



STANLEYCONSULTANTS

Village of Villa Park 2021 Rate Studies

Water and Wastewater

Village Board Presentation - March 8, 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
- Goal is to charge all customers fair and equitable rates equal to cost of providing service to them
- In simplest form:
$$\text{Costs divided by billing quantity} = \text{rate}$$
- For fair and equitable rates: Detailed considerations & judgement are needed

Billing Quantities & Revenue Requirements

- Billing Quantities = Demand on Utilities
 - Volume of metered water
 - 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

Project and Allocate Expenses & Calculate Rates

- Project expenses for a 5-year study period (2021-2025)
- Allocate assigned expenses to billing quantities
 - Volume of metered water
 - Number of bills
- Divide assigned expenses by billing quantities to determine fair and equitable unit rates
 - Volume (\$ per 1,000 gallons)
 - Customer charge (\$ per bill per month)



Village of Villa Park Water Utility Rates

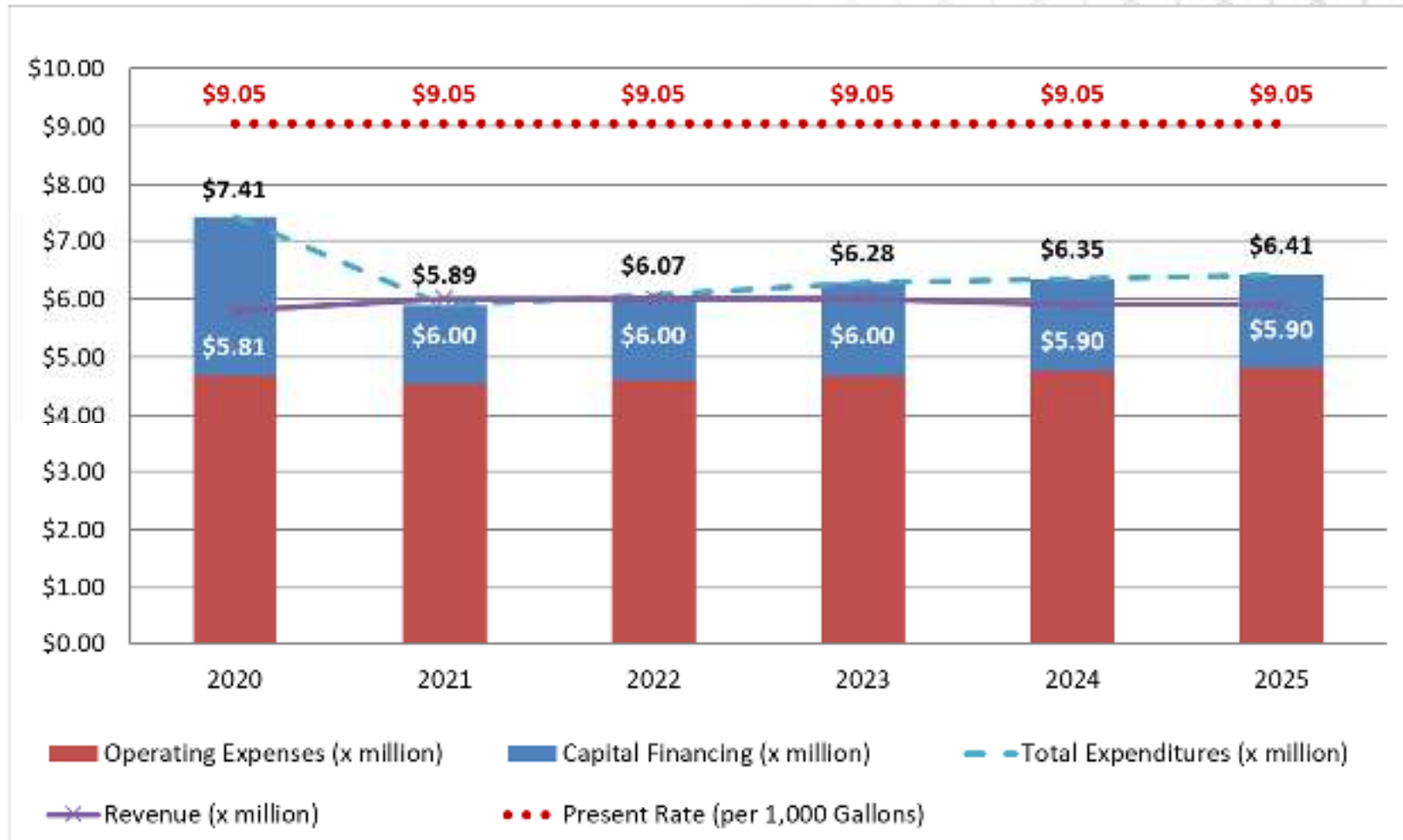
Existing Water Rate Structure

- Billing Cycles – All customers billed monthly.
- Fixed Meter Charge – Rates vary based on meter size. Larger meters pay more.
- Water Volume Charge – Uniform rate with charge based on metered water use.
- Cross Connection Fee – Fixed monthly fee to pay for upkeep of the backflow preventer database.

