

Town of Manchester

Water & Sewer

Water & Sewer Rate Study

Final Results

December 5th, 2023



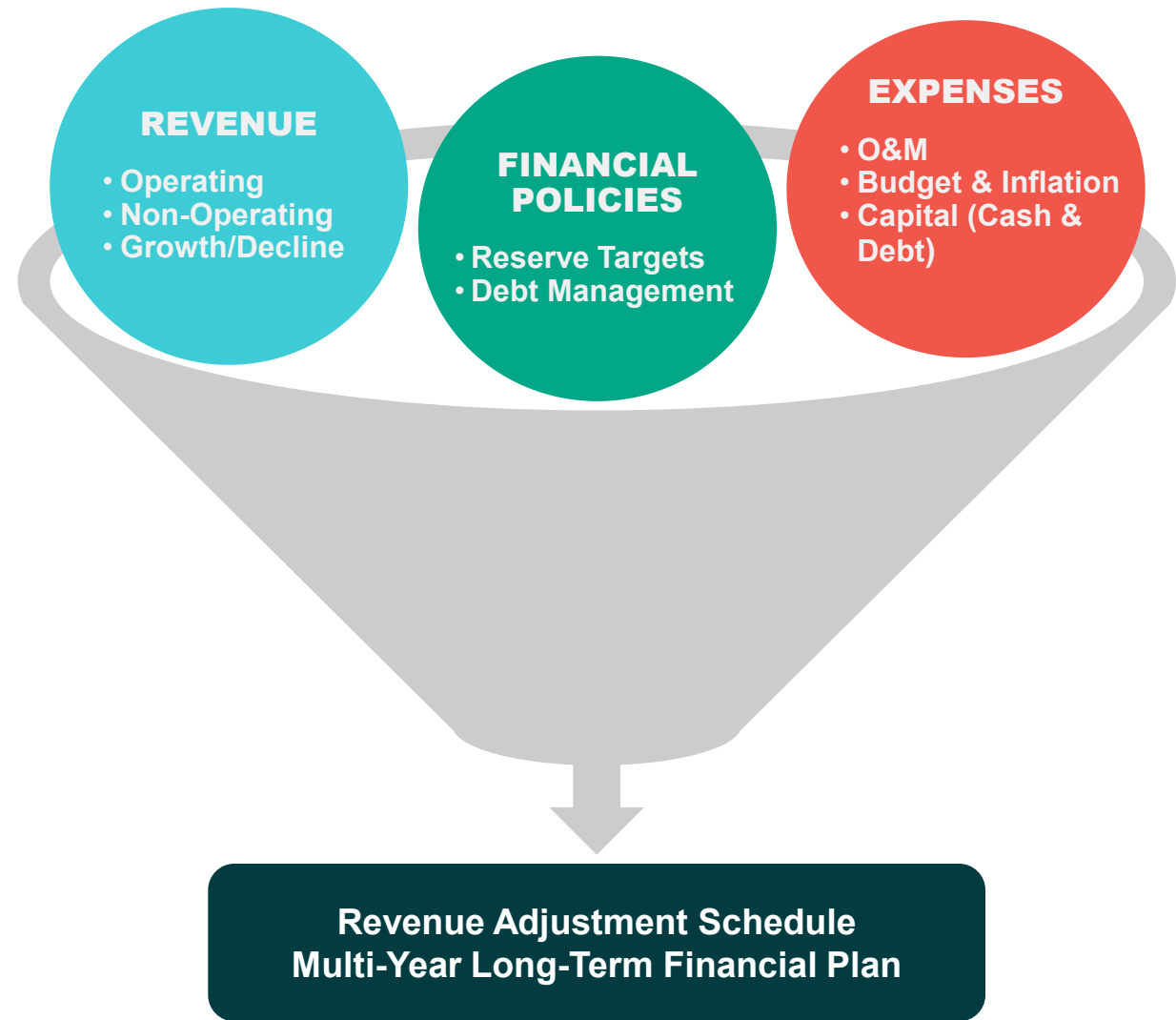
Overview of Rate Study

- Purpose of Rate Study
 - › Ensure long term financial sustainability and viability for the Town of Manchester Water & Sewer Department (Department)
 - › Analyze impacts of rate changes to revenue and customers
- Current Industry Trends and Challenges
 - › Water rates across the country have increased by 5% per year, on average, over the past two decades
 - › Sewer rates across the country have increased by 6% per year, on average, over the past two decades
 - › Inflationary impacts, aging infrastructure, and declining consumption are some of the biggest challenges impacting utilities throughout the country

Rate Increase History	Water	Sewer
FY 2009	3.5%	8.0%
FY 2010	5.0%	8.0%
FY 2011	5.5%	8.0%
FY 2012	5.0%	8.0%
FY 2013	5.0%	8.0%
FY 2014	1.5%	1.5%
FY 2015	5.0%	6.0%
FY 2016	3.0%	6.0%
FY 2017	2.0%	6.0%
FY 2018	1.5%	2.0%
FY 2019	0.0%	2.5%
FY 2020	0.0%	2.0%
FY 2021	2.0%	3.5%
FY 2022	1.5%	2.0%
FY 2023	5.0%	5.0%
FY 2024	8.0%	8.0%
Average (16-year)	3.34%	5.28%

Financial Plan

Financial Plan models yearly cash flow and reserve balances



Financial Planning Process

- The Raftelis team held multiple workshops with the Department to analyze multiple financial planning model scenarios
- Various models were analyzed by manipulating:
 - › Operating expenses
 - › Capital improvements projects
 - › Revenue assumptions
- The financial plans as presented on the following slides are a culmination of ensuring financial sufficiency for the water and sewer funds, while minimizing impacts to customers to the greatest extent possible

