

WASTEWATER TREATMENT FACILITY PHASE 3A CAPITAL IMPROVEMENTS PROJECT

STATE PROGRAM: New Hampshire Department of Environmental Services

ASSISTANCE RECIPIENT: Town of Hooksett

ASSISTANCE AMOUNT: \$3.5M



PROJECT DESCRIPTION

The Town of Hooksett's wastewater treatment plant (WWTP) collects wastewater from various sources, including the Town of Hooksett and Southern New Hampshire University, and provides secondary treatment before discharging into the Merrimack River. In 2011, an upgrade was performed to increase the facility's capacity from 1.1 to 2.2 million gallons per day (MGD). However, a hydraulic failure in March 2011 led to the release of millions of integrated fixed-film activated sludge (IFAS) plastic disks into the Merrimack River that discharges into the Atlantic Ocean. It cost over \$1 million to clean up beaches in New Hampshire and Massachusetts.

To minimize the risk of another disk release, Hooksett installed additional fixed screens. After extensive research, Hooksett received a \$3.5 million CWSRF loan to implement its WWTP 3A Capital Improvements Project, which increased the plant's capacity to treat peak loads and meet average daily and peak hourly flows. The project demonstrates Hooksett's commitment to producing high quality effluent through continuous upgrades such as installing three treatment tanks for each treatment train and new screening equipment. The project improves water quality in the Merrimack River by increasing hydraulic and organic loading, enhancing energy efficiency, and reducing operation costs. It was designed to minimize capital and operational costs, reduce water consumption, and achieve energy savings through aeration controls and return activated sludge wasting controls.

To read more about this case study, please visit <https://www.epa.gov/system/files/documents/2024-04/cwsrf-pisces-2023-recognition-program.pdf>.