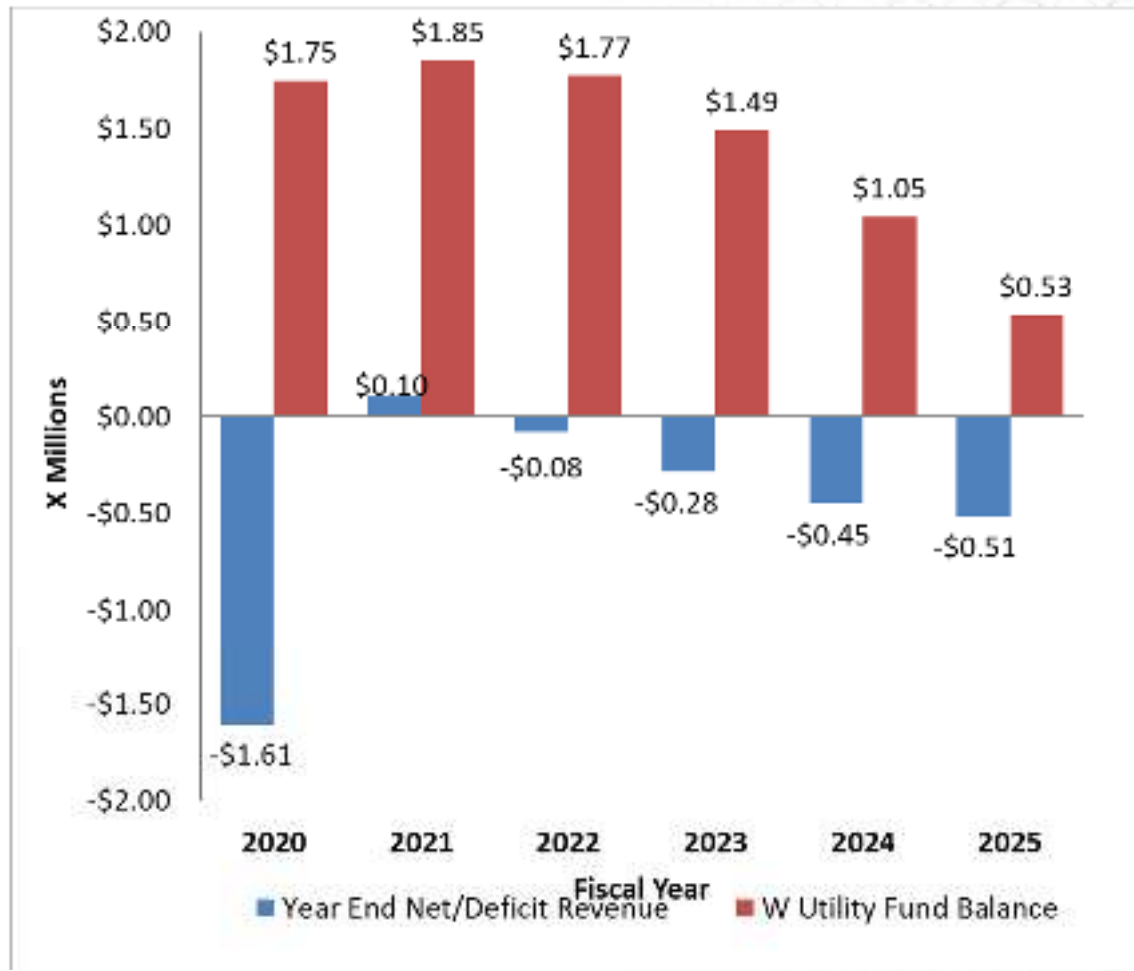
Water Rate Basic Assumptions for Near Future

- 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 one percent.
- Operating expenses will generally increase at a rate of two to three percent per year.

