



Town of Vienna

Water & Sewer Rate Study Rates Results Presentation

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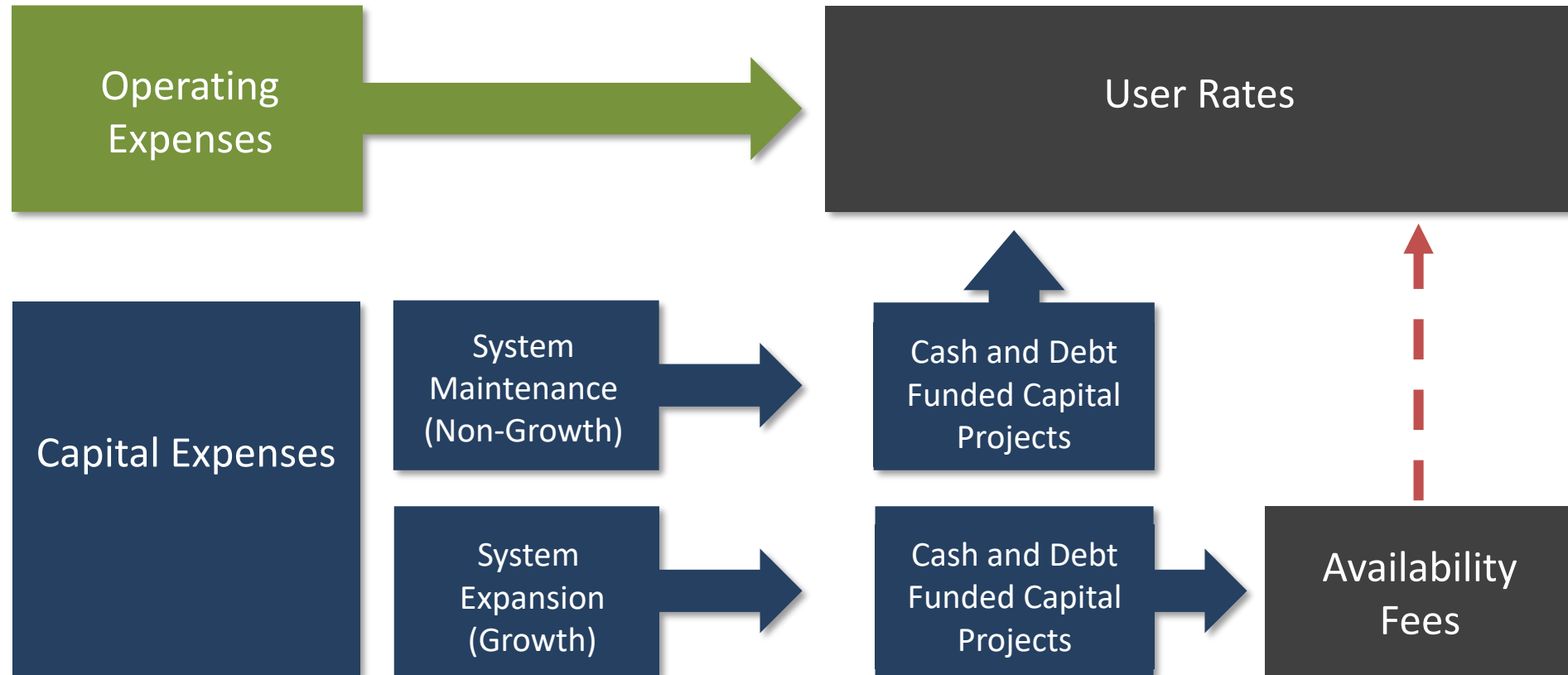
Guiding Principles and Objective

- The water and sewer systems must each be financially self-supporting
- The utility should maintain reserves to provide for contingencies and unplanned expenses
- Water and sewer rates should be kept as low as possible *over time*

Objective: Ensure rates are stable through sound financial management and system maintenance

- ✓ Review water and sewer funds to maintain financial stability
- ✓ Prepare long-term financial plan that includes capital investments required for a sustainable system