Water Financial Plan



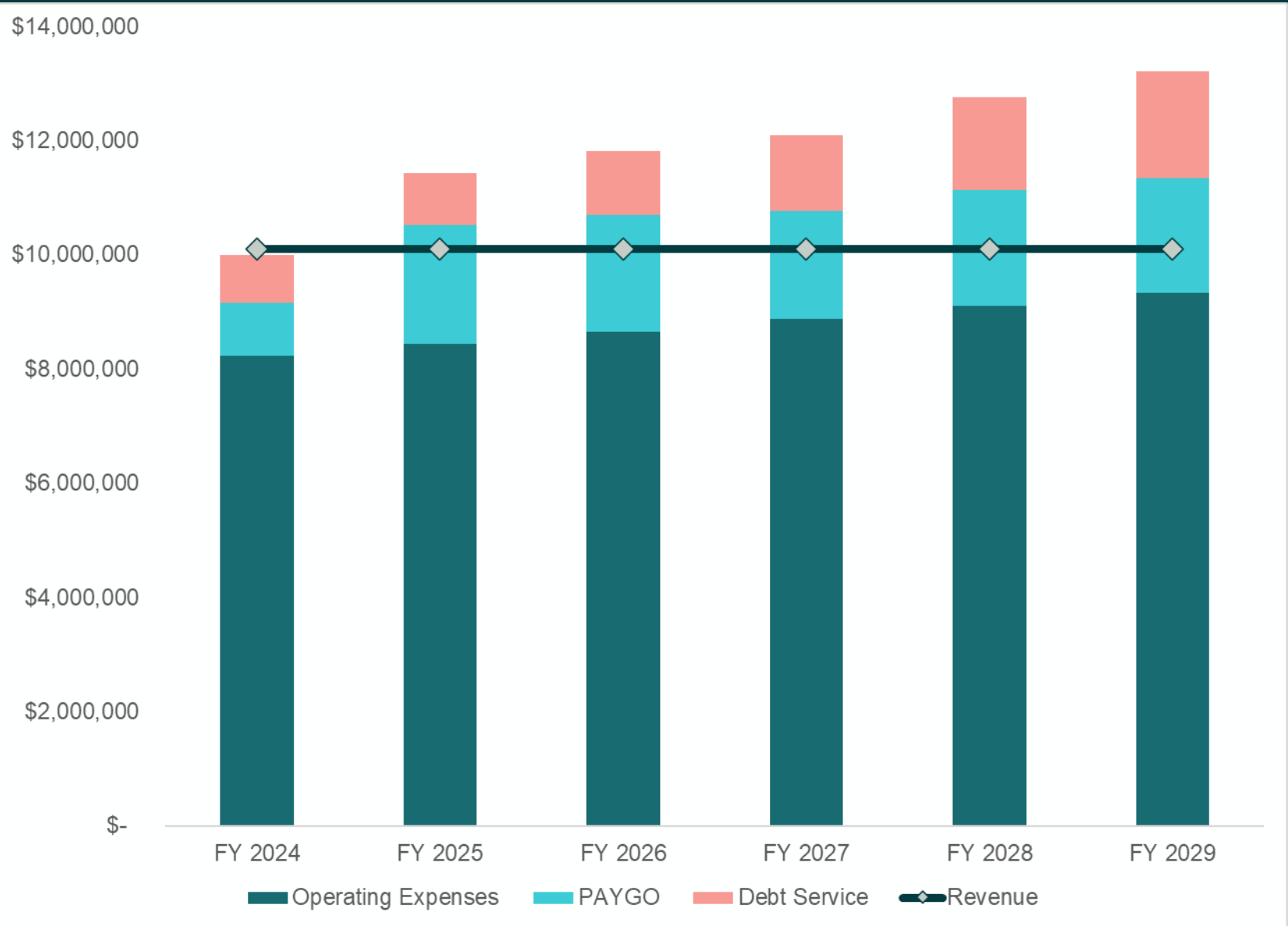
Water Fund Overview

Water Revenue Requirements	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
General Administration	\$ 1,248,020	\$ 1,433,383	\$ 1,476,384	\$ 1,520,676	\$ 1,566,296	\$ 1,613,285	\$ 1,661,684
Customer Service	264,462	296,788	305,692	314,862	324,308	334,038	344,059
Meters	109,730	113,232	116,629	120,128	123,732	127,444	131,267
Source of Supply	306,180	357,077	367,789	378,823	390,188	401,893	413,950
Power & Pumping General	764,310	919,258	946,836	975,241	1,004,498	1,034,633	1,065,672
Treatment General	1,642,893	2,013,742	2,074,154	2,136,379	2,200,470	2,266,484	2,334,479
Treatment Laboratory	227,929	273,429	281,632	290,081	298,783	307,747	316,979
Trans & Dist General	1,109,277	1,295,937	1,334,816	1,374,860	1,416,106	1,458,589	1,502,347
Water Existing Mains & Tanks	64,844	93,024	95,814	98,689	101,650	104,699	107,840
Water T&D Existing Services	74,908	79,104	81,477	83,922	86,439	89,033	91,704
Water T&D Exist Hydrants	64,660	63,610	65,518	67,484	69,508	71,594	73,742
Contingency	-	85,000	85,000	85,000	85,000	85,000	85,000
Interfund Transfers	2,035,833	2,137,767	2,137,767	2,137,767	2,137,767	2,137,767	2,137,767
Cash Funded Capital	905,000	932,000	2,079,780	1,040,000	900,000	525,000	510,000
Debt Service	918,319	829,235	910,072	1,121,898	1,324,103	1,632,150	1,860,655
Total: Revenue Requirements	\$ 9,736,366	\$ 10,922,586	\$ 12,359,360	\$ 11,745,809	\$ 12,028,848	\$ 12,189,355	\$ 12,637,143