Water Utility 2020-2025 Finances with Present Rates



Water Utility 2020-2025 Finances with Present Rates – Fund Balance

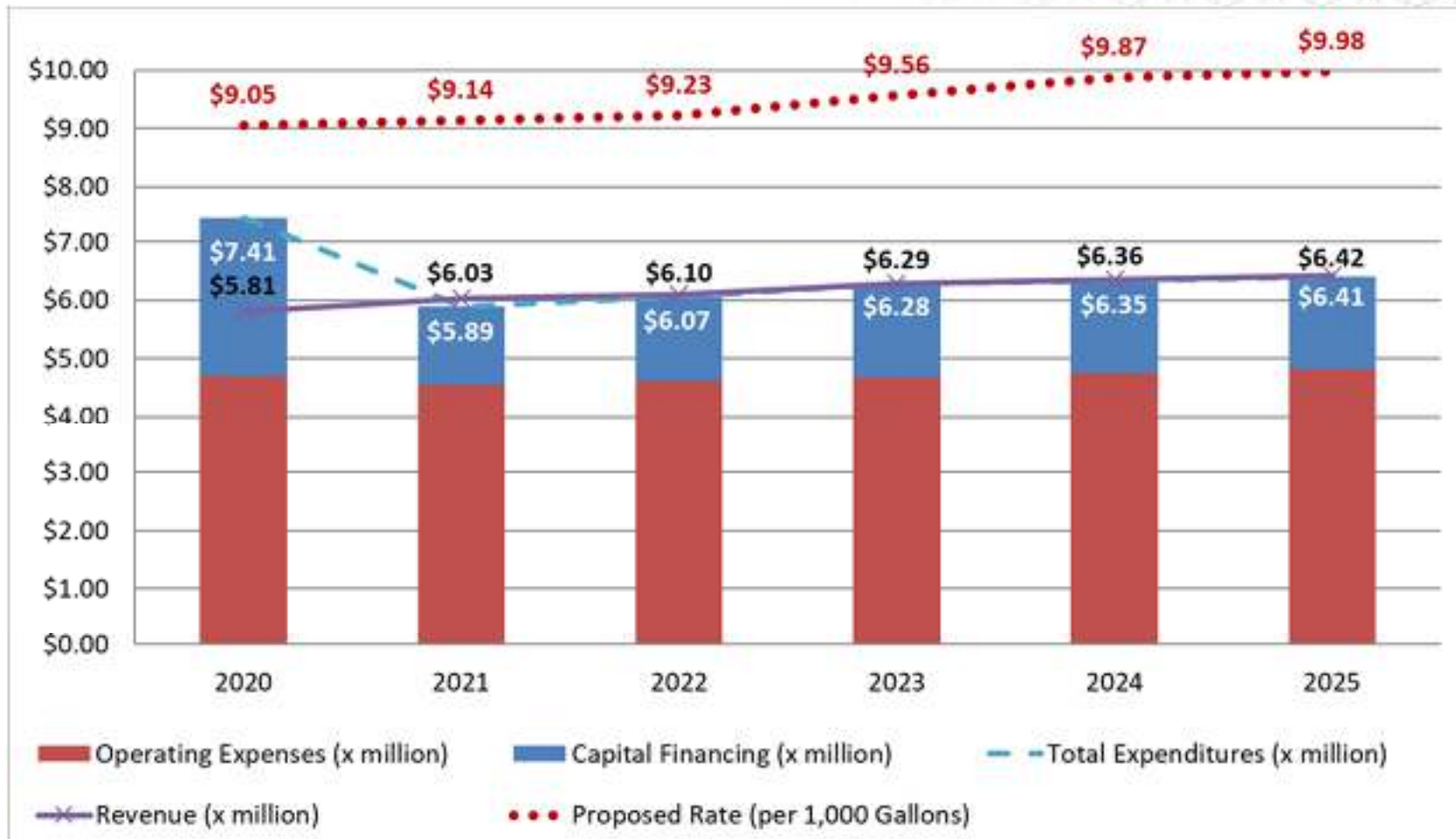


Proposed Water Rates

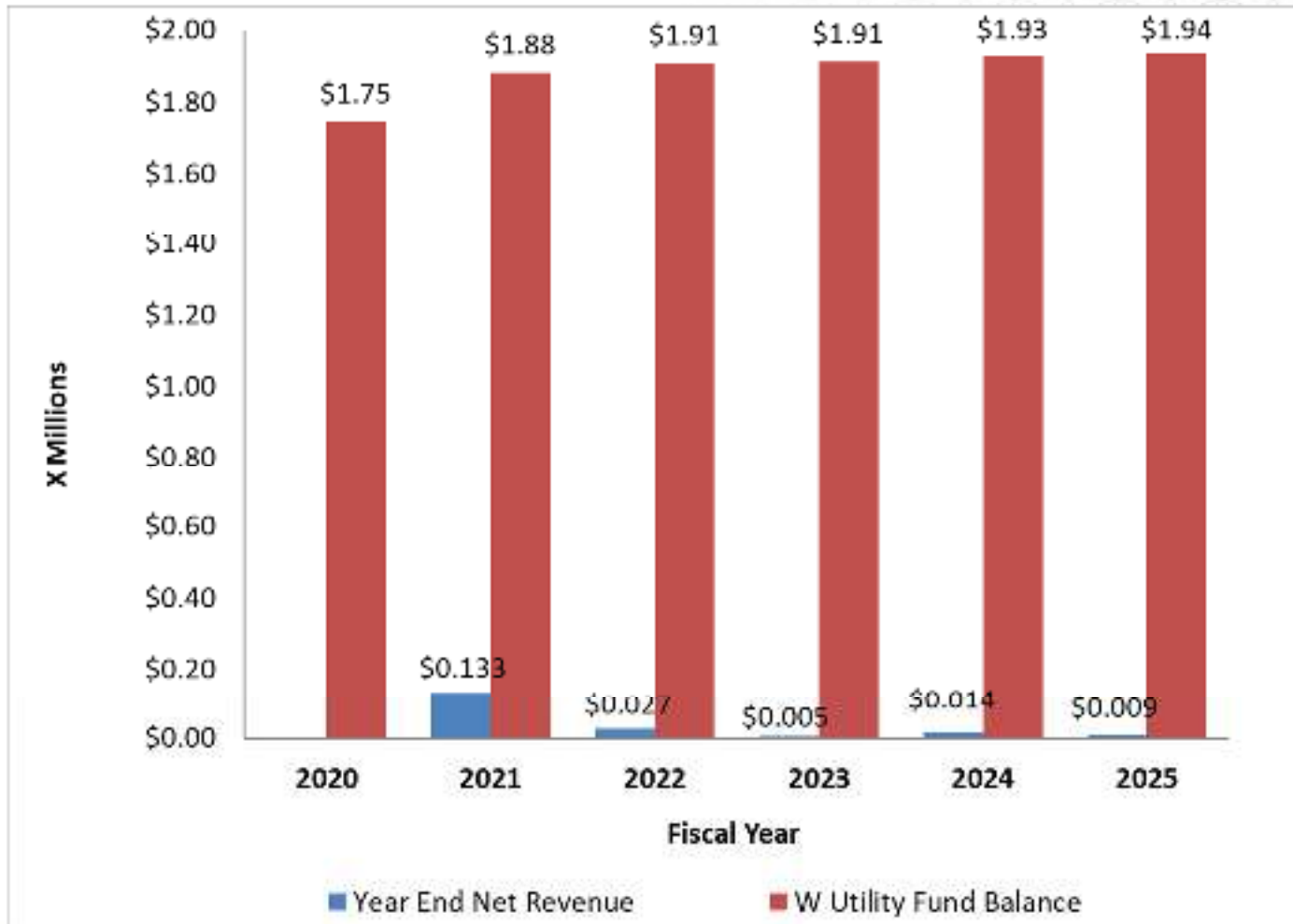
Volume Charge and Fixed Customer Charge						
	Present	2021	2022	2023	2024	2025
Volume	\$9.05	\$9.14	\$9.23	\$9.56	\$9.87	\$9.98
Customer Charge	\$4.74	\$4.79	\$4.84	\$5.01	\$5.17	\$5.23
% Increase	-	+1.0%	+1.0%	+3.6%	+3.2%	+1.1%

Cross Connection Fee					
Present	2021	2022	2023	2024	2025
\$1.20	\$1.40	\$1.40	\$1.40	\$1.40	\$1.40

