

# *Wastewater Cost-of-Service Rate Study*



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# SPMUD – Wastewater Cost-of-Service Rate Study

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## Executive Summary

South Placer Municipal Utility District (District) reviews its wastewater rates periodically to determine if adjustments are necessary to generate sufficient revenue to meet operational costs, capital investment needs, and reserve funding. The District hired IB Consulting to conduct a comprehensive cost-of-service update to its wastewater rates. This Report provides a proposed financial plan from FY 2024 through FY 2028 (Financial Plan Period); however, the financial figures within this report extend through FY 2033. The District has a significant amount of capital spending in FY 2033, which is expected to be funded through a debt issuance.

Updating the District's long-term financial plan and performing a comprehensive cost-of-service analysis is a prudent business practice to ensure the District can fully fund its revenue needs through the Financial Plan Period. As part of reviewing and updating wastewater rates, the first step is to review the District's current financial health. Based on our financial review, the District is in a strong financial position with a healthy reserve balance. However, the annual net operating income is limited and will diminish over the years at existing rates and the District's Capital Improvement Plan (CIP) will draw down reserves below the District's minimum reserve requirements over the next five years. The District previously completed an asset management replacement program for its collection system and lift stations. Much of the District's collection system was installed prior to 1970 the assets and are approaching the end of their useful life. A significant amount of replacement will occur over the next decade, with a peak in FY 2033 of approximately \$19.6M that coincides with pipelines installed in 1958. Therefore, the Financial Plan Period extends through FY 2033, although rates may only be adopted for five years. The long-term financial plan incorporates the asset management replacement program and identifies revenue adjustments beyond the next five years to ensure the District can implement a sensible approach to rate adjustments over the next 10 years and avoid significant increases at the end of the decade.

The existing wastewater rate structure consists of monthly fixed charges per Equivalent Dwelling Units (EDUs), where residential accounts are assigned 1 EDU per dwelling unit and non-residential accounts are assigned EDUs based on the demand each property places on the system in relation to 1 EDU's flow and strength characteristics. Our analysis uses the current EDUs assignments to each account and does include a review of how EDUs were assigned to each account/parcel at point of development.

The District does not treat influent and conveys it to the regional treatment plants owned and operated by the South Placer Wastewater Authority (SPWA), which is a joint powers authority comprised of the District, Placer County, and the City of Roseville. The two regional wastewater treatment plants (WWTP) include Pleasant Grove WWTP and Dry Creek WWTP, which are both within and owned by the City of Roseville. As a member of SPWA, the District incurs treatment expenses and capital replacement costs related to the WWTPs. Each customer's proposed rates will be noticed by mail as part of the Proposition 218 noticing requirements. On May 4, 2023, a Public Hearing will be held on the proposed wastewater rates identified in Table 1.

*Table 1: Proposed Monthly Wastewater Rates*

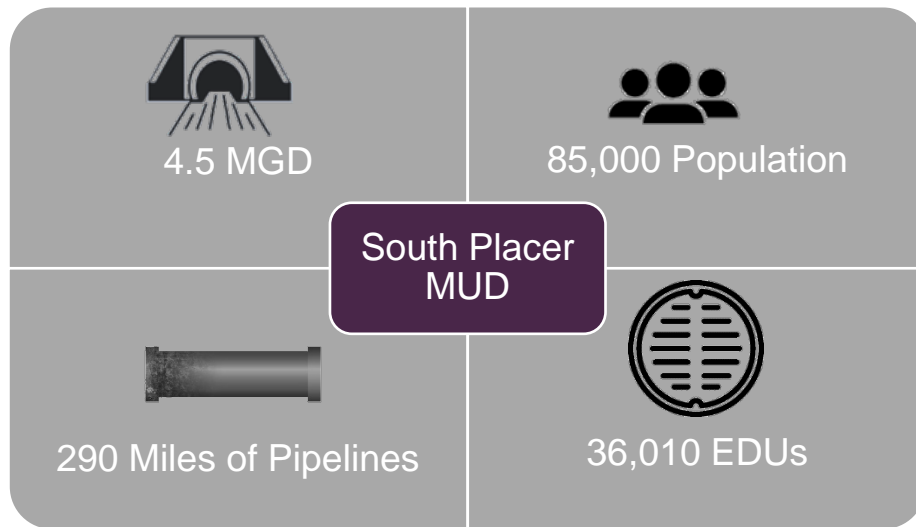
<b>Monthly Charge (\$/EDU)</b>					
<b>Proposed Rates</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>
Per EDU	\$37.44	\$38.94	\$40.50	\$42.53	\$44.66

## Background

The District provides wastewater collection services to thirty-one square miles and includes the City of Rocklin, Town of Loomis, and portions of southern Placer County around the unincorporated communities of Penryn, Newcastle, and the Rodgersdale area of Granite Bay, with a population of approximately 85,000.

The wastewater collection system is comprised of 290 miles of wastewater pipelines ranging in size from 4" to 42" and the wastewater influent flows are conveyed to SPWA for treatment and disposal.

Figure 1: South Placer Municipal Utility District



The District previously completed an asset management replacement program for its collection system and lift stations. A majority of the District’s collection system was installed in the 1950’s and 1960’s. Those pipes are approaching the end of their useful life. A significant amount of replacement will occur over the next decade, with a peak in capital spending in FY 2033 of approximately \$19.6M coinciding with pipelines installed in 1958. Therefore, although rates may only be adopted for five years, our Financial Plan Period extends to FY 2033. The District tracks its capital planning through two different funds (Fund 100 and Fund 400). Fund 100 is for annual capital outlay projects and maintenance expenses that are separate from system replacement. Fund 400 accounts for capital repair & replacement and includes future asset management replacement. Figure 2 and Figure 3 identify the capital expenses for Fund 100 and Fund 400, respectively, and Figure 4 summarizes all CIP combined through the Financial Plan Period.

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Figure 2: Capital Improvement Program – Fund 100

