

Georgetown Divide PUD

Water & Wastewater Cost of Service and Rate Study

Draft Water and Wastewater Rates

August 14 and 15, 2024



**Water Resources
Economics**

PROMOTING THE VALUE AND PRICE OF
WATER SERVICE

Agenda

- Rate Study Process
- Treated and Raw Water
 - Financial Plan
 - Water Cost Allocation
 - Treated Water Rates
 - Raw Water Rates
- Zone Wastewater
 - Financial Plan
 - Zone Wastewater Rates

Glossary of Terms

- FY: fiscal year (July 1 - June 30)
- O&M: operations and maintenance
- CIP: capital improvement plan
- SWTP: Sweetwater Treatment Plant
- Supplemental Charge: treated water supplemental charge for SWTP
- COS: cost-of-service analysis
- CF: cubic feet (equal to 7.48 gallons)
- MI: miner's inch (unit of service for raw water)
- AF: acre-feet (equal to 43,560 CF)
- ALT/Zone: Auburn Lake Trails wastewater service area
- CDS: Community Disposal System for Zone wastewater customers

Rate Study Process

- 1. Policy framework:** Identify key policy objectives (revenue stability, customer affordability, conservation, etc.)
- 2. Financial plan:** Develop multi-year cash flow projections to determine annual rate revenue requirement
- 3. Cost-of-service analysis:** Allocate the rate revenue requirement to customers based on proportional use of the water and wastewater system
- 4. Rate design:** Identify appropriate rate structure changes and calculate proposed rates
- 5. Documentation:** Develop a study report to provide transparency and defensibility

Proposition 218 Requirements

- Proposition 218 requirements for water and wastewater rates:
 - Rates must be proportional to and may not exceed the cost of providing service
 - One customer class (residential, commercial, etc.) may not subsidize another customer class
 - Retail agencies typically conduct a “cost-of-service analysis” at least once every 5 years to ensure a sufficient nexus between rates and costs

Treated and Raw Water

Water Financial Plan Background

- The currently adopted rates are insufficient due to:
 - Last rate increase occurred on 2019
 - Since 2019, inflation has increased by over 19%
 - Substantial 5-year planned capital expenditures
 - Significant reduction in prior year water demand

Rates will not cover operating cost by 2025

The District will be in technical default by 2026

The District will run out of money by 2029

How much revenue does the
District need to keep water
safe and reliable?

Water Reserve Policy

Beginning Fund Balances (\$1,000s)	FYE 2024	Reserve Policy
Unrestricted Reserves	\$4,666	Operating, capital, emergency
SWTP Supplemental Charge Fund (Fund 112)	\$811	Restricted
State Revolving Fund (Fund 120)	\$1,147	Restricted
Total - Beginning Funds	\$6,625	

Reserve Target (\$1,000s)	FYE 2024	Reserve Policy
Unrestricted Reserves		
Operating	\$1,765	33% of operating expenses
Capital Replacement	\$606	100% of 5-year average CIP
Emergency	\$2,000	\$2m for emergencies
Total - Unrestricted Target	\$4,371	

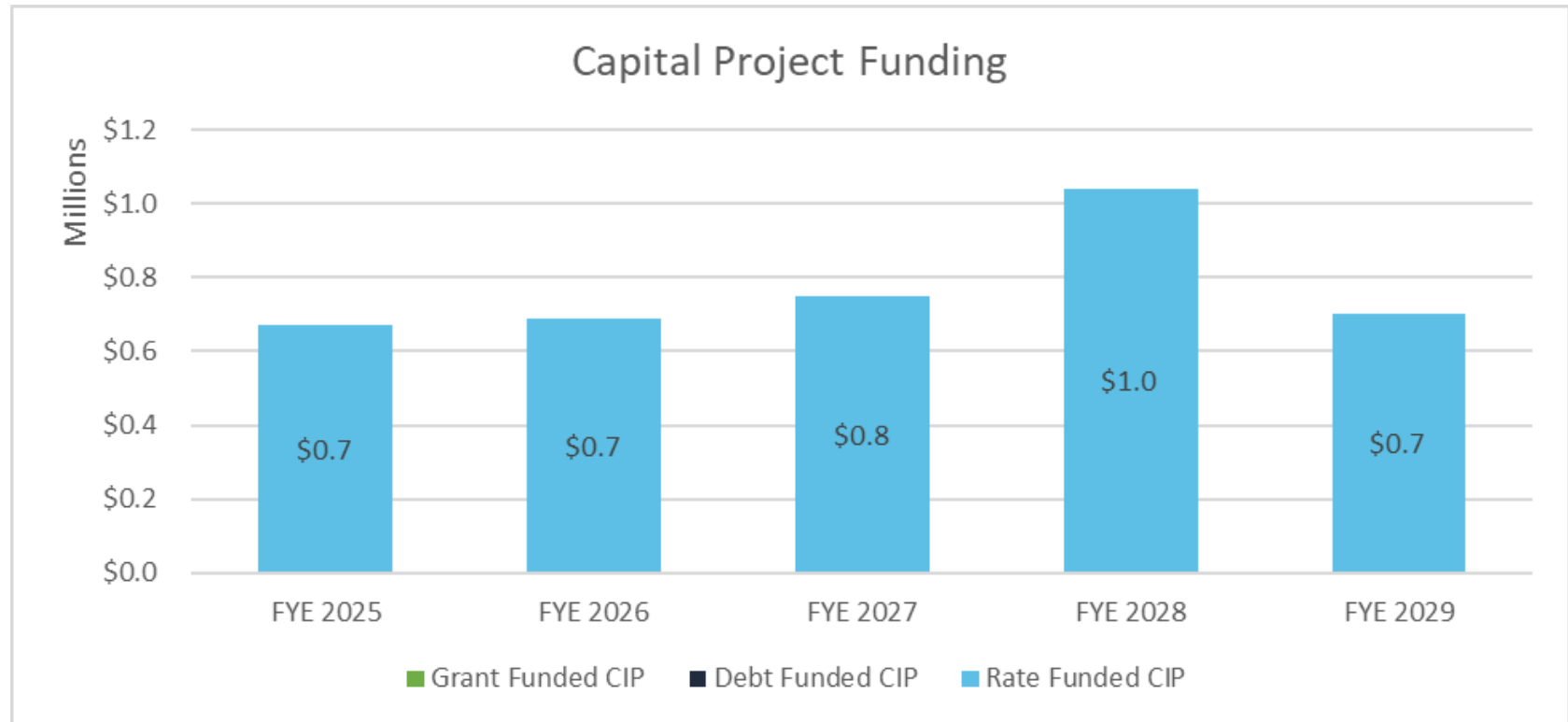
Reserve policy allows the District to:

- Fund unexpected operating expenses
- Award contracts to construct CIP
- Mitigate risks associated with emergencies and/or natural disasters