Water Utility 2020-2025 Finances with Proposed Rates



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

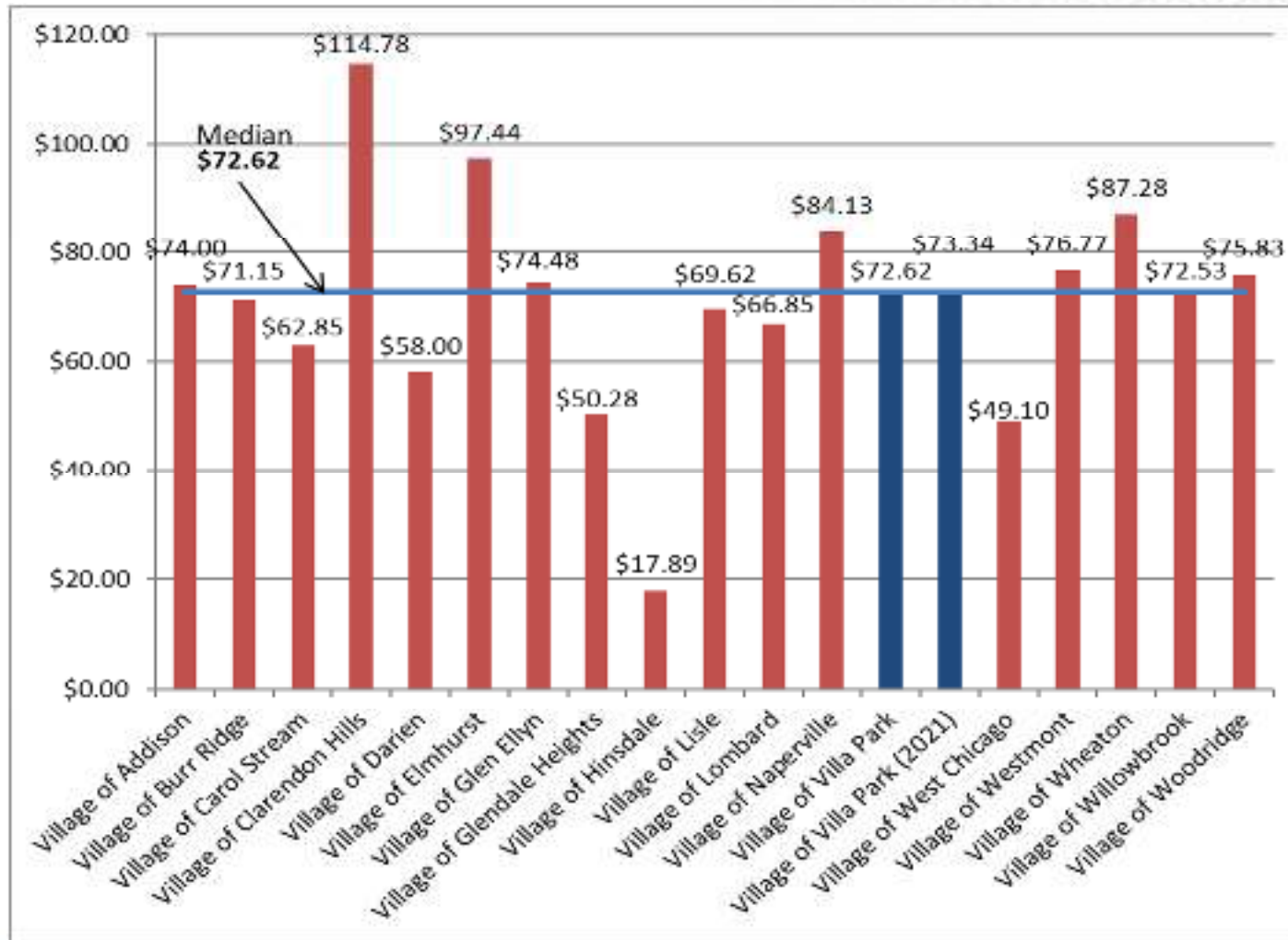


Impacts on Customers – Fixed & Volume Water Rates Combined

Typical Monthly Bill - Average Family					
Present	2021	2022	2023	2024	2025
\$72.62	\$73.34	\$74.07	\$76.71	\$79.20	\$80.08
-	+\$0.73	+\$0.72	+\$2.65	+\$2.48	+\$0.89

