

November 21, 2024 | Rapidan Service Authority | Water and Sewer Rate Study

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## Presentation: Rate Study Findings



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# Business Fundamentals



## Revenue Sufficiency

Revenues match or exceed expenses



## Reserves

Plan for a rainy day



## Reinvestment

Repair, replace, and reinvest in infrastructure

# Factors Affecting Charges and Rates

- Operating and maintenance expense changes
  - Purchased water escalated by 12.8% for FY 2025; Majority of other expenses escalated by 3.0% per year
- Capital improvement plans
  - investment in the treatment, distribution, and collection systems
- Debt service
  - existing and future debt
- Customer changes (based on projected future growth)
  - East Water and Sewer: 2% increase per year; Madison Water and Sewer: 5% increase per year; Gordonsville Sewer: 1% increase per year; All other systems: no increase
- Water usage and sewage generation changes (based on projected future growth)
  - East Water and Sewer: 3% increase per year; Madison Water and Sewer: 5% increase per year; Gordonsville Wholesale Water: 2% increase per year; Gordonsville Sewer: 1% increase per year; All other systems: no increase
- Miscellaneous revenue changes
  - 0% increase per year
- Reserve targets
  - minimum fund balance of 90 days (25%) of operating expenses

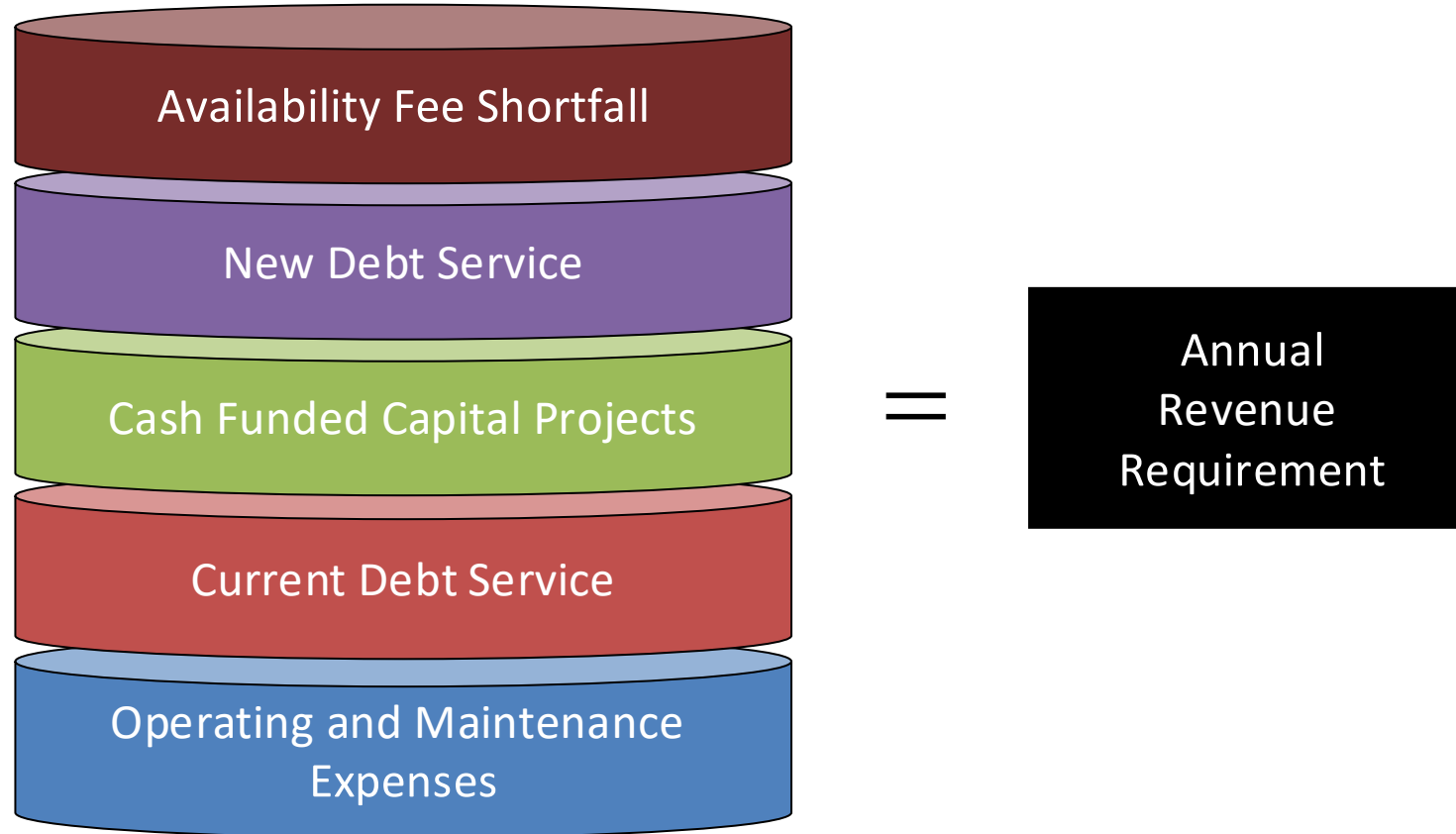
# User Rates vs. Availability Fees

- Offset the capital costs of backbone capacity in the water and sewer system
  - transmission mains, interceptors, major pumping stations, and treatment facilities
- Difference between water and sewer user rates and availability fees:

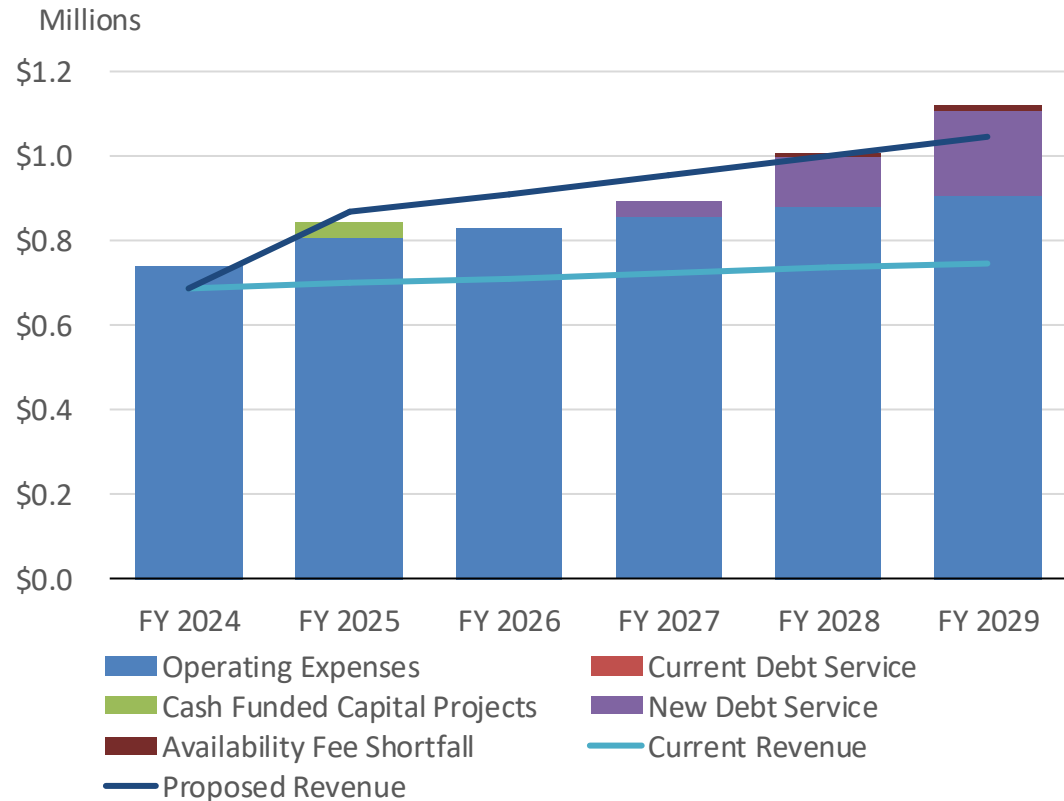
	<u><b>User Rates</b></u>	<u><b>Availability Fees</b></u>
Costs recovered:	operating and capital	capital only
Basis:	annual expense needs	cost to provide capacity
Customers charged:	existing	new
Frequency:	recurring	one-time

