City of Santa Barbara

Public Works Department

Memorandum

DATE: January 18, 2024

TO: Water Commission

VIA: Joshua Haggmark, Water Resources Manager

FROM: Gabriele Cook, Water Resources Financial Officer

SUBJECT: Water and Wastewater Rate Studies Update

RECOMMENDATION:

That the Water Commission receive a presentation on the City's water and wastewater rate studies and provide input on how best to proceed with the required rate revenue increases. The presentation will review the development of the draft revenue requirement analysis.

BACKGROUND:

On October 3, 2023, City Council approved a contract with HDR Engineering Inc. (HDR) to conduct comprehensive water and wastewater rate studies. The City regularly conducts water and wastewater rate studies, which include rate revenue projections for the next 10 years. The last water rate study was completed in 2021 and the last wastewater rate study was completed in 2022.

The City provides water and wastewater services to a population of approximately 95,000, with a service area of 20 square miles. The City's water and wastewater utilities are dependent on customer rate revenue to fund most of the operations, maintenance, and capital improvements needed to keep the utility functioning reliably and in compliance with federal and state regulations.

DISCUSSION:

HDR is creating 10-year financial plans and multi-year rate studies for both water and wastewater with the intention to set rates for the next four fiscal years. A comprehensive rate study consists of three interrelated analyses to address the adequacy and equity of a utility's rates: a revenue requirement analysis, cost of service analysis, and rate design analysis. The rate studies are currently in the revenue requirement analysis phase in which staff and HDR determine the amount of revenue that must be generated from the assessment of rates to sufficiently fund the costs of operations and maintenance, capital improvements, mandated standards, debt obligations, contributions to reserves, and other obligations. In other words, on a long-term basis, revenues must be sufficient to meet the costs of the City's water and wastewater systems.

The record-high inflation experienced in the past several years has primarily driven the need for rate increases for both water and wastewater.

WATER

To support our discussion, three options have been compiled for approaching the water revenue requirement that balance different levels of capital improvements and funding from reserves. It is important to note that before the recent spike in inflation, the 2021 water rate study identified the need for a 5% rate revenue increase in FY25, 4.5% in FY26, and 4% in FY27 and FY28.

Option 1 – Fund the Planned Capital Program and Maintain Reserve Levels at City Policy

The water system will need to maintain rates that support upcoming projects identified in the Water Distribution Infrastructure Plan and other capital improvements, including replacing ~2% or 6 miles of water mains annually. Approximately $178M in necessary capital investments in the water system have been identified over the four-year rate study period (FY25-28). A combination of financing (long-term borrowing) and pay-as-you-go funding will be utilized to meet these capital improvement needs in addition to the use of reserves at a level that will keep reserves at or above City policy.

Option 2 – Fund the Planned Capital Program and Allow Reserve Levels to Drop Below City Policy

This option includes the same planned capital program from Option 1 but funds the program using capital reserves dipping below City policy levels in addition to long-term borrowing and pay-as-you-go funding. Under this option, capital reserves dip below City policy by about $6.5M before returning to City policy levels by FY28.

Option 3 – Reduce Main Replacement Funding and Allow Reserve Levels to Drop Below City Policy

This option reduces the Main Replacement Program funding by 17%, which equates to approximately 5 miles of mains annually, gradually restoring funding for the full 6 miles of replacement in the fourth year of the rate study. This will bring the necessary capital investments down to approximately $170M over the four-year rate study period (FY25-28). In addition to a combination of long-term borrowing and pay-as-you-go funding, this option uses capital reserves to try to mitigate rate impacts. Capital reserves dip below City policy by about $5.6M before returning to City policy levels by FY29.

Analysis for the three options indicates the approximate annual revenue increases in the table below will be sufficient to meet the needs of the water system.

	FY25	FY26	FY27	FY28
Water Option 1 Fully Funded Capital Reserves at Policy	16.0%	12.5%	5.0%	5.0%
Water Option 2 Fully Funded Capital Reserves Below Policy	12.0%	11.5%	10.5%	9.5%
Water Option 3 Reduced Capital Reserves Below Policy	9.6%	9.6%	9.6%	9.6%

It is important to note that revenue increases do not equate to rate increases, or bill impacts, to individual customer classes of service. During the cost-of-service analysis phase of the project, the revenue requirement (e.g., costs) are proportionally allocated to each customer class, which may result in rate increases that are lower and/or higher than the revenue requirement percent increase for each class.

Water Conservation

Water usage in FY23 was lower than past years due to the very wet winter the City experienced in early 2023. The unplanned drop in water use in FY23 resulted in a decrease in planned revenue of $4.6M. The Enhanced Urban Water Management Plan had anticipated around 3% increases in water use annually between WY2020-2027, which assumed some moderate growth in demand as the City emerges from the last drought, along with decreases in demand from typical water conservation associated with changes in landscaping and plumbing fixtures. However, rate increases of the magnitude proposed in this study and the recent wet winter are anticipated to keep water usage at relatively low levels. For this rate study, we have assumed water usage will remain steady (similar to FY23) for the next 4 years. The model also assumes 0.5% annual growth in the number of customers within the multi-family customer class due to new development.

WASTEWATER

To support our discussion, two options for meeting the wastewater revenue requirements have been compiled that balance different levels of capital improvements and funding from reserves. It is important to note the last rate study completed in 2022 anticipated the need for a 6.5% rate increase in FY25, and a 6% increase in FY26-28.

Option 1 – Fund the Planned Capital Program and Allow Reserve Levels to Drop Below City Policy

The wastewater system will need to maintain rates that support upcoming capital improvements to the collection and treatment systems and fund reserves to meet City policy levels. In FY24, reserves were used to balance the budget to offset the record-high inflationary impacts not captured in the rates. Approximately $68M in necessary capital investments have been identified over the four-year rate study period (FY25 – FY28) which will be funded with a combination of financing (long-term borrowing), pay-as-you-go funding, and the use of capital reserves. Under this option, capital reserves dip below City policy by about $2.5M before returning to City policy levels by FY28.

Option 2 – Reduce Capital Funding and Allow Reserve Levels to Drop Below City Policy

This option defers several capital projects totaling $5M, including rehabilitation and lining wet wells, replacement of force mains, the implementation of the Air Pollution Control District Master Plan, and capacity improvements to Santa Barbara Junior High School, outside of the rate-setting period (FY25-FY28). Funding for the Sanitary Sewer Overflow program is prioritized over this period. Approximately $63M in necessary capital investments have been identified over the four-year rate study period under this option which will be funded with a combination of financing (long-term borrowing), pay-as-you-go funding, and the use of capital reserves. Under this option, capital reserves dip below City policy by about $2.4M before returning to City policy levels by FY29.

Analysis of the two options indicates the approximate annual revenue increases in the table below will be sufficient to meet the needs of the wastewater system.

	FY25	FY26	FY27	FY28
Wastewater Option 1 Fully Funded Capital Reserves Below Policy	17.0%	17.0%	12.5%	12.0%
Wastewater Option 2 Defer Capital Reserves Below Policy	14.0%	14.0%	11.0%	11.0%

It is important to note that revenue increases do not equate to rate increases, or bill impacts, to individual customer classes of service. During the cost-of-service analysis phase of the study, the revenue requirements (e.g., costs) are proportionally allocated to each customer class, which may result in rate increases that are lower and/or higher than the revenue requirement percent increase for each class.

