

# **City of Rock Island 2020 Rate Studies**

**Water, Wastewater, Stormwater**

**Council Workshop Presentation, May 24, 2021**

# Cost-of-Service Rate Analysis

- Each utility operates as an enterprise fund and is intended to be self-sufficient.
- Cost-of-service analysis for municipal utilities provides adequate revenue to cover costs
- Costs include O&M expenses & capital financing
- Current directives are to: (1) match revenues to anticipated expenses; and (2) to change all customer category rates by the same percentage amount.

# Billing Quantities & Revenue Requirements

- Billing Quantities = Demand on Utilities
  - Volume of water or wastewater
  - Number of bills
- Expenses
  - Operation and maintenance expenses
  - Labor
  - Power
  - Chemicals
  - Other expenses
- Capital financing
  - Principal and interest for debt service
  - Capital expenditures from current revenue



# City of Rock Island Water Utility Rates

# Existing Water Rate Structure

- Billing Cycles – Commercial users billed monthly; residential users billed quarterly.
- Fixed Meter Charge – Rates vary based on meter size and billing frequency: larger meters pay more & those billed monthly pay more on annual basis
- Water Volume Rate - Declining block rate structure for metered water use; large users pay less per 100 cu.ft.
- Elderly/Handicap Discount – \$12.60 annual discount.

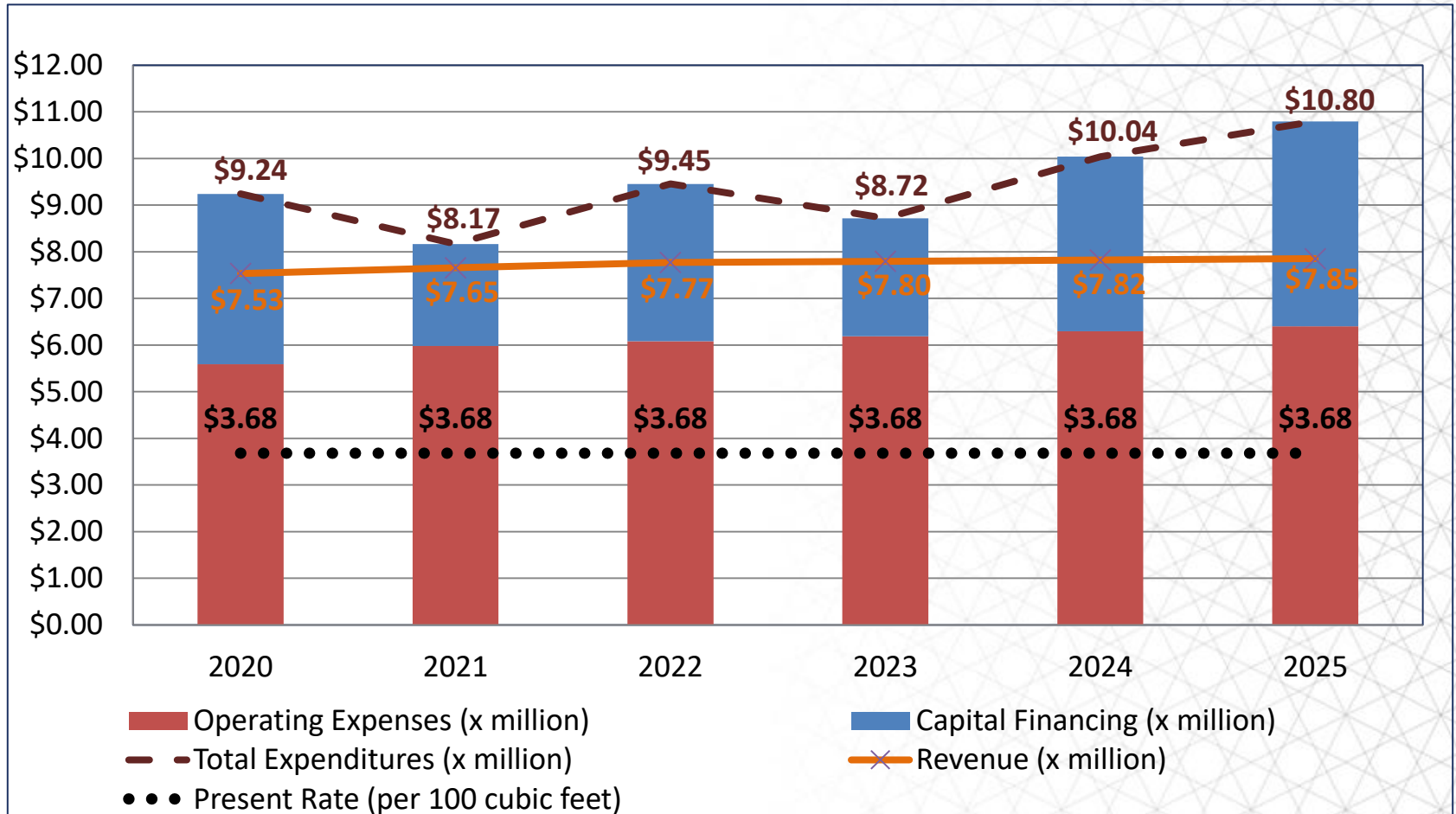
# Water Rate Basic Assumptions for Near Future

- The number of water accounts and the amount of water billed will remain stable for the 5 year study period.
- Revenues other than water charges will increase at a rate of 1 percent.
- Operating expenses will generally increase at a rate of 2 percent per year.
- No new debt will be incurred by the Utility. Bond and loan payments will level out at \$1.54 million/yr.

# Water Utility 2020 to 2025 Finances with Existing Rates

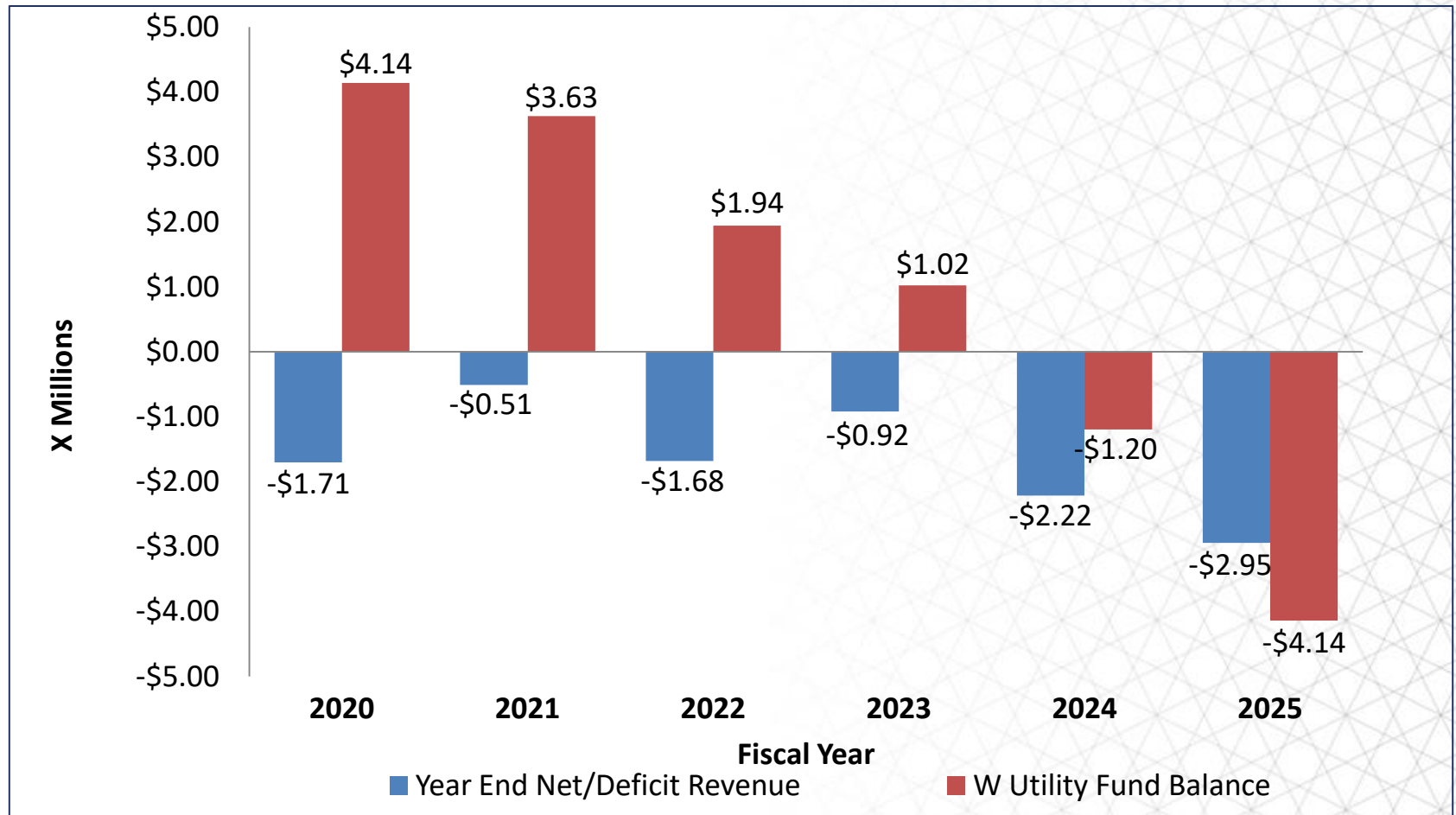
- Revenue will increase from \$7.53m to \$7.85m.
- Total Expenses will increase from \$9.24m to \$10.80m.
- Water Fund balance will fall from \$4.14m to **negative \$4.14m**.
- Debt Service Coverage Ratio will decline from 1.6 to unacceptable 0.9.