Flow of Funds

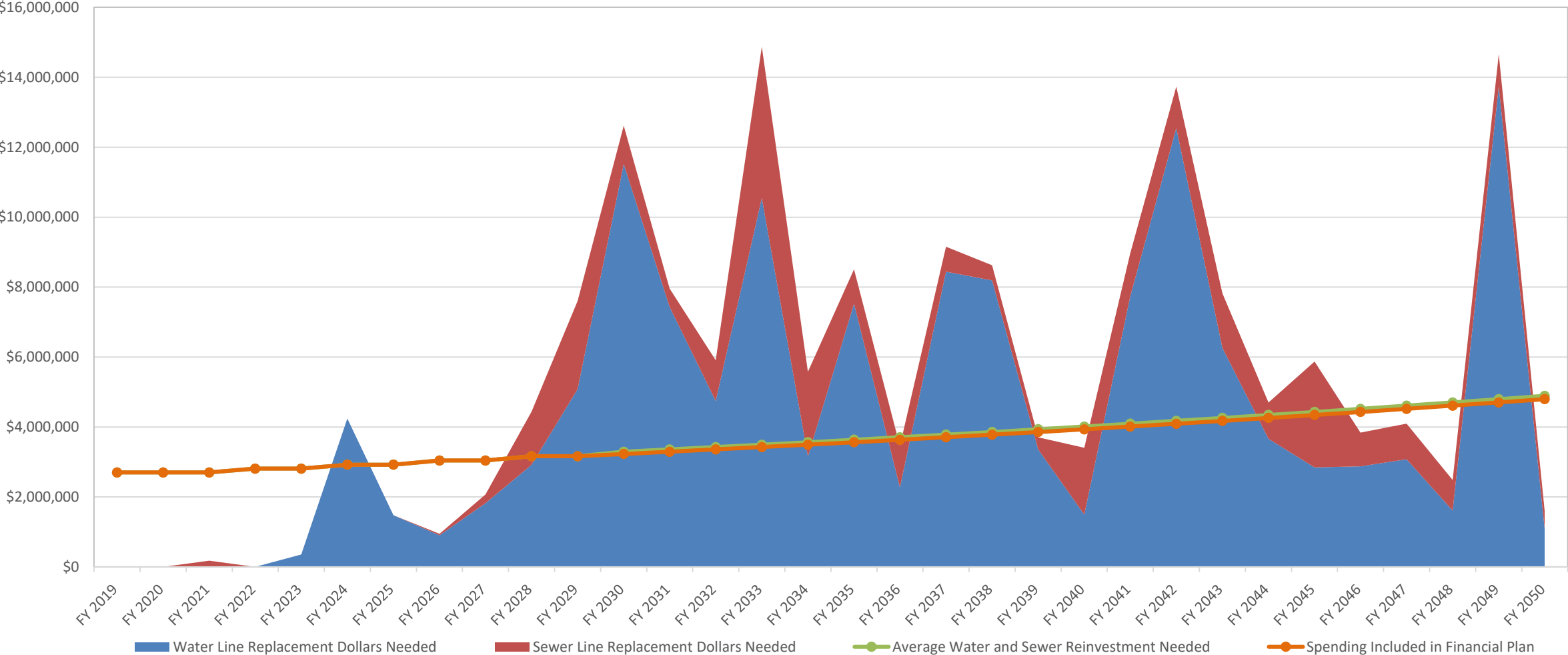


If availability fees are set at less than cost or anticipated growth does not occur, existing customers will have to make up the difference via higher user rates.

Factors Affecting Rates and Fees

- Operating and maintenance expense changes
 - D.C. WASA: 4% (includes Blue Plains Capital)
 - Fairfax Sewer: 3%
 - Water Wholesale: 1%
 - 3.0% escalation rate per year for all other expenses
- Capital improvement plans
 - Fairfax County Sewer Treatment Capital (\$2.5 million in 2020 and 2022, \$3.0 million in 2024, 2026 and 2028)
 - Water and Sewer Line Rehab (\$5.4 million total, escalated at 2% per year with debt issues in 2020, 2022, 2024, 2026 and 2028)
 - Vehicle purchases based on useful life of current fleet
- Debt service
 - Fully funding existing debt
 - Future debt for above stated capital projects: 15 year loans @ 3.5%, rising to 4.0% in 2021 and 4.5% in 2024, for treatment and line replacement; 4 year loans @ 2.5% for vehicle replacement
- Customers, water usage/sewage generation, miscellaneous revenue
 - minimal growth (MAC Projects)
- Minimum cash balance
 - 90 days of operating expenses

