$23,627,974	\$23,937,719
Outflows							
4	City O&M	\$ 7,161,663	\$ 7,467,505	\$ 7,785,580	\$ 8,097,003	\$ 8,420,883	\$ 8,757,718
5	Wastewater Treatment	6,997,426	7,277,323	7,568,416	7,871,153	8,185,999	8,513,439
6	Debt Service	2,431,275	2,431,950	2,427,200	2,424,825	3,722,604	3,672,375
Reserve Contributions							
7	<i>Capital for Emergencies</i>	1,004,241	146,603	151,105	152,946	484,126	153,512
8	<i>Rate Stabilization</i>	669,628	97,755	100,756	101,985	322,815	102,361
9	<i>Pension</i>	834,456	1,056,378	997,299	935,167	498,309	547,663
10	Transfer to Infrastructure	3,337,823	4,225,510	3,989,198	3,740,670	1,993,237	2,190,651
11	Total	\$22,436,512	\$22,703,024	\$23,019,554	\$23,323,748	\$23,627,974	\$23,937,719
12	Rate Increase		0.0%	0.0%	0.0%	0.0%	0.0%
13	Cumulative Rate Increase		0.0%	0.0%	0.0%	0.0%	0.0%
14	Debt Service Coverage Ratio	3.40	3.27	3.16	3.03	1.89	1.82

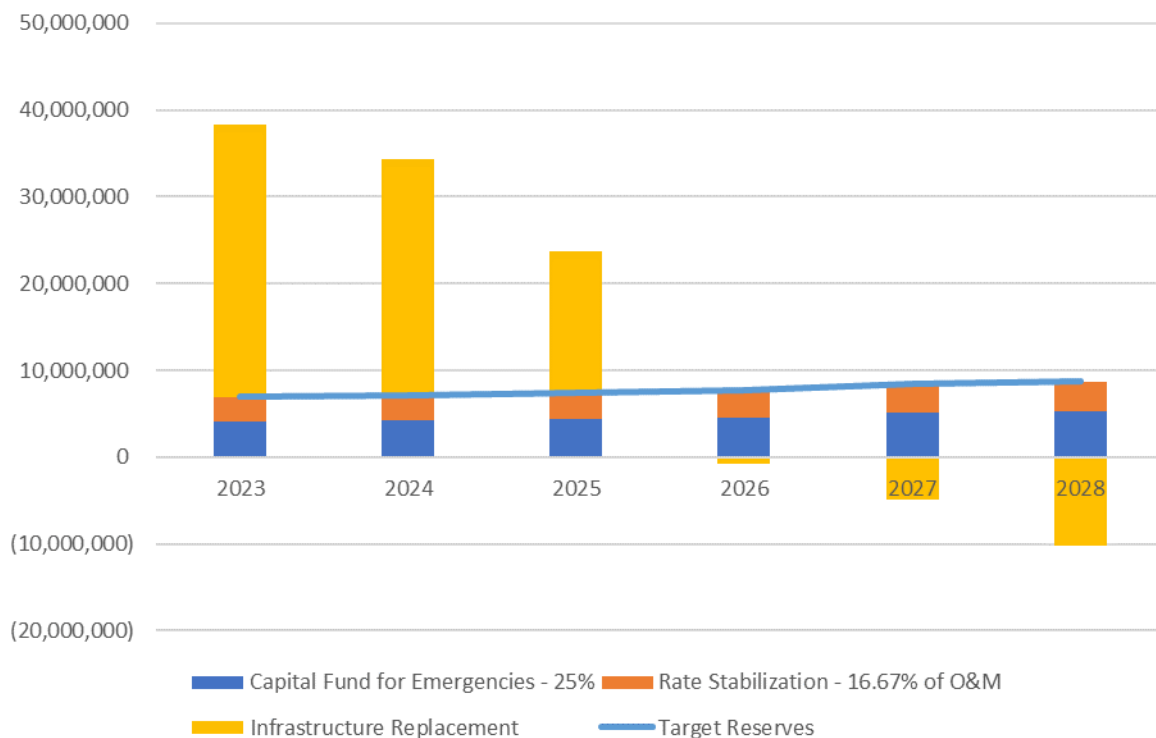
Table 5-11 presents the proposed capital financing plan in the status quo scenario. The use of bond proceeds is reflected on Line 3, but rate revenues are insufficient to fund remaining capital expenses.

Table 9-9: Status Quo Capital Financial Plan

Line	Infrastructure Cash Flow	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Inflows							
1	Transfer from Operating	\$ 3,337,823	\$ 4,225,510	\$ 3,989,198	\$ 3,740,670	\$ 1,993,237	\$ 2,190,651
2	Developer Fees and Interest	1,200,000	564,099	521,880	412,733	242,801	200,626
3	Bond Proceeds	-	-	-	20,000,000	-	-
4	Use of Infrastructure Reserves	3,131,227	4,221,941	10,914,745	16,993,157	4,217,496	5,333,502
5	Total	\$ 7,669,050	\$ 9,011,551	\$15,425,823	\$41,146,559	\$ 6,453,534	\$ 7,724,780
Outflows							
7	Capital Projects	\$ 7,669,050	\$ 9,011,551	\$15,425,823	\$41,146,559	\$ 6,453,534	\$ 7,724,780
8	Total	\$ 7,669,050	\$ 9,011,551	\$15,425,823	\$41,146,559	\$ 6,453,534	\$ 7,724,780
9	Ending Balance	\$31,409,948	\$27,188,007	\$16,273,262	\$ (719,895)	\$ (4,937,391)	\$ (10,270,893)

Figure 9-1 shows the City's projected ending balances under the status quo. The operating reserve targets are represented by blue line. Projected ending balances are represented by the stacked columns. The City's total reserves will fall below the operating target in FY 2026, with reserves to be fully depleted by the end of FY 2028.⁶

Figure 9-1: Status Quo Financial Plan – Projected Ending Balances



⁶ This scenario presents negative reserve balances in order to demonstrate the need for rate increases. The City is unable to implement any plan that results in negative reserves. This scenario should not be considered an alternative option.

Table 9-10: Status Quo Financial Plan- Projected Ending Balances

Line	End of Year Reserves	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
1	Capital for Emergencies	\$ 4,147,591	\$ 4,294,194	\$ 4,445,299	\$ 4,598,245	\$ 5,082,371	\$ 5,235,883
2	Rate Stabilization	2,765,614	2,863,369	2,964,125	3,066,110	3,388,925	3,491,287
3	Pension	3,999,109	5,055,486	6,052,786	6,987,953	7,486,262	8,033,925
4	Infrastructure	31,409,948	27,188,007	16,273,262	(719,895)	(4,937,391)	(10,270,893)
5	Total	\$42,322,262	\$39,401,057	\$29,735,472	\$13,932,413	\$11,020,168	\$ 6,490,202

9.4. Proposed Financial Plan

The status quo financial plan demonstrates that the City must increase its revenues from water rates over the study period in order to adequately fund its operating and capital expenditures, meet required debt coverage, and generate sufficient reserve funding. Raftelis worked closely with City staff to select the proposed annual revenue adjustments shown in **Table 9-11**. Revenue adjustments represent annual percentage increases in rate revenue relative to how much rate revenue would have been collected under the prior year's wastewater rates.

Table 9-11: Proposed Revenue Adjustments

Line	Description	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
1	Effective Date of Revenue Adjustment	July 1, 2023	July 1, 2024	July 1, 2025	July 1, 2026	July 1, 2027
2	Revenue Adjustment	4.00%	4.00%	4.00%	4.00%	4.00%

Table 9-12 shows the proposed financial plan pro forma. This combines projected revenues, O&M expenses, debt service, capital expenditures, and reserve targets to generate cash flow, ending balance, and debt coverage projections under the proposed financial plan. Revenue adjustments over the study period generate significant increases in rate revenues over the study period. This results in positive net operating cash flow and sufficient debt coverage in all years.