# Water Utility 2020-2025 Finances with Existing Rates





# Water Utility 2020-2025 Finances with Existing Rates – Fund Balance



# Proposed Water Rate Structure

- Billing Cycles – Continue to bill commercial users monthly & residential users quarterly.
- Fixed Meter Charge – Existing structure to be retained with larger meters paying more and monthly accounts paying more annually than quarterly accounts with the same size meter.
- Water Volume Rate – Retains the declining block structure: water cost per unit declines with increased use.
- Maintains the Elderly/Handicap discount.

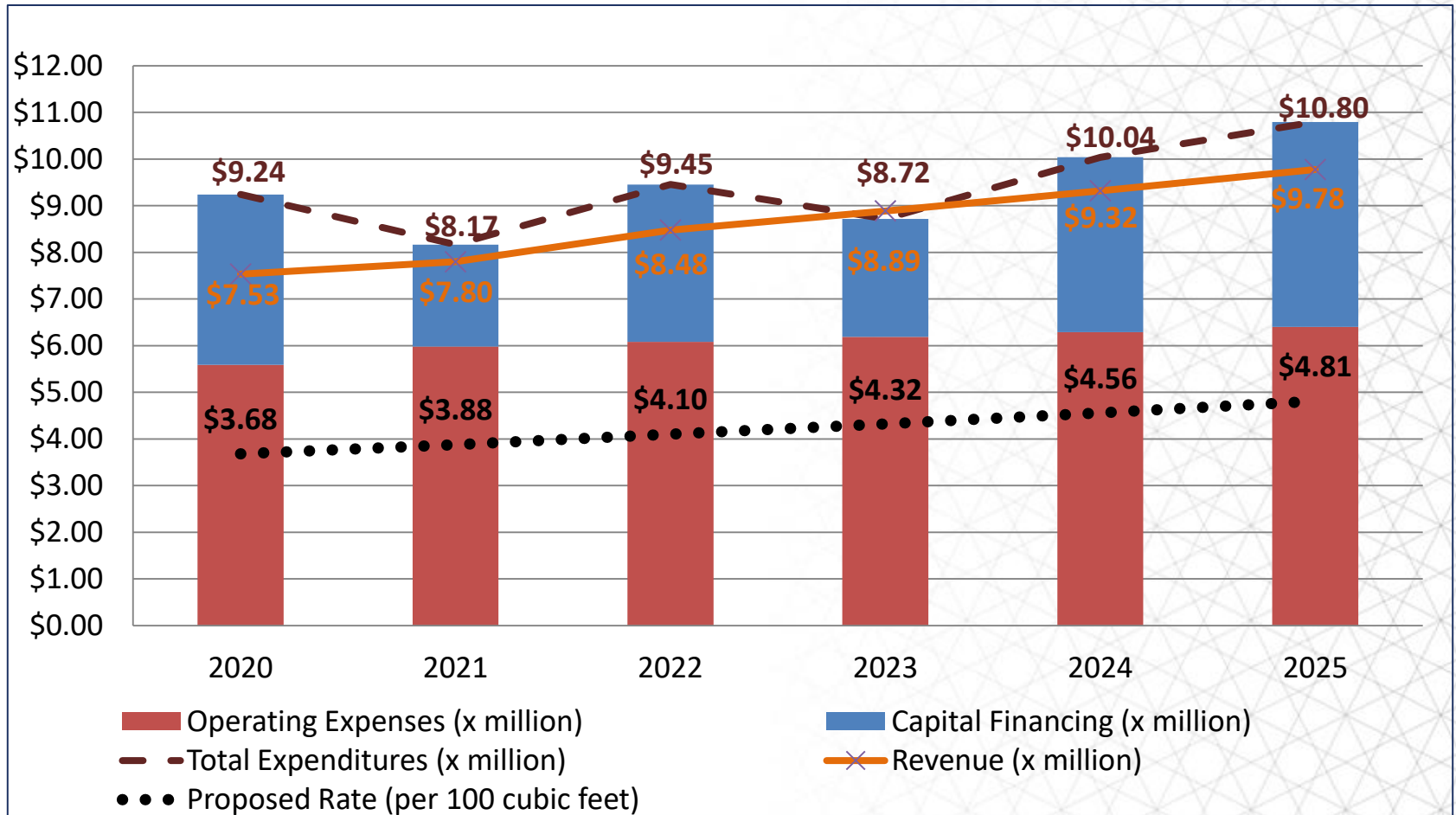
# Proposed Water Rate Structure

- Volume Charges increase at 5.5 % per year.
- Fixed Meter Charges increase by 5.5% per year for all customers.

