

CITY OF **SEAL BEACH**

Water and Wastewater Financial Plan and Rate Study

Draft Final Report / December 28, 2023



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December 28, 2023

Ms. Iris Lee
Director of Public Works
City of Seal Beach
211 Eighth Street
Seal Beach, CA 90740

Subject: Water and Wastewater Financial Plan and Rate Study

Dear Ms. Lee,

Raftelis Financial Consultants, Inc. (Raftelis) is pleased to provide this Water and Wastewater Financial Plan and Rate Study Report (Report) for the City of Seal Beach (City) to establish a financial plan and water and wastewater rates that are based on the City's cost to serve water and collect wastewater.

The major study objectives include:

- Developing financial plans for the water and wastewater enterprises to ensure revenue is sufficient to pay for operation and maintenance (O&M) and capital investment
- Ensuring debt coverage ratios are adequate for future debt
- Establishing sufficient reserves
- Setting water and wastewater rates to achieve the above goals

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

Sincerely,

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

Steve Gagnon, PE
Senior Manager

A handwritten signature in blue ink that reads "Sarah Wingfield".

Sarah Wingfield
Lead Consultant

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1. Executive Summary

1.0. Study Background

In 2023, the City of Seal Beach engaged Raftelis to conduct a Water and Wastewater Financial Plan and Rate Study (Study) to help its utilities adapt to the post-COVID 19 environment, and maintain adequate debt coverage for the foreseeable future. Inflationary pressure not seen for 40-years, increased wholesale water costs from the Orange County Water District and the Municipal Water District of Orange County and reduced water sales have impacted the financial health of the water and wastewater utilities. This rate study proposes rates to keep the utilities financially healthy so that they can continue to provide water and wastewater service.

The last comprehensive rate study was completed in late 2020 and rates were adopted in May of 2021. The last study included a cost of service analysis and rate structure design. This study uses the cost of service and rate structure from the prior study and does not propose changes to the rate structure.

1.0.1. STUDY OBJECTIVES

The study's objectives include the following:

- Develop financial plans for the water and wastewater enterprises to ensure the utilities meet operation and maintenance (O&M) costs and capital costs
- Develop sufficient reserves
- Establish a plan for proposed debt issuances and ensure adequate debt coverage
- Assess customer bill impacts from the proposed rate increases

1.1. Water - Results and Recommendations

1.1.1. WATER REVENUE NEEDS

The following items affect the City's revenue needs (also known as revenue requirements) and thus its rates. The City's expenses include O&M expenses and capital expenses, including debt service.

- » **Capital investment requirements:** The City plans to invest approximately \$40 million in its water infrastructure over the next five fiscal years. The capital replacement projects will be funded through a combination of rate funding, debt, and external funding sources. A more detailed discussion of the projected capital improvement projects to be funded through the five-year CIP is provided in Table 2-14.
- » **Rising inflation:** The capital expenditures described above have been impacted by inflation. Cost estimates for capital projects have increased by 1.5 times due to recent inflation¹. The City's operating expenditures in categories such as: general, personnel, utilities, equipment and materials etc., are also rising due to inflation.
- » **Reserve Funding:** The City currently has two primary reserves: an operating and a capital replacement reserve. The operating reserve target, modeled in this study, is 25% of annual O&M expenses or

¹ [The price of water: Increasing cost estimates for VenturaWaterPure raise concerns | News | vcreporter.com](#)

approximately 90 days of operating expenses. The capital replacement reserve minimum is 25% of the average annual cash funded CIP expenses.

- » **Debt Coverage Requirements:** The City currently has debt and proposes to issue future debt. The City enters into a covenant with its bondholders in which it pledges to set rates so that it collects 1.2 times its expenses. This is known as a debt service coverage requirement of 1.20.

1.1.2. PROPOSED WATER REVENUE ADJUSTMENTS AND RATE INCREASES

The City’s rising capital and operational costs will require additional revenue to continue to provide safe and reliable water. The cumulative revenue increases required to meet expenditures are shown below in Table 1-1. The revenue increases shown for each fiscal year are compared to current fiscal year ending (FYE) 2024 revenue, shown as revenue adjustments.

Table 1-1: Proposed Water Revenue Adjustments

Fiscal Year	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028
Effective Date	April 1, 2024	January 1, 2025	January 1, 2026	January 1, 2027	January 1, 2028
Revenue Adjustment	\$508,000	\$3,089,000	\$4,980,000	\$6,579,000	\$7,977,000

1.1.2.1. Current and Proposed Fixed Charges

The current and proposed monthly fixed charges by customer class are shown in Table 1-2. Note that all rates shown below are in monthly terms however the City bill bi-monthly except for Leisure World.

The rates shown in the “Current” column are effective as of January 1, 2024. The FYE 2024 rates are to be implemented on April 1, 2024. All other years (FYE 2025-2028) will be implemented on January 1 of the respective fiscal year.

Table 1-2: Current and Proposed Five-Year Monthly Water Fixed Charges

Description	Current (1/1/2024)	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028
Fixed Rates (All Customers)						
5/8"	\$24.25	\$32.25	\$40.32	\$47.17	\$52.83	\$58.11
3/4"	\$24.25	\$32.25	\$40.32	\$47.17	\$52.83	\$58.11
1"	\$36.07	\$47.97	\$59.97	\$70.16	\$78.58	\$86.44
1 1/2"	\$69.88	\$92.93	\$116.17	\$135.92	\$152.23	\$167.45
2"	\$105.71	\$140.59	\$175.73	\$205.61	\$230.28	\$253.31
3"	\$188.08	\$250.15	\$312.68	\$365.84	\$409.74	\$450.71
4"	\$312.94	\$416.20	\$520.25	\$608.70	\$681.74	\$749.92
6"	\$616.21	\$819.56	\$1,024.45	\$1,198.61	\$1,342.44	\$1,476.68
8"	\$985.61	\$1,310.86	\$1,638.58	\$1,917.13	\$2,147.19	\$2,361.91
10"	\$1,410.78	\$1,876.34	\$2,345.42	\$2,744.14	\$3,073.44	\$3,380.78
6" Leisure World	\$616.21	\$819.56	\$1,024.45	\$1,198.61	\$1,342.44	\$1,476.68
2" Aquatic Park	\$159.53	\$212.17	\$265.21	\$310.30	\$347.53	\$382.28
Private Fire Line Charges						
4"	\$25.20	\$33.51	\$41.89	\$49.01	\$54.89	\$60.38
6"	\$73.18	\$97.33	\$121.66	\$142.34	\$159.43	\$175.37
8"	\$155.95	\$207.41	\$259.27	\$303.34	\$339.74	\$373.72
10"	\$280.46	\$373.01	\$466.26	\$545.52	\$610.98	\$672.08

The proposed volumetric rates by class are shown in Table 1-3. The implementation schedule for volumetric rates will be the same as the fixed charges described above.

Table 1-3: Proposed Five-Year Volumetric Rates (\$/hcf)

Description	Tier Definition (hcf)	Current (1/1/2024)	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028
Residential							
Tier 1	0-17	\$3.49	\$4.64	\$5.80	\$6.79	\$7.60	\$8.36
Tier 2	17+	\$3.69	\$4.91	\$6.13	\$7.18	\$8.04	\$8.84
Multi-Family Residential							
Tier 1	0-17*	\$3.49	\$4.64	\$5.80	\$6.79	\$7.60	\$8.36
Tier 2	17+	\$3.65	\$4.85	\$6.07	\$7.10	\$7.95	\$8.75
Leisure World							
Tier 1	0-17**	\$3.49	\$4.64	\$5.80	\$6.79	\$7.60	\$8.36
Tier 2	17+	\$3.65	\$4.85	\$6.07	\$7.10	\$7.95	\$8.75
Commercial							
Irrigation		\$3.49	\$4.64	\$5.80	\$6.79	\$7.60	\$8.36
City		\$3.57	\$4.75	\$5.94	\$6.94	\$7.78	\$8.56
Aquatic Park		\$3.53	\$4.69	\$5.87	\$6.87	\$7.69	\$8.46
		\$3.95	\$5.25	\$6.57	\$7.68	\$8.61	\$9.47

* Multi-Family tier allocations are determined by multiplying the hcf definition shown above (17 hcf) by the number of dwelling units for a given account. For example, the tier allocation for a Multi-Family account with two dwelling units would be equal to 17 hcf X 2 dwelling units = 34 hcf bimonthly.

** Leisure World tier allocations are determined in the same manner as MFR, by multiplying dwelling units by the individual allocation of 17 hcf.

1.2. Wastewater - Results and Recommendations

1.2.1. WASTEWATER REVENUE NEEDS

The wastewater enterprise has similar cost pressures as the water utility and the City must plan for infrastructure repairs to its wastewater system. The City is planning for approximately \$16 million (in today’s dollars) in capital replacement projects from FYE 2024 to FYE 2028. These projects will be financed through a combination of rate (cash) and debt funding. The City will continue to pursue more advantageous external funding sources as they become available.

1.2.2. PROPOSED WASTEWATER REVENUE ADJUSTMENTS AND RATE INCREASES

As described above, the City’s rising capital and operational costs will require additional revenue to continue to provide wastewater collection services. The revenue increases required to do so are shown below in Table 1-4. The cumulative revenue increases are in addition to the revenue collected in FYE 2024.

Table 1-4: Proposed Wastewater Revenue Adjustments

Fiscal Year	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028
Effective Date	April 1, 2024	January 1, 2025	January 1, 2026	January 1, 2027	January 1, 2028
Revenue Adjustment	\$194,000	\$1,133,000	\$1,844,000	\$2,482,000	\$2,943,000

1.2.3. CURRENT AND PROPOSED WASTEWATER RATES

The City’s current and proposed wastewater rates and charges, for the five-year study period, are shown below in Table 1-5 and Table 1-6. The fixed charges are shown in monthly terms.

The implementation date for the new rates April 1, 2024 (FYE 2024); for every subsequent year, the rate increases will be implemented on January 1 of the respective fiscal year.