Table 9-12: Proposed Operating Financial Plan

Line	Operating Cash Flow	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Inflows							
1	Rate Revenue	\$22,333,580	\$23,539,248	\$24,820,533	\$26,152,699	\$27,551,725	\$ 29,020,829
2	Other Misc. Revenue	102,932	69,132	71,576	74,094	76,644	84,713
3	Total	\$22,436,512	\$23,608,380	\$24,892,109	\$26,226,793	\$27,628,369	\$ 29,105,542
Outflows							
4	City O&M	\$ 7,161,663	\$ 7,467,505	\$ 7,785,580	\$ 8,097,003	\$ 8,420,883	\$ 8,757,718
5	Wastewater Treatment	6,997,426	7,277,323	7,568,416	7,871,153	8,185,999	8,513,439
6	Debt Service	2,431,275	2,431,950	2,427,200	2,424,825	3,722,604	3,672,375
Reserve Contributions							
7	<i>Capital for Emergencies</i>	1,004,241	146,603	151,105	152,946	484,126	153,512
8	<i>Rate Stabilization</i>	669,628	97,755	100,756	101,985	322,815	102,361
9	<i>Pension</i>	834,456	1,237,449	1,371,810	1,515,776	1,298,388	1,581,227
10	Transfer to Infrastructure	3,337,823	4,949,795	5,487,242	6,063,105	5,193,553	6,324,910
11	Total	\$22,436,512	\$23,608,380	\$24,892,109	\$26,226,793	\$27,628,369	\$ 29,105,542
12	Rate Increase		4.0%	4.0%	4.0%	4.0%	4.0%
13	Cumulative Rate Increase		4.0%	8.2%	12.5%	17.0%	21.7%
14	Debt Service Coverage Ratio	3.40	3.64	3.93	4.23	2.96	3.22

Table 9-13: Proposed Capital Financial Plan

Line	Infrastructure Cash Flow	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Inflows							
1	Transfer from Operating	\$ 3,337,823	\$ 4,949,795	\$ 5,487,242	\$ 6,063,105	\$ 5,193,553	\$ 6,324,910
2	Developer Fees and Interest	1,200,000	564,099	529,123	435,028	288,544	278,830
3	Bond Proceeds	-	-	-	20,000,000	-	-
4	Use of Infrastructure Reserves	3,131,227	3,497,657	9,409,458	14,648,425	971,437	1,121,040
5	Total	\$ 7,669,050	\$ 9,011,551	\$15,425,823	\$41,146,559	\$ 6,453,534	\$ 7,724,780
Outflows							
7	Capital Projects	\$ 7,669,050	\$ 9,011,551	\$15,425,823	\$41,146,559	\$ 6,453,534	\$ 7,724,780
8	Total	\$ 7,669,050	\$ 9,011,551	\$15,425,823	\$41,146,559	\$ 6,453,534	\$ 7,724,780
9	Ending Balance	\$31,409,948	\$27,912,291	\$18,502,833	\$ 3,854,408	\$ 2,882,971	\$ 1,761,931

Figure 5-2 shows the City's projected ending balance under the proposed financial plan. The light blue line indicates the total target balance of 41.67 percent of O&M. The proposed financial plan will draw heavily on reserves as the master plan is implemented in FY 2026. Although not detailed in this report, projections indicate that the City will be able to cover all operating and capital expenses without the use of reserves beginning in FY 2029.

Figure 9-2: Proposed Financial Plan – Projected Ending Balances

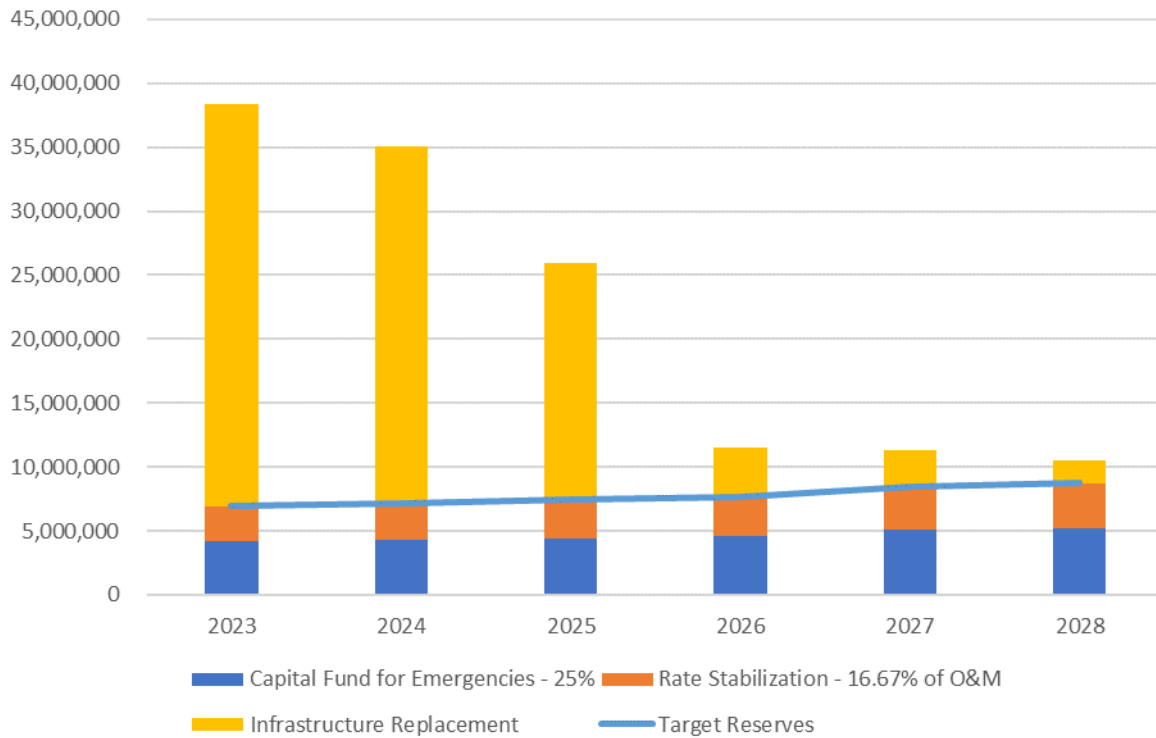


Table 9-14: Proposed Financial Plan – Projected Ending Balances

Line	End of Year Reserves	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
1	Capital for Emergencies	\$ 4,147,591	\$ 4,294,194	\$ 4,445,299	\$ 4,598,245	\$ 5,082,371	\$ 5,235,883
2	Rate Stabilization	2,765,614	2,863,369	2,964,125	3,066,110	3,388,925	3,491,287
3	Pension	3,999,109	5,236,558	6,608,368	8,124,144	9,422,532	11,003,760
4	Infrastructure	31,409,948	27,912,291	18,502,833	3,854,408	2,882,971	1,761,931
5	Total	\$42,322,262	\$40,306,412	\$32,520,625	\$19,642,907	\$20,776,800	\$ 21,492,861

10. Wastewater Cost of Service Analysis

Section 6 details the cost of service (COS) analysis performed for FY 2024. The COS analysis allocates the overall rate revenue requirement to customer classes based on their proportion of use of and burden on the City's water system. This provides the basis for the development of proposed FY 2024 water rates.

10.1. Methodology

The first step in the COS analysis is to determine the revenue required from rates. The total revenue requirement is determined in the financial plan and the proposed revenue adjustments in **Section 9**. 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 WEF Manual of Practice No. 27.

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

1. **Cost component allocation:** Costs are allocated to demand parameters and customer characteristics based on the design and functional parameter the characterize each expense
2. **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 rate component
3. **Distribution of Costs to Customer Classes:** The unit costs are applied to the units of service from each customer class to allocate the revenue requirement to customers in accordance with their impact on the wastewater system
4. **Rate Design:** The costs allocated to each class and the units of service for each class are used to develop fixed and volume charges.

10.2. Units of Service

Table 10-1 summarizes the forecasted units of service for each wastewater class. ERUs, bills, and commercial volumes are from the latest available City billing data. Pollutant strengths for BOD, TSS, and NH₃ as well as the estimate of days active are from estimates provided by San Jose. The pollutant units used to allocate costs are pounds per day, calculated using the contributed volume estimate and pollutant concentration for each class to estimate total annual pounds and dividing by the number of days active.