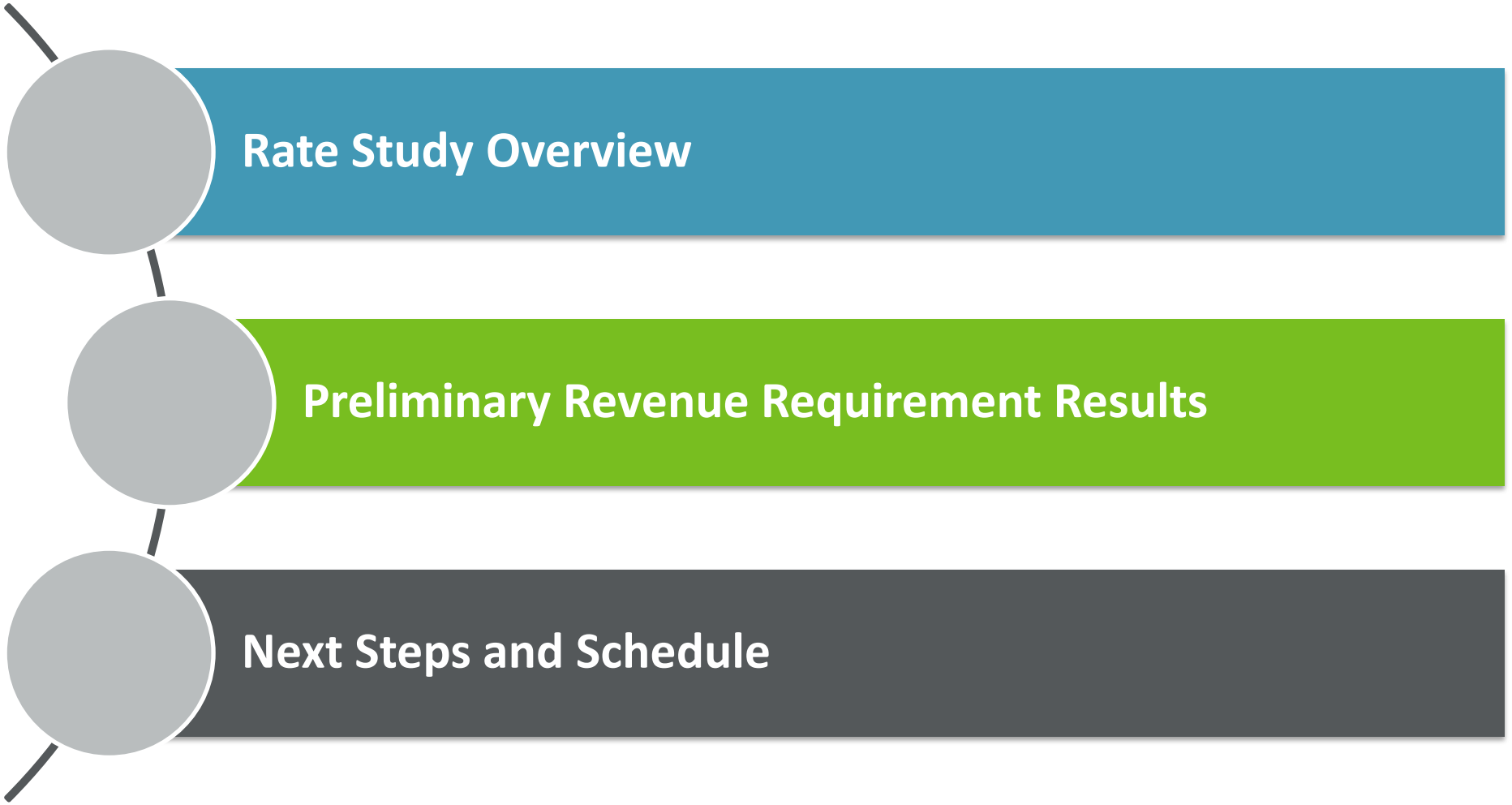
NEXT STEPS:

Based on the direction of the Water Commission, HDR will complete a cost-of-service analysis for both water and wastewater followed by a rate design analysis. This information will then be presented to the Water Commission at the February 15, 2024, meeting. With a recommendation from the Water Commission a notice to customers of the rate changes will be drafted and presented to the Finance Committee in late March 2024. To adopt the new rates with the budget in June 2024, rates must be noticed in April with a rate hearing before City Council in early June 2024.

Water and Wastewater Rate Study Preliminary Results

January 18, 2024

Overview of the Presentation



Purpose of the Rate Study

- Provide an adequate level of rate revenue to operate and maintain the City's water and wastewater systems
- Develop cost-based and proportional water and wastewater rates
  - Meet requirements of Proposition 218
- Reflect prudent financial planning criteria
  - Maintain target debt service coverage (DSC) ratio
  - Prudent rate funding of capital (Pay-Go)
  - Meet target reserve balances (i.e., Council Policy)
- Develop the study using generally accepted methodologies tailored to the City's system and customer characteristics
  - Water = AWWA M1 Manual
  - Wastewater = WEF MOP #27

Rate Study Development Key Themes

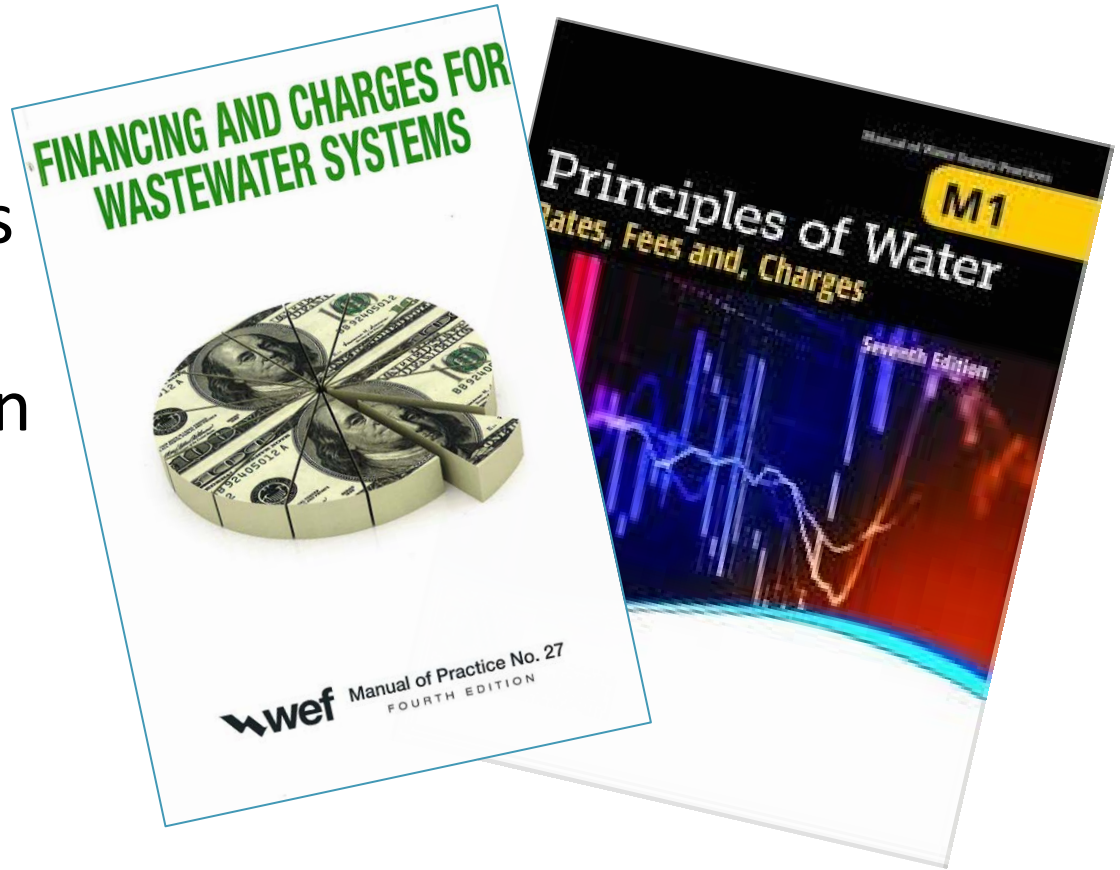
- Ensuring safety and environmental protection through investment in each utility
- Infrastructure
  - Renewal and replacement of aging system infrastructure
  - Future system demands
- Current and future staffing levels
- Affordability
- Inflationary increases for operating and capital costs

