

CASE HISTORY

CLIENT: Municipal

LOCATION: Maine

APPLICATION: BOD / TSS

PRODUCT: LemTec™ Insulated Modular Cover System

BACKGROUND

Our client, a little community located on the Penobscot River in southern Maine, recognized the need to retrofit an existing wastewater treatment facility. The original system, consisting of three ponds, was at flow capacity and not capable of handling the required limits for BOD and Total Suspended Solids (TSS). A partial sewer moratorium was



placed on the community preventing its growth. Besides being at flow capacity for its existing design, the plant also experienced seasonal algae blooms, which prevented the plant from meeting TSS effluent limits during various times of the year.

PROJECT INFORMATION

Changes of the effluent limits were not expected in the long term. The retrofit was to be focused on expanding the facilities hydraulic capacity and controlling algae growth to the point where the TSS effluent needs could be met. Additional land was not available to construct further treatment facilities. The effluent from the system was required to meet an effluent BOD concentration of 30 mg/l and a TSS concentration of 30 mg/l. Improved treatment and capacity could be remedied through the addition of aeration

and the installation of hydraulic baffles, creating a plug flow through the system. In order to meet the TSS requirements and avoid the seasonal algae problems the site experienced in the past, Lemna introduced the LemTec™ Insulated Modular Cover to the community.

LEMTEC SOLUTION

Through experience and research Lemna Technologies, Inc. has developed a simple method of controlling TSS and algae growth in aerated and facultative lagoons. A LemTec™ Insulated Modular Cover was placed on the final treatment cell. This cover will provide the adequate detention time for the algae growth to be eliminated and settled out before exiting the treatment facility. The cover provides completely maintenance free operation by allowing any rainwater or snowmelt to drain through it, and gases under pressure to escape. Also, future expansions in flow capacity or stricter limits can be addressed easily at the site through the addition of covers on the remaining ponds.

RESULTS

The Lemna solution provided extended life, and increased output of the existing wastewater treatment facility. The solution proved to be more economical than replacing the facility with a mechanical type of treatment or by constructing additional ponds.

For more information, please contact:

Agata Polanska
Marketing Coordinator
Lemna Technologies, Inc.
2445 Park Avenue
Minneapolis, MN 55404
Phone: (612) 253-2002
Fax: (612) 253-2003
E-mail: techsales@lemnatech.com
www.lemnatech.com