Table 10-1: FY 2024 Wastewater Units of Service

Line	Units of Service	Days	Volume		BOD			TSS			NH3			Customer	
			HCF	Gallons / Day	Strength (mg/l)	Pounds / Year	Pounds / Day	Strength (mg/l)	Pounds / Year	Pounds / Day	Strength (mg/l)	Pounds / Year	Pounds / Day	ERUs	Bills
1	Single-Family	365	1,107,882	2,270,556	250.00	1,729,040	4,737	250.00	1,729,040	4,737	35.00	242,066	663	75,459	74,644
2	Multi-Family	365	825,451	1,691,726	250.00	1,288,258	3,529	250.00	1,288,258	3,529	35.00	180,356	494	72,904	11,315
3	Mobile Home	365	35,875	73,524	250.00	55,989	153	250.00	55,989	153	35.00	7,838	21	3,126	18
4	Schools/Colleges	176	18,084	76,863	130.00	14,676	83	100.00	11,289	64	30.00	3,387	19	414	414
5	Motels and Hotels	365	75,029	153,768	310.00	145,198	398	121.00	56,674	155	7.00	3,279	9	157	157
6	General Office	261	122,054	349,818	130.00	99,053	380	80.00	60,955	234	11.00	8,381	32	2,234	2,234
7	City of Milpitas	323	12,347	28,594	130.00	10,020	31	80.00	6,166	19	11.00	848	3	235	235
8	Service Stations	365	16,618	34,058	180.00	18,674	51	280.00	29,048	80	-	-	-	253	253
9	Eat/Drink Establishments	365	128,734	263,834	1,250.00	1,004,554	2,752	560.00	450,040	1,233	10.00	8,036	22	1,030	1,030
10	Convalescent Hosp/Daycare	365	14,960	30,659	230.00	21,479	59	85.00	7,938	22	15.00	1,401	4	144	144
11	Personal Services, Laundrys	365	23,340	47,835	150.00	21,856	60	110.00	16,028	44	5.00	729	2	348	348
12	Electrical/Electronics	261	108,991	312,379	30.00	20,412	78	15.00	10,206	39	30.00	20,412	78	614	614
13	Machinery Manufacture	261	3,698	10,598	290.00	6,695	26	550.00	12,697	49	-	-	-	84	84
14	RockTenn (Jefferson Smurfit)	365	4,271	8,754	1,746.71	46,574	128	39.68	1,058	3	17.10	456	1	6	6
15	T. Marzetti Co.	313	19,850	47,440	1,555.25	192,721	616	31.16	3,861	12	0.41	51	0	12	12
16	Prudential Overall Supply	261	10,354	29,675	583.25	37,698	144	269.23	17,402	67	1.52	98	0	12	12
17	Evoqua Water Technologies	261	30,363	87,023	28.93	5,484	21	148.62	28,170	108	1.19	226	1	12	12
18	Elmwood Rehabilitation	365	64,490	132,170	507.05	204,134	559	341.68	137,557	377	25.39	10,222	28	30	30
19	Linear Technology	261	71,587	205,174	17.72	7,919	30	25.03	11,186	43	25.22	11,271	43	36	36
20	DS Waters of America	261	609	1,746	1.58	6	0	1.68	6	0	0.01	0	0	12	12
21	Magic Tech & Headway Tech	261	38,085	109,156	449.42	106,852	409	4.83	1,148	4	1.63	388	1	12	12
22	Lucky Pure Water	365	838	1,717	130.00	680	2	80.00	418	1	11.00	58	0	6	6
23	Milpitas Materials	365	74	151	130.00	60	0	80.00	37	0	11.00	5	0	6	6
24	Union Pacific Railroad	261	1,254	3,595	180.00	1,409	5	280.00	2,192	8	-	-	-	12	12
25	Cisco	261	53,232	152,568	30.00	9,969	38	15.00	4,985	19	30.00	9,969	38	30	30
26	Total		2,788,067	6,123,381		5,049,408	14,291		3,942,349	11,001		509,475	1,462	157,187	91,675

10.3. Revenue Requirement

Table 10-2 shows the rate revenue requirement for FY 2024 (also referred to as the test year or rate-setting year). The revenue requirement is split into operating and capital categories which are later allocated based on O&M expenses and capital assets, respectively. The expenses (Lines 1-4) are equal to FY 2024 expenses. The miscellaneous revenue (Line 6) includes interest earnings and miscellaneous revenues that are applied as offsets to the final rate revenue requirement. The contribution to reserves adjustment (Line 7) is equal to FY 2024 net cash change and represents the increase in the rate revenue requirement resulting from an addition to operating reserves and use of infrastructure reserves in FY 2024. All aforementioned values are from the proposed financial plan pro forma (

Table 9-8). The final rate revenue requirement (Line 8) is calculated as follows:

Total revenue required from rates (Line 8) = Revenue requirements (Line 5) + Other Revenues (Line 6) + Reserves (Line 7)

Table 10-2: FY 2024 Revenue Required from Wastewater Rates

Line	Description	Operating	Capital	Total
Expenses				
1	City O&M	\$ 7,467,505		\$ 7,467,505
2	Wastewater Treatment	7,277,323		7,277,323
3	Debt Service		2,431,950	2,431,950
4	Rate Funded Capital		4,949,795	4,949,795
5	Subtotal	\$14,744,828	\$ 7,381,745	\$22,126,572
6	Other Revenues	\$ (69,132)		\$ (69,132)
7	Contribution to (from) Reserves	\$ 1,481,807		\$ 1,481,807
8	Revenue Required from Rates	\$16,157,503	\$ 7,381,745	\$23,539,248

10.4. Allocation of Expenses to Rate Components

After determining the revenue requirement, the next step of the COS analysis is to allocate O&M to the various rate components:

- » **Volume:** Part of the potable O&M volume rate intended to recover costs associated with the quantity of contributed wastewater.
- » **BOD, TSS, and NH3:** Recognizes the costs related to treating wastewater that vary with the level of pollutants in the water.
- » **ERUs:** Costs that should be recovered by all customers equally in the bi-monthly fixed charge. An ERU is a single home, apartment, or commercial account – in the multifamily and mobile home classes, there are many ERUs per account.
- » **Customer:** Part of the bi-monthly fixed charge that recovers the cost of providing customer service and billing. These costs are recovered from all customer accounts equally, regardless of their wastewater contributions or ERUs.

Table 10-3 shows the basis for allocating each O&M expense category to the various rate components. Most expense categories are allocated entirely to the corresponding cost causation component. The allocation basis for functional categories are as follows:

- » **Electricity:** Primarily related to operating lift stations to convey wastewater. This costs scales closely with the quantity of wastewater contributed to the system.
- » **Wastewater Treatment O&M:** Allocated directly to the corresponding volume and pollutant cost components in proportion to San Jose’s revenue requirement assigned to the City.
- » **Wastewater Treatment Capital:** The City pays for a portion of San Jose’s capital costs based on a fixed capacity allocation rather than actual annual use. This capacity is approximately 2.5 times greater than the actual flow requirements of the City. Raffelis has allocated the costs associated with this unused capacity to the ERU cost component to be recovered from all customers equally. The remaining capital expense is allocated to the volume and pollutant components in the same proportion as the wastewater O&M expense, which corresponds to actual use patterns.
- » **Debt Service:** The Series 2017 bonds are allocated according to the functional use of the Series 2006 bonds as determined by the City during the 2018 rate study. The Series 2019 bonds were issued in order to finance improvements at the San Jose regional wastewater treatment plant; therefore, this cost is allocated in the same way as the San Jose capital expense discussed above.
- » **Finance Administration and Fiscal Services:** These costs are related to customer service, billing, and general financial services.
- » **Utility Engineering, Utility Maintenance, Compliance, City Capital, Contributions to Reserves, and other Non-Departmental:** These are allocated to the Volume rate component. Many engineering, maintenance, and capital expenses are related to the size of the customer and their use of the wastewater system.
- » **Administration, Transfer to General Fund, City Attorney, and Misc. Revenue:** These expenses and revenues are allocated to the General cost component, which is reallocated to all other rate components on Line 22.

Table 10-3: Wastewater Revenue Requirement Allocation

Line	Cost Center	FY 2024	Volume	BOD	TSS	NH3	ERUs	Customer	General
City O&M Expenses									
1	Administration	\$ 1,690,087							100.0%
2	Utility Engineering	519,108	100.0%						
3	Utility Maintenance	1,647,140	100.0%						
4	Compliance	199,553	100.0%						
5	Non-Departmental	859,196	100.0%						
6	Electricity	310,000	100.0%						
7	Finance Administration	25,769						100.0%	
8	Fiscal Services	713,988						100.0%	
9	City Attorney	-							100.0%
10	Transfer to General Fund	1,502,664							100.0%
11	Subtotal City O&M	\$ 7,467,505							
12	Wastewater Treatment	\$ 7,277,323	33.3%	24.7%	21.4%	20.5%			
Debt Service									
13	Series 2017	\$ 636,625	69.7%	13.5%	7.3%	9.5%			
14	Series 2019	1,795,325	17.3%	12.9%	11.2%	10.7%	48.0%		
15	Subtotal Debt Service	\$ 2,431,950							
Capital									
16	San Jose Capital	\$ 3,875,286	17.3%	12.9%	11.2%	10.7%	48.0%		
17	City Capital	1,074,509	100.0%						
19	Subtotal Capital	\$ 4,949,795							
18	Contribution to Reserves	1,481,807	100.0%						
20	Misc. Revenues	(69,132)							100.0%
21	Subtotal Expenses	\$ 23,539,248	\$ 9,945,137	\$ 2,612,009	\$ 2,240,114	\$ 2,158,860	\$ 2,719,753	\$ 739,757	\$ 3,123,618
22	Reallocation of General		\$ 1,521,619	\$ 399,641	\$ 342,740	\$ 330,308	\$ 416,126	\$ 113,184	\$ (3,123,618)
23	Total Expenses		\$ 11,466,756	\$ 3,011,650	\$ 2,582,854	\$ 2,489,168	\$ 3,135,878	\$ 852,941	\$ -

10.1. Customer Class Costs

Unit costs developed in Line 25 of **Table 10-3** are used to distribute costs to each customer class based on their contributed wastewater volume, strength loadings, and ERUs. The Unit Costs are multiplied by the service units to derive the cost to each class for each cost component. The final columns of this table compare the proposed cost of service revenue from each class and the revenue from each class if all rates were increased by the same percentage amount. Note that the weighted average percent change is equal to the 4 percent rate adjustment determined in the financial plan above.

