

CATEGORY: Government



Manchester's new water treatment plant has dramatically reduced chemical discharge into the nearby Hockanum River.

PHOTO | MIKE EMOND

Manchester's \$51M plant overhaul means cleaner river

Like its wastewater compatriot 37 miles down the highway in Cheshire, a \$51 million overhaul of Manchester's wastewater treatment plant was also spurred in part by aging equipment and stricter environmental regulations meant to protect the health of rivers that ultimately flow into the Long Island Sound.

Construction at the Hockanum River Water Pollution Control Facility (WPCF) began in 2011 and wrapped up in mid-2015.

The liquid discharged from WPCF into the river is the cleanest it has ever been. The plant, which is expected to meet Manchester's needs for the next two decades, is well below the discharge limits for nitrogen and phosphorous imposed on it by the Department of Energy and Environmental Protection.

Excess levels of nitrogen and phosphorous in marine habitats fuel the growth of algae, which ultimately reduces the amount of oxygen available for plants and fish, a condition known as hypoxia.

Manchester Sewer Department

PROJECT ELEMENTS: Facility-wide; water; material management; innovation

START DATE: DEC. 2011

COMPLETION DATE: July, 2015

The new plant removes 94 percent of the nitrogen present within the 6.5 million gallons of sewage it takes in each day. That's up from 30 percent or less pre-construction. The difference is as large as 900 pounds per day being discharged to the river.

WPCF also now removes 95 percent of phosphorous; previously it removed virtually none. The plant emits approximately four pounds of phosphorous each day, well under its regulatory cap of 13.4 pounds. It does so using a "ballasted flocculation" system, which employs clam and oyster shells as filters in a process that also breaks down odors from waste.

Like Cheshire, Manchester's plant also received incentives from Eversource to acquire more energy-efficient equipment. 🍃