Water Financial Plan – Status Quo

- Need to fund \$3.9M in CIP over a 5-year period

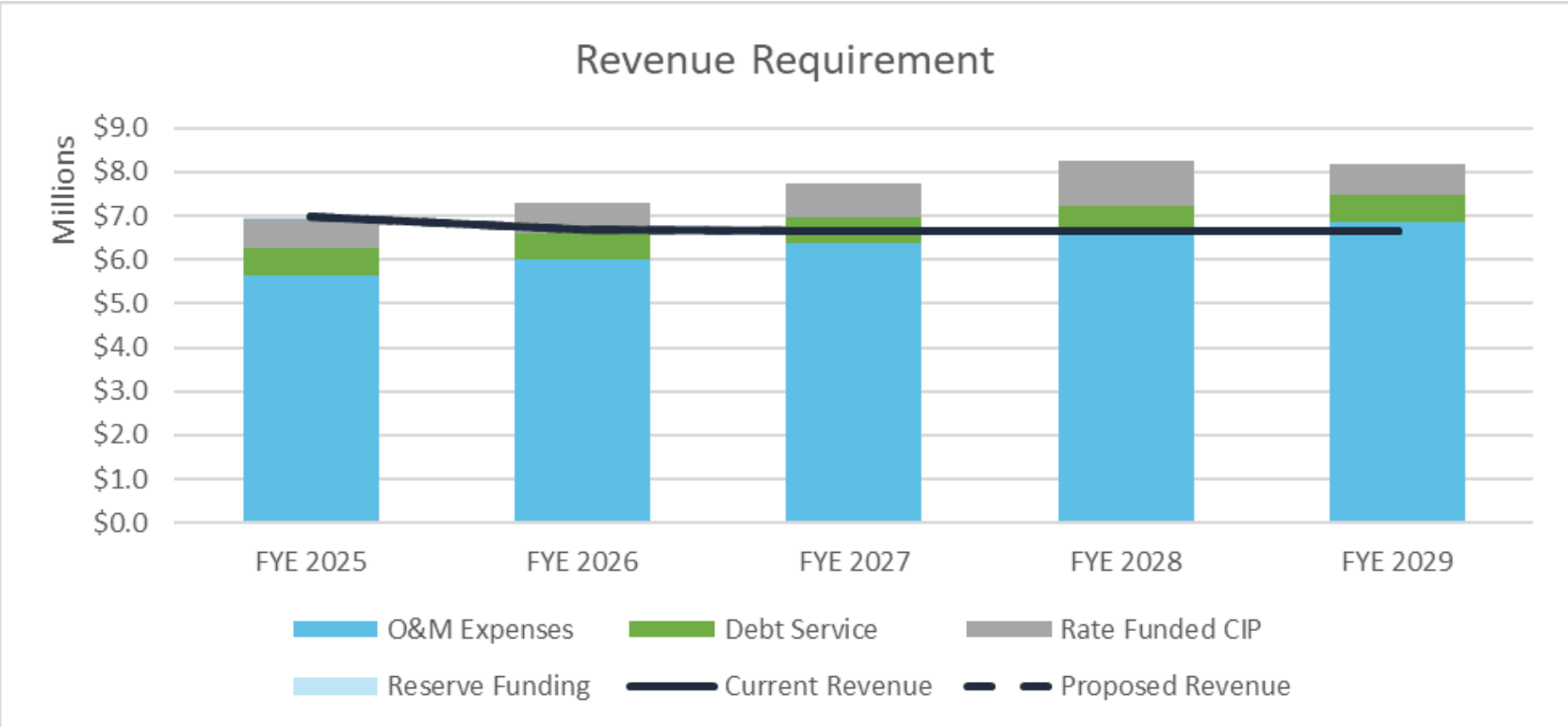
Fiscal Year	Rev. Adj.
2025	0%
2026	0%
2027	0%
2028	0%
2029	0%



Water Financial Plan – Status Quo

- Revenues are not sufficient to meet debt service and CIP

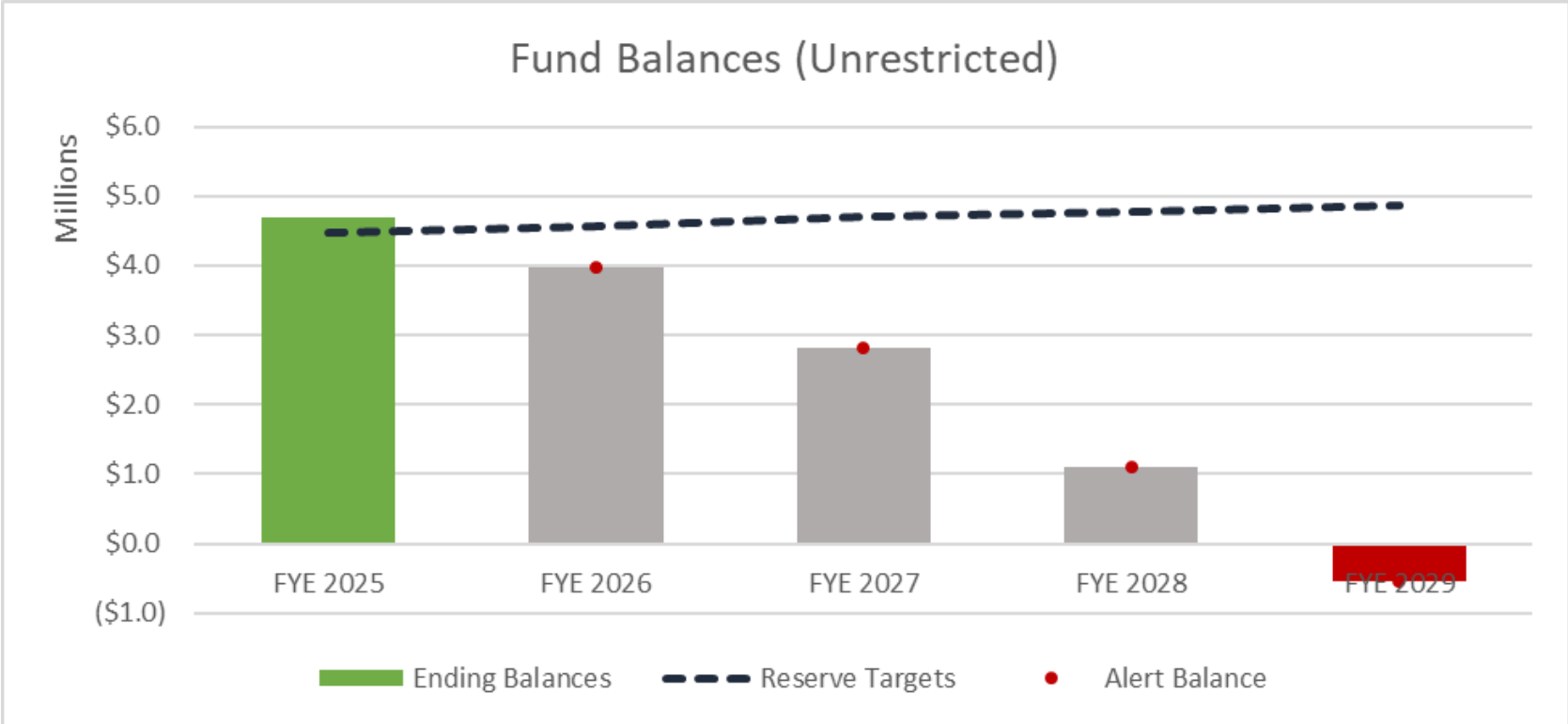
Fiscal Year	Rev. Adj.
2025	0%
2026	0%
2027	0%
2028	0%
2029	0%



Water Financial Plan – Status Quo

- Fund balances fall below target in FY 2026-2028 and are negative in FY 2029

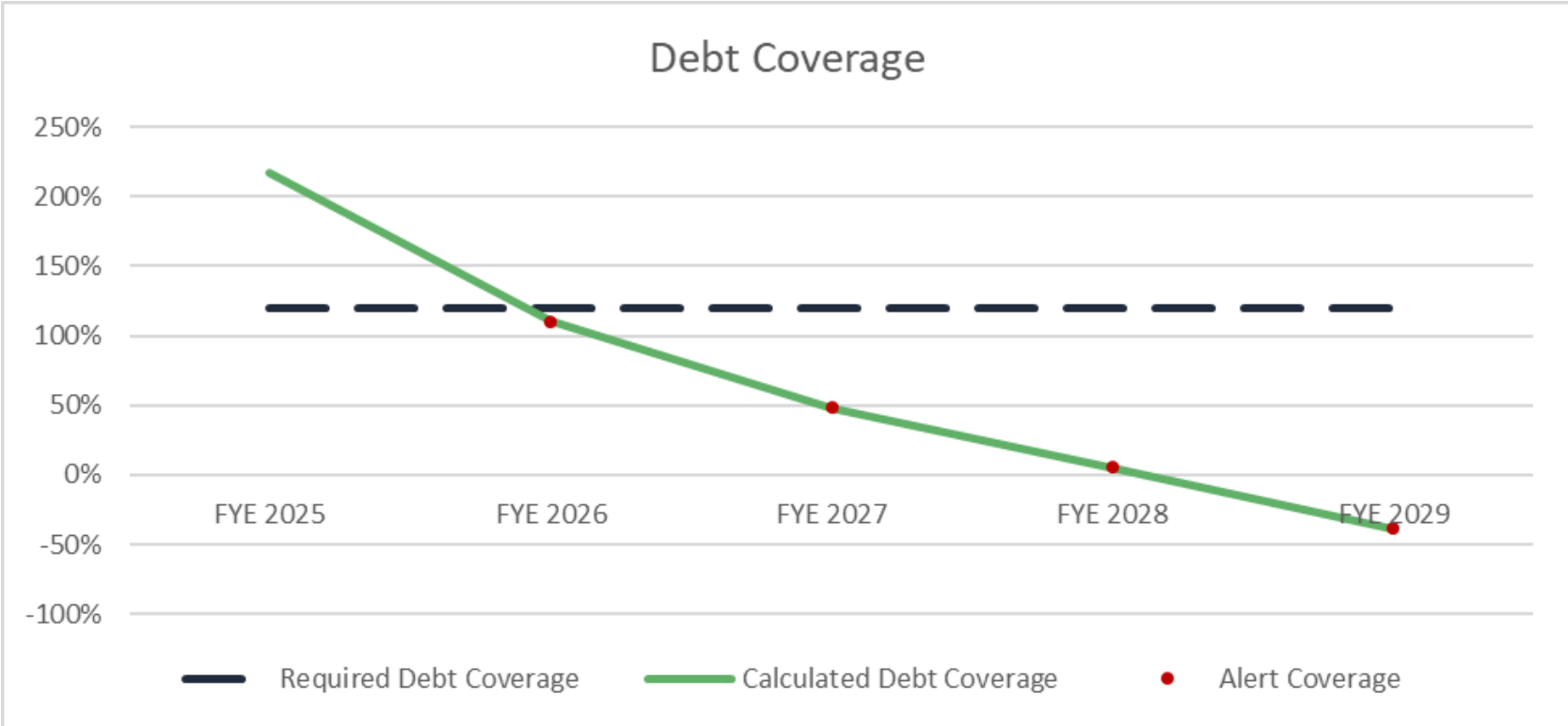
Fiscal Year	Rev. Adj.
2025	0%
2026	0%
2027	0%
2028	0%
2029	0%