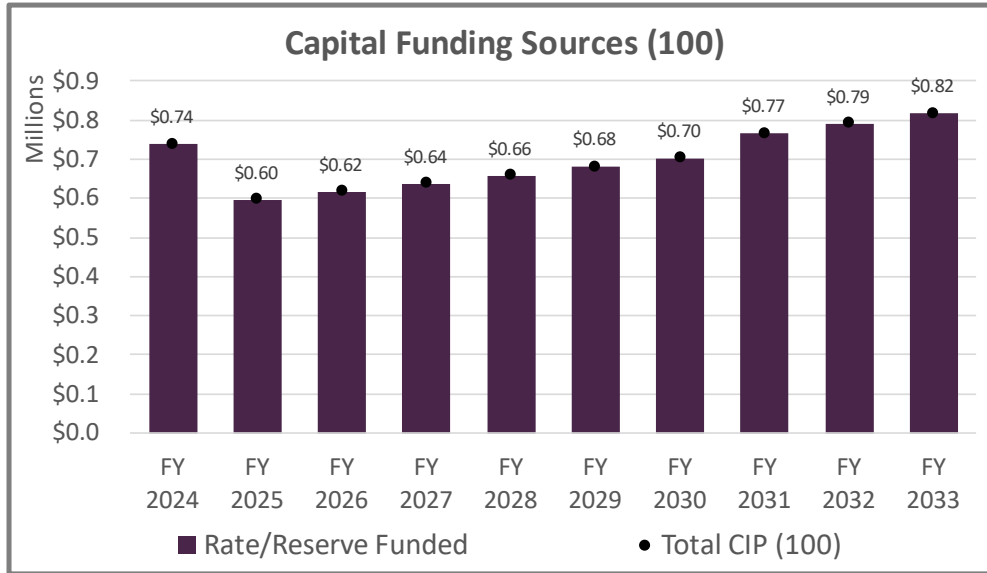
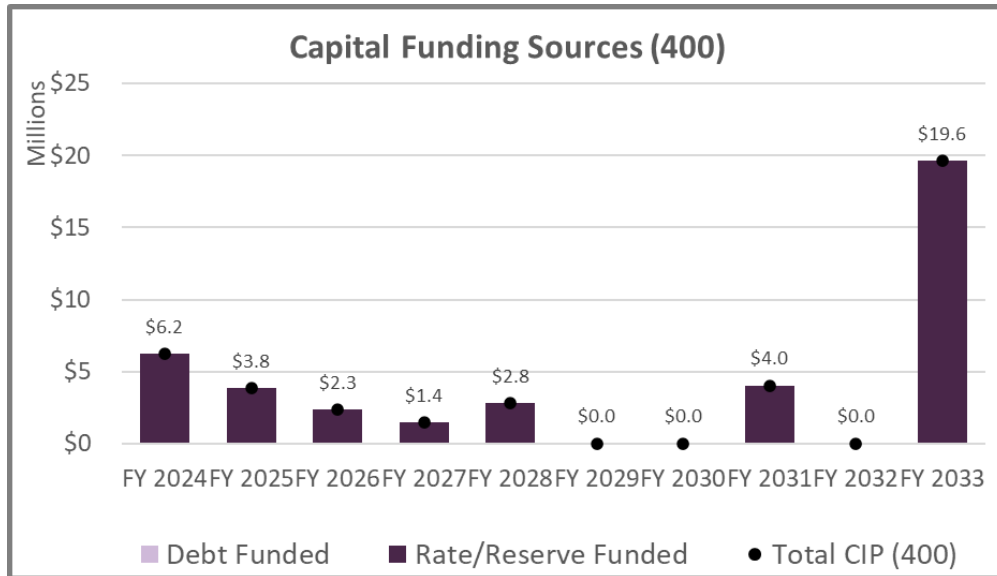
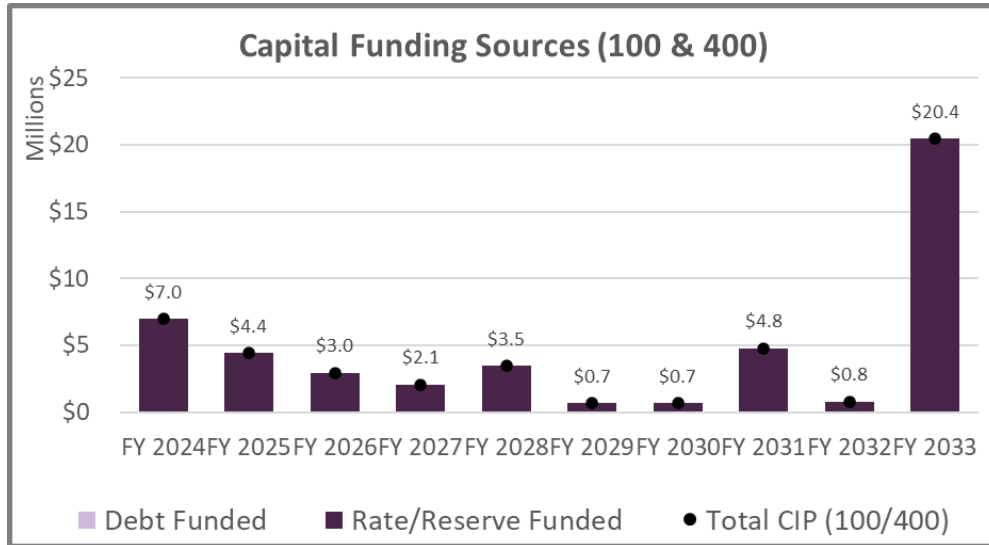


Figure 3: Capital Improvement Program – Fund 400



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Figure 4: Capital Improvement Program – Fund 100 and Fund 400



## Customers

The District serves 24,368 active accounts within its service area with 36,010 Wastewater EDUs. Table 2 summarizes accounts by existing wastewater rate classifications and corresponding EDUs.

Table 2: Accounts and EDUs

Customer Class	Accounts	EDUs
Single Family Residential	23,194	23,486
Multi Family Residential	73	5,318
Lifeline	140	141
Commercial	941	6,957
Mixed-Use	20	108
<b>Total</b>	<b>24,368</b>	<b>36,010</b>

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The current wastewater monthly rates per EDU are identified in Table 3.

Table 3: FY 2023 Monthly Wastewater Charges

Monthly Charge (\$/EDU)	
Customer Class	Existing Charge
Single Family Residential	\$36.00
Multi Family Residential	\$36.00
Lifeline	\$31.00
Commercial	\$36.00
Mixed-Use	\$36.00



## Financial Plan Overview

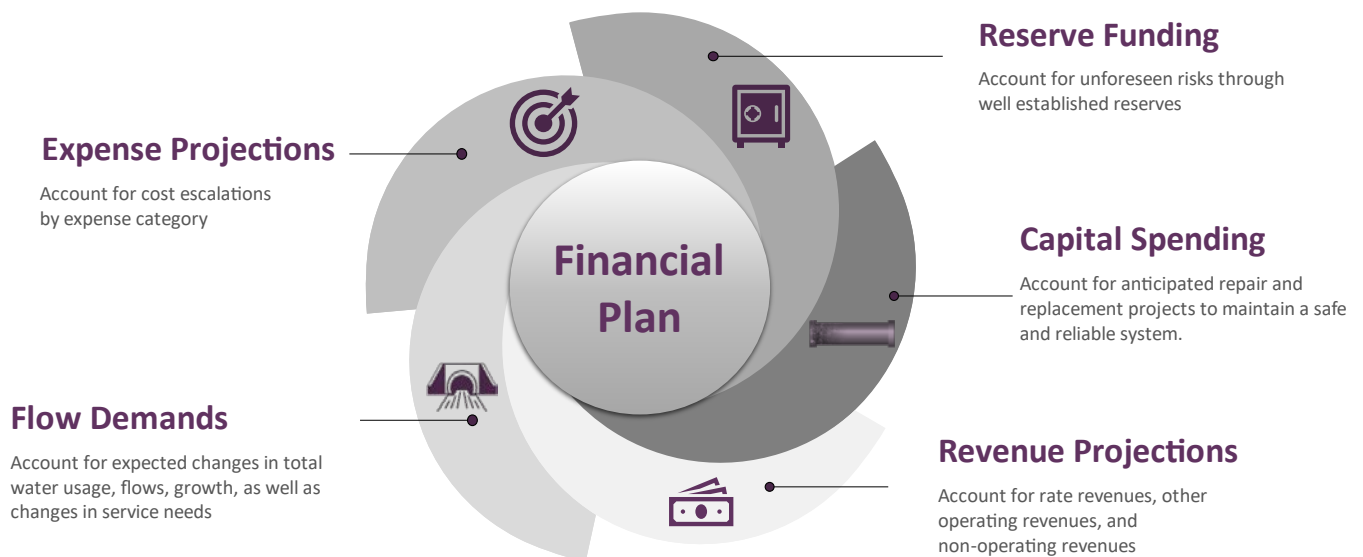
### Financial Planning

Financial planning incorporates numerous considerations, including projecting revenues and forecasting expected costs using various inflationary adjustments. Utilities also need to account for changes in parcels served, state mandates, growth, and economic factors. In addition, system maintenance and reinvestment, reserves, and debt compliance all influence the revenues needed in future years. Therefore, a comprehensive financial plan reviews the following:

- 1) Changes in total accounts and EDUs serviced.
- 2) Operational costs that may change over the planning period due to inflation and any new expenditures incurred to meet strategic goals, regulatory requirements, or changes in operations.
- 3) Multi-year system improvements and scheduling improvements based on priority. This review also considers available funding sources to complete capital projects such as "pay-as-you-go (PAYGO)", grants, and debt financing.
- 4) Reserve funding to meet adopted reserve policies. The goal is to generate adequate cash on hand to mitigate financial risks related to operating needs, unexpected increases in expenses, shortages in system reinvestment, and potential system failures.

Figure 5 illustrates the key elements when developing a long-term financial plan.

*Figure 5: Financial Plan Key Elements*



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## Financial Planning Assumptions

Developing a long-term financial plan requires an understanding of the District's financial position by evaluating existing revenue streams, ongoing expenses, how those expenses will change over time, debt requirements, new strategic objectives, and reserve policies. With these considerations, certain assumptions are required for projecting revenues, expenses, and expected ending fund balances. Through discussions with staff and their understanding of historical budget data and future obligations, Table 4 identifies assumptions used for forecasting revenues. For forecasting revenues, our analysis assumes no growth in EDUs as a conservative assumption so projected revenues do not rely on growth to occur. Table 5 identifies assumptions used to forecast expense increases through the Financial Plan Period.

