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Sunnyslope Water District

SUNNYSLOPE COUNTY WATER DISTRICT

Wastewater Rate Study -

Report / October 30, 2026



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October 30, 2026

Mr. Drew Lander
General Manager
Sunnyslope County Water District
3570 Airline Hwy
Hollister, CA 95023

Subject: Wastewater Rate Study Report

Dear Mr. Lander:

Raftelis is pleased to provide this Wastewater Rate Study report for the Sunnyslope County Water District (District) to update wastewater rates that are equitable and align with Proposition 218.

The major objectives of the study include the following:

- Develop a financial plan for the wastewater enterprises to ensure financial sufficiency, meet operation and maintenance (O&M) costs, ensure sufficient funding for capital replacement and refurbishment (R&R) needs, and improve the financial health of the enterprise
- Review current rate structures for the wastewater enterprise
- Develop a cost-of-service analysis for wastewater
- Develop fair and equitable wastewater rates

The report summarizes the key findings and recommendations related to the development of the financial plans for the wastewater utility and the development of the updated wastewater rates.

It has been a pleasure working with you, and we thank you and the District staff for the support provided during the course of this study.

Sincerely,

Theresa Jurotich, P.E., PMP
Manager

Sudhir Pardiwala, P.E.
Senior Principal

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1. Executive Summary

1.1. Study Background

The Sunnyslope County Water District (District) engaged Raftelis to conduct a Wastewater Rate Study to develop a financial plan that supports fiscal sufficiency as well as design rates for the wastewater system. The District last updated wastewater rates in December 2018. Since that time, the Consumer Price Index for the San Francisco area has increased almost 25 percent.

The major objectives of the study include the following:

- Develop a financial plan for the wastewater enterprise to ensure financial sufficiency, meet operation and maintenance (O&M) costs, ensure sufficient funding for capital replacement and refurbishment (R&R) needs, and maintain the financial health of the enterprise
- Review current rate structures for the wastewater enterprise
- Develop a cost-of-service analysis for wastewater
- Develop fair and equitable wastewater rates

1.2. Rate Study Process

The study is informed by the District's policy objectives, the current wastewater enterprise rates, and the legal requirements in California (namely, Proposition 218). The resulting cost-of-service analysis and rate design process consider all these factors and follows five key steps, outlined below, to derive proposed rates that fulfill the District's policy objectives, meet industry standards, and align with Proposition 218.

This study was also conducted using industry-standard principles outlined by the Water Environment Federation’s (WEF) Manual of Practice No. 27, Financing and Charges for Wastewater Systems. The overall process outlined below applies to the development of wastewater rates.

- Financial Plan: Develop cash flow projections for the wastewater enterprise to determine the amount of revenue required from wastewater rates to fully recover the costs of providing service.
- Cost-of-Service Analysis: Allocate total costs to system components, and then to various user classes, based on customers’ unique characteristics.

- Rate Design: Develop rates for different customer classes and sub-classes, based on cost of service, that generate sufficient revenues to recover costs, and communicate policy preferences of the agency.
- Report Preparation: Develop a study report to document the underlying inputs, assumptions, analyses, and results of the rate study.
- Rate Adoption: Proposed rates may be adopted by the District only after holding a public hearing in accordance with Proposition 218 requirements.

1.3. Wastewater Summary

Raftelis conducted a status quo cash flow analysis to evaluate whether existing wastewater rates adequately fund the wastewater enterprise's various expenses over a ten-year planning period. Annual projections of revenues, O&M expenses, debt service payments, and capital expenditures through fiscal year[1] (FY) 2036 were developed with District staff to keep the long-term outlook in mind. The discussion in this report focuses on the 5-year rate-setting period (the study period). Without increased rate-based revenue, the District will not be able to cover annual costs or reinvest in the system by FY 2032 because reserves will be depleted. Therefore, overall rate-based revenue adjustments at 3.5 percent per year. Following the initial switch to a fixed charge for the residential customers, the rates will adjust for the average inflation on January 1st of each year.

Key factors influencing the need for proposed revenue adjustments include:

- Cost inflation: Operating costs continue to increase year-over-year due to inflationary pressures. Since the District last adjusted wastewater rates, the Consumer Price Index for the area has increased almost 25 percent. Additionally, the financial projection shows an overall increase in operating costs of 3.7 percent per year.
- Planned capital expenditures: funding the projects in the capital improvement plan
- Draw down of reserves without any revenue adjustments

[1] The District's fiscal year runs from July 1 through June 30. Fiscal years are designated in this report by the end year. For example, FY 2027 is July 1, 2026 – June 30, 3027.

Figure 1-1 shows the proposed capital improvement plan over the study period. Capital projects are assumed to be funded by capital reserves, capacity fees, and rate-based revenues (no new debt is issued), as shown in Figure 1-2.