Water Financial Plan – Status Quo

- District in technical default starting in FY 2026

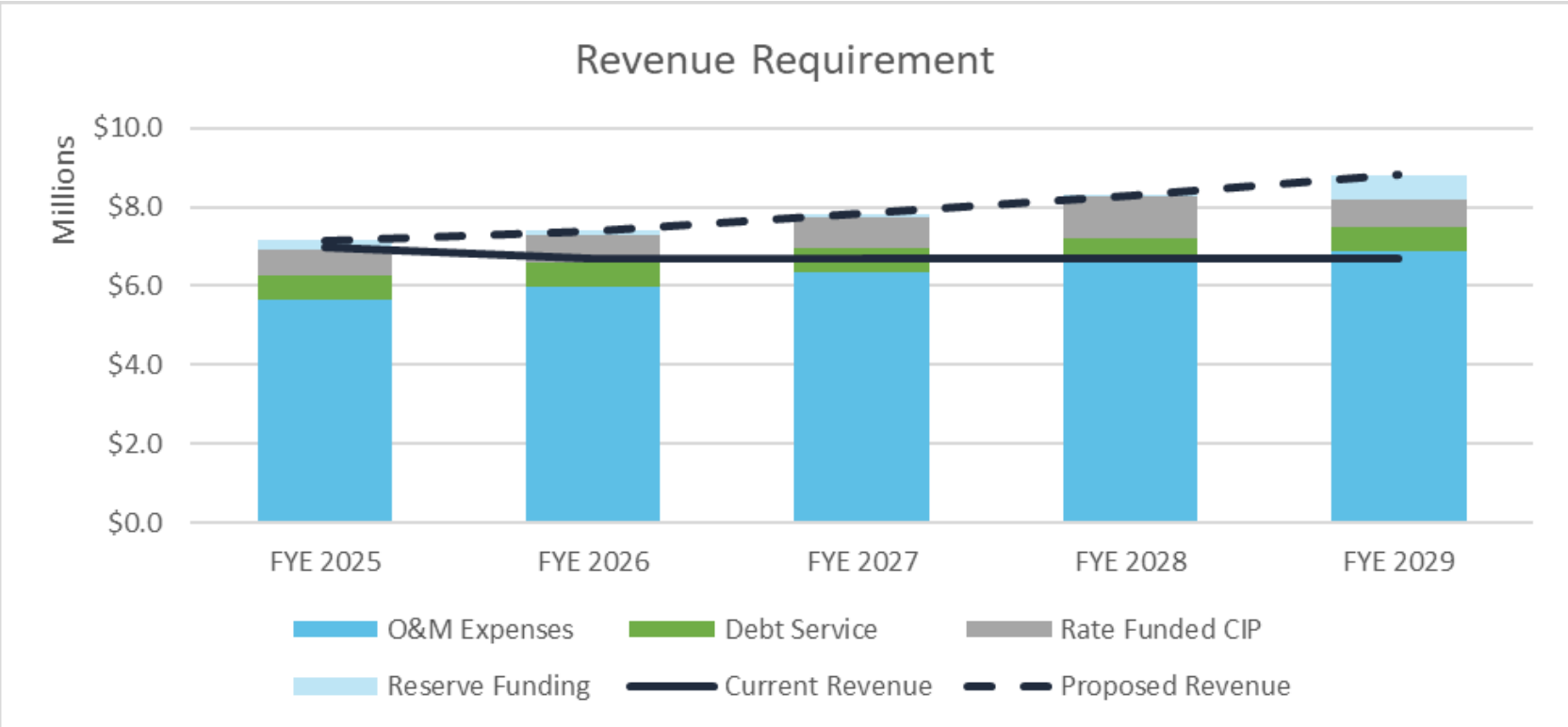
Fiscal Year	Rev. Adj.
2025	0%
2026	0%
2027	0%
2028	0%
2029	0%



Water Financial Plan – Proposed Scenario

- Revenues are sufficient to meet all expenses and build reserves over time

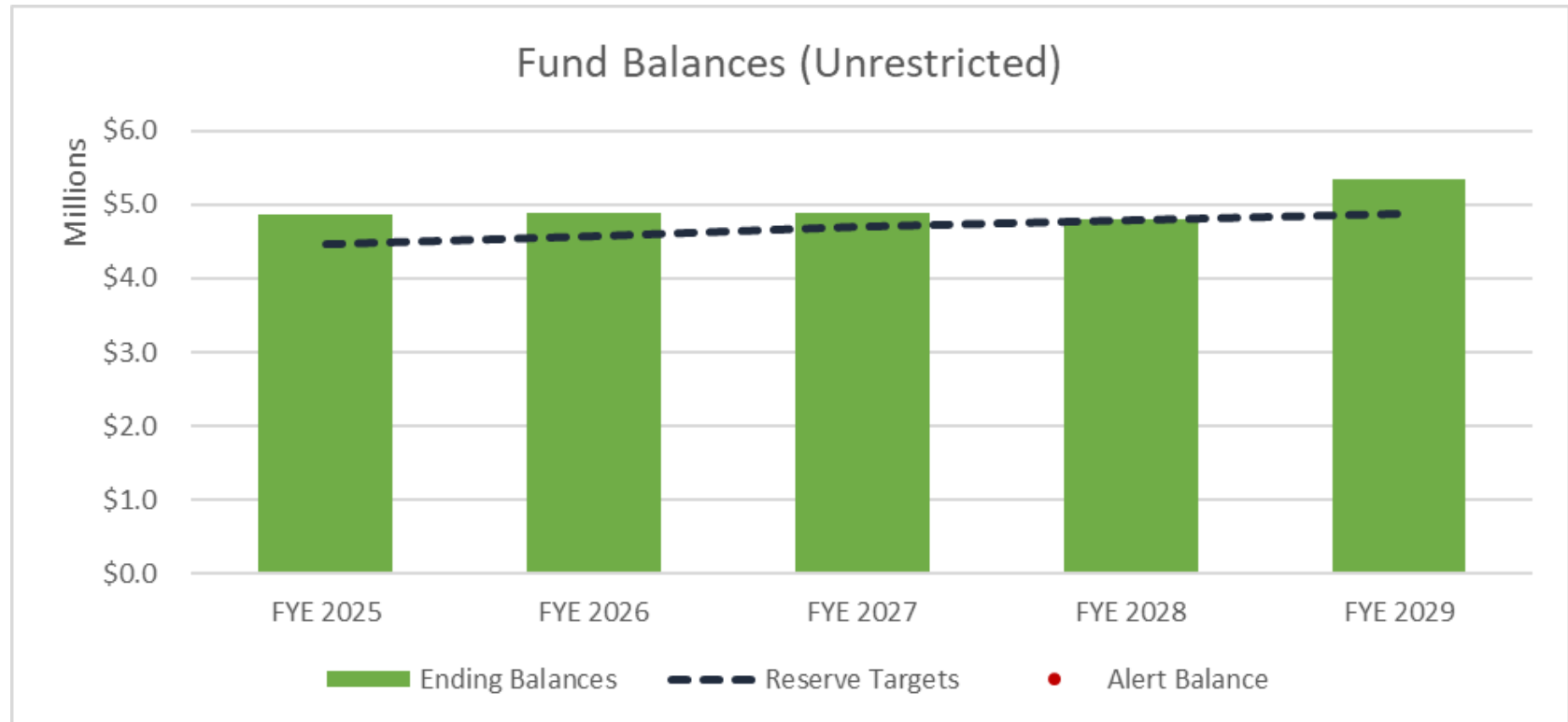
Fiscal Year	Rev. Adj.
2025	15%
2026	10%
2027	10%
2028	10%
2029	10%