Table 4: Revenue Forecasting Assumptions

Key Assumptions	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
<b>Revenue Escalation</b>					
Non-Inflated	0.0%	0.0%	0.0%	0.0%	0.0%
Reserve Interest	0.6%	0.6%	0.6%	0.6%	0.6%
<b>Account Growth</b>	0%	0%	0%	0%	0%
<b>EDUs</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>
Single Family Residential	23,486.45	23,486.45	23,486.45	23,486.45	23,486.45
Multi Family Residential	5,318.20	5,318.20	5,318.20	5,318.20	5,318.20
Lifeline	141.00	141.00	141.00	141.00	141.00
Commercial	6,956.66	6,956.66	6,956.66	6,956.66	6,956.66
Mixed-Use	107.90	107.90	107.90	107.90	107.90
<b>Total EDUs</b>	<b>36,010.21</b>	<b>36,010.21</b>	<b>36,010.21</b>	<b>36,010.21</b>	<b>36,010.21</b>
<b>Annual EDUS (EDUs x 12 Months)</b>	<b>432,122.52</b>	<b>432,122.52</b>	<b>432,122.52</b>	<b>432,122.52</b>	<b>432,122.52</b>

Table 5: Expense Forecasting Assumptions<sup>1</sup>

Key Assumptions	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
<b>Expenditure Escalation</b>					
Benefits	5.0%	5.0%	5.0%	5.0%	5.0%
Capital Construction	20-Year Average 7.0%	3.3%	3.3%	3.3%	3.3%
Energy Costs	5.0%	5.0%	5.0%	5.0%	5.0%
General Costs	20-Year Average 7.0%	2.5%	2.5%	2.5%	2.5%
Non-Inflated	0.0%	0.0%	0.0%	0.0%	0.0%
Retirement	5.0%	5.0%	5.0%	5.0%	5.0%
Salaries	5.0%	5.0%	5.0%	5.0%	5.0%

<sup>1</sup> Capital Construction and General Costs for FY 2024 were both increased to 7%, to account for recent increases due to inflation. Outer years reduce to 3.3% and 2.5%, respectively, reflecting the 20-year averages of the 20-City Engineer's News Record – Construction Cost Index and Consumer Price Index-San Francisco

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## Current Financial Position

### Revenues

Based on the forecasting assumptions, revenues were calculated using the FY 2023 rates (Table 3) and annual EDUs listed by customer class (Table 4). Table 6 shows the calculated rate revenues through the Financial Plan Period. Table 7 summarizes calculated rate revenues and other non-rate revenues available through the Financial Plan Period, rounded to the nearest thousands.

*Table 6: Calculated Rate Revenues*

<b>EDU Service Charges</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>
Single Family Residential	\$10,146,146	\$10,146,146	\$10,146,146	\$10,146,146	\$10,146,146
Multi Family Residential	\$2,297,462	\$2,297,462	\$2,297,462	\$2,297,462	\$2,297,462
Lifeline	\$52,452	\$52,452	\$52,452	\$52,452	\$52,452
Commercial	\$3,005,277	\$3,005,277	\$3,005,277	\$3,005,277	\$3,005,277
Mixed-Use	\$46,613	\$46,613	\$46,613	\$46,613	\$46,613
<b>Total EDU Service Charges</b>	<b>\$15,547,951</b>	<b>\$15,547,951</b>	<b>\$15,547,951</b>	<b>\$15,547,951</b>	<b>\$15,547,951</b>

*Table 7: Total Projected Revenues*

<b>Revenue Summary</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>
<b>Rate Revenues</b>					
EDU Service Charges	\$15,548,000	\$15,548,000	\$15,548,000	\$15,548,000	\$15,548,000
<b>Subtotal Rate Revenues</b>	<b>\$15,548,000</b>	<b>\$15,548,000</b>	<b>\$15,548,000</b>	<b>\$15,548,000</b>	<b>\$15,548,000</b>
<b>Operating Revenues</b>					
Contract Customers	\$90,000	\$90,000	\$90,000	\$90,000	\$90,000
PRSC - Newcastle	\$205,000	\$205,000	\$205,000	\$205,000	\$205,000
CC Processing Fees	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000
Permits, Plan Check Fees & Inspections	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000
Property Taxes	\$1,200,000	\$1,200,000	\$1,200,000	\$1,200,000	\$1,200,000
Late Fees Sewer Service Charges	\$145,000	\$145,000	\$145,000	\$145,000	\$145,000
<b>Subtotal Operating Revenues</b>	<b>\$1,943,000</b>	<b>\$1,943,000</b>	<b>\$1,943,000</b>	<b>\$1,943,000</b>	<b>\$1,943,000</b>
<b>Other Revenues</b>					
Interest	\$90,000	\$90,000	\$90,000	\$90,000	\$90,000
Miscellaneous Income	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
<b>Subtotal Other Revenues</b>	<b>\$190,000</b>	<b>\$190,000</b>	<b>\$190,000</b>	<b>\$190,000</b>	<b>\$190,000</b>
<b>Total Revenues</b>	<b>\$17,681,000</b>	<b>\$17,681,000</b>	<b>\$17,681,000</b>	<b>\$17,681,000</b>	<b>\$17,681,000</b>

### Expenses

The FY 2023 budget was used as the baseline expenses for the District and were adjusted in subsequent years based on the percentage increases shown in Table 5. Each expense category was discussed with staff to determine the appropriate escalation factor for forecasting how costs will increase over time, as identified in Table 8. Table 9 summarizes projected Operational & Maintenance (O&M) costs through the Financial Plan Period, with projections, starting in FY 2024, rounded to the nearest thousand.

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Table 8: O&M Projected Expenses

Operating Expenditure	Inflate by	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
<b>Salaries &amp; Benefits</b>						
Salaries/Wages	Salaries	\$3,192,000	\$3,351,600	\$3,519,180	\$3,695,139	\$3,879,896
FICA - Social Security	Benefits	\$244,230	\$256,442	\$269,264	\$282,727	\$296,863
CalPERS Retirement & UA	Retirement	\$675,000	\$708,750	\$744,188	\$781,397	\$820,467
457 & 401A Retirement	Retirement	\$131,250	\$137,813	\$144,703	\$151,938	\$159,535
Insurance Benefits	Benefits	\$824,250	\$865,463	\$908,736	\$954,172	\$1,001,881
PERS OPEB	Retirement	\$483,000	\$507,150	\$532,508	\$559,133	\$587,090
<b>Subtotal Salaries &amp; Benefits</b>		<b>\$5,549,730</b>	<b>\$5,827,217</b>	<b>\$6,118,577</b>	<b>\$6,424,506</b>	<b>\$6,745,732</b>
<b>Services &amp; Supplies</b>						
Asphalt Paving	Capital Construction	\$80,250	\$82,900	\$85,638	\$88,467	\$91,388
Building & Grounds Maintenance	Capital Construction	\$56,710	\$58,583	\$60,518	\$62,516	\$64,581
Election Expense	General Costs	\$42,800	\$43,861	\$44,949	\$46,063	\$47,205
Gas & Oil Expense	Energy Costs	\$64,050	\$67,253	\$70,615	\$74,146	\$77,853
General Operating Supplies	General Costs	\$174,196	\$178,515	\$182,941	\$187,477	\$192,125
Legal Services	Salaries	\$100,000	\$105,000	\$110,250	\$115,763	\$121,551
Lift Station & Flow Record	General Costs	\$73,830	\$75,661	\$77,536	\$79,459	\$81,429
Other Operating Expense	General Costs	\$1,070	\$1,097	\$1,124	\$1,152	\$1,180
Professional Development	General Costs	\$77,575	\$79,498	\$81,469	\$83,489	\$85,559
Professional Services	Salaries	\$550,000	\$550,000	\$550,000	\$550,000	\$577,500
Property & Liability Insurance	General Costs	\$317,790	\$325,669	\$333,744	\$342,019	\$350,499
Regulatory Compliance/Grants	General Costs	\$78,271	\$80,211	\$82,200	\$84,238	\$86,327
Repair/Maintenance Agreements	General Costs	\$142,310	\$145,838	\$149,454	\$153,160	\$156,957
Root Control Program	General Costs	\$69,550	\$71,274	\$73,042	\$74,853	\$76,708
Safety Gear/Uniforms	General Costs	\$29,586	\$30,319	\$31,071	\$31,841	\$32,631
Utilities	Energy Costs	\$178,500	\$187,425	\$196,796	\$206,636	\$216,968
Utility Billing/Banking Expenses	General Costs	\$263,755	\$270,295	\$276,996	\$283,864	\$290,902
Vehicle Repair & Maintenance	Capital Construction	\$85,600	\$88,427	\$91,348	\$94,364	\$97,481
<b>Subtotal Services &amp; Supplies</b>		<b>\$2,385,842</b>	<b>\$2,441,826</b>	<b>\$2,499,691</b>	<b>\$2,559,506</b>	<b>\$2,648,845</b>
<b>SPWA O&amp;M &amp; R&amp;R</b>						
RWWTP Maintenance & Construction	General Costs	\$7,547,780	\$7,734,919	\$7,926,697	\$8,123,231	\$8,324,637
RWWTP Rehab & Replacement	Capital Construction	\$1,776,817	\$1,441,729	\$823,462	\$336,062	\$347,161
<b>Subtotal SPWA O&amp;M &amp; R&amp;R</b>		<b>\$9,324,597</b>	<b>\$9,176,648</b>	<b>\$8,750,160</b>	<b>\$8,459,293</b>	<b>\$8,671,799</b>
<b>Total Operating Expenses</b>		<b>\$17,260,169</b>	<b>\$17,445,691</b>	<b>\$17,368,428</b>	<b>\$17,443,305</b>	<b>\$18,066,375</b>

