

Milford Sewer Rate Model Update
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Underwood Engineers

Milford Water & Sewer Commission
Sewer Rates Public Hearing

6 PM on September 29, 2021

Water Utilities Department Mission Statement

To provide exceptional water and sewer services through responsible and creative stewardship of the resources and assets we manage. To fulfill our responsibility of protecting the environment and the health of our customers. To strive to improve the quality and efficiency of our service to the community.

Sewer Rate Study Update - Goals

- Update 2018 Rate Model and assumptions
- Identify rate increases to support budget and capital projects
- Identify rate increases needed with or without General Fund revenue to support EPA Permit WWTF Upgrade

Sewer System Information

WWTF Capacity – 2,150,000 gallons per day

2020 Effluent Flow – 1,445,671 gallons per day

Number of Users

User Classification	Number
Residential User Accounts	2,355
Commercial/Industrial User Accounts	562
Flat Rate Accounts	8
Wholesale (Town of Wilton)	1 (168,872 gpd in 2020)

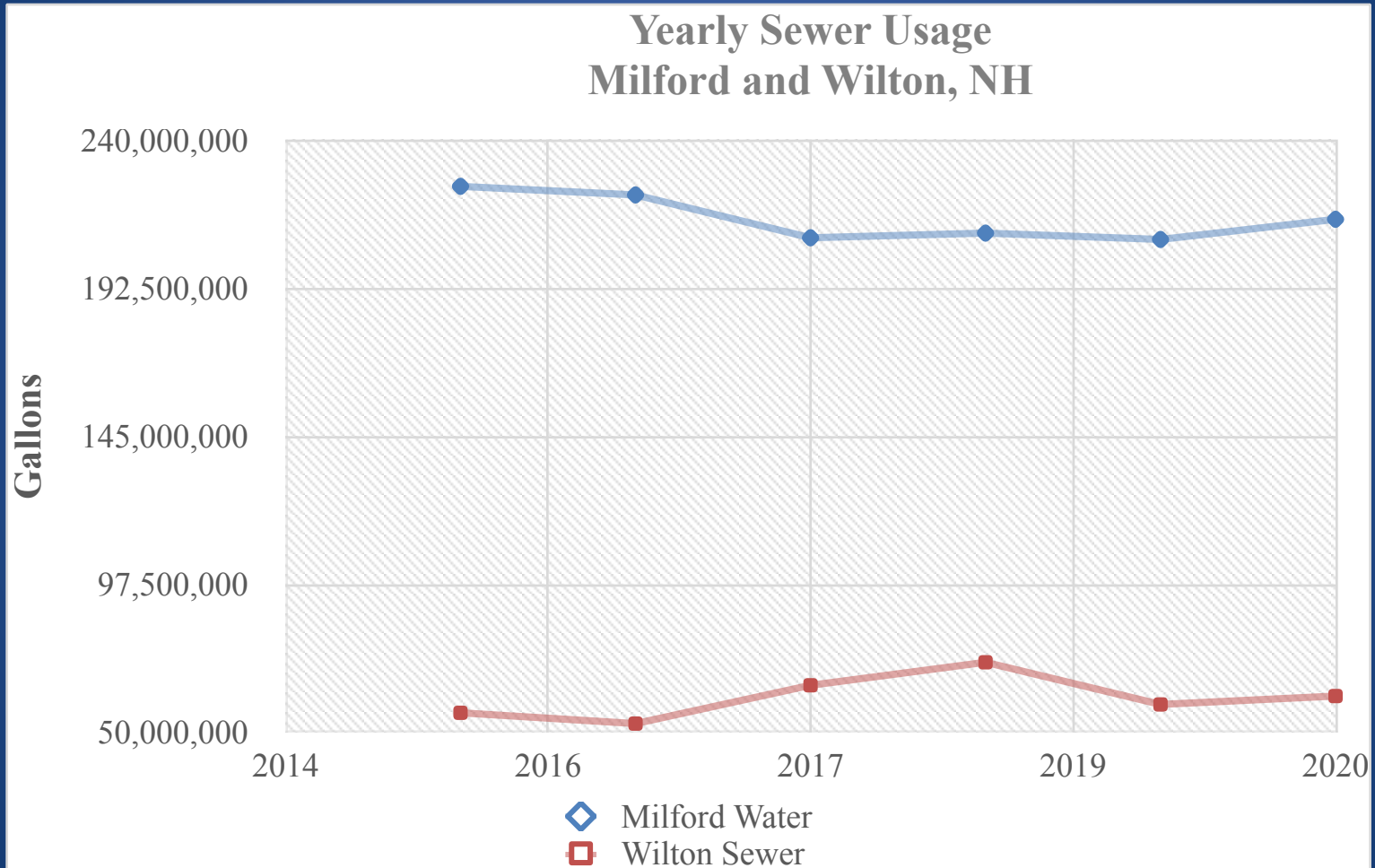
Sewer Billing History

Year	Residential Charges	Commercial/Industrial Charges	Flat Rate
2004 (January)	\$3.08 per 100 CF	\$3.85 per 100 CF	
2007 (February)	\$3.33 per 100 CF	\$4.16 per 100 CF	\$55.52 per Quarter
2012 (July)	\$3.93 per 100 CF	\$4.91 per 100 CF	\$66.81 per Quarter
2015 (March)	\$4.40 per 100 CF	\$5.50 per 100 CF	\$74.83 per Quarter
2019 (May)	\$5.50 per 100 CF	\$6.88 per 100 CF	\$93.54 per Quarter

Accounts and Sewer Usage

- Milford
 - Accounts increased from 2,828 (2018) to 2,926 (2020)
 - Average residential sewer usage remained level (increased from 124 to 125 GPD)