Figure 1-1: Wastewater Capital Improvement Plan

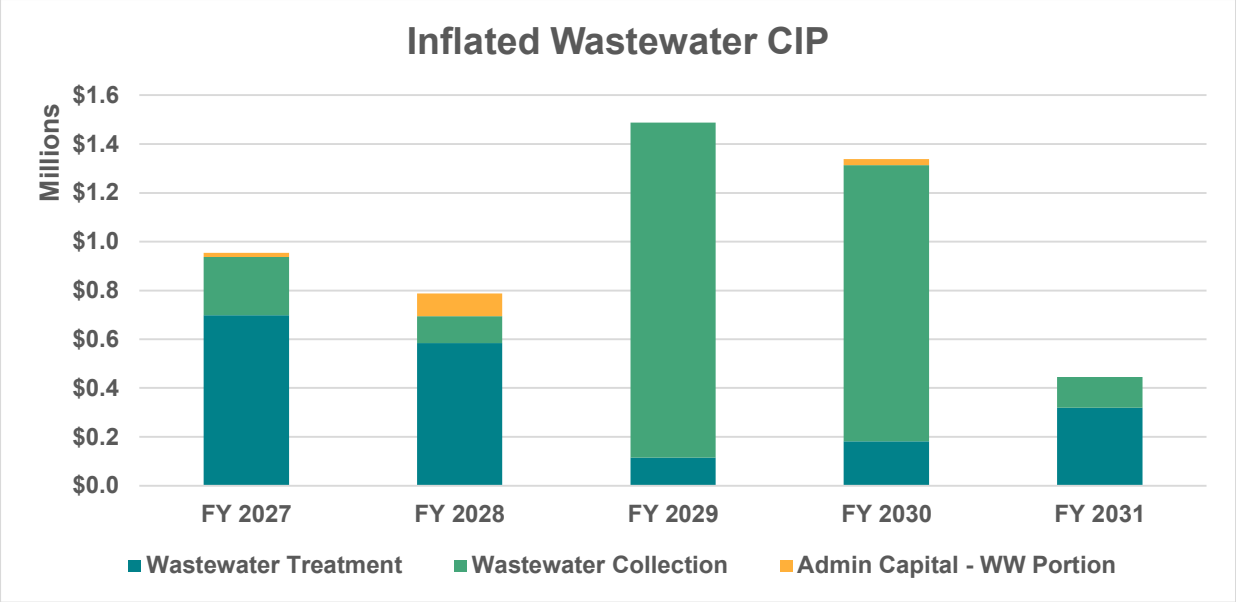


Figure 1-2: Wastewater Capital Funding Sources

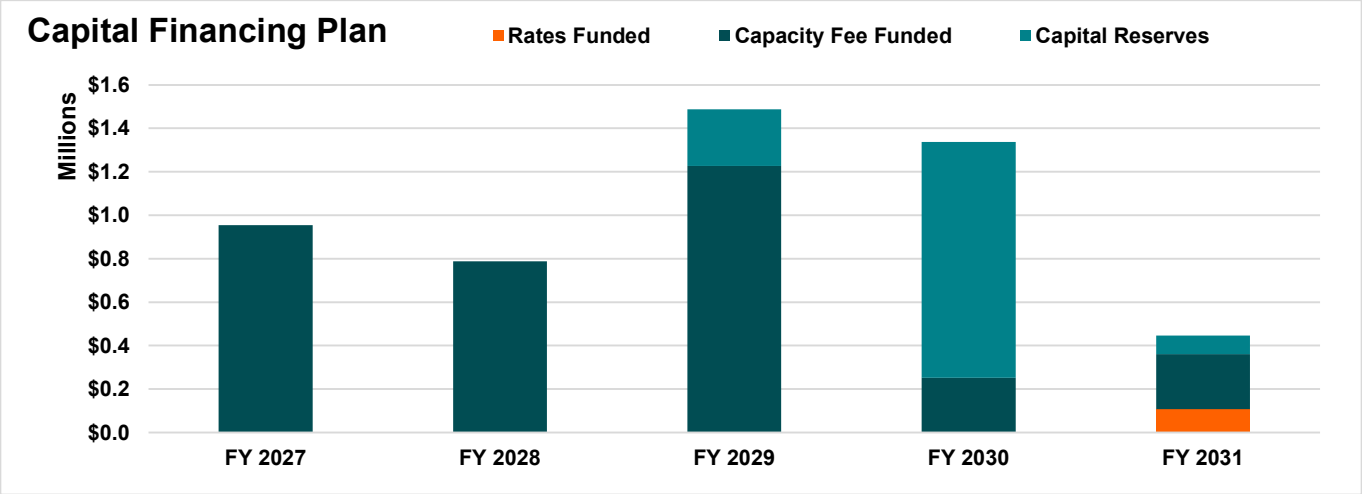


Figure 1-3 shows the proposed versus status quo wastewater enterprise operating financial plan. Revenues under the proposed operating financial plan and status quo operating financial plan are represented by the dashed black and solid black lines, respectively. Revenue requirements including O&M expenses, debt service, and capital projects are represented by the various stacked bars. Capital projects through FY 2030 are funded by capital reserves and capacity fees. In FY 2031, a portion of the capital projects are funded by

rate revenues. Revenue adjustments are recommended to generate additional revenue to cover O&M expenses and debt service payments over the study period while maintaining minimum debt coverage and reserve targets.

Figure 1-3: Proposed vs. Status Quo Wastewater Operating Financial Plan

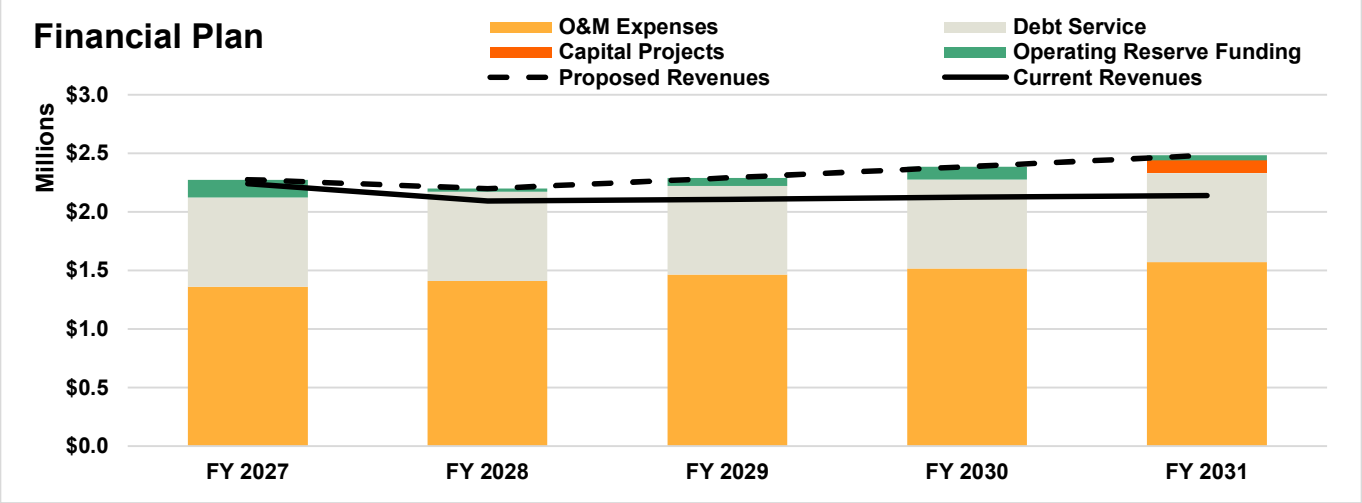


Figure 1-4 shows the wastewater enterprise's projected fiscal year-ending balance under the proposed financial plan. As a result of increasing revenues to the level shown on Figure 1-3, the wastewater fund balance is expected to stay above the minimum level.

Figure 1-4: Proposed Wastewater Financial Plan – Projected Ending Balance

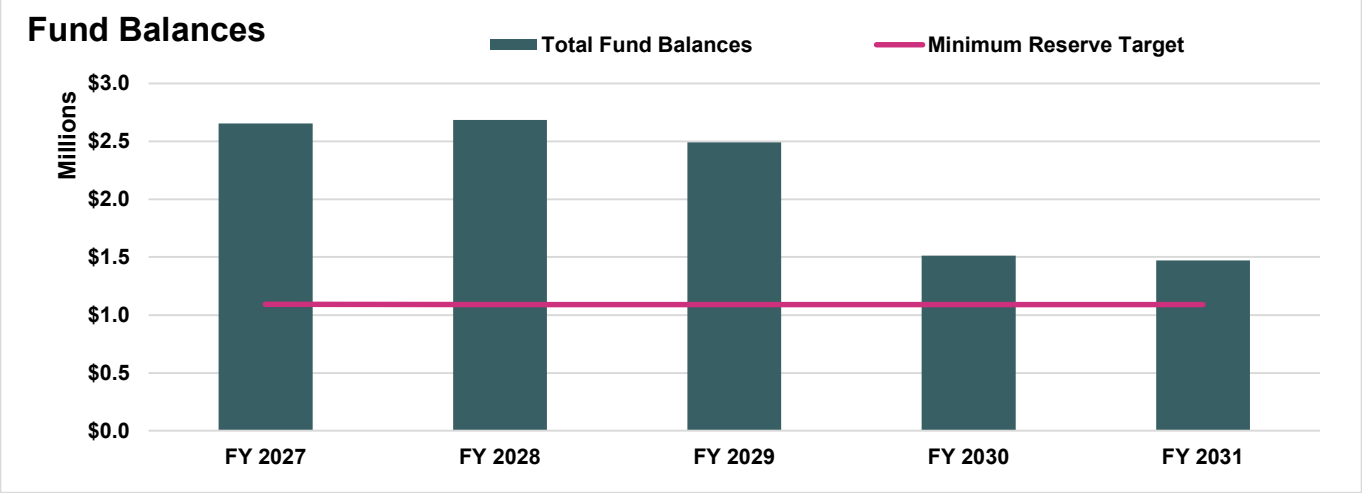
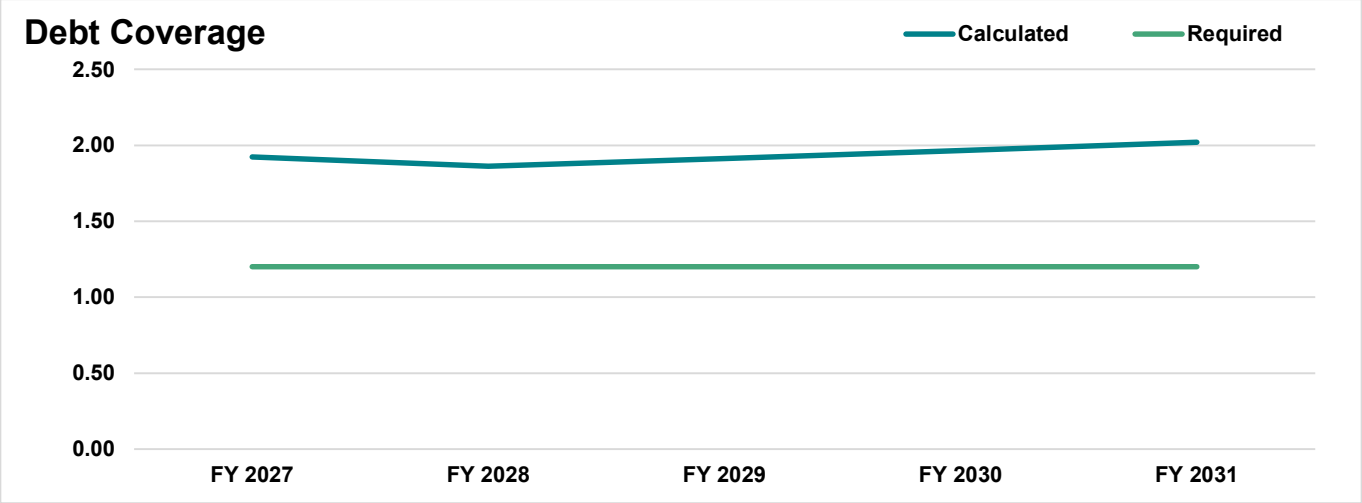


Figure 1-5 displays the debt service coverage ratio for the existing loan. The proposed revenue adjustments are sufficient to satisfy debt coverage requirements. Failure to meet debt service coverage results in a technical default, which without foreseeable remedial action such as implementing rate increases, could

result in a downgrade of credit rating, higher costs in future debt issuance, or a denial of credit. The existing debt is scheduled to be paid off in FY 2034.