Line Replacement Analysis



Assumed replacement/rehab cost per linear foot Water: \$250 Sewer: \$100

Fiscal Year 2018 Revenue Requirements

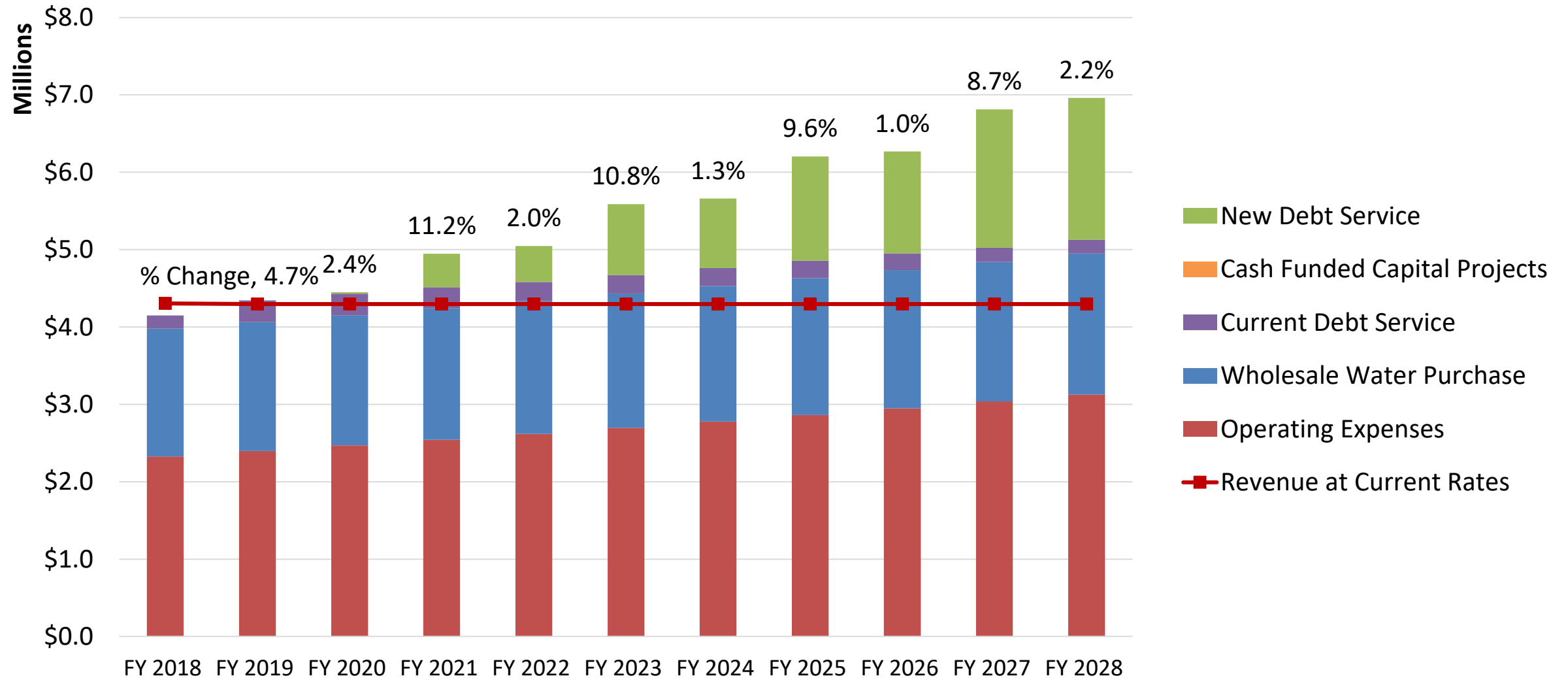
WATER

- Operating & Maintenance expenses
 - \$2,327,272
- Wholesale Water Purchase
 - \$1,650,000
- Current Debt Service
 - \$171,262
- Less out Miscellaneous Revenues
 - (\$301,523)
- TOTAL
 - **\$3,847,011**