- There must be a “rational nexus” (i.e., reasonable relationship) between the fee charged and cost of providing capacity
- 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

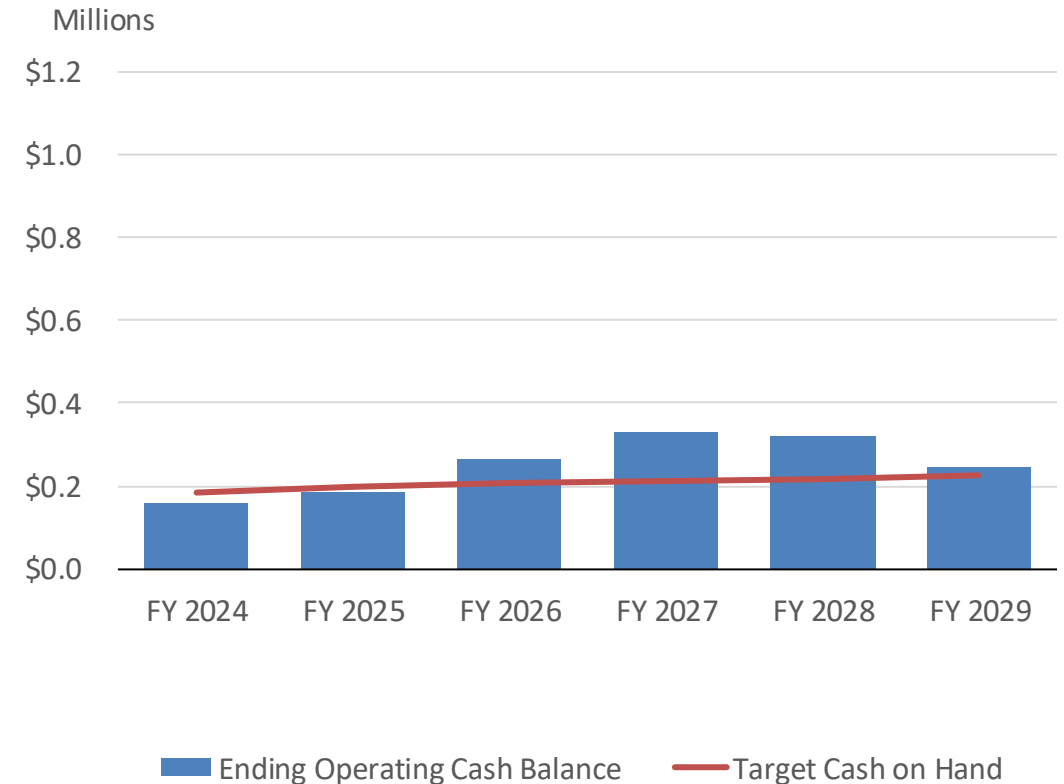
# Revenue Requirement



# Expenses/Revenues and Cash Balance – Rte.15 Water



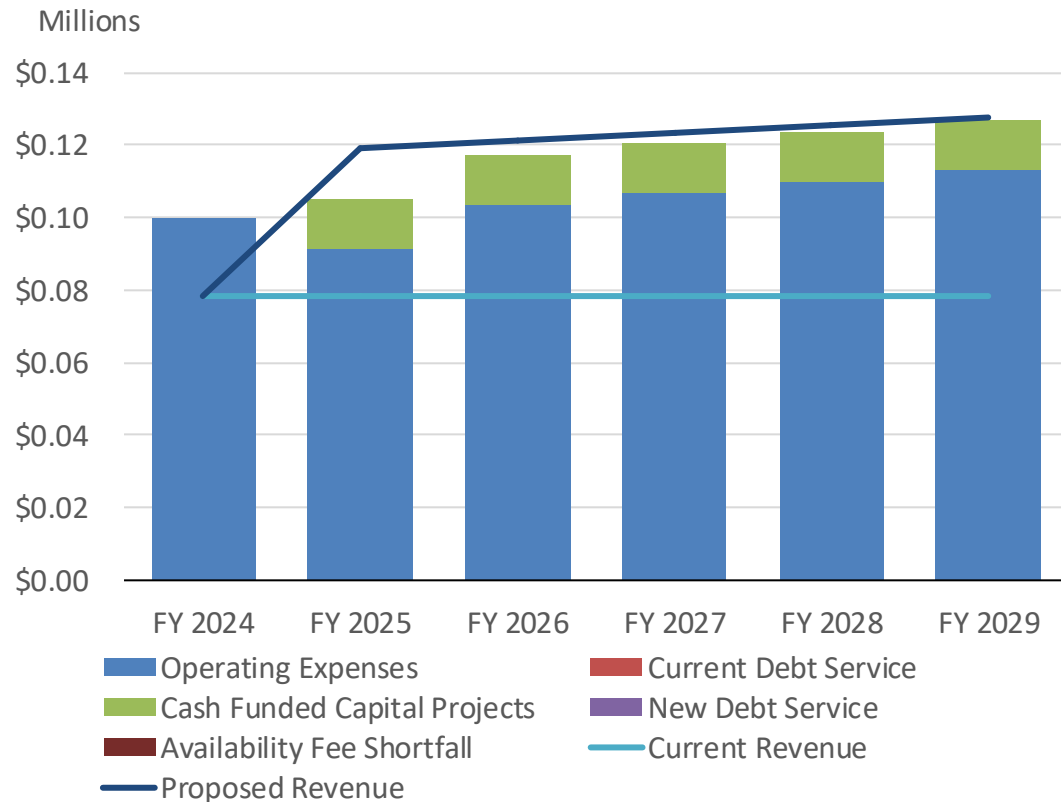
*Proposed Revenue reflects a 25% increase in FY 2025 and a 3% increase each year thereafter*



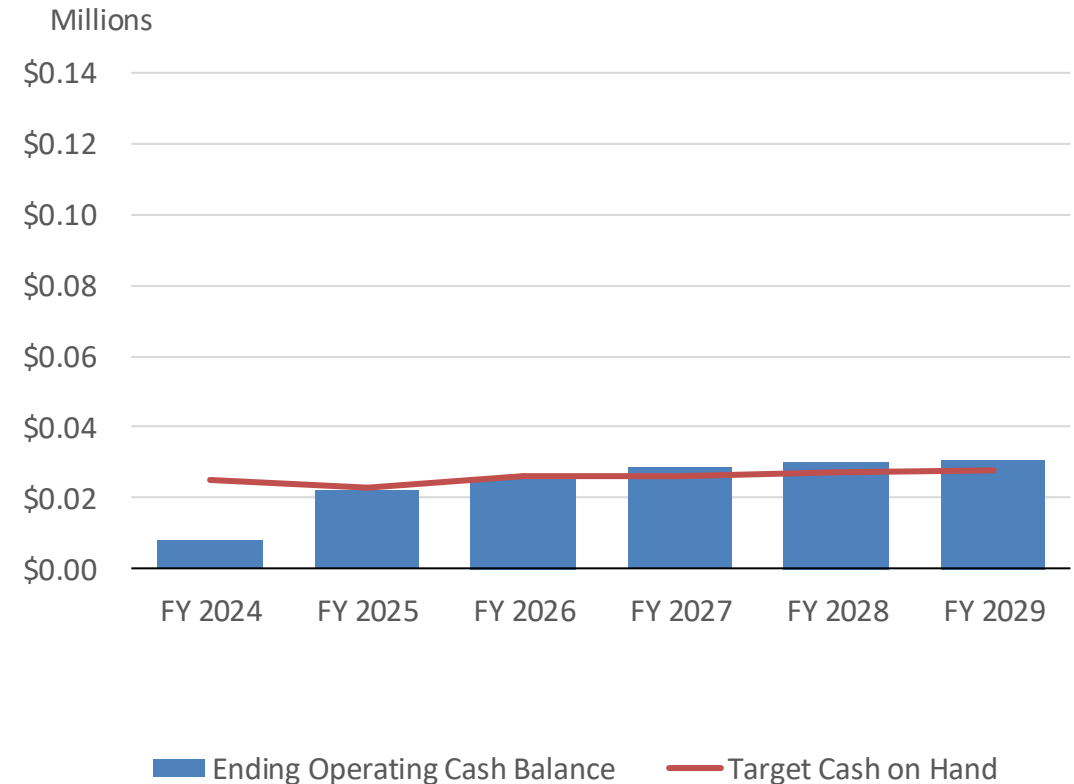
*The red line represents target equal to operating fund balance of 90 days (25%) of operating expenses*