Water Financial Plan – Proposed Scenario

- Meets fund balance targets for all years

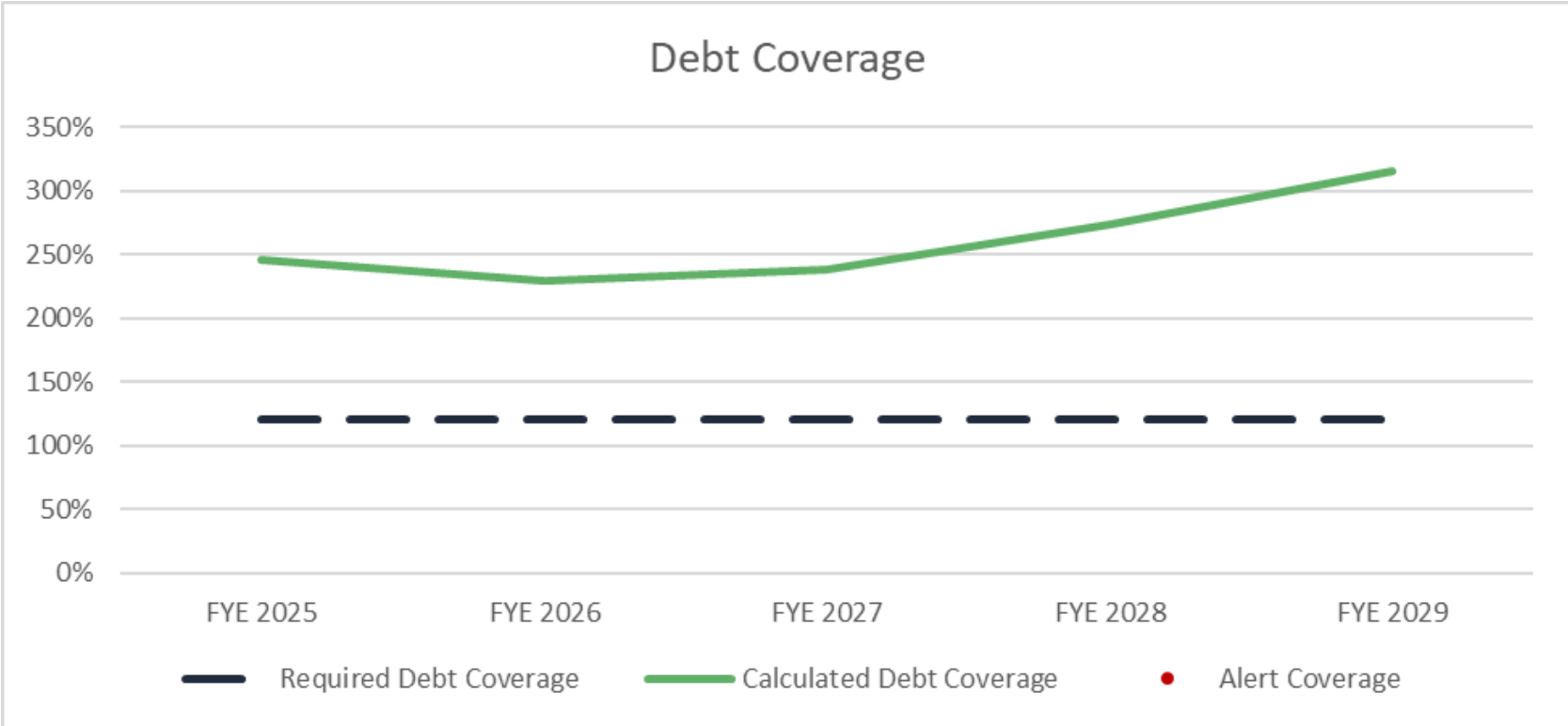
Fiscal Year	Rev. Adj.
2025	15%
2026	10%
2027	10%
2028	10%
2029	10%



Water Financial Plan – Proposed Scenario

- Meets debt coverage requirement for all years

Fiscal Year	Rev. Adj.
2025	15%
2026	10%
2027	10%
2028	10%
2029	10%



How much does it cost to
provide treated and raw
water service?

Water Cost Allocation

Revenue Requirement	FYE 2024
Revenue Requirements	
Operating Requirement	\$5,367,275
Operating Revenue Offset	(\$564,181)
Capital Requirement	\$726,287
Walton Debt Service Requirement	\$25,058
SWTP Debt Service Requirement	\$587,357
Hydro Revenue Offset	(\$55,000)
Property Tax Revenue Offset	(\$2,000,000)
Total - Revenue Requirement	\$4,086,796

- Total revenue requirement is for treated and raw water combined
- Revenue requirement will be allocated between treated and raw water systems
- COS is “revenue neutral”

Water Cost Allocation

Annual Water Usage (AF)	Treated	Raw	Total
Treated Water (CF)	59,529,286	0	59,529,286
Untreated Irrigation (MI)	0	75,614	75,614

Conversion to AF

Treated Water	1,367	0	1,367
Untreated Irrigation	0	3,749	3,749
Total - Water Usage (AF)	1,367	3,749	5,116

Allocation Basis	Treated	Raw	Total
Number of Connections	3,784	539	4,323
Annual Water Usage (AF)	1,367	3,749	5,116
Reliable Usage (AF)	9,566	3,749	13,316

Percent Allocation

Number of Connections	88%	12%	100%
Annual Water Usage (AF)	27%	73%	100%
Reliable Usage (AF)	72%	28%	100%

- Allocation bases are used to allocate total costs between treated and raw water systems
- Reliability factor is 7x (raw water customers do not receive water for 7 months out of the year)

Operating Allocation

O&M Expenses	FYE 2024	Alloc. Basis	Treated	Raw	Total
Source of Supply (Dept. 5100)	\$666,717	<i>Reliable Usage</i>	72%	28%	100%
Raw Water (Dept. 5200)	\$668,546	<i>Reliable Usage</i>	72%	28%	100%
Water Treatment (Dept. 5300)	\$851,897	<i>All Treated</i>	100%	0%	100%
Treated Water T&D (Dept. 5400)	\$1,143,549	<i>All Treated</i>	100%	0%	100%
Admin & Customer Service (Dept. 5600)	\$2,036,566	<i>Connections</i>	88%	12%	100%
Additional Hydro Expenses	\$0	<i>Water Usage</i>	27%	73%	100%
Total - O&M Expenses	\$5,367,275		88%	12%	100%

Capital Asset Allocation

Capital Assets	FYE 2024	Alloc. Basis	Treated	Raw	Total
General & Administration	\$670,039	<i>Connections</i>	88%	12%	100%
Hydroelectric	\$135,360	<i>Water Usage</i>	27%	73%	100%
Source & Supply	\$38,351,901	<i>Reliable Usage</i>	72%	28%	100%
Raw Water T&D	\$4,439,506	<i>Reliable Usage</i>	72%	28%	100%
Treated Water T&D	\$10,806,718	<i>All Treated</i>	100%	0%	100%
Treatment	\$18,385,899	<i>All Treated</i>	100%	0%	100%
Total - Capital Assets	\$72,789,422		83%	17%	100%