Table 10-4: Customer Class Cost of Service

Customer Class Cost of								Total	Revenue at		
Line	Service	Volume	BOD	TSS	NH3	ERUs	Bills	Proposed Revenue	Current Rates	% Change	\$ Change
1	Single-Family	4,251,886	998,280	1,112,220	1,129,518	1,505,407	694,484	9,691,795	9,367,460	3.5%	324,335
2	Multi-Family	3,167,958	743,790	828,683	841,571	1,454,429	105,274	7,141,705	6,950,622	2.7%	191,083
3	Mobile Home	137,682	32,326	36,015	36,575	62,364	167	305,129	244,703	24.7%	60,425
4	Schools/Colleges	143,935	17,573	15,060	32,774	8,253	3,849	221,446	191,976	15.4%	29,469
5	Motels and Hotels	287,949	83,832	36,456	15,299	3,123	1,457	428,116	435,697	-1.7%	(7,581)
6	General Office	655,075	79,977	54,834	54,692	44,570	20,786	909,934	895,948	1.6%	13,986
7	City of Milpitas	53,546	6,537	4,482	4,471	4,681	2,183	75,900	78,027	-2.7%	(2,128)
8	Service Stations	63,778	10,781	18,685	-	5,046	2,353	100,643	101,641	-1.0%	(997)
9	Eat/Drink Establishments	494,060	579,990	289,492	37,499	20,543	9,580	1,431,166	1,194,489	19.8%	236,677
10	Convalescent Hosp/Daycare	57,413	12,401	5,106	6,536	2,873	1,340	85,670	87,712	-2.3%	(2,043)
11	Personal Services, Laundrys	89,576	12,619	10,310	3,399	6,943	3,238	126,085	133,454	-5.5%	(7,370)
12	Electrical/Electronics	584,967	16,481	9,181	133,197	12,254	5,715	761,794	749,218	1.7%	12,576
13	Machinery Manufacture	19,847	5,405	11,422	-	1,682	784	39,140	33,479	16.9%	5,661
14	RockTenn (Jefferson Smurfit)	16,392	26,890	681	2,128	120	56	46,266	44,841	3.2%	1,425
15	T. Marzetti Co.	88,837	129,755	2,896	276	239	112	222,116	240,313	-7.6%	(18,197)
16	Prudential Overall Supply	55,569	30,438	15,654	641	239	112	102,654	87,506	17.3%	15,148
17	Evoqua Water Technologies	162,962	4,428	25,341	1,472	239	112	194,554	214,691	-9.4%	(20,137)
18	Elmwood Rehabilitation	247,503	117,859	88,485	47,697	599	279	502,421	432,259	16.2%	70,162
19	Linear Technology	384,213	6,394	10,062	73,546	718	335	475,269	493,500	-3.7%	(18,231)
20	DS Waters of America	3,269	5	6	0	239	112	3,631	4,007	-9.4%	(376)
21	Magic Tech & Headway Tech	204,408	86,274	1,033	2,529	239	112	294,595	279,113	5.5%	15,483
22	Lucky Pure Water	3,216	393	269	268	120	56	4,322	4,597	-6.0%	(275)
23	Milpitas Materials	283	35	24	24	120	56	540	554	-2.5%	(14)
24	Union Pacific Railroad	6,731	1,138	1,972	-	239	112	10,192	9,547	6.8%	646
25	Cisco	285,701	8,049	4,484	65,054	599	279	364,167	358,539	1.6%	5,628
26	Total	\$ 11,466,756	\$ 3,011,650	\$ 2,582,854	\$ 2,489,168	\$ 3,135,878	\$ 852,941	\$ 23,539,248	\$ 22,633,892	4.0%	905,356

11. Proposed Wastewater Rates

Section 11 details the proposed water rate calculations. Proposed FY 2024 rates are calculated directly from the results of the COS allocations (from **Section 10**). All proposed rates beginning in FY 2025 are calculated by simply increasing the prior year's proposed rate by the annual revenue adjustment (from **Table 9-11**).

11.1. Proposed FY 2024 Fixed Meter Charges

Table 11-1 shows the detailed calculation of proposed FY 2024 Fixed Charges. The charge for the single family, multifamily, and mobile home classes recover the entire revenue requirement for these classes shown on Lines 1 to 3 of **Table 10-4**; these customers will not pay a volumetric charge. The rate is calculated by dividing the total cost by the number of billed bi-monthly ERUs.

Table 11-1: Proposed FY 2024 Fixed Charge Calculation

Line	Class Fixed Charge	Cost	Bills / ERUs	Proposed Rate	Current Rate	% Change	\$ Change
1	Single-Family	\$ 9,691,795	75,459	\$ 128.44	\$ 124.14	3.5%	\$4.30
2	Multi-Family	7,141,705	72,904	97.96	95.34	2.7%	2.62
3	Mobile Home	305,129	3,126	97.61	78.28	24.7%	19.33
4	Schools/Colleges	12,103	414	29.25	27.35	7.0%	1.90
5	Motels and Hotels	4,580	157	29.25	27.35	7.0%	1.90
6	General Office	65,356	2,234	29.25	27.35	7.0%	1.90
7	City of Milpitas	6,864	235	29.25	27.35	7.0%	1.90
8	Service Stations	7,399	253	29.25	27.35	7.0%	1.90
9	Eat/Drink Establishments	30,123	1,030	29.25	27.35	7.0%	1.90
10	Convalescent Hosp/Daycare	4,213	144	29.25	27.35	7.0%	1.90
11	Personal Services, Laundrys	10,180	348	29.25	27.35	7.0%	1.90
12	Electrical/Electronics	17,968	614	29.25	27.35	7.0%	1.90
13	Machinery Manufacture	2,466	84	29.25	27.35	7.0%	1.90
14	RockTenn (Jefferson Smurfit)	176	6	29.25	27.35	7.0%	1.90
15	T. Marzetti Co.	351	12	29.25	27.35	7.0%	1.90
16	Prudential Overall Supply	351	12	29.25	27.35	7.0%	1.90
17	Evoqua Water Technologies (351	12	29.25	27.35	7.0%	1.90
18	Elmwood Rehabilitation	878	30	29.25	27.35	7.0%	1.90
19	Linear Technology	1,053	36	29.25	27.35	7.0%	1.90
20	DS Waters of America	351	12	29.25	27.35	7.0%	1.90
21	Magic Tech & Headway Tech	351	12	29.25	27.35	7.0%	1.90
22	Lucky Pure Water	176	6	29.25	27.35	7.0%	1.90
23	Milpitas Materials	176	6	29.25	27.35	7.0%	1.90
24	Union Pacific Railroad	351	12	29.25	27.35	7.0%	1.90
25	Cisco	878	30	29.25	27.35	7.0%	1.90

11.2. Proposed FY 2024 Volume Charges

Table 7-2 shows the proposed FY 2024 Volume Charges. The costs for commercial classes are the sum of the volume and pollutant rate components shown in **Table 10-4**. This cost is divided by the amount of billable wastewater as previously shown in **Table 10-1**.