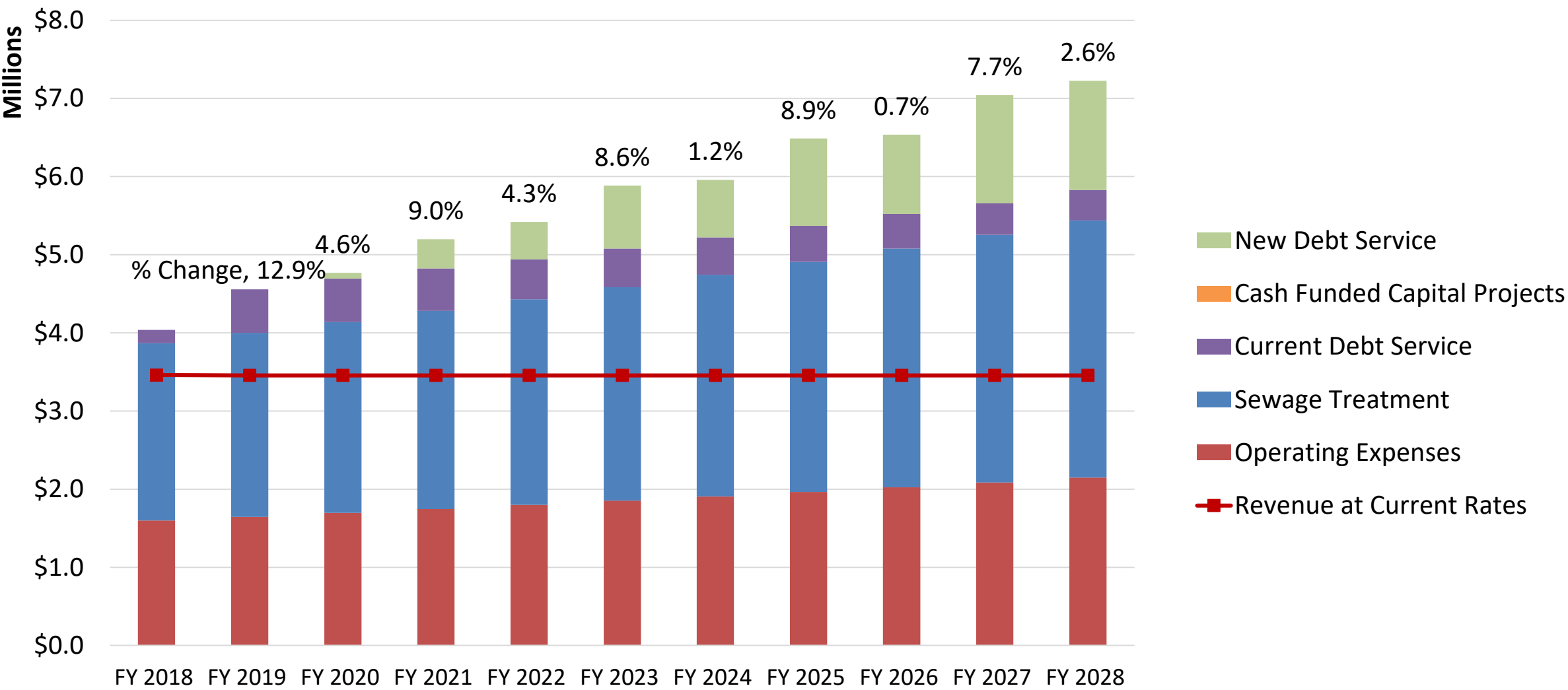
SEWER

- Operating & Maintenance expenses
 - \$1,597,961
- Sewage Treatment
 - \$2,268,420
- Current Debt Service
 - \$171,262
- Less out Miscellaneous Revenues
 - (\$197,797)
- TOTAL
 - **\$3,839,845**

Revenue Requirements vs. Revenue - Water



Revenue Requirements vs. Revenue - Sewer



Current Rate Design and Proposed Rate Plan

Quarterly Service Charge (per meter)	Residential	Non-Residential
5/8"	\$15.00	\$15.75
1"	\$15.00	\$17.85
1 1/2"	\$15.00	\$24.49
2"	\$15.00	\$32.00
3"	\$15.00	\$78.99
4"	\$15.00	\$130.00

Unit Rates (per 1,000 Gallons)	Water	Sewer
Residential		
1 st Tier (0-16,000)	\$4.98	\$6.09
2 nd Tier (16,001-32,000)	\$5.42	\$6.59
3 rd Tier (Over 32,000)	\$6.27	\$7.64
Non-Residential		
1 st Tier (0-90,000)	\$4.98	\$6.09
2 nd Tier (90,001-180,000)	\$5.42	\$6.59
3 rd Tier (Over 180,000)	\$6.27	\$7.64

Proposed Service Charges as a % of Total Revenues	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Service Charge Revenue (as a % of Total, currently 7.7%)	10.0%	12.5%	15.0%	15.0%	15.0%

Proposed Unit Rate Revenue Increases	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Water Rate Revenue Percentage Increase	3.5%	3.5%	3.5%	3.5%	3.5%
Sewer Rate Revenue Percentage Increase	10.0%	10.0%	10.0%	10.0%	10.0%