Based on ¾" meter and 7,500 gallons of water/month

Comparison to Other Water Utilities – Residential





Village of Villa Park Wastewater Utility Rates

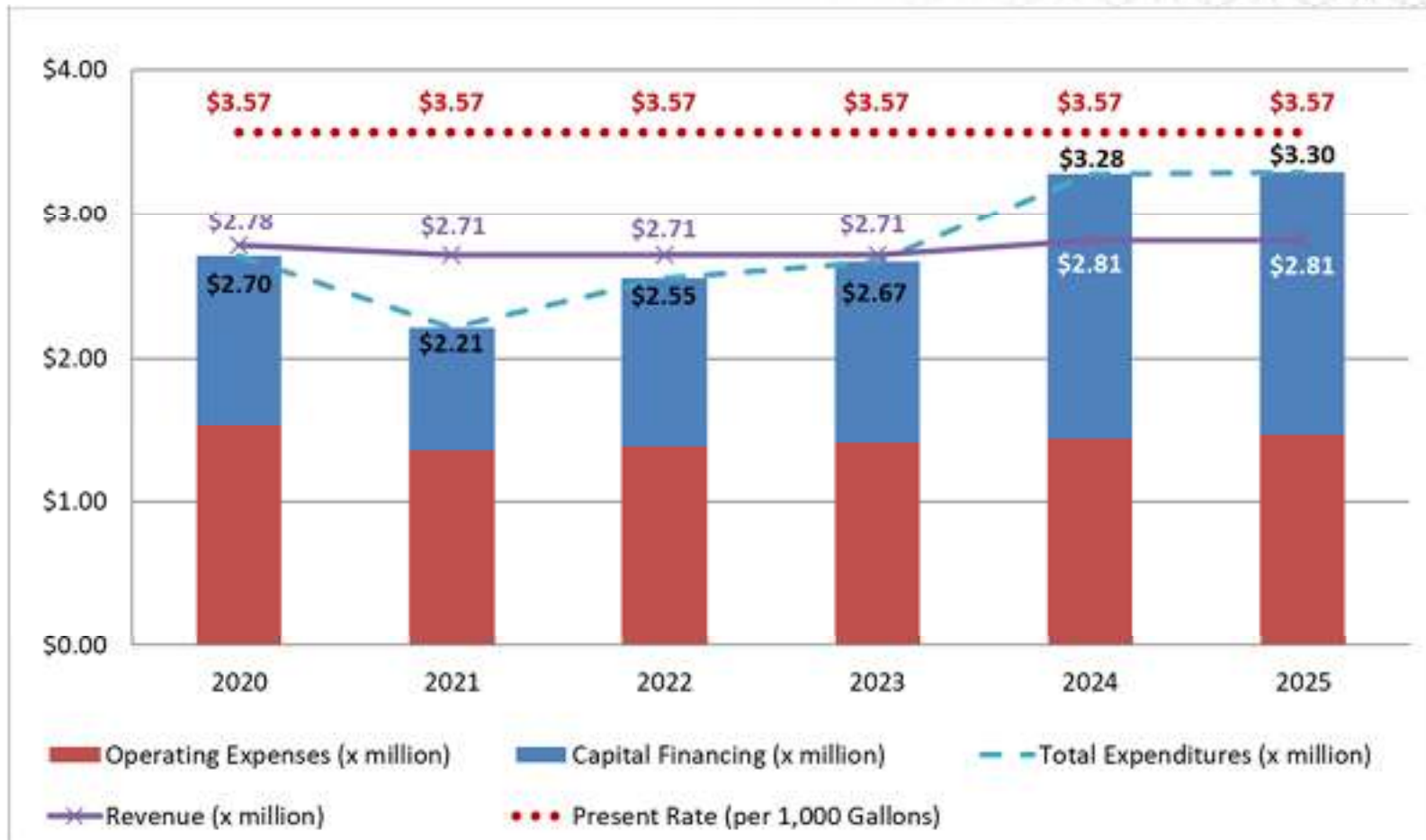
Existing Wastewater Rate Structure

- Billing Cycles – All customers are billed monthly.
- Fixed Meter Charge – Rate is the same regardless of meter size.
- Wastewater Volume Rate – Uniform rate with charge based on metered water use.
- Sewer Separation Charge – Fixed monthly charge to fund sewer separation projects.

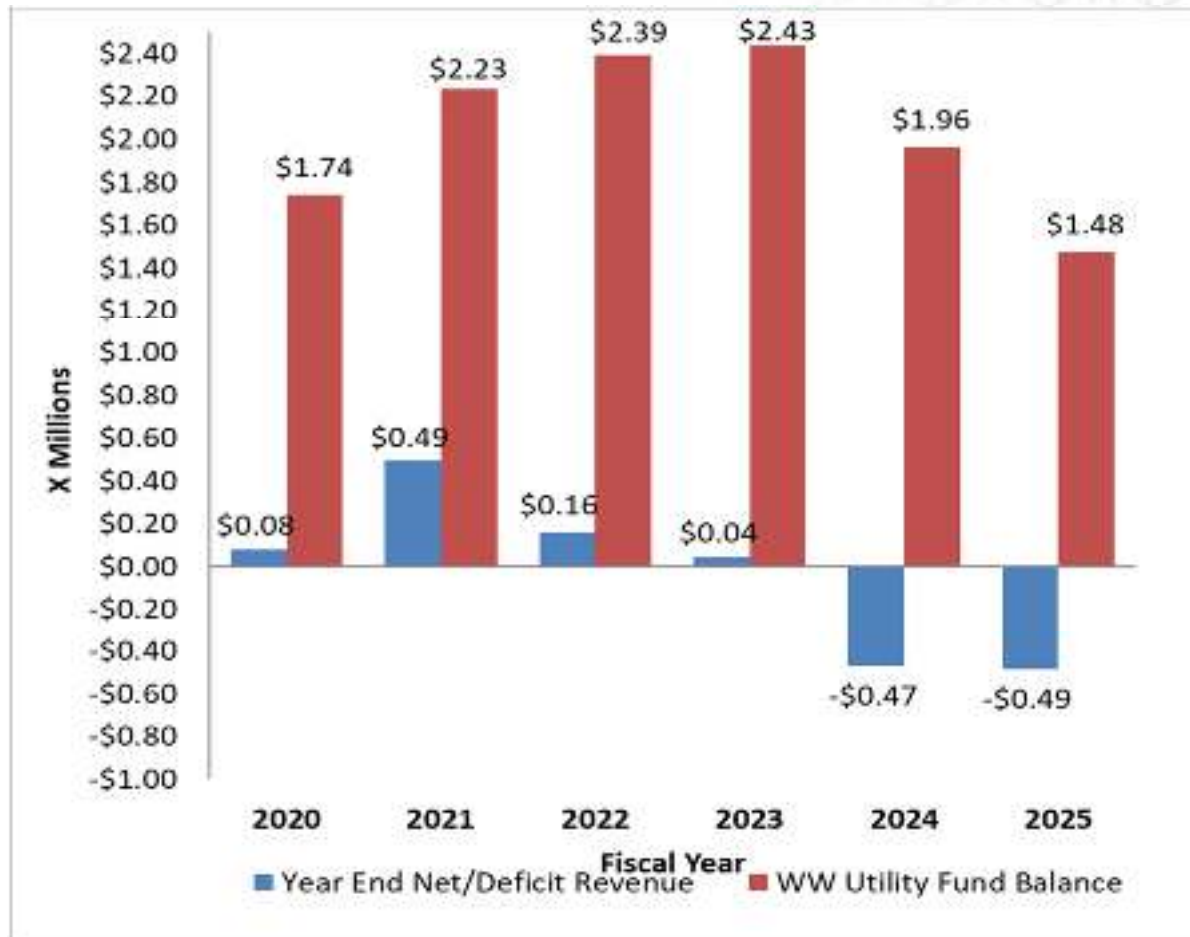
Wastewater Rate Basic Assumptions for Near Future

- The number of wastewater accounts and the amount of wastewater billed will remain stable for the 5 year study period.
- Revenues other than wastewater charges will increase at a rate of one percent per year.
- Operating expenses will generally increase at a rate of two percent per year.