# Expenses/Revenues and Cash Balance – Rte.20 Water

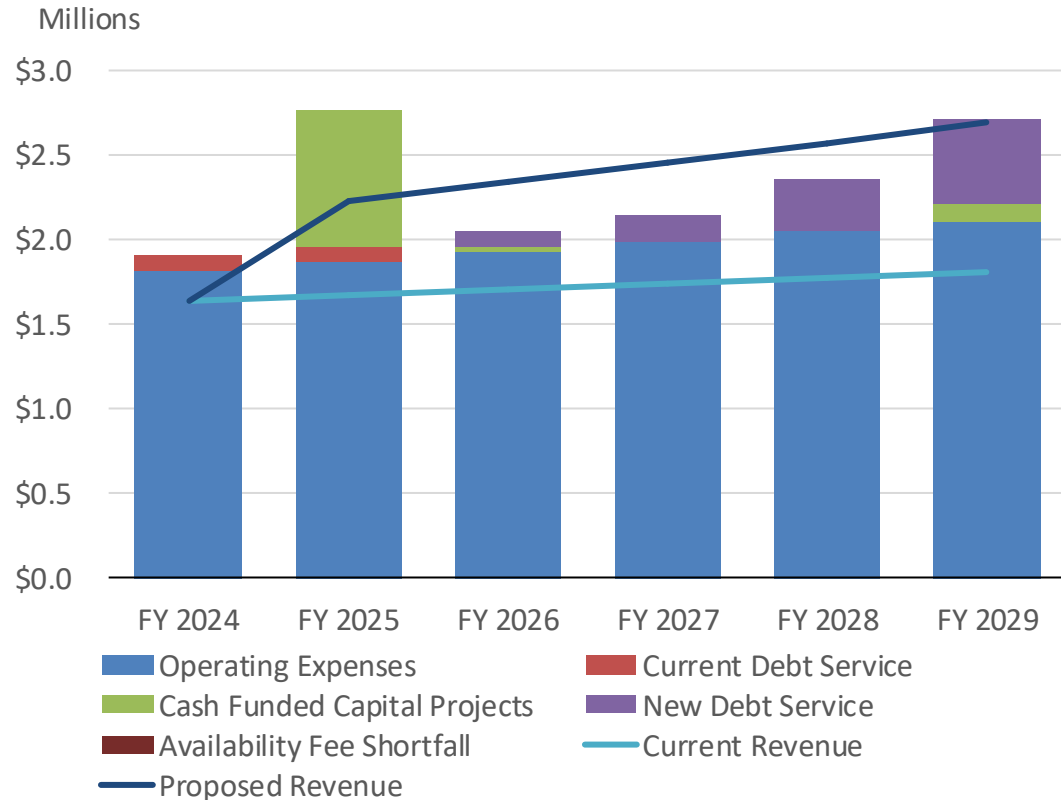


*Proposed Revenue reflects a 140% increase in FY 2025 and a 3% increase each year thereafter*

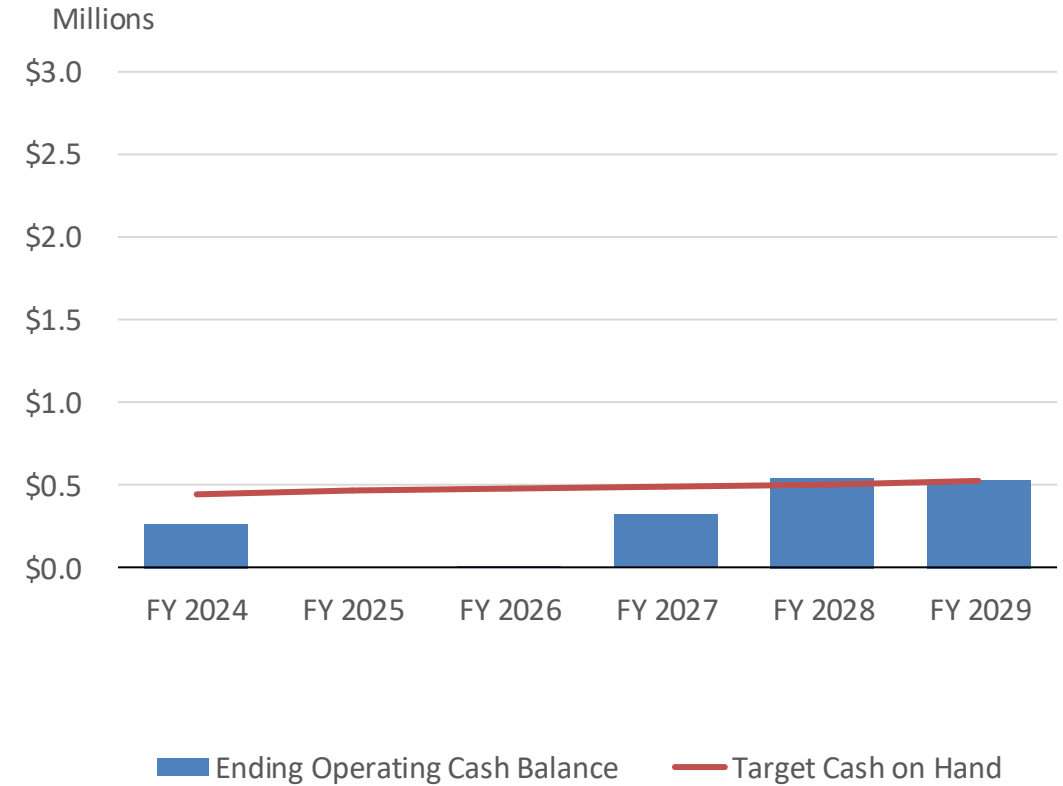


*The red line represents target equal to operating fund balance of 90 days (25%) of operating expenses*