Revenue Requirement Allocation

Revenue Requirement	FYE 2024	Alloc. Basis	Treated	Raw	Total
Revenue Requirements					
Operating Requirement	\$5,367,275	<i>Operating</i>	88%	12%	100%
Operating Revenue Offset	(\$564,181)	<i>Operating</i>	88%	12%	100%
Capital Requirement	\$726,287	<i>Capital</i>	83%	17%	100%
Walton Debt Service Requirement	\$25,058	<i>All Treated</i>	100%	0%	100%
SWTP Debt Service Requirement	\$587,357	<i>SWTP Debt</i>	100%	0%	100%
Hydro Revenue Offset	(\$55,000)	<i>Water Usage</i>	27%	73%	100%
Property Tax Revenue Offset	(\$2,000,000)	<i>Connections</i>	88%	12%	100%
Total - Revenue Requirement	\$4,086,796		90%	10%	100%

Revenue Requirement Allocation

Revenue Requirement	Treated	Raw	Total
Revenue Requirements			
Operating Requirement	\$4,737,366	\$629,909	\$5,367,275
Operating Revenue Offset	(\$497,968)	(\$66,213)	(\$564,181)
Capital Requirement	\$604,237	\$122,050	\$726,287
Walton Debt Service Requirement	\$25,058	\$0	\$25,058
SWTP Debt Service Requirement	\$587,357	\$0	\$587,357
Hydro Revenue Offset	(\$14,692)	(\$40,308)	(\$55,000)
Property Tax Revenue Offset	(\$1,750,636)	(\$249,364)	(\$2,000,000)
Total - Revenue Requirement	\$3,690,722	\$396,074	\$4,086,796
<i>Current Rate Revenues</i>	<i>\$3,708,267</i>	<i>\$378,529</i>	<i>\$4,086,796</i>
<i>Difference (%)</i>	<i>-0.5%</i>	<i>4.6%</i>	<i>0.0%</i>

- This scenario:
 - Is “Revenue neutral”
 - Has a reliability factor of 7
 - Splits property taxes by number of connections
 - Splits hydro revenues by water usage
- First year of rates are effective January 2025
 - Customers will first see the impact in their March 2025 bills

Creating a rate structure that is defensible, while addressing affordability concerns

Treated Water Rate Structure and Costs

- Recommended changes:
 - Maintain uniform usage rate
 - Bi-monthly base charge for 3/4" and smaller
 - Treated supplemental charge based on meter size
 - Maintain low income discount
- Draft water rates in following slides include results of Cost of Service and financial plan:
 - Year 1: 15% increase for both Treated and Raw
 - Years 2-5: 10% increase each year for both Treated and Raw

Treated Bi-Monthly Base Charges

Treated Water Rates	Current	FYE 2025	FYE 2026	FYE 2027	FYE 2028	FYE 2029
Bi-Monthly Base Charge						
5/8 inch	\$61.76	\$72.32	\$79.56	\$87.52	\$96.28	\$105.92
3/4 inch	\$61.76	\$72.32	\$79.56	\$87.52	\$96.28	\$105.92
1 inch	\$61.76	\$112.88	\$124.18	\$136.60	\$150.26	\$165.30
1.5 inch	\$205.84	\$214.20	\$235.62	\$259.20	\$285.12	\$313.64
2 inch	\$329.34	\$335.84	\$369.44	\$406.40	\$447.04	\$491.76
3 inch	\$658.68	\$721.00	\$793.10	\$872.42	\$959.68	\$1,055.66
4 inch	\$1,029.20	\$1,288.56	\$1,417.42	\$1,559.18	\$1,715.10	\$1,886.62
Low Income Base Charge						
5/8 inch	\$30.88	\$36.16	\$39.78	\$43.76	\$48.14	\$52.96
3/4 inch	\$30.88	\$36.16	\$39.78	\$43.76	\$48.14	\$52.96
1 inch	\$30.88	\$56.44	\$62.10	\$68.30	\$75.14	\$82.66

- 1" meter sizes are charged differently than 5/8" and 3/4" meter sizes
- Maintaining 50% low income discount

Treated Supplemental Charge/Usage Rate

Treated Water Rates	Current	FYE 2025	FYE 2026	FYE 2027	FYE 2028	FYE 2029
Supplemental Charge						
5/8 inch	\$30.16	\$23.64	\$23.64	\$23.64	\$23.64	\$23.64
3/4 inch	\$30.16	\$23.64	\$23.64	\$23.64	\$23.64	\$23.64
1 inch	\$30.16	\$39.38	\$39.38	\$39.38	\$39.38	\$39.38
1.5 inch	\$30.16	\$78.76	\$78.76	\$78.76	\$78.76	\$78.76
2 inch	\$30.16	\$126.00	\$126.00	\$126.00	\$126.00	\$126.00
3 inch	\$30.16	\$275.64	\$275.64	\$275.64	\$275.64	\$275.64
4 inch	\$30.16	\$496.12	\$496.12	\$496.12	\$496.12	\$496.12
Usage Rate (per CF)						
All Customers	\$0.0268	\$0.0309	\$0.0340	\$0.0374	\$0.0412	\$0.0454

- 1" meter sizes are charged differently than 5/8" and 3/4" meter sizes
- Supplemental charge based on meter size
- Maintaining uniform usage rate

Treated Combined Bi-Monthly Meter Charges

Treated Water Rates	Current	FYE 2025	FYE 2026	FYE 2027	FYE 2028	FYE 2029	# of Meters
Combined Meter Charges							
5/8 inch	\$91.92	\$95.96	\$103.20	\$111.16	\$119.92	\$129.56	3,046
3/4 inch	\$91.92	\$95.96	\$103.20	\$111.16	\$119.92	\$129.56	439
1 inch	\$91.92	\$152.26	\$163.56	\$175.98	\$189.64	\$204.68	273
1.5 inch	\$236.00	\$292.96	\$314.38	\$337.96	\$363.88	\$392.40	13
2 inch	\$359.50	\$461.84	\$495.44	\$532.40	\$573.04	\$617.76	6
3 inch	\$688.84	\$996.64	\$1,068.74	\$1,148.06	\$1,235.32	\$1,331.30	2
4 inch	\$1,059.36	\$1,784.68	\$1,913.54	\$2,055.30	\$2,211.22	\$2,382.74	5

- 1" meter sizes are charged differently than 5/8" and 3/4" meter sizes
- Combined monthly base charge and supplemental charge

Treated Customer Bi-Monthly Impacts

5/8" meter

Usage Level	CF per Bill	Current Bill	Proposed Bill	Difference (\$)	Difference (%)
Very Low Usage (10th Percentile)	238	\$98.30	\$103.31	\$5.02	5.1%
Low Usage (25th Percentile)	670	\$109.88	\$116.66	\$6.79	6.2%
Median Usage	1,320	\$127.30	\$136.75	\$9.45	7.4%
Average Usage	2,600	\$161.60	\$176.30	\$14.70	9.1%
High Usage (75th Percentile)	2,640	\$162.67	\$177.54	\$14.86	9.1%
Very High Usage (90th Percentile)	5,266	\$233.05	\$258.68	\$25.63	11.0%

1" meter

Usage Level	CF per Bill	Current Bill	Proposed Bill	Difference (\$)	Difference (%)
Very Low Usage (10th Percentile)	238	\$98.30	\$159.61	\$61.32	62.4%
Low Usage (25th Percentile)	670	\$109.88	\$172.96	\$63.09	57.4%
Median Usage	1,320	\$127.30	\$193.05	\$65.75	51.7%
Average Usage	2,600	\$161.60	\$232.60	\$71.00	43.9%
High Usage (75th Percentile)	2,640	\$162.67	\$233.84	\$71.16	43.7%
Very High Usage (90th Percentile)	5,266	\$233.05	\$314.98	\$81.93	35.2%

Raw Water Rate Structure and Costs

- Recommended changes:
 - Maintain billing by miner's inches
 - 8 outside District customers do not pay property taxes, so they will not receive the benefit of the property tax revenue offset
- Draft water rates in following slides include results of COS and financial plan:
 - Year 1: 15% increase
 - Years 2-5: 10% increase each year

Raw Water Rates and Impacts

Raw Water Rates	Current	FYE 2025	FYE 2026	FYE 2027	FYE 2028	FYE 2029
Inside District						
1/2 Miner's Inch (per month)	\$77.00	\$91.72	\$100.90	\$110.99	\$122.09	\$134.30
Per 1 Miner's Inch (per month)	\$154.20	\$183.44	\$201.79	\$221.97	\$244.17	\$268.59
Outside District						
1/2 Miner's Inch (per month)	\$77.00	\$160.62	\$176.69	\$194.36	\$213.80	\$235.18
Per 1 Miner's Inch (per month)	\$154.20	\$321.23	\$353.36	\$388.70	\$427.57	\$470.33

- Outside District customers do not receive property tax revenue offsets

Raw Water Customer	MI per month	Current Bill	Proposed Bill	Difference (\$)	Difference (%)
Inside District	1	\$154.20	\$183.44	\$29.24	19.0%
Outside District	1	\$154.20	\$321.23	\$167.03	108.3%

Zone Wastewater

Wastewater Financial Plan Background

- The currently adopted rates are insufficient due to:
 - Last rate increase occurred on 2018
 - Since 2018, inflation has increased by over 21%
 - Credit provided has been over-extended

Expense are three times higher than revenue
The wastewater fund will run out of money by 2026

How much revenue does the District need to dispose of wastewater?