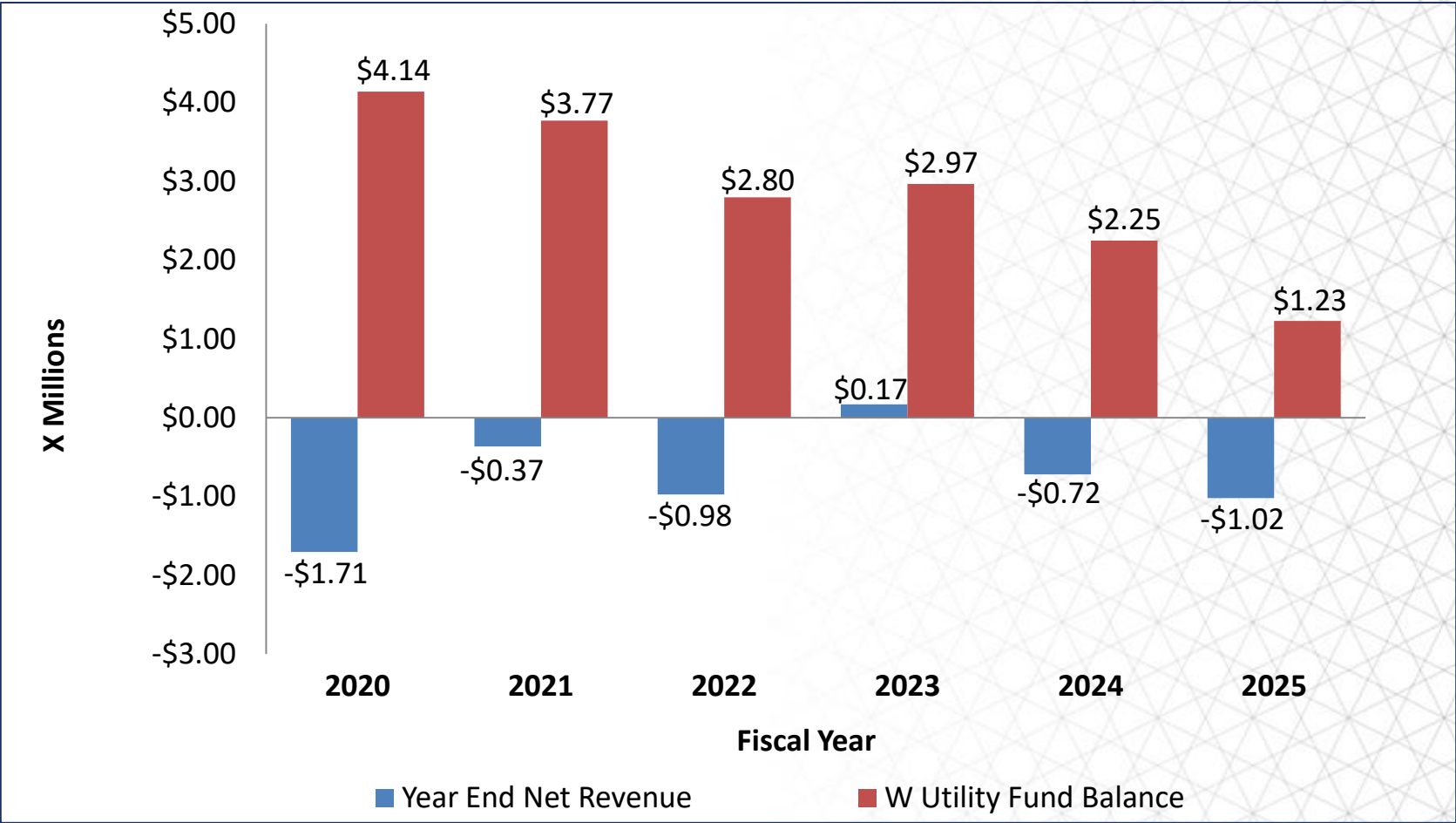
# Water Utility 2025 Finances with Proposed Rates

- Revenue will increase from \$7.53m to \$9.78m.
- Total Expenses will increase from \$9.24m to \$10.80m.
- Water Fund balance will fall from \$4.14m to \$1.23m.
- Debt Service Coverage Ratio will increase from 1.6 to 2.2.

# Water Utility 2020-2025 Finances with Proposed Rates



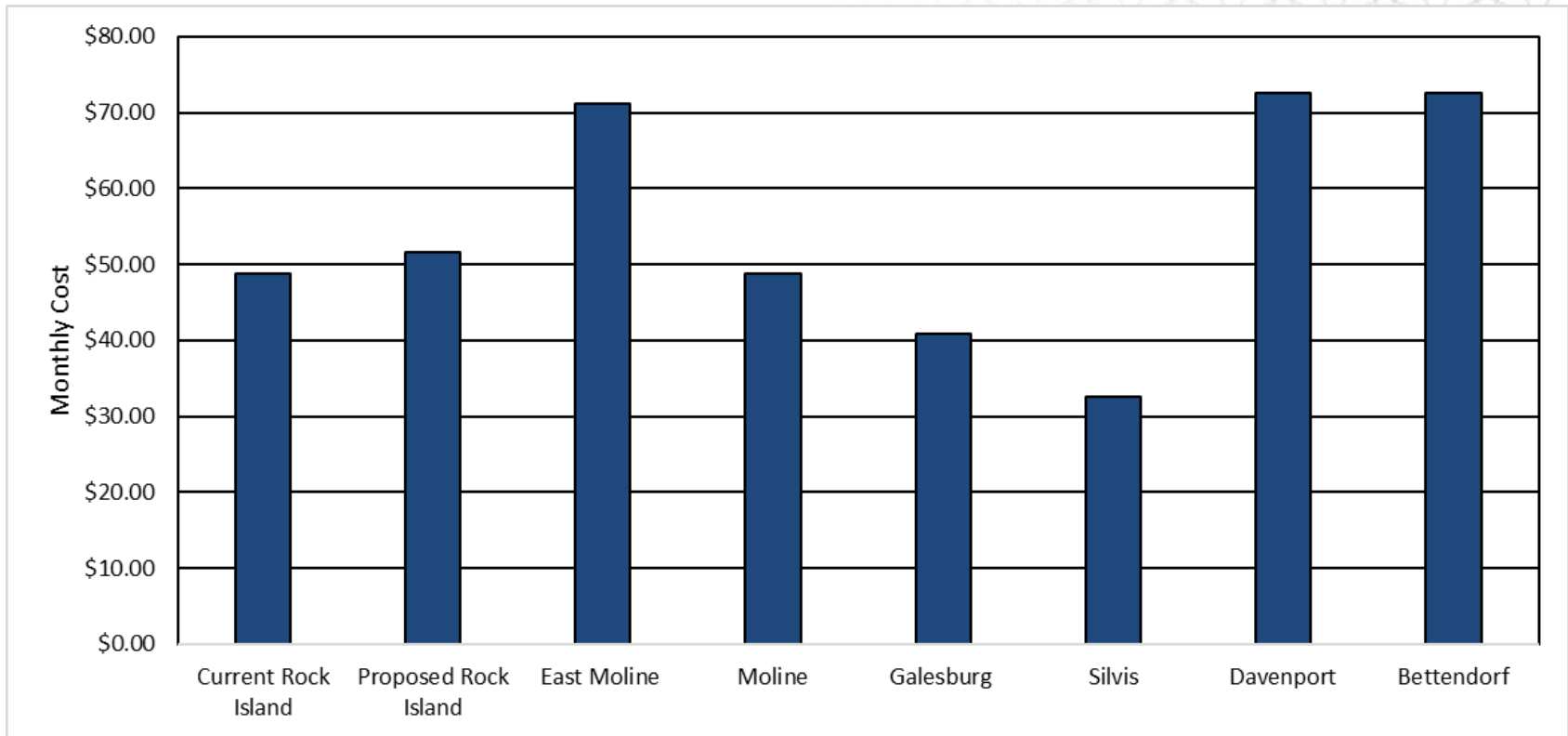
# Water Utility 2020-2025 Finances with Proposed Rates – Fund Balance



# Impacts on Customers – Fixed & Volume Water Rates Combined

Customer	Typical Monthly Usage	Current	2021	2022	2023	2024	2025
5/8" Quarterly	524 ft <sup>3</sup>	\$94	\$99	\$105	\$110	\$116	\$123 5.5%/yr.
4" Quarterly	85,000 ft <sup>3</sup>	\$9,015	\$9,511	\$10,034	\$10,586	\$11,168	\$11,783 5.5%/yr.
2" Monthly	20,000 ft <sup>3</sup>	\$731	\$771	\$814	\$859	\$906	\$956 5.5%/yr.
4" Monthly	55,000 ft <sup>3</sup>	\$2,028	\$2,140	\$2,257	\$2,381	\$2,513	\$2,651 5.5%/yr.

# Comparison to Other Water Utilities – Residential







# City of Rock Island Wastewater Utility Rates

# Existing Wastewater Rate Structure

- Billing Cycles – Commercial users billed monthly; residential users billed quarterly.
- Fixed Meter Charge – Rates vary based on meter size and billing frequency: larger meters pay more & those billed monthly, pay more on annual basis
- Water Volume Rate - Declining block rate structure based on metered water use; large users pay less per 100 cu.ft.
- Elderly/Handicap Discount - \$22.48 per year.