Figure 1-5: Proposed Wastewater Financial Plan – Projected Debt Coverage



1.4. Proposed Wastewater Rates

The District's current wastewater rates and charges comprise a fixed monthly charge per dwelling unit (du) and a consumption rate for residential customers and a consumption-only charge for all the remaining customer types. The consumption rate for residential customers is applied to each customer's average winter water consumption. For example, if a residential customer's average winter month water use was 5 hundred cubic feet (hcf), that residential customer's monthly wastewater bill would be $95.93 + 5 * $5.64 = $124.13.

The consumption rate for non-residential customers is applied to the billed water consumption.

Based on discussions with District staff and to meet the goal of simplifying the wastewater billing, the residential rate has been updated to be a flat monthly fee. Non-residential customers will continue to be billed on water consumption subject to a minimum charge. Table 1-1 presents the current and proposed rates. Rates for FY 2027 reflect the overall revenue adjustment, cost of service, and change to the rate structure. Rates for FY 2028 through FY 2031 are the prior year rates increased by 3.5 percent each January 1.

Table 1-1: Proposed 5-Year Monthly Wastewater Service Charge Schedule

Customer Class	Current	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
Effective Date		1/1/2027	1/1/2028	1/1/2029	1/1/2030	1/1/2031
Single Family Residential						
Fixed Charge, $/mo/dwelling unit	$95.93	$125.30	$129.69	$134.23	$138.93	$143.80
Variable, $/hcf	$5.64	--	--	--	--	--
Multi Family Residential						
Fixed Charge, $/mo/dwelling unit	$72.98	$81.80	$84.67	$87.64	$90.71	$93.89
Variable, $/hcf	$5.64	--	--	--	--	--
Commercial & Industrial (1)						
Cottages, Motels, Trailer Parks, Laundries, etc.	$9.20/hcf	$19.81/hcf	$20.51/hcf	$21.23/hcf	$21.98/hcf	$22.75/hcf
Commercial and Industrial	$12.14/hcf	$50.00/hcf	$51.75/hcf	$53.57/hcf	$55.45/hcf	$57.40/hcf
Minimum Charge, $/mo	--	$34.60	$35.82	$37.08	$38.38	$39.73

(1) Subject to a minimum charge.

2. Rate Setting Methodology

This study was conducted using industry-standard principles outlined by the Water Environment Federation Manual of Practice No. 27. The process and approach Raftelis used in the study to determine wastewater rates is informed by the District's policy objectives, the current wastewater system and rates, and the legal requirements in California (namely, Proposition 218). The resulting financial plan, cost-of-service analysis, and rate design process follows five key steps, outlined below, to determine proposed rates that fulfill the District's objectives, meet industry standards, and align with relevant regulations.

- **Financial Plan - Projections:** The first step is to develop a multi-year financial plan that projects the District's revenues, expenses, capital project financing, annual debt service, and reserve funding. The financial plan is used to determine the revenue adjustment, which allows the District to recover adequate revenues to fund expenses and reserves.
- **Financial Plan - Revenue Requirement Determination:** After completing the financial plan, the rate-making process begins by determining the revenue requirement for the test year, also known as the rate-setting year. The test year for this study is FY 2027. The revenue requirement should sufficiently fund the District's operating costs, annual debt service (including coverage requirements), capital expenditures, and reserve funding as projected based on the annual budget estimates.
- **Cost-of Service Analysis:** The annual cost of providing wastewater service, or the revenue requirement, is then distributed to customer classes commensurate with their use of and burden on the wastewater system. A cost-of-service analysis involves the following steps:
    - Functionalize costs – the different components of the revenue requirement are categorized into functions such as collection, treatment, customer service, etc.
    - Allocate to cost causation components – the functionalized costs are then allocated to cost causation components such as flow, strength, and customer.
    - Develop unit costs – unit costs for each cost causation component are determined using units of service, such as total flow, strength, number of customers, etc., for each component.
    - Distribute cost components – the cost components are allocated to each customer class using the unit costs in proportion to their units of service (demand and burden on the system).
- **Rate Design:** After allocating the revenue requirement to each customer class, the project team designs and calculates rates. Rates do more than simply recover costs; within the legal framework and industry standards, properly designed rates should support and optimize the District's policy

objectives. Rates also act as a public information tool in communicating these policy objectives to customers. This process also includes a rate impact analysis and sample customer bill impacts.

- **Report Preparation and Rate Adoption:** The final step in a rate study is to develop the report in conjunction with the rate adoption process. The report documents the study results and presents the methodologies, rationale, justifications, and calculations used to determine the proposed rates.

Values shown in report tables and figures are rounded to the digit shown. Therefore, any manual reproduction of the calculations shown may not match the precise results displayed in the report.

3. Wastewater Financial Plan

3.1. Wastewater Assumptions

Various types of assumptions and inputs were incorporated into this study. These assumptions were based on discussions with, or direction from, District staff, including projected accounts and annual growth rates in accounts, inflationary assumptions, and other miscellaneous assumptions. Table 3-1 presents the inflationary assumptions for the study period. Additionally, the financial plan uses 2 percent per year for interest earned on fund balances.

Table 3-1: Inflation Factor Assumptions

Line Item	FY 2028	FY 2029	FY 2030	FY 2031
General	3.0%	3.0%	3.0%	3.0%
Salary	3.0%	3.0%	3.0%	3.0%
Benefits	6.0%	6.0%	6.0%	6.0%
Utilities	4.0%	4.0%	4.0%	4.0%
Capital	5.0%	5.0%	5.0%	5.0%
Chemicals	4.0%	4.0%	4.0%	4.0%

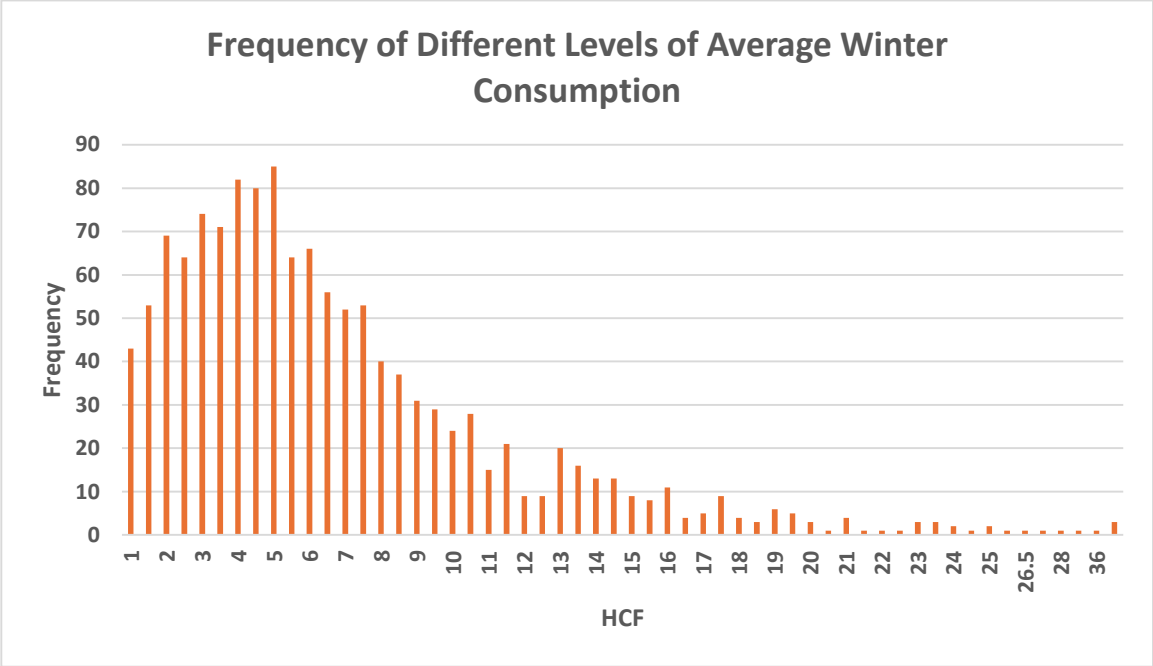
Based on District staff information on planned additions to the sewer customer base, 10 new single family units a year are added through FY 2031. Average per account water demand is expected to remain constant. Table 3-2 shows the current and projected accounts by customer class.

