

Milford Water Utilities Wastewater Treatment Facility Upgrade Projects 2023



Kevin Stetson
Director of Milford Water Utilities

National Pollution Discharge Elimination System (NPDES) Permit Renewal 2020

- ⚡ Milford's WWTF Newly Issued Permit Requirements were Effective as of November 1, 2020
- ⚡ More Stringent Pollutant Removal Requirements
- ⚡ WWTF will Need Process Improvement Upgrades
- ⚡ 3 year Timeline to Become Compliant
- ⚡ Construction Project is being Planned for 2023



WWTF Construction Plan

2021

- Evaluation of Treatment Alternatives for Final Design
- \$190,340.00
- (Sewer Capital Reserve Fund)

2022

- Final Design/Project Bidding
- \$450,000.00
(Estimated 2022 Warrant Article)

2023

- Project Construction
- \$5,977,000.00
(Estimated 2023 Warrant Article)

Construction Project Scope

Treatment Facility Improvements	Estimated Costs
Biological Nutrient Treatment Modifications <i>Phosphorus & Nitrogen Treatment</i>	\$370,000.00
Biological Sludge Storage Modification <i>Nutrient Rich Sludge Removed from Waste Stream</i>	\$1,112,000.00
Filtration of out-going Treated water (Effluent) <i>Final Metals & Nutrient Treatment</i>	\$4,495,000.00
Anticipated Construction Costs	\$5,997,000.00
Final Design Cost	\$450,000.00
Total Project Cost	\$6,447,000.00

Why are the Permit Limits Changing?

1. Improved protection of public & environmental health
2. Pollutants that are not removed with the existing technology are sent to the Souhegan River & impact river ecosystems (communities downstream in NH & MA use Merrimack River water for their drinking water supply)
3. Pollutant removal technologies have improved since the original WWTF design
4. Municipal WWTFs are expected to use improved technologies to meet more stringent pollutant removal requirements

History of Board of Water and Sewer Commissioners (BOC) Planning

In 2015 the BOC developed a proactive WWTF Comprehensive Facility Plan that included these recommended upgrades and estimated project costs along with other improvements that would be needed to meet expected permit limits with estimated total costs of **\$11,737,000** (2015 dollars)

2015 Comprehensive Plan Projects

Completed Projects	Estimated Costs
UV Disinfection Upgrade	\$906,000
Secondary Clarifier Scum Pit Modification	\$186,000
Admin Building HVAC Upgrade	\$269,000
Back Up Generator Replacement	\$355,000
Sludge Dewatering Upgrade	\$1,096,000
SCADA/PLC Upgrade	\$120,000
Total	\$2,932,000



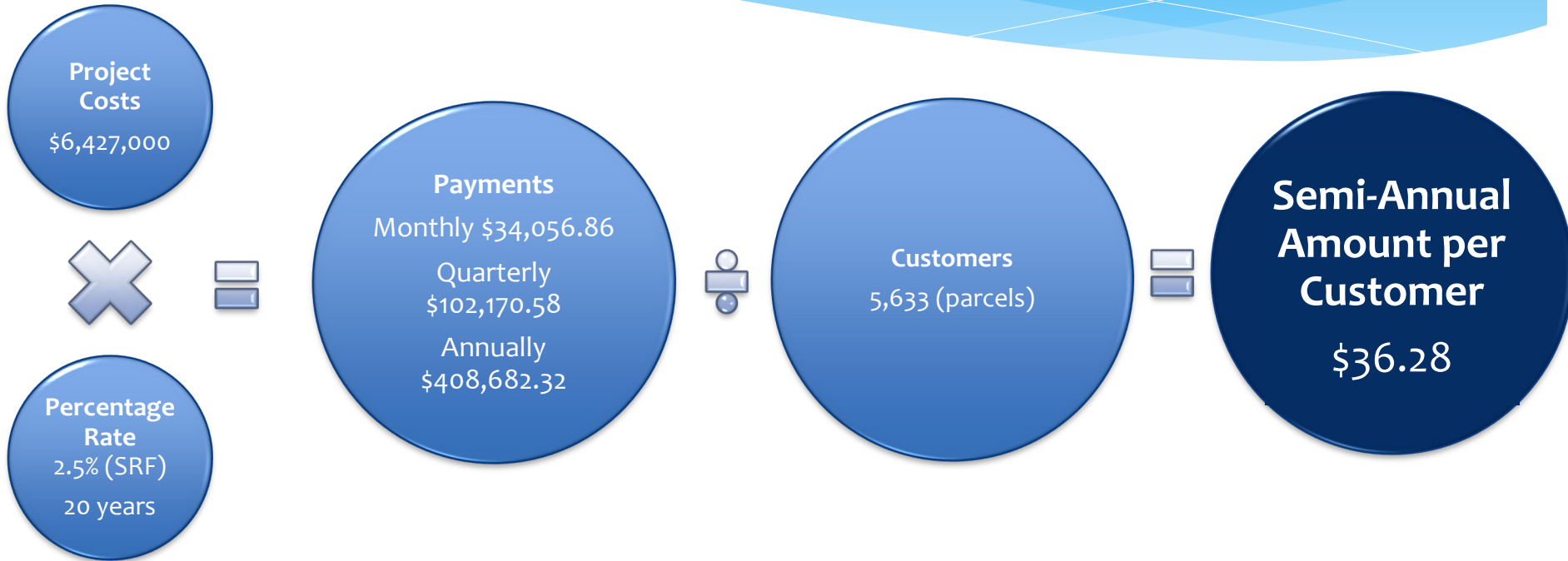
2015 Comprehensive Plan Projects

Projects not included in EPA Permit Renewal Upgrades

⌘ Primary Clarifier Mechanism Replacement	\$539,000
⌘ Gravity Thickener Mechanism Replacement	\$323,000
⌘ Influent Screenings Conveyor	<u>\$312,000</u>
Total	\$1,174,000

2023 WWTF Plant Upgrade Project

Estimated Taxpayers Costs



Upgrade Advantages for Milford Residents

- € Preserve public health, safety & welfare through improved water quality
- € Anticipates meeting the demands of future community growth
- € Provides fair distribution of capital costs across all Milford residents who benefit from having the WWTF in the community
- € Supports future economic development



QUESTIONS ?