- Wilton
 - flow decreased for 2019-2020 from 2017-2018.

Accounts and Sewer Usage



Accounts and Sewer Usage

- Sewer accounts increased, but billing sewer usage has remained steady. It may be due to:
 - Deduct meters for irrigation
 - Water conservation efforts
 - Water saving appliances or devices:
 - Water efficient dishwashers and clothes washers
 - Low flush toilets
 - Faucet aerators and Low flow showerheads
 - Pressure reducing valves

Revenue Assumptions

- No future increase in Milford consumption
- No future increase in Wilton consumption
- Other revenues based on staff projections
- Rate increases once every three years

Expenditure Assumptions

- Based on 2022 proposed budget, increasing ~2.5% annually
- \$120k annual CIP funding
- New SRF bonds, with payments beginning in 2022, 2024, 2025, 2026

Budget Assumptions

Fiscal Year	Budget	Notes
2021	\$2,300,087	Budgeted
2022	\$2,544,398	Budgeted
2023	\$2,588,830	Projected
2024	\$2,835,093	Projected
2025	\$3,252,442	Projected
2026	\$3,341,231	Projected
2027	\$3,351,703	Projected
2028	\$3,383,344	Projected
2029	\$3,396,720	Projected
2030	\$3,441,601	Projected

Capital Improvements Program

Priority	Capital Project	Estimated Cost	Year of Bond Authorization	Year Payments Begin	Year of Last Payment
1	Secondary Clarifier Mechanism Replacement/RAS Improvement	\$1,459,000	2021	2022	2036
2	EPA Permit Upgrade- Final Design	\$450,000	2022	2024	2043
3	EPA Permit Upgrade- Secure Sludge Landfill Remediation	\$1,000,000	2022	2024	2043
4,5,6,7	EPA Permit Upgrade	\$6,299,200	2023	2025	2044
8	Influent Screenings Conveyor	\$312,000	2024	2026	2045
9	Primary Water Clarifier Mechanism	\$539,000	2024	2026	2045
	Total Capital Program Cost (FY2021)	\$10,059,200			