Table 11-2: Proposed FY 2023 Volume Charge Calculation

Volume Charge				Proposed				
Line	Calculation	Cost	Volume (hcf)	Rate	Current Rate	% Change	\$ Change	
1	Single-Family							
2	Multi-Family							
3	Mobile Home							
4	Schools/Colleges	\$ 209,343	18,084	\$ 11.58	\$ 9.99	15.9%	\$1.59	
5	Motels and Hotels	423,536	75,029	5.64	5.75	-1.8%	(0.11)	
6	General Office	844,579	122,054	6.92	6.84	1.2%	0.08	
7	City of Milpitas	69,036	12,347	5.59	5.80	-3.6%	(0.21)	
8	Service Stations	93,245	16,618	5.61	5.70	-1.6%	(0.09)	
9	Eat/Drink Establishments	1,401,042	128,734	10.88	9.06	20.1%	1.82	
10	Convalescent Hosp/Daycare	81,457	14,960	5.45	5.60	-2.8%	(0.15)	
11	Personal Services, Laundrys	115,904	23,340	4.97	5.31	-6.5%	(0.34)	
12	Electrical/Electronics	743,826	108,991	6.82	6.72	1.6%	0.10	
13	Machinery Manufacture	36,674	3,698	9.92	8.43	17.6%	1.49	
14	RockTenn (Jefferson Smurfit)	46,091	4,271	10.79	10.46	3.2%	0.33	
15	T. Marzetti Co.	221,765	19,850	11.17	12.09	-7.6%	(0.92)	
16	Prudential Overall Supply	102,303	10,354	9.88	8.42	17.3%	1.46	
17	Evoqua Water Technologies	194,202	30,363	6.40	7.06	-9.4%	(0.66)	
18	Elmwood Rehabilitation	501,544	64,490	7.78	6.69	16.2%	1.09	
19	Linear Technology	474,216	71,587	6.62	6.88	-3.7%	(0.26)	
20	DS Waters of America	3,280	609	5.38	6.04	-10.8%	(0.66)	
21	Magic Tech & Headway Tech	294,244	38,085	7.73	7.32	5.5%	0.41	
22	Lucky Pure Water	4,146	838	4.95	5.29	-6.5%	(0.34)	
23	Milpitas Materials	364	74	4.95	5.29	-6.5%	(0.34)	
24	Union Pacific Railroad	9,841	1,254	7.85	7.35	6.8%	0.50	
25	Cisco	363,289	53,232	6.82	6.72	1.6%	0.10	

11.3. Proposed Five-Year Rate Schedule

Table 11-3 shows the proposed five-year schedule of water rates through FY 2027. Proposed FY 2024 Fixed Charges were calculated in the preceding subsections. All proposed rates beginning in FY 2025 are calculated by increasing the prior year's proposed rate by the proposed annual revenue adjustment (from **Table 9-11**). Current FY 2023 wastewater rates (from **Table 8-2**) are also shown.

Table 11-3: Proposed Five-Year Wastewater Rate Schedule

Line	Fixed Charge Schedule	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
1	Single-Family	124.14	128.44	133.58	138.93	144.49	150.27
2	Multi-Family	95.34	97.96	101.88	105.96	110.20	114.61
3	Mobile Home	78.28	97.61	101.52	105.59	109.82	114.22
4	Schools/Colleges	27.35	29.25	30.43	31.65	32.92	34.24
5	Motels and Hotels	27.35	29.25	30.43	31.65	32.92	34.24
6	General Office	27.35	29.25	30.43	31.65	32.92	34.24
7	City of Milpitas	27.35	29.25	30.43	31.65	32.92	34.24
8	Service Stations	27.35	29.25	30.43	31.65	32.92	34.24
9	Eat/Drink Establishments	27.35	29.25	30.43	31.65	32.92	34.24
10	Convalescent Hosp/Daycare	27.35	29.25	30.43	31.65	32.92	34.24
11	Personal Services, Laundrys	27.35	29.25	30.43	31.65	32.92	34.24
12	Electrical/Electronics	27.35	29.25	30.43	31.65	32.92	34.24
13	Machinery Manufacture	27.35	29.25	30.43	31.65	32.92	34.24
14	RockTenn (Jefferson Smurfit)	27.35	29.25	30.43	31.65	32.92	34.24
15	T. Marzetti Co.	27.35	29.25	30.43	31.65	32.92	34.24
16	Prudential Overall Supply	27.35	29.25	30.43	31.65	32.92	34.24
17	Evoqua Water Technologies	27.35	29.25	30.43	31.65	32.92	34.24
18	Elmwood Rehabilitation	27.35	29.25	30.43	31.65	32.92	34.24
19	Linear Technology	27.35	29.25	30.43	31.65	32.92	34.24
20	DS Waters of America	27.35	29.25	30.43	31.65	32.92	34.24
21	Magic Tech & Headway Tech	27.35	29.25	30.43	31.65	32.92	34.24
22	Lucky Pure Water	27.35	29.25	30.43	31.65	32.92	34.24
23	Milpitas Materials	27.35	29.25	30.43	31.65	32.92	34.24
24	Union Pacific Railroad	27.35	29.25	30.43	31.65	32.92	34.24
25	Cisco	27.35	29.25	30.43	31.65	32.92	34.24

Line	Volume Charge Schedule	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
1	Single-Family			-	-	-	-
2	Multi-Family			-	-	-	-
3	Mobile Home			-	-	-	-
4	Schools/Colleges	9.99	11.58	12.04	12.53	13.04	13.57
5	Motels and Hotels	5.75	5.64	5.88	6.12	6.37	6.63
6	General Office	6.84	6.92	7.20	7.49	7.79	8.11
7	City of Milpitas	5.80	5.59	5.82	6.06	6.31	6.57
8	Service Stations	5.70	5.61	5.84	6.08	6.33	6.59
9	Eat/Drink Establishments	9.06	10.88	11.32	11.78	12.26	12.76
10	Convalescent Hosp/Daycare	5.60	5.45	5.67	5.90	6.14	6.39
11	Personal Services, Laundrys	5.31	4.97	5.17	5.38	5.60	5.83
12	Electrical/Electronics	6.72	6.82	7.10	7.39	7.69	8.00
13	Machinery Manufacture	8.43	9.92	10.32	10.74	11.17	11.62
14	RockTenn (Jefferson Smurfit)	10.46	10.79	11.23	11.68	12.15	12.64
15	T. Marzetti Co.	12.09	11.17	11.62	12.09	12.58	13.09
16	Prudential Overall Supply	8.42	9.88	10.28	10.70	11.13	11.58
17	Evoqua Water Technologies	7.06	6.40	6.66	6.93	7.21	7.50
18	Elmwood Rehabilitation	6.69	7.78	8.09	8.42	8.76	9.12
19	Linear Technology	6.88	6.62	6.89	7.17	7.46	7.76
20	DS Waters of America	6.04	5.38	5.61	5.84	6.08	6.33
21	Magic Tech & Headway Tech	7.32	7.73	8.04	8.37	8.71	9.06
22	Lucky Pure Water	5.29	4.95	5.15	5.36	5.58	5.81
23	Milpitas Materials	5.29	4.95	5.15	5.36	5.58	5.81
24	Union Pacific Railroad	7.35	7.85	8.17	8.50	8.84	9.20
25	Cisco	6.72	6.82	7.10	7.39	7.69	8.00

11.4.Causes of Different Rate Changes

It is common in a cost of service study to have significantly different rate impacts for different customer classes. Although it is difficult to precisely quantify differences between rate calculations from previous studies to this current study, there are a few general factors that contribute to the differential impacts:

1. **Updated units of service:** the contributed volumes and pollutant strengths have been updated since the 2018 study. This is particularly important for the individually monitored commercial customers whose strengths are continuously monitored. The units of service for each class as a proportion of the whole customer base are used to determine the proportion of the total costs.
2. **Changes in expenses:** the structure of the City's expenses are significantly different in 2023 than in 2018. For example, the San Jose capital expense is over three times larger than previously, resulting in a higher proportion of total City costs allocated to the pollutant components. This disproportionately affects customers with a higher than average estimated strength, all of which are commercial customers.
3. **Updated methodology:** Although the approach to calculating the previous rates was valid and justifiable, Raftelis believes that making several changes to the allocation process results in rates with a closer link to actual costs. These changes include the allocation of customer service and billing costs to customer accounts rather than ERUs, treating all City O&M expenses similarly rather than allocating a portion of them on a fixed ERU basis, and adjusting the recovery of the excess capacity portion of the San Jose capital expense.

11.5.Mobile Home Rate Subsidy

Following the completion of the 2018 rate study, the City determined that the proposed rates for mobile home customers would increase too sharply and implemented a transfer of funds from outside the utility in order to reduce the rate for these customers. The mobile home rate proposed above in **Table 11-3** represents the full cost of service requirement for this class. If the City chose to do so, it could continue to provide a subsidy to these customers. Increasing the mobile home rate by 7.85% per year from FY 2024 to FY 2028 would bring these rates into alignment with the class cost of service requirement in FY 2028. The total subsidy over the study period is approximately \$109 thousand⁷.

Table 11-4: Mobile Home Subsidy Option

Line	Description	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
1	Subsidized Rate	\$ 78.28	\$ 84.42	\$ 91.05	\$ 98.20	\$ 105.91	\$ 114.22
2	% Rate Increase		7.85%	7.85%	7.85%	7.85%	7.85%
3	Revenue Recovered	\$ 244,703	\$ 263,911	\$ 284,627	\$ 306,969	\$ 331,065	\$ 357,052
4	COS Requirement		\$ 305,129	\$ 317,352	\$ 330,074	\$ 343,297	\$ 357,052
5	Annual Subsidy		41,217	32,724	23,105	12,233	-
6	Cumulative Subsidy		41,217	73,942	97,047	109,280	\$ 109,280

⁷ Raftelis prepared this calculation at the request of the City and do not endorse this approach. We recommend the City adopt cost of service rates to ensure equity between customer classes, maintain compliance with generally accepted rate setting principles, and Prop 218.