Table 3-2 Current and Projected Accounts

Customer	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
Single Family Residential	1,332	1,342	1,352	1,362	1,372
Mutli-Family Residential	0	0	0	0	0
Cottages, Motels, Trailer Parks, Laundries, etc.	2	2	2	2	2
Commercial and Industrial	8	8	8	8	8
Total Accounts	1,342	1,352	1,362	1,372	1,382

Since residential customers are billed on average winter consumption, Figure 3-1 shows the current distribution of bills at different average winter consumption levels.

Figure 3-1: Single Family Average Winter Consumption Distribution



3.2. Wastewater Financial Plan

3.2.1. Projected Revenue

The District's wastewater rates and charges comprise a fixed monthly charge per dwelling unit (du) for residential customers and a consumption charge for all customer types, as shown in Table 3-3. The consumption rate for residential customers is applied to each customer's average winter water consumption. The consumption rate for non-residential customers is applied to the billed water consumption.

Table 3-3: Current Wastewater Charges

Customer Class	Fixed Charge, $/mo/du	Consumption, $/hcf
Single Family Residential	$95.93	$5.64*
Multifamily Residential	$72.98	$5.64*
Cottages, Motels, Trailer Parks, Laundries, etc.	--	$9.20
Commercial and Industrial	--	$12.14

* applied to average winter consumption

Table 3-4 presents the projected revenues under the existing rates plus other revenue and interest income.

Table 3-4: Projected Revenues Under Existing Rates

Line Item	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
Revenue from Current Rates	$1,990,059	$2,004,879	$2,019,724	$2,034,593	$2,049,488
Other Revenue	$237,481	$72,581	$72,581	$72,581	$72,581
Interest Income	$12,561	$12,947	$10,949	$8,146	$3,396
Total Revenues	$2,240,101	$2,090,407	$2,103,253	$2,115,320	$2,125,465

3.2.2. Projected Operating and Maintenance Expense

Table 3-5 displays total projected expenses for the study period. Increases in expenses are projected to average about 3.7 percent per year over the study period.

Table 3-5: O&M Expenses for FY 2027 – FY 2031

Line Item	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
Cost of Goods(1)	$869,400	$901,965	$935,896	$971,257	$1,008,116
Operational Expenses	$553,900	$571,137	$588,916	$607,254	$626,169
Non-Operating Expenses	-$62,200	-$62,200	-$62,200	-$62,200	-$62,200
Total	$1,361,100	$1,410,902	$1,462,612	$1,516,311	$1,572,085
Annual Average Increase		3.7%	3.7%	3.7%	3.7%

(1) Includes salaries and benefits.

3.2.3. Projected Capital Improvement Program

Table 3-6 presents the District's wastewater capital improvement program. The program averages approximately $1 million per year over the study period. Detailed projects are shown in Appendix A.

Table 3-6: Capital Expenses for FY 2027 – FY 2031

Line Item	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
Wastewater Treatment	$698,250	$584,325	$115,763	$182,326	$319,070
Wastewater Collection	$238,350	$110,250	$1,371,786	$1,130,421	$127,628
Admin Capital - WW Portion	$17,640	$92,610	$0	$25,526	$0
Total	$954,240	$787,185	$1,487,548	$1,338,272	$446,699

3.2.4. Existing and Proposed Debt Service

The District currently has a State Revolving Fund loan with annual debt service during the study period, as shown in Table 3-7. Raftelis does not propose any new debt for the wastewater enterprise during the study period.

Table 3-7: Existing Debt Service

Line Item	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
Principal	$618,900	$634,991	$651,501	$668,440	$685,819
Interest	$86,815	$76,913	$66,753	$56,329	$45,634
Service Charge	$54,260	$48,071	$41,721	$35,206	$28,521
Total	$759,975	$759,975	$759,975	$759,975	$759,975

3.2.5. Reserve Targets

The District has several reserve funds, which are shown in Table 3-8, along with the minimum. This list does not include restricted debt service reserves, capacity fund reserves, and California Public Employee's Retirement System reserves. The operating-related (i.e., not capital improvement) minimum targets shown are presumed to be split 65 percent to the water enterprise and 35 percent to the wastewater enterprise based on input from District staff. The capital target for planning purposes is the maximum of 50 percent of the 5-year average wastewater capital program or $500,000.

Table 3-8: Reserve Funds and Combined Minimum Targets

Fund	Target
Capital Improvement (1)	Max of 50% of the 5-year average CIP or $500,000.
Rate Stabilization	Target minimum balance $125,000.
Drought Contingency	Target minimum balance of $250,000.
Emergency	Target minimum balance of $500,000.
Vehicle	Depreciation plus Board authorized additions.
Office & Misc. Equip	Depreciation plus Board authorized additions.

(1) Based on discussions with District staff. Board policy minimum is currently 2 years of CIP.

3.2.6. Proposed Overall Revenue Adjustments

To ensure that the District will have adequate revenues to fund operating expenses, capital expenditures, meet debt coverage requirements, and meet minimum reserve levels, Raftelis recommends that the overall rate-based revenue increase by 3.5 percent per year. A detailed discussion of the proposed wastewater financial plan is presented in the following subsection.

3.2.7. Proposed Financial Plan

The revenue adjustments help avoid depleting reserves below minimum levels, prepare for future capital outside the study period, and make sure debt coverage does not fall below minimum requirements. The next four figures graphically display the effects of the proposed revenue adjustments on the District's financial position.

Figure 3-2 displays the debt service coverage for the existing loan under proposed revenue adjustments. The proposed revenue adjustments level out the coverage and are sufficient to satisfy debt coverage requirements.

