



**CITY OF HAYWARD**

# **Water, Recycled Water, and Wastewater Rate Study**

**FINAL REPORT / September 14, 2023**



**CITY OF  
HAYWARD**  
HEART OF THE BAY





September 14, 2023

Alex Ameri  
Director of Public Works  
City of Hayward  
77 B Street  
Hayward, CA 94541

**Subject: Water, Recycled Water, and Wastewater Rate Study Report**

Dear Alex Ameri,

Raftelis Financial Consultants, Inc. (Raftelis) is pleased to provide this report for the City of Hayward's (City) Water, Recycled Water, and Wastewater Rate Study.

The major objectives of the Rate Study include:

- » Developing a long-term financial plan that sufficiently funds operating expenses, capital replacement and improvement costs, and prudent reserve balances
- » Calculating rates that fully recover costs to serve customers, while minimizing rate impacts, and promoting affordability for essential needs
- » Preparing a Study Report, also referred to as an administrative record, that clearly and comprehensively explains each step of the rate study process

This report details the long-term financial plan, cost of service analysis, and proposed rates for the City's water, wastewater, and recycled water utilities. The financial plan identifies the projected revenue needs and revenue adjustments over the next five years, which inform two years of proposed rates.

Sincerely,



**Kevin Kostiuk**  
*Project Manager*



**Lindsay Roth**  
*Consultant*

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# 1. Executive Summary

## 1.1. Study Background

In 2022, the City of Hayward (City) contracted with Raftelis to conduct a Water, Recycled Water, and Wastewater Rate Study, which includes the development of a long-term financial plan and rate calculations. The study culminates in two years of rate recommendations based on the results of the financial planning exercise. This Executive Summary outlines the rate proposal and contains a description of the rate study process, methodology, and recommendations for the City's water, recycled water, and wastewater rates.

## 1.2. Rate Objectives

Raftelis worked with City staff to prioritize objectives for the proposed water, recycled water, and wastewater rates. These prioritized objectives include ensuring fairness and equity between customer classes and minimizing impacts on customers. The proposed rates for all utilities are a result of the financial plan results, which apply revenue adjustments based on existing rates. While the study shows rate recommendations for five years, the City proposes only two years of rates to be adopted and implemented.

## 1.3. Current Rates

### 1.3.1. Water

The City's current water rates were implemented on October 1, 2022 and include a bi-monthly service charge based on meter size, a bi-monthly fire protection service charge based on fire line diameter (for only those customers requiring private fire service), and a tiered usage rate charged for every hundred cubic feet (ccf<sup>1</sup>) of water used. **Table 1-1** shows the current bi-monthly service charges by meter size. **Table 1-2** shows the current bi-monthly fire service charges by fire line diameter. Fire lines are designed to provide water sufficient volume and pressure required to operate private fire suppression systems.

**Table 1-3** shows the current water usage rates by customer class and bi-monthly tiers.

**Table 1-1: Current Bi-Monthly Service Charges**

Line	A	B
	Meter Size	Bi-Monthly Charges
1	5/8" Low Income	\$11.28
2	3/4" Low Income	\$15.74
3	1" Low Income	\$24.66
4	5/8"	\$32.22
5	3/4"	\$44.96
6	1"	\$70.45
7	1 1/2"	\$134.16
8	2"	\$210.61
9	3"	\$452.70
10	4"	\$809.46
11	6"	\$1,663.14
12	8"	\$3,574.36

<sup>1</sup> One ccf is equal to 748 gallons of water. The first "c" in ccf is the Latin word for hundred, "centum".

13 10" \$5,358.18

**Table 1-2: Current Bi-Monthly Fire Service Charges**

Line	Fire Line Diameter	Bi-Monthly Charges
1	5/8"	\$6.85
2	3/4"	\$6.93
3	1"	\$7.14
4	1 1/2"	\$7.89
5	2"	\$9.20
6	3"	\$13.90
7	4"	\$21.99
8	6"	\$51.01
9	8"	\$101.08
10	10"	\$176.39

**Table 1-3: Current Water Usage Rates (\$/ccf)**

Line	A			B		C	
	Customer Class			Bi-Monthly Tiers (ccf)		Usage Charges (\$/ccf)	
1	<b>Residential</b>						
2	Tier 1			8		\$6.23	
3	Tier 2			18		\$7.40	
4	Tier 3			18+		\$9.09	
5							
6	<b>Commercial / Industrial</b>						
7	Tier 1			110		\$6.76	
8	Tier 2			110+		\$7.94	
9							
10	<b>Irrigation</b>						
11	Tier 1			170		\$8.00	
12	Tier 2			170+		\$10.18	
13							
14	<b>Hydrant</b>			Uniform		\$7.53	

### 1.3.2. Recycled Water

The City’s current recycled water rates were implemented on October 1, 2022 and include a bi-monthly service charge based on meter size and a uniform usage rate charged for every ccf of recycled water used. **Table 1-4** shows the current bi-monthly service charges by meter size. The bi-monthly service charges are the same as the water utility’s bi-monthly service charges by meter size. **Table 1-5** shows the current uniform water usage rate.

**Table 1-4: Current Bi-Monthly Recycled Water Service Charges**

	A	B
Line	Meter Size	Bi-Monthly Charges
1	5/8"	\$32.22
2	3/4"	\$44.96
3	1"	\$70.45
4	1 1/2"	\$134.16
5	2"	\$210.61
6	3"	\$452.70
7	4"	\$809.46
8	6"	\$1,663.14
9	8"	\$3,574.36
10	10"	\$5,358.18

**Table 1-5: Current Recycled Water Usage Rates (\$/ccf)**

	A	B	C
Line	Customer Class	Bi-Monthly Tiers	Usage Charge (\$/ccf)
1	Recycled Water	Uniform	\$5.16

### 1.3.3. Wastewater

The City’s current wastewater rates were implemented on October 1, 2022 and include a bi-monthly service charge for residential customers, a usage rate for coded commercial customers charged for every ccf of water used, and a usage rate for critical commercial customers charged for every ccf of wastewater flow and for every pound of carbonaceous biochemical oxygen demand (CBOD) and every pound of total suspended solids (TSS). **Table 1-6** shows the current bi-monthly residential service charges by customer class. **Table 1-7** shows the current usage rates for coded commercial customers. **Table 1-8** shows the current usage rates for critical commercial customers for flow, CBOD, and TSS.

**Table 1-6: Current Bi-Monthly Residential Wastewater Charges**

	A	B
Line	Residential Customers	Current Charge
1	Standard Residential	\$77.16
2	Multi-Family (charge per unit)	\$68.68
3	Mobile Home (charge per unit)	\$54.02
4	Economy (5 to 8 units of metered water usage)	\$36.14
5	Lifeline (0 to 4 units of metered water usage)	\$18.08

Table 1-7: Current Wastewater Usage Charges for Coded Commercial Customers

Line	Coded Users	B Current Rate (\$/ccf)
1	<b>With Irrigation Meters</b>	
2	Meat Products	\$13.42
3	Slaughterhouse	\$15.44
4	Dairy Products Processor	\$11.07
5	Canning & Packing	\$7.88
6	Grain Mills	\$10.39
7	Bakeries	\$12.01
8	Fats & Oils	\$7.48
9	Beverage Bottling	\$7.11
10	Food Manufacturer	\$26.49
11	Pulp & Paper Products Manufacturer	\$9.12
12	Inorganic Chemicals	\$12.67
13	Paint Manufacturer	\$19.75
14	Leather Tanning	\$26.01
15	Fabricated Metal	\$3.76
16	Eating Places (w/o grease interceptor)	\$11.80
17	Commercial Laundry	\$7.04
18	Industrial Laundry	\$10.94
19	Eating Places (w/ grease interceptor)	\$9.11
20	Other Domestic Strength Users - Commercial/Institutional/Govt	\$6.97
21	<b>Without Irrigation Meters</b>	
22	Meat Products	\$12.08
23	Slaughterhouse	\$13.90
24	Dairy Products Processor	\$9.96
25	Canning & Packing	\$7.09
26	Grain Mills	\$9.35
27	Bakeries	\$10.81
28	Fats & Oils	\$6.73
29	Beverage Bottling	\$6.40
30	Food Manufacturer	\$23.84
31	Pulp & Paper Products Manufacturer	\$8.20
32	Inorganic Chemicals	\$11.41
33	Paint Manufacturer	\$17.78
34	Leather Tanning	\$23.40
35	Fabricated Metal	\$3.39
36	Eating Places (w/o grease interceptor)	\$10.62
37	Commercial Laundry	\$6.33
38	Industrial Laundry	\$9.84
39	Eating Places (w/ grease interceptor)	\$8.20
40	Other Domestic Strength Users - Commercial/Institutional/Govt	\$6.28

**Table 1-8: Current Wastewater Usage Charges for Critical Commercial Customers**

	A	B
Line	Critical Users	Current Rate (\$/ccf or lb)
1	Volume – Cost per ccf	\$3.32
2	CBOD – Cost per pound	\$0.77
3	Suspended Solids – Cost per pound	\$1.03

## 1.4. Process and Approach

Raftelis held several meetings with City staff to discuss and understand objectives, characteristics, and challenges of the City’s water, recycled water, and wastewater utilities to provide the recommendations and results in this report. Raftelis confirmed various assumptions and inputs and used an iterative process to view several scenarios to determine the recommended financial plan and rates for service. City staff discussed capital project requirements and water purchase cost estimates over a 10-year horizon, which are two primary drivers of the future revenue needs of the utilities. Raftelis then designed and presented financial plans for each utility to analyze various rate scenarios to fully fund each utility’s revenue requirements through fair, equitable, and defensible cost-based rates.

The proposed financial plans detailed in this report follow industry standards for long-term financial planning. The financial plans rely on reasonable assumptions based on industry indices, such as general inflation based on the Consumer Price Index (CPI), and input from City staff. Raftelis worked closely with City staff to determine the most accurate methodology to project future revenues and expenses to reinforce sound fiscal management practices.

The financial plans include the current fiscal year (FY) 2023 and the five-year period between FY 2024 to FY 2028. Each fiscal year begins on July 1 and ends on June 30. For example, FY 2023 is defined as the year beginning on July 1, 2022 and ending June 30, 2023. The proposed rates were developed for implementation on October 1, 2023 in FY 2024 and October 1, 2024 in FY 2025.

## 1.5. Legal Framework<sup>2</sup>

### 1.5.1. California Constitution – Article XIII D, Section 6 (Proposition 218)

Proposition 218 was enacted by voters in 1996 to ensure, in part, that fees and charges imposed for ongoing delivery of a service to a property (property-related fees and charges) are proportional to, and do not exceed, the cost of providing service. Water, recycled water, and wastewater service fees and charges are property-related fees and charges subject to the provisions of California Constitution Article XIII D, Section 6 (Proposition 218). The principal requirements, as they relate to public utility service fees and charges are as follows:

1. Revenues derived from the fee or charge shall not exceed the costs required to provide the property-related service.

<sup>2</sup> Raftelis does not practice law, nor does it provide legal advice. The above discussion provides a general overview of Raftelis’ understanding as rate practitioners and is labeled “legal framework” for literary convenience only. The City should consult with its legal counsel for clarification and/or specific guidance.

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

Water and wastewater rates and charges should be recovered from classes of customers in proportion to the cost of serving those customers. Proposition 218 requires a clear nexus between the costs and the rates charged meaning that the rate-setting methodology must be sound and based on cost of service principles. Raftelis follows industry standard rate setting methodologies set forth by the American Water Works Association (AWWA) M1 Manual for water and recycled water rates and the Water Environment Federation (WEF) Manual of Practice (MOP) 27 for wastewater rates. This ensures that the results of this study align with the requirements of Proposition 218 and that proposed rates do not exceed the proportionate cost of providing water, wastewater, and recycled water service.

### **1.5.2. California Constitution – Article X, Section 2**

Article X, Section 2 of the California Constitution states the following:

*“It is hereby declared that because of the conditions prevailing in this State the general welfare requires that the water resources of the State be put to beneficial use to the fullest extent of which they are capable, and that the waste or unreasonable use or unreasonable method of use of water be prevented, and that the conservation of such waters is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare.”*

Article X, Section 2 of the State Constitution establishes the need to preserve the state’s water supplies and to discourage the waste or unreasonable use of water by encouraging conservation. Public agencies are constitutionally mandated to maximize the beneficial use of water, prevent waste, and encourage conservation.

In addition, Section 106 of the California Water Code declares that the highest priority use of water is for domestic purposes, with irrigation water secondary. To meet the objectives of Article X, Section 2 and the California Water Code, a water purveyor may utilize its water rate design to incentivize the efficient use of water. The City established tiered water rates (also known as “inclining tier” or “inclining block”) water rates to incentivize customers to use water in an efficient manner. The inclining tier rates (as well as rates for uniform rate classes) need to be based on the proportionate costs incurred to provide water to, and within, each customer class to achieve compliance with Proposition 218.

Tiered water rate structures, when properly designed and differentiated by customer class, allow a water utility to send conservation price signals to customers while proportionately allocating the costs of service. Due to a necessity in reducing water waste and increasing efficiency, tiered water rates are ubiquitous, especially in relatively water-scarce regions like California. Tiered rates align with the requirements of Proposition 218 so long as the tiered rates reflect the proportionate cost of providing service *within* each tier.



## 1.6. Financial Plan Results and Recommendations

### 1.6.1. Water

#### 1.6.1.1. Factors Affecting Revenue Requirements

The following items affect the water utility’s revenue requirement (i.e., costs) and thus its water rates. The utility’s expenses include Operations and Maintenance (O&M) expenses, capital projects, debt service, and reserve funding.

- Water Supply Costs:** The City purchases all its potable water from the San Francisco Public Utilities Commission (SFPUC). For FY 2024, the estimated cost of purchasing water from SFPUC is \$36.7 million, approximately 65% of the City’s water operating budget. This purchase cost is expected to increase to \$45.2 million by FY 2032. SFPUC costs are projected to increase on average by 3.5% per year during the study period. However, rate increases implemented by SFPUC can be unpredictable. Since the cost of purchasing water from SFPUC makes up most of the City’s annual water operating budget, an unexpected rate increase has the potential to significantly impact the City’s ratepayers and financial position.
- Capital Funding:** The water utility has approximately \$47.7 million in planned capital expenditures from FY 2024 through FY 2028 and \$86.7 million over the study’s financial planning horizon (through FY 2032). Planned capital improvement program (CIP) costs are anticipated to be entirely funded through net rate revenues and existing and future reserves.
- Reserve Funding:** The City’s current reserve policy consists of a reserve target equal to approximately 25% of annual O&M expenses, 100% of the rolling average of five years of rate-funded capital, and 25% of commodity rate revenues. **Table 1-9** shows a summary of the existing reserve policy and the reserve target for FY 2024.

**Table 1-9: Existing Reserve Policy and FY 2024 Targets**

	A	B	C
Line	Reserve Targets	Recommended Target Policy	FY 2024 Target
1	Operating	25% O&M Expenses	\$14,387,534
2	Capital	One Year of 5-year Average CIP	\$9,549,009
3	Rate Stabilization	25% of Commodity Revenues	\$11,973,031
4	<b>Total</b>		<b>\$35,909,573</b>
5			
6	<i>Days Cash on Hand</i>		<i>191</i>

#### 1.6.1.2. Financial Plan Results

**Table 1-10** shows the proposed revenue adjustments that allows the City to maintain financial sufficiency, fund operating and capital expenses, and achieve recommended cash reserves for the water utility. The proposed adjustments apply to the City’s rate revenues, which were projected for future years assuming no growth in customer accounts or demand during the study period. Water demand in FY 2022 represents the estimated baseline use for the City’s customers, which has stabilized after the last multi-year drought. Other agencies throughout California have observed similar stabilization and hardening of water demand in recent years. We assume no growth in customer demand throughout the period to conservatively project future rate revenues.

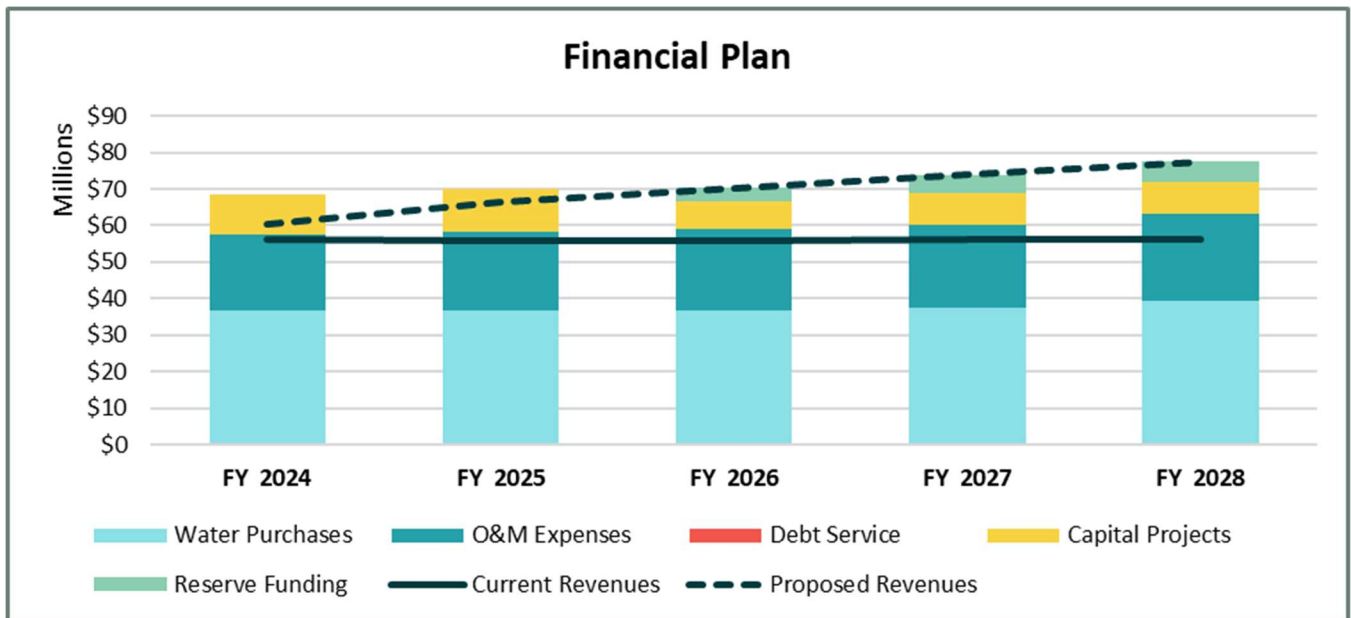
The proposed revenue adjustments represent the increase to total rate revenues required to recover the water utility’s costs. The proposed water rates are based on an across-the-board increase in the City’s existing rates, so the revenue adjustments also represent the expected impact to each customer.

**Table 1-10: Proposed Water Revenue Adjustments**

Line	Revenue Adjustments	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
1	Effective Month	October	October	October	October	October
2	Percent Adjustment	10%	10%	5%	5%	5%

**Figure 1-1** shows the five-year financial plan for FY 2024 through FY 2028. The stacked bars represent the costs of the water utility: O&M expenses, which include SFPUC costs, make up the largest portion (light blue bars). CIP costs (yellow bars) represent the costs of the rate funded capital program. Net cash flow (green bars) is negative in FY 2024 and FY 2025 and is therefore not shown on the figure during those years. This means that the City will draw from reserves to fund a portion of expenses in those years. Current revenues (solid line) equal the projected revenues at the City’s existing water rates and proposed revenues (dotted line) equal the projected revenues with the proposed revenue adjustments in **Table 1-10** applied.

**Figure 1-1: Water Financial Plan**



**Figure 1-2** shows the combined ending fund balances (green bars) for two of the City’s water funds (Operating and Capital Replacement) from FY 2024 to FY 2028. The City plans to build its reserves over a longer planning horizon to minimize customer impacts. The reserve target (dark blue line) is determined based on the recommended reserve policy targets in **Table 1-9**. The ending fund balances fall slightly below the reserve target from FY 2024 through FY 2027 but increase to target by FY 2028.

Figure 1-2: Water Fund Balances

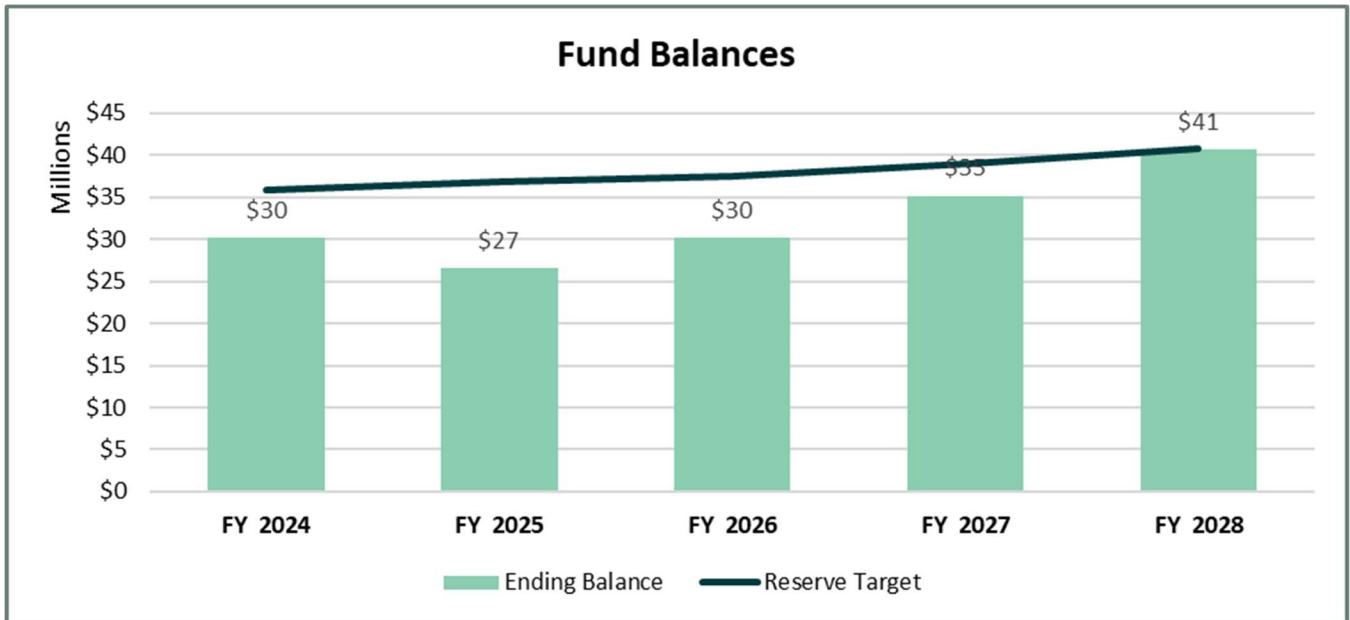
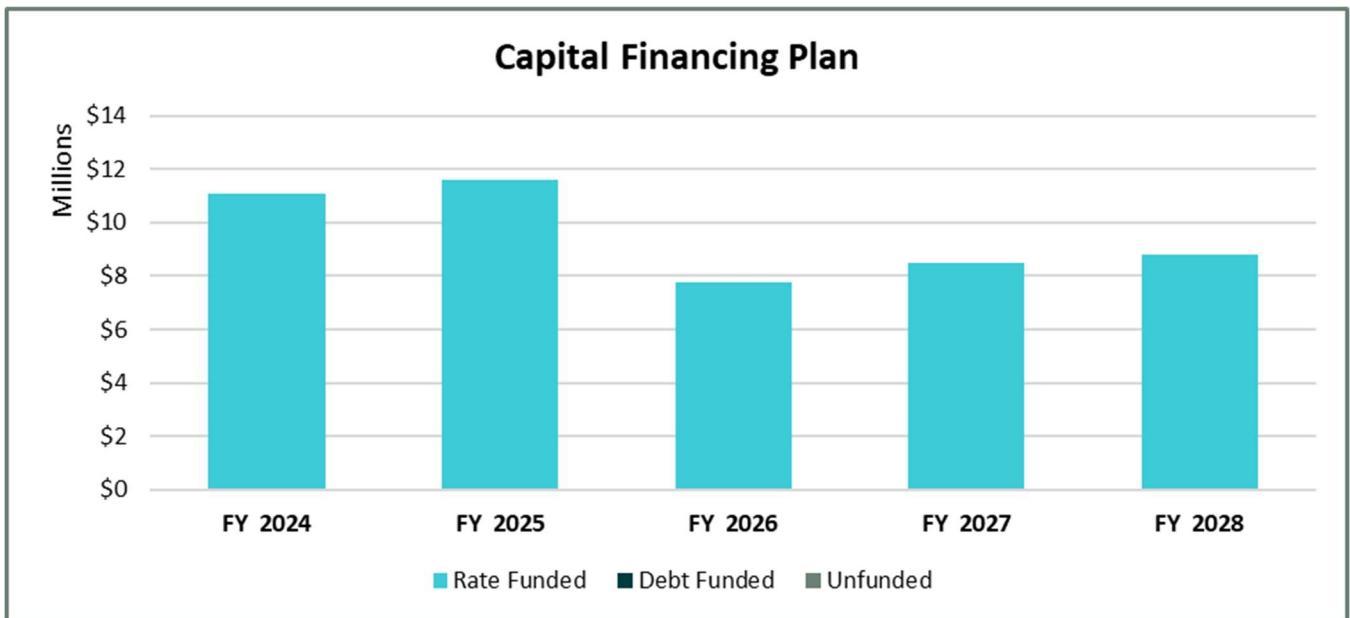


Figure 1-3 shows the five-year CIP expenditures from FY 2024 through FY 2028. All planned CIP expenses for the five-year period are anticipated to be entirely cash funded through rate revenues and existing cash reserves.

Figure 1-3: Water Capital Financing Plan



**1.6.1.3. Proposed Water Rates**

Table 1-11, Table 1-12, and Table 1-13 shows the proposed bi-monthly service charges, bi-monthly fire service charges, and water usage rates, respectively, for FY 2024 through FY 2025 based on the above

recommendations. Rates are all determined by increasing the current rates by the proposed revenue adjustments.

**Table 1-11: Proposed Bi-Monthly Water Service Charges**

Line	A	B	C
	Meter Size	Proposed FY 2024	Proposed FY 2025
1	5/8" Low Income	\$12.41	\$13.66
2	3/4" Low Income	\$17.32	\$19.06
3	1" Low Income	\$27.13	\$29.85
4	5/8"	\$35.45	\$39.00
5	3/4"	\$49.46	\$54.41
6	1"	\$77.50	\$85.25
7	1 1/2"	\$147.58	\$162.34
8	2"	\$231.68	\$254.85
9	3"	\$497.97	\$547.77
10	4"	\$890.41	\$979.46
11	6"	\$1,829.46	\$2,012.41
12	8"	\$3,931.80	\$4,324.98
13	10"	\$5,894.00	\$6,483.40

**Table 1-12: Proposed Bi-Monthly Fire Service Charges**

Line	A	B	C
	Fire Line Diameter	Proposed FY 2024	Proposed FY 2025
1	5/8"	\$7.54	\$8.30
2	3/4"	\$7.63	\$8.40
3	1"	\$7.86	\$8.65
4	1 1/2"	\$8.68	\$9.55
5	2"	\$10.12	\$11.14
6	3"	\$15.29	\$16.82
7	4"	\$24.19	\$26.61
8	6"	\$56.12	\$61.74
9	8"	\$111.19	\$122.31
10	10"	\$194.03	\$213.44

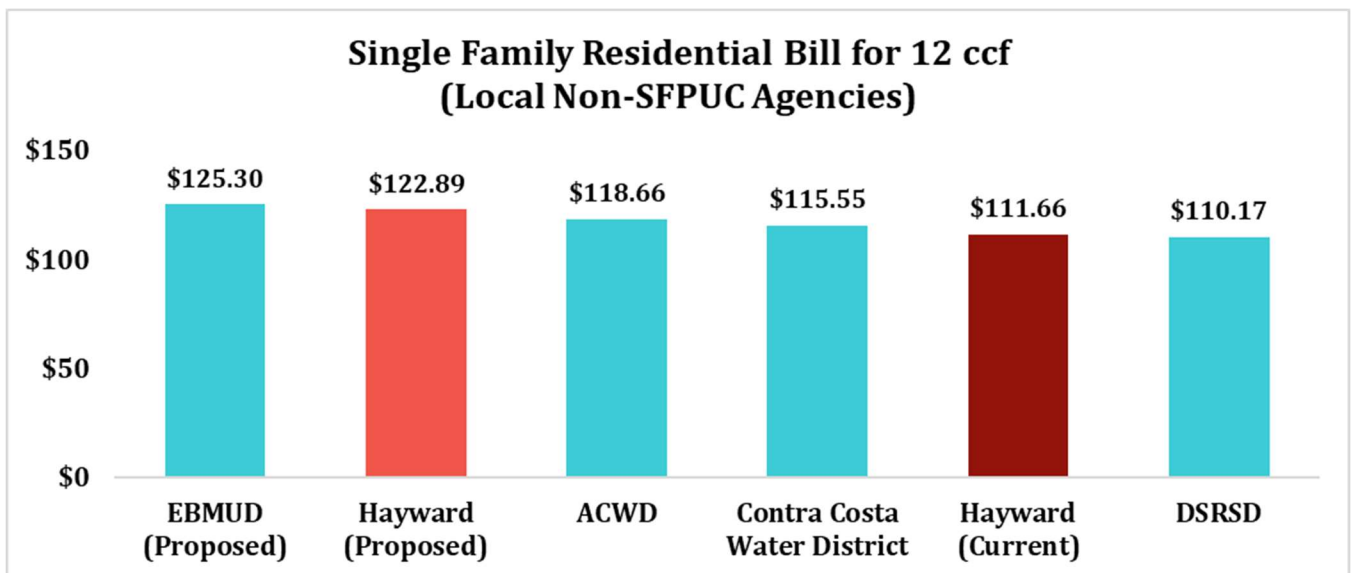
**Table 1-13: Proposed Bi-Monthly Water Usage Rates (\$/ccf)**

Line	A Customer Class	B Bi-Monthly Tiers (ccf)	C Proposed FY 2024	D Proposed FY 2025
1	<b>Residential</b>			
2	Tier 1	8	\$6.86	\$7.55
3	Tier 2	18	\$8.14	\$8.96
4	Tier 3	18+	\$10.00	\$11.00
5				
6	<b>Commercial / Industrial</b>			
7	Tier 1	110	\$7.44	\$8.19
8	Tier 2	110+	\$8.74	\$9.62
9				
10	<b>Irrigation</b>			
11	Tier 1	170	\$8.80	\$9.68
12	Tier 2	170+	\$11.20	\$12.32
13				
14	<b>Hydrant</b>	Uniform	\$8.29	\$9.12

**1.6.1.4. Rate Survey**

The City prepared a survey of bi-monthly Single Family Residential and Commercial customer bills for several local agencies and agencies that also purchase 100% of their potable water from SFPUC. **Figure 1-4** and **Figure 1-5** show the Single Family bill comparison for a 5/8” meter using 12 ccf of water per bi-monthly billing period.