# Existing Wastewater Rate Structure

- A separate three-part rate structure for heavy industrial customers based on volume, biochemical oxygen demand (BOD), and total suspended solids (TSS). (Miller Container and Rock Island Arsenal)

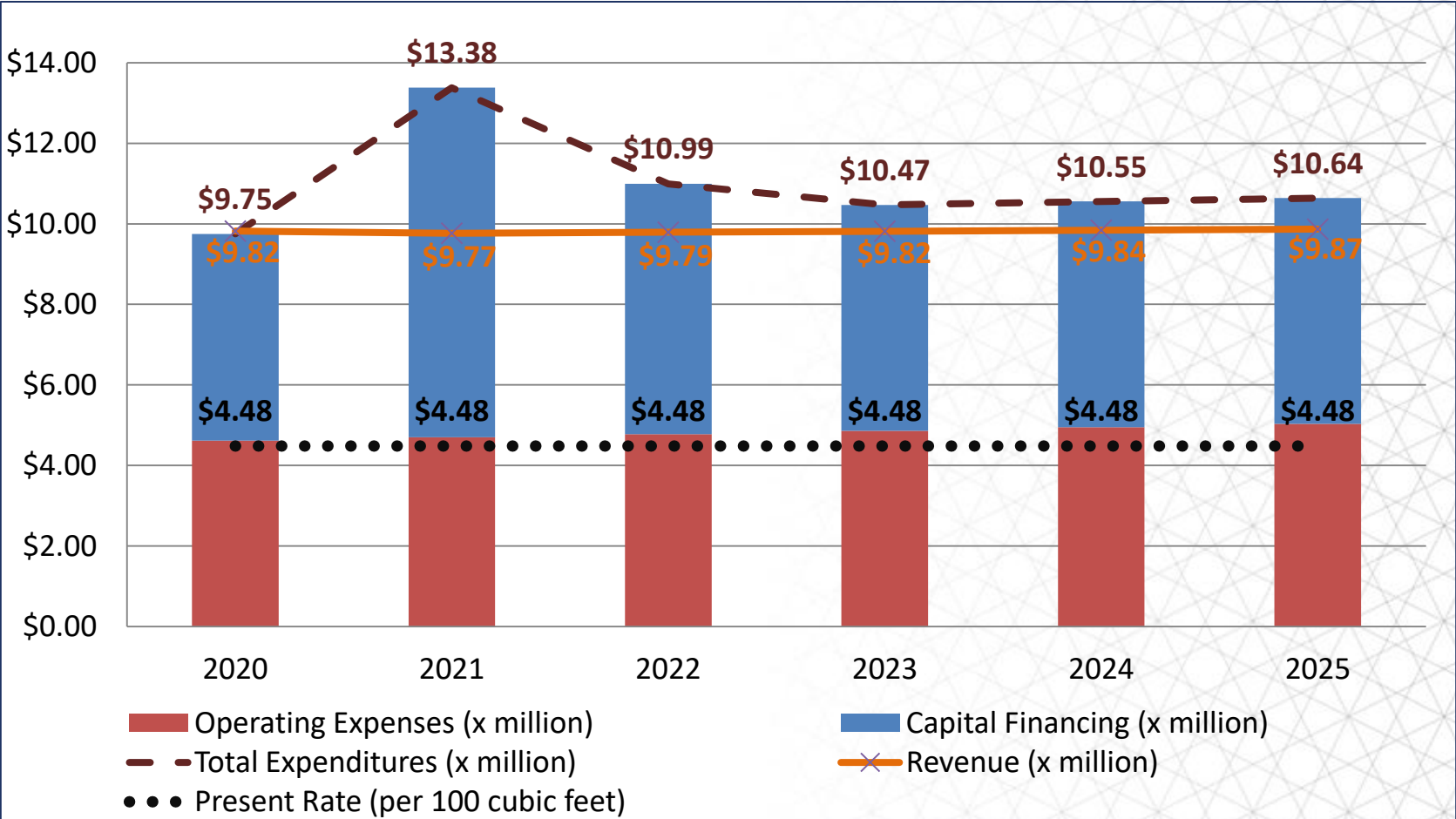
# Wastewater Rate Basic Assumptions for Near Future

- The number of wastewater accounts and the amount of wastewater billed will remain stable for the 5 year study period.
- Revenues other than wastewater volume & meter charges will increase at a rate of 1 percent per year.
- Operating expenses will generally increase at a rate of 2 percent per year.
- No new debt will be incurred by the Utility. Bond and loan payments will level out at \$5.1 million/yr.

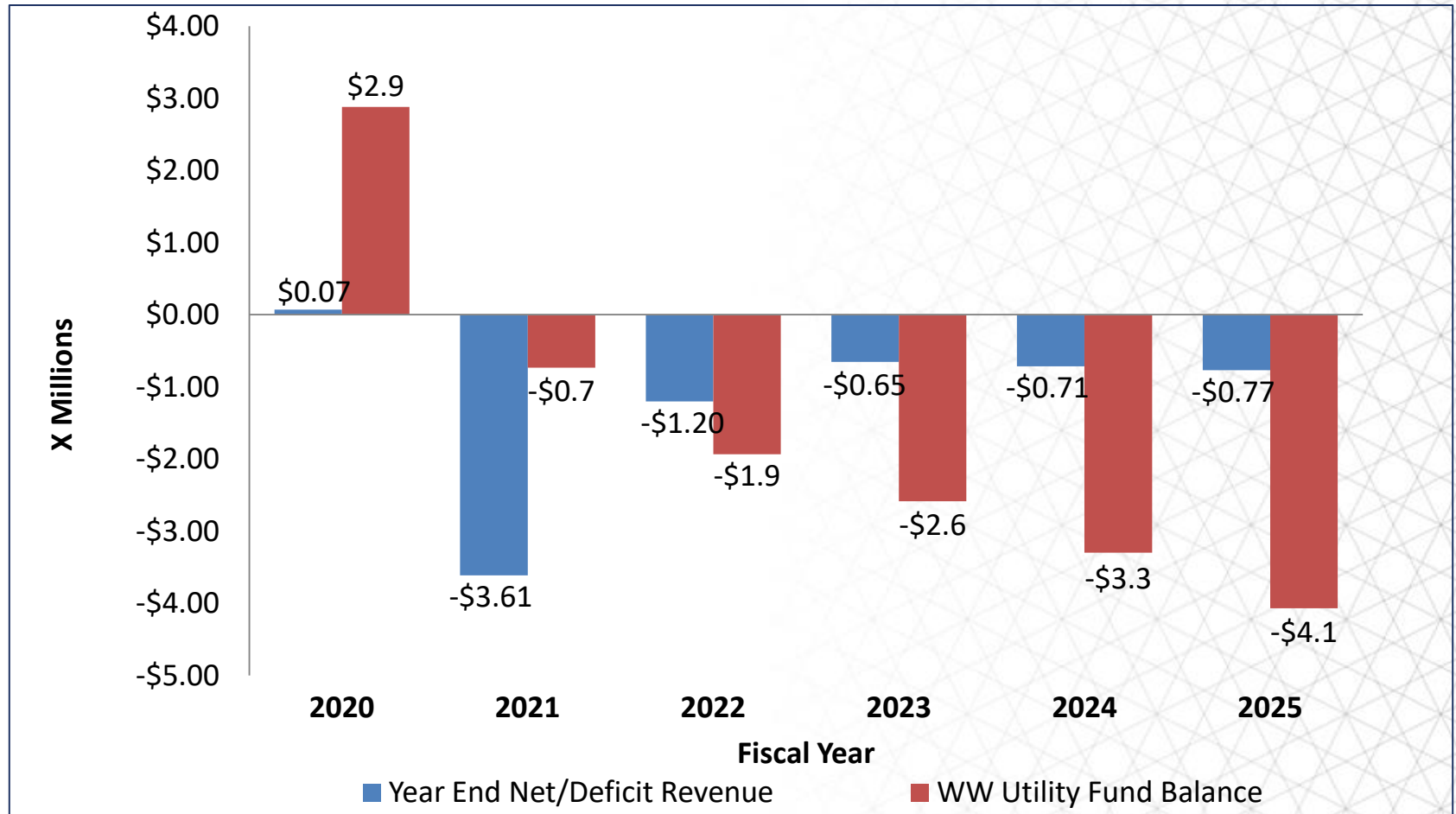
# Wastewater Utility 2020-2025 Finances with Existing Rates

- Revenue will increase from \$9.82m to \$9.87m.
- Total Expenses will increase from \$9.75m to \$10.64m.
- Wastewater Fund balance will fall from \$2.88m to **negative \$4.07m**.
- Debt Service Coverage Ratio will fall from 1.1 to unacceptable 0.9.

