

The Town of Merrimack, New Hampshire owns, operates, maintains and performs capital upgrades on nine remote wastewater pump stations and a 5 million gallon per day (MGD) wastewater treatment facility (WWTF). These facilities convey and treat flow from a variety of commercial, residential and industrial sources. The two largest remote pump stations – Thornton’s Ferry Pump Station and Souhegan Pump Station – and the WWTF were brought online in 1972. Additionally, the Town also owns, operates, maintains and performs capital upgrades on a Compost Facility located on the WWTF property, including a Compost Amendment Storage Building. The Compost Facility and Compost Amendment Storage Facility were brought online in 1994. There have been a number of upgrades to the WWTF since 1970; however, these upgrades targeted select equipment systems and much of the remaining equipment is approaching 52 years old.

The Phase III, IV, and V Upgrade which is being executed now was approved by the Town voters. The goal of the project is as follows:

- 1) Replacing equipment that is well beyond its useful and recommended life;
- 2) Addressing safety concerns: While there is always a certain potential for risk of injury working in and around wastewater treatment processes, steps can be taken to reduce the risk of operator injuries. Select upgrades have been included to address ongoing safety concerns related to accessibility of process spaces for equipment maintenance and structure cleaning; and
- 3) Addressing code-related deficiencies: Building and electrical codes have changed significantly since these equipment systems and buildings were originally constructed. This project includes upgrading vulnerable components to meet current codes.

The table below provides a summary of the areas to be upgraded.

**TABLE 1-1: PROPOSED SCOPE OF PROJECT**

Project Component	Project Goals			
	Original to Facility	Beyond Useful Life	Health & Safety	Code-Related Deficiencies
Construction of New Influent Screenings Facility	✓	✓	✓	✓
Comprehensive Upgrade of Main Pump Station	✓	✓	✓	✓
Replacement of One Primary Clarifier Mechanism	✓	✓		
Replacement of Three Secondary Clarifier Mechanisms and Addition of Algae Brush System	✓	✓	✓	
Modifications to Sludge Storage Tanks		✓	✓	
Modifications to Headworks Building				
New Emergency Generator and Electrical Upgrades	✓	✓	✓	
Laboratory, Restroom/Locker Room, Conference Room and Office Spaces Renovation	✓	✓		✓
Sludge Handling and Tank Drainage Piping/Valve Manifold, One Primary Sludge Pump and One Tank Drain Pump Replacement	✓	✓	✓	
Roof Replacement and Miscellaneous Structural Repairs	✓	✓		✓
Modifications to Chlorination Building				
Electrical Upgrades	✓	✓		✓
Secondary Sludge Pumps and Piping/Valve Manifold Replacement		✓		
Upgrade of Compost Facility Ventilation System	✓	✓	✓	
Comprehensive Upgrade of Thornton’s Ferry Pump Station	✓	✓	✓	✓
Comprehensive Upgrade of Souhegan Pump Station	✓	✓	✓	✓
Other Miscellaneous Upgrades Throughout the WWTF		✓		✓