Continuation of Past Financial Planning Practices

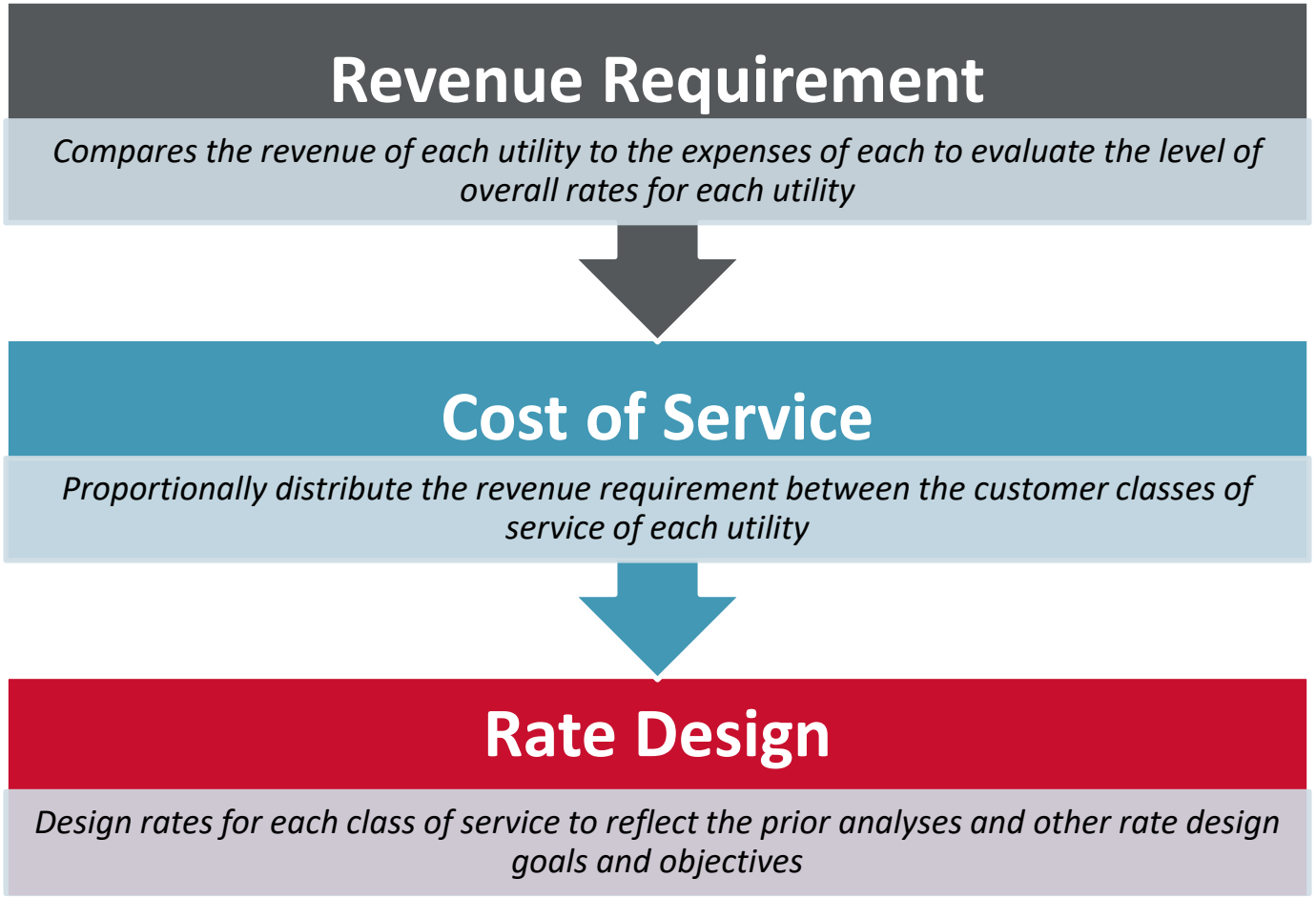
- Rate study is continuation of City's review and development of cost-based rates
- Current and past rate analyses have reviewed a ten-year period
  - Rates have been proposed for the next three to four years
- Long-Term planning
  - Capital infrastructure plan (30-year outlook)
  - Rate model (10-year plan updated every 3 to 4 years)
  - Rate setting methodology aligned with industry best practices

Key Study Issues

- Cost recovery for water and wastewater utilities
- Proportional distribution of costs
- Inflationary impacts to O&M expenses
- Increasing cost of capital projects
  - Supply chain, backlog, competition for resources
- Address affordability concerns
- Revenue stability and conservation impacts



Developing Cost-Based Rates



Overview of the Revenue Requirement

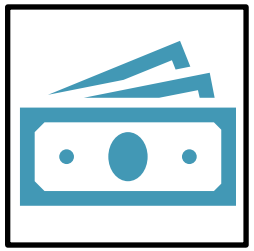
Compares utility revenues to expenses	• Determines the level of revenue (rate) adjustment necessary
Uses prudent financial planning criteria	• Adequate funding of renewal and replacements • Maintaining sufficient ending reserve balances
Reviews a specific time period	• Typically, review a five-to-ten-year period • Rate setting is often 2 – 5 years
Utilities are analyzed on a "stand-alone basis"	• No transfer of funds from other City funds • Rates need to support operations and capital
Utilizes the "cash basis" methodology	• Generally accepted method for municipal utilities

Adequately fund annual operating costs

Costs continue to increase since the prior rate studies

City is impacted by recent inflationary trends

Maintain Council Policy reserve levels



Providing sufficient capital funding for

Necessary Improvements for both utilities

Distribution and collection system renewal and replacement

Analysis includes long-term borrowing for specific projects

Cost-Based Rates

Balance the impacts to rates to adequately fund annual O&M and capital improvement needs

Maintain adequate debt service coverage ratios

Develop proposed rates for next four fiscal years (FY 2025 – FY 2028)

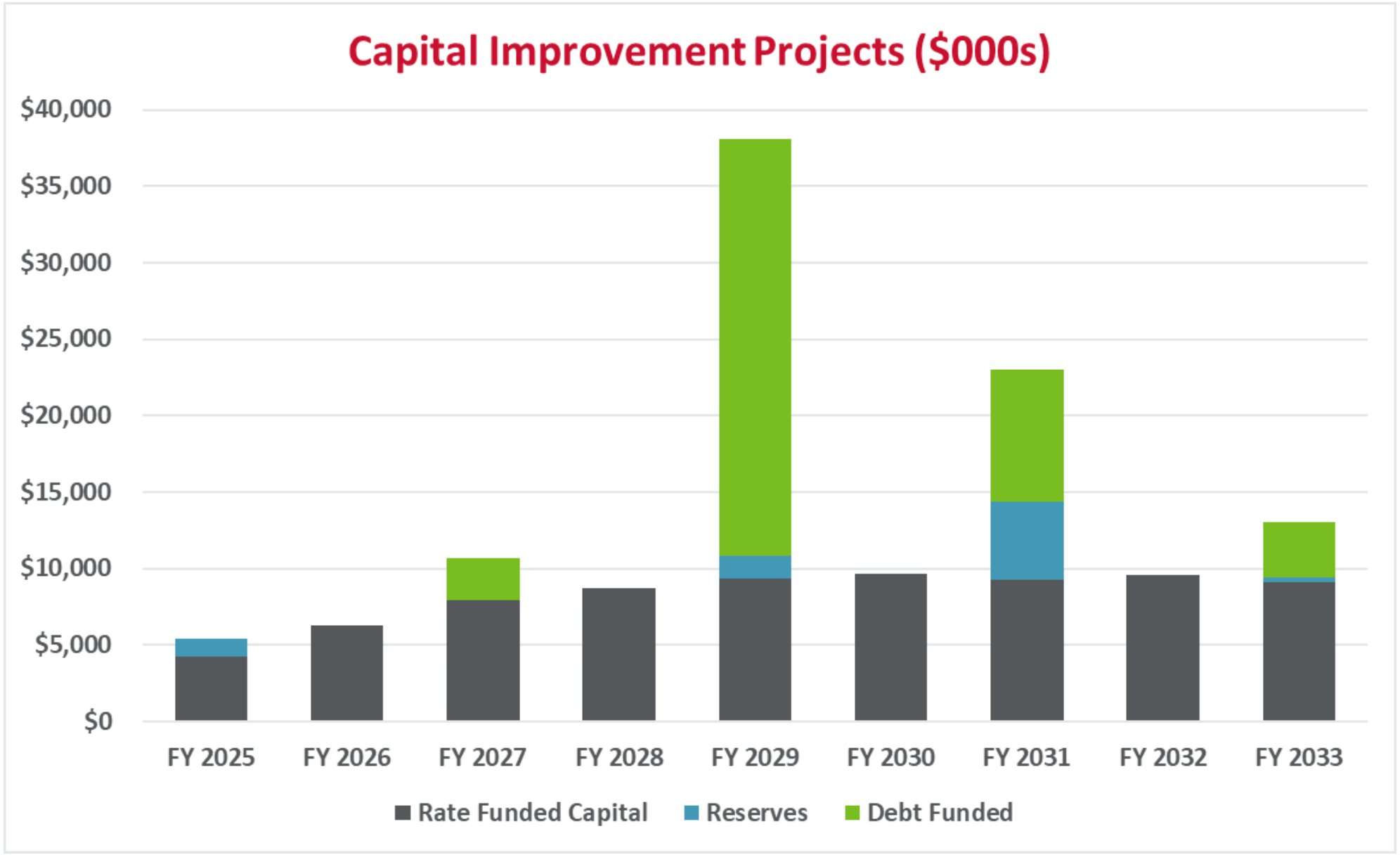
Revenue Requirement Key Assumptions

- Revenues based on recent customer characteristics and current adopted rates
- Assumed minimal customer and consumption growth
  - Billed volumes are based on historical water consumption
  - O&M based on the FY 2024 budget
  - Adjusted FY 2025 O&M for known changes
- Significant inflationary impacts to O&M costs the last several years
  - Property and liability insurance
  - Internal services allocation
  - Medical insurance
  - Chemicals
  - Electricity