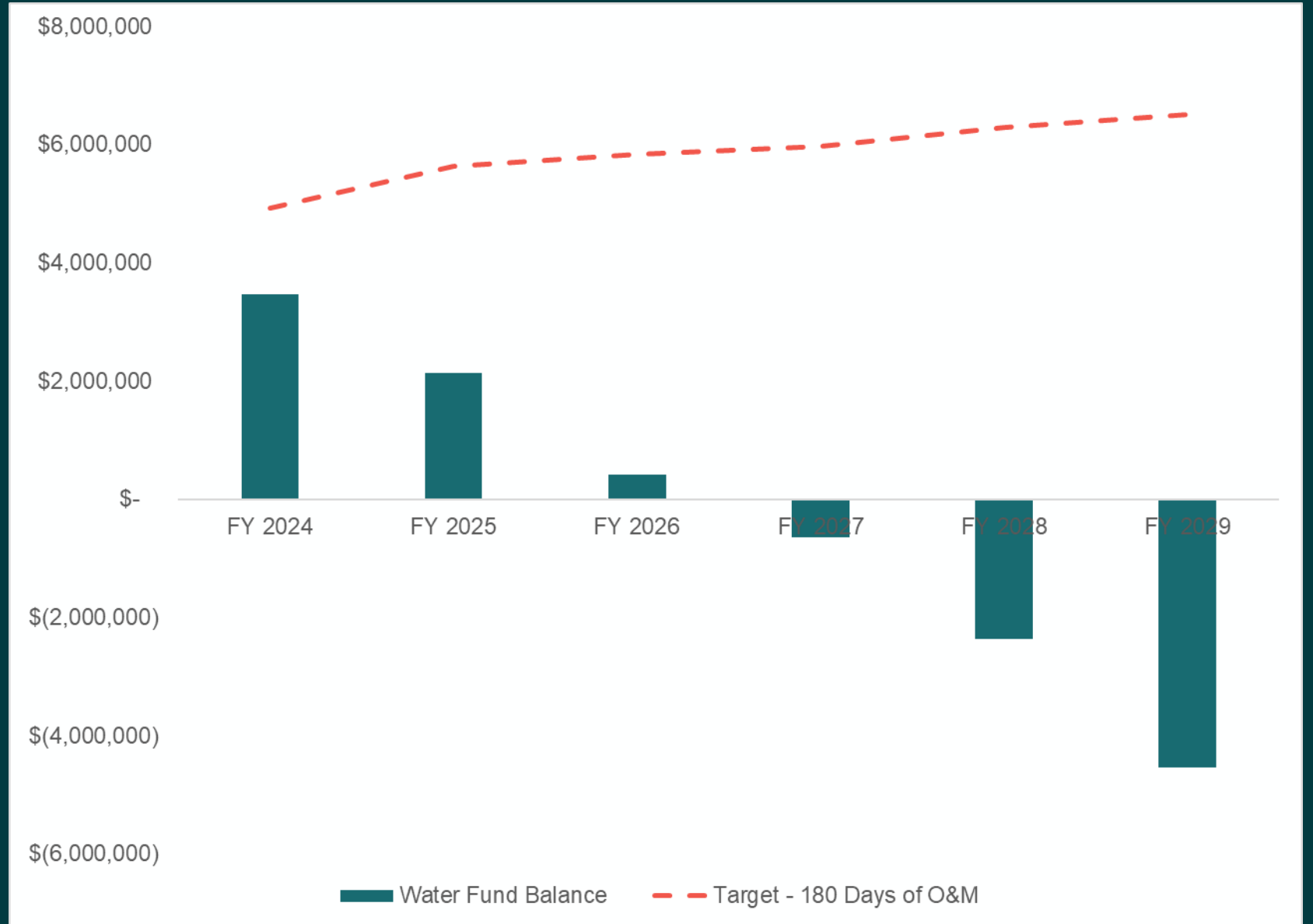
- Revenue Requirements are projected to increase by 13.2% from FY 2024 to FY 2025 due to large cash funded capital expenditures. Revenue Requirements are projected to increase by 0.6%, on average, throughout the remainder of the forecast period
- From FY 2024 to FY 2029, the Department is expected to spend, on average, \$4,200,000 annually on capital improvements for the water system
 - › **A significant portion of that is the Water Meter and Reading System Redevelopment, Charter Oak Improvements, and Infrastructure Improvements**
- Existing organizational and staffing levels have been assumed, but should be evaluated to ensure the appropriate level of service is provided
- Retained earnings (Cash Reserves) are expected to approach \$0 by the end of FY 2028 without rate increases
 - › Rate increases are needed in FY 2025 to ensure future financial sufficiency and viability

Projected Water Cash Flow with No Rate Increases

***PAYGO = cash funded capital**



Projected Water Reserve Fund Balance with No Rate Increases



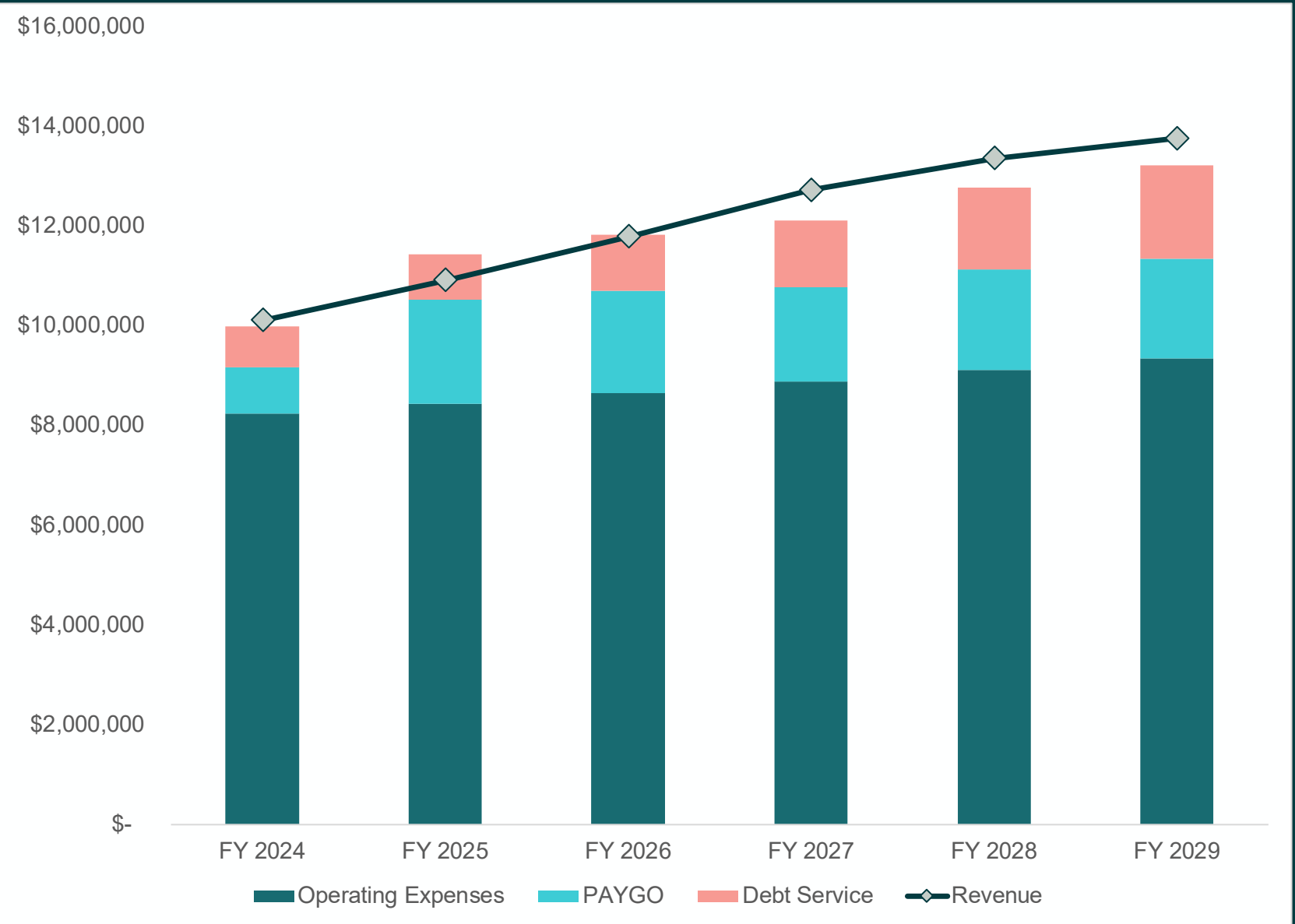
Recommended Water Rate Increases

- In order to ensure financial sufficiency, the water fund requires the following rate increases:

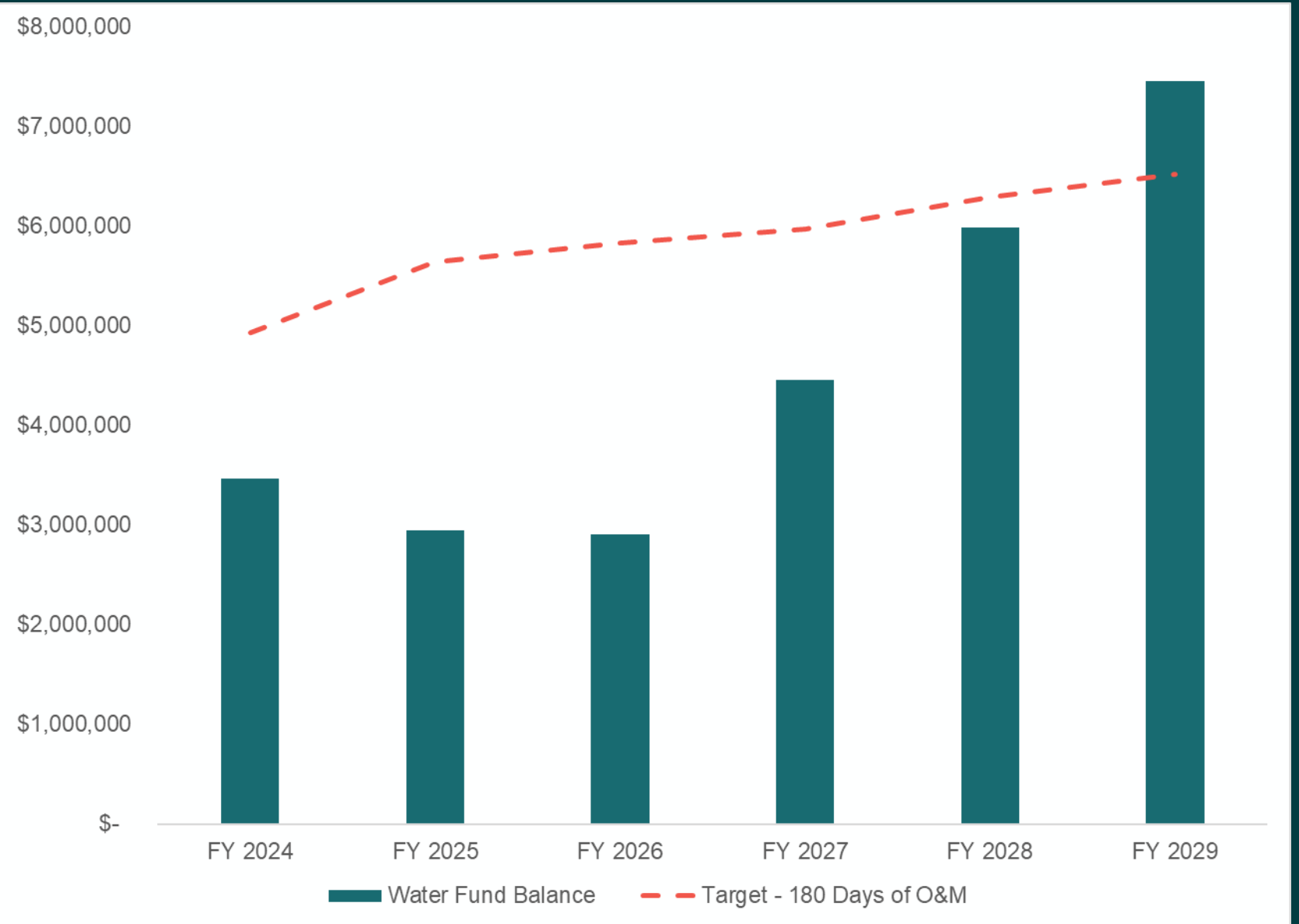
	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>
Volumetric Rate	8.0%	8.0%	8.0%	5.0%	3.0%
Meter Charge	8.0%	8.0%	8.0%	5.0%	3.0%

- Assumes an increase in private fire protection charges as well
- Alternative rate structures are an option, and will result in varying customer impacts