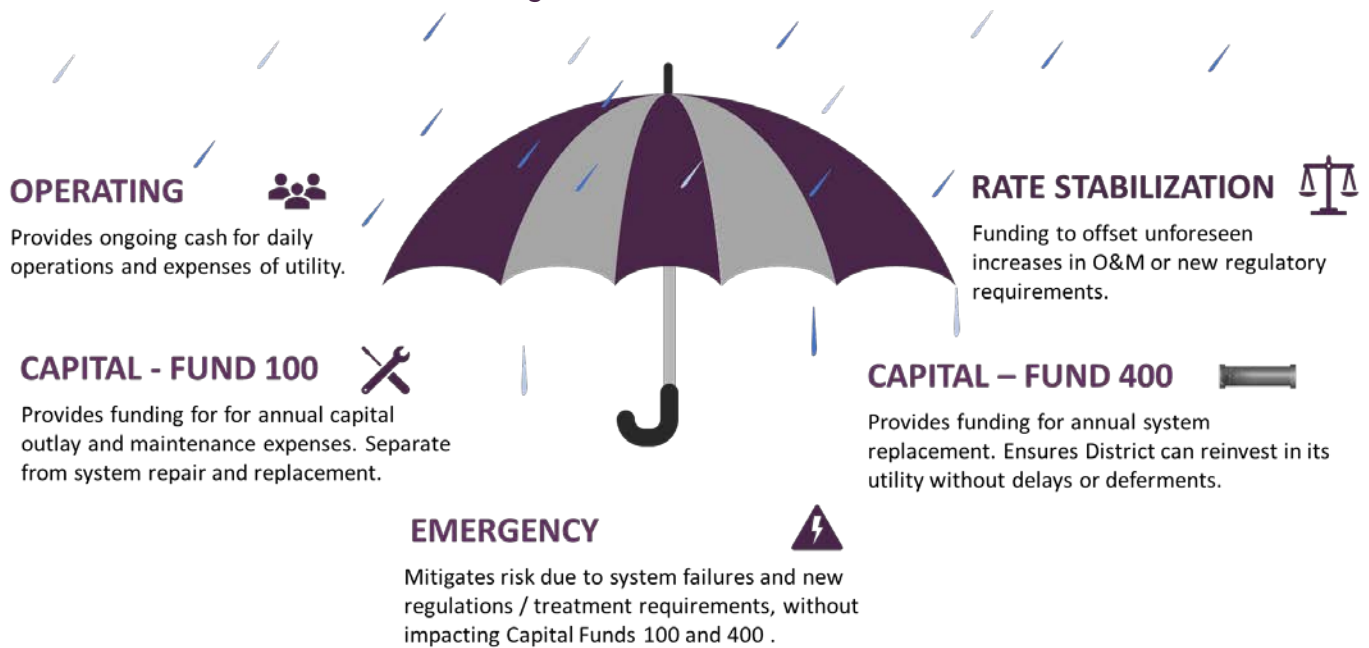
Table 9: Summarized O&M Expenses

O&M Summary	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
<b>Operating Expenses</b>					
Salaries & Benefits	\$5,549,730	\$5,827,217	\$6,118,577	\$6,424,506	\$6,745,732
Services & Supplies	\$2,385,842	\$2,441,826	\$2,499,691	\$2,559,506	\$2,648,845
SPWA O&M & R&R	\$9,324,597	\$9,176,648	\$8,750,160	\$8,459,293	\$8,671,799
<b>Subtotal Operating Expenses</b>	<b>\$17,260,169</b>	<b>\$17,445,691</b>	<b>\$17,368,428</b>	<b>\$17,443,305</b>	<b>\$18,066,375</b>
<b>O&amp;M Summary (rounded to thousands)</b>					
<b>Operating Expenses</b>					
Salaries & Benefits	\$5,550,000	\$5,828,000	\$6,119,000	\$6,425,000	\$6,746,000
Services & Supplies	\$2,386,000	\$2,442,000	\$2,500,000	\$2,560,000	\$2,649,000
SPWA O&M & R&R	\$9,325,000	\$9,177,000	\$8,751,000	\$8,460,000	\$8,672,000
<b>Subtotal Operating Expenses</b>	<b>\$17,261,000</b>	<b>\$17,447,000</b>	<b>\$17,370,000</b>	<b>\$17,445,000</b>	<b>\$18,067,000</b>

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## Reserves

Figure 6: District Reserves



The District has five reserves, with two of them connected to its capital-related needs. In addition, the District has one restricted reserve for CalPERS. Unrestricted Reserves include Operating, Rate Stabilization, Capital – Fund 100, Capital – Fund 400, and Emergency. These designated reserves mitigate risks to the District by ensuring sufficient cash is on hand for daily operations and to fund annual capital outlay and long-term system reinvestment. In addition, these reserves help smooth rates while mitigating rate spikes due to emergencies or above-average system costs. Through discussions with District Staff and direction received by the Board on January 2, 2023, the current reserve targets for Rate Stabilization and Emergency were eliminated and reduced, respectively. The Rate Stabilization Reserve existing target is 10% of rate revenue; however, all rate revenue is recovered as a fixed charge and there is nominal volatility in rate revenue. Therefore, existing funds will be transferred to the Operating Reserve. The Emergency Reserve target is \$3M based on risk in asset failure, but the District currently has these assets scheduled for replacement. Therefore, the Board decided to reduce the Emergency Reserve target to \$1M. The excess in reserve funds will be drawn down and used to smooth rates over the Financial Plan Period.

Table 10: Minimum Reserve Requirements and Targets

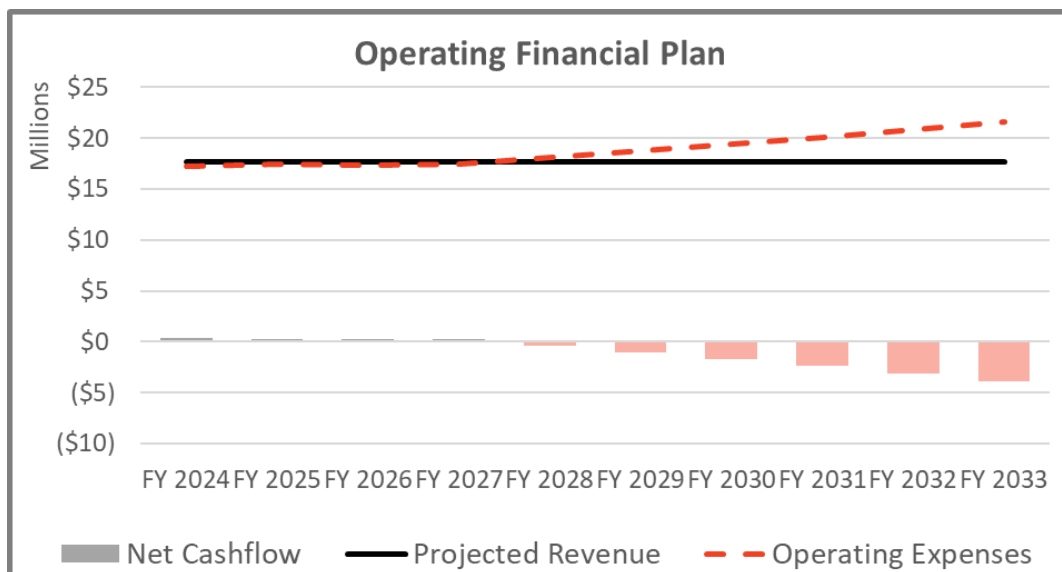
Reserve	Existing Minimum Requirement	New Minimum Requirement	New Target
Operating	90 days of O&M	90 days of O&M	180 days of O&M
Rate Stabilization	10% of Rate Revenue	<b>Eliminated</b>	<b>Eliminated</b>
Capital – Fund 100	Fixed Amount = \$300k	Fixed Amount = \$300k	1 year of planned capital
Capital – Fund 400	3 years of capital funding	3 years of capital funding	5 years of capital funding
Emergency	Fixed Amount = \$3.0M	<b>Fixed Amount = \$1.0M</b>	<b>Fixed Amount = \$1.0M</b>
<b>Total for FY 2024</b>	<b>\$22.7M</b>	<b>\$15.8M</b>	<b>\$27.3M</b>

# SPMUD – Wastewater Cost-of-Service Rate Study

## Financial Outlook at Existing Rates

Calculating revenue using existing rates and projecting expenses helps determine the current financial health of the utility. Revenues from existing rates slightly cover O&M expenses with minimal net operating income to go towards capital spending and reserves. By FY 2028, the District would generate an operating annual deficit, which would need to be mitigated through rate increases. In addition, with minimal net operating income, the District would need to rely on reserves to fund its ongoing capital reinvestment. Figure 7 illustrates the operating position of the District, where O&M expenses are identified with the dashed red trendline, and the horizontal black trendline shows total revenues at existing rates. The bars represent the net operating income available for capital spending and reserve funding.