**Figure 1-4: Single Family Water Bill Comparison with Non-SFPUC Agencies**



**Figure 1-5: Single Family Water Bill Comparison with SFPUC Agencies**

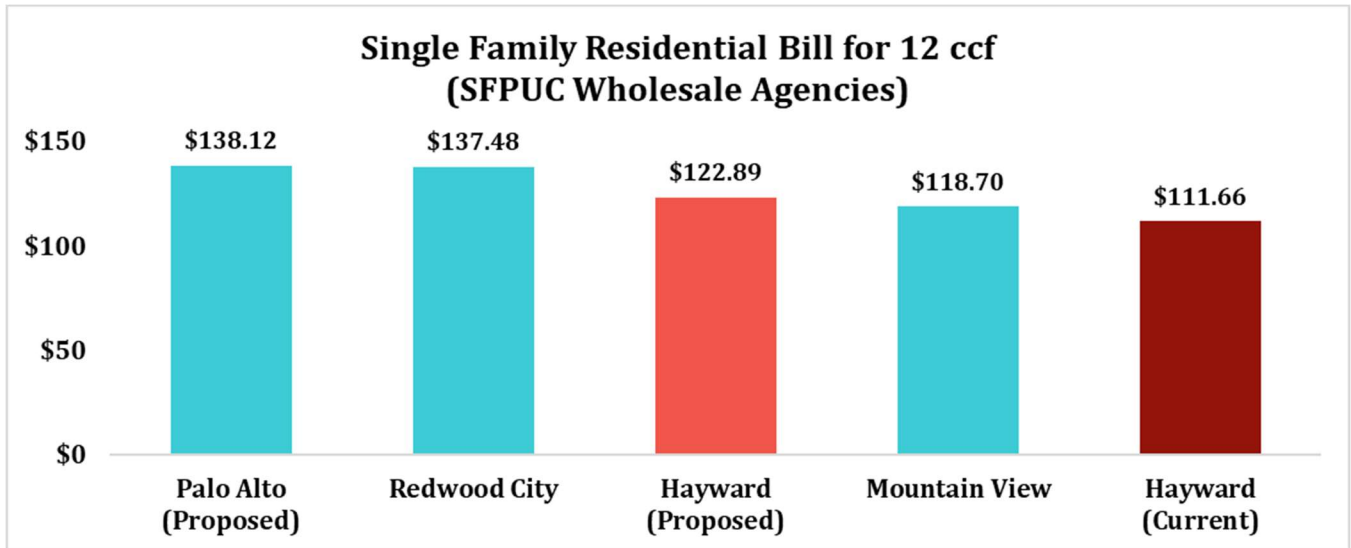


Figure 1-6 and Figure 1-7 show the Commercial bill comparison for a 1” meter using 110 ccf of water per bi-monthly billing period. Water bills for the City’s customers are generally higher than those of local agencies. However, this is mainly due to the cost of purchasing SFPUC water. Compared to the agencies in the area that also deliver SFPUC water, the City’s water bills are at the lower end.

**Figure 1-6: Commercial Water Bill Comparison with Local Non-SFPUC Agencies**

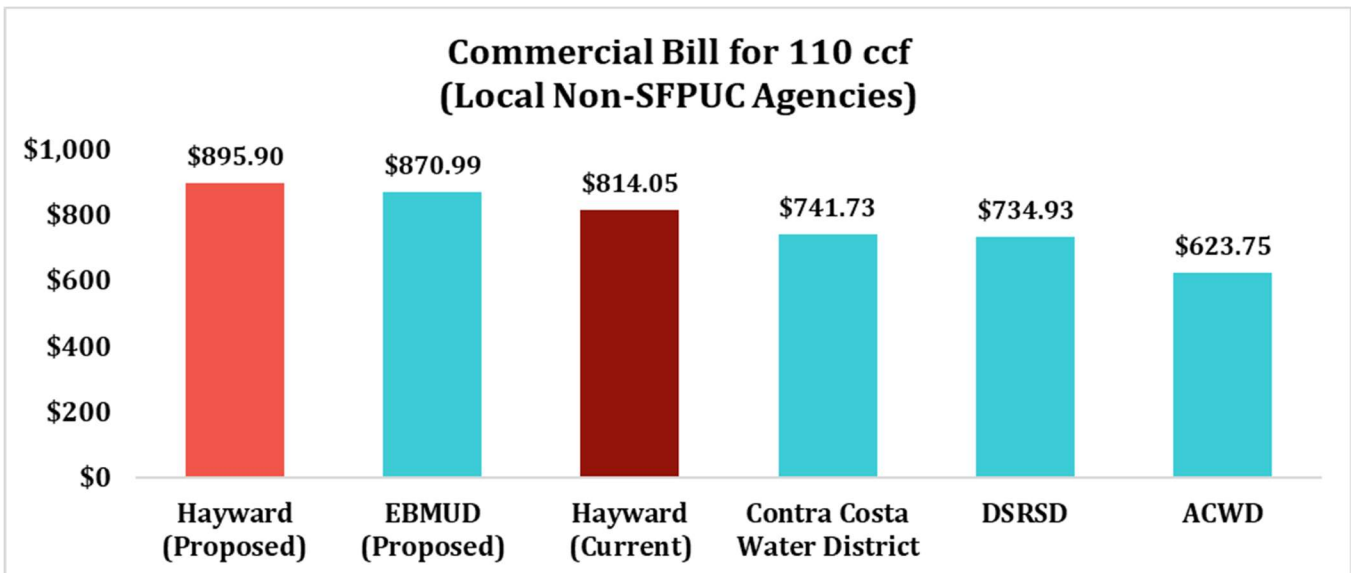
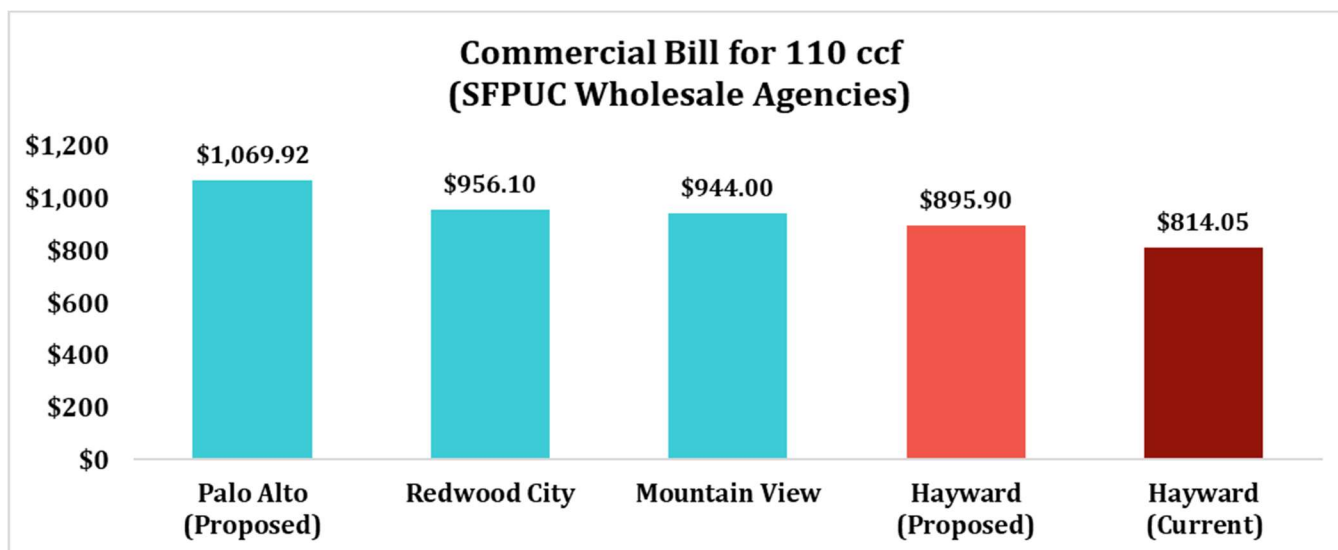


Figure 1-7: Commercial Water Bill Comparison with SFPUC Agencies



## 1.6.2. Recycled Water

### 1.6.2.1. Factors Affecting Revenue Requirements

The following items affect the recycled water utility's revenue requirement (i.e., costs) and thus its rates. The utility's expenses include O&M expenses, debt service, and reserve funding.

- **Debt Service Payments:** The recycled water utility currently spends 56% of its total expenses on annual debt service payments on the 2021 State Revolving Fund (SRF) Loan. While the payments remain constant, they will continue well past the end of the 10-year financial planning horizon. It is important for the recycled water utility to recover sufficient rate revenue to maintain sufficient debt service coverage into the future.
- **Reserve Funding:** As a new utility, the recycled water funds will need to build up reserves over time. The recycled water utility does not have a formally adopted reserve policy. Reserves targets are adopted to ensure enough cash on hand to meet routine cash flow needs, navigate emergencies in the event of asset failure or natural disaster, and to protect ratepayers from rate spikes. The recommended reserve policy is discussed in the following section.

### 1.6.2.2. Recommended Reserve Policy

Raftelis worked with City staff to understand the needs of the recycled water utility and to develop a recommendation for the reserve policy, which is listed in **Table 1-14**. Our recommendation includes the following:

- **Operating:** The City bills customers on a bi-monthly billing cycle, which can impact cash flows since revenues are collected six times, while expenses may be incurred twelve times per year (monthly). The recommended operating reserve target allows the City to maintain adequate cash flow throughout the year and to fund planned O&M expenses, as well as any unexpected operating costs that may arise. Because recycled water revenues are more volatile, the operating reserve target is set higher than the operating reserve target for water and wastewater.

- Rate Stabilization:** While recycled water expenses are expected to remain fairly stable for the financial planning period, a rate stabilization reserve would create a financial safety net in the event of reduced demand due to climate, infrastructure failure, or natural disaster. The recommended rate stabilization reserve target will help reduce the need for unreasonable rate increases and smooth out recycled water rates into the future. Similar to the operating reserve, the rate stabilization reserve target for recycled water is higher since recycled water usage, which is primarily for irrigation purposes, is typically more volatile than that of potable water use or wastewater generation.

In total, the recommended reserve policy calls for a target balance of approximately \$758k in FY 2024.

**Table 1-14: Recommended Recycled Water Reserve Policy**

	A	B	C
Line	Reserve Targets	Recommended Target Policy	FY 2024 Target
1	Operating	60% O&M Expenses	\$308,727
2	Rate Stabilization	60% of Commodity Revenues	\$449,614
3	<b>Total</b>		<b>\$758,342</b>

**1.6.2.3. Financial Plan Results**

Table 1-15 shows the proposed revenue adjustments that allows the City to maintain financial sufficiency, fund operating expenses, and achieve recommended cash reserves for the recycled water utility. The proposed adjustments apply to the City’s rate revenues, which were projected for future years assuming no growth in customer accounts or demand during the study period. Recycled water demand in FY 2022 represents estimated baseline use for the City’s customers. We assume no growth in customer demand throughout the period to conservatively project rate revenues and to consider the potential of near-term drought conditions.

**Table 1-15: Proposed Recycled Water Revenue Adjustments**

	A	B	C	D	E	F
Line	Revenue Adjustments	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
1	Effective Month	October	October	October	October	October
2	Percent Adjustment	35%	10%	5%	5%	0%

Figure 1-8 shows the five-year financial plan for FY 2024 through FY 2028. The stacked bars represent the costs of the recycled water utility: O&M expenses are the blue bars and debt service is shown in orange. With current revenues, net cash flow (green bars) falls below zero in FY 2026, meaning that the City will draw from reserves to fund a portion of expenses in those years absent rate increases. Current revenues (solid line) equal the projected revenues at the City’s existing recycled water rates and proposed revenues (dotted line) equal the projected revenues with the proposed revenue adjustments in Table 1-15 applied.



Figure 1-8: Recycled Water Financial Plan

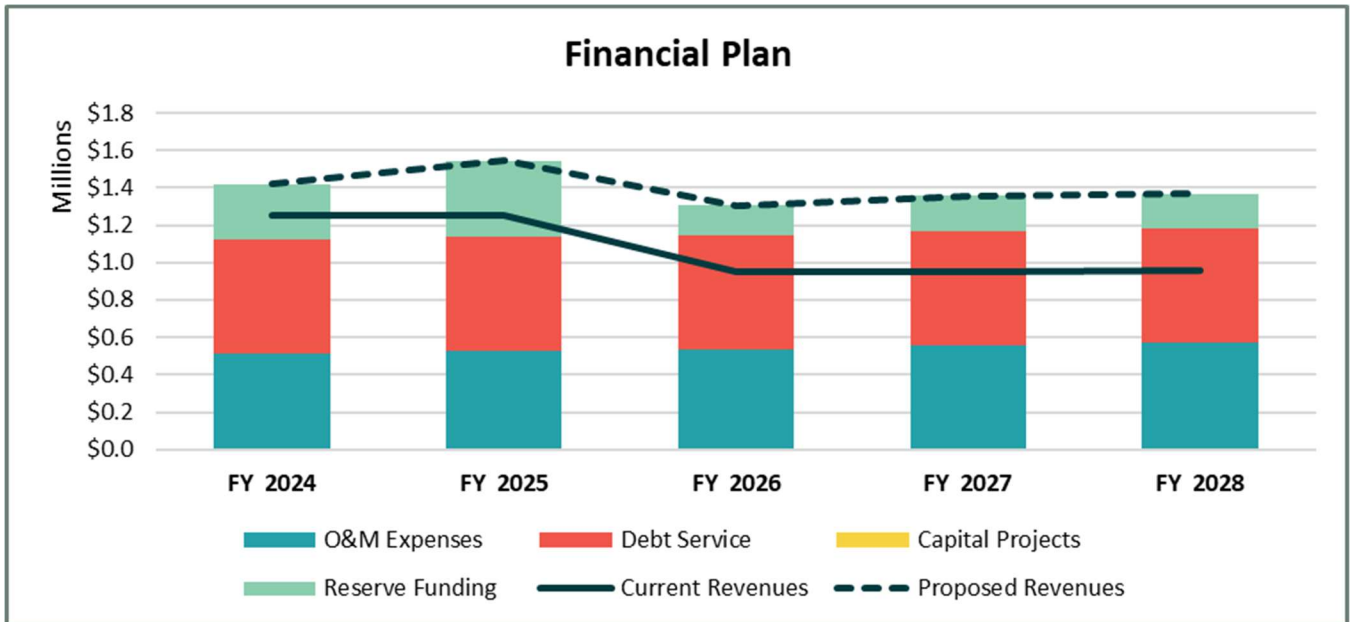
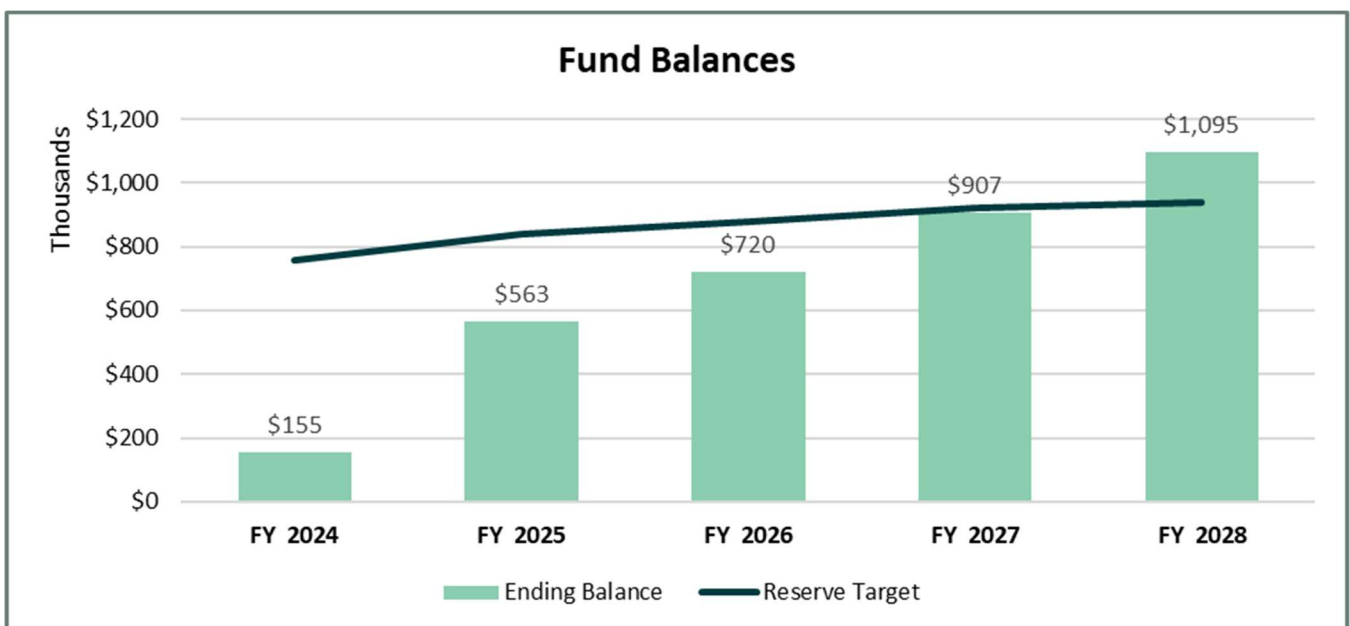


Figure 1-9 shows the combined ending fund balances (green bars) for the City’s Recycled Water fund from FY 2024 to FY 2028. Although the rates are proposed for only two years, the City plans to build its reserves over a longer planning horizon to minimize customer impacts. The reserve target (dark blue line) is determined based on the recommended reserve policy targets in Table 1-14. The ending fund balances fall below the reserve target in each year from FY 2024 through FY 2027 but will increase to achieve the target in FY 2028. The City will be able to build its reserves to establish and operate the recycled water utility independently of the water and wastewater utilities.

Figure 1-9: Recycled Water Fund Balances



**1.6.2.4. Proposed Recycled Water Rates**

Table 1-16 and Table 1-17 show the proposed bi-monthly service charges and recycled water usage rates, respectively, for FY 2024 through FY 2025 based on the above recommendations. Rates for all years are increased based on the corresponding revenue adjustments in Table 1-15. Because the current rates were increased by the proposed revenue adjustments, all customer impacts will be equal to that year’s revenue adjustment.

**Table 1-16: Proposed Bi-Monthly Recycled Water Service Charges**

	A	B	C
Line	Meter Size	Proposed FY 2024	Proposed FY 2025
1	5/8"	\$35.45	\$39.00
2	3/4"	\$49.46	\$54.41
3	1"	\$77.50	\$85.25
4	1 1/2"	\$147.58	\$162.34
5	2"	\$231.68	\$254.85
6	3"	\$497.97	\$547.77
7	4"	\$890.41	\$979.46
8	6"	\$1,829.46	\$2,012.41
9	8"	\$3,931.80	\$4,324.98
10	10"	\$5,894.00	\$6,483.40

**Table 1-17: Proposed Recycled Water Usage Rates (\$/ccf)**

	A	B	C
Line	Commodity Rates (\$/ccf)	Proposed FY 2024	Proposed FY 2025
1	Recycled Water	\$6.76	\$7.44

**1.6.2.5. Rate Survey**

The City prepared a survey of bi-monthly recycled water customer bills for several local agencies. Since not all agencies have recycled water utilities, the City also compared their recycled water rate to other local agencies’ non-residential or irrigation rates for potable water, which would be used for the same purpose. Figure 1-10 shows the comparison to other recycled water rates, and Figure 1-11 shows the comparison to non-residential and irrigation rates.

Figure 1-10: Recycled Water Usage Rate Comparison

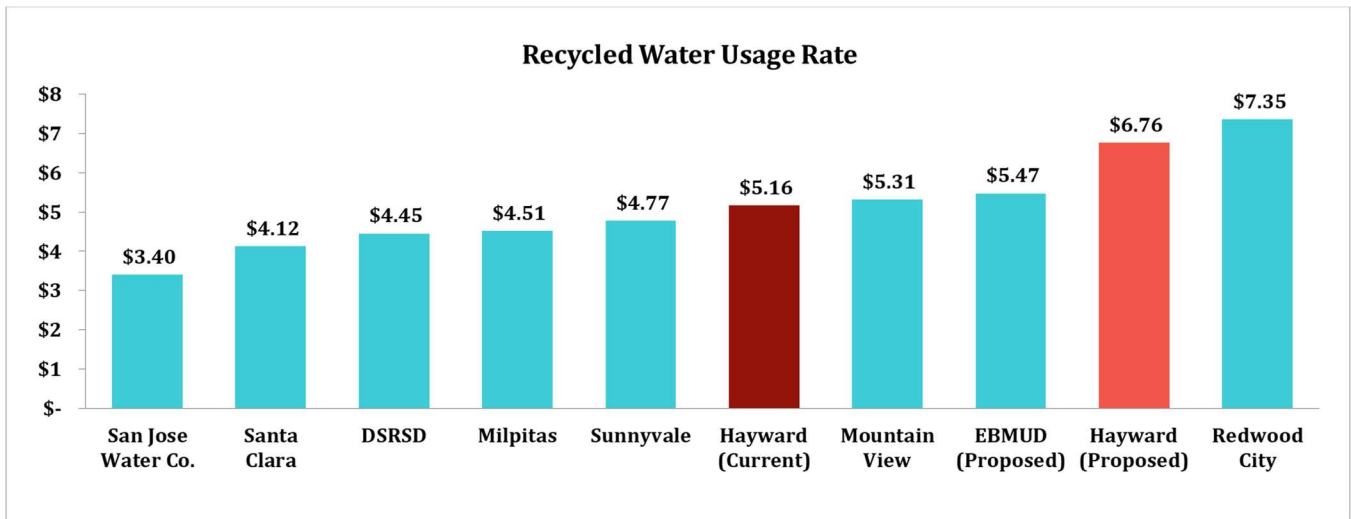
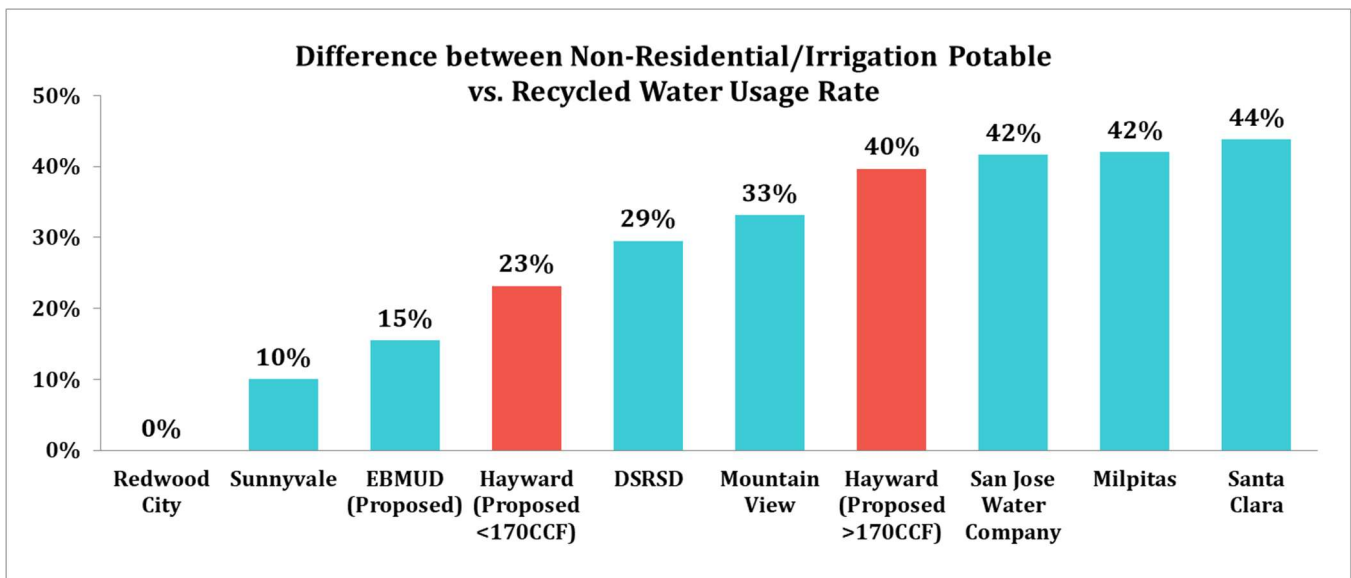


Figure 1-11: Non-Residential/Irrigation Potable Rate Comparison



### 1.6.3. Wastewater

#### 1.6.3.1. Factors Affecting Revenue Requirements

The following items affect the wastewater utility’s revenue requirement (i.e., costs) and thus its wastewater rates. The utility’s expenses include O&M expenses, capital project costs, debt service, and reserve funding.

- Capital Funding:** The wastewater utility has approximately \$97.5 million in planned capital expenditures from FY 2024 through FY 2028 and \$137.2 million over the study’s financial planning horizon (from FY 2024 through FY 2032). Much of the planned CIP expenditures is for the new Water Pollution Control Facility (WPCF) project, with \$54.1 million being funded from the Sewer Replacement Fund from FY 2025 to FY 2028. Planned capital project costs are anticipated to be funded by a mix of SRF loan proceeds,

Water Infrastructure Finance and Innovation Act (WIFIA) loan proceeds, and cash reserves from rate revenues.

- **Reserve Funding:** Reserve targets are adopted to ensure enough cash on hand to meet routine cash flow needs, provide adequate funding for planned repairs and replacements (R&R) CIP, navigate emergencies in the event of asset failure or natural disaster, and to protect ratepayers from rate spikes. The recommended reserve policy is discussed in the following section.

### 1.6.3.2. Recommended Reserve Policy

Raftelis worked with City staff to understand the needs of the wastewater utility and to develop a recommendation for the reserve policy, which is listed in **Table 1-18**. Our recommendation includes the following components:

- **Operating:** The City bills customers on a bi-monthly billing cycle, which can impact cash flows since revenues are collected six times, while expenses may be incurred twelve times per year (monthly). The recommended operating reserve target allows the City to maintain adequate cash flow throughout the year and to fund planned O&M expenses, as well as any unexpected operating costs that may arise.
- **Capital:** Capital expenditures over the planning horizon represent a significant portion of the wastewater utility’s annual costs. However, capital spending can often be unpredictable and subject to changing schedules and costs estimates. Since the City is expecting to cash fund a significant portion of the wastewater CIP, maintaining adequate reserves is even more critical. The recommended capital reserve target provides the wastewater utility with cash on hand to adequately fund each year’s planned rate funded capital projects.
- **Rate Stabilization:** The recommended rate stabilization reserve target will help reduce the need for unreasonable rate increases and smooth wastewater rates, even in the instance of unexpected increases in operating or capital costs.

In total, the recommended reserve policy calls for a target balance of approximately \$21.1 million in FY 2024. The recommended policy matches the current water reserve policy.

**Table 1-18: Recommended Wastewater Reserve Policy**

	A	B	C
Line	Reserve Targets	Recommended Target Policy	FY 2024 Target
1	Operating	25% O&M Expenses	\$5,298,440
2	Capital	One Year of 5-year Average CIP	\$8,672,738
3	Rate Stabilization	25% of Service Charges	\$7,128,638
4	<b>Total</b>		<b>\$21,099,815</b>
5			
6	<i>Days Cash on Hand</i>		<i>419</i>

### 1.6.3.3. Financial Plan Results

**Table 1-19** shows the proposed revenue adjustments that allows the City to maintain financial sufficiency, fund operating and capital expenses, and achieve recommended cash reserves for the wastewater utility. The proposed adjustments apply to wastewater rate revenues, which are projected for future years assuming no growth in customer accounts or increased wastewater generation during the study period. This approach

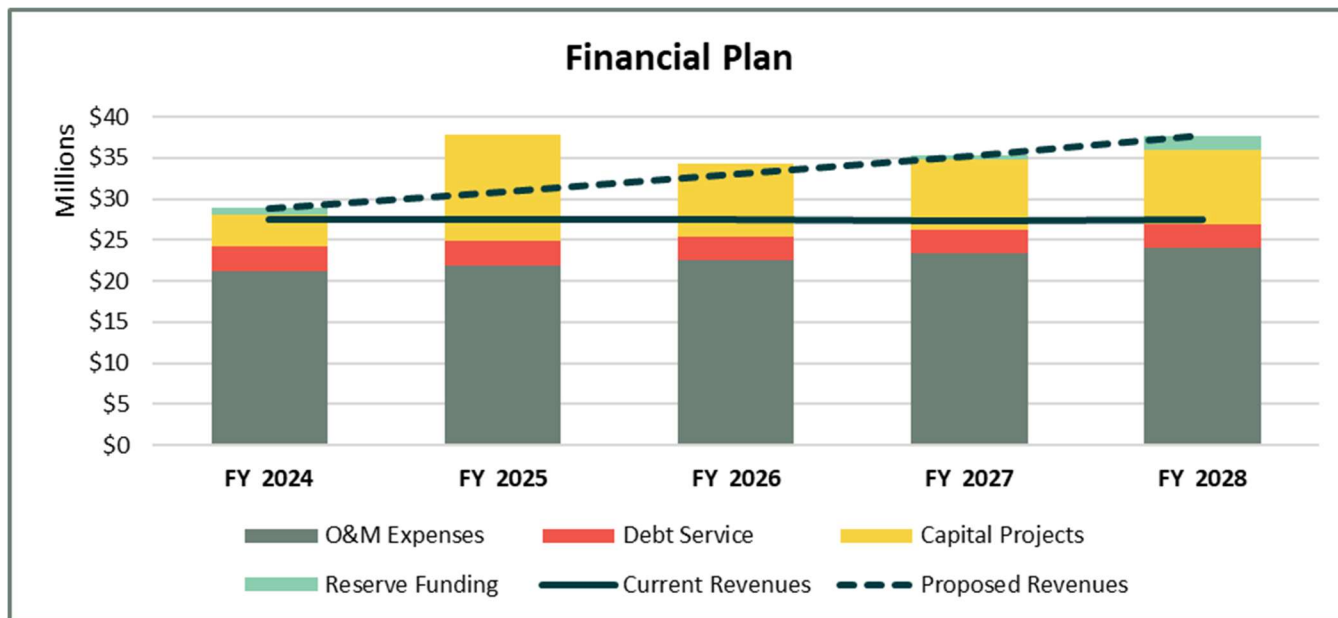
conservatively projects future rate revenues. The proposed revenue adjustments are applied across all existing rates and charges for each year of the rate study.