Zone Wastewater Reserve Policy

Beginning Fund Balances (\$1,000s)	FYE 2024	Reserve Policy
Unrestricted Reserves	\$940	Operating, capital, emergency
Total - Beginning Funds	\$940	

Reserve Target (\$1,000s)	FYE 2024	Reserve Policy
Unrestricted Reserves		
Operating	\$172	33% of operating expenses
Capital Replacement	\$13	100% of 5-year average CIP
Emergency	\$50	\$50k for emergencies
Total - Unrestricted Target	\$235	

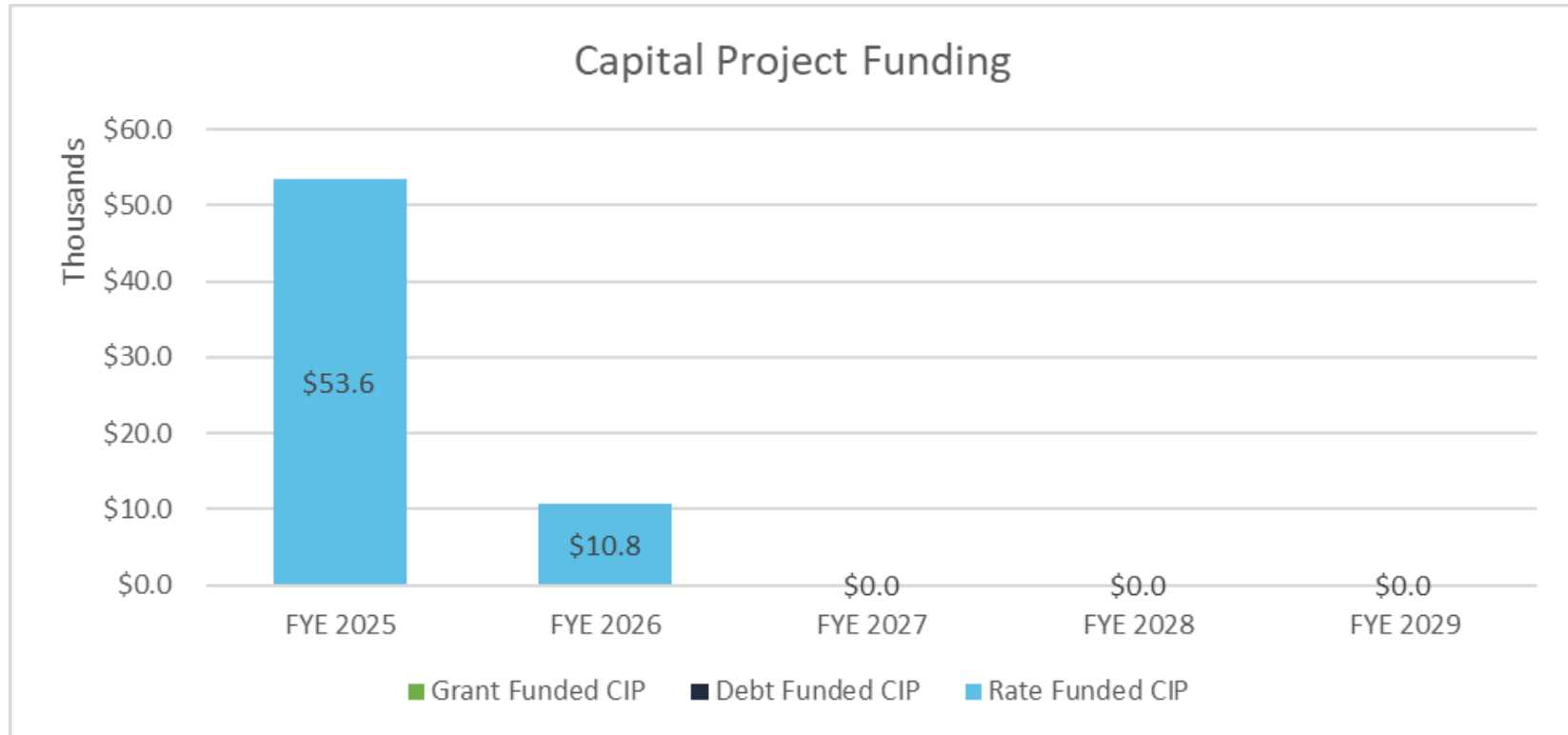
Reserve policy allows the District to:

- Fund unexpected operating expenses
- Award contracts to construct CIP
- Mitigate risks associated with emergencies and/or natural disasters

Zone Financial Plan – Status Quo

- Cannot fund \$65K in CIP over 5-year period

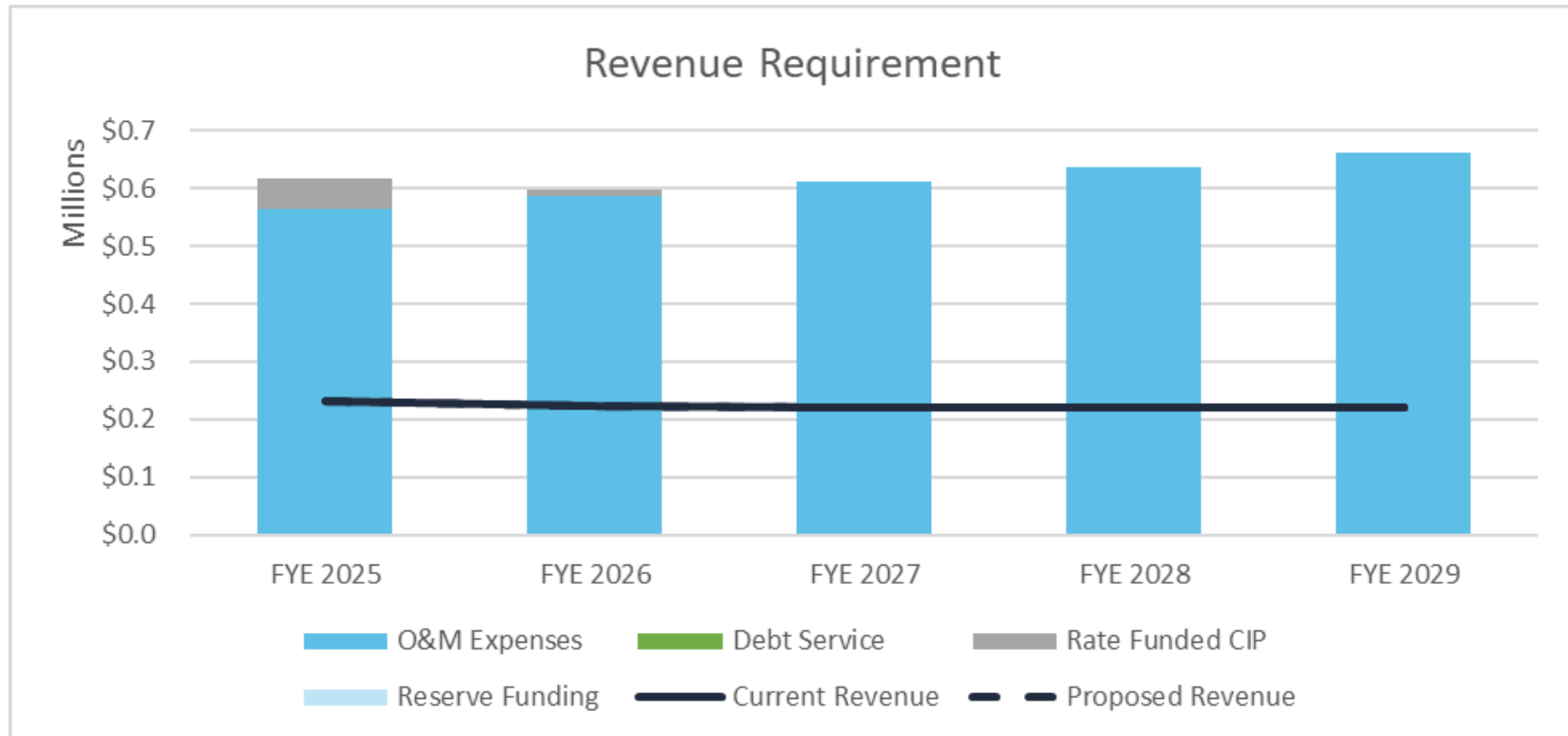
Fiscal Year	Rev. Adj.
2025	0%
2026	0%
2027	0%
2028	0%
2029	0%