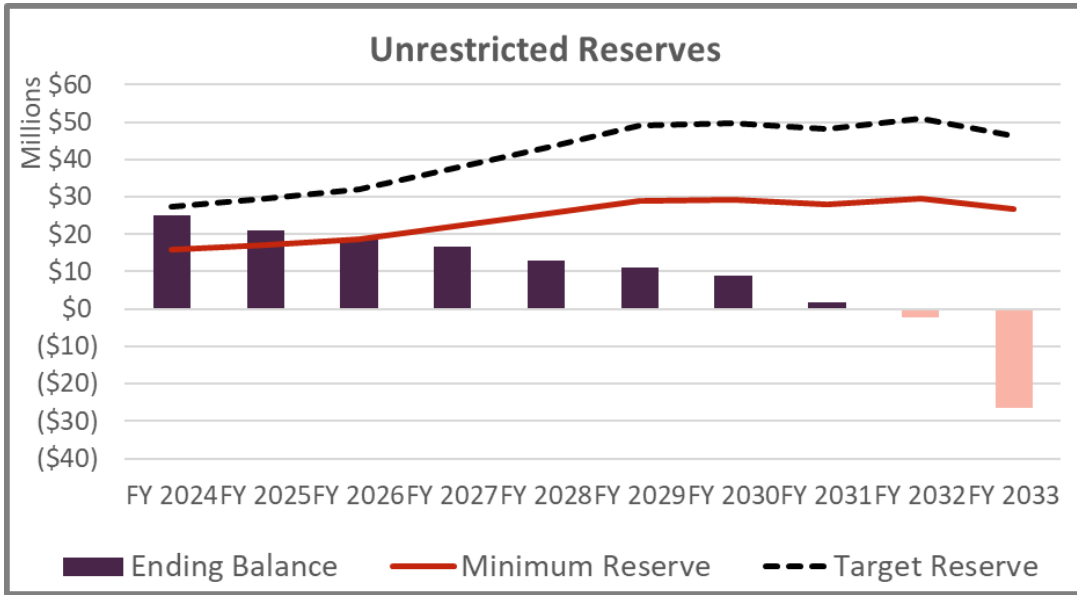
Figure 7: Current Operating Financial Position



Currently, the District’s total unrestricted projected ending reserves for FY 2023 equals \$31.6M, with \$22.4M within its capital-related reserves. The total within Fund 100 and Fund 400 can cover planned capital over the Rate Setting Period but would be below the minimum target in FY 2026 and will continue to deplete over the Financial Plan Period, which is not sustainable. Figure 8 reflects the projected ending balances of all five unrestricted reserves after funding operating and capital projects over the Financial Plan Period at existing rates. By FY 2027, reserves are below the minimum reserve requirement and fully depleted by FY 2032.

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Figure 8: Projected Ending Reserve at Existing Rates



## Proposed Financial Plan

Based on existing revenues, projected expenses, capital spending, and new reserve targets, a proposed financial plan can be developed to meet the overall revenue requirements over the Financial Plan Period. The proposed financial plan identifies 4% revenue adjustments for the next three years with 5% adjustments through the remainder of Financial Plan Period. In addition, a debt issue of \$19.5M is anticipated in FY 2033 to cover the pipeline replacement of the aging infrastructure installed in the late 1950's. The additional revenue is needed to cover the increase in O&M and to continue to generate positive net income each year to cover capital spending and satisfy reserve requirements. Table 11 forecasts existing revenues, with annual revenue adjustments (revenue adjustments highlighted in red are not part of the Proposition 218 Notice), and expenses through the Financial Plan Period. Table 12 identifies the unrestricted reserves and related activity through the Financial Plan Period, with projected FY 2024 starting reserve balances identified for each reserve.

*Table 11: Proposed Financial Plan*

Revenue		FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Total Rate Revenues	Table 7	\$15,548,000	\$15,548,000	\$15,548,000	\$15,548,000	\$15,548,000
<b>Fiscal Year</b>	<b>Revenue Adjustment</b>					
FY 2024	4.0%	\$621,000	\$621,000	\$621,000	\$621,000	\$621,000
FY 2025	4.0%		\$646,000	\$646,000	\$646,000	\$646,000
FY 2026	4.0%			\$672,000	\$672,000	\$672,000
FY 2027	5.0%				\$874,000	\$874,000
FY 2028	5.0%					\$918,000
Total Additional Revenue		\$621,000	\$1,267,000	\$1,939,000	\$2,813,000	\$3,731,000
<b>Projected Rate Revenues</b>		<b>\$16,169,000</b>	<b>\$16,815,000</b>	<b>\$17,487,000</b>	<b>\$18,361,000</b>	<b>\$19,279,000</b>
<b>Operating Revenues</b>						
Contract Customers		\$90,000	\$90,000	\$90,000	\$90,000	\$90,000
PRSC - Newcastle		\$205,000	\$205,000	\$205,000	\$205,000	\$205,000
CC Processing Fees	Table 7	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000
Permits, Plan Check Fees & Inspec		\$300,000	\$300,000	\$300,000	\$300,000	\$300,000
Property Taxes		\$1,200,000	\$1,200,000	\$1,200,000	\$1,200,000	\$1,200,000
Late Fees Sewer Service Charges		\$145,000	\$145,000	\$145,000	\$145,000	\$145,000
<b>Subtotal Operating Revenues</b>		<b>\$1,943,000</b>	<b>\$1,943,000</b>	<b>\$1,943,000</b>	<b>\$1,943,000</b>	<b>\$1,943,000</b>
<b>Other Revenues</b>						
Interest	Table 7	\$90,000	\$90,000	\$90,000	\$90,000	\$90,000
Miscellaneous Income		\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
<b>Subtotal Other Revenues</b>		<b>\$190,000</b>	<b>\$190,000</b>	<b>\$190,000</b>	<b>\$190,000</b>	<b>\$190,000</b>
<b>Total Revenues</b>		<b>\$18,302,000</b>	<b>\$18,948,000</b>	<b>\$19,620,000</b>	<b>\$20,494,000</b>	<b>\$21,412,000</b>
<b>O&amp;M Expenses</b>		<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>
<b>Operating Expenses</b>						
Salaries & Benefits	Table 9	\$5,550,000	\$5,828,000	\$6,119,000	\$6,425,000	\$6,746,000
Services & Supplies		\$2,386,000	\$2,442,000	\$2,500,000	\$2,560,000	\$2,649,000
SPWA O&M & R&R		\$9,325,000	\$9,177,000	\$8,751,000	\$8,460,000	\$8,672,000
<b>Subtotal Operating Expenses</b>		<b>\$17,261,000</b>	<b>\$17,447,000</b>	<b>\$17,370,000</b>	<b>\$17,445,000</b>	<b>\$18,067,000</b>
<b>Debt Service</b>						
New/Proposed Debt		\$0	\$0	\$0	\$0	\$0
<b>Subtotal Debt Service</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Total Expenses</b>		<b>\$17,261,000</b>	<b>\$17,447,000</b>	<b>\$17,370,000</b>	<b>\$17,445,000</b>	<b>\$18,067,000</b>
<b>Net Cashflow</b>		<b>\$1,041,000</b>	<b>\$1,501,000</b>	<b>\$2,250,000</b>	<b>\$3,049,000</b>	<b>\$3,345,000</b>