Projected Water Cash Flow with Recommended Rate Increases



Projected Water Reserve Fund Balance with Recommended Rate Increases



Sewer Financial Plan



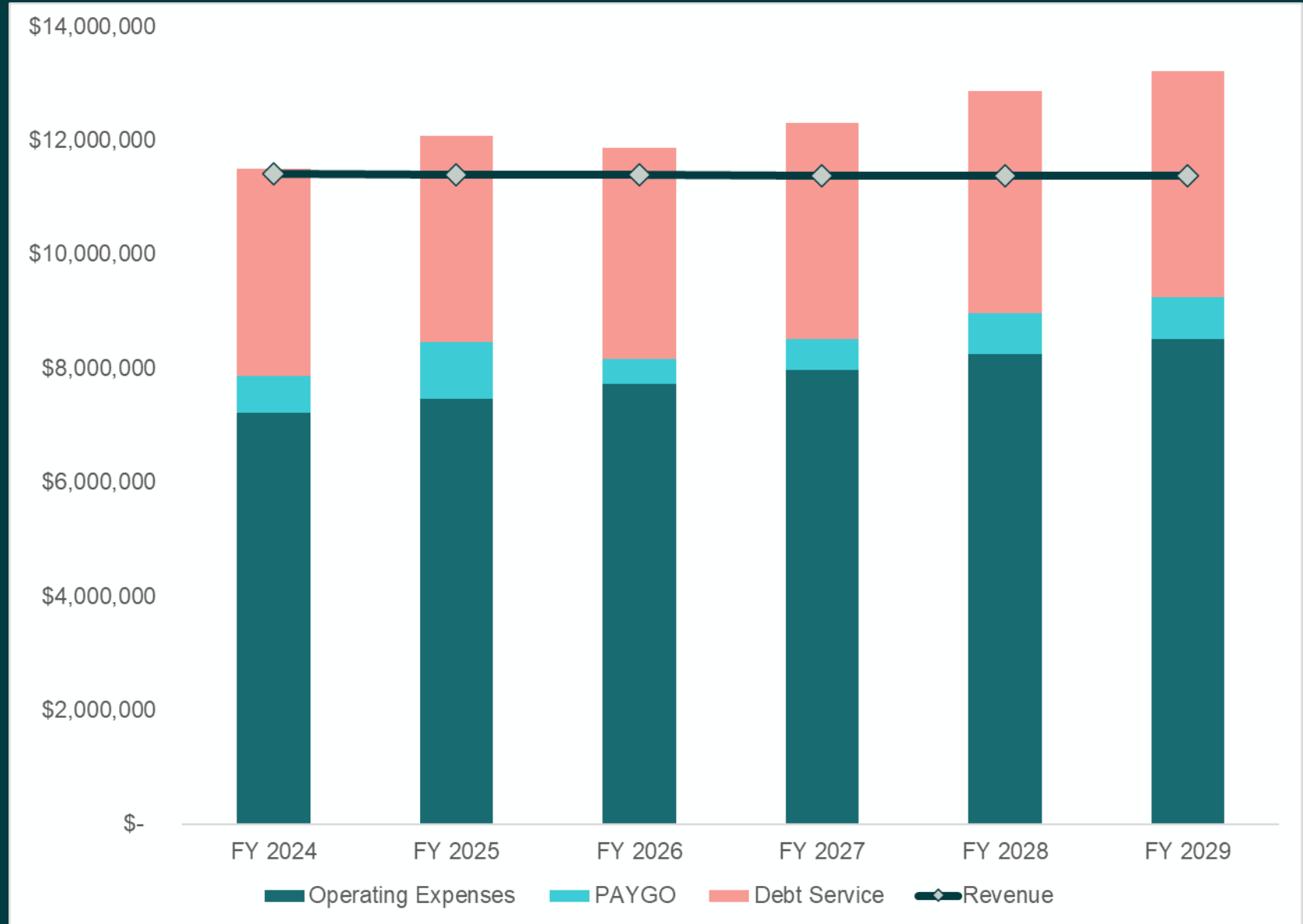
Sewer Fund Overview

Sewer Revenue Requirements	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
General Administration	\$ 979,633	\$ 1,096,956	\$ 1,129,865	\$ 1,163,761	\$ 1,198,673	\$ 1,234,634	\$ 1,271,673
Customer Service	120,444	153,826	158,441	163,194	168,090	173,133	178,326
Collection System Maintenance General	792,955	1,038,598	1,069,756	1,101,849	1,134,904	1,168,951	1,204,020
Lines Maintenance	28,698	58,230	59,977	61,776	63,629	65,538	67,505
Manhole Maintenance	18,221	46,447	47,840	49,275	50,754	52,276	53,844
Pumping Stations	11,225	29,193	30,069	30,971	31,900	32,857	33,843
Sewer Plant General	1,378,925	1,759,687	1,812,478	1,866,852	1,922,857	1,980,543	2,039,960
Sewer Treatment Primary Building	1,343,072	1,683,407	1,796,309	1,910,348	2,025,557	2,141,974	2,259,632
Sewer Treatment Laboratory	198,089	218,815	225,379	232,141	239,105	246,278	253,667
Contingency	-	87,550	90,177	92,882	95,668	98,538	101,494
Interfund Transfers	1,595,270	1,691,237	1,691,237	1,691,237	1,691,237	1,691,237	1,691,237
Cash Funded Capital	1,154,000	645,000	997,000	447,000	282,000	232,000	232,000
Debt Service	3,533,705	3,634,266	3,621,405	3,709,053	3,796,700	3,884,347	3,971,994
Total: Revenue Requirements	\$ 11,154,238	\$ 12,143,212	\$ 12,729,932	\$ 12,520,337	\$ 12,701,075	\$ 13,002,306	\$ 13,359,194

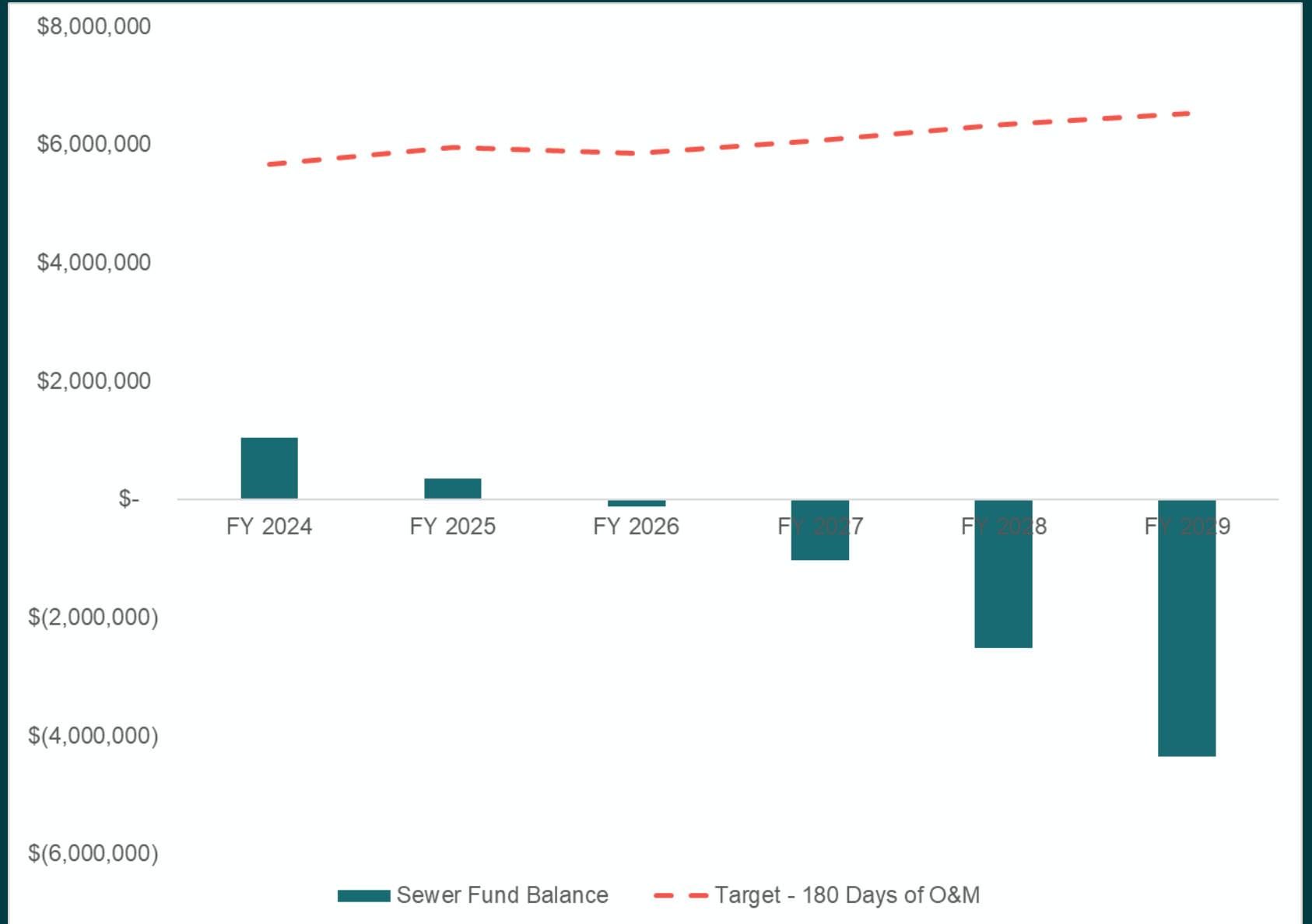
- Revenue Requirements are projected to increase by 4.8% from FY 2024 to FY 2025, largely due to an increase in cash funded capital expenditures. Revenue Requirements are projected to increase by 1.2%, on average, throughout the remainder of the forecast period
- From FY 2024 to FY 2029, the Department is expected to spend, on average, \$2,305,000 annually on capital improvements for the sewer system
 - › **A significant portion of that is the Water Meter and Reading System Redevelopment, and Infrastructure Improvements**
- Existing organizational and staffing levels have been assumed, but should be evaluated to ensure the appropriate level of service is provided
- Retained earnings (Cash Reserves) are expected to approach \$0 by the end of FY 2025 without rate increases
 - › Rate increases are needed in FY 2025 to ensure future financial sufficiency and viability

