

Dover, NH Wastewater Treatment Facility

Facility Tour & Technical Presentation

Wednesday, August 24, 2016

ABOUT THE EVENT

NEWEA's Plant Operations Committee, in conjunction with the New Hampshire Water Pollution Control Association (NHWPCCA), will conduct a facility tour and technical presentation at the Dover, NH Wastewater Treatment Facility.

This facility is a great example of how communities have dealt with the complex issue of upgrading their wastewater facilities to increase performance and meet tighter regulatory limits which has led to the clean-up of the Piscataqua River and the Great Bay.



Dover, NH WWTF

AGENDA

- 8:00am** Registration, Coffee, & Pastries
- 9:00am** Welcome
Ray Willis, NEWEA President
- 9:15am** Upgrade Overview
Ray Vermette, Dover, NH WWTF
- 9:45am** Process Upgrade
Tim Vadney, Wright-Pierce
- 10:45am** HUBER Inclined Screw Press
Steve Macomber, HUBER Technology
- 11:15am** Biorem Odor Control
Dean Parker, Biorem
- 11:45am** Lunch
- 12:45pm** Facility Tour
*Tour guides:
Ray Vermette, Dover, NH WWTF
Tim Vadney, Wright-Pierce*
- 2:30pm** Adjourn

Please sign up for Contact Hours (TCHs) at the Registration Desk BEFORE you leave!

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Dover, NH Wastewater Treatment Facility

OVERVIEW

The Dover, NH Wastewater Treatment Facility is a 4.7-MGD facility, which was recently converted to an MLE process as a full-scale pilot test. In addition, the upgrade included major improvements to the primary and secondary treatment systems, aeration tanks, and installation of a new Biofilter Odor Control system. The Dover WWTF is also home to the first-in-the nation latest-generation of the Huber Inclined Screw Press dewatering technology.

In 2015, the facility was recognized and honored for exceptional work in operating and maintaining the wastewater treatment plant. It received the "Regional Wastewater Treatment Plant Excellence Award" from the US Environmental Protection Agency's New England regional office.

The plant tour will spotlight the following:

- Primary sedimentation tank gallery, including new pumps, actuated valves, and acoustically enclosed channel air blowers
- Upgraded Septage receiving and pumping facilities
- Modified Ludzak-Ettinger (MLE) nutrient removal process, including new instruments, modulating air control valves, fine bubble diffused aeration, anoxic zone mixing and nitrate recycle pumping
- New Stainless Steel Secondary Clarifier Mechanisms
- New Return Activated Sludge (RAS) pumps and Waste Activated Sludge (WAS) pumps
- 13,500 SCFM Biofilter, Latest Huber RoS3-Q800 Screw Press, and other system upgrades.



Four new Aerzen Channel and Septage Blowers and Two new Carter Plunger Pumps



MLE Process with Invent Mixers and Aquarius Technologies Aeration System



Biorem Biofilter



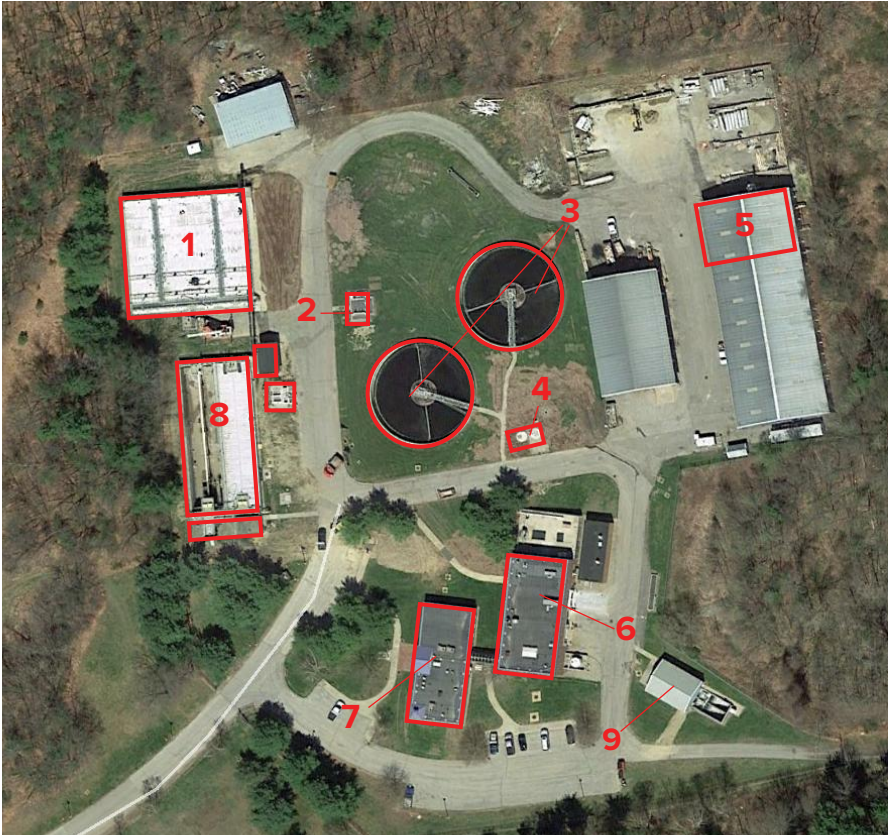
Two AMWELL Stainless Steel Circular Secondary Clarifiers