Table 1-5: Proposed Five-Year Wastewater Fixed Charges (\$/monthly)

Description	Current (1/1/2024)	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028
Single Family Residential	\$24.02	\$32.43	\$40.21	\$47.85	\$54.07	\$57.85
Multi-Family Residential	\$0.61	\$0.82	\$1.02	\$1.22	\$1.37	\$1.47
Commercial	\$0.61	\$0.82	\$1.02	\$1.22	\$1.37	\$1.47
City	\$0.61	\$0.82	\$1.02	\$1.22	\$1.37	\$1.47
Leisure World - Fixed Charge	\$0.61	\$0.82	\$1.02	\$1.22	\$1.37	\$1.47
Leisure World - Flat Rate (monthly)	\$1,099.03	\$1,483.69	\$1,839.78	\$2,189.33	\$2,473.95	\$2,647.12
Aquatic Park - Sewer Service Equity Charge	\$498.75	\$673.31	\$834.91	\$993.54	\$1,122.70	\$1,201.29
Aquatic Park - Sewer Capital Equity Charge	\$661.00	\$892.35	\$1,106.51	\$1,316.75	\$1,487.93	\$1,592.08
Navy - Sewer Meter	\$0.61	\$0.82	\$1.02	\$1.22	\$1.37	\$1.47

Table 1-6: Proposed Five-Year Wastewater Volumetric Rates (\$/hcf)

Description	Current	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028
Multi-Family Residential	\$4.00	\$5.40	\$6.70	\$7.97	\$9.00	\$9.63
Commercial	\$4.00	\$5.40	\$6.70	\$7.97	\$9.00	\$9.63
City	\$4.00	\$5.40	\$6.70	\$7.97	\$9.00	\$9.63
Navy - Sewer Meter	\$0.24	\$0.32	\$0.40	\$0.48	\$0.54	\$0.58

2. Water Financial Plan

This section describes the Water Financial Plan and the assumptions used to project operating and capital expenses, as well as reserve policies and debt coverage requirements that determine the overall rate increases needed for a sustainable water enterprise.

2.0. Water System Background

The City has access to both surface water and groundwater sources. The City gets approximately 85% or more of its water from groundwater as allocated by the Orange County Water District (OCWD). The City has three active wells that draw water from the 350 square mile Orange County Basin, which is managed OCWD. The City has a limit, or basin pumping percentage (BPP), above which the City is assessed an additional charge (i.e., Basin Equity Assessment). Groundwater production at or below the BPP is charged a Replenishment Assessment. The City also has access to imported water through the Municipal Water District of Orange County (MWDOC), which sells surface water from the Metropolitan Water District of Southern California (MWD).

2.1. Key Assumptions

The Study Period is FYE 2024 to FYE 2028, with proposed rate increases presented for the same period. Various assumptions were incorporated into the Study based on discussions with and/or direction from City staff. These include the projected number of accounts, future water demand, and inflationary factors.

2.1.1. INFLATIONARY COST ASSUMPTIONS

The inflation factors are used to project costs over the Study period. Inflationary factors are presented in Table 2-1. Budgeted values were provided for both FYE 2023 and 2024, therefore the factors shown below are applied to years FYE 2025 and forward. Orange County Water District (OCWD) provided wholesale rates in their forecast; those were then used to project future groundwater charges. MWDOC also provided a forecast for FYE 2025 through FYE 2027.

Table 2-1: Cost and Water Purchase Inflation Assumptions

Description	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028
General	Budget	5.0%	5.0%	3.0%	3.0%
Personnel	Budget	8.0%	8.0%	8.0%	8.0%
Utilities	Budget	8.0%	7.0%	6.0%	5.0%
OCWD	Budget	per forecast	per forecast	per forecast	per forecast
MWDOC	Budget	7.0%	6.0%	6.0%	6.0%
Capital	Budget	6.0%	5.0%	4.0%	3.0%

2.1.2. ACCOUNT GROWTH AND WATER DEMAND ASSUMPTIONS

To estimate future water rate revenue, Raftelis estimated account growth (i.e., new connections) and changes in annual water demand as shown in Table 2-2. The study assumes no increase in water use from FYE 2023 which is conservative and reflects state programs seeking to reduce water use (Making Water Conservation a Way of California Life). Raftelis assumed no account growth since the City is mostly built out and sees little increase in accounts. The drop in water demand for the commercial class in FYE 2026 is based on the loss of

Parkwood Estates, which is water sold to the Golden State Water Company. Golden State Water Company desires to serve water to Parkwood Estates.

Table 2-2: Water Account and Demand Growth

Description	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028
Account Growth	0.0%	0.0%	0.0%	0.0%	0.0%
Demand Factors					
Residential	100%	100%	100%	100%	100%
Commercial	100%	100%	95%	100%	100%
Irrigation	100%	100%	100%	100%	100%

2.2. Revenues from Current Rates

Raftelis developed a five-year Water Financial Plan, which models anticipated revenues and expenses. To calculate the projected revenue (without rate adjustments), the number of accounts is multiplied by the monthly fixed charge (Table 2-3) and the total water use is multiplied by the volumetric rate (Table 2-4). Current monthly fixed charges are shown below in Table 2-3, and current volumetric (\$/hcf) charges are shown in Table 2-4.

Table 2-3: Current Water Monthly Fixed Charges (\$/month)

Description	FYE 2024 (Effective Jan 1, 2024)
Fixed Rates (All Customers)	
5/8"	\$24.25
3/4"	\$24.25
1"	\$36.07
1 1/2"	\$69.88
2"	\$105.71
3"	\$188.08
4"	\$312.94
6"	\$616.21
8"	\$985.61
10"	\$1,410.78
6" Leisure World	\$616.21
2" Aquatic Park	\$159.53
Private Fire Line Charges	
4"	\$25.20
6"	\$73.18
8"	\$155.95
10"	\$280.46

Table 2-4: Current Volumetric Water Rates (\$/hcf)

Description	Tier Definitions (hcf)	FYE 2024 (Effective Jan 1, 2024)
Residential		
Tier 1	0-17	\$3.49
Tier 2	17+	\$3.69
Multi-Family Residential		
Tier 1	0-17*	\$3.49
Tier 2	17+	\$3.65
Leisure World		
Tier 1	0-17**	\$3.49
Tier 2	17+	\$3.65
Commercial		\$3.49
Irrigation		\$3.57
City		\$3.53
Aquatic Park		\$3.95

* Multi-Family tier allocations are determined by multiplying the hcf definition shown above (17 hcf) by the number of dwelling units for a given account. For example, the tier allocation for a Multi-Family account with two dwelling units would be equal to 17 hcf X 2 dwelling units = 34 hcf bimonthly.

** Leisure World tier allocations are determined in the same manner as MFR, by multiplying dwelling units by the individual allocation of 17 hcf.

Table 2-5 and Table 2-6 present the number of accounts by meter size for all customers and private fire connections, respectively, in FYE 2023. Note that these remain constant due to the assumption of zero account growth (Table 2-2); therefore, only the first year is shown.

Table 2-5: Current Water Accounts

Description	FYE 2023
5/8"	349
3/4"	3,835
1"	818
1.5"	111
2"	191
3"	14
4"	14
6"	7
8"	2
10"	2
12"	0
Leisure World (6")	1
Total	5,344

Table 2-6: Current Private Fire Accounts

Description	FYE 2023
4"	20
6"	14
8"	18
10"	14
Total	66

Table 2-7 shows the distribution of water use by class and tier for the study period. Water demand remains constant (except for the minor decrease in commercial use due to the absence of Parkwood Estates) per the assumption in Table 2-2. All values are shown in hundred cubic feet (hcf).

Table 2-7: Projected Water Use

Description	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028
Residential					
Tier 1	303,953	303,953	303,953	303,953	303,953
Tier 2	83,627	83,627	83,627	83,627	83,627
Subtotal	387,580	387,580	387,580	387,580	387,580
Multi-Family Residential					
Tier 1	92,553	92,553	92,553	92,553	92,553
Tier 2	26,747	26,747	26,747	26,747	26,747
Subtotal	119,300	119,300	119,300	119,300	119,300
Leisure World	409,431	409,431	409,431	409,431	409,431
Commercial	162,422	162,422	154,301	154,301	154,301
Irrigation	56,200	56,200	56,200	56,200	56,200
City	6,011	6,011	5,711	5,711	5,711
Aquatic Park	6,152	6,152	6,152	6,152	6,152
Total Use (hcf)	1,147,096	1,147,096	1,138,674	1,138,674	1,138,674

Table 2-8 summarizes the projected revenues from current rates. Fixed charges (Table 2-3) are multiplied by number of accounts (Table 2-5) and to obtain yearly fixed charge revenues. For total private fire service revenues, the values in Table 2-3 are multiplied by the number of accounts in Table 2-6 and by 12 to calculate yearly revenue.

Revenues from volumetric rates are calculated by multiplying the current volumetric rate (Table 2-4) by the projected water use in hundred cubic feet (hcf) (Table 2-7). This calculation is repeated for all meter sizes and tiers or customer classes and then summed to arrive at the total volumetric revenue shown in Table 2-8. Due to the assumptions of zero account growth and minimal changes to water demand, the projected water revenues remain roughly constant across the study period.

Table 2-8: Projected Water Rate Revenue with Current Rates

Description	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028
Fixed Charges	\$2,128,682	\$2,193,122	\$2,193,122	\$2,193,122	\$2,193,122
Commodity Charges	\$4,031,938	\$4,031,938	\$4,002,534	\$4,002,534	\$4,002,534
Total	\$6,160,620	\$6,225,060	\$6,195,656	\$6,195,656	\$6,195,656

The utility also derives revenues from other non-rate sources. These revenues consist of miscellaneous revenues (which include turn on, turn off fees, late charges, etc.) and capacity fees as summarized in Table 2-9.

Table 2-9: Projected Water Non-Rate Revenues

Description	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028
Misc Rev	\$25,755	\$26,013	\$26,273	\$26,535	\$26,801
Capacity Fees	\$1,313	\$1,326	\$1,339	\$1,353	\$1,366
Total	\$25,755	\$26,013	\$26,273	\$88,288	\$95,876

2.3. Water Operating and Maintenance Expenses

2.3.1. WATER SUPPLY COSTS

Line 1 of Table 2-10 shows the total water demand (sales) for each year of the Study period. The City, like all other water purveyors, loses water during the transmission and distribution due to losses from leaks in distribution pipelines and paper losses from meter reading and billing errors. The City must account for this loss in estimating the supply needed to meet its demand. The City has an approximate 8 percent water loss. To project the required water supply, the following equation is used to calculate water production:

$$\text{Total Water Demand} / [1 - \text{Water Loss}] = \text{Total Water Production}$$

The estimated amount of well water and imported water is also shown in Table 2-10. The City anticipates, if conditions allow, to receive 100% of its water from groundwater beginning in FYE 2026 and throughout the duration of the study.