**Table 1-19: Proposed Wastewater Revenue Adjustments**

Line	A Revenue Adjustments	B FY 2024	C FY 2025	D FY 2026	E FY 2027	F FY 2028
1	Effective Month	October	October	October	October	October
2	Percent Adjustment	7%	7%	7%	7%	7%

**Figure 1-12** shows the five-year financial plan for FY 2024 through FY 2028. The stacked bars represent the costs of the wastewater utility: O&M expenses (gray bars), debt service (orange bars), and rate-funded CIP costs (yellow bars). Net cash flow (green bars) falls below zero in all years of the rate study, meaning that the City will draw from wastewater reserves to fund a portion of expenses in those years. Current revenues (solid line) equal the projected revenues at the City’s existing wastewater rates and proposed revenues (dotted line) equal the projected revenues with the proposed revenue adjustments in **Table 1-19** applied.

**Figure 1-12: Wastewater Financial Plan**



**Figure 1-13** shows the combined ending fund balances (green bars) for the City’s Wastewater Operating Fund and Wastewater Replacement Fund from FY 2024 through FY 2028. Although the rates are proposed for only two years, the City plans to build its reserves over a longer planning horizon to minimize customer impacts. The reserve target (dark blue line) is determined based on the recommended reserve policy targets in **Table 1-18**. The ending fund balances fall slightly below the reserve target in each year from FY 2025 through FY 2028, but will increase to achieve the target in FY 2029. The City will build its wastewater reserves in preparation for the WIFIA and SRF loan debt service later in the 5-year planning period.

Figure 1-13: Wastewater Fund Balances

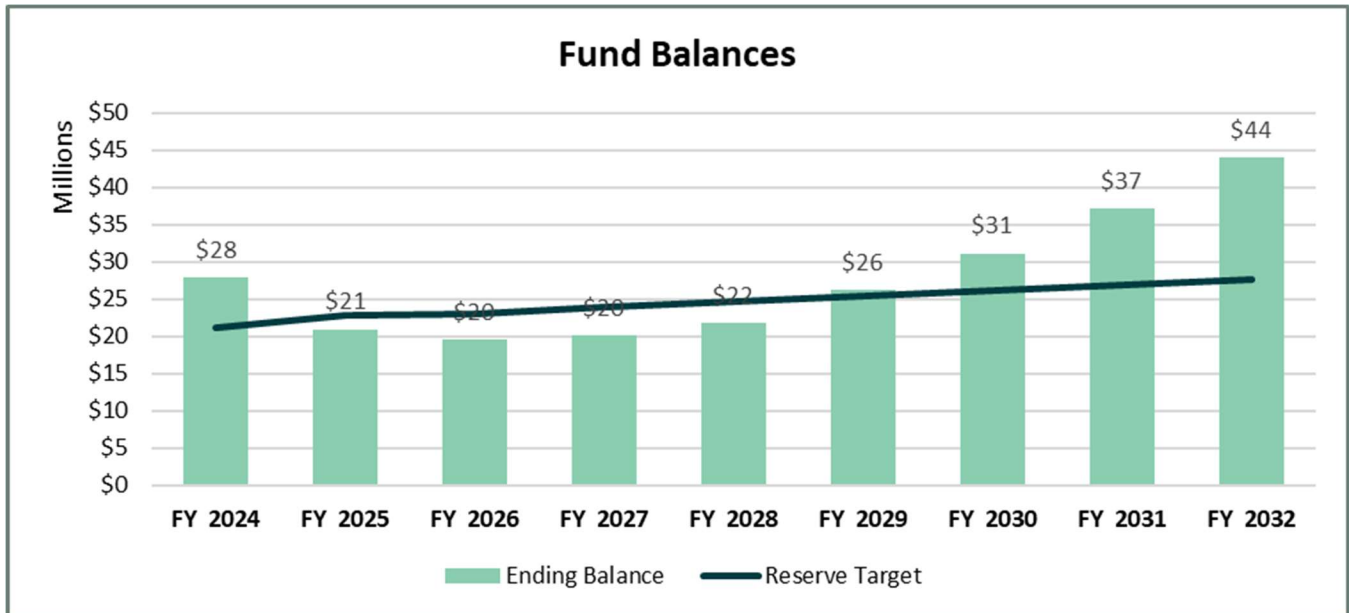
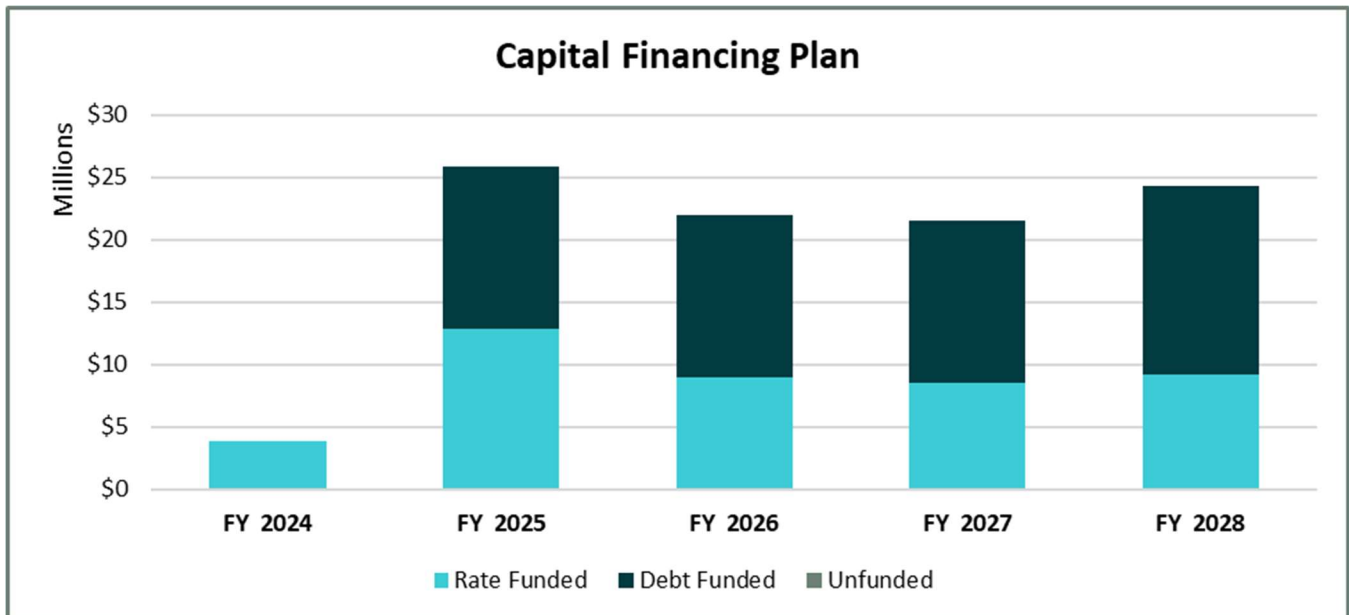


Figure 1-14 shows the five-year CIP expenditures from FY 2024 through FY 2028. CIP expenditures will be funded by a combination of debt proceeds, future cash from rate revenues, and existing capital reserves.

Figure 1-14: Wastewater Capital Financing Plan



**1.6.3.4. Proposed Wastewater Rates**

Table 1-20, Table 1-21, and Table 1-22 show the proposed bi-monthly charges, coded user usage charges, and critical user usage charges, respectively, for FY 2024 and FY 2025 based on the above recommendations. Rates for all years are determined by increasing current rates by the corresponding revenue adjustments in Table 1-19. Since the current wastewater rates are being increased by the revenue adjustments, all bill impacts will mirror the proposed revenue adjustments.

**Table 1-20: Proposed Bi-Monthly Residential Wastewater Charges**

Line	A Residential Customers	B Proposed FY 2024	C Proposed FY 2025
1	Standard Residential	\$82.58	\$88.38
2	Multi-Family (charge per unit)	\$73.50	\$78.66
3	Mobile Home (charge per unit)	\$57.82	\$61.88
4	Economy (5 to 8 units of metered water usage)	\$38.68	\$41.40
5	Lifeline (0 to 4 units of metered water usage)	\$19.36	\$20.72

**Table 1-21: Proposed Wastewater Usage Charges for Coded Commercial Customers**

Line	Coded Users	A	B	C
			Proposed FY 2024	Proposed FY 2025
1	<b>With Irrigation Meters</b>			
2	Meat Products		\$14.36	\$15.37
3	Slaughterhouse		\$16.53	\$17.69
4	Dairy Products Processor		\$11.85	\$12.68
5	Canning & Packing		\$8.44	\$9.04
6	Grain Mills		\$11.12	\$11.90
7	Bakeries		\$12.86	\$13.77
8	Fats & Oils		\$8.01	\$8.58
9	Beverage Bottling		\$7.61	\$8.15
10	Food Manufacturer		\$28.35	\$30.34
11	Pulp & Paper Products Manufacturer		\$9.76	\$10.45
12	Inorganic Chemicals		\$13.56	\$14.51
13	Paint Manufacturer		\$21.14	\$22.62
14	Leather Tanning		\$27.84	\$29.79
15	Fabricated Metal		\$4.03	\$4.32
16	Eating Places (w/o grease interceptor)		\$12.63	\$13.52
17	Commercial Laundry		\$7.54	\$8.07
18	Industrial Laundry		\$11.71	\$12.53
19	Eating Places (w/ grease interceptor)		\$9.75	\$10.44
20	Other Domestic Strength Users - Commercial/Institutional/Govt		\$7.46	\$7.99
21	<b>Without Irrigation Meters</b>			
22	Meat Products		\$12.93	\$13.84
23	Slaughterhouse		\$14.88	\$15.93
24	Dairy Products Processor		\$10.66	\$11.41
25	Canning & Packing		\$7.59	\$8.13
26	Grain Mills		\$10.01	\$10.72
27	Bakeries		\$11.57	\$12.38
28	Fats & Oils		\$7.21	\$7.72
29	Beverage Bottling		\$6.85	\$7.33
30	Food Manufacturer		\$25.51	\$27.30
31	Pulp & Paper Products Manufacturer		\$8.78	\$9.40
32	Inorganic Chemicals		\$12.21	\$13.07
33	Paint Manufacturer		\$19.03	\$20.37
34	Leather Tanning		\$25.04	\$26.80
35	Fabricated Metal		\$3.63	\$3.89
36	Eating Places (w/o grease interceptor)		\$11.37	\$12.17
37	Commercial Laundry		\$6.78	\$7.26
38	Industrial Laundry		\$10.53	\$11.27
39	Eating Places (w/ grease interceptor)		\$8.78	\$9.40
40	Other Domestic Strength Users - Commercial/Institutional/Govt		\$6.72	\$7.20



**Table 1-22: Proposed Wastewater Usage Charges for Critical Commercial Customers**

Line	Critical Users	A	B	C
			Proposed FY 2024	Proposed FY 2025
1	Volume – Cost per 100 cubic feet		\$3.45161	\$3.69323
2	CBOD – Cost per pound		\$0.82296	\$0.88057
3	Suspended Solids – Cost per pound		\$1.10603	\$1.18346

**1.6.3.5. Rate Survey**

The City prepared a survey of bi-monthly Single Family Residential and Restaurant with grease interceptor customer bills for several local agencies, shown respectively in **Figure 1-15** and **Figure 1-16**.

**Figure 1-15: Single Family Wastewater Bill Comparison with Local Agencies**

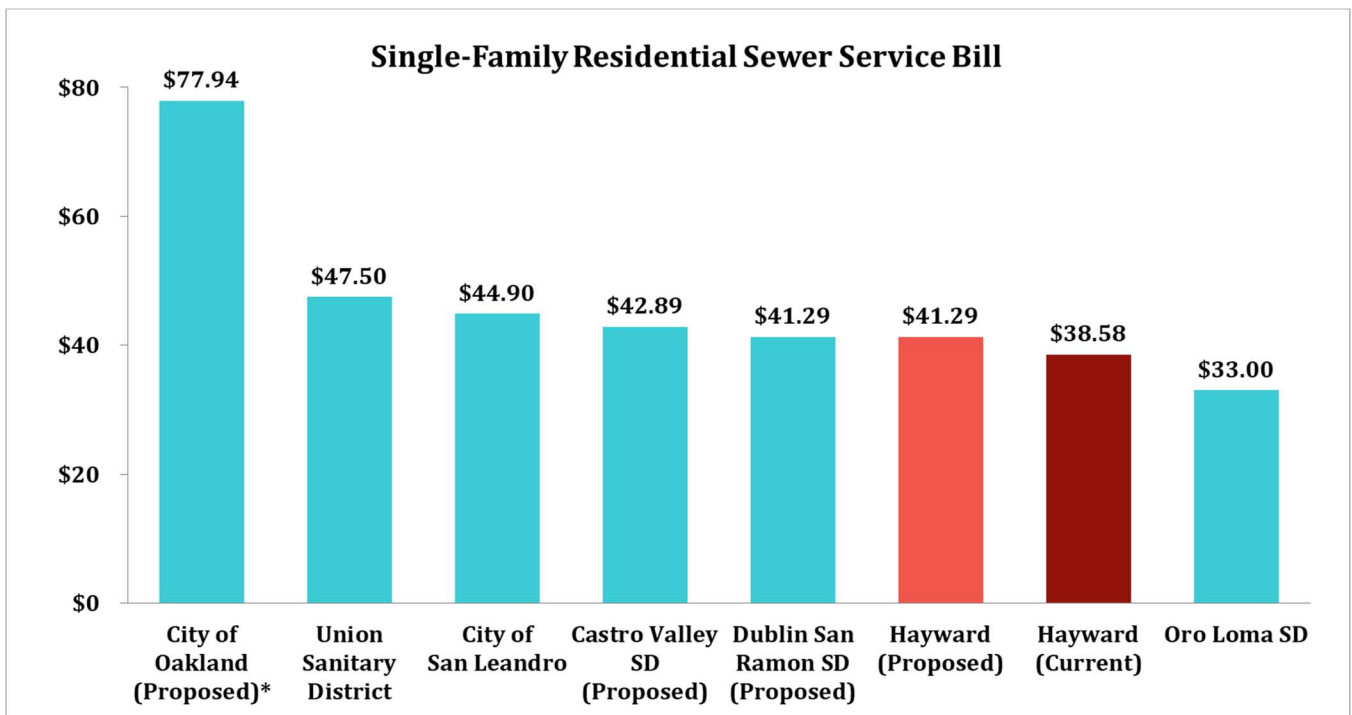
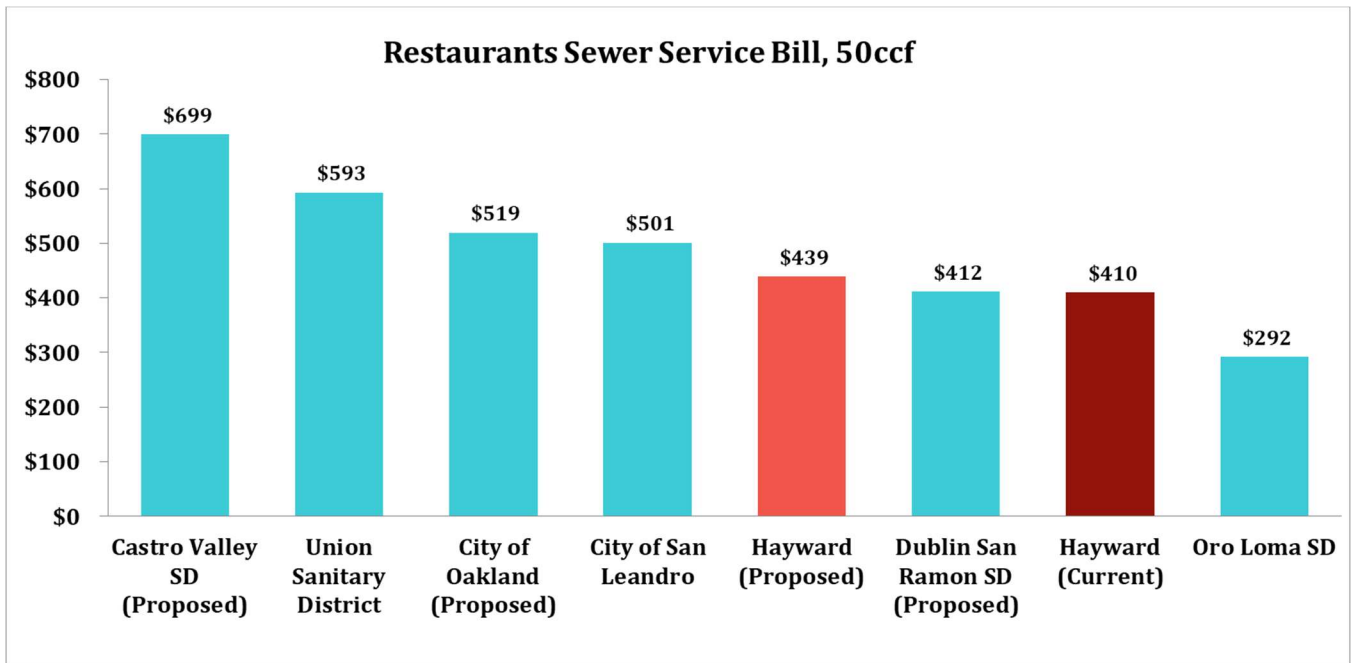


Figure 1-16: Restaurant with Grease Interceptor Wastewater Bill Comparison with Local Agencies



## 2. Water Financial Plan & Rates

This section of the report describes the water fund and proposed financial plan and rates. To develop the financial plan, Raftelis projects annual revenues and expenses, models reserve balances, projects capital expenditures, and calculates debt service coverage to estimate the amount of additional rate revenue needed each year to fully recover costs of service. Numbers shown in the tables of this section are rounded. Therefore, hand calculations based on the displayed numbers, such as summing or multiplying, may not equal the exact results shown.

### 2.1. Inflationary Assumptions

Inflationary factors are used to escalate the revenue and cost categories across the planning period, which for this study is from FY 2023 to FY 2028. The City’s most recent adopted revenue and expense budgets are for FY 2023. Raftelis worked with City staff to escalate individual budget line items according to the most appropriate escalation factor. The escalation factors used to project revenues and expenses for the study period are shown in **Table 2-1**. These factors are based on industry indices, such as CPI, and input from City staff.

**Table 2-1: Water Escalation Factors**

Line	A Escalation Factors	B FY 2024	C FY 2025	D FY 2026	E FY 2027	F FY 2028
1	<b>Revenues</b>					
2	Miscellaneous Revenues	0%	0%	0%	0%	0%
3	Interest Income	0.5%	0.5%	0.5%	0.5%	0.5%
4	<b>Expenses</b>					
5	General	3%	3%	3%	3%	3%
6	Salary	3%	3%	3%	3%	3%
7	Benefits	5%	5%	5%	5%	5%
8	Utilities	3%	3%	3%	3%	3%
9	Capital	4%	4%	4%	4%	4%
10	Water Purchase	5%	5%	5%	5%	5%

### 2.2. Current Water Rates

The City’s current water rates were implemented on October 1, 2022 and include a bi-monthly service charge based on meter size, a bi-monthly fire protection service charge based on fire line diameter (for only those customers requiring private fire service), and a tiered usage rate charged for every hundred cubic feet (ccf) of water used. **Table 2-2** shows the current bi-monthly service charges by meter size. **Table 2-3** shows the current bi-monthly fire service charges by fire line diameter. Fire lines are designed to provide water in the volume and at the pressure required to operate private fire sprinklers. Larger fire line sizes require more capacity; thus the rates increase proportionally to the increased need in capacity. Note that costs to maintain public fire flows is included in the cost of service recovered from rates. Providing water in the volume and at the pressure required to operate fire hydrants that protect structures is a statutory mandate of public water systems in California and such cost recovery is authorized by California Government Code sections 53069.9 and 53750.5. Moreover, charging water users for the portion of the cost of water service associated with fire

flows appropriately assigns those cost to those who benefit from them. Sprinklers serve and are within structures served by water meters. Hydrants serve parcels improved with structures, as they are not suitable to address fire service calls involving individuals in need of medical aid or vehicle fires (which are fought with fire extinguishers) and are not typically used to fight wildland fires because hydrants rarely serve such land. The California Fire Code requires hydrants near structures, not elsewhere. Thus, those who pay water fees which recover fire flow costs also own or occupy structures protected by fire sprinklers and fire hydrants and therefore benefit from that service. Finally, fire hydrants are used to flush water mains periodically and serve a water system function, as well as the fire suppression function noted here. **Table 2-4** shows the current water usage rates by customer class and bi-monthly tiers.

**Table 2-2: Current Bi-Monthly Service Charges**

Line	A Meter Size	B Bi-Monthly Charges
1	5/8" Low Income	\$11.28
2	3/4" Low Income	\$15.74
3	1" Low Income	\$24.66
4	5/8"	\$32.22
5	3/4"	\$44.96
6	1"	\$70.45
7	1 1/2"	\$134.16
8	2"	\$210.61
9	3"	\$452.70
10	4"	\$809.46
11	6"	\$1,663.14
12	8"	\$3,574.36
13	10"	\$5,358.18

**Table 2-3: Current Bi-Monthly Fire Service Charges**

Line	Fire Line Diameter	Bi-Monthly Charges
1	Low Income	\$6.85
2	5/8"	\$6.85
3	3/4"	\$6.93
4	1"	\$7.14
5	1 1/2"	\$7.89
6	2"	\$9.20
7	3"	\$13.90
8	4"	\$21.99
9	6"	\$51.01
10	8"	\$101.08
11	10"	\$176.39

**Table 2-4: Current Water Usage Rates (\$/ccf)**

Line	A Customer Class	B Bi-Monthly Tiers (ccf)	C Usage Charges (\$/ccf)
1	<b>Residential</b>		
2	Tier 1	8	\$6.23
3	Tier 2	18	\$7.40
4	Tier 3	18+	\$9.09
5			
6	<b>Commercial / Industrial</b>		
7	Tier 1	110	\$6.76
8	Tier 2	110+	\$7.94
9			
10	<b>Irrigation</b>		
11	Tier 1	170	\$8.00
12	Tier 2	170+	\$10.18
13			
14	<b>Hydrant</b>	Uniform	\$7.53

### 2.3. Customer Accounts and Usage

City staff provided detailed customer billing data for FY 2022, which included information such as customer class, billed consumption in ccf, and meter size for each of the bi-monthly billing periods.

**Table 2-5** shows the meter counts by customer class and meter size for FY 2022. FY 2022 meter count data was used to represent the data most accurately for the starting fiscal year, as well as to account for the customers that have stopped service in FY 2021.

**Table 2-6** shows the water usage in ccf by customer class and tier for FY 2022. Water demand in FY 2022 is representative of the estimated baseline use for the City's customers. Water use in the City has largely stabilized after the last multi-year drought, which is consistent with the stabilization and hardening of demand that other agencies throughout California have observed.

We assume no growth in either customer demand or accounts throughout the study period to conservatively project future rate revenues and to consider the potential of near-term drought conditions.

Table 2-5: Water Customer Accounts by Class (FY 2022)

Line	A Customer Accounts	B Single Family	C Residential 2-4	D Multi- Family 5+	E Commercial / Industrial	F Irrigation	G Hydrant	H Fireline	I Total (Less Fire)
1	Low Income	1,808	6	0	1	0	0	0	1,815
2	5/8"	22,039	277	16	824	95	0	0	23,251
3	3/4"	2,633	123	5	310	158	15	0	3,244
4	1"	3,155	191	163	636	382	0	5	4,527
5	1 1/2"	63	5	144	405	387	0	31	1,004
6	2"	6	3	161	435	211	0	30	816
7	3"	0	0	36	68	3	81	8	188
8	4"	0	0	20	34	1	0	266	55
9	6"	0	0	19	10	1	0	407	30
10	8"	0	0	4	3	0	0	413	7
11	10"	0	0	0	0	0	0	75	0
12	<b>Total - Accounts</b>	<b>29,704</b>	<b>605</b>	<b>568</b>	<b>2,726</b>	<b>1,238</b>	<b>96</b>	<b>1,235</b>	<b>34,937</b>

Table 2-6: Water Use by Class (FY 2022)

Line	A Water Usage (ccf)	B Single Family	C Residential 2-4	D Multi- Family 5+	E Commercial / Industrial	F Irrigation	G Hydrant	H Fireline	I Total
1	Tier 1	1,239,779	76,045	715,761	527,391	346,909	28,084	14,875	2,948,844
2	Tier 2	760,878	43,500	361,741	945,429	402,503			2,514,051
3	Tier 3	400,789	15,360	145,860					562,009
4	<b>Total - Water Usage (ccf)</b>	<b>2,401,446</b>	<b>134,905</b>	<b>1,223,362</b>	<b>1,472,820</b>	<b>749,412</b>	<b>28,084</b>	<b>14,875</b>	<b>6,024,904</b>

## 2.4. Projected Water Revenues at Current Rates

**Table 2-7** shows the calculated rate revenues for FY 2024 through FY 2028 based on the City's current water rates. The projected annual rate revenues for the bi-monthly service charges (Lines 1-9) are determined using the current bi-monthly service charges (**Table 2-2**) and bi-monthly fire service charges (**Table 2-3**) multiplied by the meter counts for each customer class and jurisdiction (



**Table 2-5)** for six months. Similarly, the projected annual rate revenues for the usage rates (Lines 11-18) are determined using the current tiered usage rates (**Table 2-4**) multiplied by water use in ccf for each customer class and jurisdiction (**Table 2-6**). Note that the projected rate revenues stay constant from FY 2024 through FY 2028, which is a result of maintaining the same number of customer accounts, at the same level of water demand, and at the same rates, throughout the study period.

**Table 2-7: Projected Water Rate Revenues**

Line	A Calculated Revenues	B FY 2024	C FY 2025	D FY 2026	E FY 2027	F FY 2028
1	<b>Service Charges</b>					
2	Single Family	\$6,485,136	\$6,485,136	\$6,485,136	\$6,485,136	\$6,485,136
3	Residential 2-4	\$175,688	\$175,688	\$175,688	\$175,688	\$175,688
4	Multi-Family 5+	\$863,007	\$863,007	\$863,007	\$863,007	\$863,007
5	Commercial / Industrial	\$1,901,485	\$1,901,485	\$1,901,485	\$1,901,485	\$1,901,485
6	Irrigation	\$823,595	\$823,595	\$823,595	\$823,595	\$823,595
7	Hydrant	\$61,344	\$61,344	\$61,344	\$61,344	\$61,344
8	Fireline	\$493,519	\$493,519	\$493,519	\$493,519	\$493,519
9	<b>Subtotal - Service Charges</b>	<b>\$10,803,774</b>	<b>\$10,803,774</b>	<b>\$10,803,774</b>	<b>\$10,803,774</b>	<b>\$10,803,774</b>
10						
11	<b>Commodity Rates</b>					
12	Single Family	\$16,997,492	\$16,997,492	\$16,997,492	\$16,997,492	\$16,997,492
13	Residential 2-4	\$935,283	\$935,283	\$935,283	\$935,283	\$935,283
14	Multi-Family 5+	\$8,461,942	\$8,461,942	\$8,461,942	\$8,461,942	\$8,461,942
15	Commercial / Industrial	\$11,071,869	\$11,071,869	\$11,071,869	\$11,071,869	\$11,071,869
16	Irrigation	\$6,872,753	\$6,872,753	\$6,872,753	\$6,872,753	\$6,872,753
17	Hydrant	\$211,473	\$211,473	\$211,473	\$211,473	\$211,473
18	<b>Subtotal - Commodity Rates</b>	<b>\$44,550,811</b>	<b>\$44,550,811</b>	<b>\$44,550,811</b>	<b>\$44,550,811</b>	<b>\$44,550,811</b>
19						
20	<b>Total - Rate Revenue</b>	<b>\$55,354,585</b>	<b>\$55,354,585</b>	<b>\$55,354,585</b>	<b>\$55,354,585</b>	<b>\$55,354,585</b>

## 2.5. Projected Water Revenues

**Table 2-8** shows the water enterprise's projected revenues for the study period. City staff provided the budgeted revenues for FY 2023 (Column B). Water rate revenues (Line 2) are equal to the calculated rate revenues at current rates (**Table 2-7**, Line 20) for FY 2024 and beyond.

Miscellaneous, non-rate revenues (Lines 7-9) are inflated using the corresponding revenue escalation factor (**Table 2-1**, Line 2). Interest income (Line 8) is calculated based on the reserve interest rate (**Table 2-1**, Line 3) and projected fund balances.

**Table 2-8: Projected Water Revenues**

Line	A Projected Revenues	B FY 2023	C FY 2024	D FY 2025	E FY 2026	F FY 2027	G FY 2028
1	<b>Operating Revenues</b>						
2	Water Sales and Service Charges	\$56,000,000	\$55,354,585	\$55,354,585	\$55,354,585	\$55,354,585	\$55,354,585
3	Water Installation Fees	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000
4	Other Fees	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000
5							
6	<b>Non-Operating Revenue</b>						
7	ISF - Fleet	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000
8	Interest Income	\$242,000	\$171,073	\$141,394	\$141,404	\$162,871	\$189,081
9	Transfers In: Debt Service	\$950,516	\$137,741	\$137,741	\$137,741	\$137,741	\$137,741
10							
11	<b>Total - Revenue</b>	<b>\$57,702,516</b>	<b>\$56,173,399</b>	<b>\$56,143,720</b>	<b>\$56,143,730</b>	<b>\$56,165,197</b>	<b>\$56,191,407</b>

## 2.6. Estimated Purchased Water Cost

The City purchases all water from the San Francisco Public Utilities Commission. The water utility’s annual purchased water cost includes a variable rate per ccf of water, a fixed meter charge, and a fixed debt refinance surcharge paid to the Bay Area Water Supply and Conservation Agency (BAWSCA), of which the City is a member agency.