12. Combined Bill Impacts and Bill Comparison

Table 12-1 shows a combined bi-monthly bill for a single-family residential customer with a 5/8" meter using 14 hcf of water per billing period. The average annual increase to the total bill is approximately 5.3 percent per year.

Table 12-1: Combined Bi-Monthly Bill Impact

Line	Typical Bill - 14 hcf	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Water Charges							
1	Fixed Charge	\$ 34.10	\$ 35.87	\$ 38.21	\$ 40.70	\$ 43.35	\$ 46.17
2	Volume Charge	93.80	100.38	106.96	113.96	121.38	129.36
3	Capital Charge	15.12	15.96	16.80	17.64	18.62	19.60
4	Subtotal	\$ 143.02	\$ 152.21	\$ 161.97	\$ 172.30	\$ 183.35	\$ 195.13
5	<i>Percent Change</i>		6.4%	6.4%	6.4%	6.4%	6.4%
6	Wastewater Charges	\$ 124.14	\$ 128.44	\$ 133.58	\$ 138.93	\$ 144.49	\$ 150.27
7	<i>Percent Change</i>		3.5%	4.0%	4.0%	4.0%	4.0%
8	Total Charges	\$ 267.16	\$ 280.65	\$ 295.55	\$ 311.23	\$ 327.84	\$ 345.40
9	<i>Percent Change</i>		5.0%	5.3%	5.3%	5.3%	5.4%

Figure 12-2 shows a comparison of sample Single Family Residential bi-monthly bills with several nearby utilities. All bills are calculated based on a 5/8-inch or 3/4-inch water meter size and bi-monthly water use of 14 HCF. Note that many of the other agencies shown are either scheduled or expected to implement rate increases in FY 2024. Many factors affect the cost of serving water by the agency. Some of these factors include:

1. Tax revenue – some agencies receive tax revenue substantially lowering the revenue required from rates,
2. Water sources – agencies who buy more imported water usually pay more for water compared to purveyors who pump groundwater,
3. Topography – hilly agencies will incur costs to pump water compared to agencies with flat topography,
4. System reinvestment – deferred investment in rehabilitation projects will keep rates low compared to agencies are investing in their system,
5. Age – newer systems are often in better shape than older systems and require less repair,
6. Size – smaller systems often have a higher cost per customer since they lack economies of scale.

Figure 12-1: Single Family Residential Water Bill Comparison with Neighboring Agencies

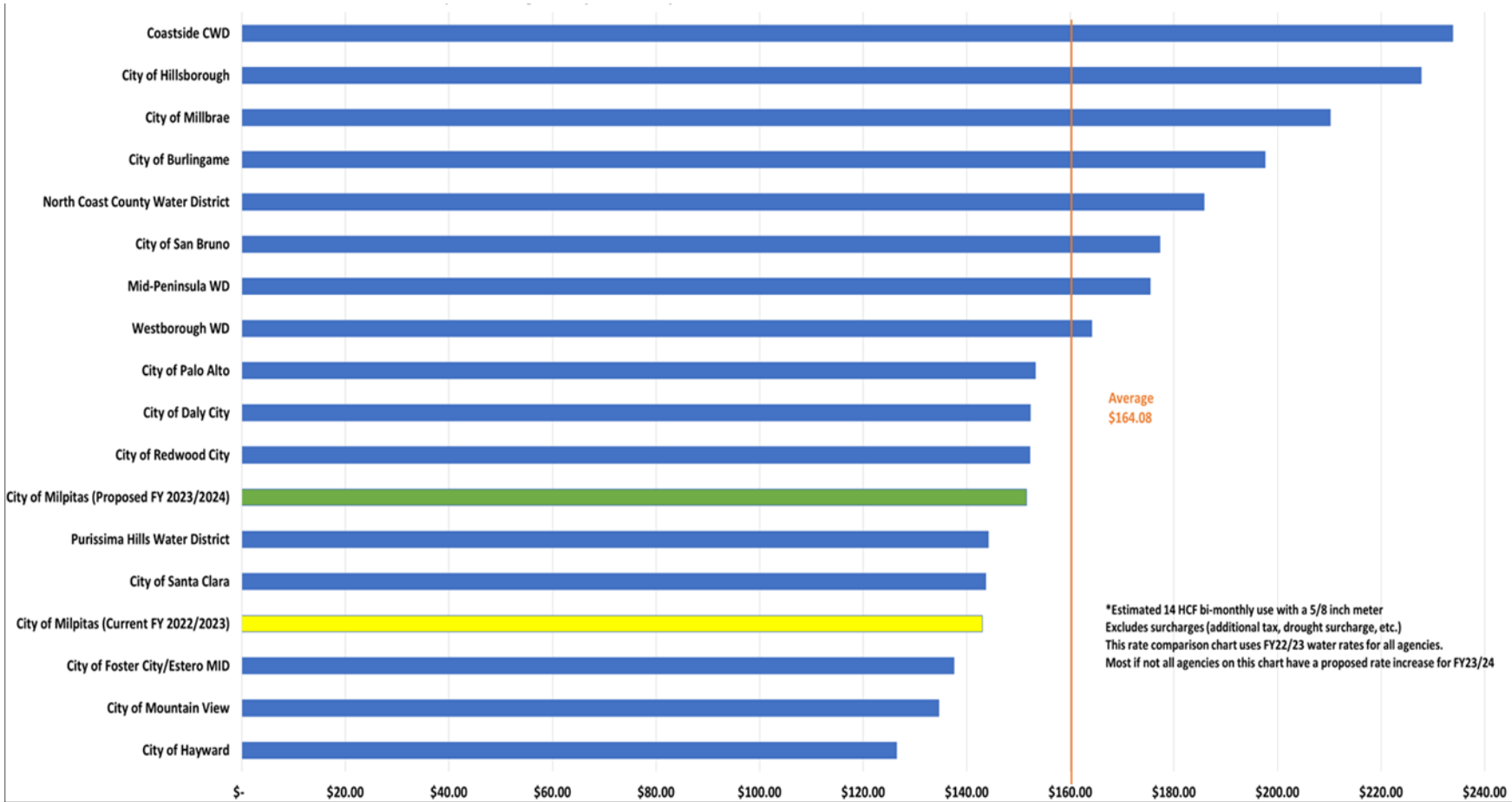
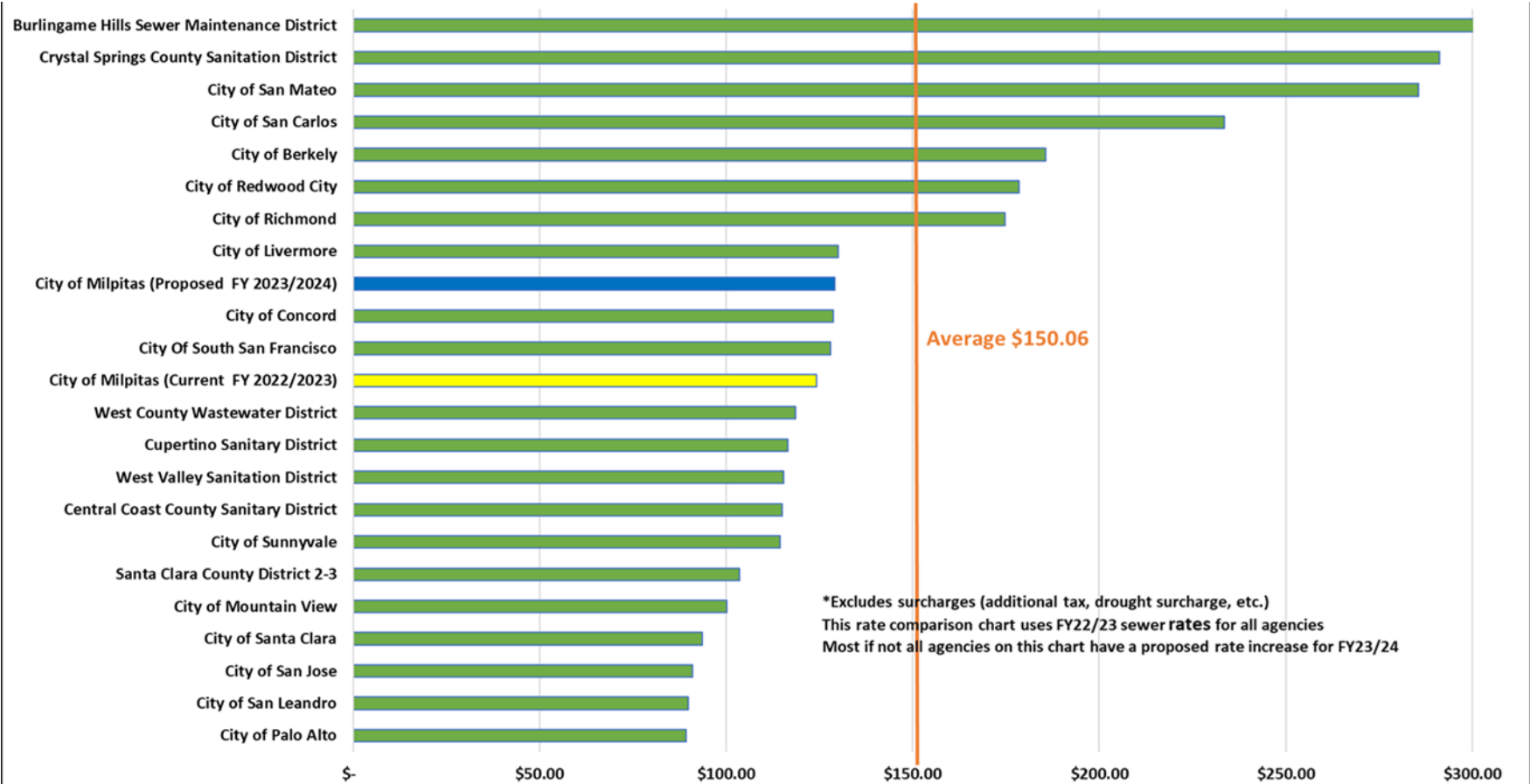
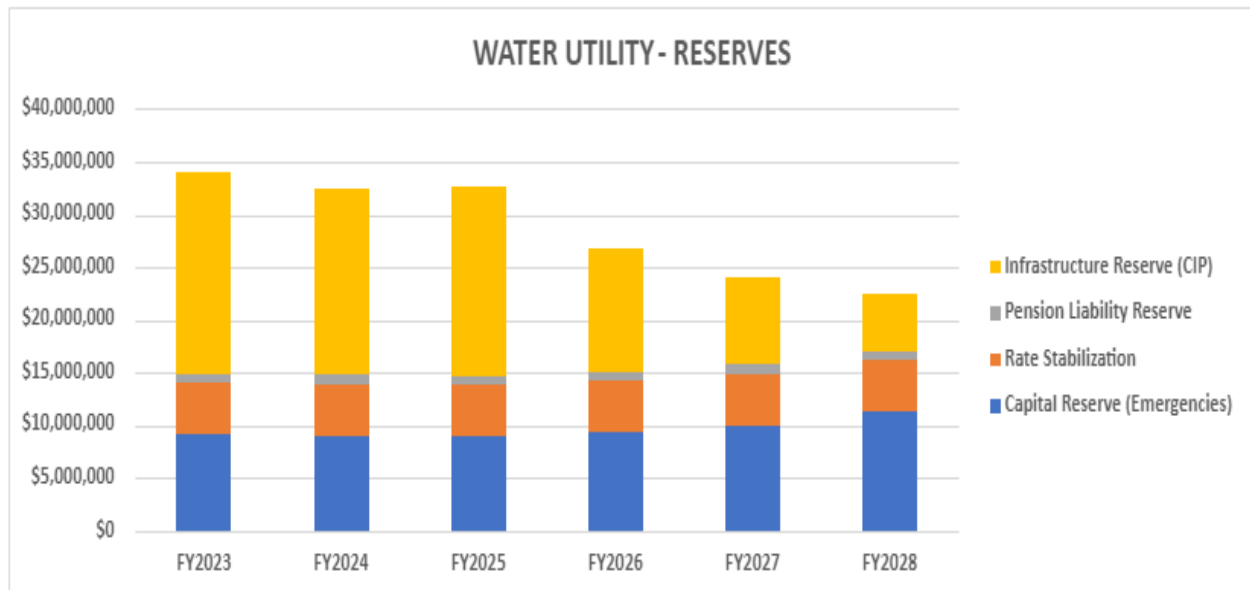