Table 2-10: Projected Water Supply and Demand

Description	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028
Total Water Demand (AF)	2,633	2,633	2,614	2,614	2,614
Water Loss (%)	8%	8%	8%	8%	8%
Well Water (AF)	2,417	2,560	2,823	2,823	2,823
Imported Water (AF)	427	284	0	0	0
Total Water Production (AF)	2,844	2,844	2,823	2,823	2,823

Wholesale water purchase rates or charges, from OCWD and MWDOC, are projected in Table 2-11 based on projections provided by those agencies and the escalation assumptions in Table 2-1.

Table 2-11: Water Supply Unit Costs

Description		FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028
Volumetric Costs						
OCWD	(\$/Acre Foot)	\$624	\$665	\$699	\$733	\$769
MWDOC (Jul-Dec)	(\$/Acre Foot)	\$1,209	\$1,294	\$1,371	\$1,454	\$1,541
MWDOC (Jan-Jun)	(\$/Acre Foot)	\$1,256	\$1,344	\$1,425	\$1,510	\$1,601
Fixed Costs						
MWDOC Annual Retail Service Connection	Per equivalent meter	\$14.25	\$15.25	\$16.31	\$17.46	\$18.68
MWDOC Readiness to Serve (Jul-Dec)	Per month	\$6,615	\$7,078	\$7,503	\$7,953	\$8,430
MWDOC Readiness to Serve (Jan-Jun)	Per month	\$7,464	\$7,987	\$8,466	\$8,974	\$9,513
MWDOC Capacity Charge (Jul-Dec)	Per month	\$5,365	\$5,741	\$6,085	\$6,450	\$6,837
MWDOC Capacity Charge (Jan-Jun)	Per month	\$5,365	\$5,741	\$6,085	\$6,450	\$6,837
MWDOC Choice Program	Per month	\$6,182	\$6,615	\$7,012	\$7,432	\$7,878
South Coast Air Quality Management District	Per year	\$15,000	\$15,750	\$16,538	\$17,034	\$17,545
State Water Resources Control Board	Per year	\$31,983	\$33,582	\$35,261	\$36,319	\$37,409
State Controllers Office	Per year	\$99	\$104	\$109	\$112	\$116

The water supply unit costs are then multiplied by the respective units (e.g., \$/AF, per month, per meter) to obtain the City’s wholesale water purchase costs (Table 2-12).

Table 2-12: Water Supply Costs

Description	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028
Volumetric Costs					
OCWD	\$1,508,479	\$1,702,158	\$1,973,388	\$2,069,375	\$2,171,009
MWDOC (Jul-Dec)	\$265,104	\$189,108	\$0	\$0	\$0
MWDOC (Jan-Jun)	\$260,407	\$185,757	\$0	\$0	\$0
Subtotal	\$2,033,990	\$2,077,022	\$1,973,388	\$2,069,375	\$2,171,009
Fixed Costs					
MWDOC Annual Retail Service Connection	\$76,152	\$81,437	\$87,137	\$93,237	\$99,764
MWDOC Readiness to Serve (Jul-Dec)	\$79,378	\$84,935	\$90,031	\$95,433	\$101,159
MWDOC Readiness to Serve (Jan-Jun)	\$89,573	\$95,843	\$101,594	\$107,689	\$114,151
MWDOC Capacity Charge (Jul-Dec)	\$64,380	\$68,887	\$73,020	\$77,401	\$82,045
MWDOC Capacity Charge (Jan-Jun)	\$64,380	\$68,887	\$73,020	\$77,401	\$82,045
MWDOC Choice Program	\$6,182	\$6,615	\$7,012	\$7,432	\$7,878
South Coast Air Quality Management District	\$15,000	\$15,750	\$16,538	\$17,034	\$17,545
State Water Resources Control Board	\$31,983	\$33,582	\$35,261	\$36,319	\$37,409
State Controllers Office	\$99	\$104	\$109	\$112	\$116
Subtotal	\$427,127	\$456,039	\$483,721	\$512,059	\$542,111
Total Water Purchase Costs	\$2,461,117	\$2,533,061	\$2,457,109	\$2,581,434	\$2,713,120

2.3.2. O&M EXPENSES

Total projected O&M expenses (including water purchase costs) are shown in Table 2-13 based on the assumptions in Table 2-1.

Table 2-13: Total Water O&M Costs

Description	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028
Maintenance and Operations	\$3,908,071	\$4,322,576	\$4,615,134	\$4,890,107	\$5,181,016
Fixed Water Purchases	\$427,127	\$456,039	\$483,721	\$512,059	\$542,111
Volumetric Water Purchases	\$2,033,990	\$2,077,022	\$1,973,388	\$2,069,375	\$2,171,009
Total	\$6,369,188	\$6,855,637	\$7,072,243	\$7,471,541	\$7,894,136

2.4. Water Capital Improvement Projects (CIP)

The projected five-year inflated CIP for the water utility is provided below in Table 2-14. All values have been inflated with the capital inflation factors shown above in Table 2-1. Note that two projects - WT0904 Beverly Manor Water Pump Station Rehabilitation and WT2103 LCWA Watermain Lining - are modeled to be funded through State Revolving Fund (SRF) loans. Total CIP costs, including the SRF loan projects, are shown in the last line of the table.

Table 2-14: Five-Year Water CIP

Water Capital Improvement - 501	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028
Total – All Water CIP Projects	\$1,523,863	\$13,549,658	\$11,377,500	\$6,612,500	\$7,080,000

2.5. Water Existing and Proposed Debt Service

Table 2-15 shows the City’s existing debt service obligations. The City’s Water Enterprise has two outstanding debt obligations: the West Orange County Water Board (WOCWB) loan and the Orange County Transit Authority (OCTA) loan.

Table 2-15: Water Debt Service

Description	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028
West Orange County Water Board Loan (WOCWB)					
Principal	\$89,493	\$83,900	\$83,900	\$83,900	\$83,900
Interest	\$14,357	\$7,352	\$7,352	\$7,352	\$7,352
Subtotal	\$103,850	\$91,252	\$91,252	\$91,252	\$91,252
OCTA					
Principal	\$415,737	\$415,737	\$415,737	\$415,737	\$311,803
Interest	\$21,828	\$22,376	\$19,658	\$13,614	\$17,113
Subtotal	\$437,566	\$438,113	\$435,395	\$429,352	\$328,916
Total Existing Debt	\$541,416	\$529,364	\$526,647	\$520,603	\$420,167

The City proposes to issue new debt to fund necessary CIP projects required to deliver safe and reliable water. Table 2-16 shows projected proposed debt for the duration of the study period. The City plans to use a combination of SFR and market debt funding. The model assumes an interest rate and term for the SRF loan of 2.5% over 30 years. The assumed interest rate and term for the market debt is 5% over 30 years.

Table 2-16: Water Proposed Debt

Description	FYE 2025	FYE 2026	FYE 2027	FYE 2028
Proposed SRF Loan				
Amount	\$11,000,000			
Estimated Annual Payment	\$0	\$525,554	\$525,554	\$525,554
Proposed Market Debt				
Amount	\$13,000,000		\$9,000,000	
Estimated Annual Payment	\$845,669	\$845,669	\$1,431,432	\$1,431,432
Total Proposed Debt Service	\$845,669	\$1,371,223	\$1,956,686	\$1,956,686

2.6. Financial Reserve Policy

The City maintains two reserves: an operating and a capital replacement reserve. The operating reserve minimum is 20% of annual O&M expenses, or approximately 70 days of operating expenses, and the maximum target is 25% of annual O&M costs, or 90 days of operating expenses. This study (in Figure 2-4) uses the 25% of annual O&M costs as the operating reserve target as it is more common based on Raftelis’ experience. The capital replacement reserve minimum is 25% of average five-year CIP costs. The City is also required to maintain a debt service coverage ratio of 1.20. Table 2-17 shows the reserve targets used in the study’s financial plan for which to compare ending reserve balances.

Table 2-17: Water Reserve Policies

Reserve	Policy	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028
Operating Reserve - 501						
Target	25% of O&M expenses	\$1,592,297	\$1,713,909	\$1,768,061	\$1,867,885	\$1,973,534
Capital Replacement Reserve						
Minimum	25% of five-year avg. CIP costs	\$379,176	\$650,683	\$946,783	\$1,049,925	\$1,217,425
Total Reserve Target		\$1,971,473	\$2,364,591	\$2,714,844	\$2,917,810	\$3,190,959

2.7. Status Quo Financial Plan (Financial Plan without Revenue Increases)

The Status Quo Financial Plan (Table 2-18) shows the City’s financial plan without revenue increases. The City is currently operating at a deficit as shown by the net revenue line and net cashflow in the final line of the table.

Table 2-18: Water Status Quo Financial Plan

Description	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028
Rate Revenues	\$6,160,620	\$6,225,060	\$6,195,656	\$6,195,656	\$6,195,656
Misc Revenues	\$25,755	\$26,013	\$26,273	\$26,535	\$26,801
Total Revenues	\$6,186,375	\$6,251,073	\$6,221,929	\$6,222,192	\$6,222,457
Operating Expenses					
Maintenance and Operations	\$3,908,071	\$4,322,576	\$4,615,134	\$4,890,107	\$5,181,016
Fixed Water Purchases	\$427,127	\$456,039	\$483,721	\$512,059	\$542,111
Volumetric Water Purchases	\$2,033,990	\$2,077,022	\$1,973,388	\$2,069,375	\$2,171,009
Subtotal	\$6,369,188	\$6,855,637	\$7,072,243	\$7,471,541	\$7,894,136
Net Revenue	(\$182,813)	(\$604,564)	(\$850,314)	(\$1,249,349)	(\$1,671,678)
Existing Debt Service	\$541,416	\$529,364	\$526,647	\$520,603	\$420,167
Cashflow before CIP	(\$724,229)	(\$1,133,929)	(\$1,376,960)	(\$1,769,952)	(\$2,091,846)
Rate-Funded CIP	\$1,523,863	\$6,511,258	\$7,415,900	\$6,612,500	\$7,080,000
Net Cashflow	(\$2,248,092)	(\$14,683,587)	(\$12,754,460)	(\$8,382,452)	(\$9,171,846)

2.8. Proposed Financial Plan

Table 2-19 shows the proposed revenue increases for the Water Enterprise. The revenue increases shown are cumulative in relation to current FYE 2024 revenue. The increases are needed to fund operating expenses, achieve reserve policy targets, fund the long-term capital program, and pay debt service. The first rate increase is planned take place in April of 2024; all subsequent adjustments are assumed to take effect on January 1st of each fiscal year.