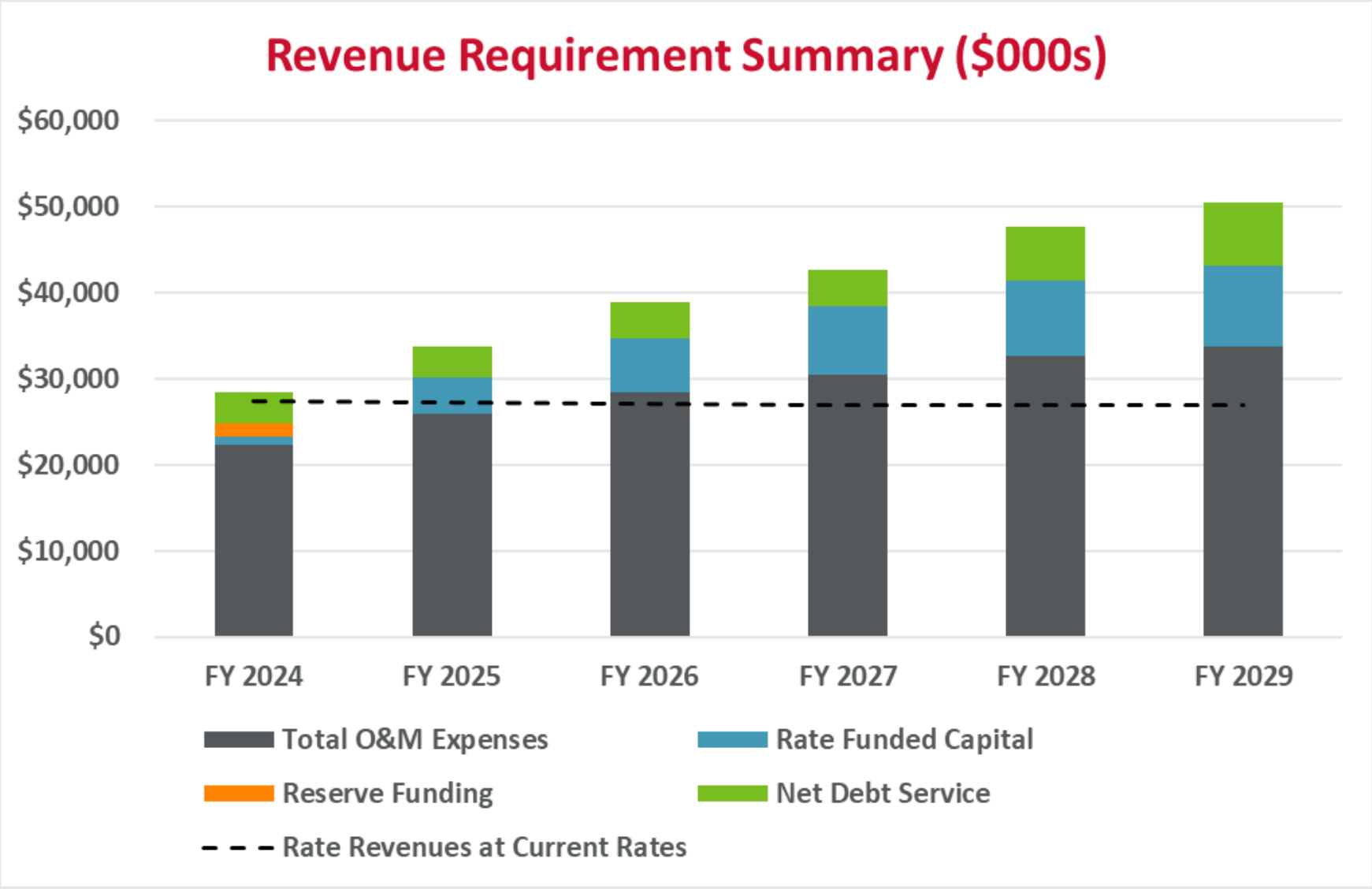
Revenue Requirement Key Assumptions

- First two years (FY 2025 and FY 2026) of the rate setting period reflect past and current inflationary impacts
- Second two years (FY 2027 and FY 2028) of rate setting period continue above average inflationary levels
- Inflation is reduced in outer years (after FY 2028) closer to historical inflation levels
- Capital improvements based on current capital plan
  - Additional long-term debt issuance is necessary to fund capital improvement plans
  - Rate funding and available reserves fund remaining capital needs
    - Need to maintain Council minimum reserve levels

Wastewater Capital Improvement Funding Plan



Wastewater Revenue Requirement Summary



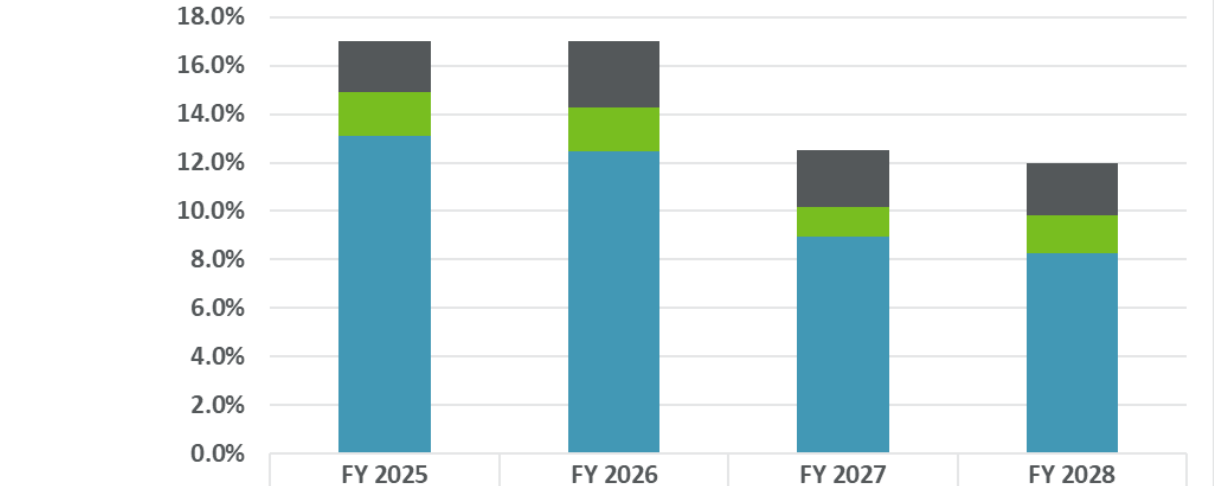
Wastewater Revenue Requirement Alternatives

- Developed alternative revenue requirements for consideration
  1. Planned capital with reduced reserves below Council policy through FY 2028
  2. Shifted capital outside of rate setting period (~$6 million) and reduced capital needs in future years, reduced reserves below Council policy through FY 2029
- Results in trade-offs between rate impacts and risk of reduced reserves
  - Reduced available reserves for emergency situation or unexpected capital need
  - Ability to fund projects should cost increase or additional improvements be necessary