Projected Sewer Cash Flow with No Rate Increases

***PAYGO = cash funded capital**



Projected Sewer Reserve Fund Balance with No Rate Increases



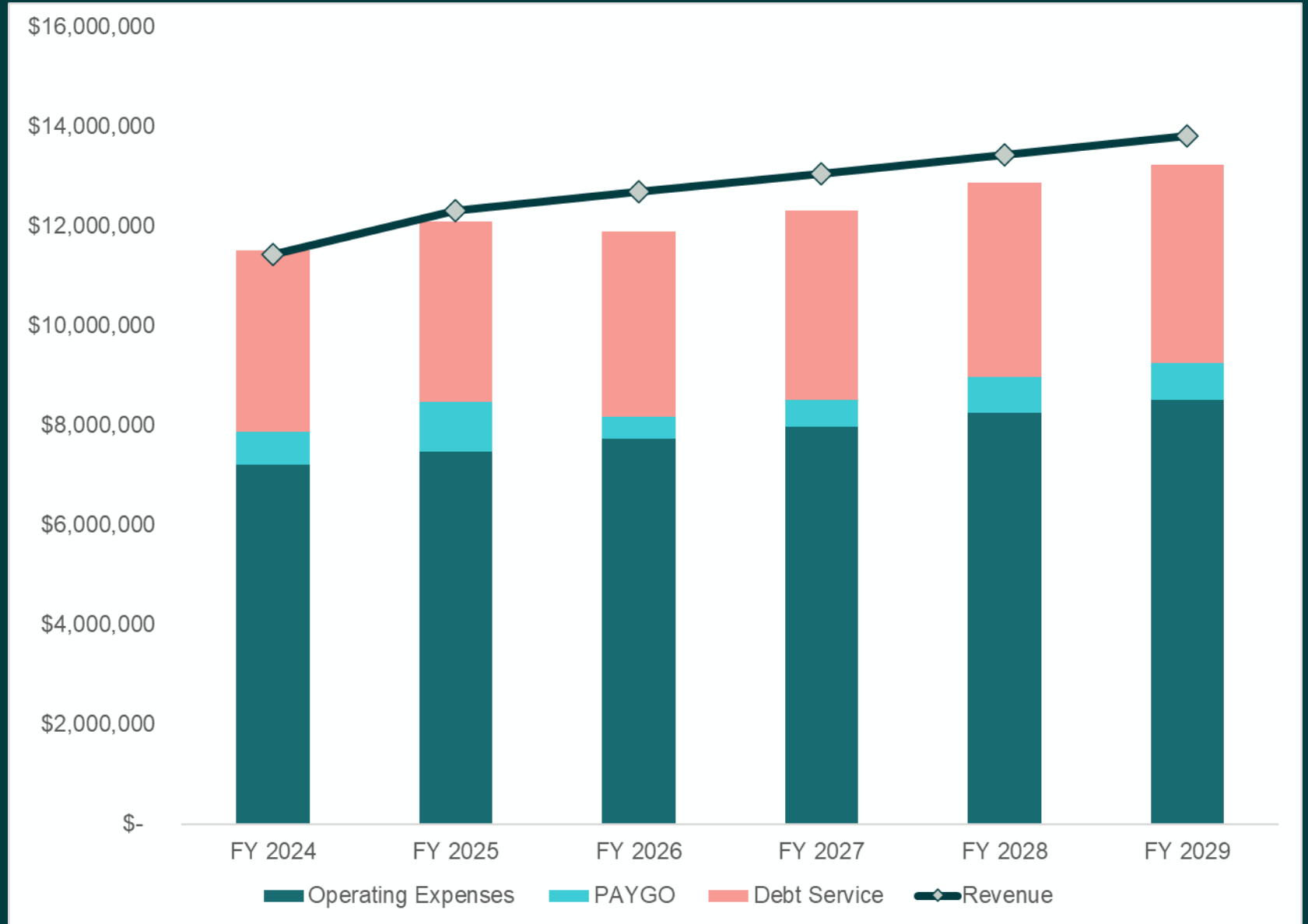
Recommended Sewer Rate Increases

- In order to ensure financial sufficiency, the sewer fund requires the following rate increases:

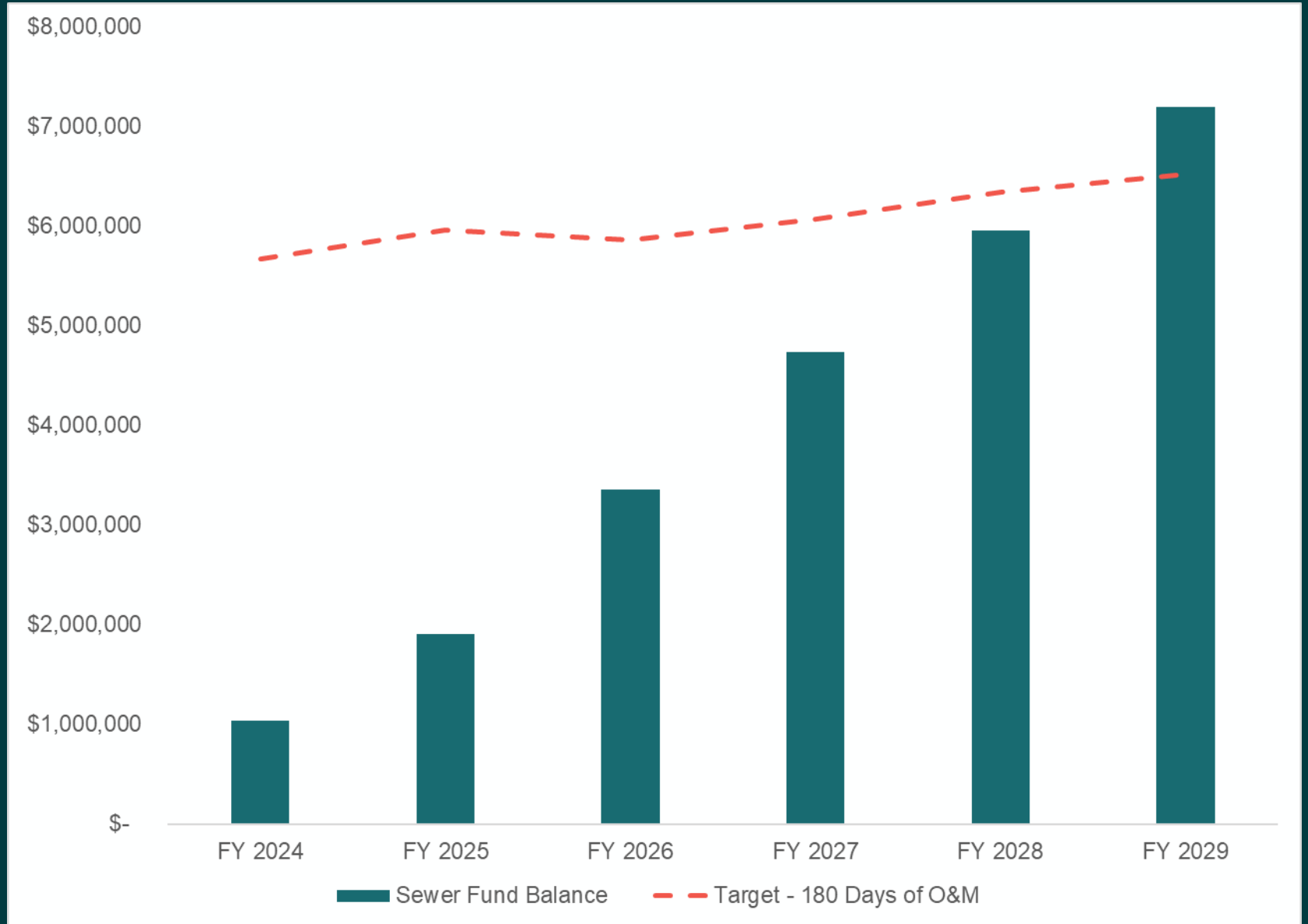
	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>
Volumetric Rate	8.0%	3.0%	3.0%	3.0%	3.0%