Table 2-19: Water Revenue Increases

Fiscal Year	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028
Effective Date	April 1, 2024	January 1, 2025	January 1, 2026	January 1, 2027	January 1, 2028
Approximate Revenue Increase	\$508,000	\$3,089,000	\$4,980,000	\$6,578,000	\$7,976,000

The Proposed Financial Plan, shown in Table 2-20, incorporates the revenue increases shown in Table 2-19. As shown below, expenses will exceed revenue in FYE 2024, however the revenue increases implemented in FYE 2024 and future years will create positive cashflows so that the City can build reserves. Line 13 is calculated on the average yearly cash balance assuming an interest rate of 3%.

Table 2-20: Water Proposed Financial Plan

Line	Description	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028
1	Rate Revenues	\$6,160,620	\$6,225,060	\$6,195,656	\$6,195,656	\$6,195,656
2						
3	Revenue Adjustments					
4	FYE 2024	\$508,251	\$2,054,270	\$2,044,567	\$2,044,567	\$2,044,567
5	FYE 2025		\$1,034,916	\$2,060,056	\$2,060,056	\$2,060,056
6	FYE 2026			\$875,524	\$1,751,047	\$1,751,047
7	FYE 2027				\$723,080	\$1,446,159
8	FYE 2028					\$674,874
9	Total Revenue Adjustments	\$508,251	\$3,089,186	\$4,980,146	\$6,578,749	\$7,976,703
10						
11	Other Revenues					
12	Misc Rev	\$25,755	\$26,013	\$26,273	\$26,535	\$26,801
13	Interest Income	\$0	\$0	\$0	\$61,752	\$69,075
14	Subtotal	\$25,755	\$26,013	\$26,273	\$88,288	\$95,876
15						
16	Total Revenues	\$6,694,626	\$9,340,259	\$11,202,075	\$12,862,693	\$14,268,235
17						
18	Expenses					
19	Maintenance and Operations	\$3,908,071	\$4,322,576	\$4,615,134	\$4,890,107	\$5,181,016
20	Fixed Water Purchases	\$427,127	\$456,039	\$483,721	\$512,059	\$542,111
21	Volumetric Water Purchases	\$2,033,990	\$2,077,022	\$1,973,388	\$2,069,375	\$2,171,009
22	Subtotal	\$6,369,188	\$6,855,637	\$7,072,243	\$7,471,541	\$7,894,136
23						
24	Net Revenue	\$325,438	\$2,484,622	\$4,129,832	\$5,391,152	\$6,374,100
25						
26	Existing Debt Service	\$541,416	\$529,364	\$526,647	\$520,603	\$420,167
27	Proposed Market Debt	\$0	\$845,669	\$845,669	\$1,431,132	\$1,431,132
28	Proposed SRF Loan*	\$0	\$0	\$525,554	\$525,554	\$525,554
29						
30	Cashflow before CIP	(\$215,978)	\$1,109,589	\$2,231,963	\$2,913,864	\$3,997,247
31						
32	Rate-Funded CIP	\$1,523,863	\$0	\$1,187,158	\$0	\$4,872,500
33	Net Cashflow	(\$1,739,841)	\$1,109,589	\$1,044,805	\$2,913,864	(\$875,253)

*The State Revolving Fund Loan (SRF) assumes a 2.5% interest rate and that payments begin the year after the project is complete – thus the payments are modeled one year delayed as shown.

Figure 2-1 through Figure 2-4 display the proposed financial plan information of Table 2-20 in graphical format. The figures show the study period plus two additional years (FYE 2029 and 2030). Figure 2-1 shows the City’s expenses (O&M, debt, CIP) through the various stacked bars; current and proposed revenue are shown by the gray and orange lines, respectively. The red portion of the stacked bar represents either an operating yearly deficit when it is below the x-axis and a positive cash balance when it is at the top of the stacked bars.

Figure 2-1: Water Operating Financial Plan

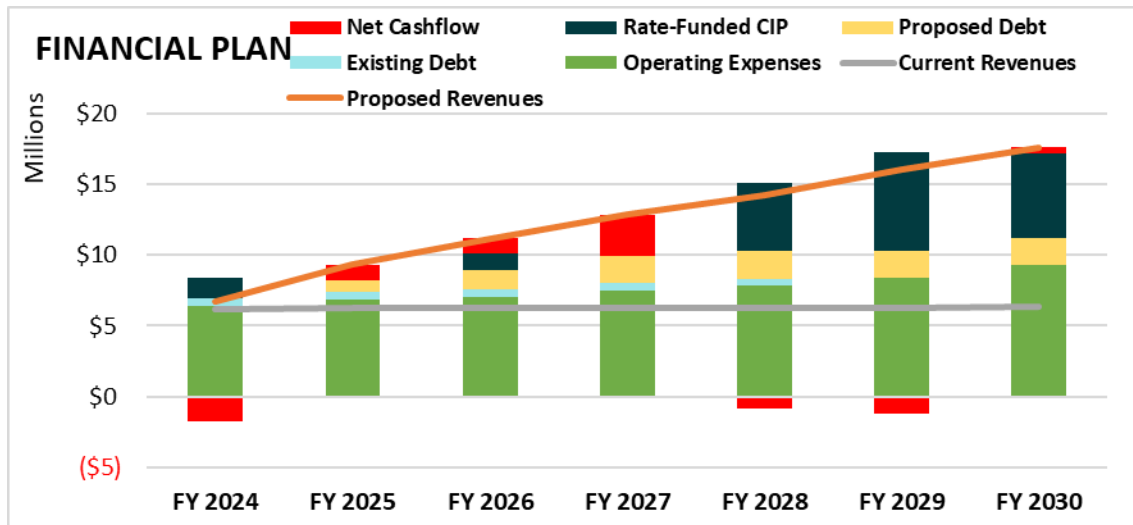


Figure 2-2 shows the capital funding plan for water CIP projects. The dark blue bars represent CIP costs funded by rate revenue (known as PAY-GO or cash); the light blue bars represent CIP costs funded by debt. As shown below, the City anticipates funding the capital projects through a combination of rate revenue and debt issuance.

Figure 2-2: Water Capital Funding Plan

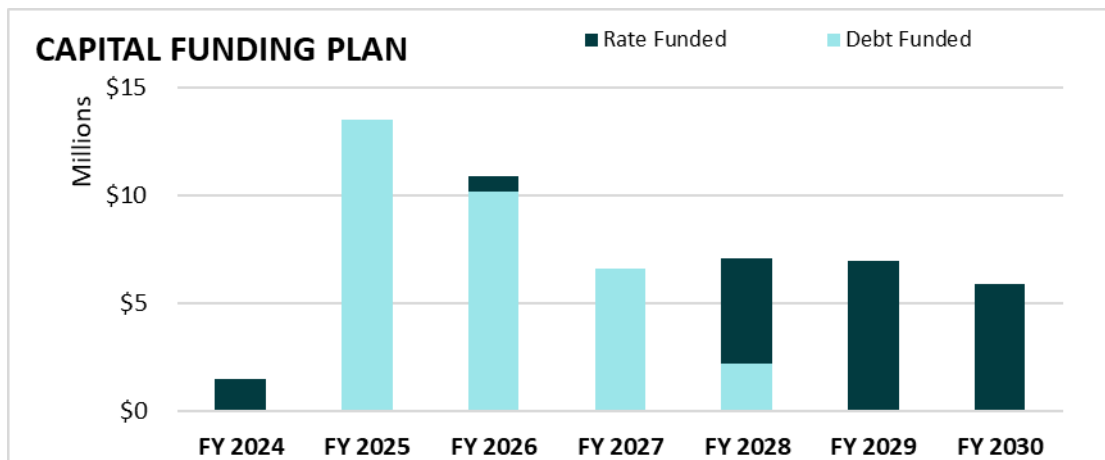


Figure 2-3 shows projected water debt coverage (debt coverage ratio). The City is projected to meet its debt coverage requirement of 1.20 as shown by the calculated debt coverage line (orange line) in FYE 2025. The gray line shows the required debt coverage ratio of 1.20.

Figure 2-3: Water Debt Coverage

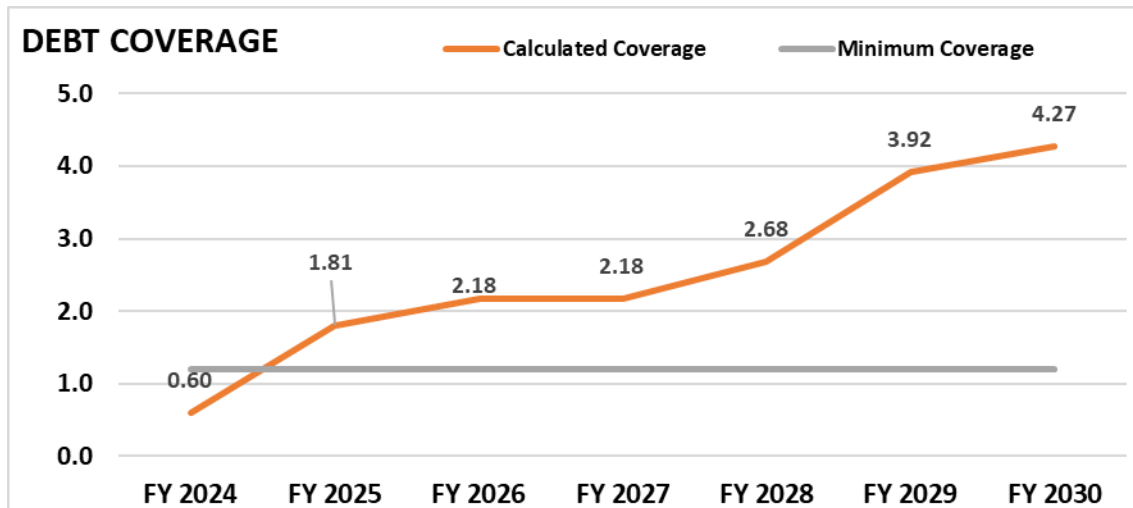
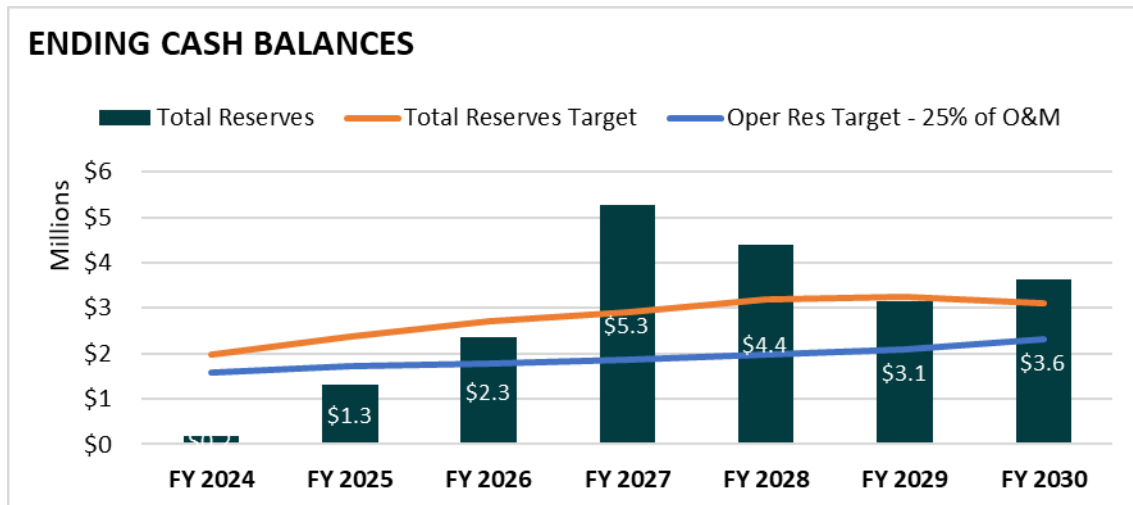