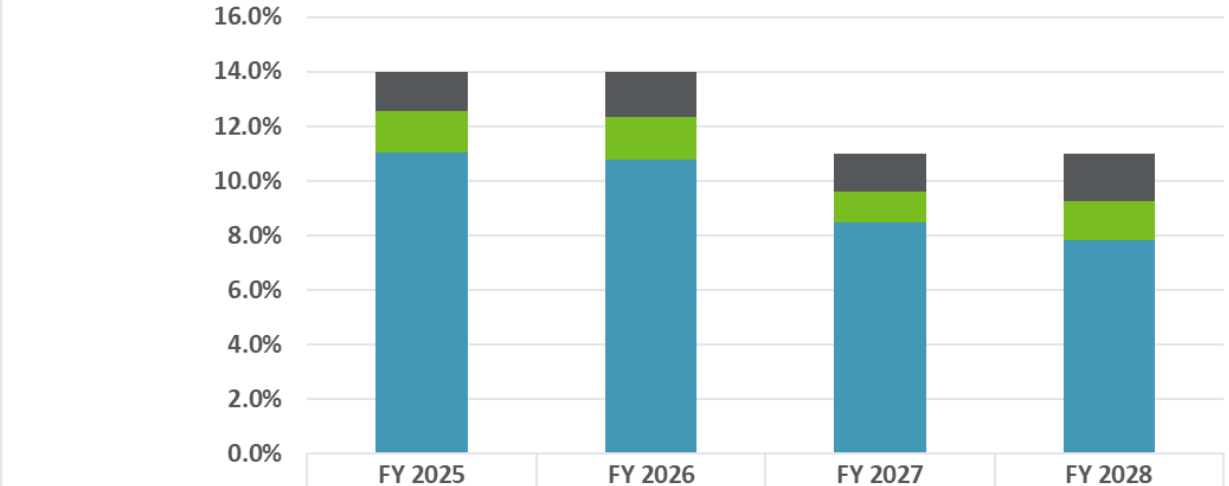
Wastewater Revenue Requirement Alternative Comparison

		FY 2025	FY 2026	FY 2027	FY 2028
Opt. 1	Planned Capital	17.0%	17.0%	12.5%	12.0%
Opt. 2	Reduced Capital	14.0%	14.0%	11.0%	11.0%
Monthly Bill Impact					
Opt. 1	Planned Capital	$10.41	$12.18	$10.48	$11.32
Opt. 2	Reduced Capital	$8.57	$9.77	$8.75	$9.72

Wastewater Rate Drivers

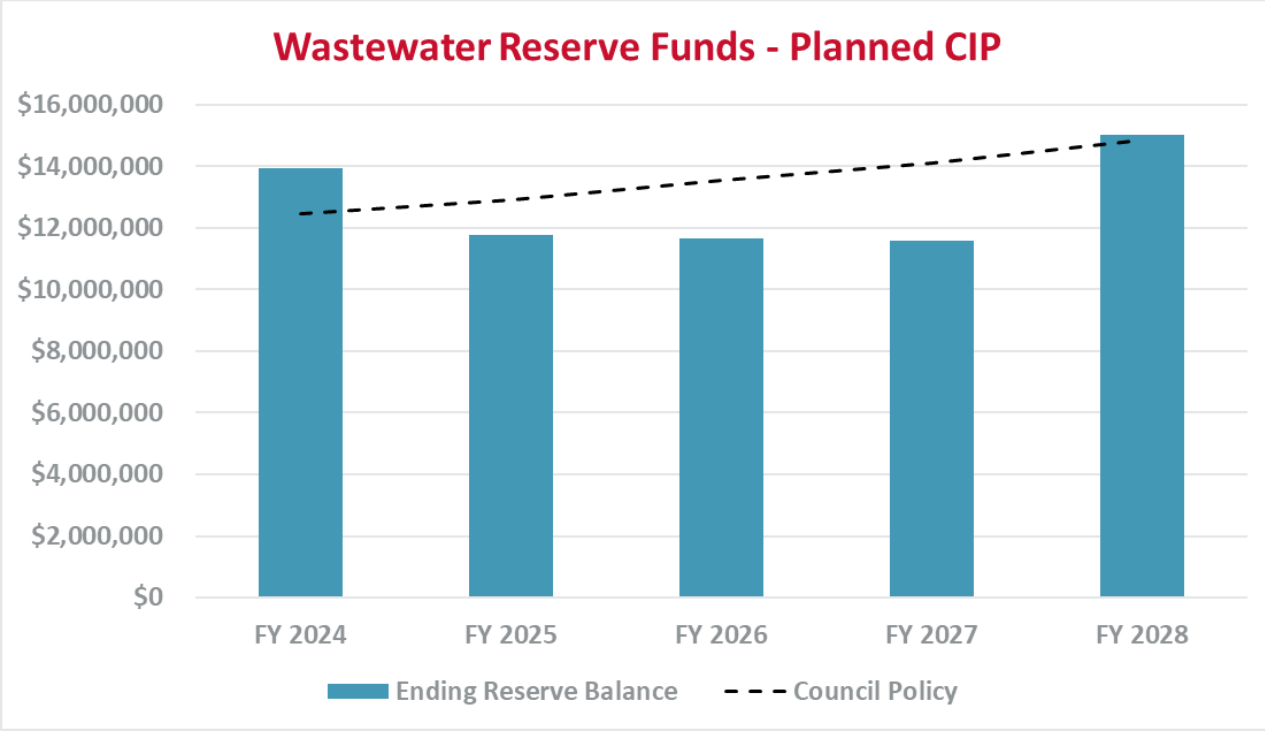


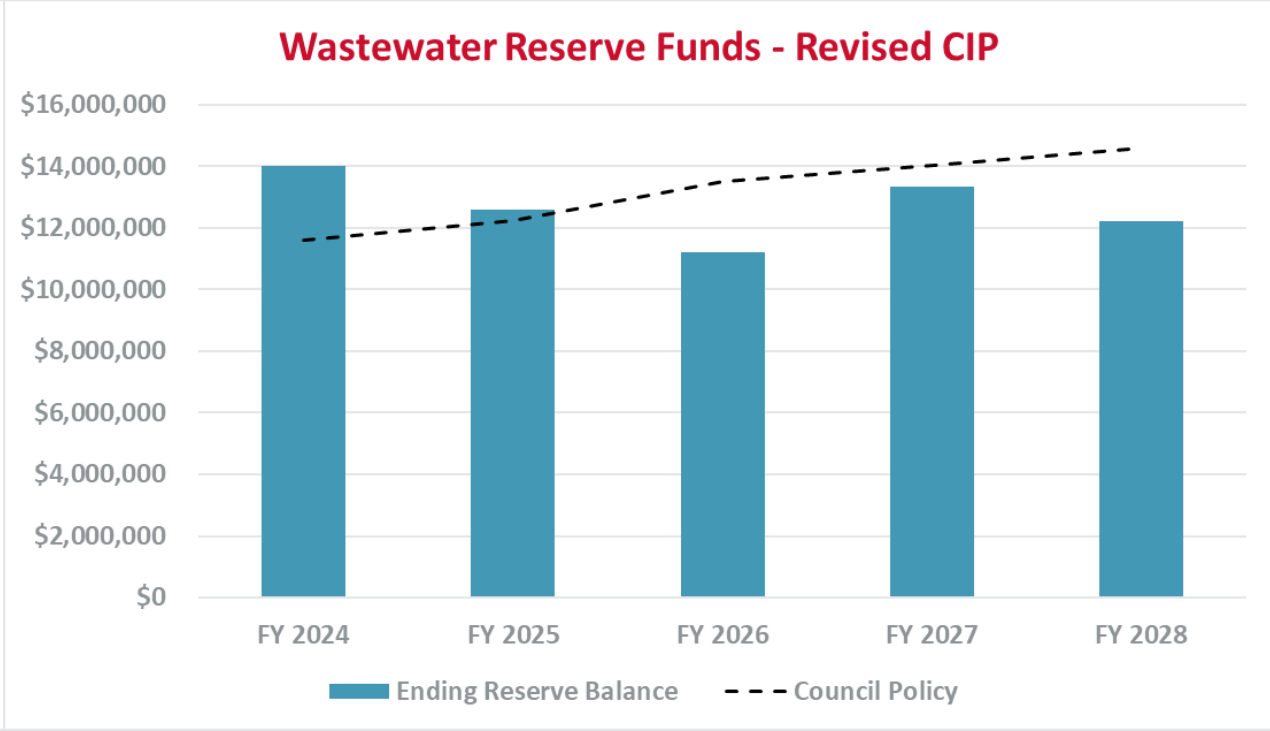
	FY 2025	FY 2026	FY 2027	FY 2028
Reserve Funding	0.0%	0.0%	0.0%	0.0%
Rate Funded Capital	2.1%	2.7%	2.3%	2.2%
Debt	1.8%	1.8%	1.3%	1.6%
O&M	13.1%	12.5%	8.9%	8.2%