Figure 3-2: Projected Debt Coverage

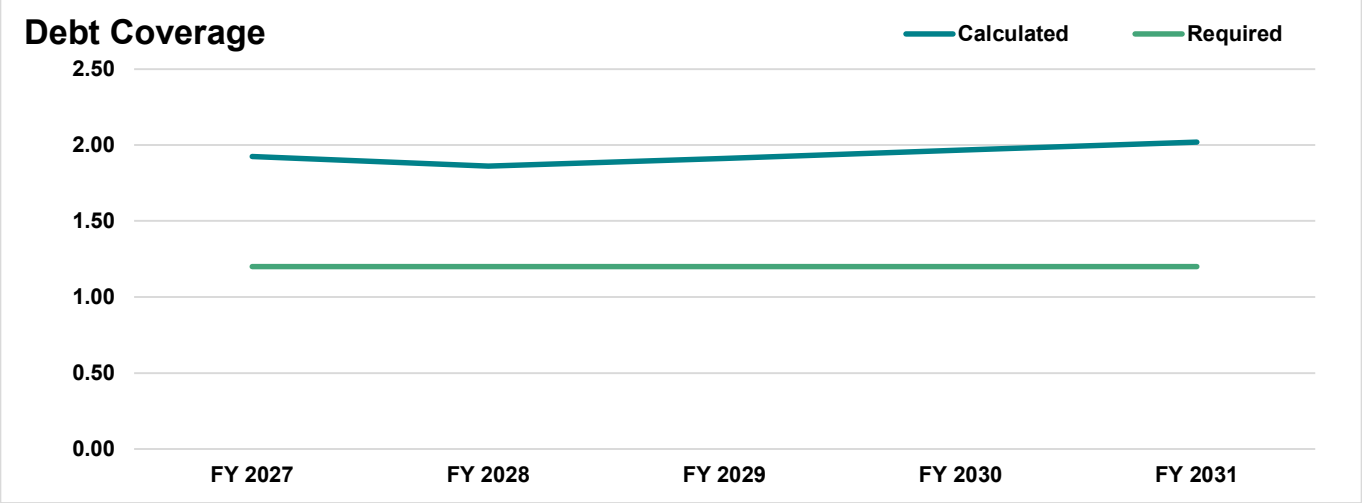


Figure 3-3 displays the proposed operating financial plan. The dashed black line displays the proposed revenues, and the solid black line shows projected revenues under existing rates. The green bars show when funds are added to the operating fund ending balance (above the $0 line) or reserves are drawn down (below the $0 line). Capital projects are funded through capital reserves and capacity fees, though rate revenue is needed starting in FY 2031 to help cover capital costs.

Figure 3-3: Proposed Operating Financial Plan

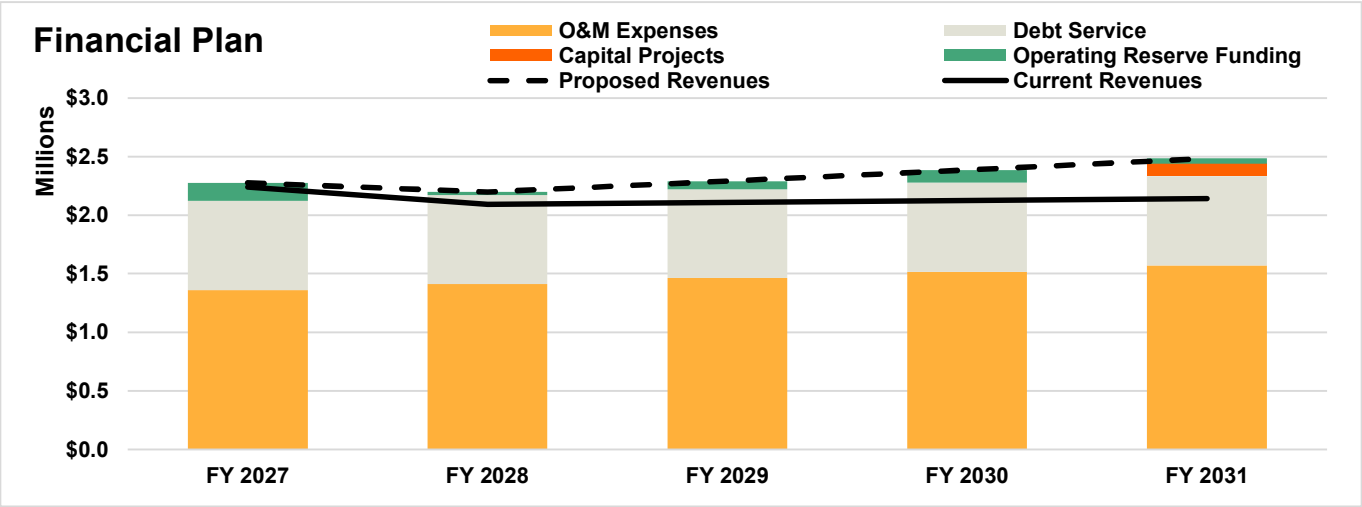


Figure 3-4 displays the capital improvement plan through the study period.

Figure 3-4: Proposed Capital Expenditures

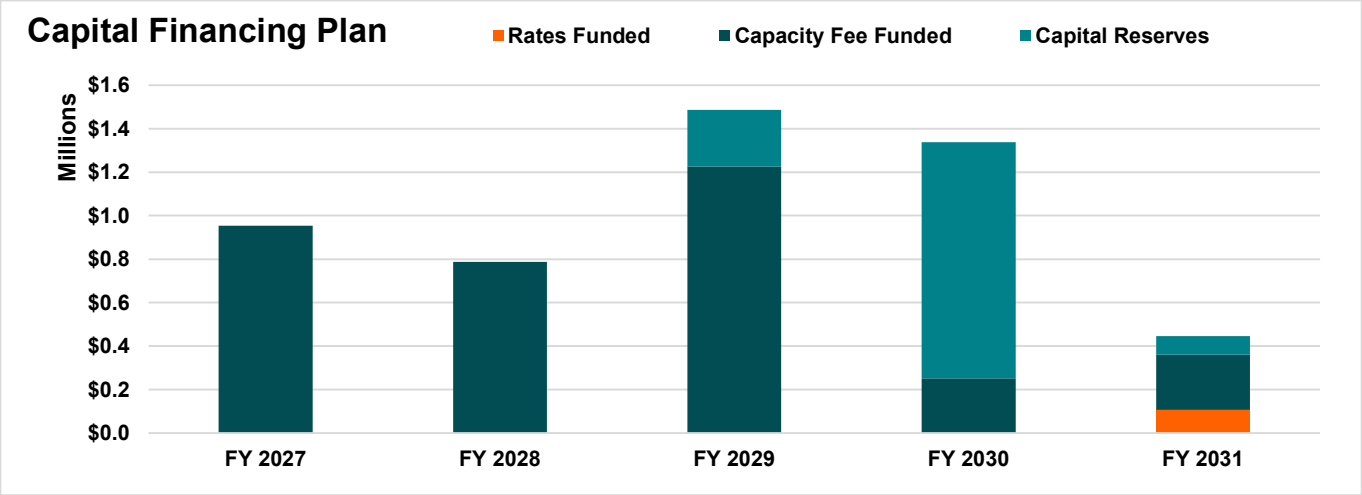


Figure 3-5 displays the projected wastewater fund balance (operating and capital combined). As a result of increasing revenues to the level shown by the dotted line on Figure 3-3, the wastewater fund balance is drawn down but remains above minimum levels through the planning period.

Figure 3-5: Proposed Wastewater Fund Balance

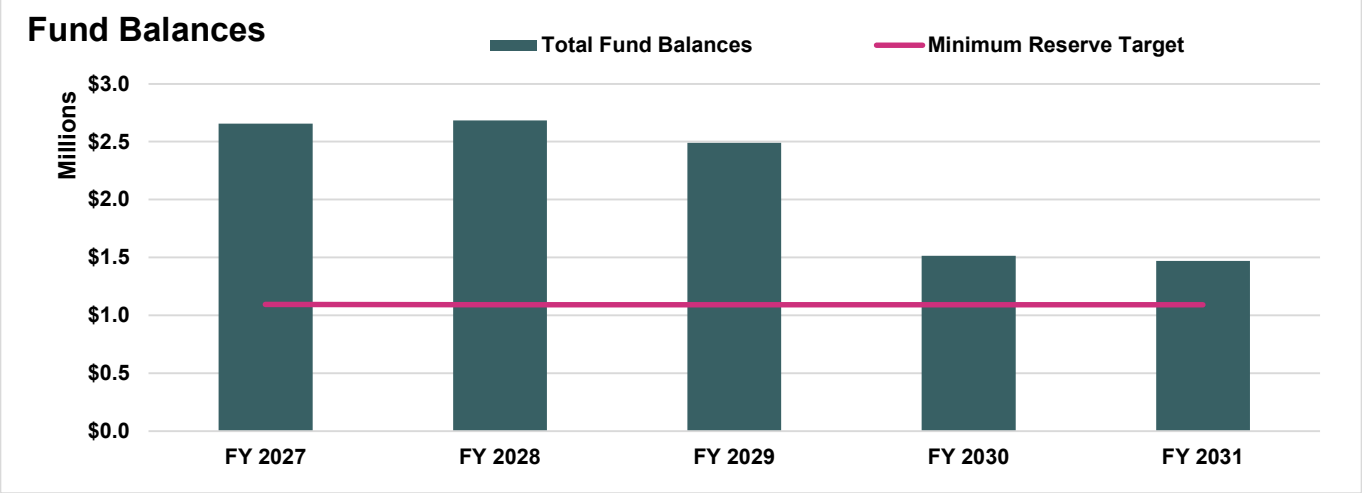


Table 3-9 below displays the projected pro forma cashflow for the wastewater enterprise. The Net Revenues line shows that the proposed revenue, including the proposed revenue adjustments, is sufficient to cover annual operating expenses through the financial planning period. The Annual Surplus (Deficit) line shows the draws on or additions to the operating fund after debt service and capital expenditures.