Figure 12-2: Single Family Residential Wastewater Bill Comparison with Neighboring Agencies



Water Utility Fund Reserve Analysis



Water Proposed Maximum Rate / Charge Fee Schedule

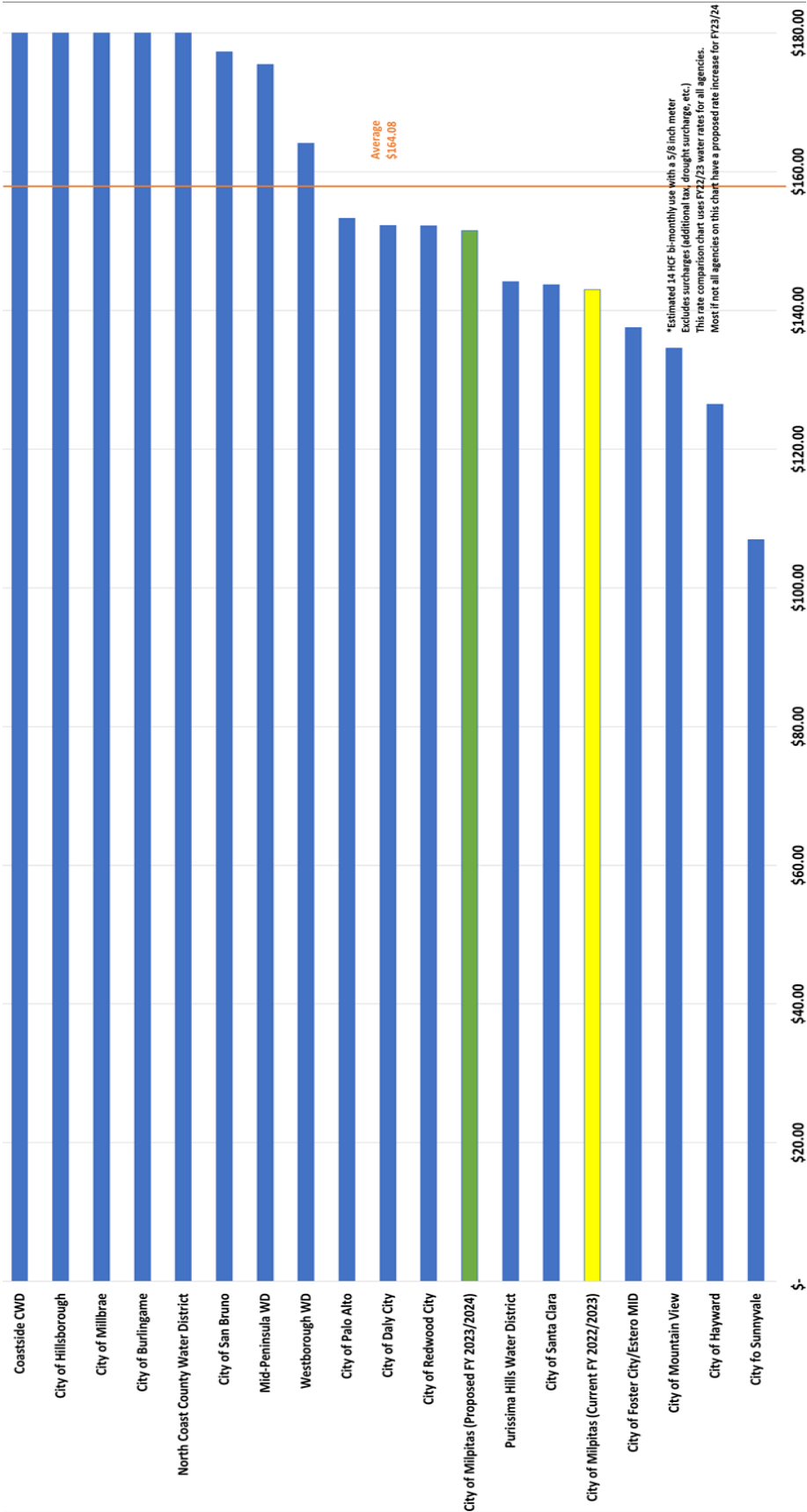
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Bi-Monthly Potable Fixed							
Line	Charges	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
1	5/8"	\$ 34.10	\$ 35.87	\$ 38.21	\$ 40.70	\$ 43.35	\$ 46.17
	% Increase		5.2%	6.5%	6.5%	6.5%	6.5%
2	3/4"	51.14	47.03	50.09	53.35	56.82	60.52
	% Increase		-8.0%	6.5%	6.5%	6.5%	6.5%
3	1"	85.24	69.34	73.85	78.66	83.78	89.23
	% Increase		-18.7%	6.5%	6.5%	6.5%	6.5%
4	1 1/2"	170.48	125.14	133.28	141.95	151.18	161.01
	% Increase		-26.6%	6.5%	6.5%	6.5%	6.5%
5	2"	272.76	192.10	204.59	217.89	232.06	247.15
	% Increase		-29.6%	6.5%	6.5%	6.5%	6.5%
6	3"	511.43	404.13	430.40	458.38	488.18	519.92
	% Increase		-21.0%	6.5%	6.5%	6.5%	6.5%
7	4"	852.38	716.60	763.18	812.79	865.63	921.90
	% Increase		-15.9%	6.5%	6.5%	6.5%	6.5%
8	6"	1,704.76	1,464.29	1,559.47	1,660.84	1,768.80	1,883.78
	% Increase		-14.1%	6.5%	6.5%	6.5%	6.5%
9	8"	1,704.76	3,138.22	3,342.21	3,559.46	3,790.83	4,037.24
	% Increase		84.1%	6.5%	6.5%	6.5%	6.5%
10	10"	1,704.76	4,700.56	5,006.10	5,331.50	5,678.05	6,047.13
	% Increase		175.7%	6.5%	6.5%	6.5%	6.5%