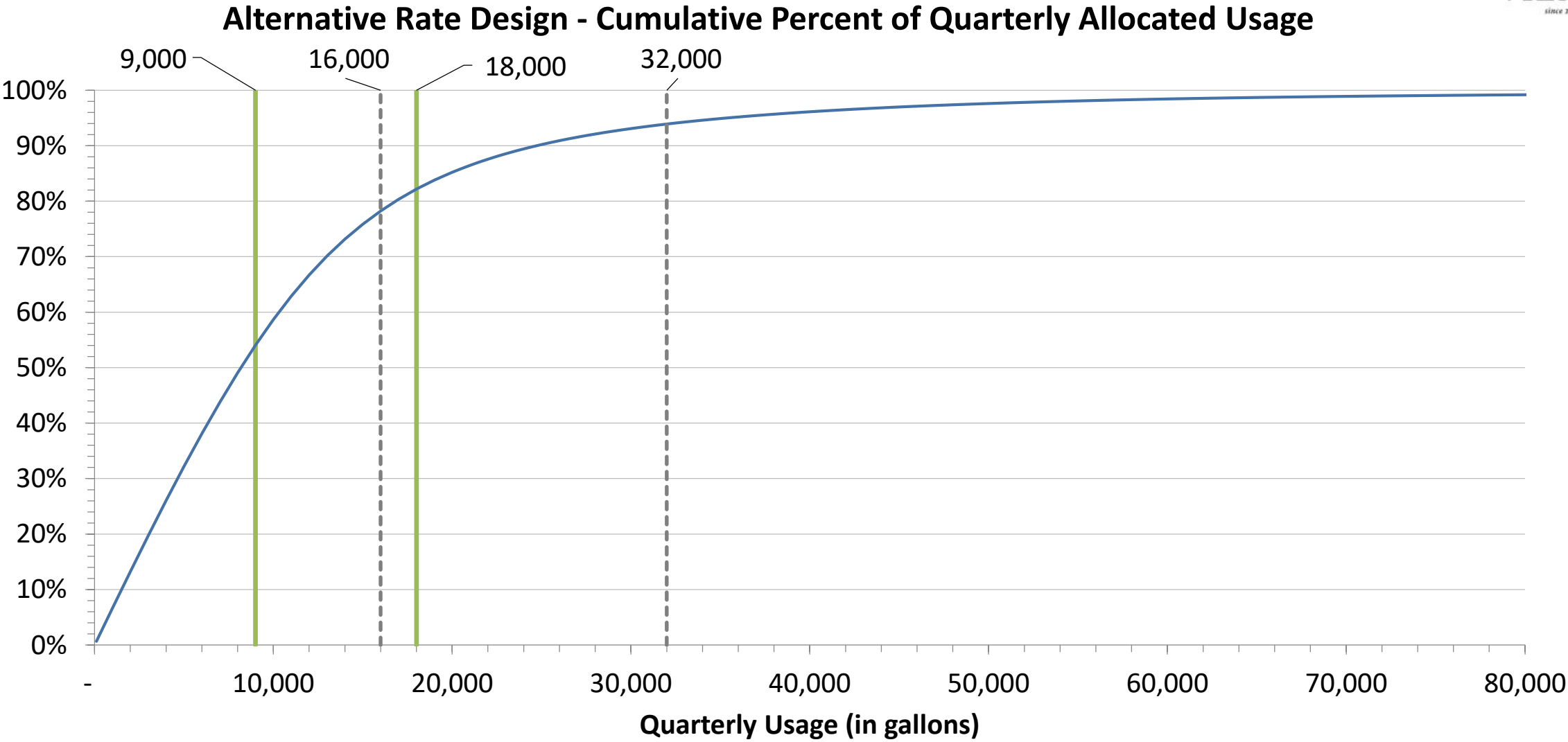
Recommended Water Rates

	Equivalents	Current FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Quarterly Service Charges							
Residential	All Meters	\$15.00	\$17.75	\$23.00	\$30.55	\$31.55	\$34.75
Commercial	AWWA						
5/8"	1.00	\$15.75	\$25.50	\$33.05	\$43.90	\$45.35	\$49.95
1"	2.50	\$39.38	\$63.75	\$82.63	\$109.75	\$113.38	\$124.88
1 1/2"	5.00	\$78.75	\$127.50	\$165.25	\$219.50	\$226.75	\$249.75
2"	8.00	\$126.00	\$204.00	\$264.40	\$351.20	\$362.80	\$399.60
3"	16.00	\$252.00	\$408.00	\$528.80	\$702.40	\$725.60	\$799.20
4"	25.00	\$393.75	\$637.50	\$826.25	\$1,097.50	\$1,133.75	\$1,248.75
Water Usage Rates (per 1,000 gallons)							
Residential							
1 st Tier (0-9,000)		\$4.98	\$5.10	\$5.30	\$5.50	\$5.70	\$5.90
2 nd Tier (9,001-18,000)		\$5.42	\$5.55	\$5.75	\$6.00	\$6.20	\$6.40
3 rd Tier (Over 18,000)		\$6.27	\$6.40	\$6.65	\$6.90	\$7.20	\$7.45