# Expenses/Revenues and Cash Balance – East Water



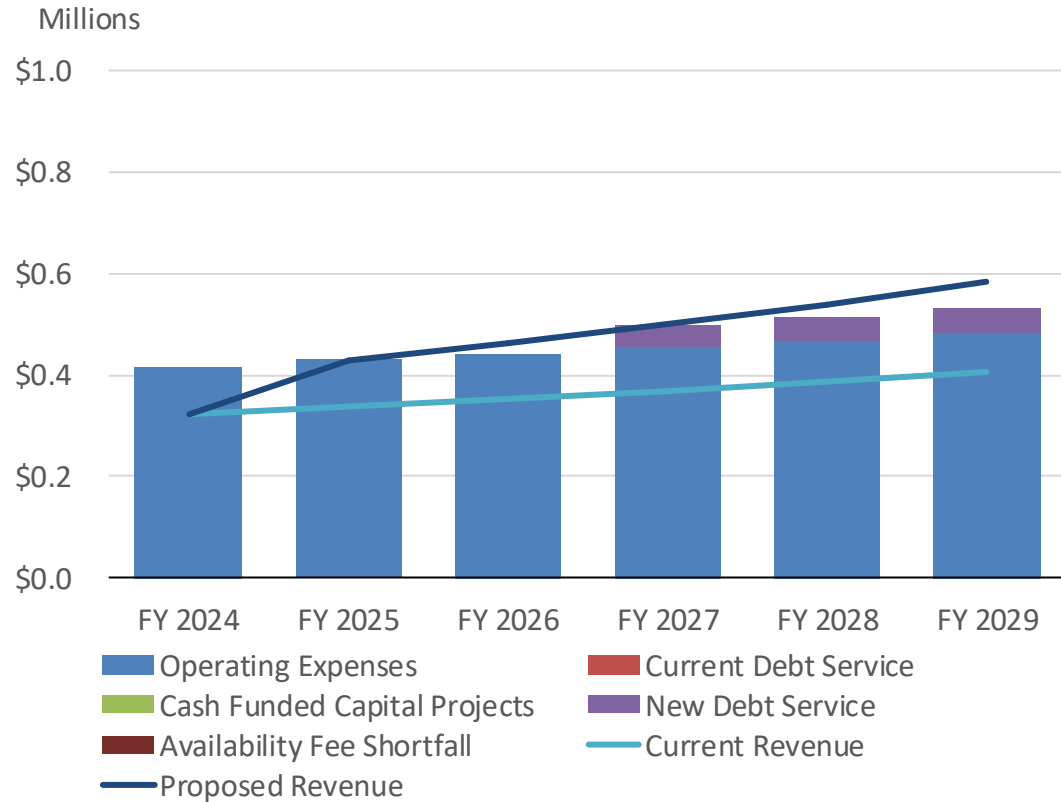
*Proposed Revenue reflects a 40% increase in FY 2025 and a 3% increase each year thereafter*



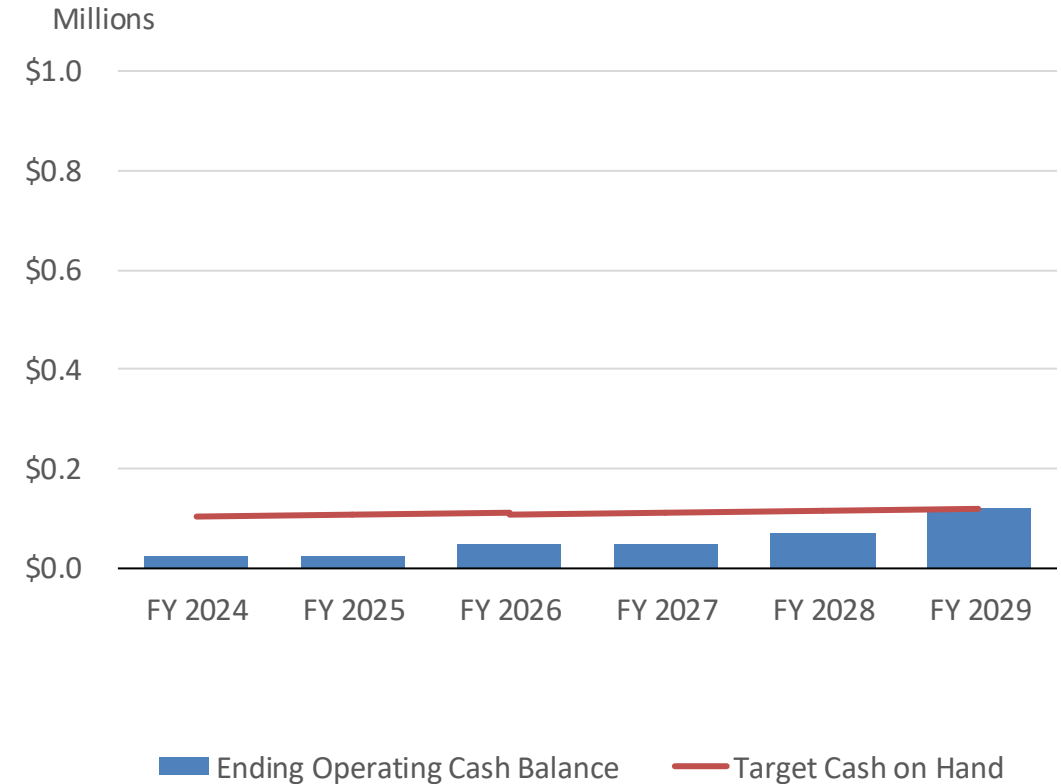
*The red line represents target equal to operating fund balance of 90 days (25%) of operating expenses*



# Expenses/Revenues and Cash Balance – Madison Water

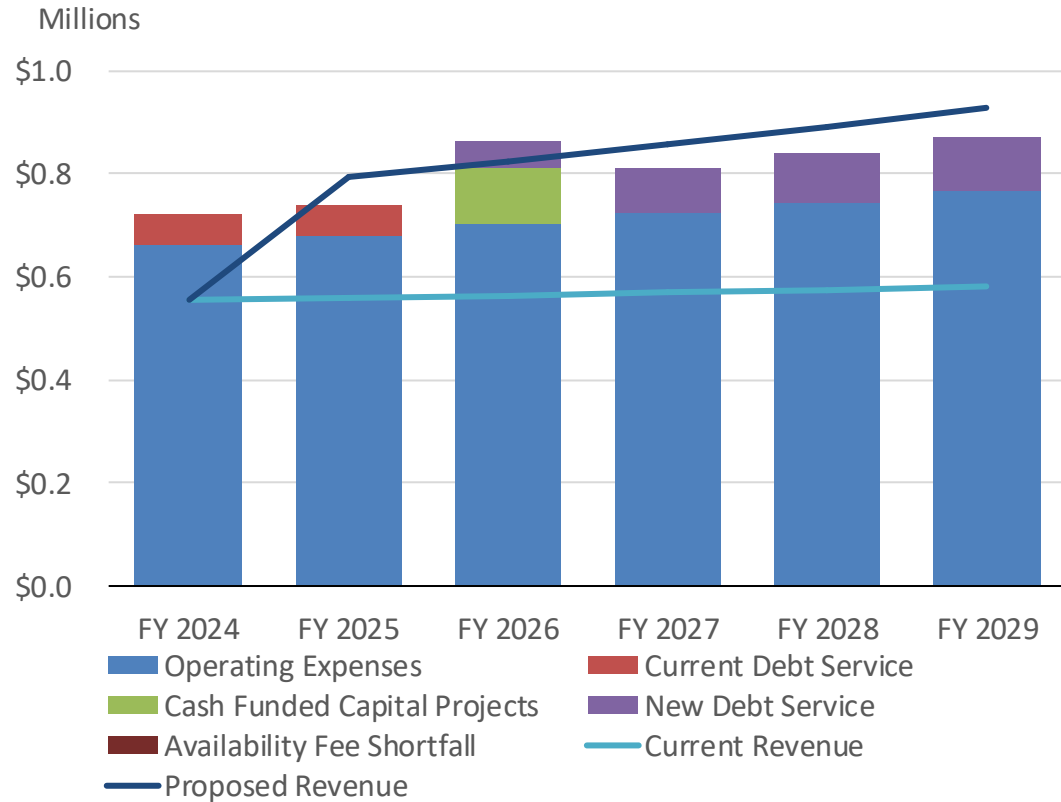


*Proposed Revenue reflects a 28% increase in FY 2025 and a 3% increase each year thereafter*