# SPMUD – Wastewater Cost-of-Service Rate Study

Table 12: Unrestricted Reserve Activity

<b>Direct Transfers to Reserves</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>
Net Cashflow	\$1,041,000	\$1,501,000	\$2,250,000	\$3,049,000	\$3,345,000
Transfer to Fund 400 R&R	(\$2,000,000)	\$0	\$0	\$0	\$0
Transfers (to)/from Rate Stabilization Reserve	\$1,738,140	\$0	\$0	\$0	\$0
Transfers (to)/from Emergency Reserve	\$2,000,000	\$0	\$0	\$0	\$0
Transfers (to)/from CALPERS CEPP Trust	\$0	\$0	\$0	\$0	\$0
<b>Net Cashflow (after direct transfers)</b>	<b>\$2,779,140</b>	<b>\$1,501,000</b>	<b>\$2,250,000</b>	<b>\$3,049,000</b>	<b>\$3,345,000</b>
<b>Operating Fund - Fund 100</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>
<b>Beginning Balance</b>	\$4,447,233	\$4,256,137	\$4,302,000	\$4,283,014	\$4,301,507
Transfers (Net Cashflow )	\$2,779,140	\$1,501,000	\$2,250,000	\$3,049,000	\$3,345,000
Transfers from/(to) Capital Outlay - Fund 100	(\$2,970,236)	(\$1,455,137)	(\$2,268,986)	(\$3,030,507)	(\$3,191,630)
<b>Ending Balance</b>	<b>\$4,256,137</b>	<b>\$4,302,000</b>	<b>\$4,283,014</b>	<b>\$4,301,507</b>	<b>\$4,454,877</b>
<b>Capital Outlay - Fund 100</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>
<b>Beginning Balance</b>	\$740,654	\$601,148	\$620,479	\$640,970	\$662,139
Transfers from/(to) Operating Fund - Fund 100	\$2,970,236	\$1,455,137	\$2,268,986	\$3,030,507	\$3,191,630
<b>Less:</b>					
CIP	(\$738,300)	(\$596,883)	(\$616,596)	(\$636,960)	(\$657,997)
Transfers from/(to) Capital R&R - Fund 400	(\$2,375,707)	(\$842,806)	(\$1,635,909)	(\$2,376,520)	(\$2,516,044)
<b>Subtotal Capital Outlay - Fund 100</b>	<b>\$596,883</b>	<b>\$616,596</b>	<b>\$636,960</b>	<b>\$657,997</b>	<b>\$679,728</b>
Interest Earnings	\$4,265	\$3,883	\$4,010	\$4,142	\$4,279
<b>Ending Balance</b>	<b>\$601,148</b>	<b>\$620,479</b>	<b>\$640,970</b>	<b>\$662,139</b>	<b>\$684,007</b>
<b>Capital R&amp;R - Fund 400</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>
<b>Beginning Balance</b>	\$21,681,476	\$19,951,416	\$17,076,393	\$16,472,449	\$17,512,035
Transfers from/(to) Operating Fund - Fund 100	\$2,000,000	\$0	\$0	\$0	\$0
Transfers from/(to) Capital Outlay - Fund 100	\$2,375,707	\$842,806	\$1,635,909	\$2,376,520	\$2,516,044
<b>Plus:</b>					
New Debt Proceeds	\$0	\$0	\$0	\$0	\$0
<b>Less:</b>					
CIP	(\$6,238,100)	(\$3,835,525)	(\$2,346,490)	(\$1,444,956)	(\$2,803,797)
<b>Subtotal Capital R&amp;R - Fund 400</b>	<b>\$19,819,083</b>	<b>\$16,958,697</b>	<b>\$16,365,812</b>	<b>\$17,404,013</b>	<b>\$17,224,282</b>
Interest Earnings	\$132,333	\$117,696	\$106,637	\$108,022	\$110,764
<b>Ending Balance</b>	<b>\$19,951,416</b>	<b>\$17,076,393</b>	<b>\$16,472,449</b>	<b>\$17,512,035</b>	<b>\$17,335,046</b>
<b>Rate Stabilization Reserve</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>
<b>Beginning Balance</b>	\$1,738,140	\$0	\$0	\$0	\$0
Direct Transfer	(\$1,738,140)	\$0	\$0	\$0	\$0
<b>Ending Balance</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Emergency Reserve</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>
<b>Beginning Balance</b>	\$3,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
Direct Transfer	(\$2,000,000)	\$0	\$0	\$0	\$0
<b>Ending Balance</b>	<b>\$1,000,000</b>	<b>\$1,000,000</b>	<b>\$1,000,000</b>	<b>\$1,000,000</b>	<b>\$1,000,000</b>
<b>Unrestricted Reserves - Ending Balance</b>	<b>\$25,808,701</b>	<b>\$22,998,872</b>	<b>\$22,396,433</b>	<b>\$23,475,681</b>	<b>\$23,473,930</b>

# SPMUD – Wastewater Cost-of-Service Rate Study

Figure 9 identifies the operating position based on the proposed financial plan. Figure 10 and Figure 11 show the capital plan with funding sources and projected ending unrestricted reserve balances, respectively.

Figure 9: Proposed Operating Position<sup>2</sup>

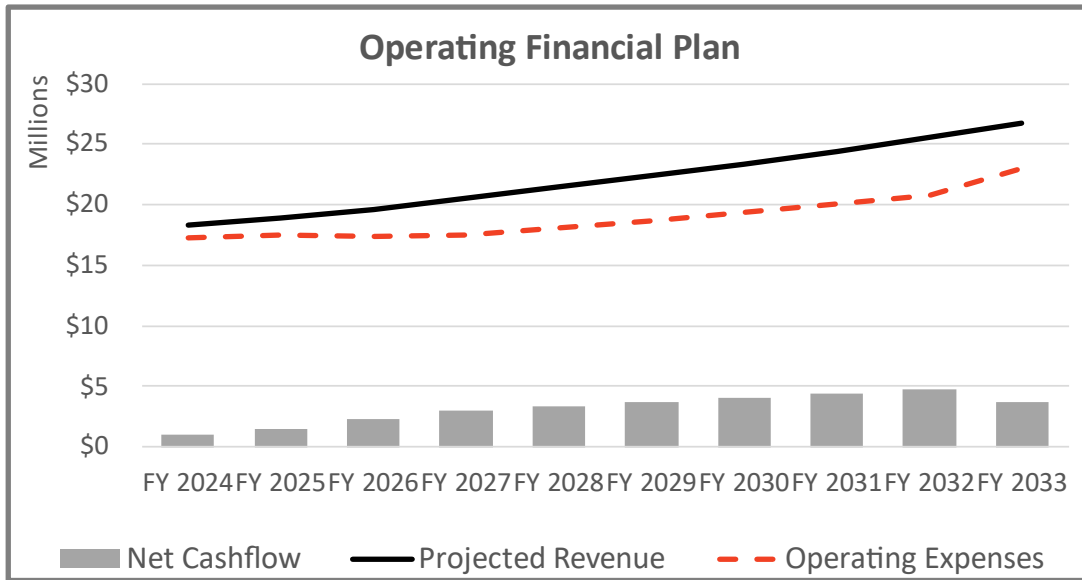
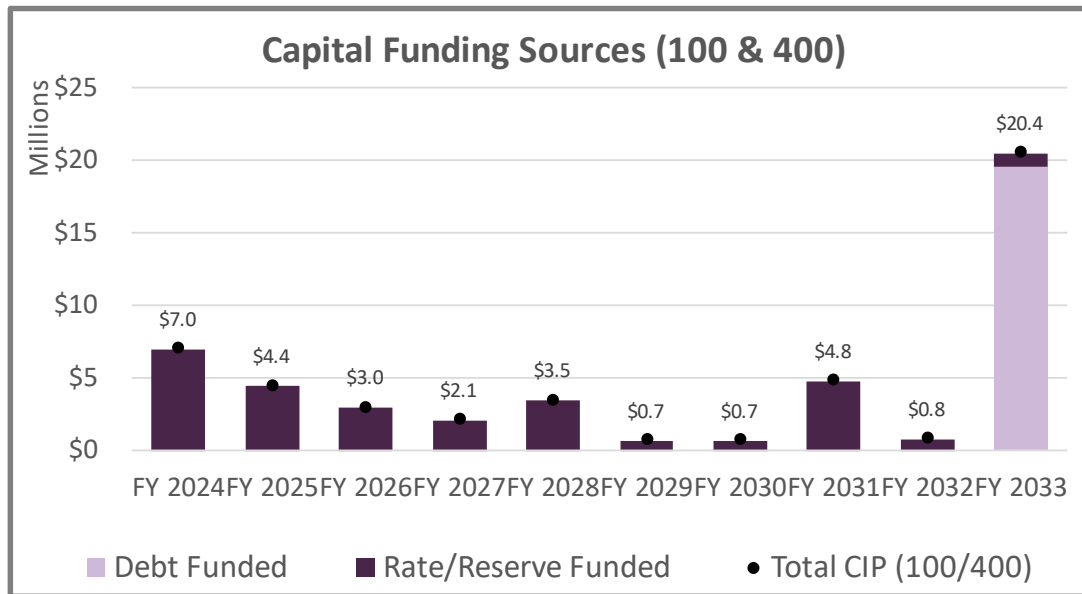