**Table 2-9** shows the purchased water cost calculations for the study period. The City estimates 7.6% water loss (Line 1), which is based on the four-year average water loss from 2016 through 2019. Water demand (Line 3) is equal to the total water use for all customers (**Table 2-6**, Column I, Line 4). The amount of water produced (Line 4) is based on water demand accounting for water loss.

City staff provided current and estimated future SFPUC water costs by ccf of water produced (Line 6); the rate for FY 2024 has been adopted by SFPUC, whereas all other rates are estimates from staff based on best available information at the time of this Study. Fixed meter charges (Line 8) are inflated by the expense escalation factor for water purchases (**Table 2-1**, Line 10). City staff provided the amount for the BAWSCA refinance surcharge (Line 9), which is expected to stay constant for the study period. SFPUC water costs (Line 10) are calculated by multiplying the water purchased (Line 4) by the variable water cost (Line 6) for each year.

**Table 2-9: Purchased Water Costs**

Line	A Water Purchases	B FY 2024	C FY 2025	D FY 2026	E FY 2027	F FY 2028
1	Water Loss	7.6%	7.6%	7.6%	7.6%	7.6%
2						
3	Water Demand (ccf)	6,024,904	6,024,904	6,024,904	6,024,904	6,024,904
4	Water Produced (ccf)	6,520,459	6,520,459	6,520,459	6,520,459	6,520,459
5						
6	SFPUC Water Cost (\$/ccf)	\$5.21	\$5.21	\$5.21	\$5.31	\$5.63
7						
8	Fixed Meter Charges	\$254,544	\$254,544	\$254,544	\$254,544	\$254,544
9	Fixed BAWSCA Refinance Surcharge	\$2,445,576	\$2,445,576	\$2,445,576	\$2,445,576	\$2,445,576
10	Purchased Water Cost from SFPUC	\$33,971,591	\$33,971,591	\$33,971,591	\$34,623,637	\$36,710,183
11	<b>Purchased Water Cost</b>	<b>\$36,671,711</b>	<b>\$36,671,711</b>	<b>\$36,671,711</b>	<b>\$37,323,757</b>	<b>\$39,410,303</b>

## 2.7. Projected Water O&M Expenses

**Table 2-10** summarizes the projected O&M expenses for the study period. City staff provided the adopted budget for FY 2023, which was inflated for future years using expense escalation factors (**Table 2-1**). Water purchase costs (Line 4) is equal to the calculated costs (**Table 2-9**, Line 11) from FY 2022 and beyond. Water purchase costs, which are mostly comprised of direct purchases from SFPUC, represents on average 68% of the City’s water operating budget.

**Table 2-10: Projected Water O&M Expenses**

Line	A Operating Expenses	B FY 2023	C FY 2024	D FY 2025	E FY 2026	F FY 2027	G FY 2028
1	Personnel Services	\$10,156,372	\$10,539,362	\$10,937,531	\$11,351,519	\$11,781,995	\$12,229,657
2	Operations	\$5,806,145	\$5,980,329	\$6,159,739	\$6,344,531	\$6,534,867	\$6,730,913
3	Internal Service Charges	\$1,218,584	\$1,258,336	\$1,299,408	\$1,341,845	\$1,385,693	\$1,431,001
4	Water Purchase Cost	\$36,000,000	\$36,671,711	\$36,671,711	\$36,671,711	\$37,323,757	\$39,410,303
5	Other Expenditures	\$3,742,444	\$2,997,398	\$3,048,851	\$3,101,847	\$3,156,434	\$3,212,658
6	<b>Total - O&amp;M Expenses</b>	<b>\$57,023,545</b>	<b>\$57,550,136</b>	<b>\$58,223,329</b>	<b>\$58,920,726</b>	<b>\$60,295,297</b>	<b>\$63,130,460</b>

## 2.8. Existing Water Debt Service

Table 2-11 shows the City’s existing water utility debt service. The water enterprise currently has one outstanding borrowing for a Certificate of Participation issued in 2004, which is fully retired at the end of FY 2023. The City does not expect to issue any additional debt to fund water capital projects for this study period.

**Table 2-11: Existing Water Debt Service**

Line	A Existing Debt Service	B FY 2023	C FY 2024	D FY 2025	E FY 2026	F FY 2027	G FY 2028
1	<b>2004 COP</b>						
2	Principal	\$1,555,726	\$0	\$0	\$0	\$0	\$0
3	Interest	\$69,825	\$0	\$0	\$0	\$0	\$0
4	<b>Total</b>	<b>\$1,625,551</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

## 2.9. Water Capital Project Funding

**Table 2-12** shows a summary the City’s capital improvement plan for the water enterprise. City staff provided the 10-year adopted CIP in current year dollars. From FY 2024 onward, CIP costs are inflated using the expense escalation factor for capital (**Table 2-1**, Line 9). The City expects to fully fund its water capital program using cash from rate revenues and reserves.

**Table 2-12: Inflated Water Capital Improvement Plan**

Line	Capital Projects	A	B	C	D	E	F	G
		FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	
1	<b>Replacement Projects</b>							
2	Utility Center Prefabricated Structure Skin Rplcmnt.	\$0	\$287,040	\$0	\$0	\$0	\$0	\$0
3	Miscellaneous Hydrant Replacement Program	\$35,000	\$36,400	\$37,856	\$39,370	\$40,945	\$42,583	
4	Distribution System Pressure Reducing Strategy	\$30,000	\$0	\$0	\$0	\$0	\$0	
5	Conversion to Advanced Metering Infrastr. (AMI)	\$261,646	\$0	\$0	\$0	\$0	\$0	
6	AMI Customer Portal	\$242,655	\$0	\$0	\$0	\$0	\$0	
7	Project Predesign Services	\$25,000	\$26,000	\$27,040	\$28,122	\$29,246	\$30,416	
8	Tennyson Water Needs Assessment (EJCW)	\$0	\$0	\$0	\$0	\$0	\$0	
9	City Irrigation System Backflow Replacements	\$31,271	\$10,400	\$10,816	\$11,249	\$11,699	\$12,167	
10	Asset Management Plan	\$0	\$104,000	\$0	\$0	\$0	\$0	
11	Fittings Upgrade for Fire Dept. - Various Reservoirs	\$70,000	\$0	\$0	\$0	\$0	\$0	
12	Highland 1000 Emergency Generator	\$0	\$287,040	\$0	\$0	\$0	\$0	
13	Water Efficiency Program	\$30,000	\$0	\$0	\$0	\$0	\$0	
14	Water System Leak Detection Survey and Repair	\$0	\$0	\$0	\$168,730	\$0	\$0	
15	Water Efficiency Landscape Surveys and Incentives	\$148,739	\$0	\$0	\$0	\$0	\$0	
16	Water Conservation Database (NEW)	\$0	\$187,200	\$0	\$0	\$0	\$0	
17	Cast Iron Water Pipeline Replacement	\$0	\$0	\$0	\$0	\$0	\$0	
18	Mechanical/Electric Annual System Replacement Program	\$491,003	\$156,000	\$162,240	\$168,730	\$175,479	\$182,498	
19	Easement Protection & Landscape Clearing	\$233,000	\$0	\$0	\$0	\$0	\$0	
20	Air Release w/ Blow Off Access and Rehab	\$320,000	\$0	\$0	\$0	\$0	\$0	
21	Water Main Replacement Mission Blvd	\$0	\$0	\$0	\$0	\$0	\$0	
22	Repl 16" Water Line on Fancisco, Willis & Mission	\$0	\$0	\$0	\$0	\$0	\$0	
23	Floor Drain Modification Proj at 1285 & 1530 Tanks	\$0	\$0	\$0	\$0	\$0	\$0	
24	Well D2 Evaluation and Repair	\$0	\$0	\$0	\$0	\$0	\$0	
25	Restore Water Mains Crossing at I-880	\$550,000	\$0	\$0	\$0	\$0	\$0	
26	Coating Inspection/Relocation Various Reservoirs	\$50,000	\$2,444,000	\$0	\$0	\$0	\$0	
27	750' Reservoir Inspection and Repair	\$525,000	\$0	\$4,326,400	\$0	\$0	\$0	
28	Well B Evaluation and Repair	\$0	\$0	\$0	\$0	\$0	\$0	
29	Pressure Reducing Station Regulator Replacement	\$221,286	\$0	\$0	\$0	\$0	\$0	
30	Water Pump Station Valve Repair & Upgrade Various Stations	\$0	\$0	\$0	\$0	\$0	\$0	

		A	B	C	D	E	F	G
Line	Capital Projects	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	
31	Water Main Replacement Highland, Carroll, Zephyr, Cascade, Hickory, Stanwood, & Memorial Wy	\$0	\$0	\$0	\$0	\$0	\$0	\$0
32	SCADA System Evaluation and Upgrade	\$0	\$0	\$0	\$0	\$0	\$0	\$0
33	Cast Iron Water Pipeline Replacement - Local Streets	\$991,678	\$520,000	\$540,800	\$562,432	\$584,929	\$608,326	
34	Annual Line Replacements FY19	\$0	\$0	\$0	\$0	\$0	\$0	\$0
35	Annual Line Replacements FY20	\$0	\$0	\$0	\$0	\$0	\$0	\$0
36	12" CI Replacement, Sleepy Hollow to Industrial on Hesperian	\$2,046,000	\$0	\$0	\$0	\$0	\$0	\$0
37	Utilities SCADA Security Upgrade	\$0	\$0	\$0	\$0	\$0	\$0	\$0
38	1000 PZ Tank Roof Concrete Spalling Repair	\$121,638	\$0	\$0	\$0	\$0	\$0	\$0
39	Water System RRA & ERP Update	\$0	\$208,000	\$0	\$0	\$0	\$0	\$0
40	250' P/S Motor Starter Replacements	\$150,000	\$0	\$0	\$0	\$0	\$0	\$0
41	Annual Line Repairs FY21	\$0	\$0	\$0	\$0	\$0	\$0	\$0
42	Annual Line Replacements - FY 21	\$0	\$0	\$0	\$0	\$0	\$0	\$0
43	Annual Line Replacements - FY25-33	\$0	\$0	\$5,948,800	\$6,186,752	\$7,019,151	\$7,299,917	
44	Annual Line Repairs FY22-30	\$0	\$0	\$540,800	\$562,432	\$584,929	\$608,326	
45	Annual Pavement Patching FY21-30	\$25,000	\$26,000	\$27,040	\$28,122	\$29,246	\$30,416	
46	Hesperian P/S Main Breaker Replacement	\$100,000	\$0	\$0	\$0	\$0	\$0	\$0
47	Hesperian P/S VFD & Motor Drive Replacement	\$250,000	\$0	\$0	\$0	\$0	\$0	\$0
48	Water System RRA Mitigation Measures	\$100,000	\$0	\$0	\$0	\$0	\$0	\$0
49	Main Street Water Main Replacement	\$0	\$0	\$0	\$0	\$0	\$0	\$0
50	Annual Line Replacements FY23 (NEW)	\$5,500,000	\$0	\$0	\$0	\$0	\$0	\$0
51	Annual Line Repairs FY23 (NEW)	\$250,000	\$0	\$0	\$0	\$0	\$0	\$0
52	Water Line Improvement FY21	\$8,531,640	\$0	\$0	\$0	\$0	\$0	\$0
53	750 Tank Valve Replacement	\$0	\$0	\$0	\$0	\$0	\$0	\$0
54	Skywest & Hesperian Pump Station Generator Fuel Replacement and Line Repairs	\$128,000	\$0	\$0	\$0	\$0	\$0	\$0
55	Annual Line Replacements FY22	\$3,455,880	\$0	\$0	\$0	\$0	\$0	\$0
56	Annual Line Repairs FY22	\$0	\$0	\$0	\$0	\$0	\$0	\$0
57	Hesperian Pump Station Underground Diesel Fuel Tank Replacement (NEW)	\$0	\$416,000	\$0	\$0	\$0	\$0	\$0
58	Skywest Pump Station Underground Diesel Fuel Tank Replacement (NEW)	\$0	\$416,000	\$0	\$0	\$0	\$0	\$0
59	Annual Line Replacements FY 24 (NEW)	\$0	\$5,720,000	\$0	\$0	\$0	\$0	\$0



	A	B	C	D	E	F	G
Line	Capital Projects	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
60	Emergency Annual Line Repairs (NEW)	\$0	\$520,000	\$0	\$0	\$0	\$0
61	<b>Subtotal - Replacement Projects</b>	<b>\$24,914,435</b>	<b>\$11,077,040</b>	<b>\$11,621,792</b>	<b>\$7,755,937</b>	<b>\$8,475,625</b>	<b>\$8,814,650</b>
62							
63	<b>Improvement Projects</b>						
64	<b>Subtotal - Improvement Projects</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
65							
66	<b>Total - Capital Projects</b>	<b>\$24,914,435</b>	<b>\$11,077,040</b>	<b>\$11,621,792</b>	<b>\$7,755,937</b>	<b>\$8,475,625</b>	<b>\$8,814,650</b>

## 2.10. Water Reserve Policy

The City’s current reserve policy consists of a reserve target equal to 25% of annual O&M expenses, 100% of the rolling average of five years of rate-funded CIP, and 25% of annual commodity rate revenues. Error! Reference source not found. shows a summary of the existing reserve policy and the reserve target for FY 2024.

**Table 2-13: Existing Reserve Policy and FY 2024 Targets**

	A	B	C
Line	Reserve Targets	Recommended Target Policy	FY 2024 Target
1	Operating	25% O&M Expenses	\$14,387,534
2	Capital	One Year of 5-year Average CIP	\$9,549,009
3	Rate Stabilization	25% of Commodity Revenues	\$11,973,031
4	<b>Total</b>		<b>\$35,909,573</b>
5			
6	<i>Days Cash on Hand</i>		<i>191</i>

## 2.11. Water Status Quo Financial Plan

**Table 2-14** shows the projected water financial plan based on revenues at existing rates with no adjustments, or the “status quo” scenario. Revenues (Lines 1-7) are derived from

**Table 2-8.** Note that revenues from interest income in the status quo scenario is lower, due to a decrease in fund balances. O&M expenses (Lines 9-12) are derived from **Table 2-10**. Existing debt service (Line 16) and cash funded CIP (Line 18) are derived from **Table 2-11** and

**Table 2-12**, respectively.

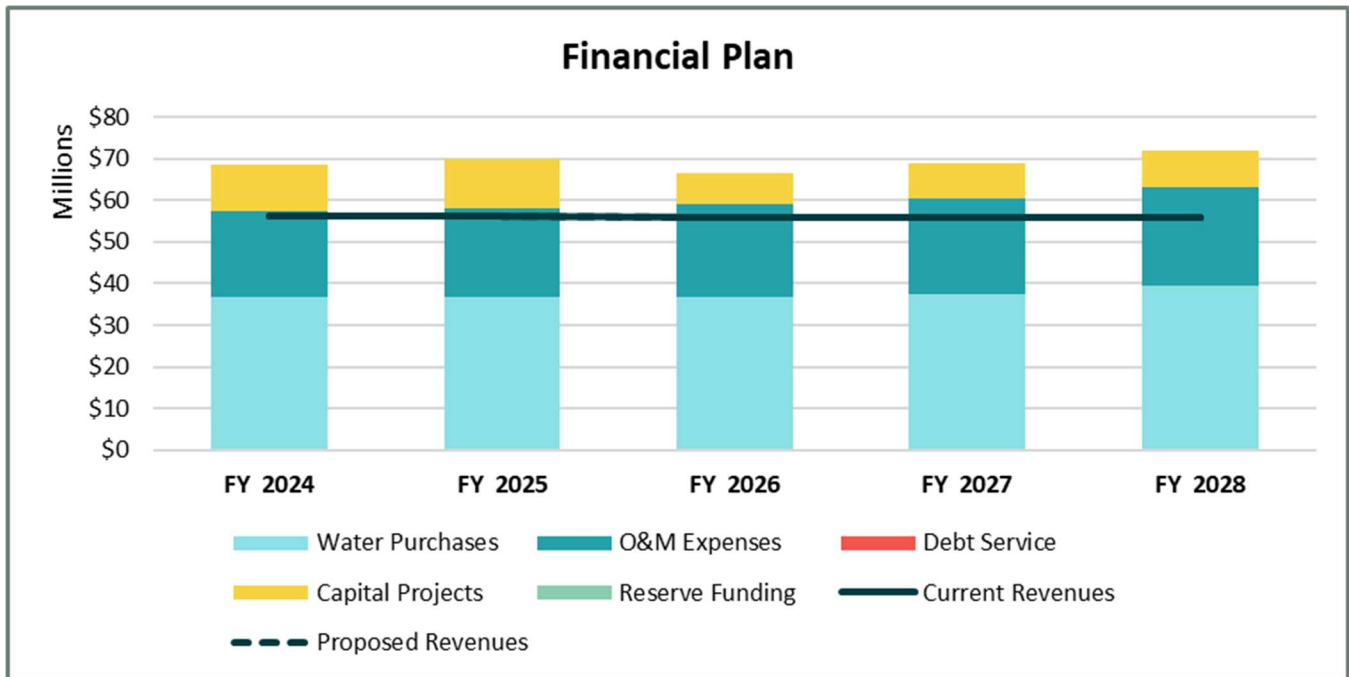
Net revenue (Line 14) is equal to total revenues (Line 7) less O&M expenses (Line 12). Net cash flow (Line 20) is equal to net revenue less debt service (Line 16) and cash funded CIP (Line 18). Debt coverage (Line 23) is calculated by dividing net revenue by debt service. City staff provided beginning fund balances for FY 2023 (Column B, Line 26). Ending balances (Line 27) are calculated by adding beginning balances to net cash flow (Line 20). The reserve target is provided in Error! Reference source not found.. Under the status quo scenario, the water fund will not meet reserve targets from FY 2024 onward.

**Table 2-14: Projected Water Financial Plan (Status Quo)**

Line	A Financial Plan	B FY 2023	C FY 2024	D FY 2025	E FY 2026	F FY 2027	G FY 2028
1	<b>Revenues</b>						
2	Water Rate Revenue	\$56,000,000	\$55,354,585	\$55,354,585	\$55,354,585	\$55,354,585	\$55,354,585
3	Revenue Adjustments	\$0	\$0	\$0	\$0	\$0	\$0
4	Other Operating Revenue	\$450,000	\$450,000	\$450,000	\$450,000	\$450,000	\$450,000
5	Non-Operating Revenue	\$1,010,516	\$197,741	\$197,741	\$197,741	\$197,741	\$197,741
6	Interest Income	\$242,000	\$160,694	\$95,328	\$34,512	\$0	\$0
7	<b>Total - Revenues</b>	<b>\$57,702,516</b>	<b>\$56,163,020</b>	<b>\$56,097,654</b>	<b>\$56,036,838</b>	<b>\$56,002,326</b>	<b>\$56,002,326</b>
8							
9	<b>O&amp;M Expenses</b>						
10	Water Purchase Cost	\$36,000,000	\$36,671,711	\$36,671,711	\$36,671,711	\$37,323,757	\$39,410,303
11	Other O&M Expenses	\$21,023,545	\$20,878,425	\$21,551,619	\$22,249,015	\$22,971,540	\$23,720,156
12	<b>Total - O&amp;M Expenses</b>	<b>\$57,023,545</b>	<b>\$57,550,136</b>	<b>\$58,223,329</b>	<b>\$58,920,726</b>	<b>\$60,295,297</b>	<b>\$63,130,460</b>
13							
14	<b>Net Revenue</b>	<b>\$678,971</b>	<b>(\$1,387,116)</b>	<b>(\$2,125,675)</b>	<b>(\$2,883,888)</b>	<b>(\$4,292,971)</b>	<b>(\$7,128,134)</b>
15							
16	<b>Existing Debt Service</b>	<b>\$1,625,551</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
17							
18	<b>Cash Funded CIP</b>	<b>\$24,914,435</b>	<b>\$11,077,040</b>	<b>\$11,621,792</b>	<b>\$7,755,937</b>	<b>\$8,475,625</b>	<b>\$8,814,650</b>
19							
20	<b>Net Cash Flow</b>	<b>(\$25,861,015)</b>	<b>(\$12,464,156)</b>	<b>(\$13,747,467)</b>	<b>(\$10,639,825)</b>	<b>(\$12,768,596)</b>	<b>(\$15,942,784)</b>
21							
22	<b>Debt Coverage</b>						
23	Calculated	0.42					
24	Required	1.10	1.10	1.10	1.10	1.10	1.10
25							
26	Beginning Balance	\$64,312,268	\$38,451,252	\$25,987,097	\$12,239,630	\$1,599,805	(\$11,168,792)
27	<b>Ending Balance</b>	<b>\$38,451,252</b>	<b>\$25,987,097</b>	<b>\$12,239,630</b>	<b>\$1,599,805</b>	<b>(\$11,168,792)</b>	<b>(\$27,111,576)</b>
28							
29	<b>Reserve Target</b>	<b>\$38,079,001</b>	<b>\$35,074,246</b>	<b>\$34,860,583</b>	<b>\$34,617,359</b>	<b>\$35,392,871</b>	<b>\$36,468,916</b>
30	<i>Operating</i>	<i>\$14,255,886</i>	<i>\$14,387,534</i>	<i>\$14,555,832</i>	<i>\$14,730,182</i>	<i>\$15,073,824</i>	<i>\$15,782,615</i>
31	<i>Replacement Capital</i>	<i>\$12,768,966</i>	<i>\$9,549,009</i>	<i>\$9,167,048</i>	<i>\$8,749,475</i>	<i>\$9,181,344</i>	<i>\$9,548,598</i>
32	<i>Rate Stabilization</i>	<i>\$11,054,149</i>	<i>\$11,137,703</i>	<i>\$11,137,703</i>	<i>\$11,137,703</i>	<i>\$11,137,703</i>	<i>\$11,137,703</i>

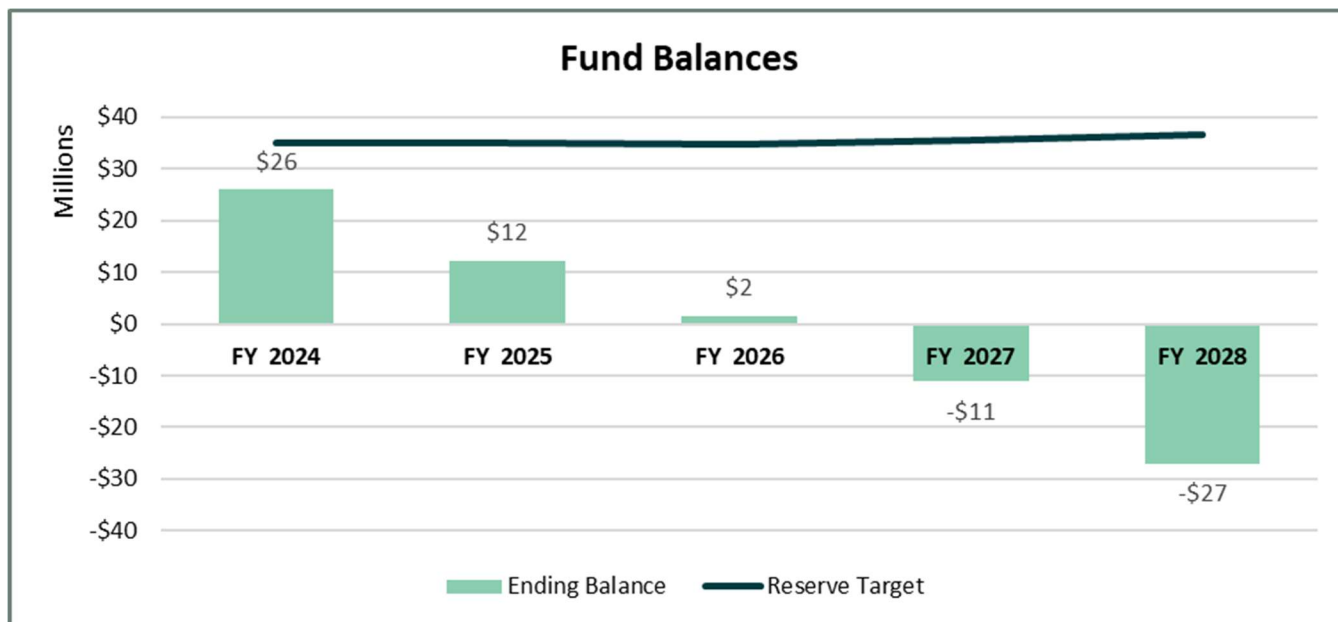
**Figure 2-1** shows the projected status quo financial plan in graphical format. The bars represent the water utility’s cash needs: water purchases (light blue), O&M expenses (medium blue), debt service (red), capital projects (yellow), and reserve funding (light green). The solid line represents the current revenues, which is below the stacked bars for all years of the period, signifying that the City’s water revenues are not sufficient to fund its total costs.

**Figure 2-1: Projected Water Financial Plan (Status Quo)**



**Figure 2-2** shows the projected fund balances under the status quo scenario for a 5-year period. The light green bars represent the ending balances of the water fund, and the solid line represents the reserve target amounts. The water fund balance will be depleted following FY 2026 and become negative in FY 2027.

Figure 2-2: Projected Water Fund Balances (Status Quo)



## 2.12. Proposed Water Financial Plan

Table 2-15 shows the proposed revenue adjustments that allow the water utility to maintain financial sufficiency, fund operating and capital expenses, and build up cash reserves over the study period (FY 2024 through FY 2028) to achieve the recommended target. The planning period for the study includes five years of projections, which is reflected in the tables of the report that show information for FY 2024 to FY 2028. The City has opted to build up its water reserves over a 5-year period to minimize customer impacts.

The proposed revenue adjustments represent the increase to total rate revenues required to recover the water utility’s costs. Revenue adjustments in all years are applied across all charges, classes, and tiers proportional to existing rates. The proposed revenue adjustments are planned to be effective on October 1 of every year.

Table 2-15: Proposed Water Revenue Adjustments

Line	A	B	C	D	E	F
Revenue Adjustments	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2028
1	Effective Month	October	October	October	October	October
2	% Adjustment	10%	10%	5%	5%	5%



**Table 2-16** shows the projected water financial plan with the proposed revenue adjustments in **Table 2-15** applied to the water rate revenues. Revenues from interest income (Line 6) are greater than those shown in the status quo scenario (

**Table 2-14**, Line 6) due to additional cash from the proposed adjustments. O&M expenses (Line 12), debt service (Line 16), and cash funded CIP (Line 18) are the same as the status quo scenario.

Net cash flow (Line 20) is positive in FY 2026, FY 2027, and FY 2028, which means that the City will be adding to reserves in those years. Net cash flow is negative for all other years, which means that the City will be drawing down its water fund to pay for capital costs. The ending balances (Line 27) will not meet the recommended reserve target (Line 29) until FY 2028. **Figure 2-3** shows the proposed financial plan, with proposed revenues greater than projected expenses from FY 2026 through FY 2028. The City will build up its water reserves over the study period, as shown in **Figure 2-4**. This approach reduces the financial impact on customers to the greatest extent possible, while ensuring long-term financial sufficiency.