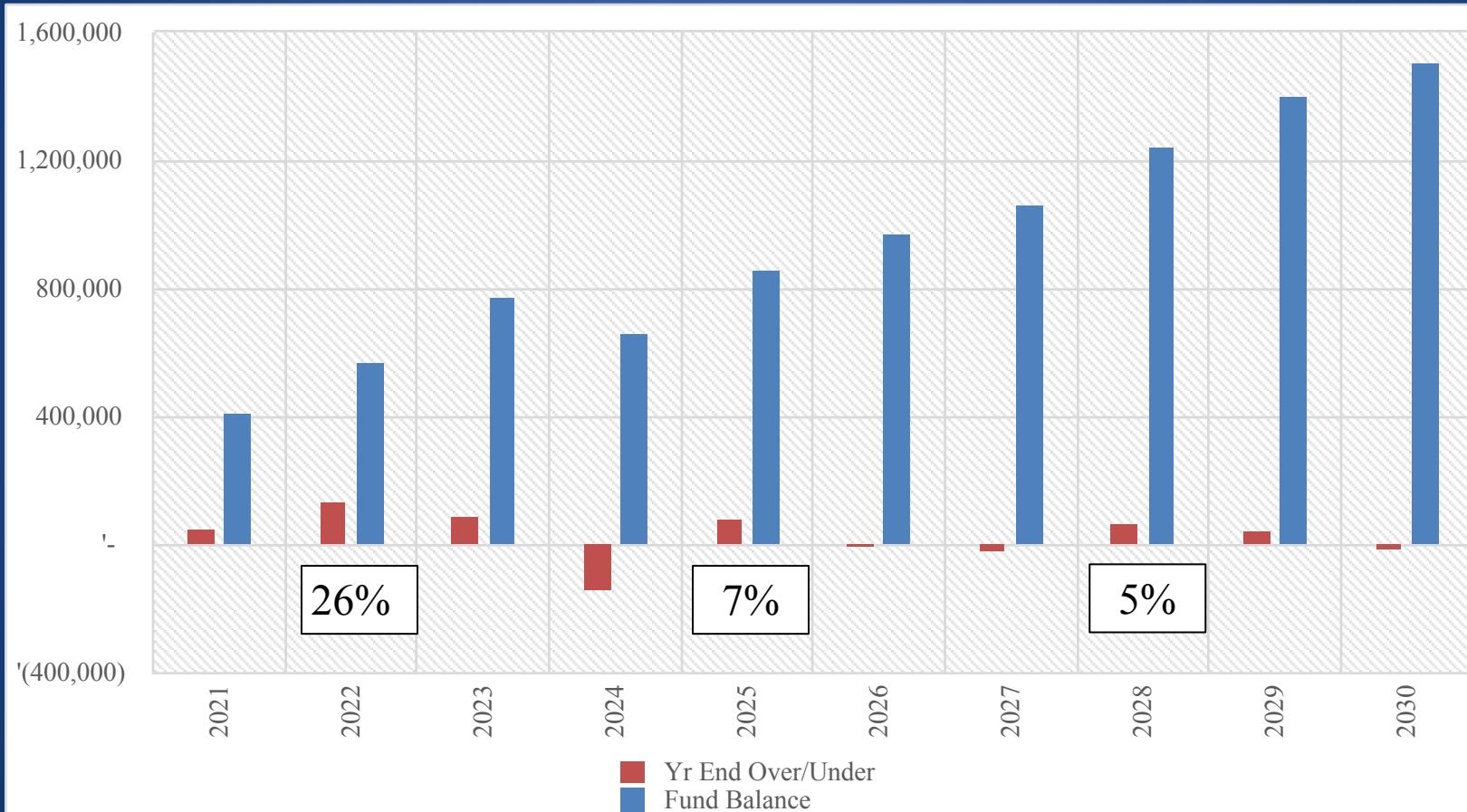
Rate Increase Schedule

- Once every 3 years
- Beginning in 2022
- Look at rate increases with and without the General Fund paying the debt service for the EPA Permit Upgrades