- The model and financial plan takes into consideration the merging of the 8th Utilities District
- Alternative rate structures have been analyzed and will result in varying customer impacts compared to across-the-board revenue increases

Projected Sewer Cash Flow with Recommended Rate Increases



Projected Sewer Reserve Fund Balance with Recommended Rate Increases



Projected Rates & Customer Impacts



Projected Rates Through FY 2029

Quarterly Rates	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Water Rates						
<u>Volumetric Rates (Per Ccf)</u>	\$ 3.86	\$ 4.16	\$ 4.50	\$ 4.86	\$ 5.10	\$ 5.25
<u>Quarterly Minimum Charge</u>						
5/8"	\$ 8.75	\$ 9.45	\$ 10.20	\$ 11.02	\$ 11.57	\$ 11.92
3/4"	\$ 13.27	\$ 14.34	\$ 15.48	\$ 16.72	\$ 17.56	\$ 18.08
1"	\$ 21.98	\$ 23.74	\$ 25.64	\$ 27.69	\$ 29.07	\$ 29.94
1 1/2"	\$ 43.85	\$ 47.36	\$ 51.14	\$ 55.24	\$ 58.00	\$ 59.74
2"	\$ 70.29	\$ 75.91	\$ 81.98	\$ 88.54	\$ 92.97	\$ 95.76
3"	\$ 140.34	\$ 151.56	\$ 163.69	\$ 176.78	\$ 185.62	\$ 191.19
4"	\$ 219.12	\$ 236.65	\$ 255.58	\$ 276.03	\$ 289.83	\$ 298.53
6"	\$ 438.27	\$ 473.34	\$ 511.20	\$ 552.10	\$ 579.71	\$ 597.10
8"	\$ 876.63	\$ 946.76	\$ 1,022.50	\$ 1,104.30	\$ 1,159.51	\$ 1,194.30
10" or Above	\$ 1,753.25	\$ 1,893.51	\$ 2,044.99	\$ 2,208.59	\$ 2,319.02	\$ 2,388.59
Sewer Rates						
<u>Volumetric Rates (Per Ccf)</u>	\$ 6.24	\$ 6.74	\$ 6.94	\$ 7.15	\$ 7.37	\$ 7.59

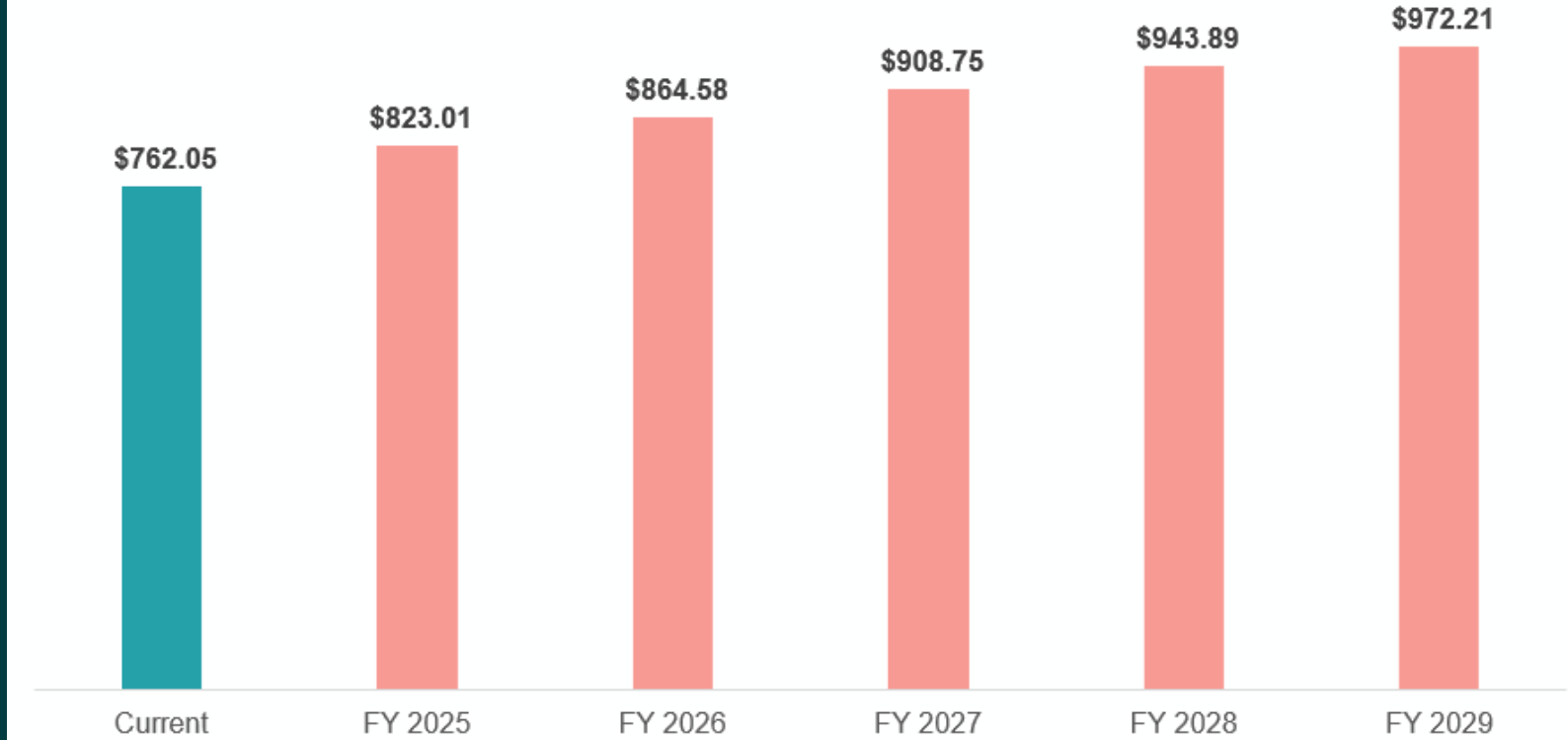
Projected Fire Protection Rates Through FY 2029