Non-Residential							
1 st Tier (0-120,000)		\$4.98	\$5.10	\$5.30	\$5.50	\$5.70	\$5.90
2 nd Tier (120,001-360,000)		\$5.42	\$5.55	\$5.75	\$6.00	\$6.20	\$6.40
3 rd Tier (Over 360,000)		\$6.27	\$6.40	\$6.65	\$6.90	\$7.20	\$7.45

Recommended Sewer Rates

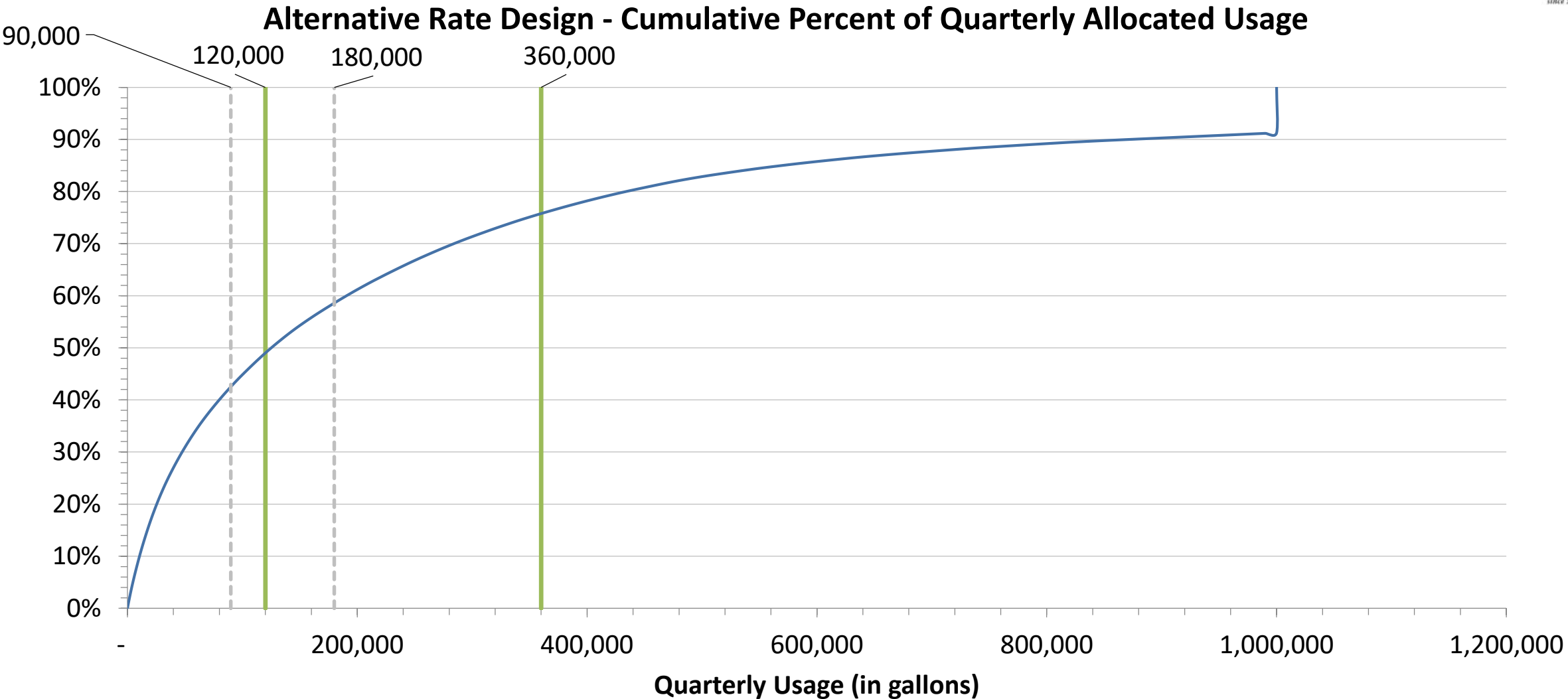
	Current FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Sewer Usage Rates (per 1,000 gallons)						
Residential						
1 st Tier (0-9,000)	\$6.09	\$6.65	\$7.30	\$8.05	\$8.85	\$9.75
2 nd Tier (9,001-18,000)	\$6.59	\$7.20	\$7.90	\$8.70	\$9.60	\$10.55
3 rd Tier (Over 18,000)	\$7.64	\$8.35	\$9.15	\$10.10	\$11.10	\$12.25
Non-Residential						
1 st Tier (0-120,000)	\$6.09	\$6.65	\$7.30	\$8.05	\$8.85	\$9.75
2 nd Tier (120,001-360,000)	\$6.59	\$7.20	\$7.90	\$8.70	\$9.60	\$10.55
3 rd Tier (Over 360,000)	\$7.64	\$8.35	\$9.15	\$10.10	\$11.10	\$12.25