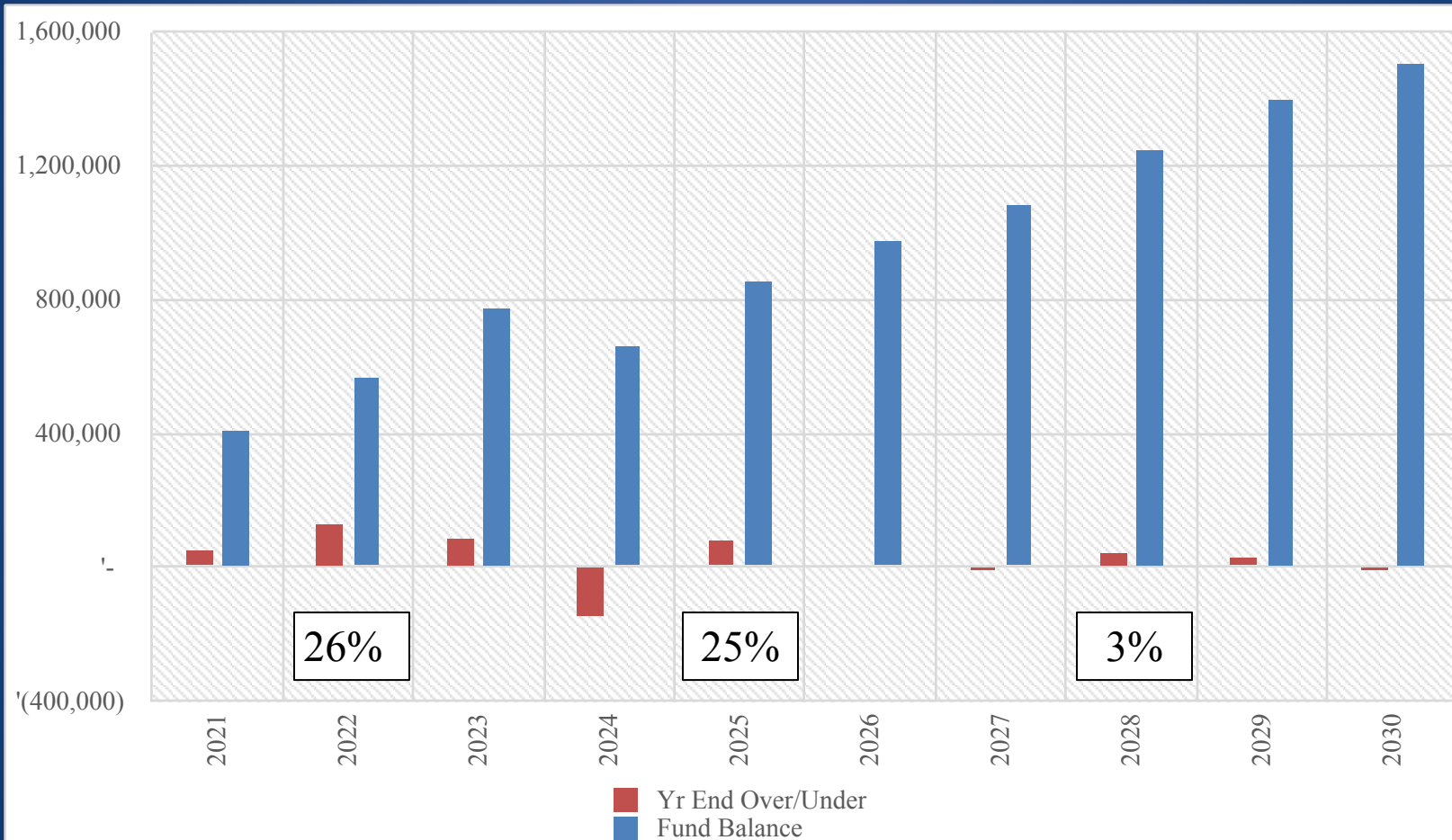
Proposed Sewer Rate Increases

Year / Type	2021 Model with General Fund	2021 Model without General Fund
YR2022-2024 Residential Commercial	26% in 2022	26% in 2022
YR2025-2027 Residential Commercial	7% in 2025	25% in 2025
YR2028-2030 Residential Commercial	5% in 2028	3% in 2028

Projected Annual Gain/Loss and Fund Balance w/ GF Contribution



Projected Annual Gain/Loss and Fund Balance w/o GF Contribution



Proposed Sewer Rates

Year / Type	2021 Model with General Fund	2021 Model without General Fund
Existing	<u>2019</u>	<u>2019</u>
Residential	\$ 5.50	\$ 5.50
Commercial	\$ 6.88	\$ 6.88
YR2022-2024	<u>2022</u>	<u>2022</u>
Residential	\$ 6.93	\$ 6.93
Commercial	\$ 8.67	\$ 8.67
YR2025-2027	<u>2025</u>	<u>2025</u>
Residential	\$ 7.42	\$ 8.66
Commercial	\$ 9.28	\$ 10.84
YR2028-2030	<u>2028</u>	<u>2028</u>
Residential	\$ 7.79	\$ 8.92
Commercial	\$ 9.74	\$ 11.16