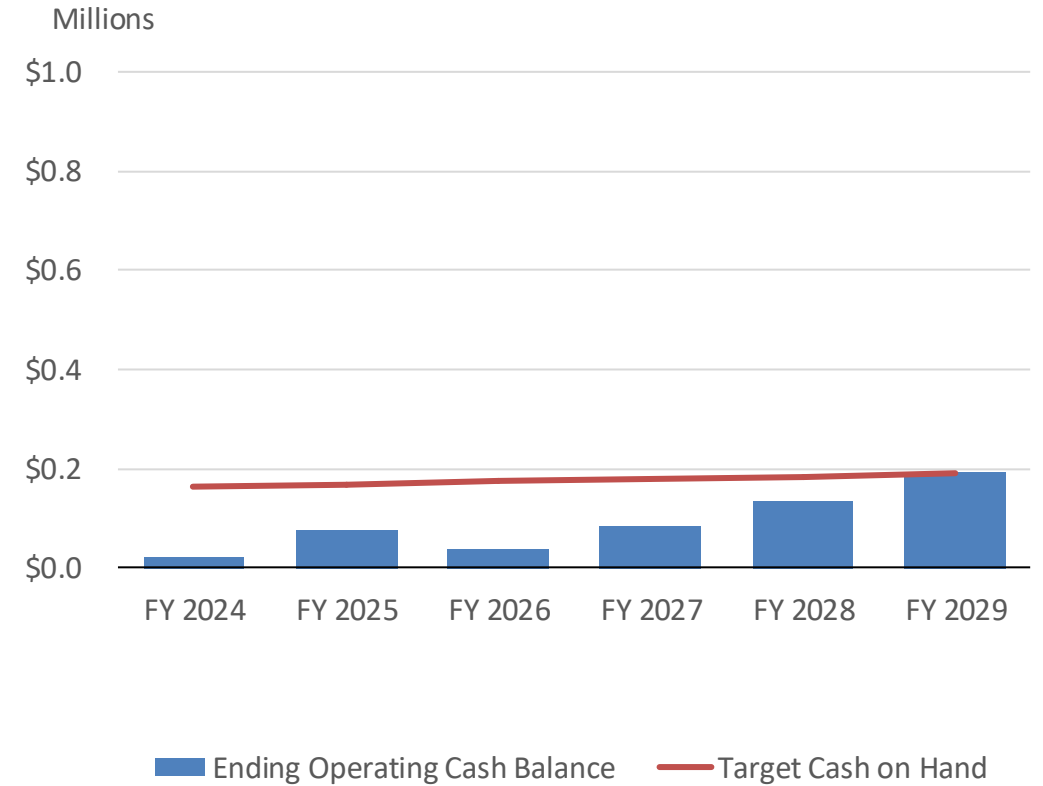


*The red line represents target equal to operating fund balance of 90 days (25%) of operating expenses*

# Expenses/Revenues and Cash Balance – Gordonsville Sewer

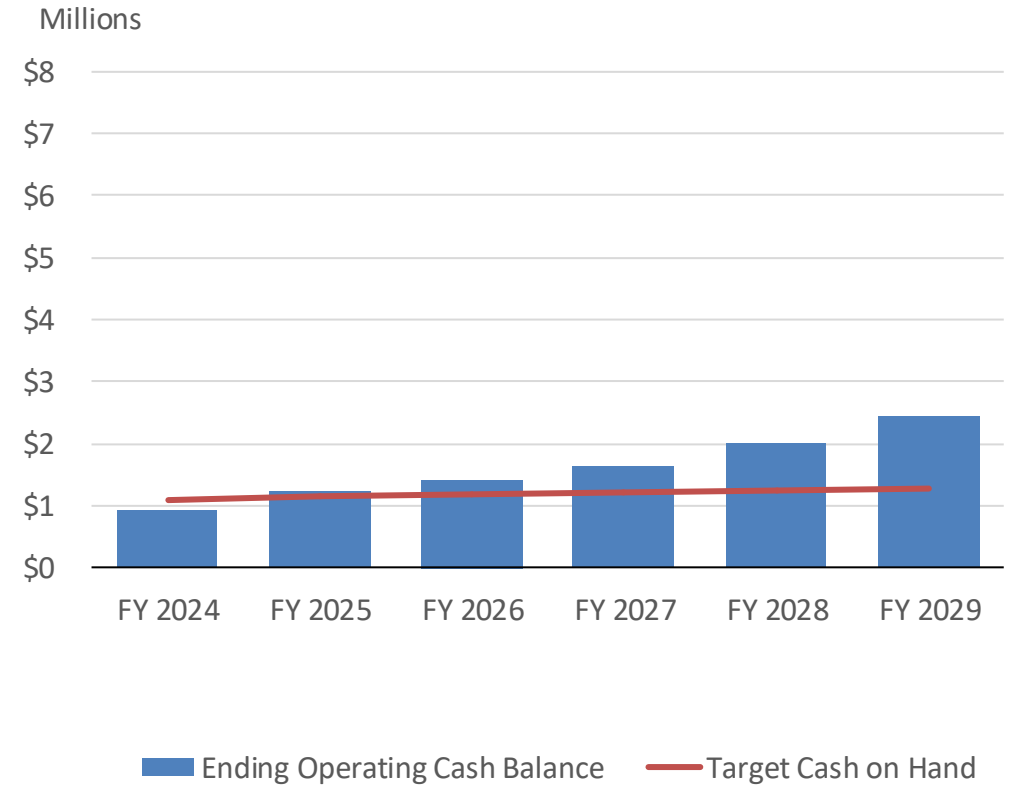
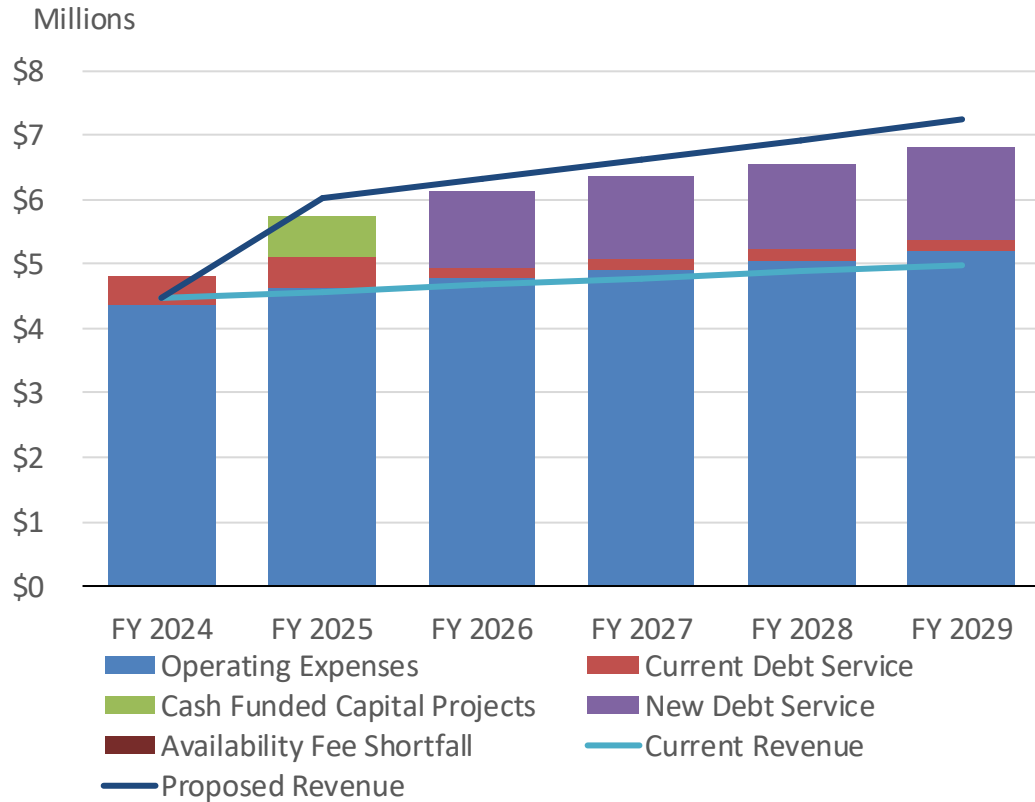