Residential Tier Adjustment



Note: Dashed lines are the current tiers, green lines are the recommended tiers.

Non-Residential Tier Adjustment

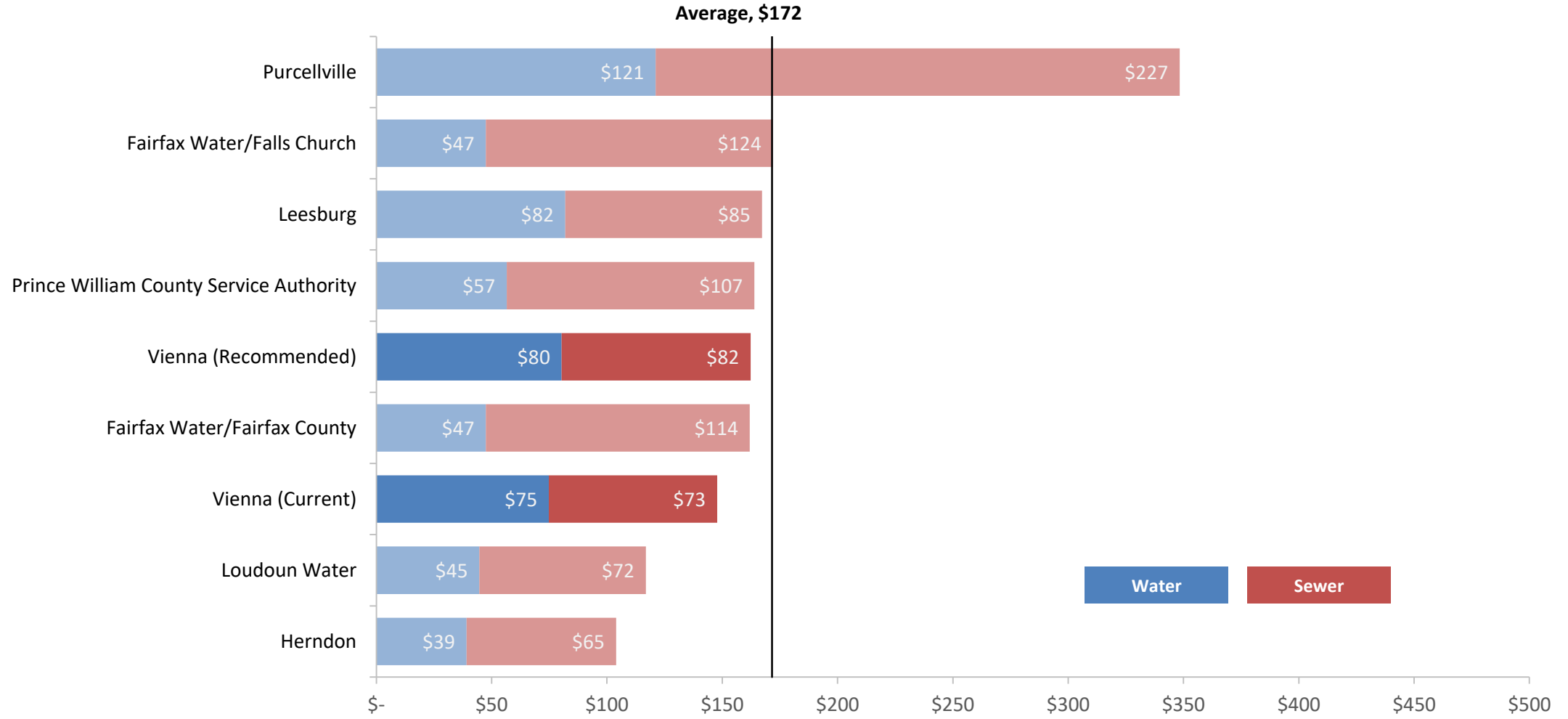


Note: Dashed lines are the current tiers, green lines are the recommended tiers.