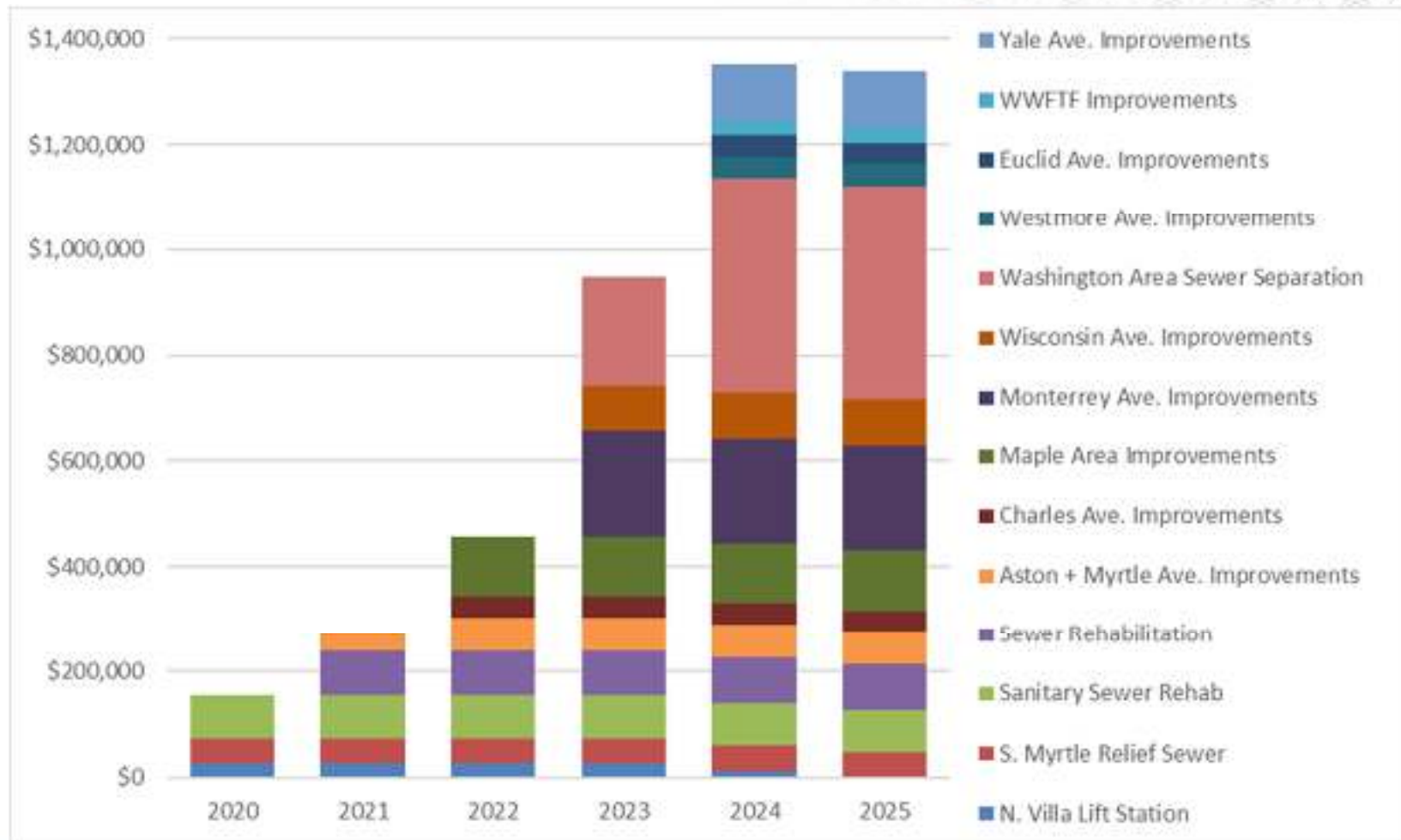
Wastewater Utility 2020-2025 Finances with Present Rates