	FY 2025	FY 2026	FY 2027	FY 2028
Reserve Funding	0.0%	0.0%	0.0%	0.0%
Rate Funded Capital	1.4%	1.7%	1.4%	1.7%
Debt	1.5%	1.6%	1.1%	1.4%
O&M	11.0%	10.8%	8.5%	7.8%

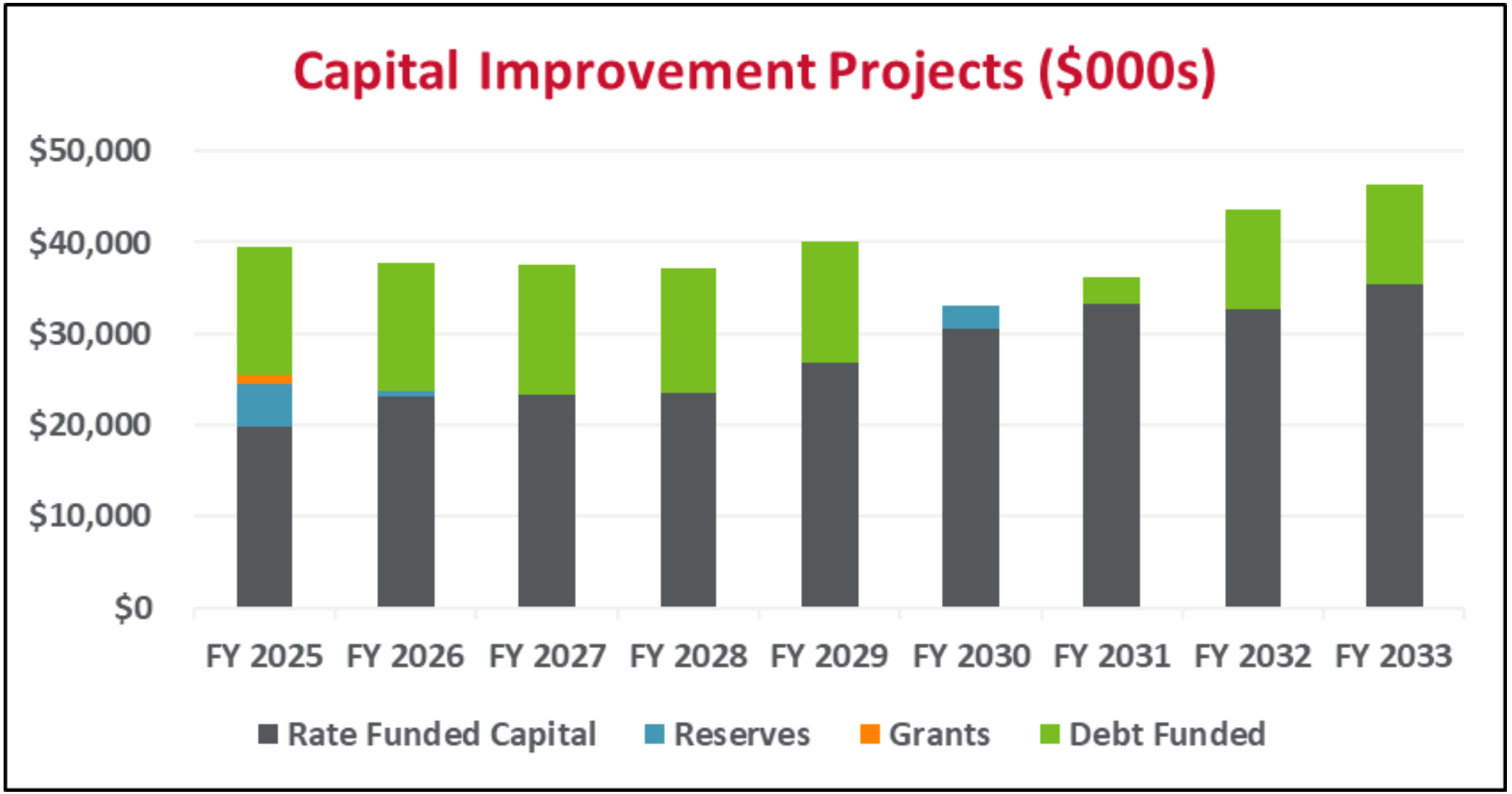
Wastewater Reserve Summary



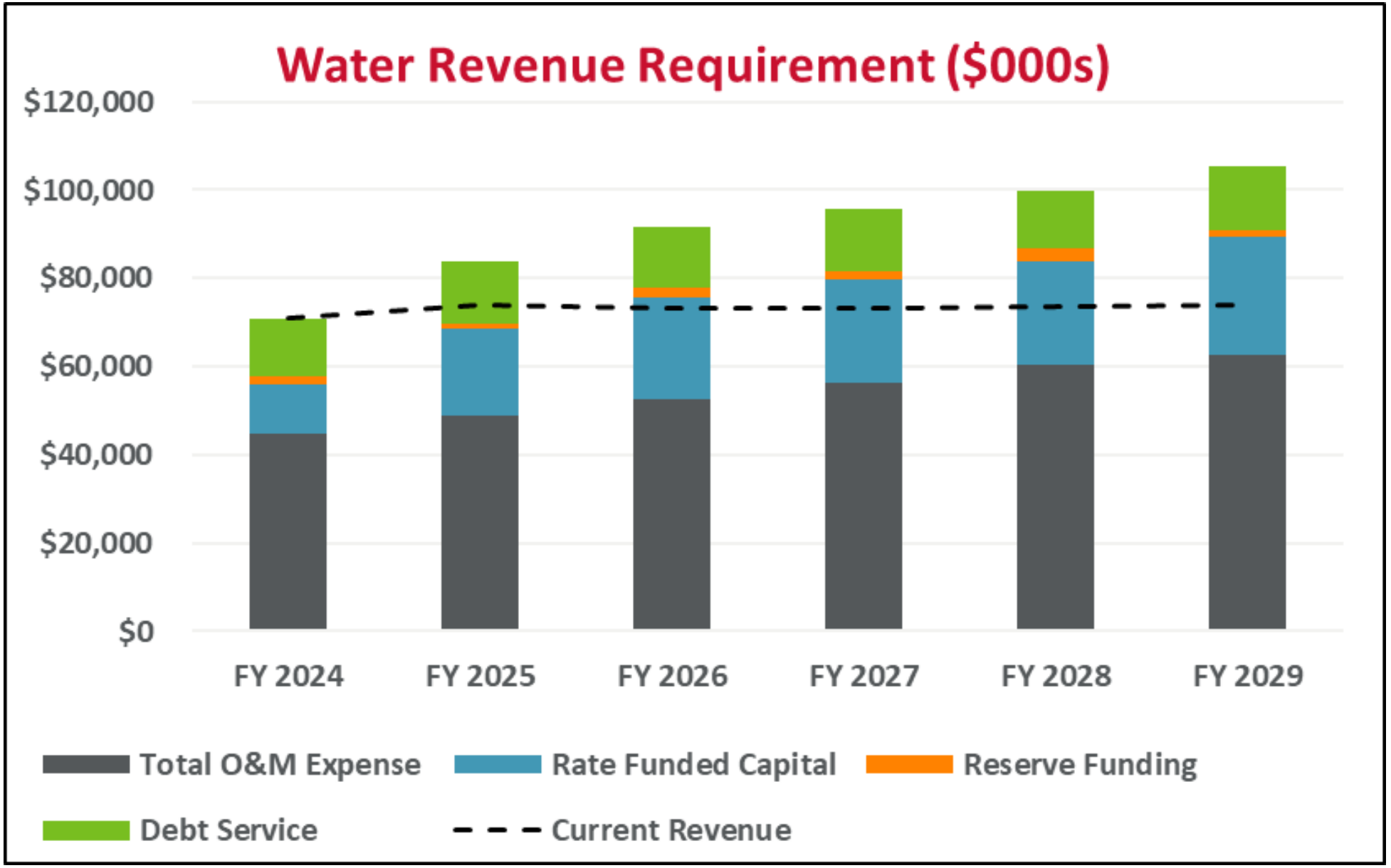


Reserve target is reached in FY 29 with 8.5% rate adjustment

Water Capital Improvement Funding Plan



Water Revenue Requirement Summary



Water Revenue Requirement Alternatives

- Developed alternative revenue requirements for consideration
  - Opt. 1 – Planned capital, meet Council policy reserve levels
  - Opt. 2 – Planned capital, reduced reserves below Council policy through FY 2028
  - Opt. 3 - Reduced main replacement, shifted project timing, reduced reserves below Council policy through FY 2029
- Options 2 and 3 results in trade-offs between rate impacts and critical infrastructure needs
  - Reduced available reserves for emergency situations or unexpected capital need
  - Reduces main replacement by ~$8.4 million in first three years
  - Shifts out projects into future which may result in higher cost due to inflationary impacts
  - Likely increase main break/leak repairs in long-run