What's the quarterly bill impact on typical water and sewer customers (Residential 5/8 inch meter size)?

User (Percentile)	Number of Customers Between Percentiles	Quarterly Usage (gallons)	Bill with Current Rates	Bill with Projected FY 2019 Rates	% Increase
Minimal User (10th)	674	5,000	\$70.35	\$76.50	8.7%
Small User (25th)	1,495	8,000	\$103.56	\$111.75	7.9%
Median (50th)	1,404	12,000	\$147.84	\$161.75	9.4%
Large User (75th)	824	17,000	\$204.13	\$225.50	10.5%
Excessive User (90th)	221	23,000	\$276.19	\$312.00	13.0%

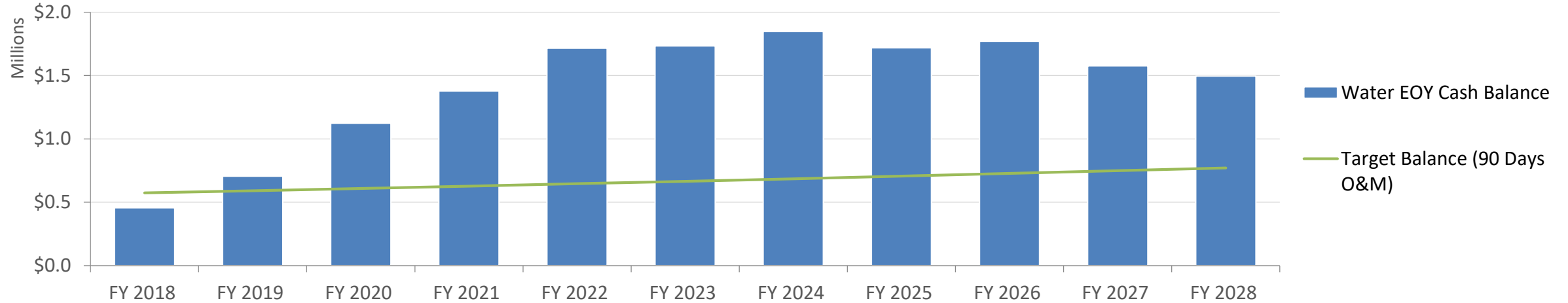
Combined Quarterly Residential Bill Comparison (Latest Available)



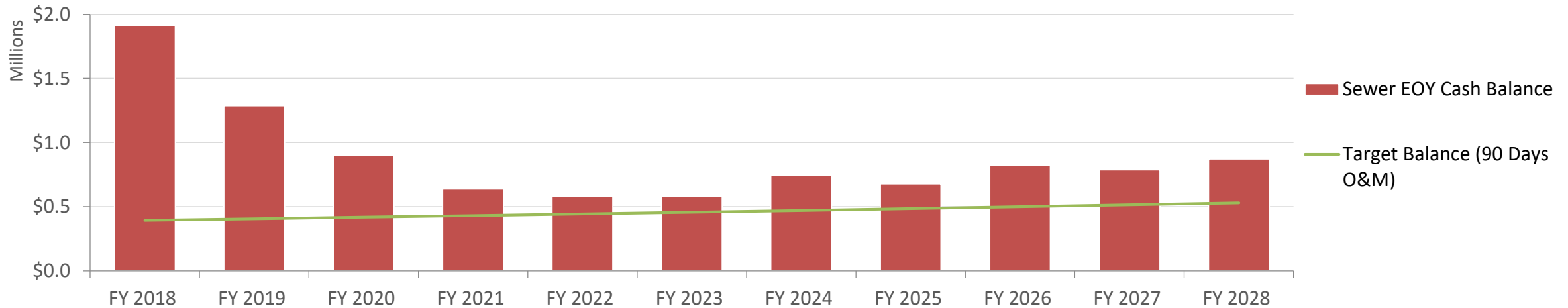
5/8 inch meter and 12,000 gallons of usage (median for Vienna customers)

End of Year Cash Balance

Water



Sewer



Minimum Balance equals 90 days of operating expenses

Discussion / Questions?