Zone Financial Plan – Status Quo

- Revenues not sufficient to fund O&M

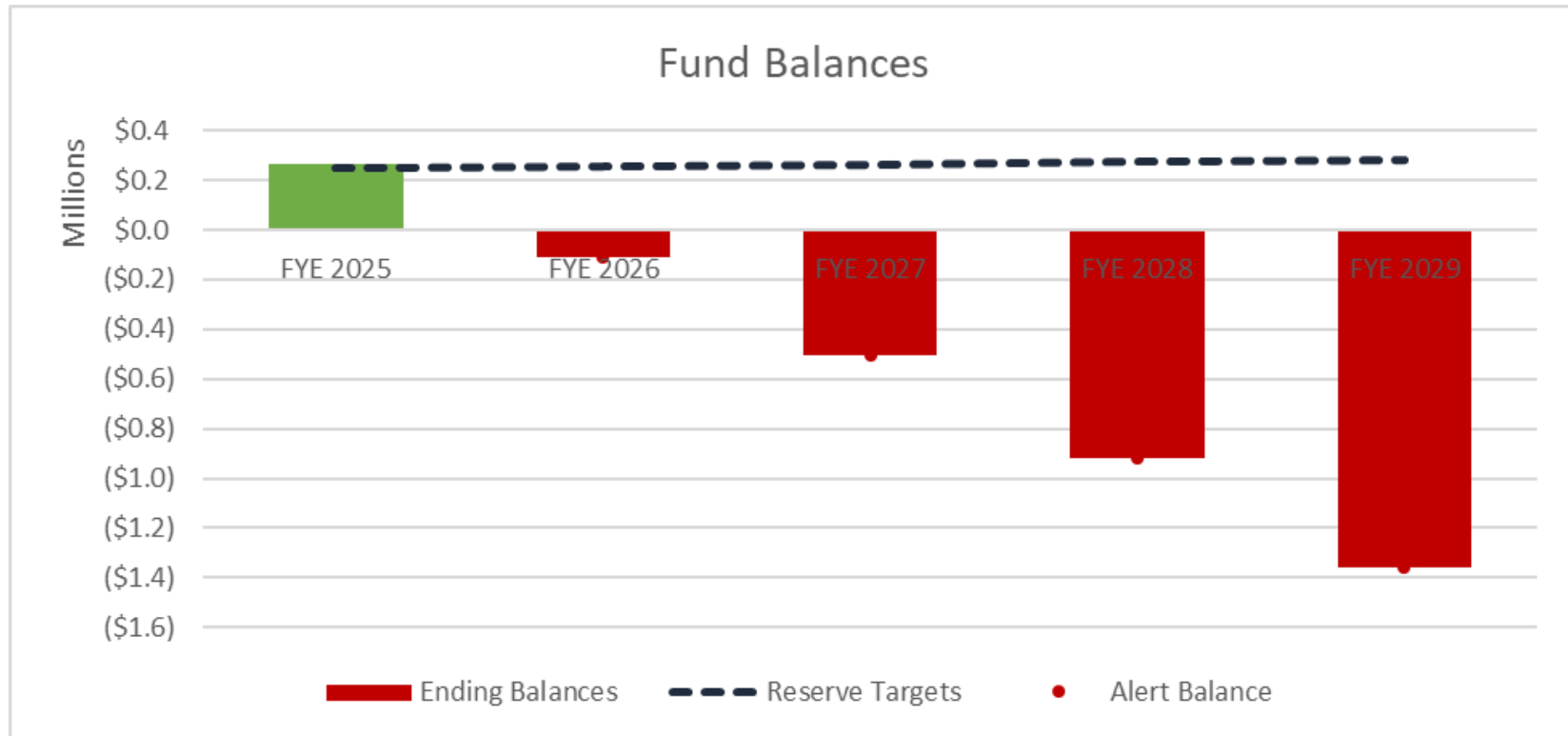
Fiscal Year	Rev. Adj.
2025	0%
2026	0%
2027	0%
2028	0%
2029	0%



Zone Financial Plan – Status Quo

- Fund balances go negative in FY 2026

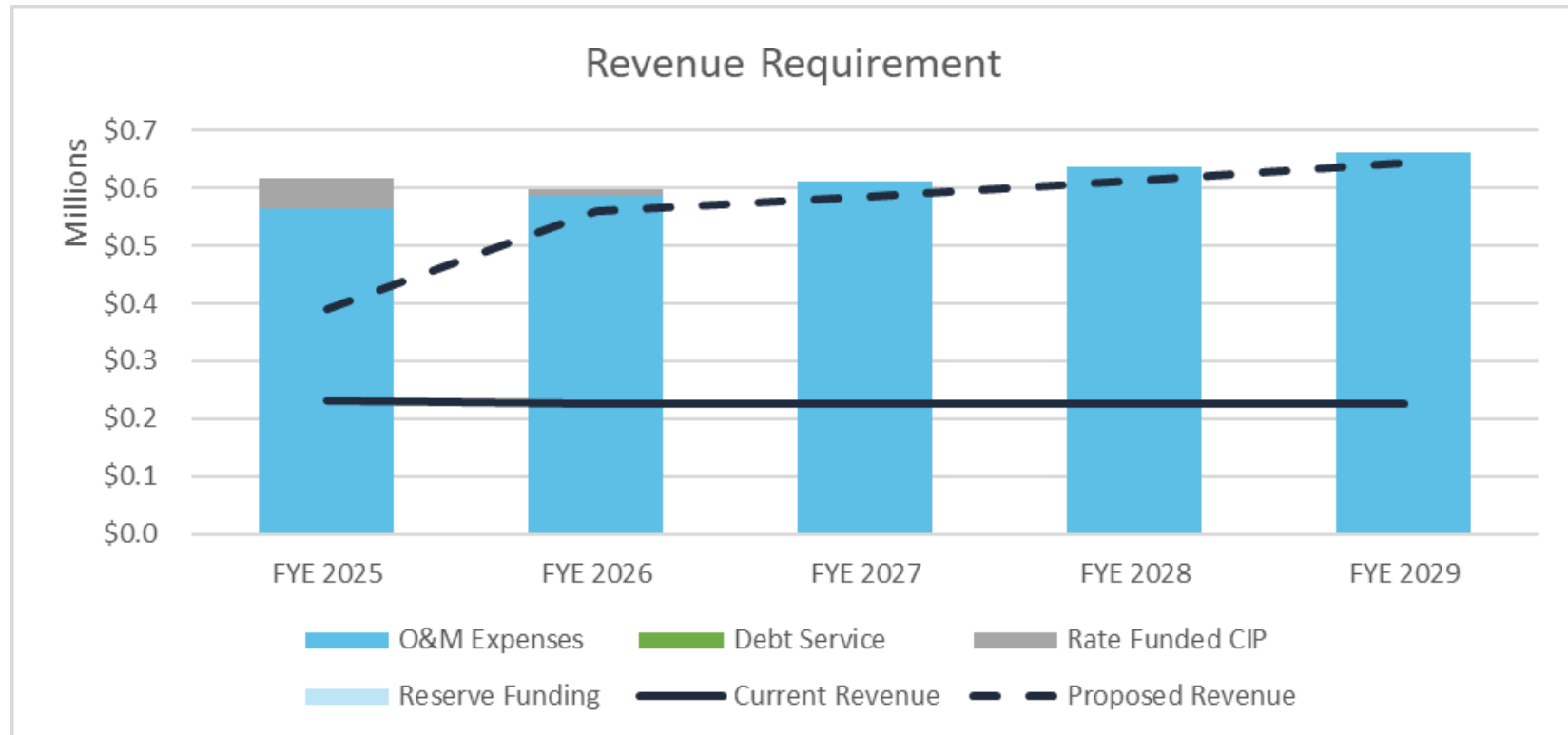
Fiscal Year	Rev. Adj.
2025	0%
2026	0%
2027	0%
2028	0%
2029	0%