*Proposed Revenue reflects a 43% increase in FY 2025 and a 3% increase each year thereafter*



*The red line represents target equal to operating fund balance of 90 days (25%) of operating expenses*

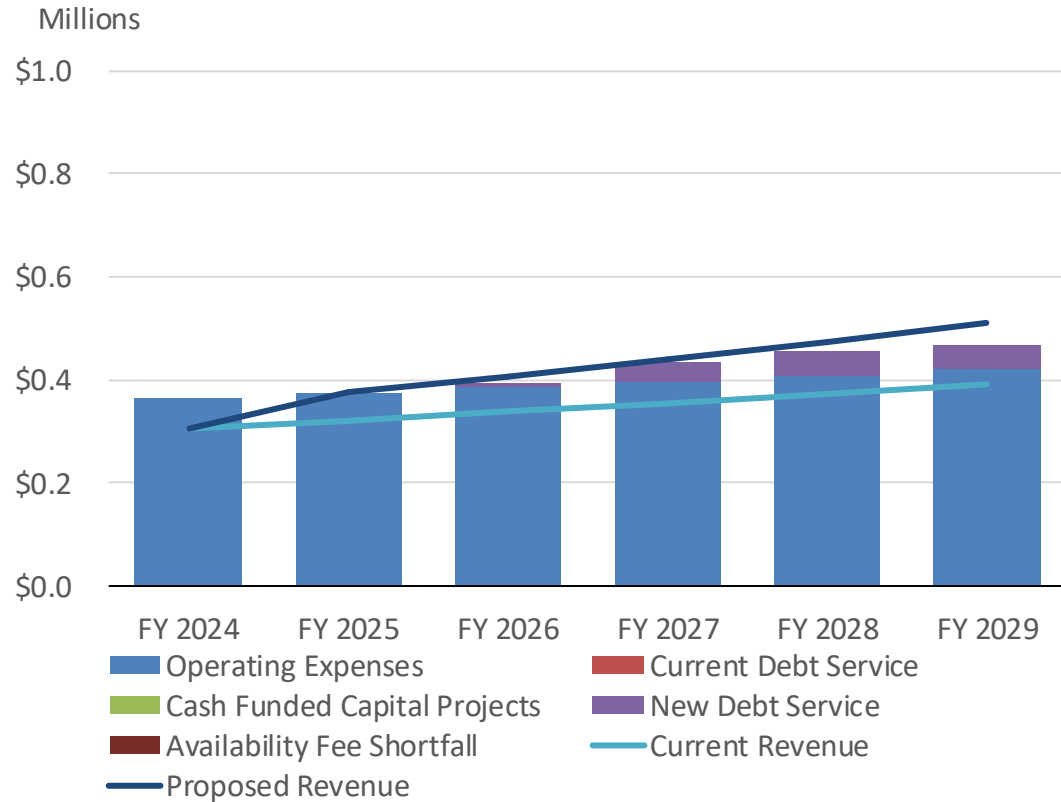
# Expenses/Revenues and Cash Balance – East Sewer



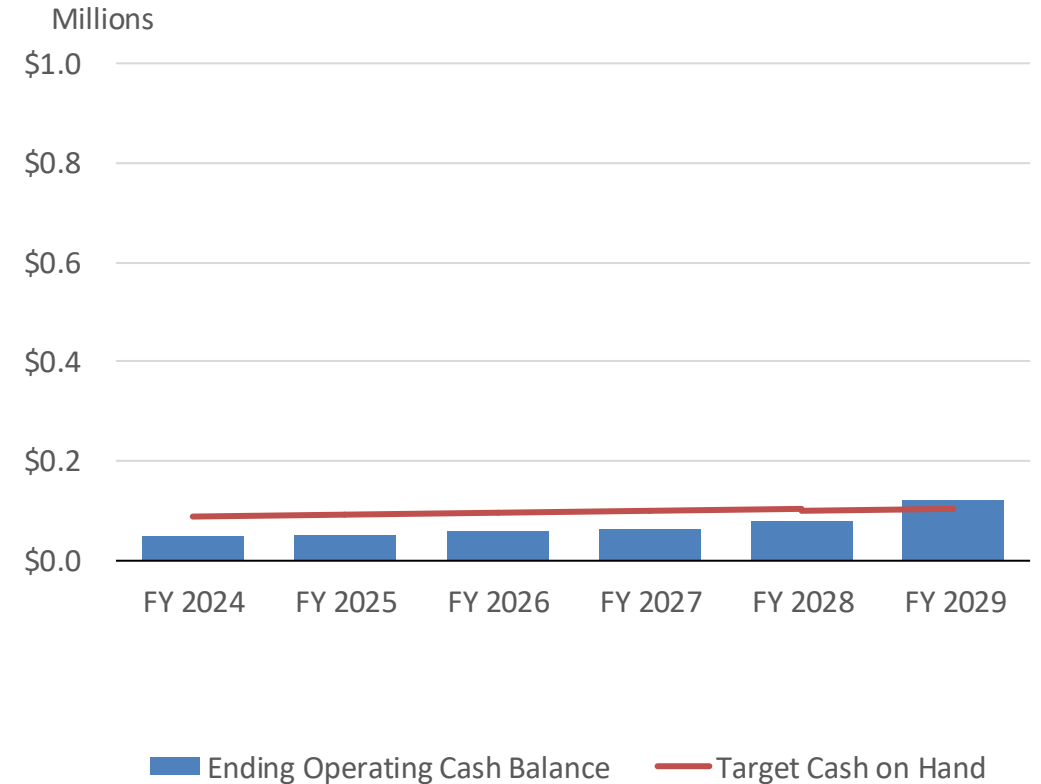
*Proposed Revenue reflects a 3% increase each year (excluding Lake of the Woods surcharges)*

*The red line represents target equal to operating fund balance of 90 days (25%) of operating expenses*

# Expenses/Revenues and Cash Balance – Madison Sewer



*Proposed Revenue reflects a 17% increase in FY 2025 and a 3% increase each year thereafter*



*The red line represents target equal to operating fund balance of 90 days (25%) of operating expenses*

# Projected Water Charges and Rates

	Current	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
<b>Rte.15 Water</b>						
Monthly Minimum Charge	\$17.68	\$22.10	\$22.76	\$23.45	\$24.15	\$24.87
Usage Rate	\$7.34	\$9.18	\$9.45	\$9.73	\$10.03	\$10.33
Gordonsville Wholesale Rate	\$6.62	\$8.28	\$8.52	\$8.78	\$9.04	\$9.31
<b>Rte.20 Water</b>						
Monthly Minimum Charge	\$9.80	\$23.52	\$24.23	\$24.95	\$25.70	\$26.47
Usage Rate	\$3.40	\$8.16	\$8.40	\$8.66	\$8.92	\$9.18
<b>East Water</b>						
Monthly Minimum Charge	\$11.88	\$16.63	\$17.13	\$17.64	\$18.17	\$18.72
Usage Rate	\$4.44	\$6.22	\$6.40	\$6.59	\$6.79	\$7.00
<b>Madison Water</b>						
Monthly Minimum Charge	\$27.54	\$35.25	\$36.31	\$37.40	\$38.52	\$39.68
Usage Rate	\$12.27	\$15.71	\$16.18	\$16.66	\$17.16	\$17.68
<b>Summer Conservation Surcharge</b>						
Surcharge	\$1.00	\$2.00	\$2.06	\$2.12	\$2.19	\$2.25