Figure 2-4 shows the projected ending total reserve balances. The operating reserve target shown in Table 2-17 is represented by the blue line and is equal to 90 days of operating expenses. The total reserve target for both the operating and capital reserves is represented by the red line and is equal to the sum of operating and capital reserve targets shown in Table 2-17. As shown below, the City is projected to reach the reserve target by FYE 2027 and maintain adequate reserve funding for the remainder of the study period. The cash balance in FYE 2027 is above the reserve target due to debt funding of capital – as soon as the bond proceeds are used, reserves decrease to target levels.

Figure 2-4: Water Ending Reserve Balances



3. Water Five-Year Rates

3.0. Water Rates and Charge

Table 3-1 and Table 3-2 show current and proposed *monthly* water rates and charges for the five-year study period. The City bills bi-monthly and certain customers are billed monthly. All values below are increased by taking the current year rate (starting in FYE 2024) and escalating them to yield the revenue increases shown in Table 1-1. The City performed a cost of service study as part of the prior rate study completed in December 2020, which distributes costs to customer classes. Increasing rates uniformly distributes costs to customer classes in proportion to the prior cost of service study. The first rate increase is planned to take effect on April 1st; all subsequent years will have rate increases put into effect on January 1st of the respective fiscal year.

Table 3-1: Current and Proposed Five-Year Monthly Water Fixed Charges

Description	Current (1/1/2024)	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028
Fixed Rates (All Customers)						
5/8"	\$24.25	\$32.25	\$40.32	\$47.17	\$52.83	\$58.11
3/4"	\$24.25	\$32.25	\$40.32	\$47.17	\$52.83	\$58.11
1"	\$36.07	\$47.97	\$59.97	\$70.16	\$78.58	\$86.44
1 1/2"	\$69.88	\$92.93	\$116.17	\$135.92	\$152.23	\$167.45
2"	\$105.71	\$140.59	\$175.73	\$205.61	\$230.28	\$253.31
3"	\$188.08	\$250.15	\$312.68	\$365.84	\$409.74	\$450.71
4"	\$312.94	\$416.20	\$520.25	\$608.70	\$681.74	\$749.92
6"	\$616.21	\$819.56	\$1,024.45	\$1,198.61	\$1,342.44	\$1,476.68
8"	\$985.61	\$1,310.86	\$1,638.58	\$1,917.13	\$2,147.19	\$2,361.91
10"	\$1,410.78	\$1,876.34	\$2,345.42	\$2,744.14	\$3,073.44	\$3,380.78
6" Leisure World	\$616.21	\$819.56	\$1,024.45	\$1,198.61	\$1,342.44	\$1,476.68
2" Aquatic Park	\$159.53	\$212.17	\$265.21	\$310.30	\$347.53	\$382.28
Private Fire Line Charges						
4"	\$25.20	\$33.51	\$41.89	\$49.01	\$54.89	\$60.38
6"	\$73.18	\$97.33	\$121.66	\$142.34	\$159.43	\$175.37
8"	\$155.95	\$207.41	\$259.27	\$303.34	\$339.74	\$373.72
10"	\$280.46	\$373.01	\$466.26	\$545.52	\$610.98	\$672.08

Table 3-2: Proposed Five-Year Volumetric Rates (\$/hcf)

Description	Tier Definitions (hcf)	Current (1/1/2024)	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028
Residential							
Tier 1	0-17	\$3.49	\$4.64	\$5.80	\$6.79	\$7.60	\$8.36
Tier 2	17+	\$3.69	\$4.91	\$6.13	\$7.18	\$8.04	\$8.84
Multi-Family Residential							
Tier 1	0-17*	\$3.49	\$4.64	\$5.80	\$6.79	\$7.60	\$8.36
Tier 2	17+	\$3.65	\$4.85	\$6.07	\$7.10	\$7.95	\$8.75
Leisure World							
Tier 1	0-17**	\$3.49	\$4.64	\$5.80	\$6.79	\$7.60	\$8.36
Tier 2	17+	\$3.65	\$4.85	\$6.07	\$7.10	\$7.95	\$8.75
Commercial							
		\$3.49	\$4.64	\$5.80	\$6.79	\$7.60	\$8.36
Irrigation							
		\$3.57	\$4.75	\$5.94	\$6.94	\$7.78	\$8.56
City							
		\$3.53	\$4.69	\$5.87	\$6.87	\$7.69	\$8.46
Aquatic Park							
		\$3.95	\$5.25	\$6.57	\$7.68	\$8.61	\$9.47

* Multi-Family tier allocations are determined by multiplying the hcf definition shown above (17 hcf) by the number of dwelling units for a given account. For example, the tier allocation for a Multi-Family account with two dwelling units would be equal to 17 hcf X 2 dwelling units = 34 hcf bimonthly.

** Leisure World tier allocations are determined in the same manner as MFR, by multiplying dwelling units by the individual allocation of 17 hcf.

3.1. Pass-Through Rates

The City estimated the future costs of wholesale water it purchases from OCWD and MWDOC. If the estimates prove to be too low, the City will pass through the increased cost of water (above its current assumed costs of water) to its customers. This pass through will be calculated as follows as the estimated increase in fiscal year water purchase costs assumed in this study divided by the fiscal year water use. The pass-through will not exceed the increase in the City’s water purchase costs.

4. Water Bill Impacts

Figure 4-1 shows the monthly bill impacts assuming the most prevalent meter size and the average water use for each of the customer classes. Customer bill impacts will vary with each customers' meter size and water use.

The Single-Family Residential water bill impacts for the most prevalent meters (i.e., 3/4") is just over \$18 monthly.

Figure 4-1: Water Bill Impacts

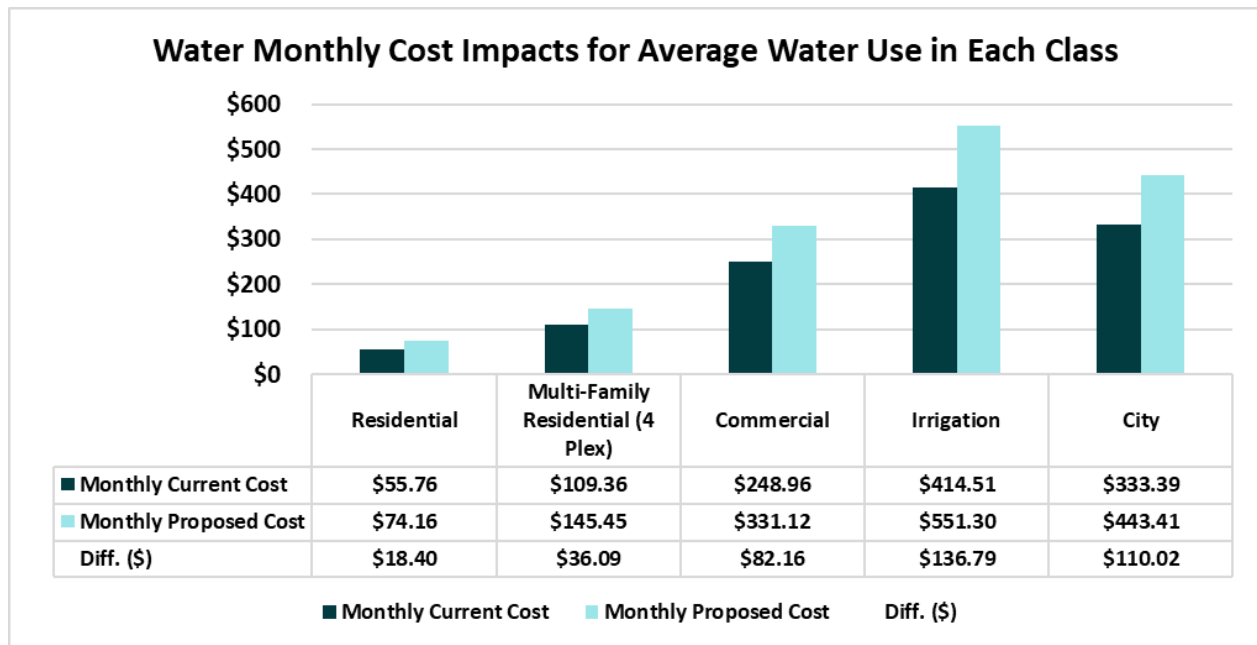


Figure 4-2 and Figure 4-3 show the monthly bill impacts for Leisure World and Aquatic Park. Leisure World is based on average water use of