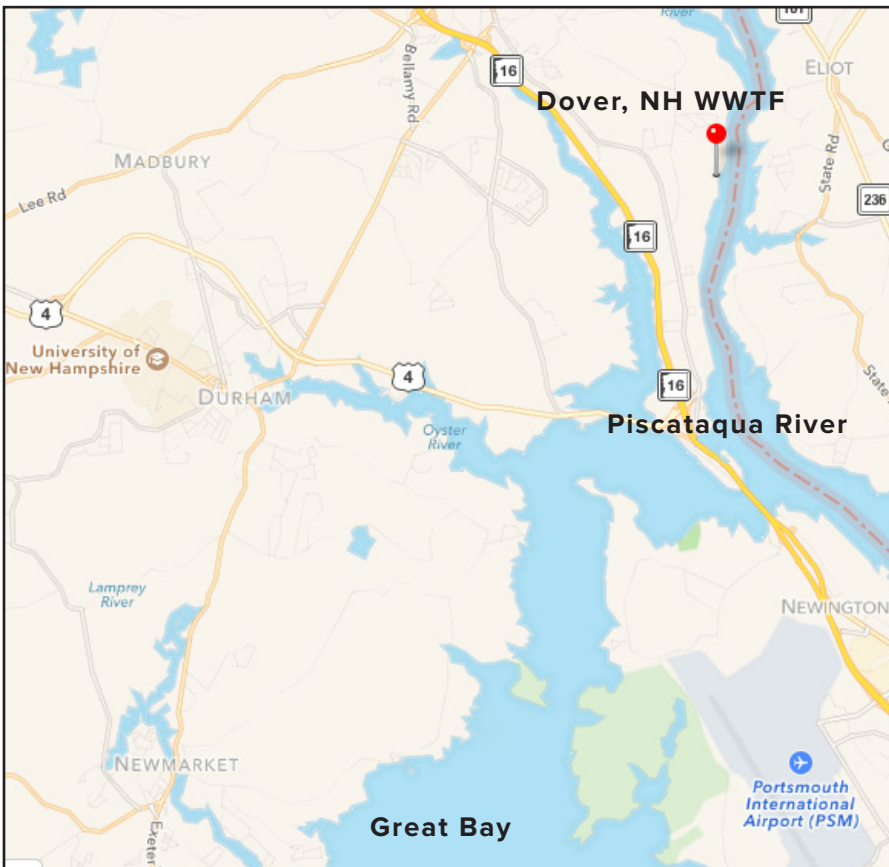
Huber Q800 Incline Screw Press

Dover, NH Wastewater Treatment Facility

MAPS:



1. MLE process
2. Secondary splitter structure
3. Secondary clarifiers
4. Yard waste pump station
5. Biofilter odor control
6. Process building
7. Administration building
8. Primary sedimentation basins
9. Ultraviolet disinfection building



Location of Dover, NH WWTF in relation to the Piscataqua River and the Great Bay