Table 3-9: Proposed Wastewater Proforma

Line Item	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
Beginning Operating Balance	$568,546	$722,750	$750,551	$817,669	$926,674
Revenues					
Under Existing Rates	$1,990,059	$2,004,879	$2,019,724	$2,034,593	$2,049,488
Proposed Revenue Adjustments	$34,826	$106,484	$181,717	$260,673	$343,504
Other Revenues	$237,481	$72,581	$72,581	$72,581	$72,581
Interest Income	$12,913	$14,733	$15,682	$17,443	$18,984
Total Revenue	$2,275,279	$2,198,677	$2,289,704	$2,385,291	$2,484,558
Operating Expenses					
Cost of Goods	$869,400	$901,965	$935,896	$971,257	$1,008,116
Operational Expenses	$553,900	$571,137	$588,916	$607,254	$626,169
Other	-$62,200	-$62,200	-$62,200	-$62,200	-$62,200
Total Operating	$1,361,100	$1,410,902	$1,462,612	$1,516,311	$1,572,085
Net Revenues	$914,179	$787,775	$827,092	$868,980	$912,472
Debt Service					
Existing	$759,975	$759,975	$759,975	$759,975	$759,975
Proposed	$0	$0	$0	$0	$0
Total Debt Service	$759,975	$759,975	$759,975	$759,975	$759,975
Rate Funded CIP	$0	$0	$0	$0	$107,419
Annual Surplus (Deficit)	$154,204	$27,800	$67,118	$109,005	$45,079
Ending Operating Balance	$722,750	$750,551	$817,669	$926,674	$971,753
Minimum Operating Reserve Target	*$591,499*	*$591,499*	*$591,499*	*$591,499*	*$591,499*
Debt Coverage	1.92	1.86	1.91	1.97	2.02

Table 3-10 shows the proposed sources and uses of capital funds for the wastewater enterprise.

Table 3-10: Proposed Wastewater Capital Sources & Uses of Funds

Line Item	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
Beginning Capital Balance	$1,932,641	$1,932,641	$1,932,641	$1,672,552	$586,780
Sources of Funds					
Rate Funded	$0	$0	$0	$0	$107,419
Capacity Fees	$954,240	$787,185	$1,227,459	$252,500	$252,500
Debt Funded	$0	$0	$0	$0	$0
Total Sources	$954,240	$787,185	$1,227,459	$252,500	$359,919
Uses of Funds					
Capital	$954,240	$787,185	$1,487,548	$1,338,272	$446,699
Total Uses	$954,240	$787,185	$1,487,548	$1,338,272	$446,699
Ending Capital Balance	$1,932,641	$1,932,641	$1,672,552	$586,780	$500,000
Minimum Capital Reserve Target	*$501,394*	*$500,000*	*$500,000*	*$500,000*	*$500,000*

4. Wastewater Cost of Service

The total revenue requirement is, by definition, the net cost of providing service. This cost-of-service is then used as the basis to develop unit rates for the wastewater parameters and to allocate costs to the various user classes. The concept of proportionate allocation to user classes implies that allocations should take into consideration the quantity of wastewater a user contributes as well as the strength (i.e., treatment requirements) of the wastewater.

The cost-of-service analysis and rate calculations consist of the following steps:

1. Determination of the total costs to be recovered from rates (cost-of-service)
2. Determination of the wastewater loadings for each customer class, to ensure costs are allocated to each class proportionately
3. Allocation of the cost-of-service to the loading parameters: Flow, Biochemical Oxygen Demand (BOD) and Total Suspended Solids (TSS)
4. Calculation of unit costs for the three parameters and the costs to serve the various user classes based on their loadings
5. Calculation of rates for each user class

This section of the report discusses the allocation of operating and capital costs to the Flow, BOD, and TSS parameters, the determination of unit rates, and the calculation of user class cost responsibility.

In this study, wastewater rates were calculated for FY 2027, and accordingly FY 2027 revenue requirements are used in the cost allocation process.

4.1. Costs of Service to be Allocated

The annual cost-of-service to be recovered from wastewater rates (i.e., revenue requirement) includes O&M expenses (Table 3-5), capital improvement projects covered through reserves (Table 3-10), and debt service (Table 3-7). O&M expenses include costs directly related to the collection, treatment, and disposal of wastewater and maintenance of system facilities.

The total FY 2027 net cost-of-service to be recovered from the District's wastewater users, is shown in Line 13 of Table 4-1. The cost-of-service analysis is based on the need to generate revenues adequate to meet this estimated revenue requirement. As part of the cost-of-service analysis, revenues from sources other than wastewater rates and charges are deducted from the appropriate cost elements (Line 8).

Adjustments are also made for transfers to/from reserves (Lines 9 and 10) and for the rate being implemented halfway through the fiscal year (Line 11).

Table 4-1: Allocation of Wastewater Revenue Requirements, Test Year

No.	Line Item	Operating	Capital-Related	Total
	Revenue Requirements			
1	Operating & Maintenance Expenses	$1,361,100		$1,361,100
2	Debt Service		$759,975	$759,975
3	Capital Reserve Funded CIP		$954,240	$954,240
4	Total - Revenue Requirements	$1,361,100	$1,714,215	$3,075,315
	Revenue Offsets			
5	Other Revenue	-$83,700		-$83,700
6	Other Operating/ Non-Operating Revenue	-$153,781		-$153,781
7	Interest Income	-$12,913		-$12,913
8	Total - Revenue Offsets	-$250,394	$0	-$250,394
	Adjustments			
9	Adjustment for Cash Balance	$154,204		$154,204
10	Adjustment for Cash Balance-Capital		-$954,240	-$954,240
11	Adjustment to Annualize Rate Increase	$34,826		$34,826
12	Total - Adjustments	$189,030	-$954,240	-$765,210
13	Total Revenue to be Recovered from Rates	$1,299,736	$759,975	$2,059,711

To allocate the cost-of-service to the various user classes in proportion to their flow and strength contributions, costs first need to be allocated to selected wastewater cost causation parameters. The following subsection describes the allocation of the operating and capital cost-of-service amounts to the parameters of Flow, BOD, and TSS.

4.2. Cost Allocation to Wastewater Cost Causation Parameters

The cost-of-service allocations in this study are based on Raftelis' experience with wastewater treatment plants and are consistent with the revenue program guidelines of the Water Environment Federation.

The three main cost causation parameters are Flow, BOD, and TSS. BOD and TSS constitute the strength components of the wastewater discharge. Additional parameters include infiltration and inflow, customers, and laterals. Costs are assigned based on the parameters that dictate the design of each process. The allocation of costs to the three main parameters involves:

1. Detailed breakdown and functionalization of O&M costs.
2. Itemization of capital costs by functions such as collection, treatment, outfall, etc.

3. Allocation of the functional costs to the wastewater cost causation parameters.

In the absence of a detailed breakdown of fixed assets by process, the WWTP treatment costs are allocated to flow, BOD, and TSS at 50 percent, 30 percent, and 20 percent, respectively. This allocation is representative of other similar treatment plants and reflects the lower TSS at the District's WWTP. Costs that could not be specifically identified were categorized as general costs. The allocation of O&M functions to cost components is shown in Table 4-2. The allocation of test year O&M costs is shown in Table 4-3. The allocation of wastewater assets is shown in Table 4-4.