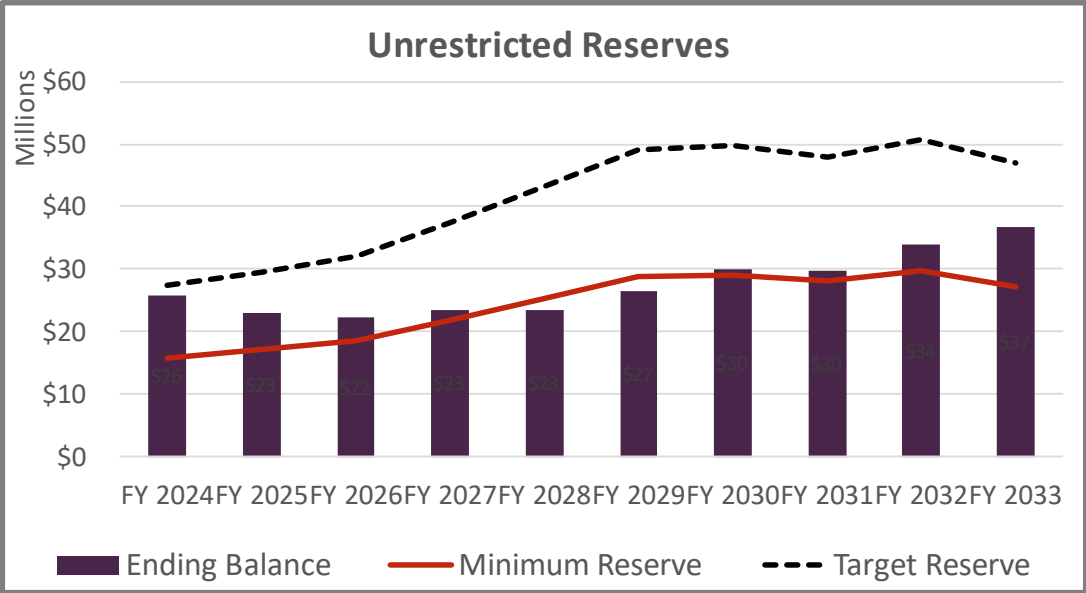
Figure 10: Capital Improvement Plan with Funding Sources



<sup>2</sup> FY 2029 through FY 2033 includes 5% revenue adjustments for each of the 5 years.

# SPMUD – Wastewater Cost-of-Service Rate Study

Figure 11: Projected Unrestricted Reserves – Ending Balances

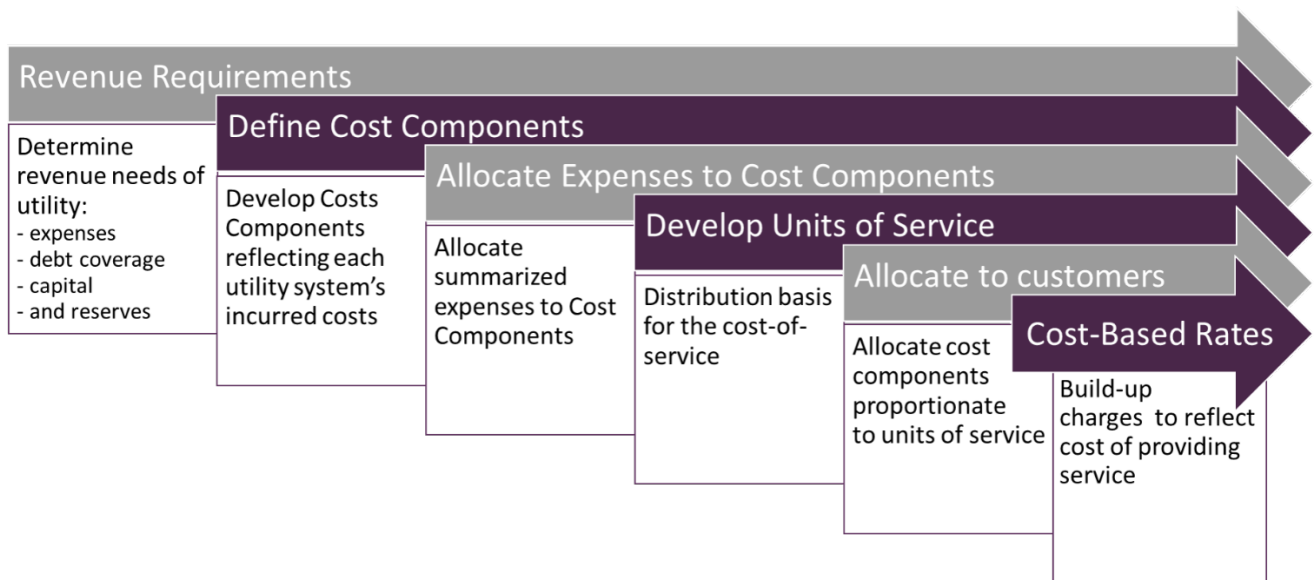


## Cost-of-Service Analysis

### Cost-of-Service Process

The next step in updating wastewater rates is to perform a cost-of-service analysis. This step develops proposed wastewater rates that are cost-based and equitable. The following graphic summarizes the cost-of-service process. As a result, proposed rates are cost-based and reflect the costs incurred by the District.

*Figure 12: Cost-of-Service Process*



### Revenue Requirements

With FY 2024 as the first year of the proposed rate schedule, revenue requirements are determined for FY 2024 and used for the cost-of-service. Revenue requirements include O&M expenses, available offsets from non-rate revenues, and annual net income for capital spending and reserve funding. The proposed revenue adjustments correspond to the proposed financial plan and set corresponding rates over the Rate Setting Period. The results of the financial plan analysis are summarized in [Table 13](#) and represent the revenue required from rates over the Financial Plan Period.

# SPMUD – Wastewater Cost-of-Service Rate Study

Table 13: Revenue Requirements

	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Revenue Requirements	Total	Total	Total	Total	Total
<b>Operating Expenses</b>					
Salaries & Benefits	\$5,550,000	\$5,828,000	\$6,119,000	\$6,425,000	\$6,746,000
Services & Supplies	\$2,386,000	\$2,442,000	\$2,500,000	\$2,560,000	\$2,649,000
SPWA O&M & R&R	\$9,325,000	\$9,177,000	\$8,751,000	\$8,460,000	\$8,672,000
<b>Total Operating Expenses</b>	<b>\$17,261,000</b>	<b>\$17,447,000</b>	<b>\$17,370,000</b>	<b>\$17,445,000</b>	<b>\$18,067,000</b>
Total Debt Service	\$0	\$0	\$0	\$0	\$0
<b>Total Operating Expenditures</b>	<b>\$17,261,000</b>	<b>\$17,447,000</b>	<b>\$17,370,000</b>	<b>\$17,445,000</b>	<b>\$18,067,000</b>
<b>Revenue Offsets</b>					
Operating Revenues	(\$1,943,000)	(\$1,943,000)	(\$1,943,000)	(\$1,943,000)	(\$1,943,000)
Other Revenues	(\$190,000)	(\$190,000)	(\$190,000)	(\$190,000)	(\$190,000)
<b>Total Revenue Offsets</b>	<b>(\$2,133,000)</b>	<b>(\$2,133,000)</b>	<b>(\$2,133,000)</b>	<b>(\$2,133,000)</b>	<b>(\$2,133,000)</b>
<b>Adjustments</b>					
CIP / Reserve Funding	\$1,041,000	\$1,501,000	\$2,250,000	\$3,049,000	\$3,345,000
<b>Total Adjustments</b>	<b>\$1,041,000</b>	<b>\$1,501,000</b>	<b>\$2,250,000</b>	<b>\$3,049,000</b>	<b>\$3,345,000</b>
<b>Revenue Requirement from Rates</b>	<b>\$16,169,000</b>	<b>\$16,815,000</b>	<b>\$17,487,000</b>	<b>\$18,361,000</b>	<b>\$19,279,000</b>

## Cost Components

The District incurs costs to accommodate active accounts, total flow for collection, and treatment costs incurred by SPWA. Therefore, to determine the most appropriate way to recover the utility's expenses, cost components are identified and used to allocate expenses based on how they are incurred. Using this allocation approach, revenue requirements are allocated to the three cost components of Account Services, Collection, and Treatment, as shown in Figure 13, to derive monthly unit rates per EDU and corresponding monthly fixed charges.