# Wastewater Utility 2020-2025 Finances with Existing Rates



# Wastewater Utility 2020-2025 Finances with Existing Rates – Fund Balance



# Proposed Wastewater Rate Structure

- Billing Cycles – Continue to bill commercial users monthly & residential users quarterly.
- Fixed Meter Charge – Existing structure to be retained with larger meters paying more and monthly accounts paying more annually than quarterly accounts with the same size meter.
- Wastewater Volume Rate – Retains the declining block structure: cost per unit declines with increased use.
- Maintains the Elderly/Handicap discount.
- Maintains industrial rates for flow, BOD, & TSS



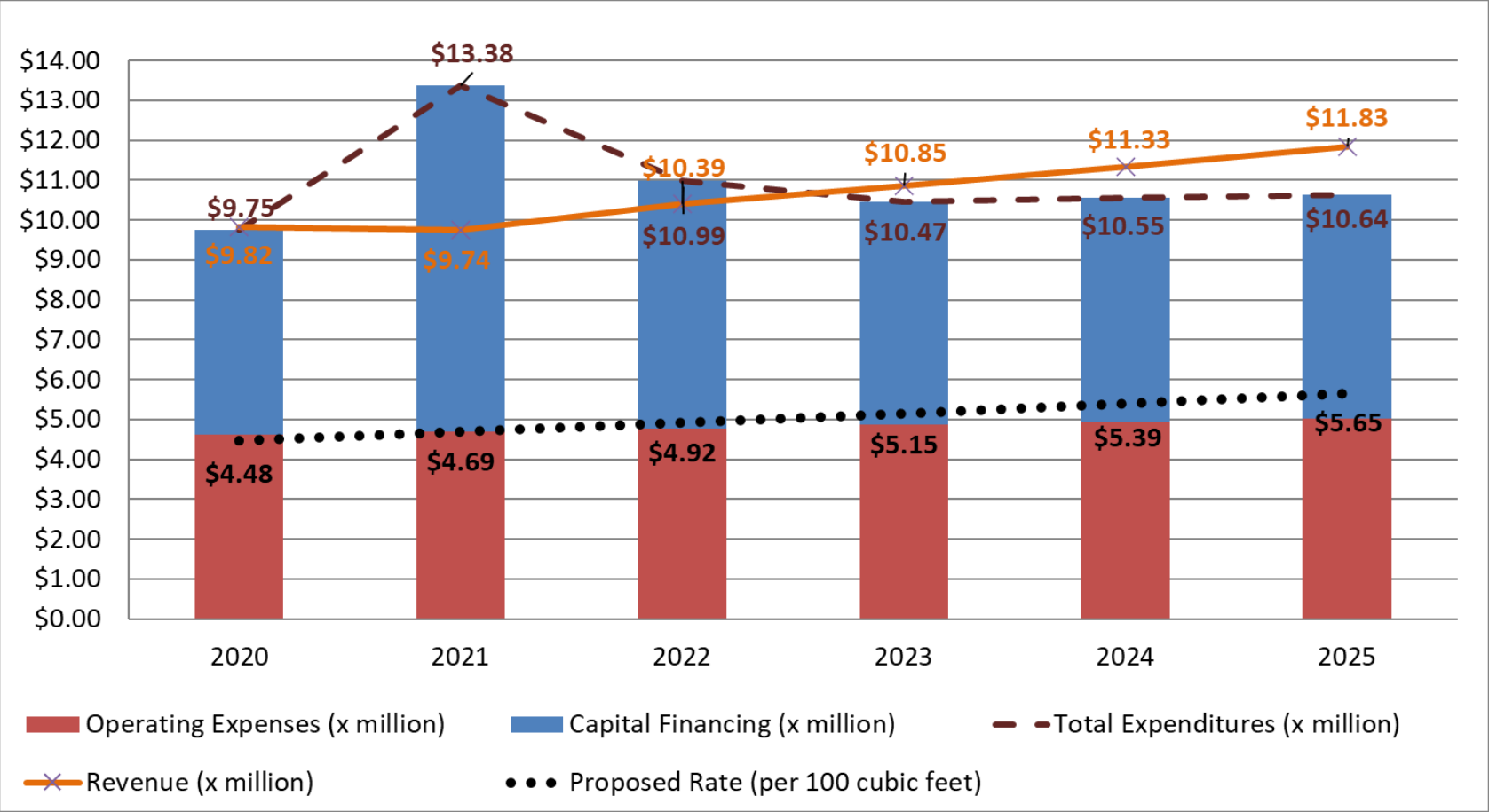
# Proposed Wastewater Rate Structure

- Volume Charge increases at 4.50% per year.
- Industrial rate structure for flow, BOD and TSS is maintained with annual increases of 4.50% for each category.
- Fixed Meter Charges increase at 4.50% per year for all customers.

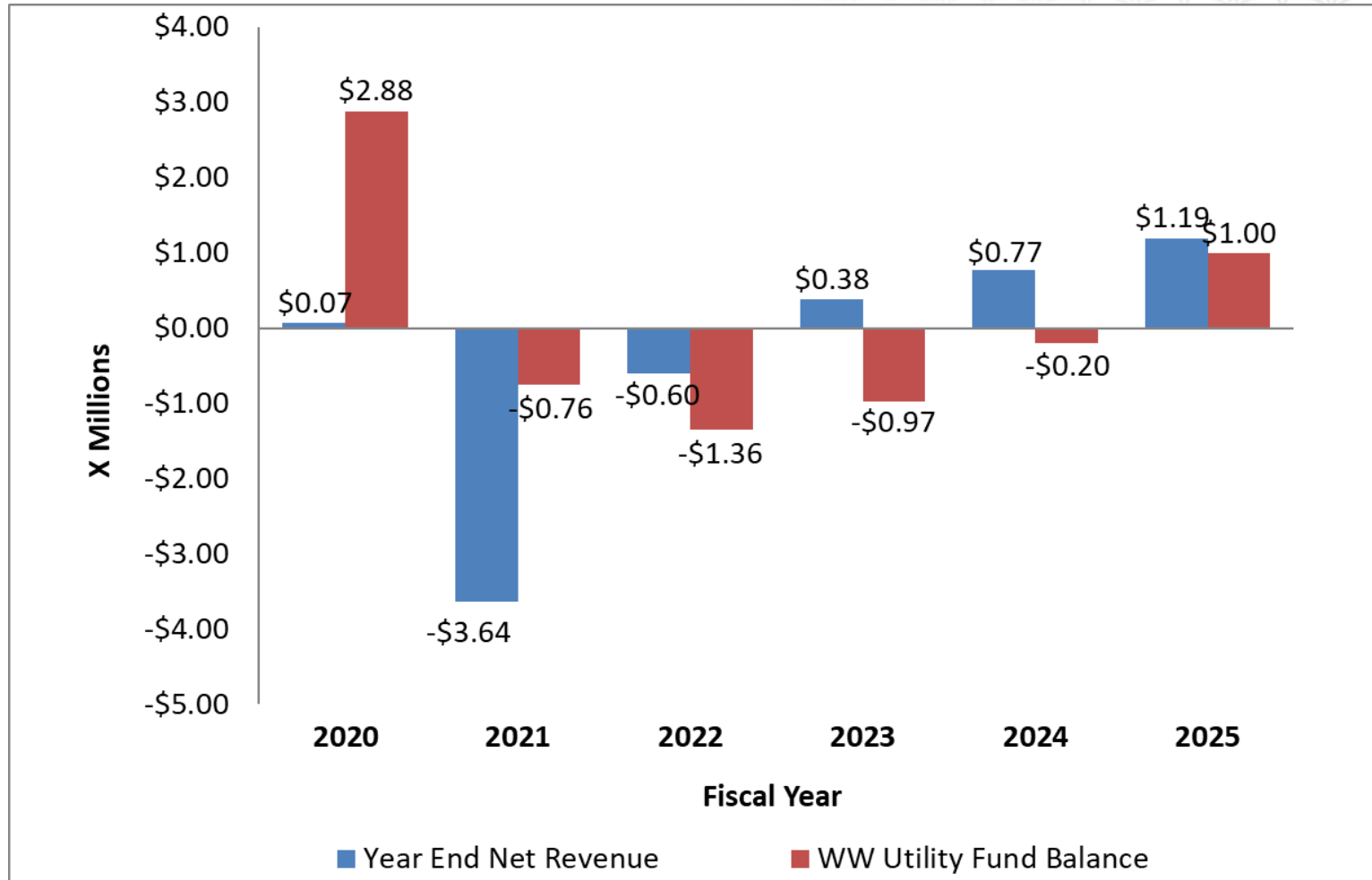
# Wastewater Utility 2025 Finances with Proposed Rates