Zone Financial Plan – Proposed Scenario

- Revenues are sufficient to meet expenses and build reserves

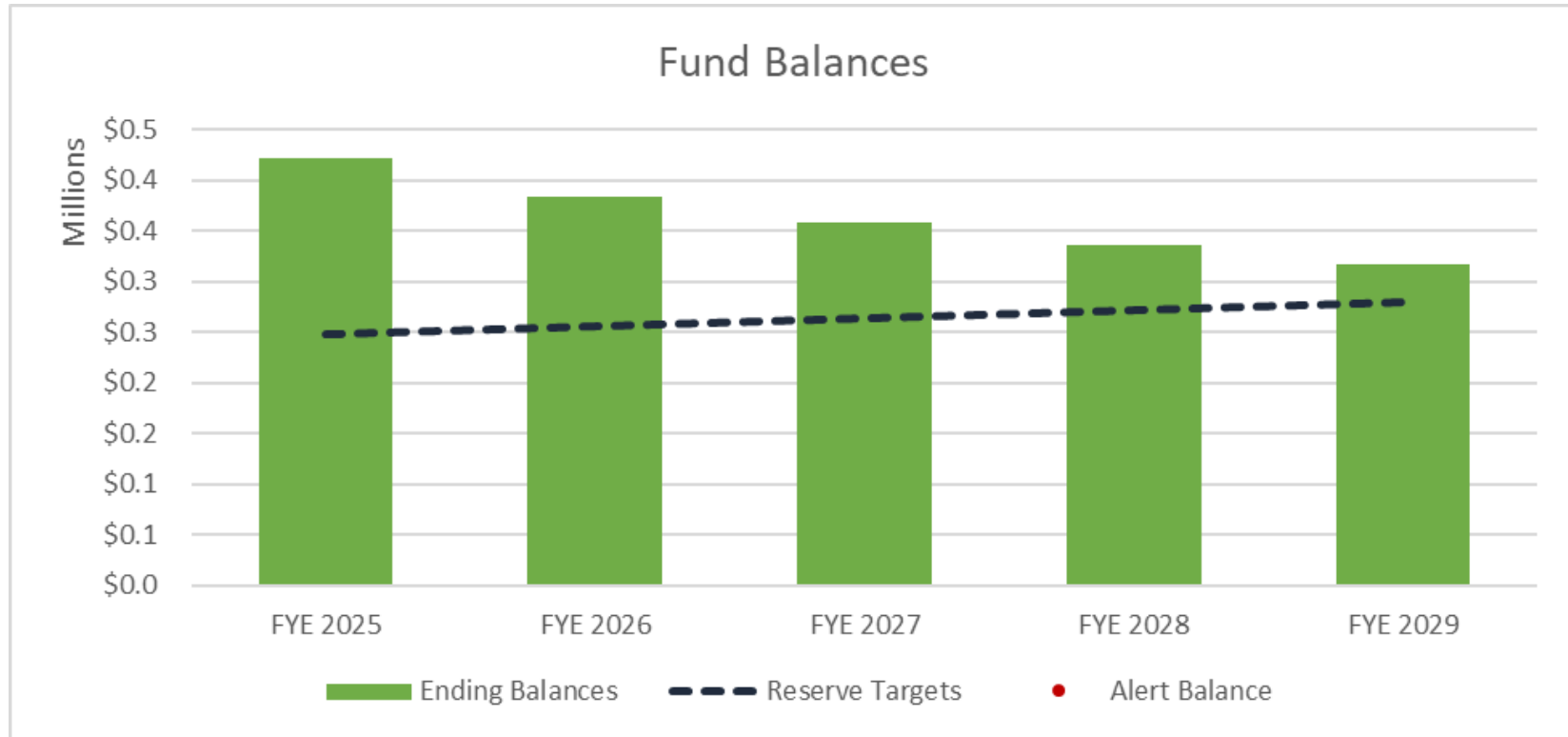
Fiscal Year	Rev. Adj.
2025	155%
2026	5%
2027	5%
2028	5%
2029	5%



Zone Financial Plan – Proposed Scenario

- Meets fund balance targets for all years

Fiscal Year	Rev. Adj.
2025	155%
2026	5%
2027	5%
2028	5%
2029	5%



How much does it cost provide
the different types of
wastewater service?

Zone Wastewater Customers

Customer Accounts	No. of Customers	% of Total
CDS Customer		
Developed Lot	135	12%
Undeveloped Lot	3	0%
Total - CDS Customer	138	13%
Non-CDS Customer		
Developed Lot	886	82%
Undeveloped Lot	61	6%
Total - Non-CDS Customer	947	87%
Total - Customers	1,085	100%

- Customer accounts are used to:
 - allocate costs between customers (CDS / Non-CDS)
 - determine unit costs for the rate

Zone Wastewater Cost Allocation

- No proposed changes to the Zone wastewater rate structure
- Allocation methodology stays the same and is as follows:

Rate Calculation	CDS O&M	Non-CDS O&M	Permit Mgmt.	CIP
Bi-Monthly Fees (CDS Customer)				
Developed Lot	X		X	X
Undeveloped Lot			X	X
Bi-Monthly Fees (Non-CDS Customer)				
Developed Lot		X	X	
Undeveloped Lot			X	

Zone Wastewater Revenue Neutral Rate

Rate Calculation	CDS O&M	Non-CDS O&M	Permit Mgmt.	CIP	COS Charge
Bi-Monthly Fees (CDS Customer)					
Developed Lot	\$59.19	\$0.00	\$8.89	\$5.14	\$73.23
Undeveloped Lot	\$0.00	\$0.00	\$8.89	\$5.14	\$14.03
Bi-Monthly Fees (Non-CDS Customer)					
Developed Lot	\$0.00	\$18.14	\$8.89	\$0.00	\$27.03
Undeveloped Lot	\$0.00	\$0.00	\$8.89	\$0.00	\$8.89

Zone Wastewater Rates (w/ Rev. Adj.)

Zone Wastewater Rates	Current	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Bi-Monthly Fees (CDS Customer)						
Developed Lot	\$99.77	\$186.74	\$196.08	\$205.89	\$216.19	\$227.00
Undeveloped Lot	\$35.20	\$35.81	\$37.61	\$39.50	\$41.48	\$43.56
Bi-Monthly Fees (Non-CDS Customer)						
Developed Lot	\$22.19	\$68.93	\$72.38	\$76.00	\$79.80	\$83.79
Undeveloped Lot	\$19.35	\$22.70	\$23.84	\$25.04	\$26.30	\$27.62

Zone Wastewater Impacts

Zone Wastewater Impacts	Current WW Bill	Proposed WW Bill	Difference (\$)	Difference (%)	w/ Current Water Bill	w/ Proposed Water Bill	Difference (\$)	Difference (%)
CDS Customer								
Developed Lot	\$99.77	\$186.74	\$86.97	87.2%	\$261.37	\$363.04	\$101.67	38.9%
Undeveloped Lot	\$35.20	\$35.81	\$0.61	1.7%	\$196.80	\$212.11	\$15.31	7.8%
Non-CDS Customer								
Developed Lot	\$22.19	\$68.93	\$46.74	210.6%	\$183.79	\$245.23	\$61.44	33.4%
Undeveloped Lot	\$19.35	\$22.70	\$3.35	17.3%	\$180.95	\$199.00	\$18.05	10.0%



Water Resources Economics

PROMOTING THE VALUE AND PRICE OF
WATER SERVICE

Information regarding the Cost-of-Service Analysis, and its associated processes can be found on the District site.

<https://www.gd-pud.org/cost-of-service-and-rate-analysis>

Contact Information

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