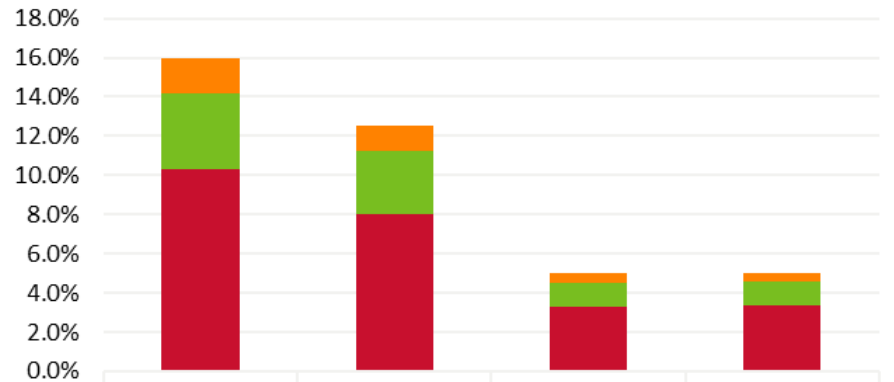
Water Revenue Requirement Alternative Comparison

		FY 2025	FY 2026	FY 2027	FY 2028
Opt. 1	Planned Capital	16.0%	12.5%	5.0%	5.0%
Opt. 2	Planned Capital / lower Reserves	12.0%	11.5%	10.5%	9.5%
Opt. 3	Shifted and Reduced Capital / lower Reserves	9.6%	9.6%	9.6%	9.6%
Average Monthly Bill Impact *					
Opt. 1	Planned Capital	$18.20	$16.50	$7.42	$7.79
Opt. 2	Planned Capital / lower Reserves	$13.65	$14.65	$14.92	$14.91
Opt. 3	Shifted and Reduced Capital / lower Reserves	$10.92	$11.97	$13.12	$14.38

* Estimated bill impacts based on average customer bill before cost of service and rate design

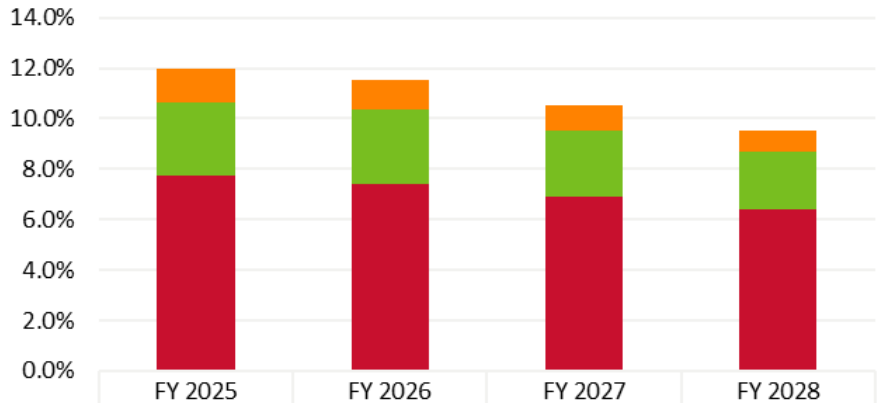
Water Rate Drivers

Planned CIP



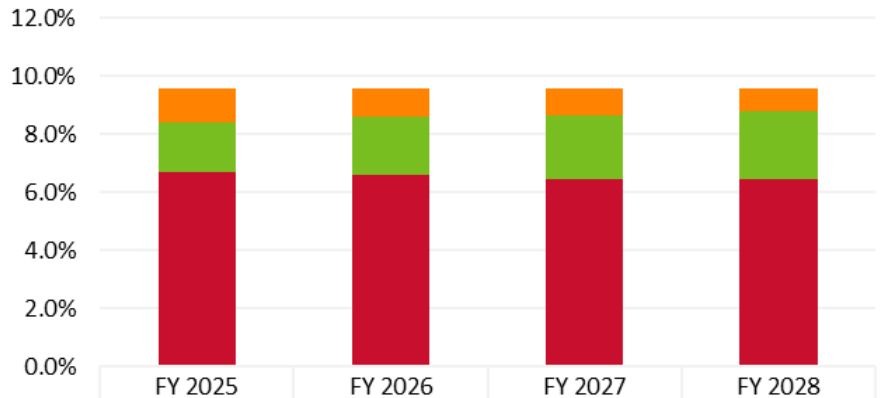
	FY 2025	FY 2026	FY 2027	FY 2028
Reserve Fund Rate Adj	0.0%	0.0%	0.0%	0.0%
Debt Rate Adj	1.8%	1.2%	0.5%	0.4%
Rate Funded Capital Rate Adj	3.9%	3.2%	1.2%	1.2%
O&M Rate Adj	10.3%	8.0%	3.3%	3.4%

Planned CIP Reduced Reserves



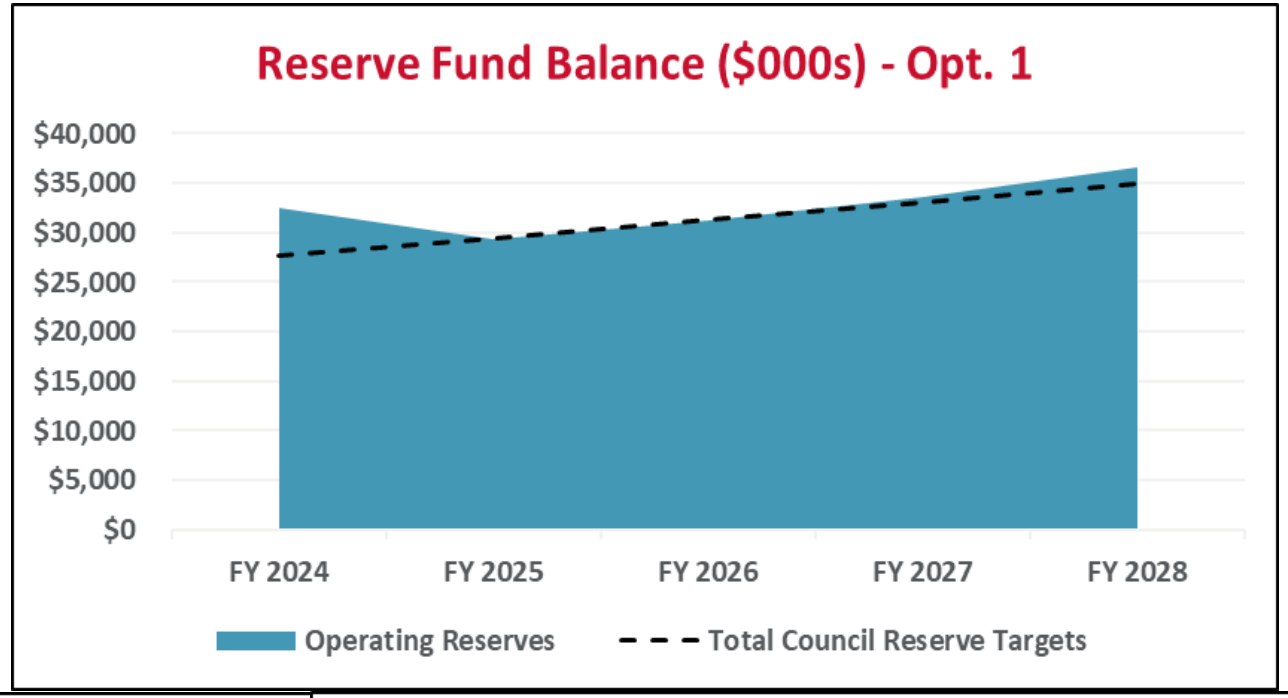
	FY 2025	FY 2026	FY 2027	FY 2028
Reserve Fund Rate Adj	0.0%	0.0%	0.0%	0.0%
Debt Rate Adj	1.4%	1.1%	1.0%	0.8%
Rate Funded Capital Rate Adj	2.9%	3.0%	2.6%	2.3%
O&M Rate Adj	7.8%	7.4%	6.9%	6.4%