Wastewater Utility 2020-2025 Finances with Present Rates – Fund Balance



Wastewater Utility Debt Service Payment Projections

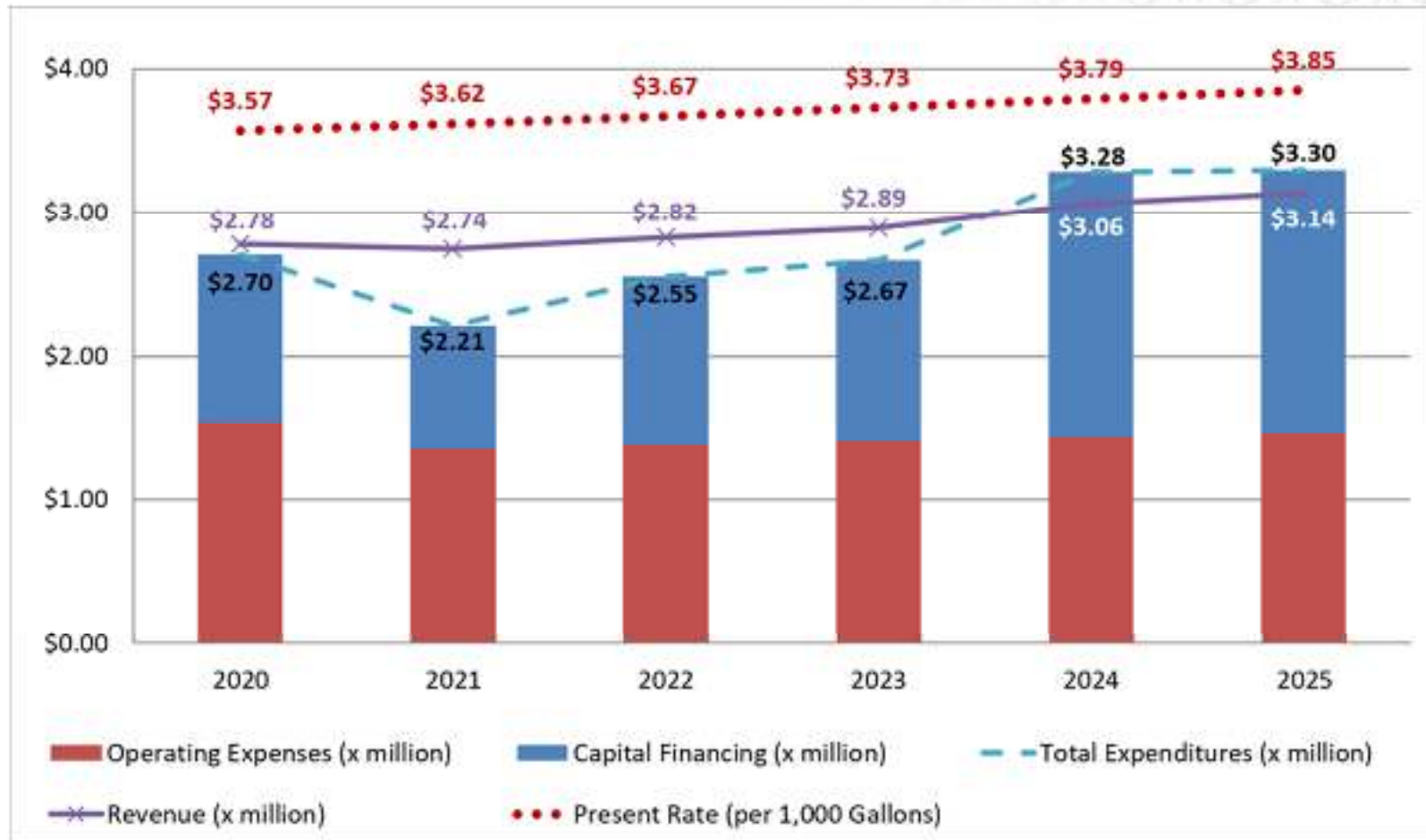


Proposed Wastewater Rates

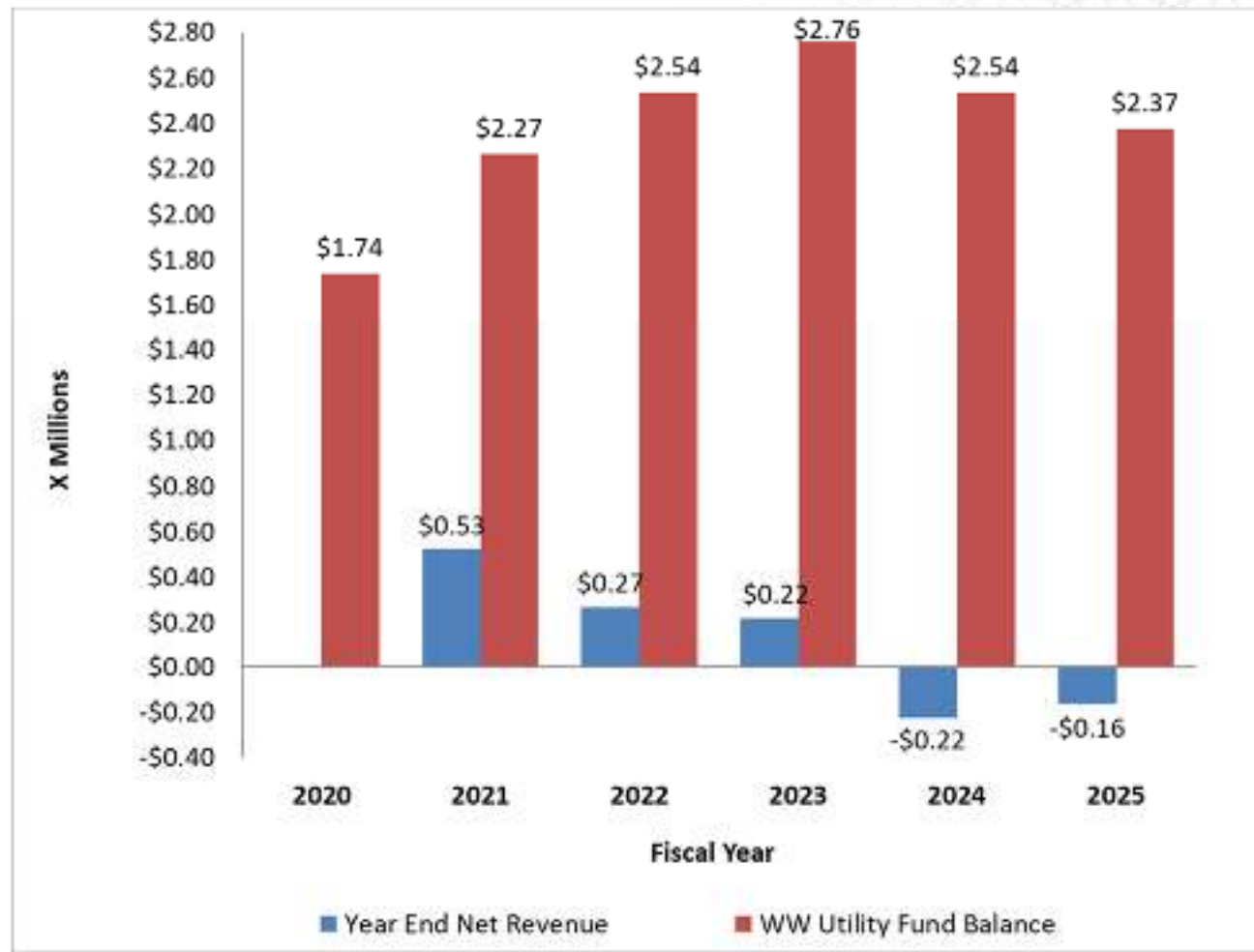
Volume Charge and Customer Charge						
	Present	2021	2022	2023	2024	2025
Volume	\$3.57	\$3.62	\$3.67	\$3.73	\$3.79	\$3.85
Customer Charge	\$1.66	\$1.68	\$1.71	\$1.74	\$1.77	\$1.80
% Increase	-	+1.5%	+1.5%	+1.5%	+1.5%	+1.5%