Figure 4-2: Leisure World Water Bill Impacts

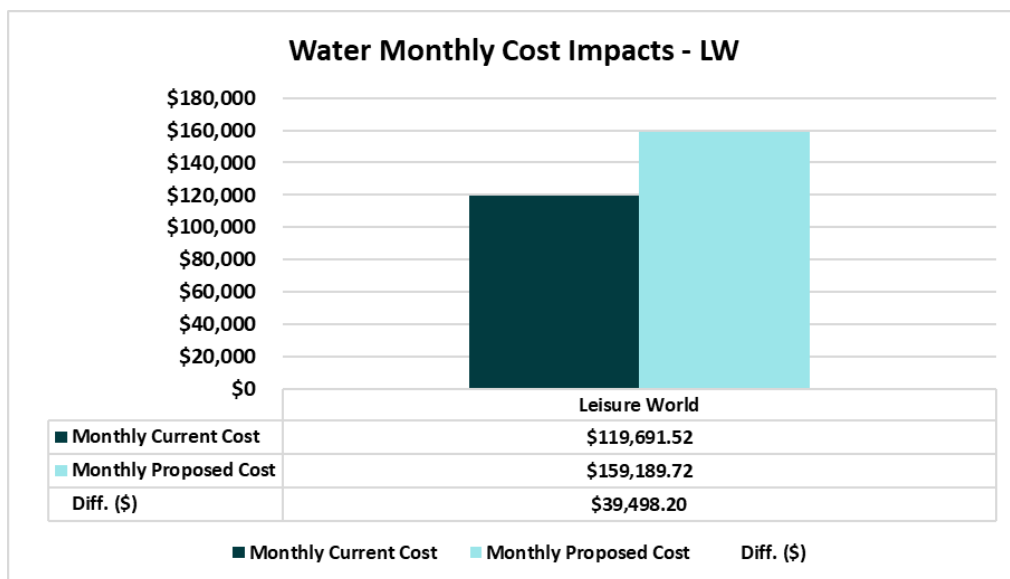
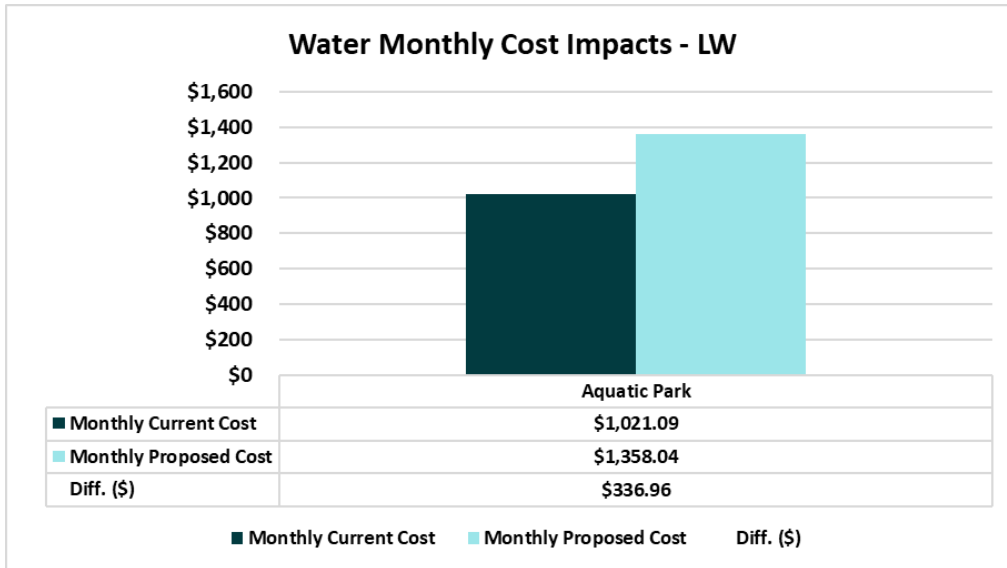


Figure 4-3: Aquatic Park Water Bill Impacts



5. Wastewater Financial Plan

This section describes the Wastewater Financial Plan assumptions to project operating and capital expenses, as well as reserve policies and debt coverage requirements that determine the overall revenue increases to promote financial stability.

5.0. Wastewater System Background

The City collects wastewater and transmits it to the Orange County Sanitation District (OCSD) for treatment. The wastewater system is made up of approximately 181,000 feet of gravity sewers, approximately 800 manholes, and 6 pump stations and their force mains.

5.1. Key Assumptions

The Study Period is FYE 2024 to FYE 2028, with proposed rate increases presented for the same period. Various assumptions were incorporated into the Study based on discussions with and/or direction from City staff. These include the projected number of accounts, future water demand, and inflationary factors.

5.1.1. INFLATIONARY COST ASSUMPTIONS

Table 5-1 shows the inflation factors used for the wastewater operating and capital expense projections. Note that, where applicable, these values are the same as those used for the water utility. The inflation factors are used to project costs across the study period. The factors are applied to all years beginning in FYE 2025.

Table 5-1: Wastewater Inflation Assumptions

Description	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028
General	Budget	5.0%	5.0%	3.0%	3.0%
Personnel	Budget	8.0%	8.0%	8.0%	8.0%
Utilities	Budget	8.0%	7.0%	6.0%	5.0%
Capital	Budget	6.0%	5.0%	4.0%	3.0%

5.1.2. ACCOUNT GROWTH AND WASTEWATER USE ASSUMPTIONS

Two factors are used to estimate future wastewater rate revenue: (1) account growth from new connections, and (2) changes in annual wastewater demand (Table 5-2 and Table 5-3). Raftelis assumed zero account growth since the City is mostly built out and constant sewer discharge during the Study Period as sewer discharge is more stable compared to water use.

Table 5-2 presents the number of accounts across the five-year study period. They study assumes the same number of accounts for the study period.

Table 5-2: Current Wastewater Accounts

Class	FYE 2023
Residential	4,048
Multi-Family	602
Commercial	276
City	8
Leisure World	1
Aquatic Park	5
Navy	1
Total	4,941

Table 5-3 shows projected estimated wastewater flow for the classes whose rate structure includes a volumetric component. SFR customers are billed a fixed charge. Sewer flows are estimated from water use by applying a 90% return to sewer factor for Commercial customers and 50% for City customers. Note that these values are projected to remain constant due to the assumption of zero account growth.

Table 5-3: Estimated Wastewater Flows (hcf)²

Class	FYE 2023
Multi-Family	104,902
Commercial	150,772
City	3,084
Navy - Sewer Meter Accounts	20,744
Total Estimated Flows (hcf)	279,502

5.2. Revenues from Current Rates

Raftelis developed a five-year Wastewater Financial Plan, which models anticipated revenues and expenses. To calculate the projected revenue (without rate adjustments), the number of accounts is multiplied by the monthly sewer fixed charges and sewer discharge is multiplied by the volumetric sewer rate. Current monthly fixed charges are shown in Table 5-4; current volumetric (\$/hcf) charges are shown in Table 5-5.

Table 5-4: Current Wastewater Monthly Fixed Charges

Customer Class	FYE 2024 (Effective Jan. 1, 2024)
Single Family Residential	\$24.02
Multi-Family Residential	\$0.61
Commercial	\$0.61
City	\$0.61
Leisure World - Fixed Charge	\$0.61
Leisure World - Flat Rate	\$1,099.03
Aquatic Park - Sewer Service Equity Charge	\$498.75
Aquatic Park - Sewer Capital Equity Charge	\$661.00
Navy - Sewer Meter	\$0.61

² The City does not measure wastewater flow, but instead estimates flows based on water use by applying a return-to-sewer factor (RTS) to non-residential water use.

Table 5-5: Current Volumetric Wastewater Charges (\$/hcf)

Customer Class	FYE 2024 (Effective Jan. 1, 2024)
Multi-Family Residential	\$4.00
Commercial	\$4.00
City	\$4.00
Navy - Sewer Meter	\$0.24

Table 5-6 summarizes the projected revenues from current rates. Fixed revenues also include the sewer service and capital equity charges to Aquatic Park accounts.

Table 5-6: Projected Wastewater Rate Revenue under Current Rates

Description	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028
Fixed Charges	\$1,173,296	\$1,173,296	\$1,173,296	\$1,173,296	\$1,173,296
Volumetric Charges	\$1,040,011	\$1,040,011	\$1,040,011	\$1,040,011	\$1,040,011
Total	\$2,213,306	\$2,213,306	\$2,213,306	\$2,213,306	\$2,213,306

The utility also derives revenues from other non-rate sources. These revenues consist of miscellaneous revenues, capacity fees, and interest income as summarized in Table 5-7. Miscellaneous revenues include late charges and Fats, Oils and Grease discharge permit fees. Interest income is estimated based on yearly cash balances and a 3% interest rate.

Table 5-7: Projected Wastewater Non-Rate Revenues

Description	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028
Misc Rev	\$31,138	\$31,450	\$31,764	\$32,082	\$32,403
Capacity Fees	\$3,737	\$3,774	\$3,812	\$3,850	\$3,889
Interest Income	\$96,621	\$20,051	\$0	\$0	\$0
Total	\$127,760	\$51,500	\$31,764	\$32,082	\$32,403

5.3. Operating and Maintenance Expenses

Total projected O&M expenses are shown in Table 5-8 based on assumptions in Table 5-1.

Table 5-8: Total Wastewater O&M Costs

Description	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028
Maintenance and Operations	\$2,261,238	\$2,561,815	\$2,734,923	\$2,898,001	\$3,072,454

5.4. Capital Improvement Projects (CIP)

The projected five-year inflated CIP is provided in Table 5-9. The values shown below have been inflated using the capital inflation rates shown above in Table 5-1.

Table 5-9: Five-Year Wastewater CIPs

Sewer Capital Improvement - 503	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028
Total Wastewater CIP	\$3,350,412	\$530,000	\$721,500	\$8,395,000	\$4,956,000

5.5. Existing and Proposed Debt Service

The City’s Wastewater Enterprise has three outstanding debt obligations, with the total annual debt service shown in the last line of Table 5-10. The City anticipates taking on \$14M of debt in FYE 2027. The debt service associated with this debt is shown in Table 5-11. This value represents the annual new debt payment costs that will be paid annually for the duration of the study period.

Table 5-10: Current Wastewater Debt Service

Description	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028
2011 Bond Re-Funding					
Principal	\$205,000	\$215,000	\$225,000	\$235,000	\$245,000
Interest	\$64,080	\$54,120	\$43,680	\$32,760	\$21,360
Subtotal	\$269,080	\$269,120	\$268,680	\$267,760	\$266,360
State Revolving AGMNT 10838					
Principal	\$134,760	\$138,264	\$141,859	\$145,547	\$149,331
Interest	\$35,020	\$31,517	\$27,922	\$24,233	\$20,449
Subtotal	\$169,780	\$169,780	\$169,780	\$169,780	\$169,780
State Revolving AGMNT 10842					
Principal	\$80,470	\$82,563	\$84,709	\$86,912	\$89,171
Interest	\$26,252	\$24,160	\$22,014	\$19,811	\$17,551
Subtotal	\$106,723	\$106,723	\$106,723	\$106,723	\$106,723
Total Existing Debt	\$545,583	\$545,623	\$545,183	\$544,263	\$542,863

Table 5-11 shows the proposed debt service payments for the \$14M loan proposed for FYE 2027. Note that prior to the debt issuance, there are no debt service payments – these begin in FYE 2027 with the issuance.