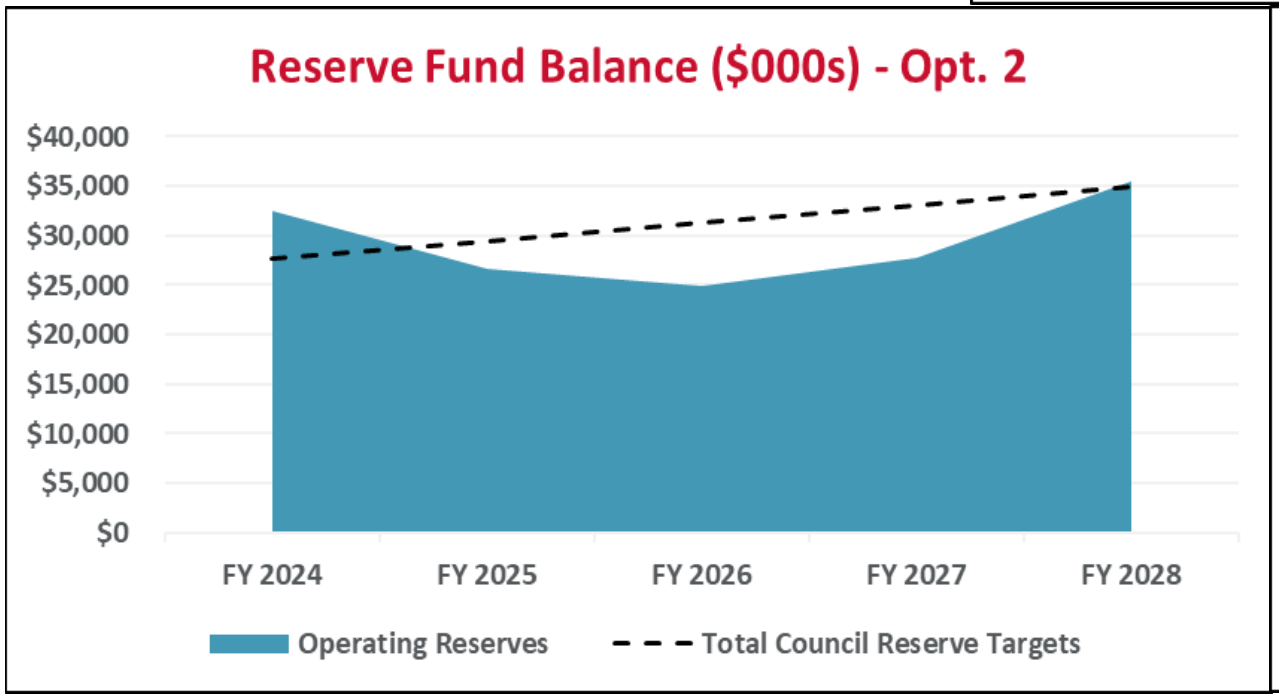
Reduced CIP and Reserves

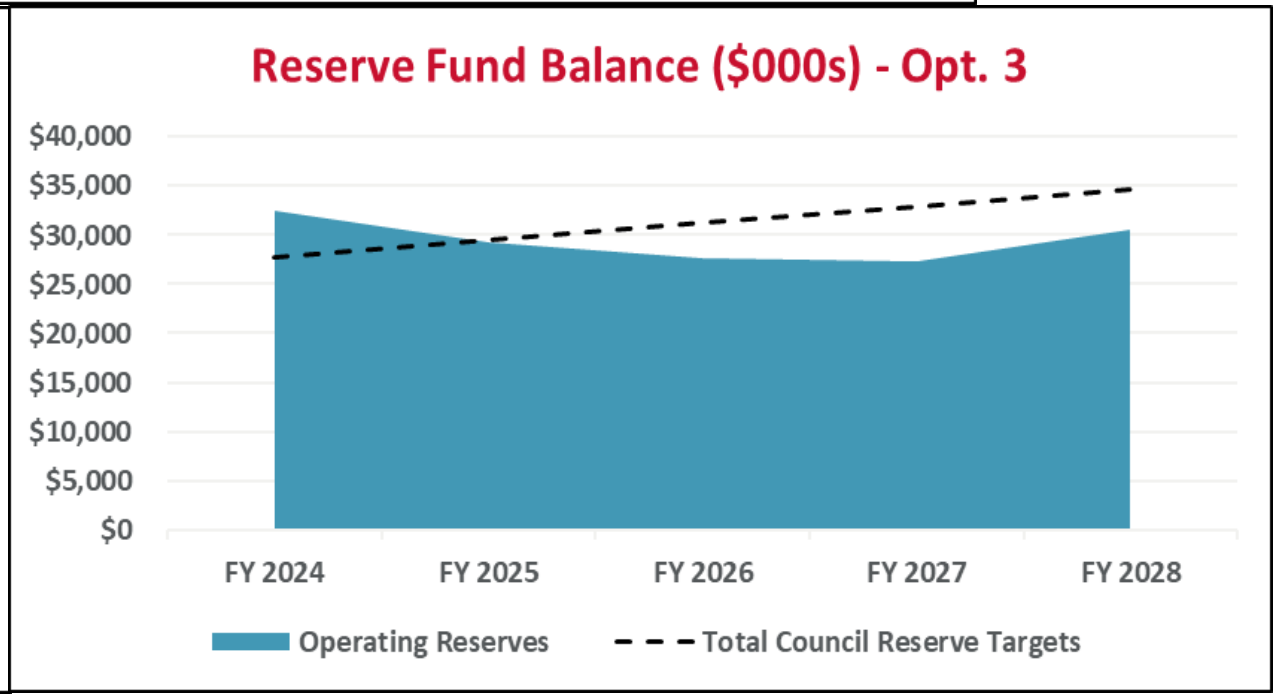


	FY 2025	FY 2026	FY 2027	FY 2028
Reserve Fund Rate Adj	0.0%	0.0%	0.0%	0.0%
Debt Rate Adj	1.2%	1.0%	0.9%	0.8%
Rate Funded Capital Rate Adj	1.7%	2.0%	2.2%	2.3%
O&M Rate Adj	6.7%	6.6%	6.5%	6.5%

Water Reserve Summary







Preliminary Revenue Requirement Results

- Annual rate adjustments are necessary to prudently fund the water and wastewater utility
  - O&M – annual inflationary impacts and future staffing needs
  - Capital – increase of funding for annual renewal, replacement and necessary improvements
  - Reserves – meet Council policy levels
  - Maintain adequate financial metrics needed to issue future planned long-term debt
- Actual rate/bill impacts will be determined after cost-of-service analyses is completed

Cost of Service and Rate Design

- Preliminary cost of service analysis is complete for both utilities
  - Finalizing analyses and working with City to review and discuss analysis and results
- Allocate costs based on why costs are incurred
  - Water – average day, cost of water supply (resource stacking), and/or customer related
  - Wastewater - volume, strength, or customer related
- Proportionally distribute allocated costs to each customer class of service of each utility
  - Distribution factors are based on each customer class's characteristics
- Currently approach is to maintain current rate structures
  - Level of the rates will adjust based on overall revenue requirement and cost of service results
- Cost of service results and proposed rates will be presented at next Water Commission meeting

Next Steps

- Update and finalize the revenue requirement based on input and feedback
- Develop the cost of service and rate design analyses
- Review results and recommendations with staff
- Present findings and proposed rates to Water Commission

Schedule

- Jan – Feb 2024: Water Commission reviews draft study results and recommendations
- March 2024: Finance committee reviews final study results and recommendations
- June 2024: Council holds public hearing
- July 1, 2024: rate implementation

Thank you for your input!