Table 4-2: O&M Cost Category Allocations

Functional Allocation	Rationale	Flow	BOD	TSS	Billing	General	Total
Collection	Flow	100.0%					100.0%
Treatment	Flow & Strength	50.0%	30.0%	20.0%			100.0%
CS/Billing	CS/Billing				100.0%		100.0%
G&A						100.0%	100.0%

Note: CS = customer service

Table 4-3: O&M Allocation, Test Year

Functional Allocation	Flow	BOD	TSS	Billing	Total
Collection	$480,020	$0	$0	$0	$480,020
Treatment	$400,180	$240,108	$160,072	$0	$800,360
Customer Service/Billin	$0	$0	$0	$80,720	$80,720
G&A	$0	$0	$0	$0	$0
	$880,200	$240,108	$160,072	$80,720	$1,361,100

Table 4-4: Asset Allocations

Functional Allocation	Rationale	Flow	BOD	TSS	General	Total
Buildings	G&A	$0	$0	$0	$505,826	$505,826
Collection	Collection	$600,266	$0	$0	$0	$600,266
Treatment	Treatment	$7,033,768	$4,220,261	$2,813,507	$0	$14,067,537
Land	General	$0	$0	$0	$414,510	$414,510
Mach&Equip	General	$0	$0	$0	$100,865	$100,865
CS/Billing	Billing	$0	$0	$0	$0	$0
ForceMain/LiftStation	Flow	$224,780	$0	$0	$0	$224,780
G&A	General	$0	$0	$0	$16,186	$16,186
Total		$7,858,815	$4,220,261	$2,813,507	$1,037,387	$15,929,970
Percent Allocation		49.3%	26.5%	17.7%	6.5%	100.0%

4.3. Mass Balance Analysis

The next step of the wastewater cost-of-service analysis is to attribute flow and strength loadings entering the District's wastewater treatment plant to various user classifications. This is necessary to reasonably allocate the Flow, BOD, TSS and customer cost causation components to each customer class for recovery through the proposed wastewater rates.

Since wastewater flows and strengths are not directly measured for every customer, a mass balance is performed on calendar year 2025 data to estimate and validate the wastewater loadings (flow and strength) generated by the residential class. This analysis results in establishing flow and strength loadings to each customer class, which are then applied to the test year cost-of-service analysis. Key inputs and assumptions include:

- While wastewater discharged into sewers for most customers is not metered when it enters the wastewater system, the total amount of flow and strength entering the treatment plant and treated every day is a measured quantity. The influent wastewater flow is metered at the headworks and measured strengths based on monthly laboratory samples for calendar year 2025 were provided by the District.
- Non-residential metered customer calendar year 2025 water use was provided by the District.
- The strength of different types of non-residential customers is based on data from the Wastewater Flow and Load Study – Summary Report, June 2025, by Carollo.
- Residential wastewater flow is estimated as net plant influent, less infiltration and inflow, less estimated non-residential flow. After applying all residual wastewater generation to residential customers, Raftelis estimates that the residential wastewater discharge factor for the District's wastewater service is approximately 50 gallons per capita per day (gpcd). The flow is close to the former state standard of 50 gpcd. The estimated residential strength concentration is 165 and 56 milligrams per liter (mg/L) of BOD and TSS, respectively. The District's treatment plant data shows lower than average BOD and TSS concentrations.

Table 4-5 shows the calculation of the units of service for residential and non-residential customers using the method described above for calendar year 2025.

Table 4-5: Mass Balance Calendar Year 2025

Line Item	Water Use (hcf)	Return to Sewer Factor	WW Flow (hcf/yr)	BOD (lbs/yr)	TSS (lbs/yr)	BOD (mg/l)	TSS (mg/l)
Total Plant Influent			81,434	87,372	31,273	172	62
Estimated I/I			814	508	508	100	100
Net Plant			80,620	86,863	30,765		
Non-Residential							
Cottages, Motels, Trailer Parks, Laundries, etc	1,110	85%	944	401	471	68	80
Commercial and Industrial	1,680	85%	1,428	6,017	2,871	675	322
Total Non-Residential	2,790		2,372	6,418	3,342		
Residential	*Estimated*						
Single Family	129,648	60%	77,789	79,972	27,262	165	56
Multi-Family	766	60%	460	473	161	165	56
Total Residential	130,414		78,249	80,445	27,423		

4.4. Unit Cost of Service

The next step of the cost-of-service analysis is to calculate unit costs for Flow, BOD, and TSS for the test year. The unit costs of service are developed by dividing the total annual costs allocated to each parameter by the total annual units for each parameter. The return-to-sewer factors and strength concentrations from the mass balance are applied to test year information to develop the units of-service for FY 2027.

The residential and non-residential wastewater loadings are used in Table 4-6 to develop the FY 2027 units of service based on estimated test year flows. Note that the District currently has no multifamily customers.

Table 4-6: Units of Service, Test Year

Customer Class	Water Use (hcf)	WW Flow (hcf)	BOD (lb/yr)	TSS (lb/yr)	Accounts or dwelling units	Bills
Residential WW						
Single Family Residential	130,333	78,200	80,389	27,404	1,332	15,984
Multi-Family Residential (dwelling units)	0	0	0	0	0	0
Cottages, Motels, Trailer Parks, Laundries, etc	378	321	136	160	2	24
Commercial and Industrial	998	849	3,576	1,706	8	96

These units of service are then used in Table 4-7 to determine the unit costs (Line 9) for each of the wastewater parameters. These unit costs are then used along with the loadings to develop the cost to be collected from the different customer classes. Note that general costs are reallocated based on the proportions of the other costs.

Table 4-7: Development of Unit Costs

No.	Revenue Requirement	WW Flow	BOD	TSS	Billing	General	Total
1	Net Operating Revenue Requirement	$840,517	$229,283	$152,855	$77,081	$0	$1,299,736
2	Net Capital Revenue Requirement	$374,922	$201,337	$134,225	$0	$49,491	$759,975
3	**Total - Cost of Service**	**$1,215,439**	**$430,620**	**$287,080**	**$77,081**	**$49,491**	**$2,059,711**
4	Allocation of General Costs - Operating	$0	$0	$0	$0	$0	$0
5	Allocation of General Costs - Capital	$26,116	$14,025	$9,350	$0	-$49,491	$0
6	**Total - Adjusted Cost of Service**	**$1,241,556**	**$444,645**	**$296,430**	**$77,081**	**$0**	**$2,059,711**
7	Units of Service	79,369	84,101	29,270	16,104		
8	Units	hcf/yr	lb/yr	lb/yr	bills/yr		
9	Unit Cost	$15.64	$5.29	$10.13	$4.79		
10		per hcf	per lb	per lb	per bill		

5. Wastewater Rate Derivation

5.1. Proposed Rates

Based on District staff direction, Raftelis has developed a new flat, monthly rate structure for residential customers. Since the District currently does not have a multifamily customer but has in the past, Raftelis has used a density analysis to develop a relationship between the single family rate and the multifamily rate for future multifamily customers. Based on data from the 5-year American Community Survey for 2011 for the Sunnyslope Census Designated Place (the most recent data available), multifamily residences are 0.65 times the density of single family residences. Density for residential use categories means the number of persons per dwelling unit.

Non-residential customers will continue to be charged based on billed water consumption, subject to a minimum monthly charge.

Table 5-1 shows the derivation of each of the customer-class charges. The total costs allocated to single family class is divided by the number of dwelling units (du) and adjusted by the density factor to determine the monthly charge per dwelling unit. The multifamily charge is the single family rate times the density factor. The non-residential customer rates are based on the total allocated cost divided by the total billed water use.

Table 5-1: Wastewater Rate Derivation, Test Year

Customer Class	Flow	Strength	Customer	Total	Dwelling Units	Density Ratio	$/du/mo	Water Use, hcf	$/hcf
Single Family	$1,223,260	$702,553	$76,506	$2,002,319	1,332	1.00	$125.30		
Multifamily	$0	$0	$0	$0	0	0.65	$81.80		
Cottages, Motels, Trailer Parks, Laundries, etc. (1)	$5,022	$2,344	$115	$7,481				378	$19.81
Commercial and Industrial (1)	$13,274	$36,178	$459	$49,911				998	$50.00

(1) Subject to a minimum charge.