Bi-Monthly Recycled Fixed							
Line	Charges	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
1	5/8"	\$ 34.10	\$ 13.54	\$ 14.43	\$ 15.37	\$ 16.37	\$ 17.44
	% Increase		-60.3%	6.6%	6.5%	6.5%	6.5%
2	3/4"	51.14	13.54	14.43	15.37	16.37	17.44
	% Increase		-73.5%	6.6%	6.5%	6.5%	6.5%
3	1"	85.24	13.54	14.43	15.37	16.37	17.44
	% Increase		-84.1%	6.6%	6.5%	6.5%	6.5%
4	1 1/2"	170.48	13.54	14.43	15.37	16.37	17.44
	% Increase		-92.1%	6.6%	6.5%	6.5%	6.5%
5	2"	272.76	13.54	14.43	15.37	16.37	17.44
	% Increase		-95.0%	6.6%	6.5%	6.5%	6.5%
6	3"	511.43	13.54	14.43	15.37	16.37	17.44
	% Increase		-97.4%	6.6%	6.5%	6.5%	6.5%
7	4"	852.38	13.54	14.43	15.37	16.37	17.44
	% Increase		-98.4%	6.6%	6.5%	6.5%	6.5%
8	6"	1,704.76	13.54	14.43	15.37	16.37	17.44
	% Increase		-99.2%	6.6%	6.5%	6.5%	6.5%
9	8"	1,704.76	13.54	14.43	15.37	16.37	17.44
	% Increase		-99.2%	6.6%	6.5%	6.5%	6.5%
10	10"	1,704.76	13.54	14.43	15.37	16.37	17.44
	% Increase		-99.2%	6.6%	6.5%	6.5%	6.5%

Line	Volume Charges	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
1	Potable	\$ 6.70	\$ 7.17	\$ 7.64	\$ 8.14	\$ 8.67	\$ 9.24
	% Increase		7.0%	6.6%	6.5%	6.5%	6.6%
2	Recycled	4.51	5.41	5.77	6.15	6.55	6.98
	% Increase		20.0%	6.6%	6.6%	6.5%	6.6%
3	Capital	1.08	1.14	1.20	1.26	1.33	1.40
	% Increase		5.6%	5.3%	5.0%	5.6%	5.3%

Water Bill Comparison for Single Family



Milpitas Assistance Program

Item # 22.

WHAT DISCOUNTS ARE AVAILABLE?

TIER 1

Customers are eligible for ARPA-funded childcare subsidies; 75% off on City-run Recreation programs to a maximum of \$1,000 per household; modest discounts on bi-monthly water and sewer utility bills; and 100% waiver of residential permit fees on water heater, furnace, air conditioner or replacement electrical panel change-outs. Tier 1 customers also are permitted to pay for Recreation programs over time on a payment plan.

TIER 2

Customers are eligible for ARPA-funded childcare subsidies; 50% off on City-run Recreation programs to a maximum of \$750 per household; modest discounts on bi-monthly water and sewer utility bills; and 75% off residential permit fees on water heater, furnace, air conditioner replacements or electrical panel change-outs. Tier 2 customers also are permitted to pay for Recreation programs over time on a payment plan.

TIER 3

Customers are eligible for ARPA-funded childcare subsidies; 75% off on City-run Recreation programs to a maximum of \$750 per household; and 75% off residential permit fees on water heater, furnace, air conditioner replacements or electrical panel change-outs. Tier 3 customers are permitted to pay for Recreation programs and water utility service over time on a payment plan. The City of Milpitas waives late fees on water and sewer utility bills incurred during your period of eligibility as a Tier 3 customer.

TIER 4

Customers are eligible for ARPA-funded childcare subsidies. No other MAP benefits are offered at this time.

Note: Childcare subsidies require additional application paperwork.

The City of Milpitas may adjust the discounts annually depending on program demand and funds available.

WHERE CAN I GET MORE INFORMATION?

Information is available online in English, Spanish, Chinese and Vietnamese at www.milpitas.gov/MAP.

For assistance by phone, or to make an appointment to meet in person with City of Milpitas Staff at the Barbara Lee Senior Center at 40 N. Milpitas Blvd., call **(408) 586-3405**.

The City of Milpitas is a welcoming and inclusive community. When assistance notices are mailed, we make reasonable efforts to accommodate special needs and translation requests.

HOW DOES THE PROGRAM WORK?

Submit an application and the requested assistance to the City of Milpitas Social Services Coordinator. If you qualify, you will receive a letter confirming your eligibility. For Recreation and Water/ Sewer discounts, you will automatically receive your discount. Discount amount subject to change annually in July. Water/ sewer discounts will begin with the next billing cycle. Discounts cannot be applied retroactively to previously made payments. Tiers 1, 2 and 4 customers are eligible for one year. Tier 3 customers are eligible for 6 months. When your eligibility expires, you must re-apply. Tier 3 customers may reapply once per hardship.

OTHER RESOURCES

MAP only provides discounts off City of Milpitas fees. MAP does not include discounts to individual customers, not to any third parties, including landlords, PG&E, contractors, retail businesses or other recreation providers.

For housing assistance resources, contact the Building Safety and Housing Department, (408) 586-3240, or www.milpitas.gov/housingresources.

For energy assistance resources, contact the Low-Income Home Energy Assistance Program <https://www.acl-hhs.gov/oc/programs/lehap>

For assistance with third-party recreation programs, contact the provider directly.

WHO IS ELIGIBLE?

# of People in Household	Household Income			Eligible for MAP Tier 4 Benefits
	Eligible for MAP Tier 1 Benefits	Eligible for MAP Tier 2 Benefits	Eligible for MAP Tier 3 Benefits	
1	\$59,000	\$92,250	\$117,950	
2	\$67,400	\$105,400	\$134,800	
3	\$75,850	\$118,600	\$151,650	
4	\$84,250	\$131,750	\$168,500	
5	\$91,000	\$142,300	\$182,000	
6	\$97,750	\$152,850	\$195,450	
7	\$104,500	\$163,400	\$208,950	
8	\$111,250	\$173,950	\$222,400	

*These figures are based on 2022 HUD Income Limits for Santa Clara County and are subject to change. HUD Income Limits are revised annually in late Spring.


Customers who participate in qualifying Federal, State or County assistance programs or your household is a Veteran, are eligible for MAP discounts. Tier 1: Those who are at or below HUD Low Income Limits for Santa Clara County are Tier 1. Those who are at or below HUD Median Income Limits for Santa Clara County are Tier 2. Those who are at or below HUD Low Income Limits for Santa Clara County are Tier 3. Individuals and families experiencing temporary financial hardship due to job loss, loss of a primary wage earner, serious illness or a government shutdown are Tier 3.

WHEN CAN I APPLY?

The City of Milpitas offers continuous enrollment. Customers are eligible for discounts for one year from the date of approval and must reapply annually to verify their income level. MAP discounts will automatically cease if the customer does not reapply.

YOU OR SOMEONE YOU KNOW MAY QUALIFY FOR DISCOUNTS

Recreation Programs | Childcare Subsidies | Water and Sewer Utility Bills Permits for Residential Water Heater, Furnace, Air Conditioning or Electrical Panel Replacement



For more information, contact us at (408) 586-3405 or visit www.milpitas.gov/MAP

Last updated 7/2022