Table 5-11: Proposed Wastewater Debt Service

	FYE 2027	FYE 2028
Total Proposed Debt Service	\$910,720	\$910,720

5.6. Financial Reserve Policy

The City currently maintains two reserves for its wastewater utility: an operating and a capital replacement reserve. This study assumes the operating reserve target is 25% of annual O&M expenses, or approximately 90 days of operating expenses, which is a common operating reserve target. The capital replacement reserve minimum is 25% of average five-year CIP costs. Table 5-12 below shows the calculated reserve targets for each reserve, as well as the total reserve target in the bottom line (equal to capital reserve target plus operating reserve target).

Table 5-12: Wastewater Reserve Policies

Description	Policy	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028
Operating Reserve - 503						
Minimum	25% of O&M expenses	\$565,310	\$640,454	\$683,731	\$724,500	\$768,113
Capital Replacement Reserve						
Minimum	25% of five-year avg. CIP costs	\$230,096	\$152,125	\$166,575	\$228,000	\$274,900
Total Reserve Target		\$795,405	\$792,579	\$850,306	\$952,500	\$1,043,013

5.7. Status Quo Financial Plan (Without Revenue Increases)

The Status Quo Financial Plan (Table 5-13) shows the wastewater financial plan without revenue increases. It projects revenues and expenses for the study period. As shown in the net cashflow line, the City is currently operating at a deficit and will continue to do so if rate increases are not implemented. This demonstrates the need for revenue increases during the study period.

Table 5-13: Wastewater Status Quo Financial Plan

Description	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028
Rate Revenues	\$2,213,306	\$2,213,306	\$2,213,306	\$2,213,306	\$2,213,306
Other Revenues					
Misc Revenues	\$31,138	\$31,450	\$31,764	\$32,082	\$32,403
Interest Income	\$96,621	\$20,051	\$0	\$0	\$0
Subtotal	\$127,760	\$51,500	\$31,764	\$32,082	\$32,403
Total Revenues	\$2,341,066	\$2,264,807	\$2,245,070	\$2,245,388	\$2,245,709
Operating Expenses					
Personnel	\$1,250,518	\$1,500,559	\$1,620,604	\$1,750,253	\$1,890,273
Maintenance and Operations	\$1,010,720	\$1,061,256	\$1,114,319	\$1,147,748	\$1,182,181
Subtotal	\$2,261,238	\$2,561,815	\$2,734,923	\$2,898,001	\$3,072,454
Net Revenue	\$79,828	(\$297,009)	(\$489,853)	(\$652,613)	(\$826,745)
Existing Debt Service	\$545,583	\$545,623	\$545,183	\$544,263	\$542,863
Cashflow before CIP	(\$465,755)	(\$842,632)	(\$1,035,035)	(\$1,196,876)	(\$1,369,608)
Rate-Funded CIP	\$3,350,412	\$530,000	\$721,500	\$8,395,000	\$4,956,000
Net Cashflow	(\$3,816,167)	(\$1,372,632)	(\$1,756,535)	(\$9,591,876)	(\$6,325,608)

5.8. Proposed Financial Plan

Table 5-14 shows the proposed revenue increases for the Wastewater Enterprise. The proposed revenue increases attain adequate revenue to fund operating expenses, achieve reserve policy targets, fund the long-term capital program, pay debt service, and maintain adequate debt coverage ratios. The revenue increase for FYE 2024 is proposed to take effect on April 1, 2024, while all subsequent adjustments are assumed to take effect on January 1st of each fiscal year.

Table 5-14: Wastewater Revenue Adjustments

Fiscal Year	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028
Effective Date	April 1, 2024	January 1, 2025	January 1, 2026	January 1, 2027	January 1, 2028
Revenue Adjustment	\$193,664	\$1,133,213	\$1,843,750	\$2,482,320	\$2,943,285

The Proposed Financial Plan (Table 5-15) shows the City’s financial plan including the proposed revenue increases. As shown below, the City would transition from negative yearly cashflows to positive cashflows so it can fund capital projects and build reserves. The City remains “in the red” in FYE 2024 and FYE 2025 as it plans to use reserves and strived to minimize customer bill impacts.

Table 5-15: Wastewater Proposed Financial Plan

Description	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028
Rate Revenues	\$2,213,306	\$2,213,306	\$2,213,306	\$2,213,306	\$2,213,306
Revenue Adjustments					
FYE 2024	\$193,664	\$774,657	\$774,657	\$774,657	\$774,657
FYE 2025		\$358,556	\$717,111	\$717,111	\$717,111
FYE 2026			\$351,982	\$703,964	\$703,964
FYE 2027				\$286,588	\$573,175
FYE 2028					\$174,377
Total Revenue Adjustments	\$193,664	\$1,133,213	\$1,843,750	\$2,482,320	\$2,943,285
Other Revenues					
Additional Rate Revenue	\$193,664	\$1,133,213	\$1,843,750	\$2,482,320	\$2,943,285
Misc Revenues	\$31,138	\$31,450	\$31,764	\$32,082	\$32,403
Interest Income	\$99,526	\$42,946	\$41,764	\$50,061	\$67,244
Subtotal	\$324,329	\$1,207,608	\$1,917,279	\$2,564,463	\$3,042,932
Total Revenues	\$2,537,635	\$3,420,915	\$4,130,585	\$4,777,770	\$5,256,238
Operating Expenses					
Maintenance and Operations	\$2,261,238	\$2,561,815	\$2,734,923	\$2,898,001	\$3,072,454
Subtotal	\$2,261,238	\$2,561,815	\$2,734,923	\$2,898,001	\$3,072,454
Net Revenue	\$276,397	\$859,099	\$1,395,662	\$1,879,769	\$2,183,785
Existing Debt Service	\$545,583	\$545,623	\$545,183	\$544,263	\$542,863
Proposed Market Debt	\$0	\$0	\$0	\$910,720	\$910,720
Cashflow before CIP	(\$269,186)	\$313,476	\$850,479	\$424,786	\$730,202
Rate-Funded CIP	\$3,350,412	\$530,000	\$721,500	\$0	\$0
Net Cashflow	(\$3,619,598)	(\$216,524)	\$128,979	\$424,786	\$730,202

Figure 5-1 through Figure 5-4 display the proposed financial plan information shown in Table 5-15 in graphical format. Figure 5-1 shows the City’s expenses in stacked bars and the current and proposed revenue as blue and red lines, respectively. The stacked bars show the expenses broken down into the categories displayed in the legend. The red portion of the stacked bar below the x-axis shows the operating yearly deficit.

Figure 5-1: Wastewater Operating Financial Plan

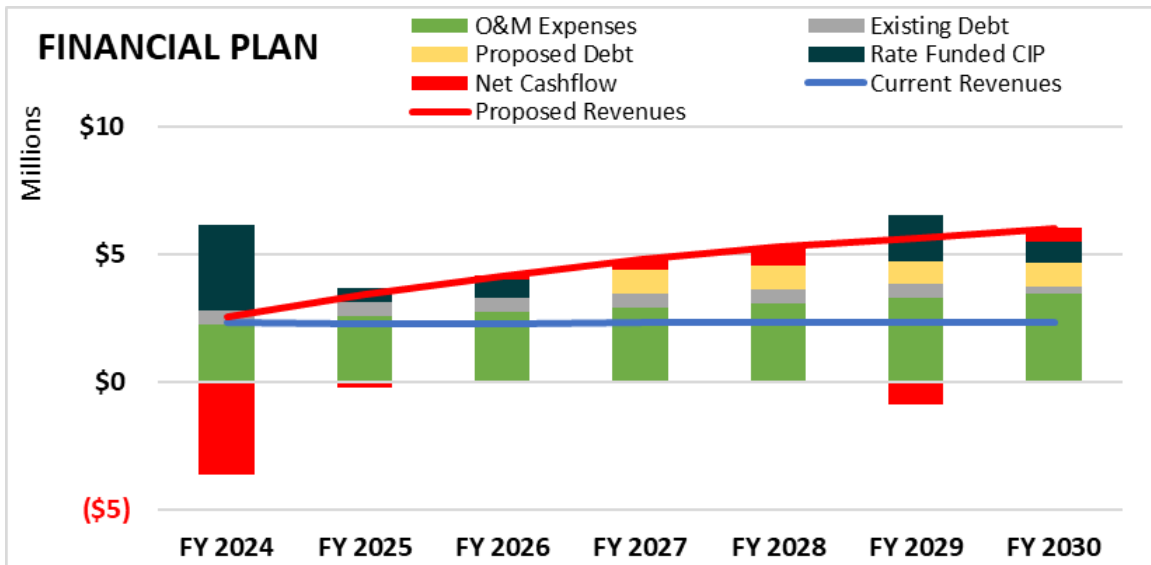


Figure 5-2 shows the debt coverage ratio. The debt coverage ratio is the driving factor for the need for revenue increases for the wastewater utility. Without the revenue increases, the City could not be able to borrow in FYE 2027.

Figure 5-2: Debt Coverage Ratio

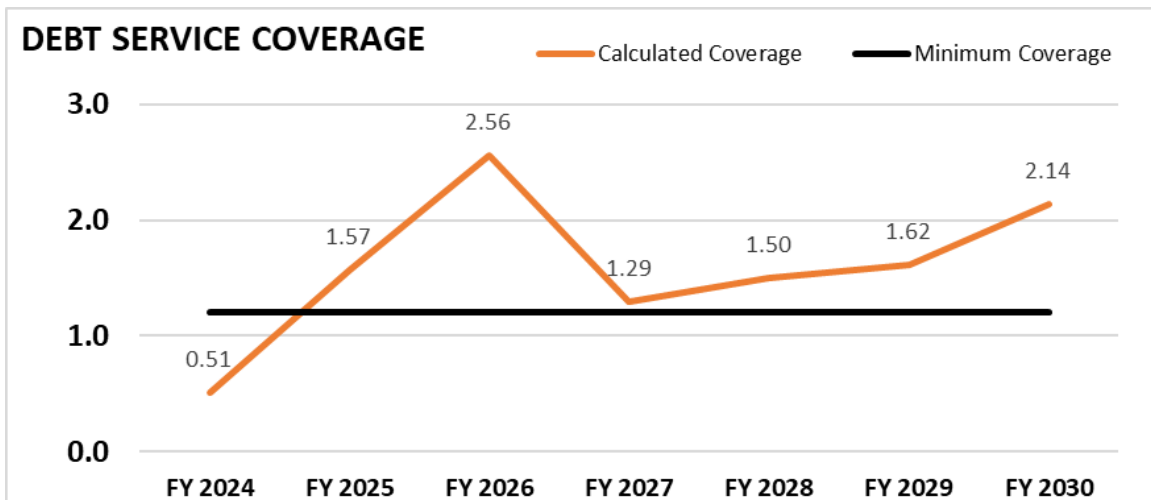


Figure 5-3 shows the capital financing plan for CIP projects over the course of the study period. The dark green bars represent cash-funded (or rate funded) CIP; the light blue bars represent CIP financed with debt.