Sewer Separation Charge					
Present	2021	2022	2023	2024	2025
\$3.00	\$3.30	\$3.63	\$3.99	\$4.39	\$4.83
-	+10%	+10%	+10%	+10%	+10%

Wastewater Utility 2020-2025 Finances with Proposed Rates



Wastewater Utility 2020-2025 Finances with Proposed Rates – Fund Balance

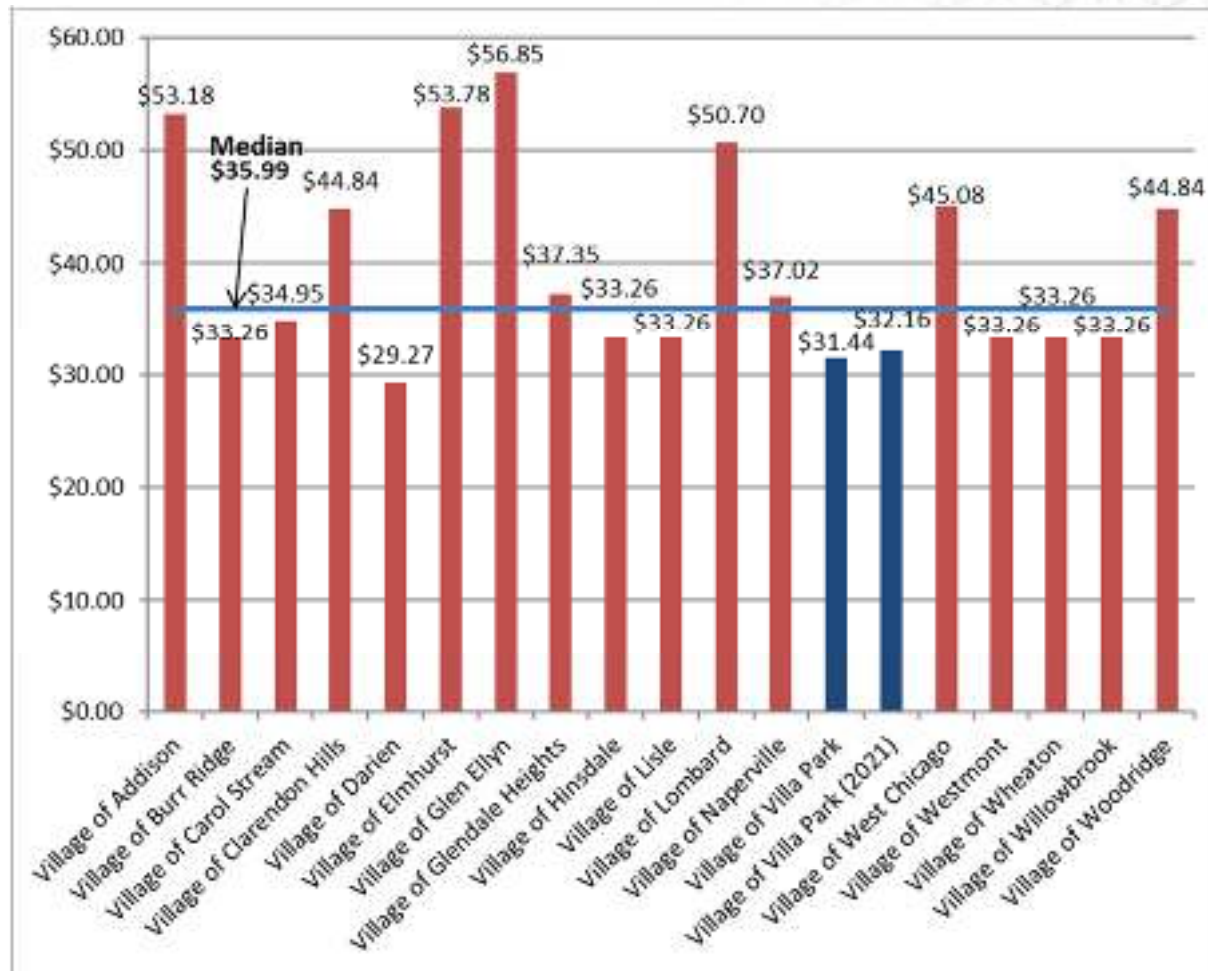


Impacts on Customers – Fixed & Volume Wastewater Rates Combined

Typical Monthly Bill - Average Family					
Present	2021	2022	2023	2024	2025
\$31.44	\$32.13	\$32.87	\$33.71	\$34.59	\$35.51
-	+\$0.70	+\$0.73	+\$0.84	+\$0.88	+\$0.92

Based on 7,500 gallons of water/month

Comparison to Other Wastewater Utilities – Residential



Impacts on Customers – Water & Wastewater Rates Combined

Typical Monthly Bill - Average Family					
Present	2021	2022	2023	2024	2025
\$104.06	\$105.47	\$106.94	\$110.42	\$113.79	\$115.59
-	+\$1.41	+\$1.47	+\$3.48	+\$3.37	+\$1.80

Based on 7,500 gallons of water/month

Summation of Recommendations

- Rates for Water and Wastewater 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 a healthy Utility Fund balance.
- While the recommended ordinance could 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