*Monthly Minimum Charge includes 2,000 gallons of usage*

*Usage Rate is per 1,000 gallons (Over 2,000 gallons of usage)*

*Summer Conservation Surcharge is in addition to Usage Rate, per 1,000 gallons (Over 6,000 gallons of usage)*

# Projected Sewer Charges and Rates

	Current	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
<b>Gordonsville Sewer</b>						
Usage Rate	\$12.77	\$18.26	\$18.81	\$19.37	\$19.95	\$20.55
<b>East Sewer</b>						
Monthly Minimum Charge	\$37.56	\$38.69	\$39.85	\$41.04	\$42.27	\$43.54
LOW O&M Surcharge	\$7.00	\$10.00	\$10.50	\$11.00	\$11.50	\$12.00
LOW Capital Surcharge	-	\$23.50	\$23.50	\$23.50	\$23.50	\$23.50
Flat Non-Metered Rate	\$87.17	\$89.79	\$92.48	\$95.25	\$98.11	\$101.05
Usage Rate	\$13.78	\$14.19	\$14.62	\$15.06	\$15.51	\$15.97
<b>Madison Sewer</b>						
Monthly Minimum Charge	\$43.70	\$51.13	\$52.66	\$54.24	\$55.87	\$57.55
Usage Rate	\$20.35	\$23.81	\$24.52	\$25.26	\$26.02	\$26.80

*Sewer bills are based on 90% of water usage*

*Monthly Minimum Charge includes 2,000 gallons of usage*

*Usage Rate is per 1,000 gallons (Over 2,000 gallons of usage)*

*LOW Surcharges are charged to Lake of the Woods customers and charged monthly*

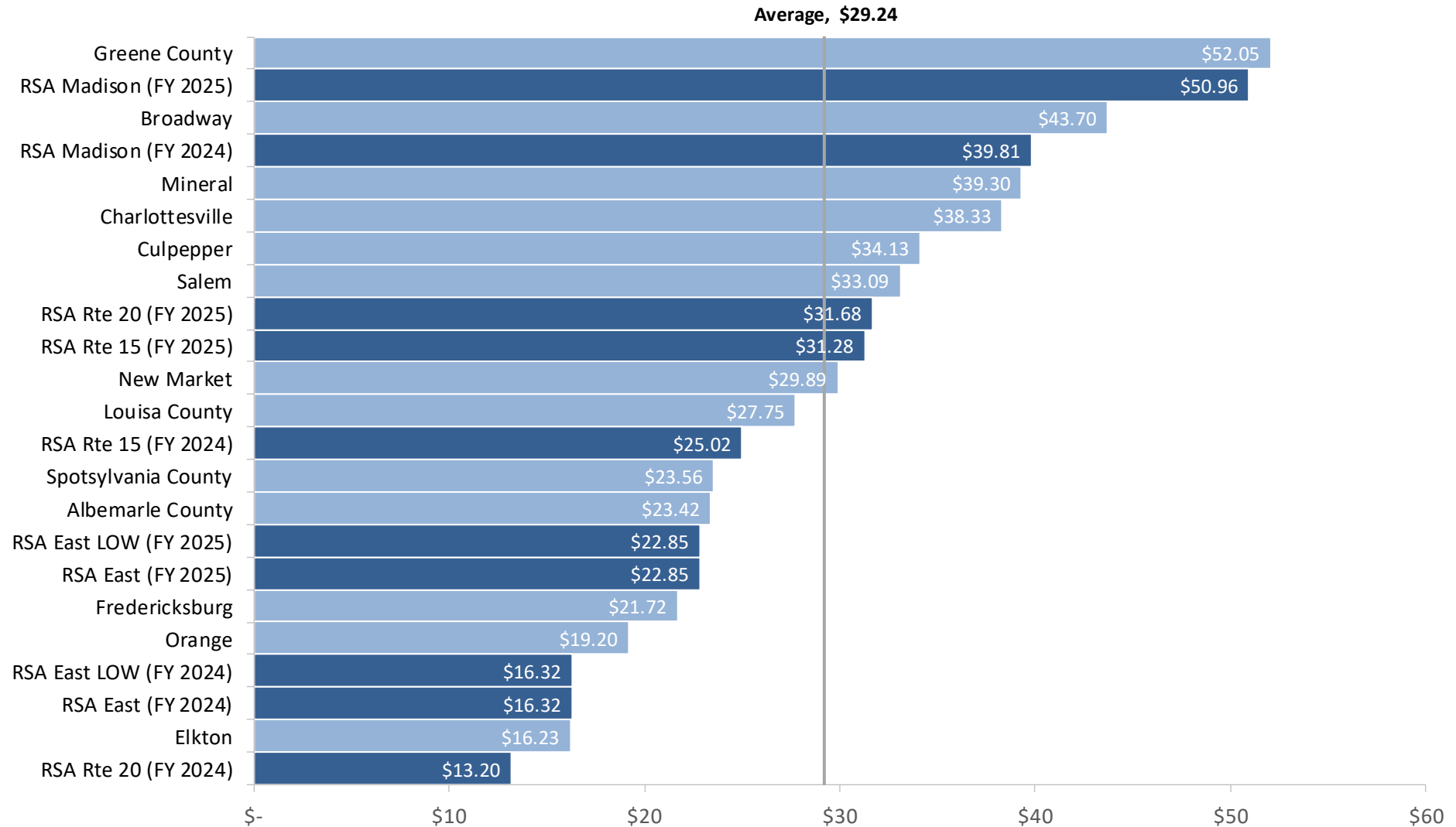
# FY 2025 Monthly Bill Impact

3,000 gallons of usage for water and 2,700 gallons for sewer (90% of water)

	Current Bill	FY 2025 Bill	FY 2025 Bill Increase (\$)	FY 2025 Bill Increase (%)
<b>Water</b>				
Rte 15	\$25.02	\$31.28	\$6.26	25%
Rte 20	\$13.20	\$31.68	\$18.48	140%
East	\$16.32	\$22.85	\$6.53	40%
Madison	\$39.81	\$50.96	\$11.15	28%
<b>Sewer</b>				
East	\$47.21	\$48.62	\$1.42	3%
East LOW	\$54.21	\$82.12	\$27.92	52%
Madison	\$57.95	\$67.80	\$9.85	17%
Gordonsville	\$37.48	\$53.59	\$16.12	43%
<b>Combined</b>				
East	\$63.53	\$71.47	\$7.94	13%
Madison	\$97.76	\$118.75	\$21.00	21%
East LOW	\$70.53	\$104.97	\$34.44	49%

