



Thomas P. Gilligan
Director

WATER POLLUTION CONTROL AUTHORITY

TOWN OF STONINGTON
152 ELM STREET
STONINGTON, CONNECTICUT 06378
860-535-5065 * Fax 860-535-1023

Memo

From: Town of Stonington WPCA Board
Re: Town Project – WPCA Facilities Upgrade

Brief History

After a 10 year process of facilities planning, alternatives evaluation, public hearings and coordination and approvals with CT Department of Energy and Environmental Protection, on November 16, 2010 General Obligation Bonds (\$18,325,000) were authorized through special referendum for rehabilitation and upgrade of the Town three water pollution control facilities.

The Mystic Water Pollution Control Facility (WPCF) received a major upgrade while the Boro and Pawcatuck facilities had state-of-the-art upgrades to their air supply (turbo air blowers) and disinfection (ultraviolet light) processes to replace 35 year old, inefficient, technologies.

Due to very limited land space at the Mystic WPCF, the WPCA Board selected a unique and innovative upgrade approach which incorporated a process called BioMag™ that is capable of improving plant performance within the footprint of existing structures.

Project Status

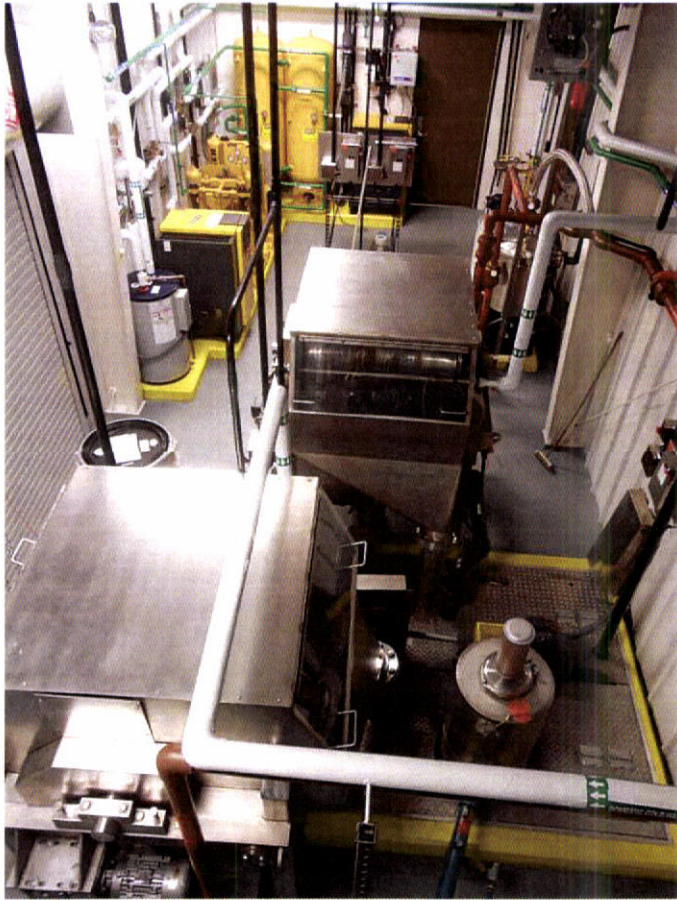
As of April 30th, 2015 work has been completed at all three facilities pending completion of minor punch list items. Project highlights include:

- The project was completed **under budget**.
- There was minimal impact on plant performance during construction, in spite of the challenges of maintaining effective operations during a phased construction.
- There was minimal impact on Town residents during the 3+ year project.
- Pictures are appended which illustrate key upgrade areas.
- Plant performance has been **excellent**. Specifically, nitrogen removal, which was a key goal of the upgrade, is presented in Figure 1. Plant effluent nitrogen level has been reduced 80% to a level where the Mystic WPCF generates a “credit” from CTDEEP as part of the State Nitrogen trading program. In addition, full flow capacity has been restored and flow diversion to the Boro WPCF discontinued.

In summary, the major upgrade project was completed under budget and has demonstrated the important Town goals for effluent quality and efficiency. *We wish to sincerely thank the residents for working with the WPCA staff and Design-Build firm (CDM Smith) to address any issues during the challenging construction effort.*



January 19, 2015, Upgraded, painted and restored control building



January 26, 2015
BioMag building in operation



January 26, 2015
Upgraded and restored tank area



September 23, 2014
New lab available for full time testing operations



September 29, 2014
Installation of the Screenings, Grease & Grit Removal system platform

Figure 1
Mystic WPCF Effluent Total Nitrogen