- Revenue will increase from \$9.82m to \$11.83m.
- Total Expenses will increase from \$9.75m to \$10.64m.
- Wastewater Fund balance will decrease from \$2.88m to negative in 2021-2024 to positive \$996,000 in 2025.
- Debt Service Coverage Ratio will increase from 1.1 to 1.3.

# Wastewater Utility 2020-2025 Finances with Proposed Rates



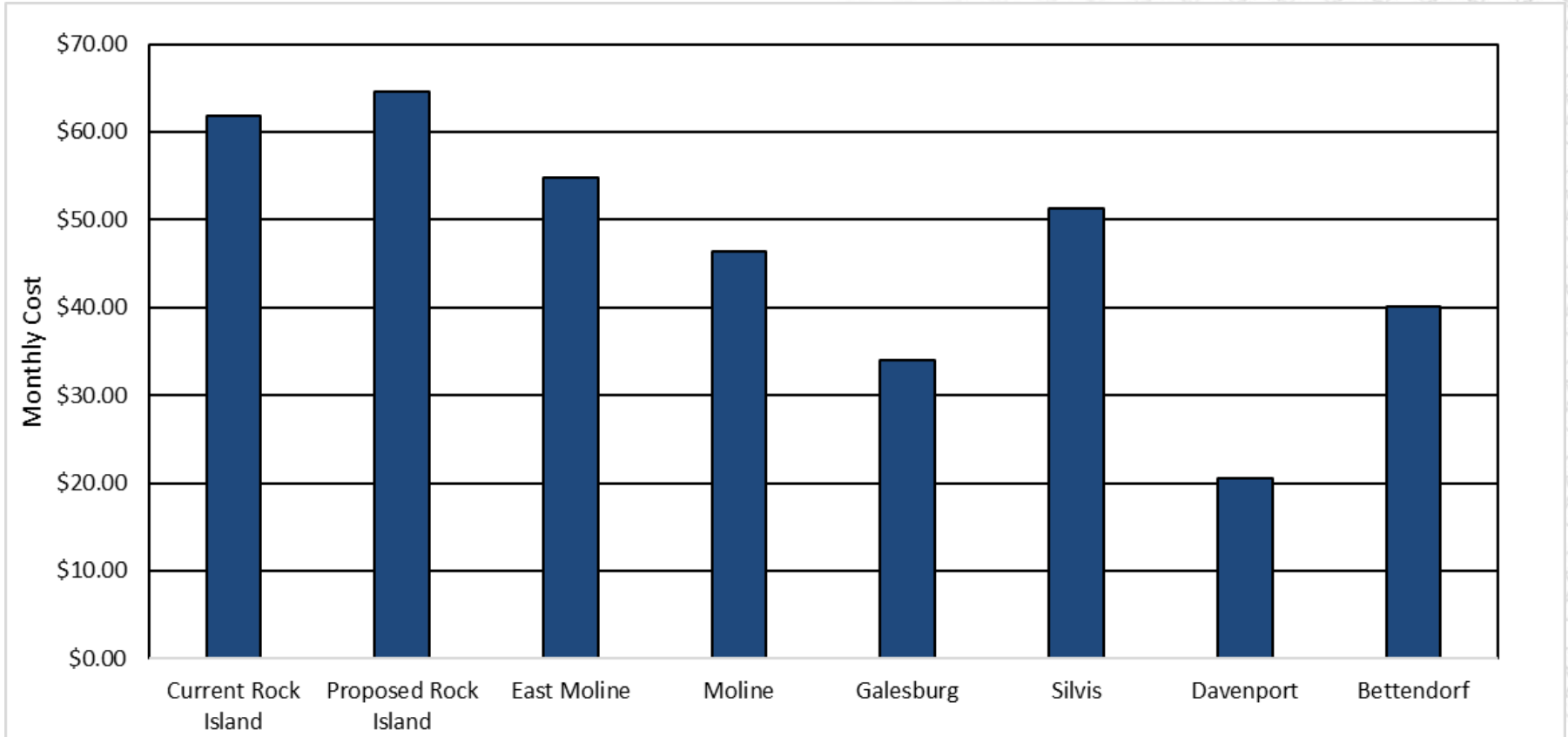
# Wastewater Utility 2020-2025 Finances w/ Proposed Rates – Fund Balance



# Impacts on Customers – Fixed & Volume Wastewater Rates Combined

Customer	Typical Monthly Usage	Current	2021	2022	2023	2024	2025
<b>5/8" Quarterly</b>	524 ft <sup>3</sup>	\$121	\$127	\$132	\$138	\$145	\$151 4.50%/yr.
<b>4" Quarterly</b>	85,000 ft <sup>3</sup>	\$9,624	\$10,057	\$10,509	\$10,982	\$11,477	\$11,993 4.50%/yr.
<b>2" Monthly</b>	20,000 ft <sup>3</sup>	\$751	\$784	\$820	\$857	\$895	\$935 4.50%/yr.
<b>4" Monthly</b>	55,000 ft <sup>3</sup>	\$2,032	\$2,124	\$2,219	\$2,319	\$2,432	\$2,532 4.50%/yr.