Figure 5-3: Capital Funding Sources

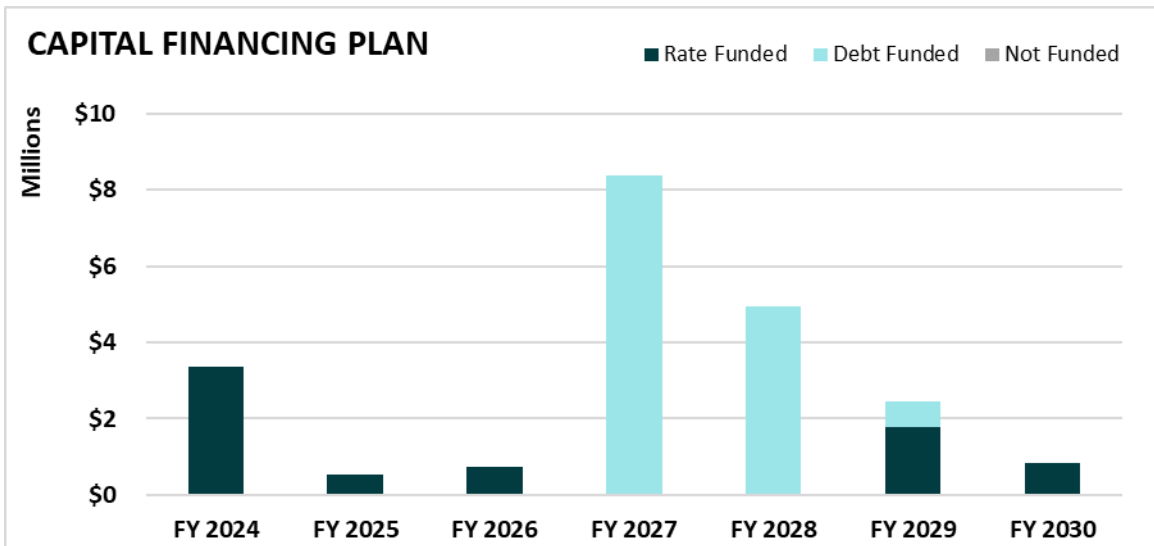
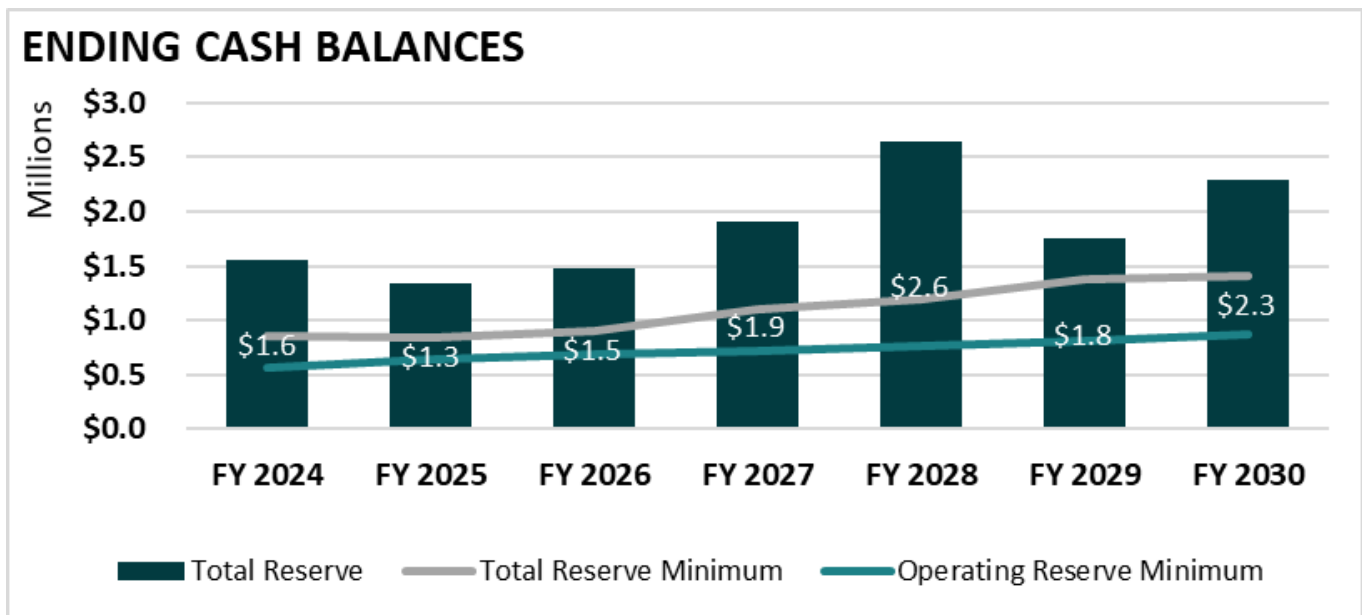


Figure 5-4 shows the ending total reserve balances. The minimum operating reserve target shown in Table 5-12 is represented by the blue line and is equal to 90 days of operating expenses. The total minimum reserve target for both the operating and capital reserves is represented by the solid gray line in and is equal to the sum of operating and capital reserve targets. The projected reserve balances meet reserve targets; the driving need for revenue increases is to meet debt coverage requirements.

Figure 5-4: Wastewater Ending Reserve Balances (All Reserves)



6. Five-Year Wastewater Rates

The City’s current and proposed wastewater rates and charges, for the five-year study period, are shown below in Table 6-1 and Table 6-2. The fixed charges are shown in monthly terms.

The planned implementation date for the new rates is April 1, 2024 (FYE 2024); every year after, the rate increases are planned to be implemented on January 1 of the respective fiscal year.

Table 6-1: Proposed Five-Year Wastewater Fixed Charges (\$/month)

Description	Current (1/1/2024)	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028
Single Family Residential	\$24.02	\$32.43	\$40.21	\$47.85	\$54.07	\$57.85
Multi-Family Residential	\$0.61	\$0.82	\$1.02	\$1.22	\$1.37	\$1.47
Commercial	\$0.61	\$0.82	\$1.02	\$1.22	\$1.37	\$1.47
City	\$0.61	\$0.82	\$1.02	\$1.22	\$1.37	\$1.47
Leisure World - Fixed Charge	\$0.61	\$0.82	\$1.02	\$1.22	\$1.37	\$1.47
Leisure World - Flat Rate	\$1,099.03	\$1,483.69	\$1,839.78	\$2,189.33	\$2,473.95	\$2,647.12
Aquatic Park - Sewer Service Equity Charge	\$498.75	\$673.31	\$834.91	\$993.54	\$1,122.70	\$1,201.29
Aquatic Park - Sewer Capital Equity Charge	\$661.00	\$892.35	\$1,106.51	\$1,316.75	\$1,487.93	\$1,592.08
Navy - Sewer Meter	\$0.61	\$0.82	\$1.02	\$1.22	\$1.37	\$1.47

Table 6-2: Proposed Five-Year Wastewater Volumetric Rates (\$/hcf)

Description	Current	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028
Multi-Family Residential	\$4.00	\$5.40	\$6.70	\$7.97	\$9.00	\$9.63
Commercial	\$4.00	\$5.40	\$6.70	\$7.97	\$9.00	\$9.63
City	\$4.00	\$5.40	\$6.70	\$7.97	\$9.00	\$9.63
Navy - Sewer Meter	\$0.24	\$0.32	\$0.40	\$0.48	\$0.54	\$0.58

7. Wastewater Bill Impacts

Figure 7-1 shows customer bill impacts by customer class. The bill impact for single-family customers, who are charged a fixed charge, is just over \$8 per month. The City bills bi-monthly, therefore single family customers will see just over a \$16 increase on their bill. The bill impacts for other classes are based on the average sewer discharge.

Figure 7-1: Wastewater Bill Impacts by Customer Class

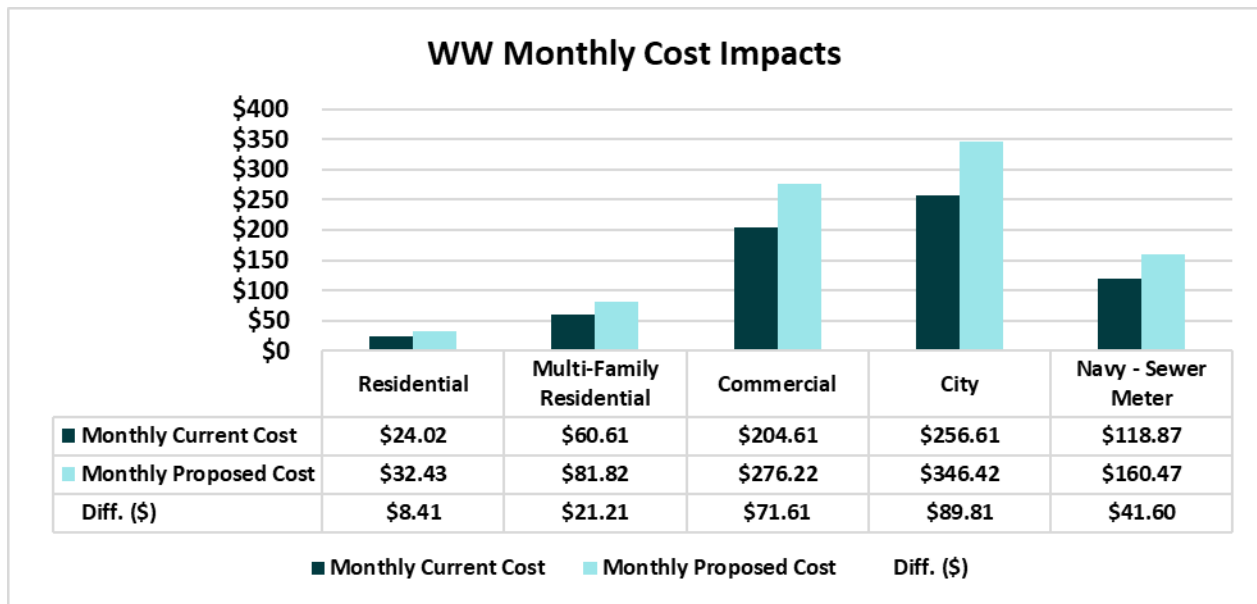


Figure 7-2 shows the wastewater bill impacts for Leisure World in monthly terms.

Figure 7-2: Leisure World Wastewater Bill Impacts