Figure 13: Utility Services



# SPMUD – Wastewater Cost-of-Service Rate Study

## O&M Expense Categories:

*Salaries & Benefits* – Total personnel costs of the District to service all active accounts.

*Services & Supplies* – Non-personnel expenses associated with the daily operations of the collection system, including, electricity, flow monitoring, regulatory compliance, safety, vehicles, professional services, and other appurtenant expenses.

*SPWA O&M & R&R* – Costs incurred by the District from SPWA for the O&M and capital repair and replacement expenses of the regional wastewater treatment plants. Costs incurred are based on the percentage of total flow conveyed by the District to SPWA for treatment and disposal.

Table 14 summarizes the percent allocation of operating expenses. Table 15 uses the percent allocations in Table 14 to allocate expenses in dollars to each cost component.

Table 14: O&M Expense Allocation to Utilities (%)

Functionalized Expenses	Methodology / Allocation Basis	Account Services	Collection	Treatment	Total
Salaries & Benefits	Account Services	100.0%	0.0%	0.0%	100%
Services & Supplies	Collection	0.0%	100.0%	0.0%	100%
SPWA O&M & R&R	Treatment	0.0%	0.0%	100.0%	100%

Table 15: O&M Expense Allocation to Utilities (\$)

Functionalized Expenses	Methodology / Allocation Basis	Account Services	Collection	Treatment	Total
Salaries & Benefits	Account Services	\$5,550,000	\$0	\$0	\$5,550,000
Services & Supplies	Collection	\$0	\$2,386,000	\$0	\$2,386,000
SPWA O&M & R&R	Treatment	\$0	\$0	\$9,325,000	\$9,325,000
<b>Total Allocation (\$)</b>		<b>\$5,550,000</b>	<b>\$2,386,000</b>	<b>\$9,325,000</b>	<b>\$17,261,000</b>
<b>O&amp;M Allocation (%)</b>		<b>32.2%</b>	<b>13.8%</b>	<b>54.0%</b>	<b>100.0%</b>

# SPMUD – Wastewater Cost-of-Service Rate Study

Other Funding includes additional operating revenues and capital/reserve funding. Additional operating revenues include contract revenues, permits, property taxes, late fees, interest income and miscellaneous fees. These non-operating revenue offsets are allocated based on the O&M percentages derived in Table 15. Capital/reserve funding is also allocated based on O&M percentage resulting in each rate component recovering a pro rata share of capital/reserve funding. Table 16 summarizes the percent allocation of Other Funding, and Table 17 uses the percent allocations in Table 16 to allocate expenses in dollars to each cost component. Table 18 summarizes the FY 2024 revenue requirements.

Table 16: Other Funding to Utilities (%)

Functionalized Expenses	Methodology / Allocation Basis	Account Services	Collection	Treatment	Total
Operating Revenues	O&M Allocation	32.2%	13.8%	54.0%	100%
Other Revenues	O&M Allocation	32.2%	13.8%	54.0%	100%
CIP / Reserve Funding	O&M Allocation	32.2%	13.8%	54.0%	100%

Table 17: Other Funding to Utilities (\$)

Functionalized Expenses	Methodology / Allocation Basis	Account Services	Collection	Treatment	Total
Operating Revenues	O&M Allocation	(\$624,741)	(\$268,582)	(\$1,049,677)	(\$1,943,000)
Other Revenues	O&M Allocation	(\$61,091)	(\$26,264)	(\$102,645)	(\$190,000)
CIP / Reserve Funding	O&M Allocation	\$334,717	\$143,898	\$562,385	\$1,041,000
<b>Total Allocation (\$)</b>		<b>(\$351,115)</b>	<b>(\$150,948)</b>	<b>(\$589,937)</b>	<b>(\$1,092,000)</b>

Table 18: FY 2024 Cost-of-Service Requirements

Revenue Requirement	Account Services	Collection	Treatment	Total
Operating & Maintenance	\$5,550,000	\$2,386,000	\$9,325,000	\$17,261,000
Other Funding	(\$351,115)	(\$150,948)	(\$589,937)	(\$1,092,000)
<b>COS Requirement</b>	<b>\$5,198,885</b>	<b>\$2,235,052</b>	<b>\$8,735,063</b>	<b>\$16,169,000</b>

## Rate Design

### Units of Service and Proposed FY 2024 Rates

Unit rates per EDU are derived by spreading the revenue requirements, by cost component, over total EDUs. This approach provides a clear connection between the costs incurred and the total customer demands served in EDUs, resulting in a cost-based rate structure in compliance with Proposition 218. The previous section summarized costs by expense category and then allocated to cost components based on how each cost is incurred. The next step is to derive rates in relation to their use of the system and facilities. The method of apportionment considers each customer's share of system costs and is reflected by the EDUs assigned to each account. Table 19 derives the proposed FY 2024 wastewater rates per EDU by dividing the revenue requirements in Table 18 by the annual EDUs identified in Table 4.

*Table 19: FY 2024 Wastewater Monthly Fixed Charge per EDU*

Revenue Requirement	Source	Account Services [A]	Collection [B]	Treatment [C]	Total Monthly Charge (\$/EDU) [D] = (A+B+C)
Revenue Requirement	Table 18	\$5,198,885	\$2,235,052	\$8,735,063	
÷ Units of Service (Annual EDUs)	Table 4	432,123	432,123	432,123	
<b>Unit Rate</b>		<b>\$12.04</b>	<b>\$5.18</b>	<b>\$20.22</b>	<b>\$37.44</b>



## Cost-Based Rates Summary

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### Cost-of-Service and Rate Summary

The District's proposed wastewater rates maintain a cost per EDU to cover the total revenue requirements of the District. The comprehensive cost-of-service analysis and rate development meet the requirements of Proposition 218. Proposition 218 requires the following conditions:

1. An agency cannot collect revenue beyond what is necessary to provide service.

*The long-term financial plan identifies the District's revenue requirements, including operating expenses, capital improvement programs, and reserves.*

2. Revenues derived by the charge shall not be used for any other purpose other than that for which the charge was imposed.

*The District's wastewater utility is setup as a business enterprise to track revenues and expenses and does not fund other services outside of those necessary for the provision of wastewater collection and treatment.*

3. The amount of the fee may not exceed the proportional cost-of-service for the parcel.

*The comprehensive cost-of-service analysis and updated EDU charges reflect each customer's proportionate share of wastewater costs. Through this update, each account is paying for the cost of providing service to the parcel.*

4. No charge may be imposed for a service unless that service is actually used or immediately available to the owner of a property.

*The proposed fixed EDU charges connect directly to the District's budget and projected future revenue requirements and are recovered equitably from all active accounts receiving service.*

5. A written notice of the proposed charge shall be mailed to the record owner of each parcel at least 45 days prior to the public hearing.

*Notices will be mailed to each affected parcel at least 45 days before the May 4, 2023, Public Hearing.*

The proposed wastewater rates for FY 2024 through FY 2028 are shown on the following page. If a majority protest does not exist at the Public Hearing, the District Board may adopt the rates with an effective date of July 1, 2023, and each July 1 thereafter through July 1, 2027.

## Multi-Year Rate Schedules

Table 20 provides the five-year EDU Monthly fixed charge schedule through FY 2028. For FY 2025 through FY 2028, the revenue adjustments are applied across-the-board to the cost-of-service EDU monthly charges derived for FY 2024 (rounded up to the next whole penny) as account growth and total EDUs are projected to remain constant for financial planning.

*Table 20: Proposed Monthly Rates per EDU (FY 2024 – FY 2028)*

<b>Monthly Charge (\$/EDU)</b>					
<i>Revenue Adjustment:</i>		4.0%	4.0%	5.0%	5.0%
<b>Proposed Rates</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>
Per EDU	\$37.44	\$38.94	\$40.50	\$42.53	\$44.66