Table 2-16: Projected Water Financial Plan (Proposed Adjustments)

Line	A Financial Plan	B FY 2023	C FY 2024	D FY 2025	E FY 2026	F FY 2027	G FY 2028
1	<b>Revenues</b>						
2	Water Rate Revenue	\$56,000,000	\$55,354,585	\$55,354,585	\$55,354,585	\$55,354,585	\$55,354,585
3	Revenue Adjustments	\$0	\$4,151,594	\$10,102,212	\$14,136,177	\$17,610,715	\$21,258,980
4	Other Operating Revenue	\$450,000	\$450,000	\$450,000	\$450,000	\$450,000	\$450,000
5	Non-Operating Revenue	\$1,010,516	\$197,741	\$197,741	\$197,741	\$197,741	\$197,741
6	Interest Income	\$242,000	\$171,073	\$141,394	\$141,404	\$162,871	\$189,081
7	<b>Total - Revenues</b>	<b>\$57,702,516</b>	<b>\$60,324,993</b>	<b>\$66,245,932</b>	<b>\$70,279,907</b>	<b>\$73,775,912</b>	<b>\$77,450,387</b>
8							
9	<b>O&amp;M Expenses</b>						
10	Water Purchase Cost	\$36,000,000	\$36,671,711	\$36,671,711	\$36,671,711	\$37,323,757	\$39,410,303
11	Other O&M Expenses	\$21,023,545	\$20,878,425	\$21,551,619	\$22,249,015	\$22,971,540	\$23,720,156
12	<b>Total - O&amp;M Expenses</b>	<b>\$57,023,545</b>	<b>\$57,550,136</b>	<b>\$58,223,329</b>	<b>\$58,920,726</b>	<b>\$60,295,297</b>	<b>\$63,130,460</b>
13							
14	<b>Net Revenue</b>	<b>\$678,971</b>	<b>\$2,774,857</b>	<b>\$8,022,602</b>	<b>\$11,359,181</b>	<b>\$13,480,615</b>	<b>\$14,319,927</b>
15							
16	<b>Existing Debt Service</b>	<b>\$1,625,551</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
17							
18	<b>Cash Funded CIP</b>	<b>\$24,914,435</b>	<b>\$11,077,040</b>	<b>\$11,621,792</b>	<b>\$7,755,937</b>	<b>\$8,475,625</b>	<b>\$8,814,650</b>
19							
20	<b>Net Cash Flow</b>	<b>(\$25,861,015)</b>	<b>(\$8,302,183)</b>	<b>(\$3,599,190)</b>	<b>\$3,603,244</b>	<b>\$5,004,990</b>	<b>\$5,505,277</b>
21							
22	<b>Debt Coverage</b>						
23	Calculated	0.42					
24	Required	1.10	1.10	1.10	1.10	1.10	1.10
25							
26	Beginning Balance	\$64,312,268	\$38,451,252	\$30,149,069	\$26,549,880	\$30,153,123	\$35,158,113
27	<b>Ending Balance</b>	<b>\$38,451,252</b>	<b>\$30,149,069</b>	<b>\$26,549,880</b>	<b>\$30,153,123</b>	<b>\$35,158,113</b>	<b>\$40,663,390</b>
28							
29	<b>Reserve Target</b>	<b>\$38,079,001</b>	<b>\$35,909,573</b>	<b>\$36,893,214</b>	<b>\$37,461,650</b>	<b>\$38,936,262</b>	<b>\$40,746,361</b>
30	<i>Operating</i>	<i>\$14,255,886</i>	<i>\$14,387,534</i>	<i>\$14,555,832</i>	<i>\$14,730,182</i>	<i>\$15,073,824</i>	<i>\$15,782,615</i>
31	<i>Replacement Capital</i>	<i>\$12,768,966</i>	<i>\$9,549,009</i>	<i>\$9,167,048</i>	<i>\$8,749,475</i>	<i>\$9,181,344</i>	<i>\$9,548,598</i>
32	<i>Rate Stabilization</i>	<i>\$11,054,149</i>	<i>\$11,973,031</i>	<i>\$13,170,334</i>	<i>\$13,981,994</i>	<i>\$14,681,093</i>	<i>\$15,415,148</i>

Figure 2-3: Projected Water Financial Plan (Proposed Adjustments)

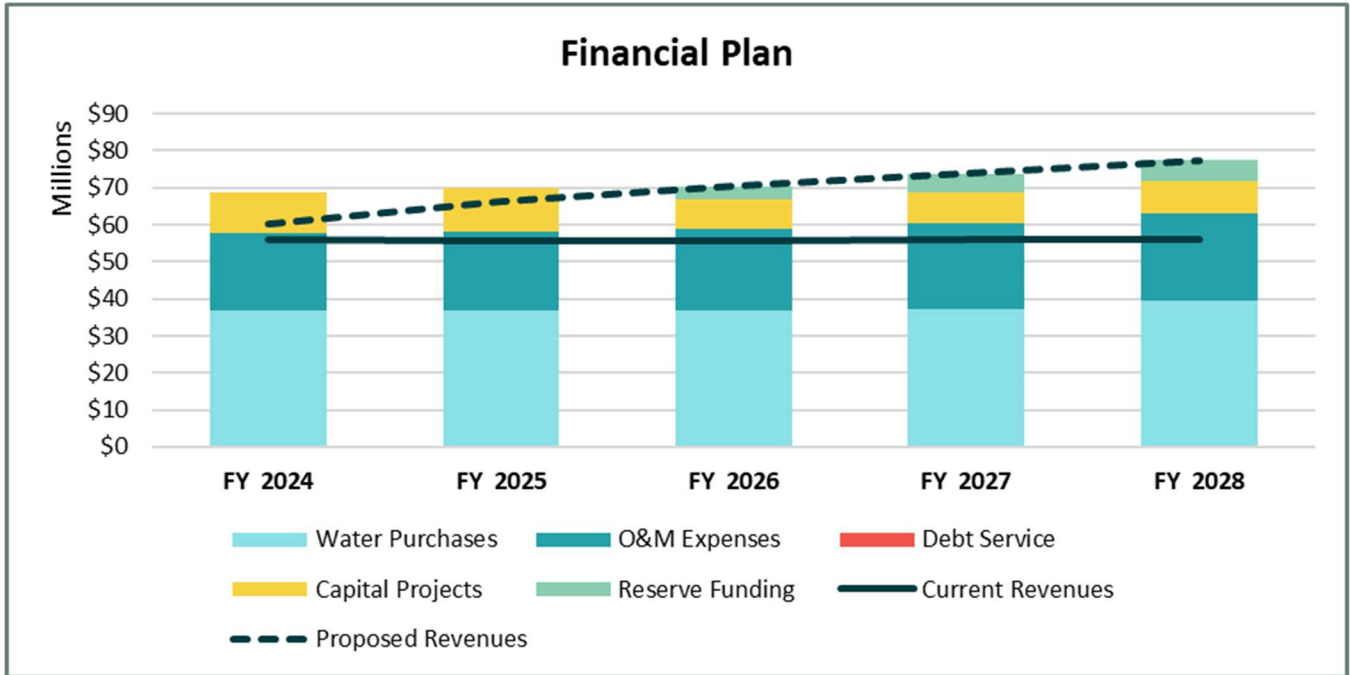
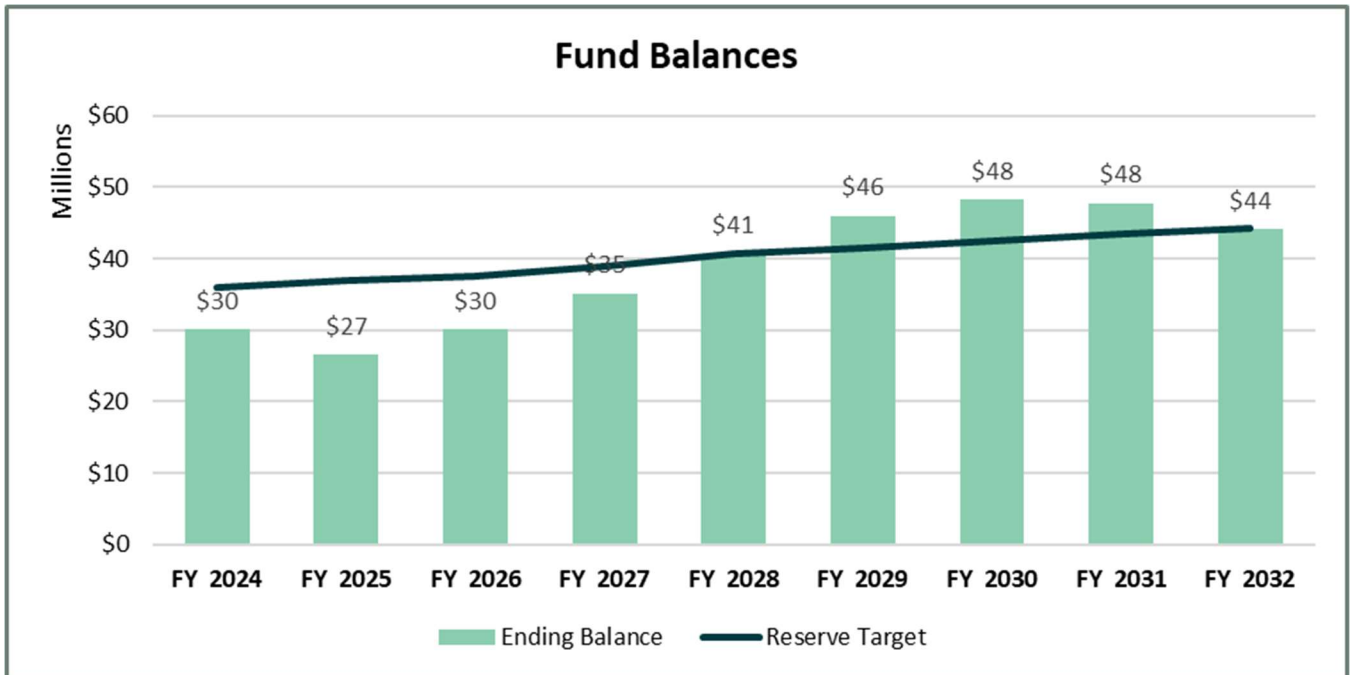


Figure 2-4: Projected Water Fund Balances (Proposed Adjustments)



## 2.13. Proposed Water Rate Schedule

The rates shown in this subsection are increased for FY 2024 and FY 2025 based on the proposed revenue adjustments shown in **Table 2-15**. **Table 2-17** shows the two-year rate schedule for the proposed bi-monthly service charges. The Low Income<sup>3</sup> charges (Lines 1-3) for all years is equal to 35% of the service charges for the corresponding meter sizes. **Table 2-18** shows the two-year rate schedule for bi-monthly fire service charges. **Table 2-19** shows the two-year rate schedule for water usage rates.

**Table 2-17: Proposed Bi-Monthly Service Charge**

	A	B	C
Line	Meter Size	Proposed FY 2024	Proposed FY 2025
1	5/8" Low Income	\$12.41	\$13.66
2	3/4" Low Income	\$17.32	\$19.06
3	1" Low Income	\$27.13	\$29.85
4	5/8"	\$35.45	\$39.00
5	3/4"	\$49.46	\$54.41
6	1"	\$77.50	\$85.25
7	1 1/2"	\$147.58	\$162.34
8	2"	\$231.68	\$254.85
9	3"	\$497.97	\$547.77
10	4"	\$890.41	\$979.46
11	6"	\$1,829.46	\$2,012.41
12	8"	\$3,931.80	\$4,324.98
13	10"	\$5,894.00	\$6,483.40

**Table 2-18: Proposed Bi-Monthly Fire Service Charges**

	A	B	C
Line	Fire Line Diameter	Proposed FY 2024	Proposed FY 2025
1	5/8"	\$7.54	\$8.30
2	3/4"	\$7.63	\$8.40
3	1"	\$7.86	\$8.65
4	1 1/2"	\$8.68	\$9.55
5	2"	\$10.12	\$11.14
6	3"	\$15.29	\$16.82
7	4"	\$24.19	\$26.61
8	6"	\$56.12	\$61.74
9	8"	\$111.19	\$122.31
10	10"	\$194.03	\$213.44

<sup>3</sup> Revenues that are not generated from rates, e.g., revenue from water installation fees, are discretionary funds that the City may use to provide these discounts.

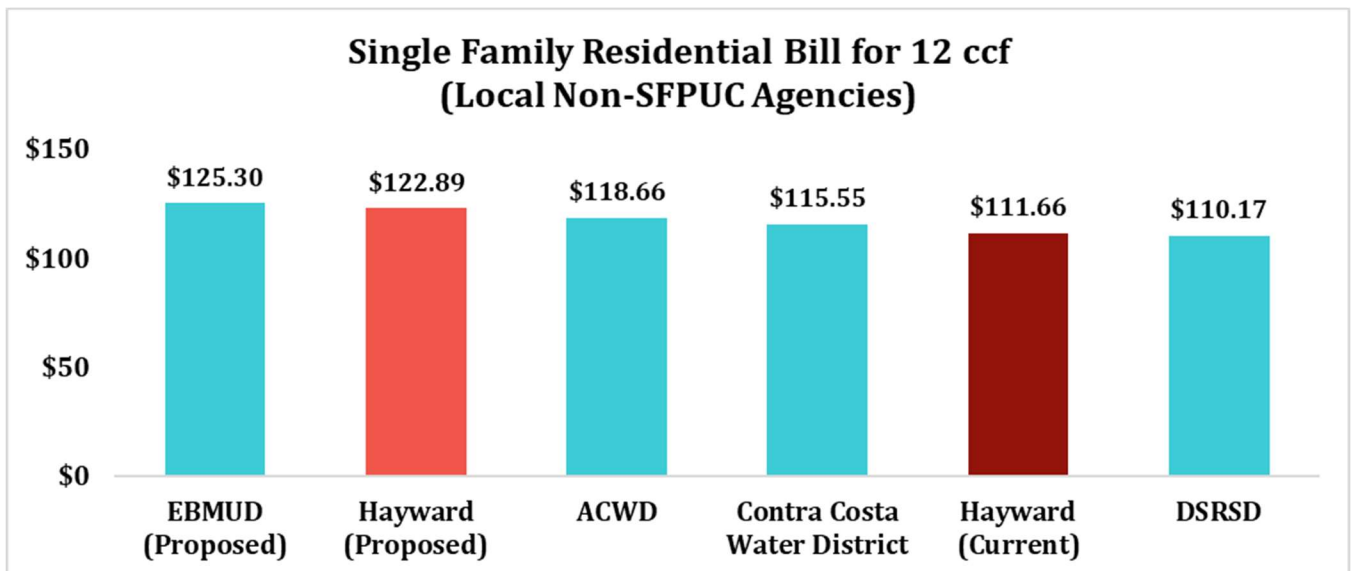
**Table 2-19: Proposed Water Usage Rates**

Line	A Customer Class	B Bi-Monthly Tiers (ccf)	C Proposed FY 2024	D Proposed FY 2025
1	<b>Residential</b>			
2	Tier 1	8	\$6.86	\$7.55
3	Tier 2	18	\$8.14	\$8.96
4	Tier 3	18+	\$10.00	\$11.00
5				
6	<b>Commercial / Industrial</b>			
7	Tier 1	110	\$7.44	\$8.19
8	Tier 2	110+	\$8.74	\$9.62
9				
10	<b>Irrigation</b>			
11	Tier 1	170	\$8.80	\$9.68
12	Tier 2	170+	\$11.20	\$12.32
13				
14	<b>Hydrant</b>	Uniform	\$8.29	\$9.12

## 2.14. Rate Survey

The City prepared a survey of bi-monthly Single Family Residential and Commercial customer bills for several local agencies and agencies that also purchase 100% of their potable water from SFPUC. **Figure 2-5** and **Figure 2-6** show the Single Family bill comparison for a 5/8” meter using 12 ccf of water per bi-monthly billing period.

**Figure 2-5: Single Family Water Bill Comparison with Non-SFPUC Agencies**



**Figure 2-6: Single Family Water Bill Comparison with SFPUC Agencies**

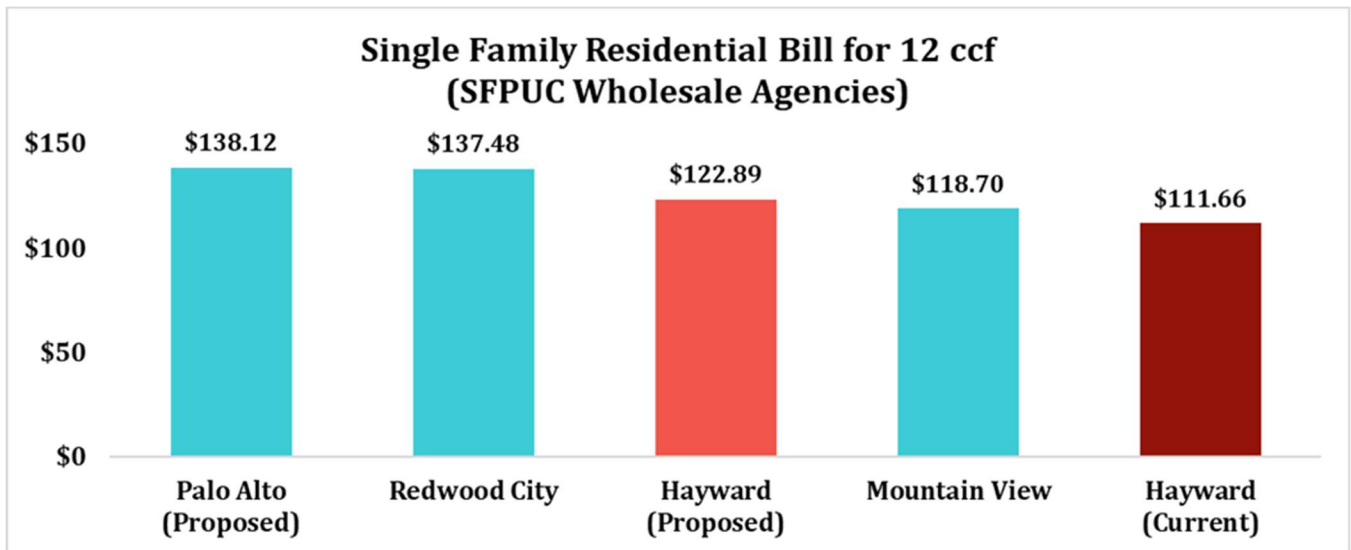


Figure 2-7 and Figure 2-8 show the Commercial bill comparison for a 1” meter using 110 ccf of water per bi-monthly billing period. Water bills for the City’s customers are generally higher than those of local agencies. However, this is mainly due to the cost of purchasing SFPUC water. Compared to the agencies in the area that also deliver SFPUC water, the City’s water bills are at the lower end.

**Figure 2-7: Commercial Water Bill Comparison with Local Non-SFPUC Agencies**

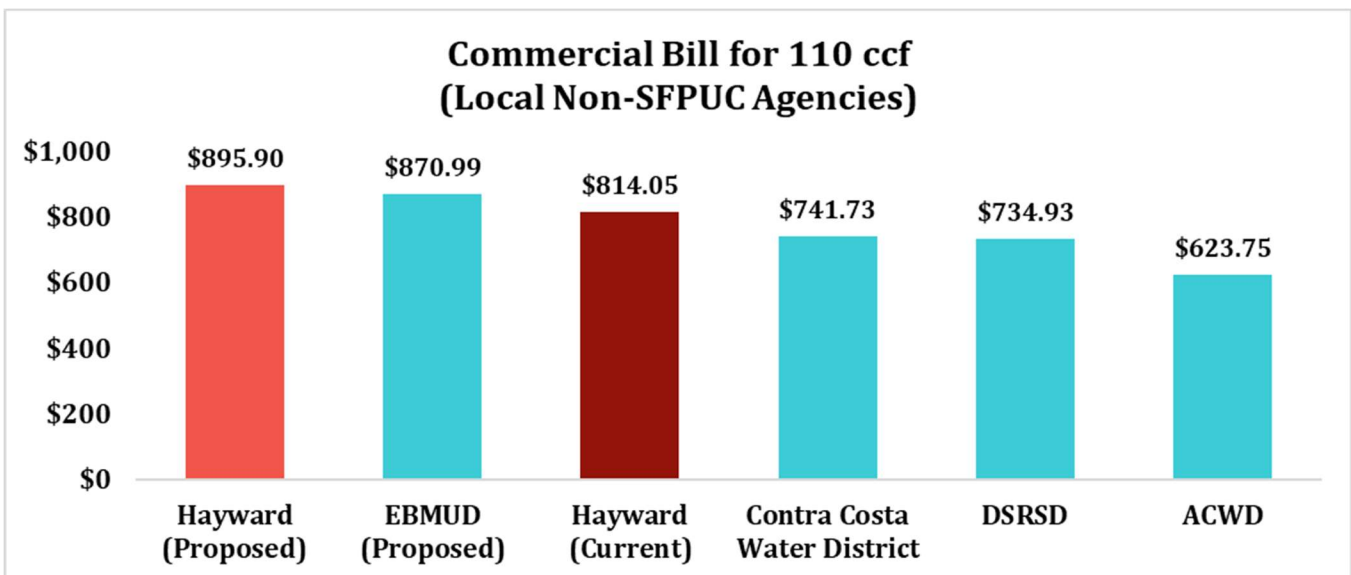
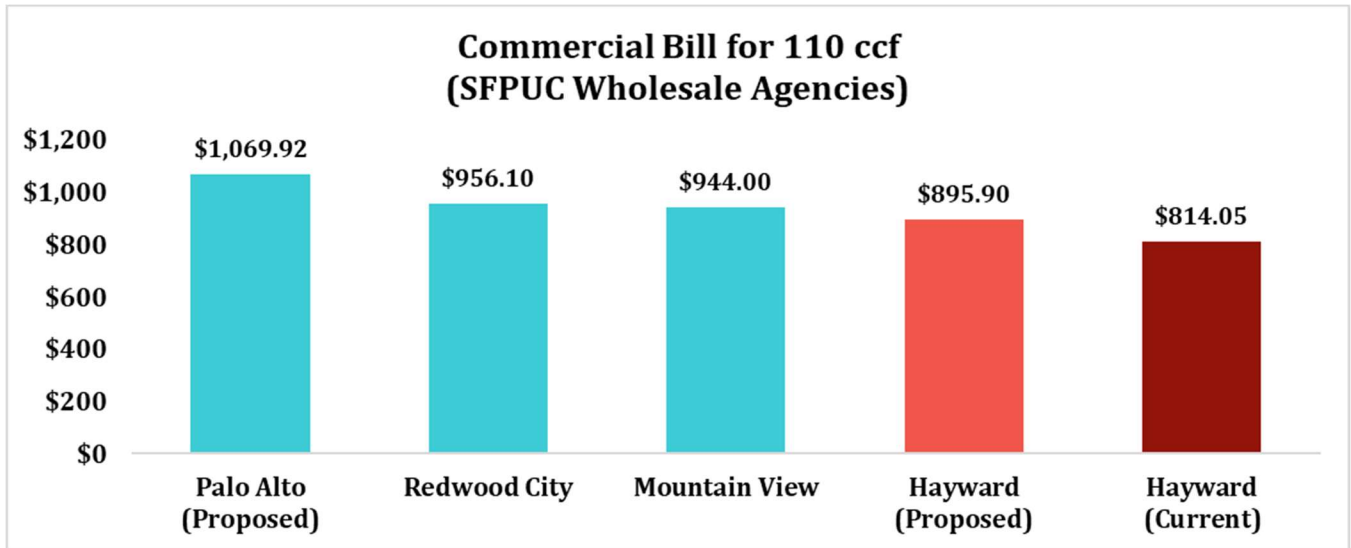


Figure 2-8: Commercial Water Bill Comparison with SFPUC Agencies





## 3. Recycled Water Financial Plan & Rates

This section of the report describes the recycled water fund and proposed financial plan and rates. To develop the financial plan, Raftelis projects annual revenues and expenses, models reserve balances, and calculates debt service coverage to estimate the amount of additional rate revenue needed each year. Numbers shown in the tables of this section are rounded. Therefore, hand calculations based on the displayed numbers, such as summing or multiplying, may not equal the exact results shown.

### 3.1. Inflationary Assumptions

Inflationary factors are used to escalate the revenue and cost categories across the planning period, which for this study is from FY 2023 to FY 2028. The City's most recent adopted revenue and expense budgets are for FY 2023. Raftelis worked with City staff to escalate individual budget line items according to the most appropriate escalation factor. The escalation factors used to project revenues and expenses for the study period are shown in **Table 3-1**. These factors are based on industry indices, such as CPI, and input from City staff.

**Table 3-1: Recycled Water Escalation Factors**

Line	A Escalation Factors	B FY 2022	C FY 2023	D FY 2024	E FY 2025	F FY 2026
1	<b>Revenues</b>					
2	Miscellaneous Revenues	0%	0%	0%	0%	0%
3	Interest Income	0.5%	0.5%	0.5%	0.5%	0.5%
4	<b>Expenses</b>					
5	General	3%	3%	3%	3%	3%
6	Salary	3%	3%	3%	3%	3%
7	Benefits	5%	5%	5%	5%	5%
8	Utilities	3%	3%	3%	3%	3%
9	Capital	4%	4%	4%	4%	4%

### 3.2. Current Recycled Water Rates

The City's current recycled water rates were implemented on October 1, 2020 and include a bi-monthly service charge based on meter size and a uniform usage rate charged for every ccf of recycled water used. **Table 3-2** shows the current bi-monthly service charges by meter size. The bi-monthly service charges are the same as the water utility's bi-monthly service charges by meter size. **Table 3-3** shows the current uniform recycled water use rate.

**Table 3-2: Current Bi-Monthly Recycled Water Service Charges**

Line	A Meter Size	B Bi-Monthly Charges
1	5/8"	\$32.22
2	3/4"	\$44.96
3	1"	\$70.45
4	1 1/2"	\$134.16
5	2"	\$210.61
6	3"	\$452.70
7	4"	\$809.46
8	6"	\$1,663.14
9	8"	\$3,574.36
10	10"	\$5,358.18

**Table 3-3: Current Recycled Water Usage Rates (\$/ccf)**

Line	A Customer Class	B Bi-Monthly Tiers	C Usage Charge (\$/ccf)
1	Recycled Water	Uniform	\$5.16

### 3.3. Customer Accounts and Usage

City staff provided detailed customer billing data for FY 2022 and a portion of FY 2023, which included information such as billed consumption in ccf and meter size for each of the bi-monthly billing periods.

**Table 3-4** shows the meter counts by meter size for FY 2022, which was provided by City staff. FY 2022 meter count data was used to represent the data most accurately for the current fiscal year.

**Table 3-5** shows the recycled water usage, in ccf, projected for FY 2023. Because recycled water service began at the end of FY 2022, the usage data for FY 2022 and for FY 2023 through the November-December billing period was used to estimate the usage in FY 2023. Water and recycled water use in the City has largely stabilized after the last multi-year drought, which is consistent with the stabilization and hardening of demand that other agencies throughout California have observed.

We assume no growth in either customer demand or accounts throughout the study period to conservatively project future rate revenues and to consider the potential of near-term drought conditions.

**Table 3-4: Recycled Water Accounts (FY 2022)**

Line	A	B
	Meter Count	FY 2022
1	5/8"	0
2	3/4"	1
3	1"	2
4	1 1/2"	27
5	2"	13
6	3"	1
7	4"	3
8	6"	0
9	<b>Total</b>	<b>47</b>

**Table 3-5: Recycled Water Use (Projected FY 2023)**

Line	A	B
	Recycled Water Usage	FY 2023
1	Commercial	24,559
2	Industrial	31,383
3	COH	8,394
4	HUSD	26,812
5	HARD	20,878
6	State of CA	144
7	<b>Total - Usage (ccf)</b>	<b>112,170</b>

### 3.4. Projected Recycled Water Revenues at Current Rates

**Table 3-6** shows the calculated rate revenues for FY 2024 through FY 2028 based on the City's current recycled water rates. The projected annual rate revenues for the bi-monthly service charges (Line 1) are determined using the current bi-monthly service charges (**Table 3-2**) multiplied by the meter counts for six billing periods. Similarly, the projected annual recycled water use rate revenues (Line 11) are determined using the current usage rate (**Table 3-3**) multiplied by water use in ccf for all customers (**Table 3-5**). Note that the projected rate revenues stay constant from FY 2024 through FY 2028, which is a result of maintaining the same amount of customer accounts, at the same level of water demand, and at the current rates, throughout the study period.

**Table 3-6: Projected Recycled Water Rate Revenues**

Line	A Calculated Rate Revenues	B FY 2023	C FY 2024	D FY 2025	E FY 2026	F FY 2027	G FY 2028
1	Service Charge Revenue	\$70,945	\$70,945	\$70,945	\$70,945	\$70,945	\$70,945
2							
3	Commodity Rates (\$/ccf)						
4	Commercial	\$126,726	\$126,726	\$126,726	\$126,726	\$126,726	\$126,726
5	Industrial	\$161,935	\$161,935	\$161,935	\$161,935	\$161,935	\$161,935
6	COH	\$43,315	\$43,315	\$43,315	\$43,315	\$43,315	\$43,315
7	HUSD	\$138,348	\$138,348	\$138,348	\$138,348	\$138,348	\$138,348
8	HARD	\$107,731	\$107,731	\$107,731	\$107,731	\$107,731	\$107,731
9	State CA	\$743	\$743	\$743	\$743	\$743	\$743
10							
11	Total Commodity Revenue	\$578,800	\$578,800	\$578,800	\$578,800	\$578,800	\$578,800
12							
13	<b>Total - Calculated Rate Revenues</b>	<b>\$649,744</b>	<b>\$649,744</b>	<b>\$649,744</b>	<b>\$649,744</b>	<b>\$649,744</b>	<b>\$649,744</b>

### 3.5. Projected Recycled Water Revenues

Table 3-7 shows the recycled water enterprise’s projected revenues for the study period. City staff provided the budgeted revenues for FY 2023 (Column B). Recycled water rate revenues (Lines 2 and 3) are equal to the calculated rate revenues at current rates (Table 3-6) for FY 2024 and beyond. Interest income (Line 7) is calculated based on the reserve interest rate (Table 3-1) and projected fund balances. The recycled water enterprise receives a transfer from the water fund to cover debt service payments.

**Table 3-7: Projected Recycled Water Revenues**

Line	A Revenues	B FY 2023	C FY 2024	D FY 2025	E FY 2026	F FY 2027	G FY 2028
1	<b>Operating Revenues</b>						
2	Recycled Water Sales	\$597,300	\$578,800	\$578,800	\$578,800	\$578,800	\$578,800
3	Recycled Water Service Fees	\$58,401	\$70,945	\$70,945	\$70,945	\$70,945	\$70,945
4							
5	<b>Non-Operating Revenues</b>						
6	Transfers-In: Other	\$610,000	\$600,000	\$600,000	\$300,000	\$300,000	\$300,000
7	Interest Income	\$0	\$38	\$1,790	\$3,199	\$4,056	\$4,992
8							
9	<b>Total Revenue</b>	<b>\$1,265,701</b>	<b>\$1,249,783</b>	<b>\$1,251,534</b>	<b>\$952,943</b>	<b>\$953,800</b>	<b>\$954,736</b>

### 3.6. Projected Recycled Water O&M Expenses

Table 3-8 summarizes the projected recycled water O&M expenses for the study period. City staff provided the adopted budget for FY 2023, which is inflated in future years using the expense escalation factors (Table 3-1).

Table 3-8: Projected Recycled Water O&amp;M Expenses

Line	A O&M Expenses	B FY 2023	C FY 2024	D FY 2025	E FY 2026	F FY 2027	G FY 2028
1	Personnel Services	\$135,057	\$140,033	\$145,206	\$150,581	\$156,170	\$161,979
2	Operations	\$160,300	\$165,109	\$170,062	\$175,164	\$180,419	\$185,832
3	Internal Service Charges	\$9,129	\$9,403	\$9,685	\$9,975	\$10,275	\$10,583
4	Other Expenditures	\$183,000	\$200,000	\$200,000	\$200,000	\$210,000	\$210,000
5							
6	<b>Total Operating Expenses</b>	<b>\$487,486</b>	<b>\$514,545</b>	<b>\$524,953</b>	<b>\$535,721</b>	<b>\$556,863</b>	<b>\$568,393</b>

### 3.7. Existing Recycled Water Debt Service

Table 3-9 shows the City's existing recycled water debt service. The recycled water enterprise currently has one outstanding issue for a SRF loan issued in 2021. The City does not expect to issue any additional debt to fund recycled water capital projects for this study period.