The costs captured in the Customer component above do not capture all the fixed costs associated with a wastewater system. Most of the collection lines in the street are sized for maintenance, and system sizing represents a fixed cost for having capacity available whether a parcel contributes flows or not. To ensure fairness in rates with costs incurred, a minimum charge has been developed based on the collection-related operating expenses (Table 4-3) and the billing costs (Table 4-7), as shown in Table 5-2.

Table 5-2: Minimum Charge Derivation, Test Year

Minimum Charge	Cost
Collection O&M	$480,020
Customer Costs	$77,081
Total	$557,101
# Bills	16,104
$/mo	$34.59

Table 5-3 shows the proposed wastewater rates for the next five years. Rates are adjusted in FY 2027 to account for the overall revenue adjustment and the cost-of-service. For FY 2028 through FY 2031, rates would be increased by 3.5 percent on January 1 of each fiscal year.

Table 5-3: Proposed Wastewater Rates

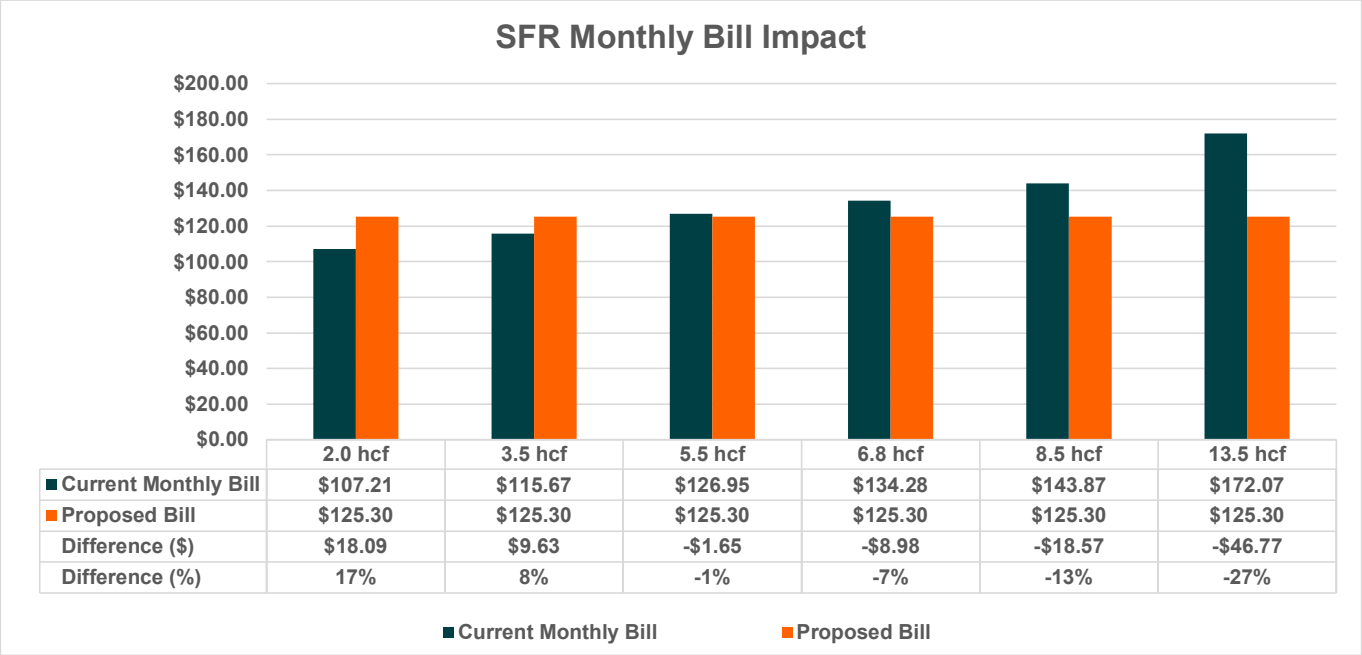
Customer Class	Current	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
Effective Date		1/1/2027	1/1/2028	1/1/2029	1/1/2030	1/1/2031
Single Family Residential						
Fixed Charge, $/mo/dwelling unit	$95.93	$125.30	$129.69	$134.23	$138.93	$143.80
Variable, $/hcf	$5.64	--	--	--	--	--
Multi Family Residential						
Fixed Charge, $/mo/dwelling unit	$72.98	$81.80	$84.67	$87.64	$90.71	$93.89
Variable, $/hcf	$5.64	--	--	--	--	--
Commercial & Industrial (1)						
Cottages, Motels, Trailer Parks, Laundries, etc.	$9.20/hcf	$19.81/hcf	$20.51/hcf	$21.23/hcf	$21.98/hcf	$22.75/hcf
Commercial and Industrial	$12.14/hcf	$50.00/hcf	$51.75/hcf	$53.57/hcf	$55.45/hcf	$57.40/hcf
Minimum Charge, $/mo	--	$34.60	$35.82	$37.08	$38.38	$39.73

(1) Subject to a minimum charge.

5.2. Wastewater Bill Impacts

Figure 5-1 shows the monthly bill impact of the proposed rates on a residential customer for various levels of average winter consumption from very low to very high. The median bill is for average winter consumption of 5.5 hcf. Customers with bills based on 5.5 hcf would see a 1 percent decrease in their wastewater bill.

Figure 5-1: Residential Wastewater Monthly Rate Impacts at Different Average Winter Usage Amounts



	2.0 hcf	3.5 hcf	5.5 hcf	6.8 hcf	8.5 hcf	13.5 hcf
Current Monthly Bill	$107.21	$115.67	$126.95	$134.28	$143.87	$172.07
Proposed Bill	$125.30	$125.30	$125.30	$125.30	$125.30	$125.30
Difference ($)	$18.09	$9.63	-$1.65	-$8.98	-$18.57	-$46.77
Difference (%)	17%	8%	-1%	-7%	-13%	-27%

APPENDIX A:

Capital Improvement Program, 5-Years

Capital Improvement Plan	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
Wastewater Treatment					
Pond 6 Lift Station Wet Well, Pump, Electrical	$165,000	$0	$0	$0	$0
Conduit to DO Sensors at SBR	$0	$30,000	$0	$0	$0
Convert Wastewater SCADA from Wonderware to Ignition	$300,000	$300,000	$0	$0	$0
New Monitoring Wells	$200,000	$200,000	$100,000	$0	$0
Facility Fencing	$0	$0	$0	$20,000	$0
SBR Asphalt Sealing	$0	$0	$0	$65,000	$0
Paint & Flooring SBR	$0	$0	$0	$65,000	$0
Effluent Blending Blue Valve	$0	$0	$0	$0	$250,000
Wastewater Collection					
New Airline/Ridgemark Dr. Lift Station (replace Paullus)	$0	$0	$100,000	$380,000	$0
Ridgemark Golf Course Sewer Upsizing	$0	$0	$65,000	$0	$0
Spot Repairs & CCTV Inspection	$200,000	$0	$0	$50,000	$0
Facility Fencing	$27,000	$0	$20,000	$0	$0
RM II SCADA/PLc/Electric Panels System Upgrade	$0	$100,000	$0	$0	$0
Gravity Sewer from Paullus Lift to Wild Oak Dr	$0	$0	$0	$0	$100,000
Main Lift Pump Station Reconstruciton- with option to city	$0	$0	$1,000,000	$500,000	$0
Lift Station Wet Well Repairs	$0	$0	$0	$0	$0
Admin Capital - WW Portion					
Admin Building Roof and Window Replacement	$0	$28,000	$0	$0	$0
Replace floor electrical and re-carpet District Office	$0	$0	$0	$0	$0
Paint District Office Inside & Outside	$16,800	$0	$0	$0	$0
Admin Building Replace HVAC system	$0	$0	$0	$21,000	$0
Admin Building Septic System	$0	$0	$0	$0	$0
Solar Panel Replacement	$0	$0	$0	$0	$0
Vehicle Replacement	$0	$0	$0	$0	$0
Vactor Truck	$0	$56,000	$0	$0	$0
Total Project Costs - Uninflated	**$908,800**	**$714,000**	**$1,285,000**	**$1,101,000**	**$350,000**
Total Project Costs - Inflated	**$954,240**	**$787,185**	**$1,487,548**	**$1,338,272**	**$446,699**