# Comparison to Other Wastewater Utilities – Residential





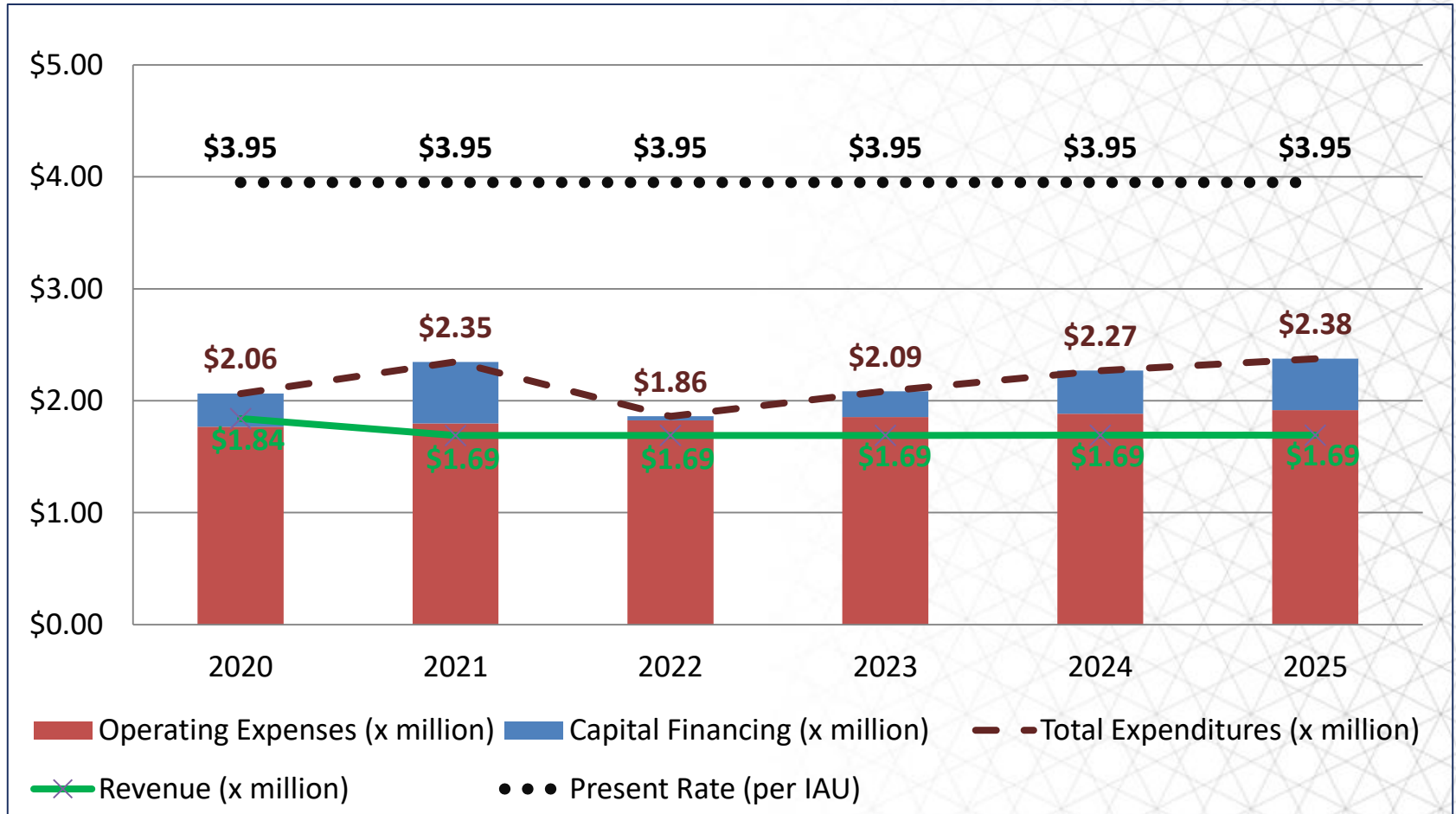
# City of Rock Island Stormwater Utility Rates

# Existing Stormwater Rate Structure

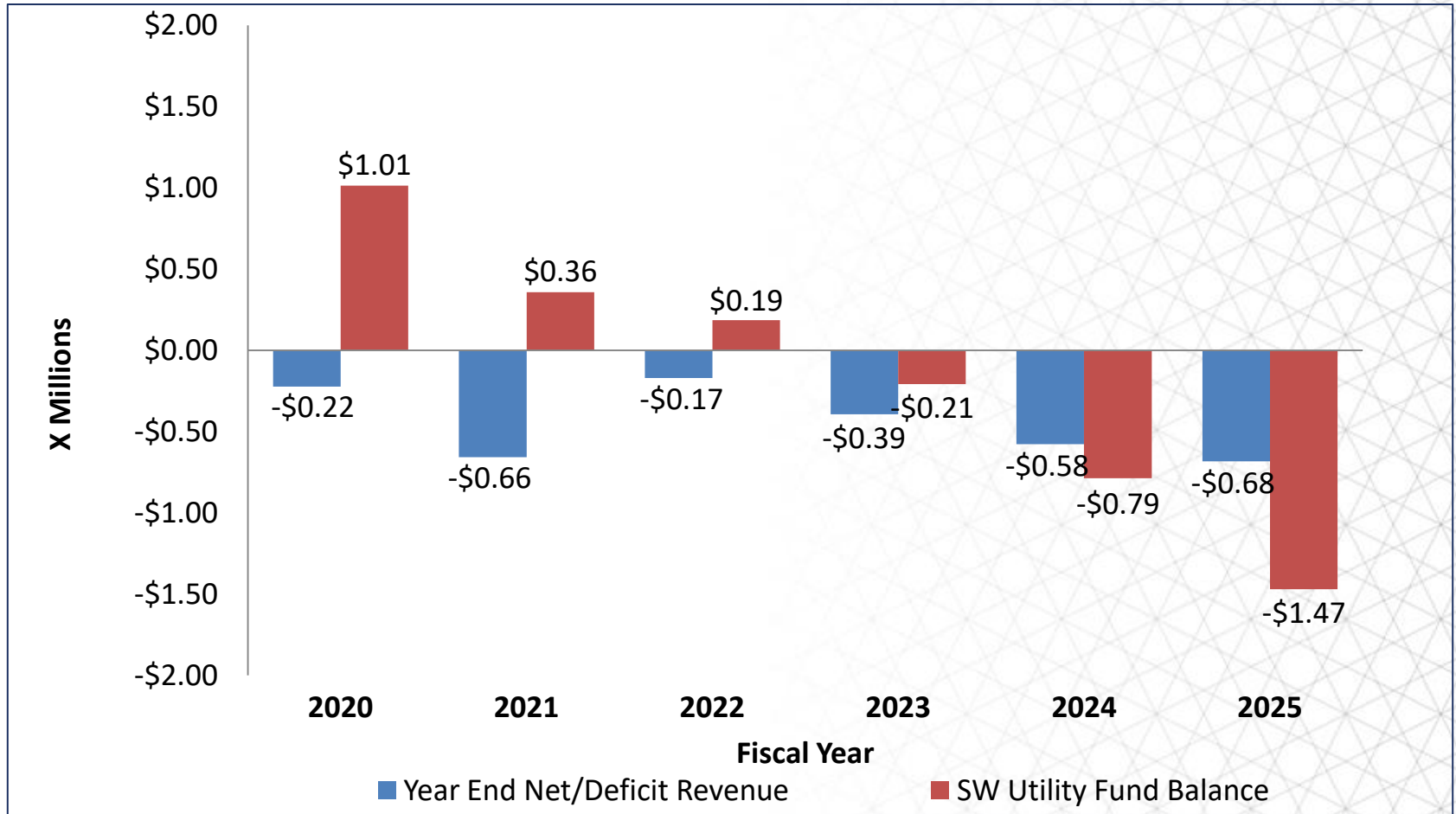
- Most customers invoiced quarterly
- Single-family homes are billed based on a fixed monthly fee tied to parcel size (small, medium, large)
- Non-single-family homes, and single-family homes on parcels over 2 acres, are billed based on monthly fees tied to the number of Impervious Area Units (2,800 ft<sup>2</sup>) on the parcel.
- Credits are provided for reducing quantity or improving quality of discharge.