Annual Fire Protection	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Private Fire Protection						
4" or Smaller	\$ 215.78	\$ 233.05	\$ 251.69	\$ 271.83	\$ 285.42	\$ 293.98
6"	\$ 626.62	\$ 676.75	\$ 730.88	\$ 789.36	\$ 828.82	\$ 853.69
8"	\$ 1,335.27	\$ 1,442.09	\$ 1,557.46	\$ 1,682.05	\$ 1,766.16	\$ 1,819.14
10"	\$ 2,401.10	\$ 2,593.19	\$ 2,800.64	\$ 3,024.69	\$ 3,175.93	\$ 3,271.21
12" or Above	\$ 3,878.80	\$ 4,189.10	\$ 4,524.23	\$ 4,886.17	\$ 5,130.48	\$ 5,284.39
Private Hydrant	\$ 626.11	\$ 676.20	\$ 730.29	\$ 788.72	\$ 828.15	\$ 853.00
Public Fire Protection						
Public Hydrant	\$ 188.20	\$ 203.26	\$ 219.52	\$ 237.08	\$ 248.93	\$ 256.40

Typical-Volume Household

– 18 Ccf/Quarter; 5/8” Meter

Annual Combined Water & Sewer Bill



Increase	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Annual (\$)	\$60.96	\$41.57	\$44.17	\$35.14	\$28.32
Quarterly (\$)	\$15.24	\$10.39	\$11.04	\$8.78	\$7.08
Monthly (\$)	\$5.08	\$3.46	\$3.68	\$2.93	\$2.36
% Change	8.0%	5.1%	5.1%	3.9%	3.0%

Alternative Rate Design & Customer Impacts



Alternative Rate Design

- Implement an inclining block rate structure for small metered users
 - › Provides a lower per unit (Ccf) price for an essential amount of usage
 - › Incentivizes the efficient use of the Town's resources
- Implement a sewer minimum charge by meter size, similar to the water fund
 - › Enhances revenue stability during low consumption years

	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2025</u>
	<i>Actual</i>	<i>Existing Structure</i>	<i>Alternative Structure</i>
Water Rates			
<u>Volumetric Rates (per CCF)</u>			
Small: 0-18 Ccf	\$ 3.86	\$ 4.16	\$ 3.26
Small: > 18 Ccf	3.86	4.16	4.88
Large: All Ccf	3.86	4.16	4.23
<u>Quarterly Minimum Charge</u>			
5/8"	\$ 8.75	\$ 9.45	\$ 9.45
3/4"	13.27	14.34	14.34
1"	21.98	23.74	23.74
1.5"	43.85	47.36	47.36
2"	70.29	75.91	75.91
3"	140.34	151.56	151.56
4"	219.12	236.65	236.65
6"	438.27	473.34	473.34
8"	876.63	946.76	946.76
>= 10"	1,753.25	1,893.51	1,893.51
Sewer Rates			
<u>Volumetric Rates (per CCF)</u>			
	\$ 6.24	\$ 6.74	\$ 6.09
<u>Quarterly Minimum Charge</u>			
5/8"	\$ -	\$ -	12.70
3/4"	-	-	19.05
1"	-	-	31.75
1.5"	-	-	63.51
2"	-	-	101.61
3"	-	-	190.52
4"	-	-	317.53
6"	-	-	635.05
8"	-	-	1,016.08
>= 10"	-	-	1,460.62

Low-Volume Household

– 8 Ccf/Quarter; 5/8” Meter

- **Alternative Structure:** Implement inclining block rate structure for small metered water usage; Implement sewer minimum charge



Typical-Volume Household

– 18 Ccf/Quarter; 5/8” Meter

- **Alternative Structure:** Implement inclining block rate structure for small metered water usage; Implement sewer minimum charge



High-Volume Household

– 30 Ccf/Quarter; 5/8” Meter

- **Alternative Structure:** Implement inclining block rate structure for small metered water usage; Implement sewer minimum charge



Average-Volume Large Customer

– 150 Ccf/Quarter; 3” Meter

- **Alternative Structure:** Implement inclining block rate structure for small metered water usage; Implement sewer minimum charge



Primary Considerations for the Town

- Adopt formal financial policies
 - › Industry best practice, and creates more stability and predictability in annual financial positions
- Assess organizational structure and staffing levels for both water and sewer
 - › This will ensure that both funds are adequately staffed and working optimally in order to maintain a high quality of service for all customers with regard to operations and customer service
- Ensure billing system and processes are optimized
 - › Maintaining customer trust is of the highest priority. In addition to quality of direct service, ensuring customers are receiving accurate and understandable bills will help achieve this
 - This could include an assessment of the overall accuracy of the billing system, as well as considerations for a bill redesign to lessen confusion and enhance customer understanding.

Secondary Considerations for the Town

- Consider increasing or implementing water and sewer miscellaneous fees to align with the cost of service associated with the fee assessed
 - › Real estate closing fee, hydrant meter fee, meter spacer fee, turn off/on fee during business hours, meter testing fee, and water quality and lab test fee
- Assess opportunities to enhance the Town's customer facing policies and programs
 - › Leak forgiveness program (typically one-time)
 - › A revised pool abatement program
 - › Paperless billing
 - › Review and update the Town's existing collections policy
- Consider moving to monthly billing for all customers
 - › Monthly bills are smaller, and more affordable and in sync with typical household salary paydays and budgets
 - › Sends price signal to customer sooner after the customer uses water and sewer service
 - › Enhances the Department's cashflow by having more frequent collections
- Consider implementing an affordability program
 - › Examples include bill discounts, capped bills, write-offs, lifeline rates, conservation assistance, leak detection and repair, and winter shutoff prohibitions

What's Next?



Step 1: Receive feedback from Board



Step 2: Finalize rate recommendations for FY 2025



Step 3: Communicate and implement rate recommendations



Step 4: Update financial planning model annually



Thank you!