Table 3-9: Existing Recycled Water Debt Service

Line	A Existing Debt	B FY 2023	C FY 2024	D FY 2025	E FY 2026	F FY 2027	G FY 2028
1	2021 SRF Loan						
2	Principal	\$462,886	\$467,515	\$472,190	\$476,912	\$481,681	\$486,498
3	Interest	\$148,721	\$144,092	\$139,417	\$134,695	\$129,926	\$125,109
4							
5	<b>Total Debt Service</b>	<b>\$611,607</b>	<b>\$611,607</b>	<b>\$611,607</b>	<b>\$611,607</b>	<b>\$611,607</b>	<b>\$611,607</b>

### 3.8. Recycled Water Reserve Policy

Raftelis worked with City staff to understand the needs of the recycled water utility and to develop a recommendation for the reserve policy, which is shown in Table 3-10. Our recommendation includes the following:

- Operating:** The City bills customers on a bi-monthly billing cycle, which can impact cash flows since revenues are collected six times, while expenses may be incurred twelve times per year (monthly). The recommended operating reserve target allows the City to maintain adequate cash flow throughout the year and to fund planned O&M expenses, as well as any unexpected operating costs that may arise. Because recycled water revenues are more volatile, the operating reserve target is set higher than the operating reserve target for water and wastewater.
- Rate Stabilization:** While recycled water expenses are expected to remain stable for the financial planning period, a rate stabilization reserve creates a financial safety net in the event of facility failure or natural disaster. The recommended rate stabilization reserve target will help reduce the need for unreasonable rate increases and smooth out water rates in the future. Similar to the operating reserve, the rate stabilization reserve target for recycled water is higher since recycled water usage, which is primarily for irrigation purposes, is typically more volatile than that of potable water or wastewater generation.

In total, the recommended reserve policy calls for a target balance of approximately \$758k in FY 2024.

**Table 3-10: Recommended Recycled Water Reserve Policy**

	A	B	C
Line	Reserve Targets	Recommended Target Policy	FY 2024 Target
1	Operating	60% O&M Expenses	\$308,727
2	Rate Stabilization	60% of Commodity Revenues	\$449,614
3	<b>Total</b>		<b>\$758,342</b>

### 3.9. Recycled Water Status Quo Financial Plan

**Table 3-11** shows the projected recycled water financial plan based on revenues at existing rates with no adjustments, or the “status quo” scenario. Revenues (Lines 1-7) are derived from **Table 3-7**. Note that revenues from interest income in the status quo scenario is lower, due to a decrease in fund balances. O&M expenses (Lines 9-12) are derived from **Table 3-8**. Existing debt service (Line 16) is derived from **Table 3-9**.

Net revenue (Line 14) is equal to total revenues (Line 7) less O&M expenses (Line 12). Net cash flow (Line 18) is equal to net revenue less debt service (Line 16). Debt coverage (Line 21) is calculated by dividing net revenue by debt service. The recycled water utility is not expected to meet coverage requirements without additional revenue adjustments. City staff provided beginning fund balances for FY 2023 (Column B, Line 24). Ending balances (Line 25) are calculated by adding beginning balances to net cash flow (Line 18). The reserve target is provided in **Table 3-10**. Under the status quo scenario, the recycled water fund will not meet reserve targets from FY 2023 onward.

**Table 3-11: Projected Recycled Financial Plan (Status Quo)**

Line	A Financial Plan	B FY 2023	C FY 2024	D FY 2025	E FY 2026	F FY 2027	G FY 2028
1	<b>Revenues</b>						
2	Recycled Water Rate Revenue	\$655,701	\$649,744	\$649,744	\$649,744	\$649,744	\$649,744
3	Revenue Adjustments	\$0	\$0	\$0	\$0	\$0	\$0
4	Other Operating Revenue	\$0	\$0	\$0	\$0	\$0	\$0
5	Non-Operating Revenue	\$610,000	\$600,000	\$600,000	\$300,000	\$300,000	\$300,000
6	Interest Income	\$0	\$0	\$204	\$0	\$0	\$0
7	<b>Total – Revenues</b>	<b>\$1,265,701</b>	<b>\$1,249,744</b>	<b>\$1,249,948</b>	<b>\$949,744</b>	<b>\$949,744</b>	<b>\$949,744</b>
8							
9	<b>O&amp;M Expenses</b>						
10	Operations	\$304,486	\$314,545	\$324,953	\$335,721	\$346,863	\$358,393
11	Other Expenditures	\$183,000	\$200,000	\$200,000	\$200,000	\$210,000	\$210,000
12	<b>Total - O&amp;M Expenses</b>	<b>\$487,486</b>	<b>\$514,545</b>	<b>\$524,953</b>	<b>\$535,721</b>	<b>\$556,863</b>	<b>\$568,393</b>
13							
14	<b>Net Revenue</b>	<b>\$778,215</b>	<b>\$735,199</b>	<b>\$724,995</b>	<b>\$414,023</b>	<b>\$392,881</b>	<b>\$381,351</b>
15							
16	<b>Existing Debt Service</b>	<b>\$611,607</b>	<b>\$611,607</b>	<b>\$611,607</b>	<b>\$611,607</b>	<b>\$611,607</b>	<b>\$611,607</b>
17							
18	<b>Net Cash Flow</b>	<b>\$166,608</b>	<b>\$123,591</b>	<b>\$113,388</b>	<b>-\$197,584</b>	<b>-\$218,727</b>	<b>-\$230,257</b>
19							
20	<b>Debt Coverage</b>						
21	Calculated	1.27	1.20	1.19	0.68	0.64	0.62
22	Required	1.10	1.10	1.10	1.10	1.10	1.10
23							
24	Beginning Balance	-\$306,002	-\$139,394	-\$15,802	\$97,585	-\$99,999	-\$318,725
25	<b>Ending Balance</b>	<b>-\$139,394</b>	<b>-\$15,802</b>	<b>\$97,585</b>	<b>-\$99,999</b>	<b>-\$318,725</b>	<b>-\$548,982</b>
26							
27	<b>Reserve Target</b>	<b>\$650,872</b>	<b>\$656,007</b>	<b>\$662,251</b>	<b>\$668,712</b>	<b>\$681,398</b>	<b>\$688,316</b>
28	<i>Operating</i>	<i>\$292,492</i>	<i>\$308,727</i>	<i>\$314,972</i>	<i>\$321,433</i>	<i>\$334,118</i>	<i>\$341,036</i>
29	<i>Rate Stabilization</i>	<i>\$358,380</i>	<i>\$347,280</i>	<i>\$347,280</i>	<i>\$347,280</i>	<i>\$347,280</i>	<i>\$347,280</i>

Figure 3-1 shows the projected status quo financial plan in graphical format. The bars represent the recycled water utility’s cash needs: O&M expenses (blue), debt service (red), and reserve funding (green). The solid line represents the current revenues, which is below the stacked bars for the last three years of the period, signifying that they City’s recycled water revenues are not sufficient to fund its costs. The reduction in revenue after FY 2025 is a result of decreasing the transfer from the Water fund from \$600k annually to \$300k annually.

Figure 3-1: Projected Recycled Water Financial Plan (Status Quo)

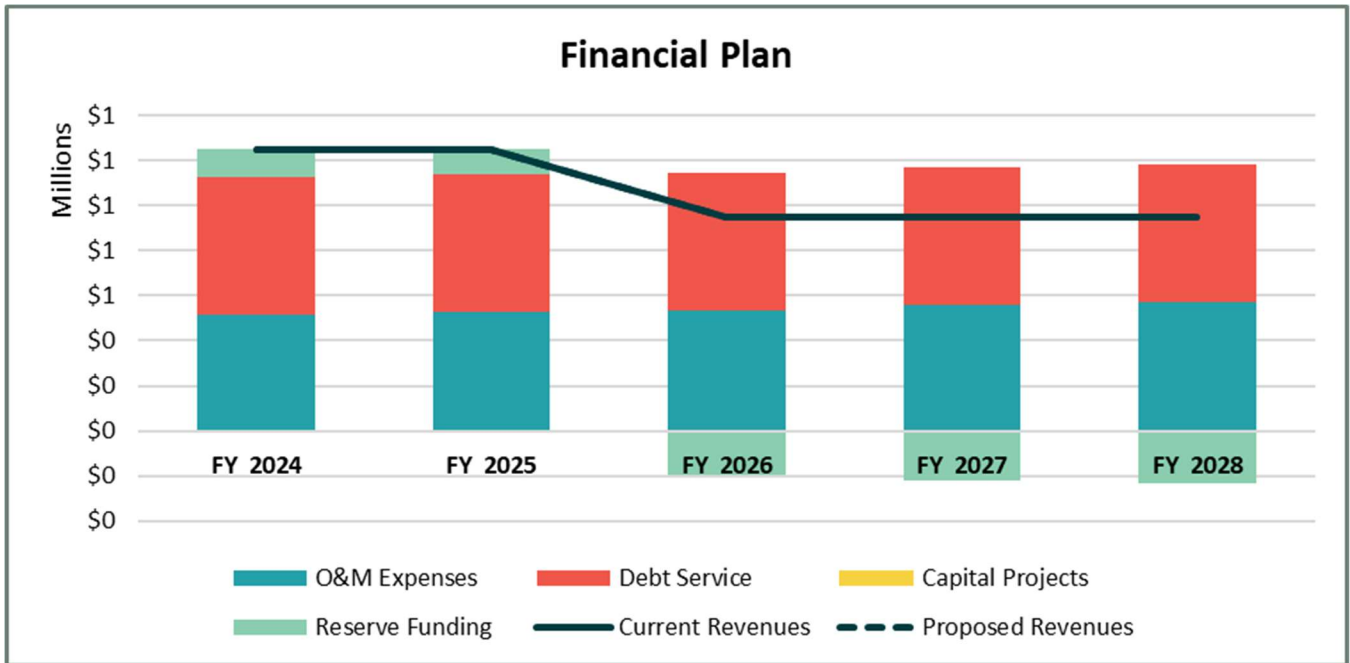
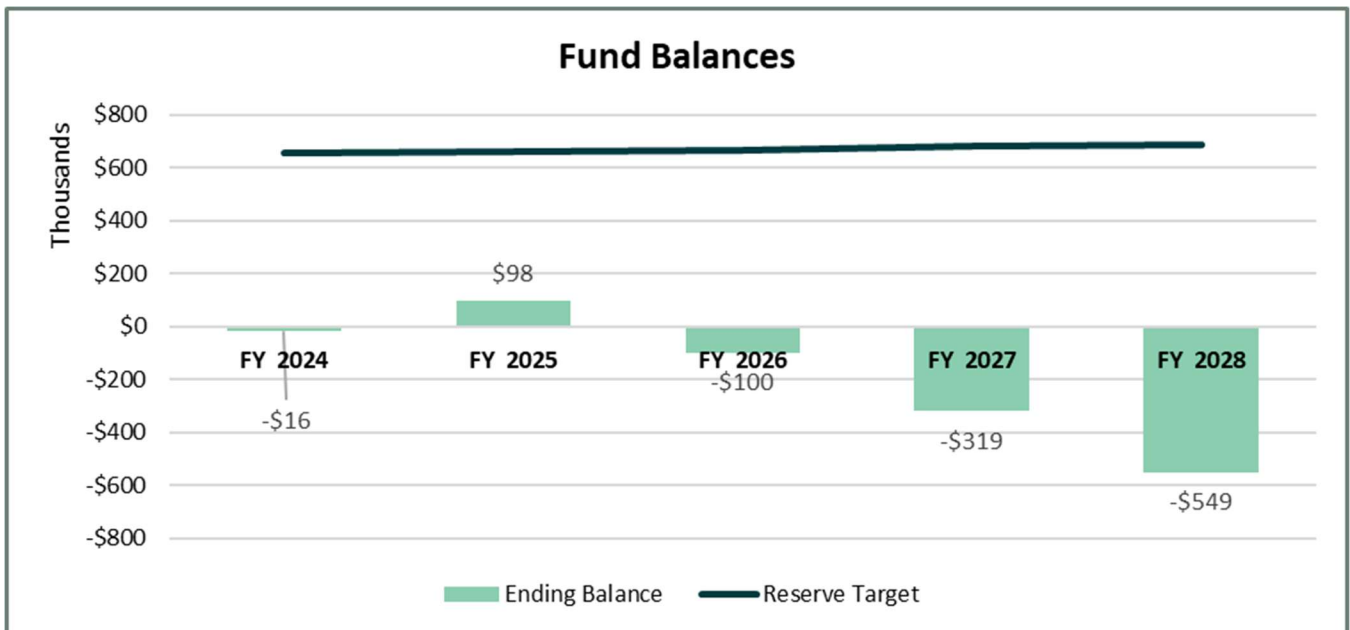


Figure 3-2 shows the projected fund balances under the status quo scenario for the five-year study period. The green bars represent the ending balances of the recycled water fund, and the solid line represents the reserve target amounts. The recycled water fund will be depleted following FY 2025 and become negative in FY 2026.

Figure 3-2: Projected Recycled Water Fund Balances (Status Quo)





### 3.10. Proposed Recycled Water Financial Plan

**Table 3-12** shows the proposed revenue adjustments that allow the City’s recycled water utility to maintain financial sufficiency, fund operating expenses, and build up cash reserves over the long term. The study period includes five years of projections, which is reflected in the tables of the report that show information for FY 2024 to FY 2028.

The proposed revenue adjustments represent the increase to total rate revenues required to recover the recycled water utility’s costs. Revenue adjustments in all years are applied across all rates and charges proportional to existing rates. The proposed revenue adjustments are planned to be effective on October 1 of every year.

**Table 3-12: Proposed Recycled Water Revenue Adjustments**

	A	B	C	D	E	F
Line	Revenue Adjustments	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
1	Effective Month	October	October	October	October	October
2	Percent Adjustment	35%	10%	5%	5%	0%

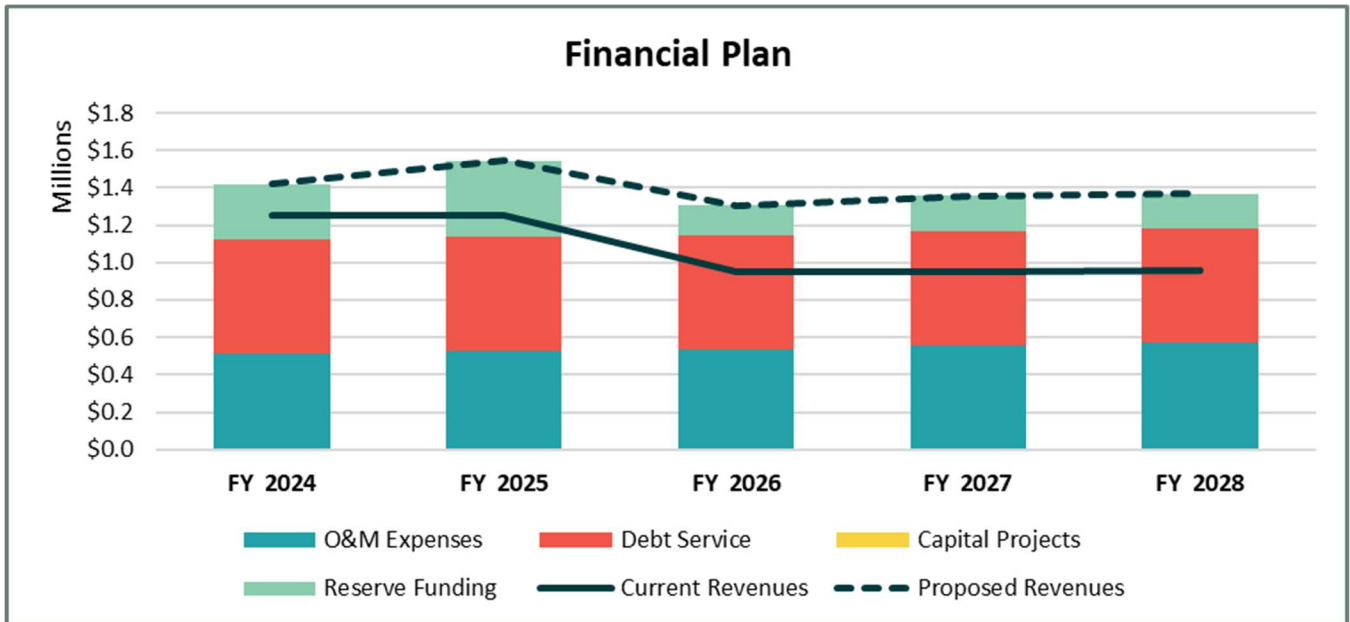
**Table 3-13** shows the projected recycled water financial plan with the proposed revenue adjustments in **Table 3-12** applied to the recycled water rate revenues. Revenues from interest income (Line 6) are greater than those shown in the status quo scenario (**Table 3-11**, Line 6) due to additional cash from the proposed adjustments. O&M expenses (Line 12) and debt service (Line 16) are the same as the status quo scenario.

Net cash flow (Line 18) is positive in all years of the study period, which means that the recycled water utility will fund reserves in those years. The ending balances (Line 25) will achieve the recommended reserve target (Line 27) in FY 2028. **Figure 3-3** shows the proposed financial plan with proposed revenues greater than expenses in all years of the study. The recycled water utility will build up reserves over the five year period, as shown in **Figure 3-4**, because the recycled water enterprise is a new utility and increasing reserves incrementally reduces the financial impact to customers while ensuring long-term financial sufficiency. As the recycled water utility builds its revenue base, the transfer-in from the water utility (shown as Non-Operating Revenue in Line 5) will decrease in FY 2026.

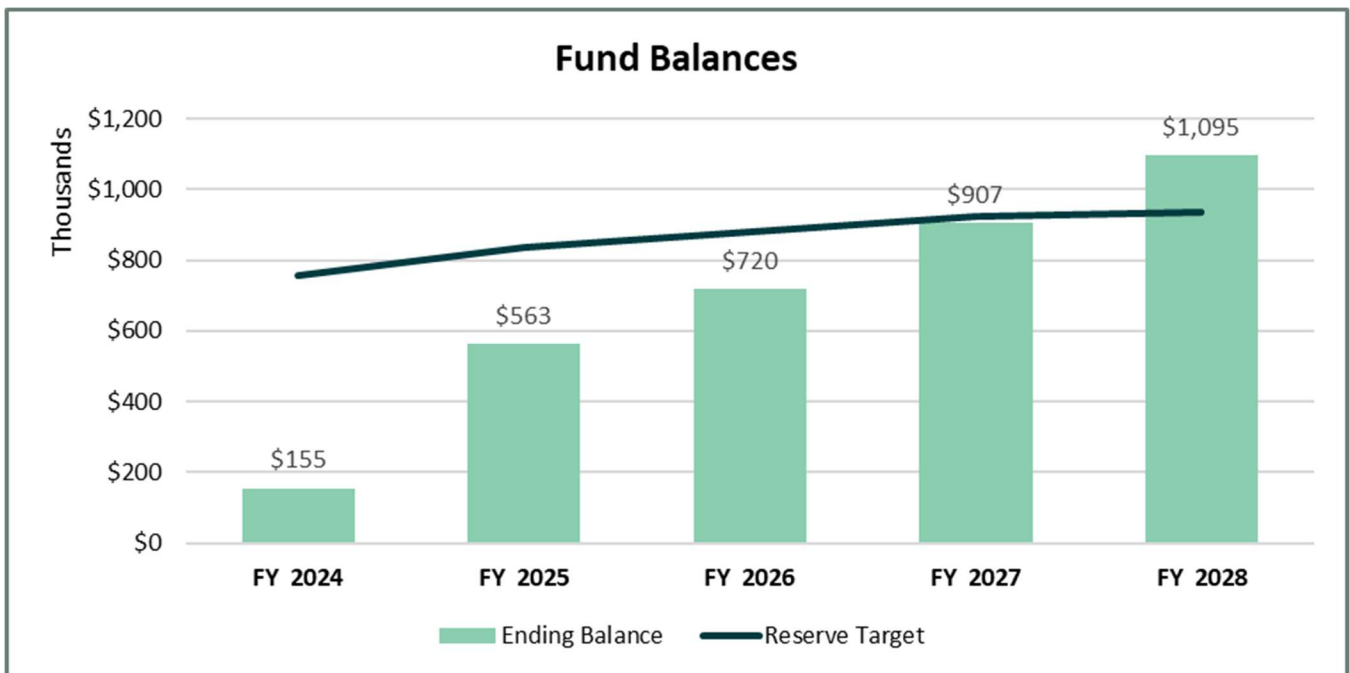
**Table 3-13: Projected Recycled Water Financial Plan (Proposed Adjustments)**

Line	A Financial Plan	B FY 2023	C FY 2024	D FY 2025	E FY 2026	F FY 2027	G FY 2028
1	<b>Revenues</b>						
2	Recycled Water Rate Revenue	\$655,701	\$649,744	\$649,744	\$649,744	\$649,744	\$649,744
3	Revenue Adjustments	\$0	\$170,558	\$293,197	\$351,309	\$401,361	\$414,025
4	Other Operating Revenue	\$0	\$0	\$0	\$0	\$0	\$0
5	Non-Operating Revenue	\$610,000	\$600,000	\$600,000	\$300,000	\$300,000	\$300,000
6	Interest Income	\$0	\$38	\$1,790	\$3,199	\$4,056	\$4,992
7	<b>Total - Revenues</b>	<b>\$1,265,701</b>	<b>\$1,420,340</b>	<b>\$1,544,731</b>	<b>\$1,304,252</b>	<b>\$1,355,161</b>	<b>\$1,368,762</b>
8							
9	<b>O&amp;M Expenses</b>						
10	Operations	\$304,486	\$314,545	\$324,953	\$335,721	\$346,863	\$358,393
11	Other Expenditures	\$183,000	\$200,000	\$200,000	\$200,000	\$210,000	\$210,000
12	<b>Total - O&amp;M Expenses</b>	<b>\$487,486</b>	<b>\$514,545</b>	<b>\$524,953</b>	<b>\$535,721</b>	<b>\$556,863</b>	<b>\$568,393</b>
13							
14	<b>Net Revenue</b>	<b>\$778,215</b>	<b>\$905,795</b>	<b>\$1,019,778</b>	<b>\$768,531</b>	<b>\$798,298</b>	<b>\$800,368</b>
15							
16	<b>Existing Debt Service</b>	<b>\$611,607</b>	<b>\$611,607</b>	<b>\$611,607</b>	<b>\$611,607</b>	<b>\$611,607</b>	<b>\$611,607</b>
17							
18	<b>Net Cash Flow</b>	<b>\$166,608</b>	<b>\$294,188</b>	<b>\$408,171</b>	<b>\$156,923</b>	<b>\$186,691</b>	<b>\$188,761</b>
19							
20	<b>Debt Coverage</b>						
21	Calculated	1.27	1.48	1.67	1.26	1.31	1.31
22	Required	1.10	1.10	1.10	1.10	1.10	1.10
23							
24	Beginning Balance	-\$306,002	-\$139,394	\$154,794	\$562,965	\$719,888	\$906,579
25	<b>Ending Balance</b>	<b>-\$139,394</b>	<b>\$154,794</b>	<b>\$562,965</b>	<b>\$719,888</b>	<b>\$906,579</b>	<b>\$1,095,340</b>
26							
27	<b>Reserve Target</b>	<b>\$650,872</b>	<b>\$758,342</b>	<b>\$838,170</b>	<b>\$879,498</b>	<b>\$922,214</b>	<b>\$936,731</b>
28	<i>Operating</i>	<i>\$292,492</i>	<i>\$308,727</i>	<i>\$314,972</i>	<i>\$321,433</i>	<i>\$334,118</i>	<i>\$341,036</i>
29	<i>Rate Stabilization</i>	<i>\$358,380</i>	<i>\$449,614</i>	<i>\$523,198</i>	<i>\$558,065</i>	<i>\$588,096</i>	<i>\$595,695</i>

**Figure 3-3: Projected Recycled Water Financial Plan (Proposed Adjustments)**



**Figure 3-4: Proposed Recycled Water Fund Balances (Proposed Adjustments)**



### 3.11. Proposed Recycled Water Rate Schedule

Table 3-14 and Table 3-15 show the proposed bi-monthly service charges and recycled water usage rates for FY 2024 and FY 2025 based on the recommendations in Table 3-12. Rates for all years are increased based on the corresponding revenue adjustment. Because the current rates are increased by the proposed revenue adjustments, all customer impacts are equal to that year’s revenue adjustment.

**Table 3-14: Proposed Bi-Monthly Recycled Water Service Charges**

Line	A	B	C
	Meter Size	Proposed FY 2024	Proposed FY 2025
1	5/8"	\$35.45	\$39.00
2	3/4"	\$49.46	\$54.41
3	1"	\$77.50	\$85.25
4	1 1/2"	\$147.58	\$162.34
5	2"	\$231.68	\$254.85
6	3"	\$497.97	\$547.77
7	4"	\$890.41	\$979.46
8	6"	\$1,829.46	\$2,012.41
9	8"	\$3,931.80	\$4,324.98
10	10"	\$5,894.00	\$6,483.40

**Table 3-15: Proposed Recycled Water Usage Rates (\$/ccf)**

Line	A	B	C
	Commodity Rates (\$/ccf)	Proposed FY 2024	Proposed FY 2025
1	Recycled Water	\$6.76	\$7.44

### 3.12. Recycled Water Rate Survey

The City prepared a survey of bi-monthly recycled water customer bills for several local agencies. Since not all agencies have recycled water utilities, the City also compared their recycled water rate to other local agencies’ non-residential or irrigation rates for potable water, which would be used for the same purpose. **Figure 3-5** shows the comparison to other recycled water rates, and **Figure 3-6** shows the comparison to non-residential and irrigation rates.

**Figure 3-5: Recycled Water Usage Rate Comparison**

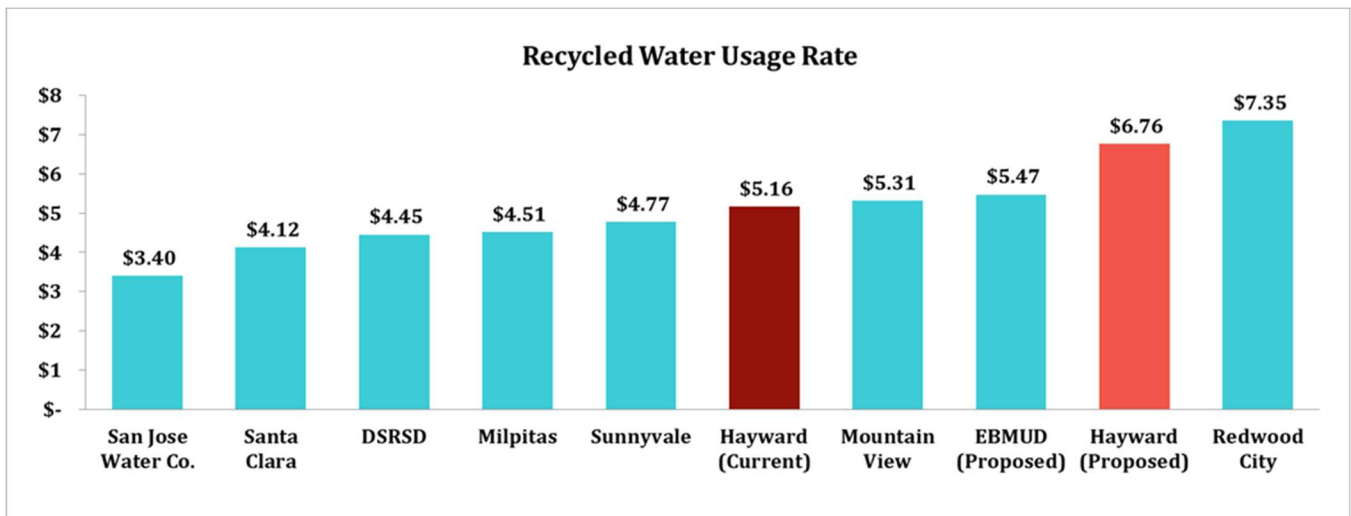
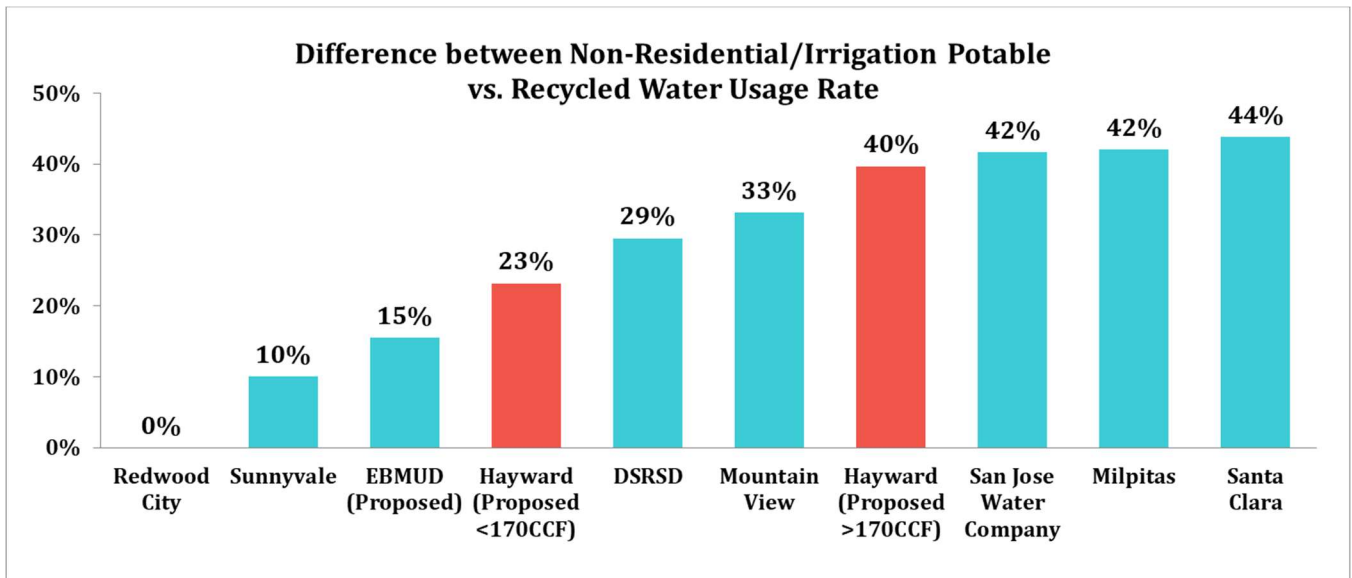


Figure 3-6: Non-Residential/Irrigation Potable Rate Comparison



# 4. Wastewater Financial Plan & Rates

This section of the report describes the wastewater fund and proposed financial plan and rates. To develop the financial plan, Raftelis projects annual revenues and expenses, models reserve balances, projects capital expenditures, and calculates debt service coverage to estimate the amount of additional rate revenue needed each year. Numbers shown in the tables of this section are rounded. Therefore, hand calculations based on the displayed numbers, such as summing or multiplying, may not equal the exact results shown.