# Stormwater Utility 2020-2025 Finances with Existing Rates



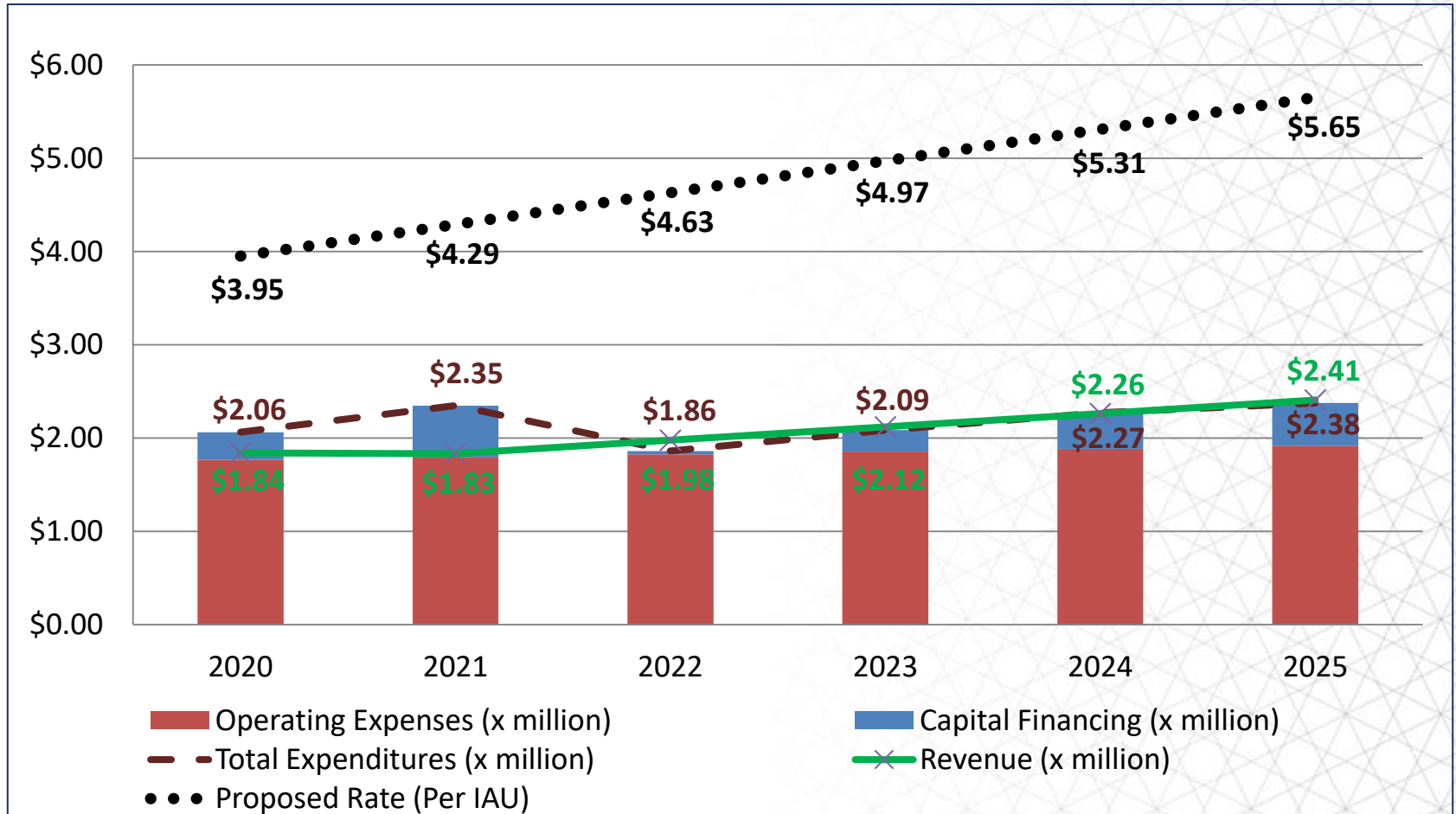
# Stormwater Utility 2020-2025 Finances with Existing Rates – Fund Balance



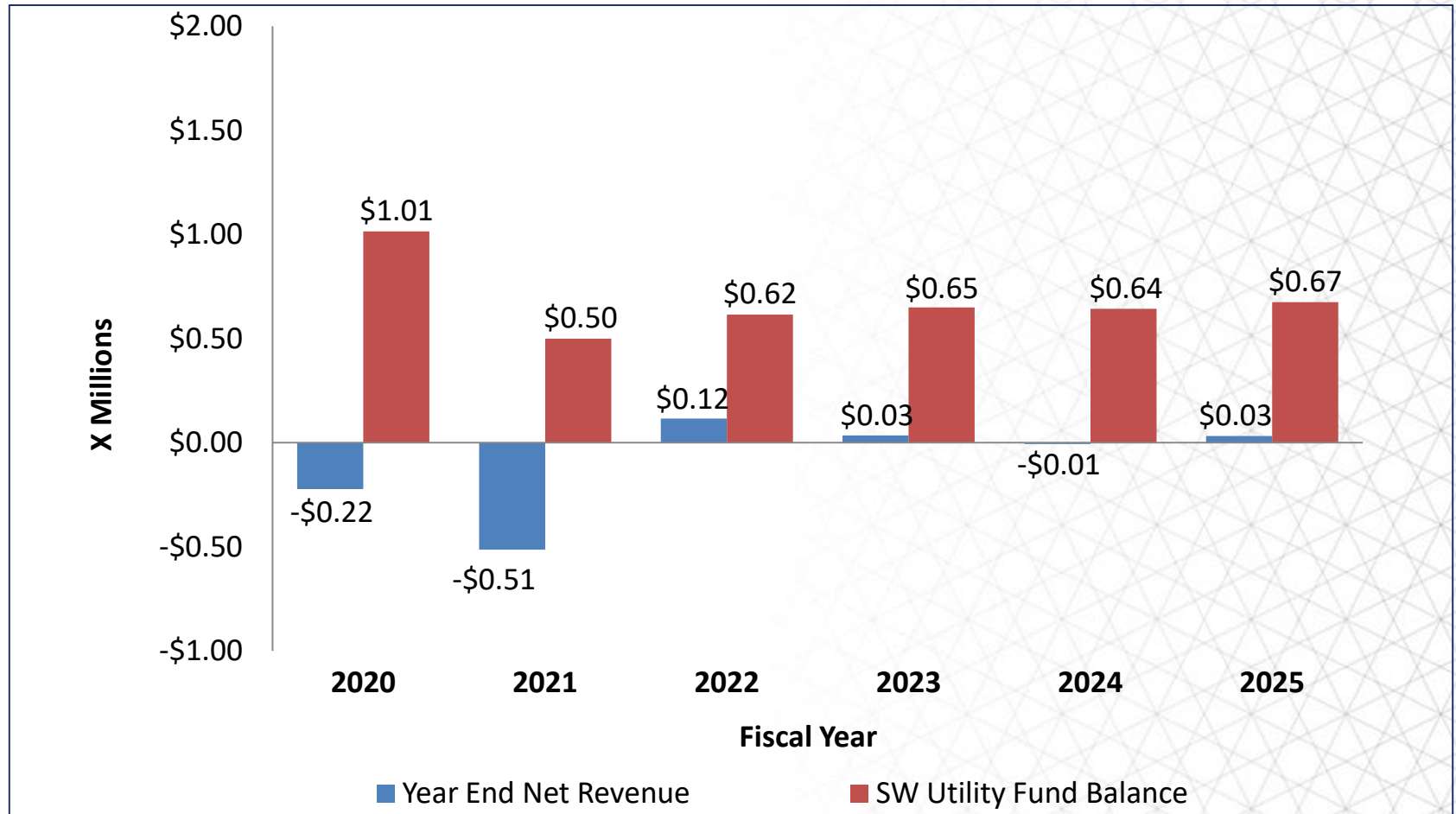
# Impacts on Customers – Proposed Rate Schedule

Customer	Rate Structure	Present Rates	2021	2022	2023	2024	2025
Small Single-Family Home	Per Month	\$2.96	\$3.21	\$3.47	\$3.72	\$3.98	\$4.23 \$0.34/yr.
Medium Single-Family Home	Per Month	\$3.95	\$4.29	\$4.63	\$4.97	\$5.31	\$5.65 \$0.34/yr.
Large Single-Family Home	Per Month	\$4.94	\$5.37	\$5.79	\$6.22	\$6.64	\$7.07 \$0.34/yr.
Non-Single-Family Home	Per IAU	\$3.95	\$4.29	\$4.63	\$4.97	\$5.31	\$5.65 \$0.34/yr.

# Stormwater Utility 2020-2025 Finances with Proposed Rates



# Stormwater Utility 2020-2025 Finances with Proposed Rates – Fund Balance



# Summation of Recommendations

- Rates for all three utilities should be increased in Fiscal Years 2021 through 2025. The proposed rates will cover projected operating expenses, debt service, and planned capital projects; maintain the required debt coverage ratio; and maintain or achieve a healthy Utility Fund balance.
- Water and Wastewater: The proposed rate of increase for water/wastewater services is 5.50% and 4.50% respectively per year.
- While the recommended ordinance would include rate schedules for a five-year period, the rates should be reviewed every year and revised as needed based on actual operating results.

# Comments & Questions