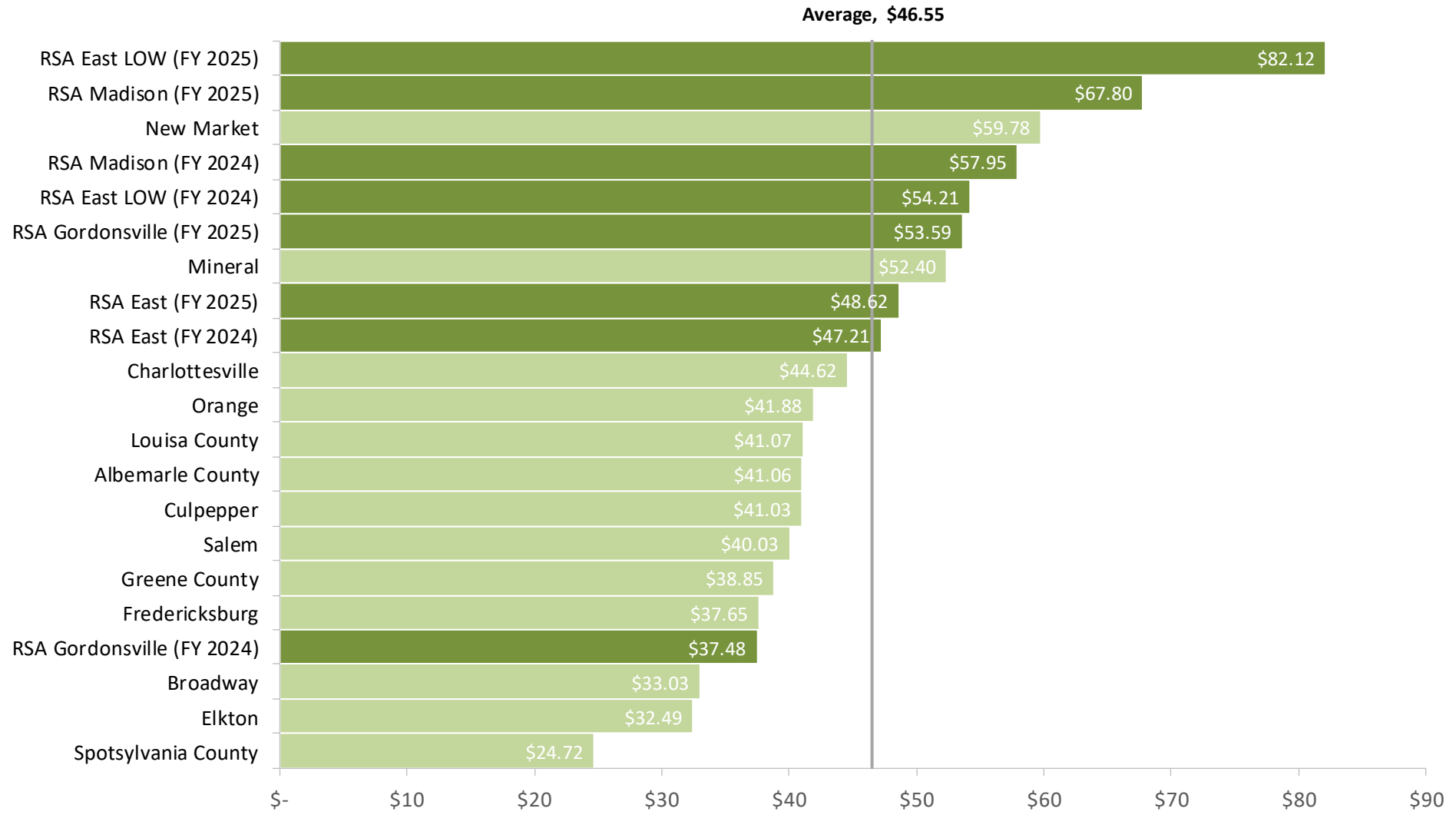


# FY 2025 Water Monthly Bill Comparison



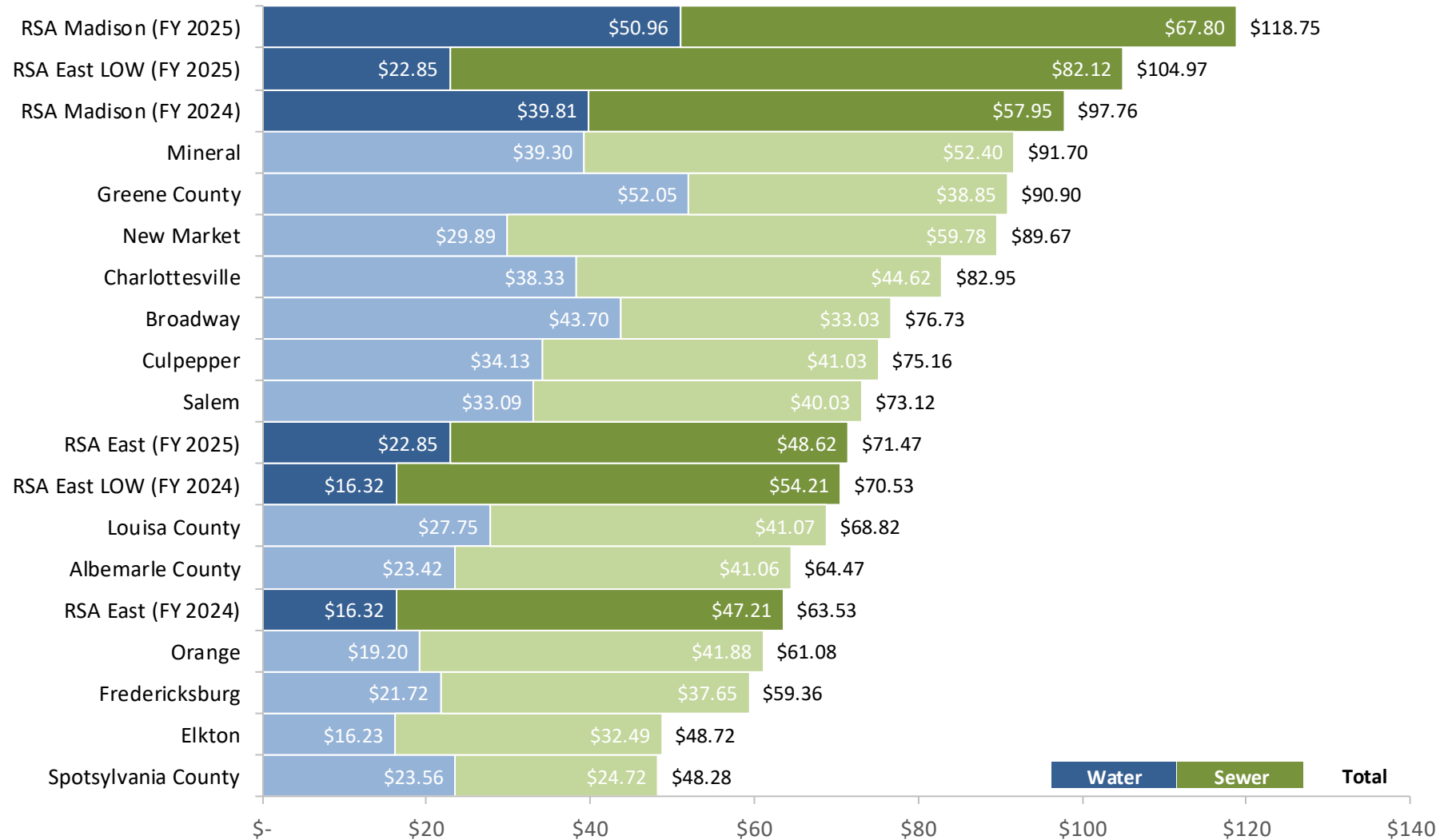
Note: Comparison is for smallest meter size and 3,000 gallons of usage

# FY 2025 Sewer Monthly Bill Comparison



*Note: Comparison is for smallest meter size and 3,000 gallons of usage (2,700 for RSA)*

# FY 2025 Water and Sewer Monthly Bill Comparison



Note: Comparison is for smallest meter size and 3,000 gallons of usage (2,700 for RSA sewer)

# Availability Fees

- Offset the capital costs of backbone capacity in the water and sewer systems – mains, interceptors, major pumping stations, and treatment facilities
- Availability fees calculation based on either the historical cost of capacity, the future cost of capacity, or the weighted average of both
- Current fee:
  - \$10,000 [\$50.00 per gallon per day (gpd)]
- Recommendation:
  - Maintain current fees

# Recommendations

- Adopt the projected water and sewer fees and charges for FY 2025 to FY 2029
- Review rates, fees, and charges on an annual basis and revise as needed
- Consider a full cost of service study for all rates, charges, and fees every three to five years





# QUESTIONS?

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