## 4.1. Inflationary Assumptions

Inflationary factors are used to escalate the revenue and cost categories across the study period, which for this study is from FY 2023 to FY 2028. The City’s most recent adopted revenue and expense budgets are for FY 2023. Raftelis worked with City staff to escalate individual budget line items according to the most appropriate escalation factor. The escalation factors used to project revenues and expenses for the study period are shown in **Table 4-1**. These factors are based on industry indices, such as CPI, and input from City staff.

**Table 4-1: Wastewater Escalation Factors**

Line	A Escalation Factors	B FY 2022	C FY 2023	D FY 2024	E FY 2025	F FY 2026
1	<b>Revenues</b>					
2	Miscellaneous Revenues	0%	0%	0%	0%	0%
3	Interest Income	0.5%	0.5%	0.5%	0.5%	0.5%
4	<b>Expenses</b>					
5	General	3%	3%	3%	3%	3%
6	Salary	3%	3%	3%	3%	3%
7	Benefits	5%	5%	5%	5%	5%
8	Utilities	3%	3%	3%	3%	3%
9	Capital	4%	4%	4%	4%	4%

## 4.2. Current Wastewater Rates

The City’s current wastewater rates were implemented on October 1, 2022 and include a bi-monthly service charge for residential customers, a usage rate for coded commercial customers charged for every ccf of water used, and a usage rate for critical commercial customers charged for every ccf of wastewater flow and for every pound of carbonaceous biochemical oxygen demand (CBOD) and every pound of total suspended solids (TSS). **Table 4-2** shows the current bi-monthly residential service charges by customer class. **Table 4-3** shows the current usage rates for coded commercial customers. **Table 4-4** shows the current usage rates for critical commercial customers for flow, CBOD, and TSS.

**Table 4-2: Current Bi-Monthly Residential Wastewater Charges**

Line	Residential Customers	B Current Charge
1	Standard Residential	\$77.16
2	Multi-Family (charge per unit)	\$68.68
3	Mobile Home (charge per unit)	\$54.02
4	Economy (5 to 8 units of metered water usage)	\$36.14
5	Lifeline (0 to 4 units of metered water usage)	\$18.08

**Table 4-3: Current Wastewater Usage Charges for Coded Commercial Customers**

Line	A Coded Users	B Current Rate (\$/ccf)
1	<b>With Irrigation Meters</b>	
2	Meat Products	\$13.42
3	Slaughterhouse	\$15.44
4	Dairy Products Processor	\$11.07
5	Canning & Packing	\$7.88
6	Grain Mills	\$10.39
7	Bakeries	\$12.01
8	Fats & Oils	\$7.48
9	Beverage Bottling	\$7.11
10	Food Manufacturer	\$26.49
11	Pulp & Paper Products Manufacturer	\$9.12
12	Inorganic Chemicals	\$12.67
13	Paint Manufacturer	\$19.75
14	Leather Tanning	\$26.01
15	Fabricated Metal	\$3.76
16	Eating Places (w/o grease interceptor)	\$11.80
17	Commercial Laundry	\$7.04
18	Industrial Laundry	\$10.94
19	Eating Places (w/ grease interceptor)	\$9.11
20	Other Domestic Strength Users - Commercial/Institutional/Govt	\$6.97
21	<b>Without Irrigation Meters</b>	
22	Meat Products	\$12.08
23	Slaughterhouse	\$13.90
24	Dairy Products Processor	\$9.96
25	Canning & Packing	\$7.09
26	Grain Mills	\$9.35
27	Bakeries	\$10.81
28	Fats & Oils	\$6.73
29	Beverage Bottling	\$6.40
30	Food Manufacturer	\$23.84
31	Pulp & Paper Products Manufacturer	\$8.20
32	Inorganic Chemicals	\$11.41
33	Paint Manufacturer	\$17.78
34	Leather Tanning	\$23.40
35	Fabricated Metal	\$3.39
36	Eating Places (w/o grease interceptor)	\$10.62
37	Commercial Laundry	\$6.33
38	Industrial Laundry	\$9.84
39	Eating Places (w/ grease interceptor)	\$8.20
40	Other Domestic Strength Users - Commercial/Institutional/Govt	\$6.28



**Table 4-4: Current Wastewater Usage Charges for Critical Commercial Customers**

Line	Critical Users	A	B
		Current Rate (\$/ccf or lb)	
1	Volume – Cost per ccf		\$3.32
2	CBOD – Cost per pound		\$0.77
3	Suspended Solids – Cost per pound		\$1.03

### 4.3. Customer Accounts and Usage

City staff provided detailed customer billing data for FY 2022, which included information such as customer/user class, billed consumption in ccf, and strength loadings in lbs for each of the bi-monthly billing periods.

**Table 4-5** shows the customer accounts by customer class for FY 2022, which was provided by City staff. FY 2022 account data was used to represent the data most accurately for the starting fiscal year. **Table 4-6** shows the annual residential wastewater bills for FY 2022. Because some customers are classified as either economy or lifeline accounts, those bills were used to calculate the revenue from those accounts.

Table 4-7 shows the water usage in ccf by customer class and the strength loadings in lbs for critical users for FY 2022. Water demand in FY 2022 is representative of the estimated baseline use for the City’s customers. Water use in the City has largely stabilized after the last multi-year drought, which is consistent with the stabilization and hardening of demand that other agencies throughout California have observed.

We assume no growth in either customer demand or accounts throughout the study period to conservatively project future rate revenues.

**Table 4-5: Wastewater Customer Accounts by Class (FY 2022)**

Line	Customer Accounts	A	B FY 2022
1	<b>Residential</b>		
2	Standard Residential		29,566
3	Multi-Family (charge per unit)		15,803
4	Mobile Home (charge per unit)		2,231
5			
6	<b>Coded Users</b>		
7	<b>With Irrigation Meters</b>		
8	Meat Products		1
9	Slaughterhouse		0
10	Dairy Products Processor		0
11	Canning & Packing		1
12	Grain Mills		0
13	Bakeries		7

Line	Customer Accounts	A	B FY 2022
14	Fats & Oils		0
15	Beverage Bottling		1
16	Food Manufacturer		2
17	Pulp & Paper Products Manufacturer		0
18	Inorganic Chemicals		0
19	Paint Manufacturer		1
20	Leather Tanning		0
21	Fabricated Metal		4
22	Eating Places (w/o grease interceptor)		17
23	Commercial Laundry		2
24	Industrial Laundry		1
25	Eating Places (w/ grease interceptor)		14
26	Other Domestic Strength Users - Commercial/Institutional/Govt		904
27	<b>Without Irrigation Meters</b>		
28	Meat Products		1
29	Slaughterhouse		0
30	Dairy Products Processor		0
31	Canning & Packing		4
32	Grain Mills		0
33	Bakeries		11
34	Fats & Oils		1
35	Beverage Bottling		3
36	Food Manufacturer		0
37	Pulp & Paper Products Manufacturer		3
38	Inorganic Chemicals		0
39	Paint Manufacturer		3
40	Leather Tanning		0
41	Fabricated Metal		9
42	Eating Places (w/o grease interceptor)		67
43	Commercial Laundry		3
44	Industrial Laundry		0
45	Eating Places (w/ grease interceptor)		2
46	Other Domestic Strength Users - Commercial/Institutional/Govt		1,620
47			
48	<b>Critical Users</b>		24

Table 4-6: Wastewater Residential Annual Bills by Class (FY 2022)

Line	Residential Bills	A	B FY 2022
1	<b>Residential</b>		
2	Standard Residential		117,483
3	Economy (5 to 8 units of metered water usage)		38,868
4	Lifeline (0 to 4 units of metered water usage)		23,331

**Table 4-7: Wastewater Water Usage and Strength Loading by Customer Class (FY 2022)**

Line	Customer Usage (ccf or lb)	A	B FY 2022
1	<b>Residential</b>		
2	Standard Residential		2,164,722
3	Multi-Family (charge per unit)		1,136,677
4	Mobile Home (charge per unit)		115,652
5	Economy (5 to 8 units of metered water usage)		212,995
6	Lifeline (0 to 4 units of metered water usage)		44,427
7			
8	<b>Coded Users</b>		
9	<b>With Irrigation Meters</b>		
10	Meat Products		5,588
11	Slaughterhouse		0
12	Dairy Products Processor		0
13	Canning & Packing		1,299

Line	A Customer Usage (ccf or lb)	B FY 2022
14	Grain Mills	0
15	Bakeries	10,501
16	Fats & Oils	0
17	Beverage Bottling	1,338
18	Food Manufacturer	6,897
19	Pulp & Paper Products Manufacturer	0
20	Inorganic Chemicals	0
21	Paint Manufacturer	36
22	Leather Tanning	0
23	Fabricated Metal	6,770
24	Eating Places (w/o grease interceptor)	8,919
25	Commercial Laundry	5,476
26	Industrial Laundry	403
27	Eating Places (w/ grease interceptor)	12,662
28	Other Domestic Strength Users - Commercial/Institutional/Govt	506,842
29	<b>Without Irrigation Meters</b>	
30	Meat Products	51
31	Slaughterhouse	0
32	Dairy Products Processor	0
33	Canning & Packing	6,929
34	Grain Mills	0
35	Bakeries	1,595
36	Fats & Oils	956
37	Beverage Bottling	305
38	Food Manufacturer	0
39	Pulp & Paper Products Manufacturer	3,858
40	Inorganic Chemicals	0
41	Paint Manufacturer	0
42	Leather Tanning	0
43	Fabricated Metal	9,726
44	Eating Places (w/o grease interceptor)	21,015
45	Commercial Laundry	2,028
46	Industrial Laundry	0
47	Eating Places (w/ grease interceptor)	1,952
48	Other Domestic Strength Users - Commercial/Institutional/Govt	470,222
49		
50	<b>Critical Users</b>	
51	Volume – Cost per 100 cubic feet	185,484
52	CBOD – Cost per pound	369,764
53	Suspended Solids – Cost per pound	477,225

## 4.4. Projected Wastewater Revenues at Current Rates

**Table 4-8** shows the calculated rate revenues for FY 2024 through FY 2028 based on the City's current wastewater rates. The projected annual rate revenues for the bi-monthly Residential service charges (Lines 2-6) are determined using the current bi-monthly Residential service charges multiplied by the number of accounts for each customer class for six billing periods. Similarly, the projected annual rate revenues for the usage rates (Lines 8-13) are determined using the current usage rates (**Table 4-3** and **Table 4-4**) multiplied by the water use in ccf and strength loading in lb for each customer class (

Table 4-7). Note that the projected rate revenues remain constant from FY 2024 through FY 2028, which is a result of maintaining the same number of customer accounts and level of water demand (wastewater generation) throughout the study period.

**Table 4-8: Projected Wastewater Rate Revenues**

Line	A Calculated Revenues	B FY 2024	C FY 2025	D FY 2026	E FY 2027	F FY 2028
1	<b>Residential</b>					
2	Standard Residential	\$9,064,988	\$9,064,988	\$9,064,988	\$9,064,988	\$9,064,988
3	Multi-Family (charge per unit)	\$6,512,100	\$6,512,100	\$6,512,100	\$6,512,100	\$6,512,100
4	Mobile Home (charge per unit)	\$723,112	\$723,112	\$723,112	\$723,112	\$723,112
5	Economy (5 to 8 units of metered water usage)	\$1,404,690	\$1,404,690	\$1,404,690	\$1,404,690	\$1,404,690
6	Lifeline (0 to 4 units of metered water usage)	\$421,824	\$421,824	\$421,824	\$421,824	\$421,824
7						
8	<b>Coded Users</b>	\$7,570,963	\$7,570,963	\$7,570,963	\$7,570,963	\$7,570,963

9						
10	<b>Critical Users</b>					
11	Volume – Cost per 100 cubic feet	\$616,363	\$616,363	\$616,363	\$616,363	\$616,363
12	CBOD – Cost per pound	\$284,718	\$284,718	\$284,718	\$284,718	\$284,718
13	Suspended Solids – Cost per pound	\$493,450	\$493,450	\$493,450	\$493,450	\$493,450
14						
15	<b>Total Rate Revenue</b>	<b>\$27,092,209</b>	<b>\$27,092,209</b>	<b>\$27,092,209</b>	<b>\$27,092,209</b>	<b>\$27,092,209</b>

### 4.5. Projected Wastewater Revenues

Table 4-9 shows the wastewater enterprise’s projected revenues for the study period. City staff provided the budgeted revenues for FY 2023 (Column B). Wastewater rate revenues (Line 2) are equal to the calculated rate revenues at current rates (Table 4-8, Line 15) for FY 2024 through FY 2028.

Interest income (Line 7) is calculated based on the reserve interest rate (Table 4-1, Line 3) and projected fund balances.

Table 4-9: Projected Wastewater Revenues

Line	A Projected Revenues	B FY 2023	C FY 2024	D FY 2025	E FY 2026	F FY 2027	G FY 2028
1	<b>Operating Revenues</b>						
2	Wastewater Service Charges	\$26,844,101	\$27,092,209	\$27,092,209	\$27,092,209	\$27,092,209	\$27,092,209
3	Other Fees	\$96,000	\$96,000	\$96,000	\$96,000	\$96,000	\$96,000
4	Other Revenue	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000
5							
6	<b>Non-Operating Revenue</b>						
7	Interest Income	\$239,000	\$137,116	\$121,696	\$101,006	\$98,974	\$104,490
8							
9	<b>Total - Revenue</b>	<b>\$27,329,101</b>	<b>\$27,475,326</b>	<b>\$27,459,905</b>	<b>\$27,439,216</b>	<b>\$27,437,183</b>	<b>\$27,442,699</b>

### 4.6. Projected Wastewater O&M Expenses

Table 4-10 summarizes the projected O&M expenses for the study period. City staff provided the adopted budget for FY 2023, which is inflated in future years using the expense escalation factors (Table 4-1).

Table 4-10: Projected Wastewater O&M Expenses

Line	A Operating Expenses	B FY 2023	C FY 2024	D FY 2025	E FY 2026	F FY 2027	G FY 2028
1	Personnel Services	\$11,812,721	\$12,255,118	\$12,714,964	\$13,192,989	\$13,689,960	\$14,206,673
2	Operations	\$5,799,191	\$5,919,607	\$6,097,195	\$6,280,111	\$6,468,514	\$6,662,569
3	Bad Debt	\$150,000	\$154,500	\$159,135	\$163,909	\$168,826	\$173,891
4	Internal Service Charges	\$1,058,176	\$1,089,921	\$1,122,619	\$1,156,297	\$1,190,986	\$1,226,716
5	Other Expenditures	\$1,770,443	\$1,774,614	\$1,778,910	\$1,783,335	\$1,787,893	\$1,792,587
6	<b>Total - O&amp;M Expenses</b>	<b>\$20,590,530</b>	<b>\$21,193,760</b>	<b>\$21,872,822</b>	<b>\$22,576,641</b>	<b>\$23,306,178</b>	<b>\$24,062,436</b>

## 4.7. Existing Wastewater Debt Service

Table 4-11 shows the City’s existing wastewater debt service. The wastewater enterprise currently has three outstanding loans: an SRF Loan issued in 2006 and two CEC Loans issued in 2011 and 2019. The SRF Loan is repaid after FY 2028 and the 2011 CEC Loan will be repaid after FY 2025. The City expects to borrow from both SRF and WIFIA in FY 2025 to fund a portion of the WPCF Nutrient Management project. Proposed debt is discussed in the following section.

**Table 4-11: Existing Wastewater Debt Service**

Line	A Existing Debt Service	B FY 2023	C FY 2024	D FY 2025	E FY 2026	F FY 2027	G FY 2028
1	<b>2006 SRF Loan</b>						
2	Principal	\$2,727,501	\$2,727,501	\$2,727,501	\$2,727,501	\$2,727,501	\$2,729,608
3	Interest	\$0	\$0	\$0	\$0	\$0	\$0
4							
5	<b>2011 CEC Loan</b>						
6	Principal	\$200,687	\$206,727	\$213,001	\$0	\$0	\$0
7	Interest	\$17,123	\$11,083	\$4,809	\$0	\$0	\$0
8							
9	<b>2019 CEC Loan</b>						
10	Principal	\$112,186	\$113,263	\$114,447	\$115,594	\$116,753	\$117,887
11	Interest	\$19,085	\$18,008	\$16,824	\$15,677	\$14,518	\$13,384
12							
13	<b>Total</b>	<b>\$3,076,582</b>	<b>\$3,076,582</b>	<b>\$3,076,582</b>	<b>\$2,858,772</b>	<b>\$2,858,772</b>	<b>\$2,860,879</b>

## 4.8. Wastewater Capital Project Funding



**Table 4-12** details the City’s capital improvement plan for the wastewater enterprise. City staff provided the 10-year adopted CIP in current year dollars. From FY 2024 onward, project costs are inflated using the expense escalation factor for capital (**Table 4-1**, Line 9). The City expects to fund its wastewater capital program using a mix cash from rate revenues and reserves as well as loans through SRF and WIFIA. **Table 4-13** shows the proposed proceeds and borrowing terms for each of these loans. The proceeds from these loans will be used to fund the WPCF Nutrient Management project.

**Table 4-12: Inflated Wastewater Capital Improvement Plan**

Line	Capital Projects	A	B	C	D	E	F	G
			FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
1	<b>SEWER COLLECTION SYSTEM</b>							
2	Pump Station Valve Repair and Upgrade at Various Stations		\$100,000	\$0	\$0	\$0	\$0	\$0
3	Valle Vista Sewer Force Main Reliability Implementation		\$0	\$179,920	\$0	\$0	\$0	\$0
4	Tennyson Lift Station Rehabilitation		\$0	\$260,000	\$0	\$0	\$0	\$0
5	Ward Creek/Tiegen Drive Sewer Replacement		\$0	\$0	\$540,800	\$0	\$0	\$0
6	Harder Road Sewer System Improvement		\$0	\$312,000	\$1,514,240	\$0	\$0	\$0
7	Valle Vista Submersible Pump Repl and Wet Well Rehabilitation		\$550,000	\$0	\$0	\$0	\$0	\$0
8	Air Release with Blowoff Access and Rehab		\$100,000	\$83,200	\$0	\$0	\$0	\$0
9	Tennyson Sewer Basin Improvements		\$0	\$0	\$0	\$0	\$0	\$0
10	Sewer Manhole Rehabilitation - Various Locations		\$100,000	\$0	\$0	\$0	\$0	\$0
11	Sewer System Electrical/Mechanical Replacement - Various Locations		\$0	\$0	\$0	\$0	\$0	\$0
12	Soto Road Sewer Improvement		\$0	\$0	\$0	\$449,946	\$0	\$0
13	Annual Line Replacements FY23 (NEW)		\$6,000,000	\$0	\$0	\$0	\$0	\$0
14	Valle Vista VFD Replacement		\$235,289	\$0	\$0	\$0	\$0	\$0
15	Sewer Line Improvement FY21		\$13,202,020	\$0	\$0	\$0	\$0	\$0
16	Sanitary Sewer Main Replacement at Alameda County Transit Maintenance Facility		\$545,864	\$0	\$0	\$0	\$0	\$0
17	Annual Line Replacements FY22		\$4,400,000	\$0	\$0	\$0	\$0	\$0
18	Airport Lift Station Improvements		\$0	\$208,000	\$0	\$0	\$0	\$0
19	Daisy Ct Access Road Erosion Mitigation Project		\$45,000	\$0	\$0	\$0	\$0	\$0
20	Marathon Lift Station Pump Replacement Project		\$70,000	\$0	\$0	\$0	\$0	\$0
21	Marathon Lift Station Motor Control Center Replacement		\$250,000	\$0	\$0	\$0	\$0	\$0
22	Annual Emergency/Spot Line Repairs		\$250,000	\$260,000	\$270,400	\$281,216	\$292,465	\$304,163
23	Hydro Vactor Replacement		\$412,000	\$0	\$0	\$0	\$0	\$0
24	Sewer Pipeline & Pump Station Repair		\$0	\$0	\$0	\$0	\$0	\$0
25	Root Foaming (NEW)		\$100,000	\$104,000	\$108,160	\$112,486	\$116,986	\$121,665
26	WPCF Miscellaneous Replacements		\$400,000	\$416,000	\$432,640	\$449,946	\$467,943	\$486,661
27	WPCF Asset Management Plan		\$0	\$104,000	\$0	\$0	\$0	\$0
28	<b>UTILITIES EQUIPMENT</b>							
29	Miscellaneous Lift Station Equipment Replacement		\$150,308	\$0	\$0	\$0	\$0	\$0
30	SCADA Maintenance & Upgrade		\$0	\$0	\$0	\$0	\$0	\$0
31	Annual Line Replacements FY24-32 (TBD-FY24)		\$0	\$0	\$6,489,600	\$6,749,184	\$7,019,151	\$7,299,917

Line	Capital Projects	A	B	C	D	E	F	G
			FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
32	WPCF SCADA System Misc Replacements		\$0	\$0	\$0	\$0	\$0	\$0
33	<b>STORMWATER</b>							
34	Trash Capture Device and Litter Reduction Education Project		\$406,168	\$0	\$0	\$0	\$0	\$0
35	Jackson Street Underpass Stormwater Pump Station Upgrades		\$74,963	\$0	\$0	\$0	\$0	\$0
36	<b>WATER POLLUTION CONTROL FACILITY (WPCF)</b>							
37	WPCF Equalization Pond Diversion Valve Replacement		\$0	\$0	\$0	\$0	\$0	\$0
38	WPCF Gas Conditioning System Skid Media Replacement		\$165,000	\$171,600	\$178,464	\$185,603	\$193,027	\$200,748
39	WPCF Motorized Valve Actuators for Influent Gates		\$105,000	\$0	\$0	\$0	\$0	\$0
40	WPCF Safety Improvements		\$0	\$0	\$0	\$0	\$0	\$0
41	WPCF EQ Pond Sludge Removal		\$119,620	\$0	\$0	\$0	\$0	\$0
42	WPCF Effluent Pond Weed Removal		\$232,000	\$0	\$0	\$0	\$0	\$0
43	WPCF Gravity Belt Thickener Rebuilding		\$0	\$0	\$0	\$0	\$0	\$0
44	WPCF Seismic Retrofit of Miscellaneous Buildings		\$365,000	\$0	\$0	\$0	\$0	\$0
45	WPCF Main 480V MCC Electrical Distribution Rehabilitation		\$13,012,740	\$104,000	\$0	\$0	\$0	\$0
46	WPCF UST Cleanup and Closure at Maintenance Building		\$9,264	\$0	\$0	\$0	\$0	\$0
47	WPCF Chlorination System Improvement		\$100,000	\$156,000	\$1,247,085	\$0	\$0	\$0
48	WPCF Biobeds Media Replacement		\$0	\$0	\$0	\$0	\$0	\$0
49	WPCF Programmable Logic Controller Cabinet Upgrades		\$0	\$0	\$0	\$0	\$0	\$0
50	WPCF Digester Cleaning Maintenance		\$0	\$0	\$0	\$0	\$0	\$0
51	Coating of South Primary Clarifier (NEW)		\$0	\$156,000	\$0	\$0	\$0	\$0
52	WPCF Levee Road Maintenance		\$0	\$208,000	\$0	\$224,973	\$0	\$243,331
53	WPCF Headworks Bar Screens		\$0	\$0	\$0	\$0	\$0	\$0
54	WPCF ETF Biofilter Media Replacement Project		\$0	\$0	\$0	\$0	\$0	\$0
55	WPCF New Drives for North and South Primary Clarifiers		\$120,000	\$46,800	\$0	\$0	\$0	\$0
56	WPCF New Digester Mixing Pumps for Digester No. 2 & 3		\$0	\$312,000	\$0	\$0	\$0	\$0
57	WPCF Water Purification System		\$0	\$0	\$0	\$0	\$0	\$0
58	<b>WPCF LABORATORY</b>							
59	WPCF Laboratory Equipment Replacement - Spectrophotometer		\$0	\$0	\$0	\$0	\$0	\$0
60	<b>WPCF NUTRIENT MANAGEMENT</b>							
61	WPCF Underground Conduit Repair (494 Pump & Sludge Beds)		\$0	\$83,200	\$0	\$0	\$0	\$0
62	WPCF Access Roads Rehabilitation		\$0	\$0	\$0	\$0	\$0	\$0
63	WPCF Site Waste Pump Station and Control Building Improvements		\$0	\$0	\$0	\$0	\$0	\$0
64	WPCF Cross Connection Prevention Project		\$0	\$0	\$0	\$0	\$0	\$0

	A	B	C	D	E	F	G
Line	Capital Projects	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
65	WPCF Aging Field Grading & Lime Treatment	\$0	\$260,000	\$1,622,400	\$0	\$0	\$0
66	WPCF Final Clarifier No. 2 Wall Repairs	\$0	\$0	\$0	\$0	\$0	\$0
67	Coating of Final Clarifier No. 2 Sludge Collector (Tow-Bro)	\$0	\$0	\$0	\$0	\$0	\$0
68	<b>OTHER</b>						
69	EBDA Outfall Replacement Payment	\$193,500	\$156,000	\$162,240	\$168,730	\$175,479	\$182,498
70	Project Predesign Services	\$25,000	\$26,000	\$27,040	\$28,122	\$29,246	\$30,416
71	<b>Subtotal - Replacement Projects</b>	<b>\$41,838,735</b>	<b>\$3,606,720</b>	<b>\$12,593,069</b>	<b>\$8,650,204</b>	<b>\$8,294,297</b>	<b>\$8,869,400</b>
72							
73	<b>Improvement Projects</b>						
74	New Admin Building and Lab (NEW)	\$270,000	\$270,000	\$270,000	\$270,000	\$270,000	\$270,000
75	Nutrient Management Design (Construction budget currently unscheduled below)	\$0	\$0	\$13,000,000	\$13,000,000	\$13,000,000	\$15,125,000
76	<b>Subtotal - Improvement Projects</b>	<b>\$270,000</b>	<b>\$270,000</b>	<b>\$13,270,000</b>	<b>\$13,270,000</b>	<b>\$13,270,000</b>	<b>\$15,395,000</b>
77							
78	<b>Total - Capital Projects</b>	<b>\$42,108,735</b>	<b>\$3,876,720</b>	<b>\$25,863,069</b>	<b>\$21,920,204</b>	<b>\$21,564,297</b>	<b>\$24,264,400</b>

Table 4-13: Proposed Wastewater Loans

	A	B	C	D	E	F	G
Line	Proposed Debt	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
1	<b>Proposed SRF Loans</b>	\$0	\$0	\$27,604,000	\$0	\$0	\$0
2	Proceeds Disbursement Year			FY 2025			
3	Interest Payment Start Year			FY 2029			
4	Principal Repayment Start Year			FY 2029			
5	Debt Service Payments	\$0	\$0	\$0	\$0	\$0	\$0
6							
7	<b>Proposed WIFIA Loans</b>	\$0	\$0	\$26,521,000	\$0	\$0	\$0
8	Proceeds Disbursement Year			FY 2025			
9	Interest Payment Start Year			FY 2033			
10	Principal Repayment Start Year			FY 2033			
11	Debt Service Payments	\$0	\$0	\$0	\$0	\$0	\$0

## 4.9. Wastewater Reserve Policy

Raftelis worked with City staff to understand the needs of the wastewater utility and to develop a recommendation for the reserve policy, which is listed in **Table 4-14**. Our recommendation includes the following components:

- Operating:** The City bills wastewater customers on a bi-monthly billing cycle, which can impact cash flows since revenues are collected six times, while expenses may be incurred twelve times per year (monthly). The recommended operating reserve target allows the wastewater utility to maintain adequate cash flow throughout the year and to fund planned O&M expenses, as well as any unexpected operating costs that may arise.
- Capital:** Capital expenditures over the planning horizon represent a significant portion of the wastewater utility’s annual costs. However, capital spending can often be unpredictable and subject to changing schedules and costs estimates. Since the wastewater utility is expecting to cash fund a large portion of the wastewater CIP, maintaining adequate reserves is even more critical. The recommended capital reserve target provides the utility with cash on hand to adequately fund each year’s planned rate funded capital projects.
- Rate Stabilization:** The recommended rates stabilization reserve target will help reduce the need for unreasonable rate increases and smooth out wastewater rates, even in the instance of unexpected increases in operating or capital costs or decreases in wastewater user revenues.

In total, the recommended reserve policy calls for a target balance of approximately \$21.1 million in FY 2024. The recommended policy matches the current wastewater reserve policy.

**Table 4-14: Recommended Wastewater Reserve Policy**

	A	B	C
Line	Reserve Targets	Recommended Target Policy	FY 2024 Target
1	Operating	25% O&M Expenses	\$5,298,440
2	Capital	One Year of 5-year Average CIP	\$8,672,738
3	Rate Stabilization	25% of Service Charges	\$7,128,638
4	<b>Total</b>		<b>\$21,099,815</b>
5			
6	<i>Days Cash on Hand</i>		419

## 4.10. Wastewater Status Quo Financial Plan

**Table 4-15** shows the projected wastewater financial plan based on revenues at existing rates with no adjustments, or the “status quo” scenario. Revenues (Lines 2-7) are derived from **Table 4-9**. Note that revenues from interest income in the status quo scenario is lower, due to a decrease in fund balances. O&M expenses (Lines 10-15) are derived from **Table 4-10**. Existing debt service (Line 19) and cash funded CIP (Line 22) are derived from **Table 4-11** and

Table 4-12, respectively.

Net revenue (Line 17) is equal to total revenues (Line 7) less O&M expenses (Line 15). Net cash flow (Line 24) is equal to net revenue less debt service (Lines 19-20) and cash funded CIP (Line 22). Debt coverage (Line 27) is calculated by dividing net revenue by debt service. Without revenue adjustments, the wastewater utility debt coverage declines near the minimum required by FY 2028. City staff provided beginning fund balances for FY 2023 (Column B, Line 30). Ending balances (Line 31) are calculated by adding beginning balances to net cash flow (Line 24). The reserve target is provided in Table 4-14. Under the status quo scenario, the wastewater fund will not meet reserve targets from FY 2025 onward.