Proposed Flat Rate and Septage Fees

- Increase flat rate and septage fees by the same percentages as user rates

Proposed Flat Rate and Septage Fees

Year / Type	2021 Model with General Fund	2021 Model without General Fund
Existing Flat Rate Septage	\$ 93.54 per Quarter \$ 87.50 per 1,000 gal	\$ 93.54 per Quarter \$ 87.50 per 1,000 gal
YR2022-2024	<u>2022</u>	<u>2022</u>
Flat Rate	\$ 117.86	\$ 117.86
Septage	\$ 110.25	\$ 110.25
YR2025-2027	<u>2025</u>	<u>2025</u>
Flat Rate	\$ 126.11	\$ 147.33
Septage	\$ 117.97	\$ 137.81
YR2028-2030	<u>2028</u>	<u>2028</u>
Flat Rate	\$ 132.42	\$ 151.75
Septage	\$ 123.87	\$ 141.95

Typical Residential Sewer Bill

- Current Residential Sewer Bill
 - \$334 per year, which equates to:
 - \$84 per Quarter
 - \$28 per Month
- Proposed Rate Increase in YR2022: 26%
 - **Increase** to current annual average residential user bill of \$334 is \$89, which equates to
 - An increase of \$22 per Quarter
 - An increase of \$7 per Month
 - Proposed total annual average residential user bill is \$423 per year, which equates to:
 - \$106 per Quarter
 - \$35 per Month

Typical Residential Sewer Bill

2025 w/ General Fund

- Proposed Rate Increase in YR2025: 7%
 - For Average Residential User:
 - Rate Increase (from 2022 proposed average annual bill of \$423) is:
 - \$7 per Quarter or
 - \$2 per Month
 - Total proposed bill
 - \$452 per year or
 - \$113 per Quarter

2025 w/o General Fund

- Proposed Rate Increase in YR2025: 25%
 - For Average Residential User:
 - Rate Increase (from 2022 proposed average annual bill of \$423) is:
 - \$26 per Quarter or
 - \$9 per Month
 - Total proposed bill
 - \$528 per year
 - \$132 per Quarter

Comparison to Other Communities

Community	Average Residential Rate for 125 GPD
Milford	\$ 423 (proposed 2022)
Greenville	\$ 1,269
Jaffrey	\$ 808
Peterborough	\$ 531
Epping	\$ 468
Exeter	\$ 620
<i>State Average at 197 gpd (2021)</i>	<i>\$ 712</i>
<i>Milford at 197 gpd</i>	<i>\$ 666 (proposed 2022)</i>

Sample Sewer Bills w/ GF

Description	Average Consumption	Annual	2021	2022	2025	2028
	gpd	Cubic Feet	Annual	Annual	Annual	Annual
Proposed Rate Increase				26%	7%	5%
Residential User						
Small User	60	2,928	\$161	\$203	\$217	\$228
Average User	125	6,832	\$334	\$423	\$452	\$475
Large User	400	19,519	\$1,074	\$1,353	\$1,447	\$1,520
Commercial/Industrial User						
Small User	250	12,199	\$839	\$1,058	\$1,132	\$1,188
Average User	500	24,398	\$1,679	\$2,115	\$2,263	\$2,376
Large User	1,000	48,797	\$3,357	\$4,230	\$4,526	\$4,753
Town of Wilton						
Debt + O&M				\$258,823	\$353,556	\$368,851

Sample Sewer Bills **w/o** GF

Description	Average Consumption	Annual	2021	2022	2025	2028
	gpd	Cubic Feet	Annual	Annual	Annual	Annual
Proposed Rate Increase				26%	25%	3%
Residential User						
Small User	60	2,928	\$161	\$203	\$254	\$261
Average User	125	6,832	\$334	\$423	\$528	\$544
Large User	400	19,519	\$1,074	\$1,353	\$1,691	\$1,742
Commercial/Industrial User						
Small User	250	12,199	\$839	\$1,058	\$1,322	\$1,362
Average User	500	24,398	\$1,679	\$2,115	\$2,644	\$2,723
Large User	1,000	48,797	\$3,357	\$4,230	\$5,288	\$5,446
Town of Wilton						
Debt + O&M				\$258,823	\$353,556	\$368,851

Questions?

Thank You

Evelyn Gendron, Executive Assistant

Jessica Hardwick, Account Clerk

James Pouliot, Director

Dale White, Chairman BOC

Robert Courage, Vice-Chairman BOC

Kris Jensen, Commissioner BOC