**Table 4-15: Projected Wastewater Financial Plan (Status Quo)**

Line	A Financial Plan	B FY 2023	C FY 2024	D FY 2025	E FY 2026	F FY 2027	G FY 2028
1	<b>Revenues</b>						
2	Water Rate Revenue	\$26,844,101	\$27,092,209	\$27,092,209	\$27,092,209	\$27,092,209	\$27,092,209
3	Revenue Adjustments	\$0	\$0	\$0	\$0	\$0	\$0
4	Other Operating Revenue	\$246,000	\$246,000	\$246,000	\$246,000	\$246,000	\$246,000
5	Non-Operating Revenue	\$0	\$0	\$0	\$0	\$0	\$0
6	Interest Income	\$239,000	\$133,561	\$106,021	\$62,822	\$27,115	\$0
7	<b>Total - Revenues</b>	<b>\$27,329,101</b>	<b>\$27,471,770</b>	<b>\$27,444,230</b>	<b>\$27,401,031</b>	<b>\$27,365,324</b>	<b>\$27,338,209</b>
8							
9	<b>O&amp;M Expenses</b>						
10	Personnel Services	\$11,812,721	\$12,255,118	\$12,714,964	\$13,192,989	\$13,689,960	\$14,206,673
11	Operations	\$5,799,191	\$5,919,607	\$6,097,195	\$6,280,111	\$6,468,514	\$6,662,569
12	Debt Service	\$150,000	\$154,500	\$159,135	\$163,909	\$168,826	\$173,891
13	Internal Service Charges	\$1,058,176	\$1,089,921	\$1,122,619	\$1,156,297	\$1,190,986	\$1,226,716
14	Other Expenditures	\$1,770,443	\$1,774,614	\$1,778,910	\$1,783,335	\$1,787,893	\$1,792,587
15	<b>Total - O&amp;M Expenses</b>	<b>\$20,590,530</b>	<b>\$21,193,760</b>	<b>\$21,872,822</b>	<b>\$22,576,641</b>	<b>\$23,306,178</b>	<b>\$24,062,436</b>
16							
17	<b>Net Revenue</b>	<b>\$6,738,571</b>	<b>\$6,278,010</b>	<b>\$5,571,407</b>	<b>\$4,824,390</b>	<b>\$4,059,145</b>	<b>\$3,275,774</b>
18							
19	<b>Existing Debt Service</b>	<b>\$3,076,582</b>	<b>\$3,076,582</b>	<b>\$3,076,582</b>	<b>\$2,858,772</b>	<b>\$2,858,772</b>	<b>\$2,860,879</b>
20	<b>Proposed Debt Service</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
21							
22	<b>Cash Funded CIP</b>	<b>\$42,108,735</b>	<b>\$3,876,720</b>	<b>\$12,863,069</b>	<b>\$8,920,204</b>	<b>\$8,564,297</b>	<b>\$9,139,400</b>
23							
24	<b>Net Cash Flow</b>	<b>(\$38,446,746)</b>	<b>(\$675,292)</b>	<b>(\$10,368,243)</b>	<b>(\$6,954,586)</b>	<b>(\$7,363,924)</b>	<b>(\$8,724,505)</b>
25							
26	<b>Debt Coverage</b>						
27	Calculated	2.19	2.04	1.81	1.69	1.42	1.15
28	Required	1.10	1.10	1.10	1.10	1.10	1.10
29							
30	Beginning Balance	\$65,563,299	\$27,116,553	\$26,441,261	\$16,073,018	\$9,118,431	\$1,754,508
31	<b>Ending Balance</b>	<b>\$27,116,553</b>	<b>\$26,441,261</b>	<b>\$16,073,018</b>	<b>\$9,118,431</b>	<b>\$1,754,508</b>	<b>(\$6,969,997)</b>
32							
33	<b>Reserve Target</b>	<b>\$27,125,263</b>	<b>\$20,744,230</b>	<b>\$21,986,874</b>	<b>\$21,562,844</b>	<b>\$21,955,818</b>	<b>\$22,144,882</b>
34	<i>Operating</i>	<i>\$5,147,633</i>	<i>\$5,298,440</i>	<i>\$5,468,206</i>	<i>\$5,644,160</i>	<i>\$5,826,545</i>	<i>\$6,015,609</i>

35	Replacement Capital	\$15,266,605	\$8,672,738	\$9,745,616	\$9,145,631	\$9,356,221	\$9,356,221
36	Rate Stabilization	\$6,711,025	\$6,773,052	\$6,773,052	\$6,773,052	\$6,773,052	\$6,773,052

Figure 4-1 shows the projected status quo financial plan in graphical format. The bars represent the wastewater utility’s cash needs: O&M expenses (gray), debt service (red), capital projects (yellow), and reserve funding (green). The solid line represents the current revenues, which is below the stacked bars for all years of the period, signifying that the City’s wastewater revenues are not sufficient to fund its costs.

Figure 4-1: Projected Wastewater Financial Plan (Status Quo)

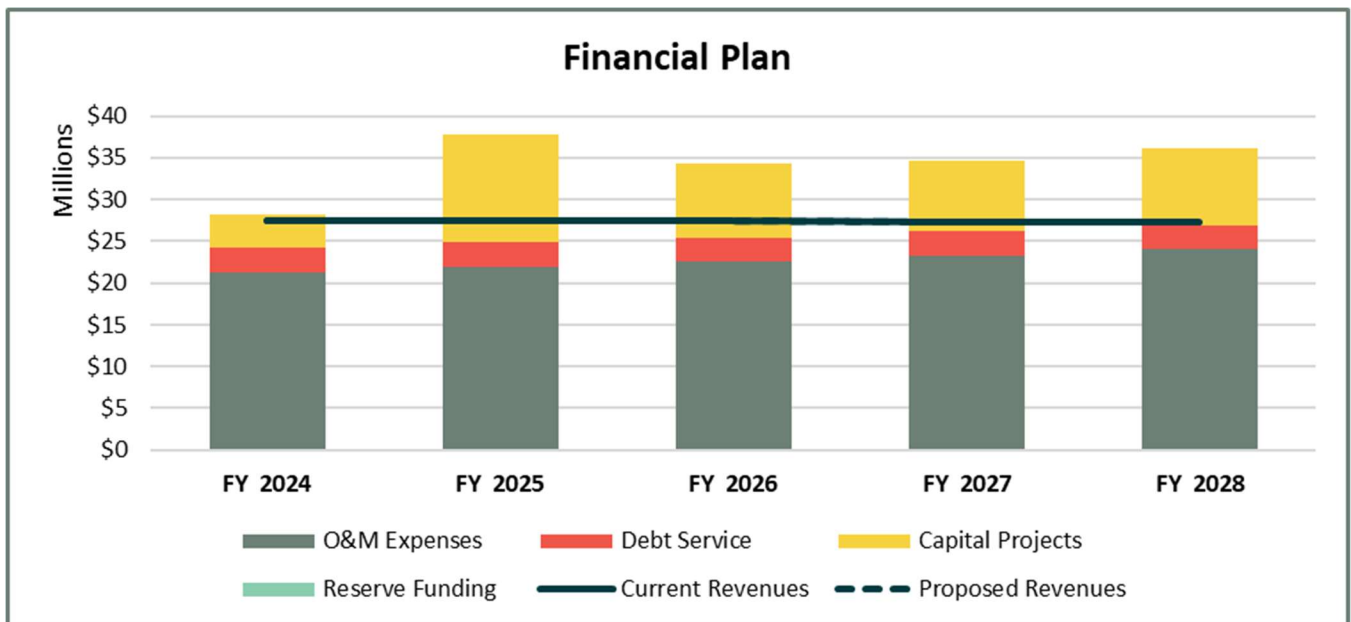
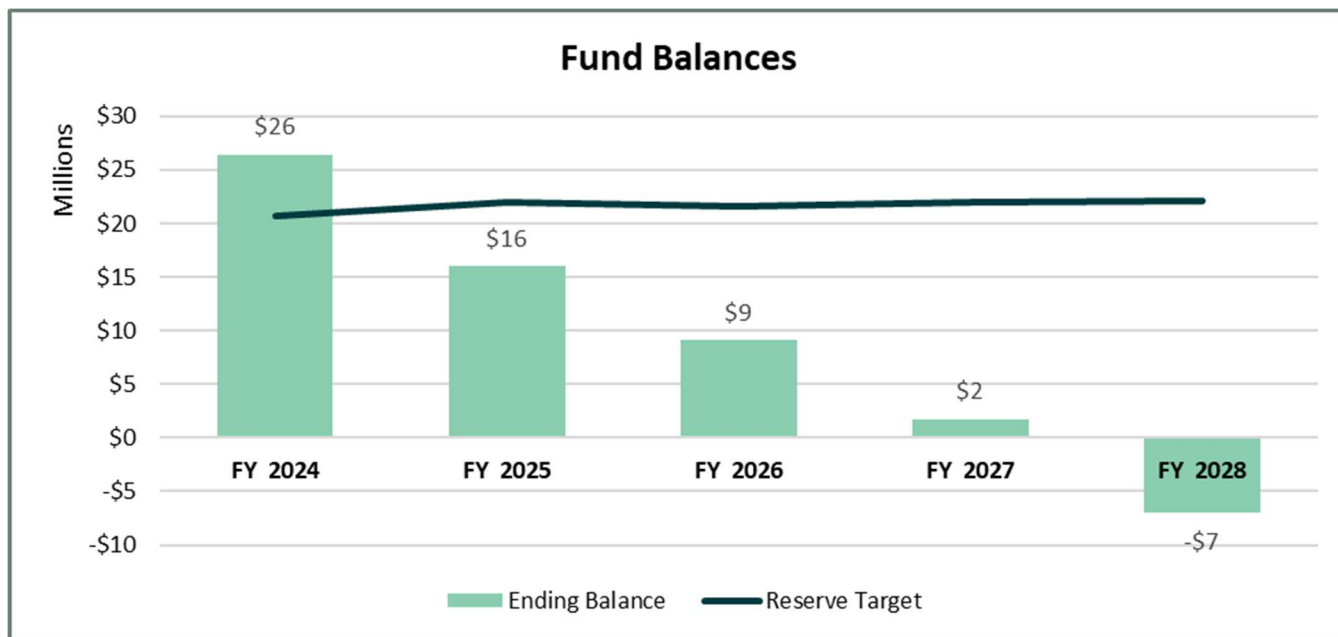


Figure 4-2 shows the projected fund balances under the status quo scenario for a 5-year period. The green bars represent the ending balances of the wastewater fund, and the solid line represents the reserve target amounts. The wastewater fund will be depleted following FY 2027 and become negative in FY 2028.

Figure 4-2: Projected Wastewater Fund Balances (Status Quo)



### 4.11. Proposed Wastewater Financial Plan

Table 4-16 shows the proposed revenue adjustments that allow the City to maintain financial sufficiency, fund operating and capital expenses, and build up cash reserves over a 5-year period to achieve the recommended target. The adjustments also ensure that the wastewater utility will have enough revenue to meet the coverage requirements for the proposed SRF and WIFIA loans. The planning period for the study includes five years of projections, which is reflected in the tables of the report that show information for FY 2024 to FY 2028.

The proposed revenue adjustments represent the increase to total rate revenues required to recover the wastewater utility’s costs. Revenue adjustments in all years are applied across all charges and classes proportional to existing rates. The proposed revenue adjustments are effective on October 1 of every year.

Table 4-16: Proposed Wastewater Revenue Adjustments

Line	A	B	C	D	E	F
Revenue Adjustments	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2028
1	Effective Month	October	October	October	October	October
2	% Adjustment	7%	7%	7%	7%	7%

Table 4-17 shows the projected wastewater financial plan with the proposed revenue adjustments in Table 4-16 applied to the wastewater rate revenues. Revenues from interest income (Line 6) are greater than those shown in the status quo scenario (Table 4-15, Line 6) due to additional cash from the proposed adjustments. O&M expenses (Line 15), debt service (Lines 19-20), and cash funded CIP (Line 22) are the same as the status quo scenario.



Net cash flow (Line 24) is positive in FY 2024, FY 2027, and FY 2028, which means that the City will be funding its reserves in those years. Net cash flow is negative in other years, which means that the City will be drawing down its wastewater fund to partially fund capital costs. The ending balances (Line 31) will not meet the recommended reserve target (Line 33) from FY 2024 to FY 2028. The utility will build up its reserves over a longer period, as shown in **Figure 4-4**, to reduce the financial impact to customers while ensuring long-term financial sufficiency.

**Table 4-17: Projected Wastewater Financial Plan (Proposed Adjustments)**

Line	A Financial Plan	B FY 2023	C FY 2024	D FY 2025	E FY 2026	F FY 2027	G FY 2028
1	<b>Revenues</b>						
2	Water Rate Revenue	\$26,844,101	\$27,092,209	\$27,092,209	\$27,092,209	\$27,092,209	\$27,092,209
3	Revenue Adjustments	\$0	\$1,422,341	\$3,418,359	\$5,554,099	\$7,839,341	\$10,284,549
4	Other Operating Revenue	\$246,000	\$246,000	\$246,000	\$246,000	\$246,000	\$246,000
5	Non-Operating Revenue	\$0	\$0	\$0	\$0	\$0	\$0
6	Interest Income	\$239,000	\$137,116	\$121,696	\$101,006	\$98,974	\$104,490
7	<b>Total - Revenues</b>	<b>\$27,329,101</b>	<b>\$28,897,667</b>	<b>\$30,878,265</b>	<b>\$32,993,315</b>	<b>\$35,276,524</b>	<b>\$37,727,248</b>
8							
9	<b>O&amp;M Expenses</b>						
10	Personnel Services	\$11,812,721	\$12,255,118	\$12,714,964	\$13,192,989	\$13,689,960	\$14,206,673
11	Operations	\$5,799,191	\$5,919,607	\$6,097,195	\$6,280,111	\$6,468,514	\$6,662,569
12	Debt Service	\$150,000	\$154,500	\$159,135	\$163,909	\$168,826	\$173,891
13	Internal Service Charges	\$1,058,176	\$1,089,921	\$1,122,619	\$1,156,297	\$1,190,986	\$1,226,716
14	Other Expenditures	\$1,770,443	\$1,774,614	\$1,778,910	\$1,783,335	\$1,787,893	\$1,792,587
15	<b>Total - O&amp;M Expenses</b>	<b>\$20,590,530</b>	<b>\$21,193,760</b>	<b>\$21,872,822</b>	<b>\$22,576,641</b>	<b>\$23,306,178</b>	<b>\$24,062,436</b>
16							
17	<b>Net Revenue</b>	<b>\$6,738,571</b>	<b>\$7,703,907</b>	<b>\$9,005,442</b>	<b>\$10,416,674</b>	<b>\$11,970,346</b>	<b>\$13,664,813</b>
18							
19	<b>Existing Debt Service</b>	<b>\$3,076,582</b>	<b>\$3,076,582</b>	<b>\$3,076,582</b>	<b>\$2,858,772</b>	<b>\$2,858,772</b>	<b>\$2,860,879</b>
20	<b>Proposed Debt Service</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
21							
22	<b>Cash Funded CIP</b>	<b>\$42,108,735</b>	<b>\$3,876,720</b>	<b>\$12,863,069</b>	<b>\$8,920,204</b>	<b>\$8,564,297</b>	<b>\$9,139,400</b>
23							

24	<b>Net Cash Flow</b>	<b>(\$38,446,746)</b>	<b>\$750,605</b>	<b>(\$6,934,208)</b>	<b>(\$1,362,302)</b>	<b>\$547,277</b>	<b>\$1,664,534</b>
25							
26	<b>Debt Coverage</b>						
27	Calculated	2.19	2.50	2.93	3.64	4.19	4.78
28	Required	1.10	1.10	1.10	1.10	1.10	1.10
29							
30	Beginning Balance	\$65,563,299	\$27,116,553	\$27,867,158	\$20,932,949	\$19,570,647	\$20,117,924
31	<b>Ending Balance</b>	<b>\$27,116,553</b>	<b>\$27,867,158</b>	<b>\$20,932,949</b>	<b>\$19,570,647</b>	<b>\$20,117,924</b>	<b>\$21,782,458</b>
32							
33	<b>Reserve Target</b>	<b>\$27,125,263</b>	<b>\$21,099,815</b>	<b>\$22,841,464</b>	<b>\$22,951,368</b>	<b>\$23,915,653</b>	<b>\$24,716,020</b>
34	<i>Operating</i>	<i>\$5,147,633</i>	<i>\$5,298,440</i>	<i>\$5,468,206</i>	<i>\$5,644,160</i>	<i>\$5,826,545</i>	<i>\$6,015,609</i>
35	<i>Replacement Capital</i>	<i>\$15,266,605</i>	<i>\$8,672,738</i>	<i>\$9,745,616</i>	<i>\$9,145,631</i>	<i>\$9,356,221</i>	<i>\$9,356,221</i>
36	<i>Rate Stabilization</i>	<i>\$6,711,025</i>	<i>\$7,128,638</i>	<i>\$7,627,642</i>	<i>\$8,161,577</i>	<i>\$8,732,888</i>	<i>\$9,344,190</i>

Figure 4-3: Projected Wastewater Financial Plan (Proposed Adjustments)

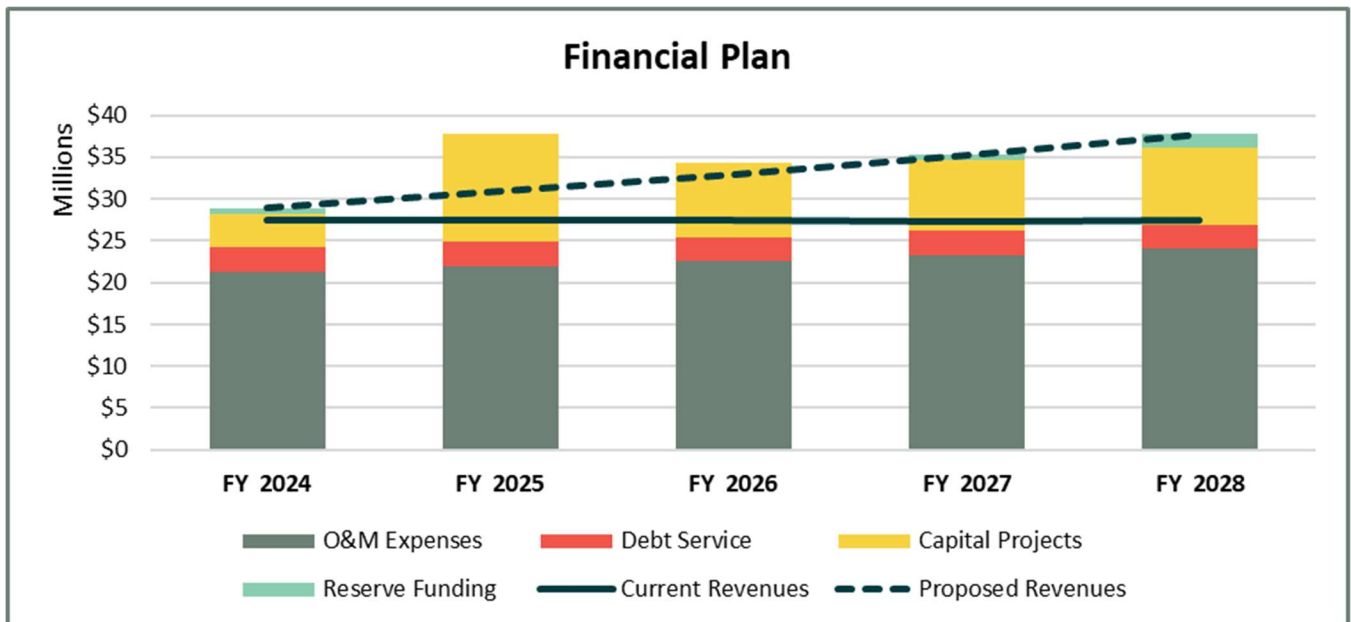
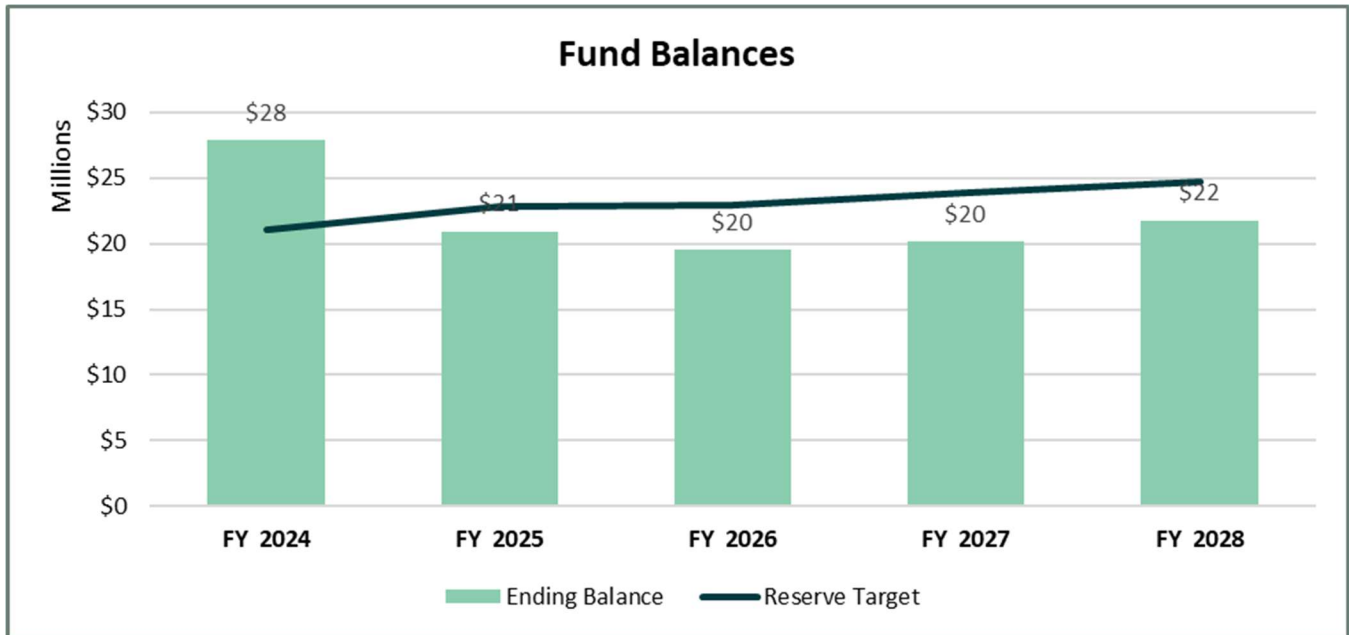


Figure 4-4: Projected Wastewater Fund Balances (Proposed Adjustments)



### 4.12. Proposed Wastewater Rate Schedule.

Table 4-18, Table 4-19, and

Table 4-20 show the proposed bi-monthly charges, coded user usage charges, and critical user usage charges, respectively, for FY 2024 and FY 2025 based on the recommendations. Rates for all years are determined by increasing current rates by the corresponding revenue adjustments in Table 4-16. Since the current wastewater rates are increased by the revenue adjustments, all bill impacts are equal to that year’s revenue adjustment. It is important to note that the required WPCF improvements currently in design have a significant impact on the rates.

Table 4-18: Proposed Bi-Monthly Residential Wastewater Charges

Line	Residential Customers	A	B	C
			Proposed FY 2024	Proposed FY 2025
1	Standard Residential		\$82.58	\$88.38
2	Multi-Family (charge per unit)		\$73.50	\$78.66
3	Mobile Home (charge per unit)		\$57.82	\$61.88
4	Economy (5 to 8 units of metered water usage)		\$38.68	\$41.40
5	Lifeline (0 to 4 units of metered water usage)		\$19.36	\$20.72

Table 4-19: Proposed Wastewater Usage Charges for Coded Commercial Customers

Line	Coded Users	A	B	C
			Proposed FY 2024	Proposed FY 2025
1	<b>With Irrigation Meters</b>			
2	Meat Products		\$14.36	\$15.37
3	Slaughterhouse		\$16.53	\$17.69
4	Dairy Products Processor		\$11.85	\$12.68
5	Canning & Packing		\$8.44	\$9.04
6	Grain Mills		\$11.12	\$11.90
7	Bakeries		\$12.86	\$13.77
8	Fats & Oils		\$8.01	\$8.58
9	Beverage Bottling		\$7.61	\$8.15
10	Food Manufacturer		\$28.35	\$30.34
11	Pulp & Paper Products Manufacturer		\$9.76	\$10.45
12	Inorganic Chemicals		\$13.56	\$14.51
13	Paint Manufacturer		\$21.14	\$22.62
14	Leather Tanning		\$27.84	\$29.79
15	Fabricated Metal		\$4.03	\$4.32
16	Eating Places (w/o grease interceptor)		\$12.63	\$13.52
17	Commercial Laundry		\$7.54	\$8.07
18	Industrial Laundry		\$11.71	\$12.53
19	Eating Places (w/ grease interceptor)		\$9.75	\$10.44
20	Other Domestic Strength Users - Commercial/Institutional/Govt		\$7.46	\$7.99
21	<b>Without Irrigation Meters</b>			
22	Meat Products		\$12.93	\$13.84
23	Slaughterhouse		\$14.88	\$15.93
24	Dairy Products Processor		\$10.66	\$11.41
25	Canning & Packing		\$7.59	\$8.13
26	Grain Mills		\$10.01	\$10.72
27	Bakeries		\$11.57	\$12.38
28	Fats & Oils		\$7.21	\$7.72
29	Beverage Bottling		\$6.85	\$7.33
30	Food Manufacturer		\$25.51	\$27.30
31	Pulp & Paper Products Manufacturer		\$8.78	\$9.40
32	Inorganic Chemicals		\$12.21	\$13.07
33	Paint Manufacturer		\$19.03	\$20.37
34	Leather Tanning		\$25.04	\$26.80
35	Fabricated Metal		\$3.63	\$3.89
36	Eating Places (w/o grease interceptor)		\$11.37	\$12.17
37	Commercial Laundry		\$6.78	\$7.26
38	Industrial Laundry		\$10.53	\$11.27
39	Eating Places (w/ grease interceptor)		\$8.78	\$9.40
40	Other Domestic Strength Users - Commercial/Institutional/Govt		\$6.72	\$7.20

**Table 4-20: Proposed Wastewater Usage Charges for Critical Commercial Customers**

Line	Critical Users	A	B	C
			Proposed FY 2024	Proposed FY 2025
1	Volume – Cost per 100 cubic feet		\$3.45	\$3.69
2	CBOD – Cost per pound		\$0.82	\$0.88
3	Suspended Solids – Cost per pound		\$1.11	\$1.18

### 4.13. Wastewater Rate Survey

The City prepared a survey of bi-monthly Single Family Residential and Restaurant with grease interceptor customer bills for several local agencies, shown respectively in **Figure 4-5** and **Figure 4-6**.

**Figure 4-5: Single Family Wastewater Bill Comparison with Local Agencies**

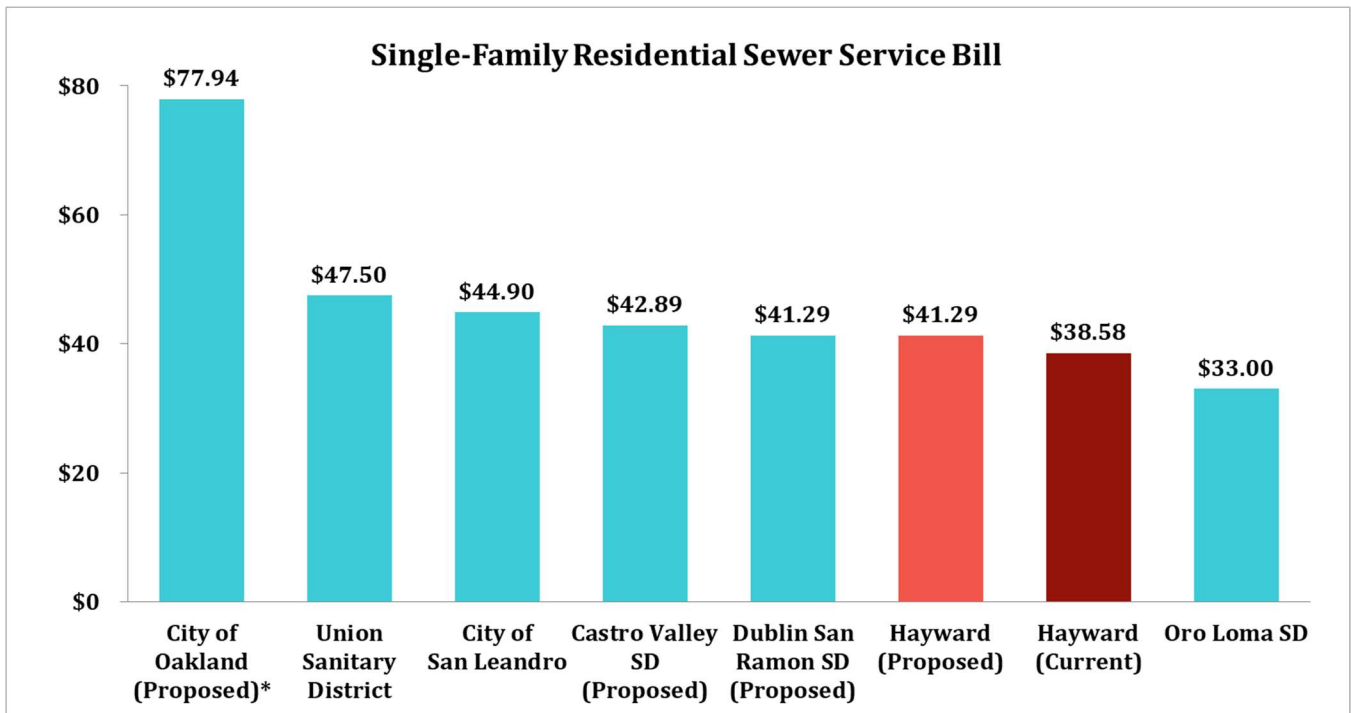


Figure 4-6: Restaurant with Grease Interceptor Wastewater Bill Comparison with Local Agencies

