

BIOFOR®

West Warwick, RI West Warwick, RI

10.5 MGD N-DN BAF SYSTEM







West Warwick Regional WWTF



West Warwick, RI

OUICK FACTS:

> FLOW RATE: 10.5 MGD Max Month Flow; 25.4 MGD Peak

> **PERMIT:** TN < 8 mg/l; NH4-N

< 2 mg/l

> NUMBER OF UNITS: 8

> START DATE: September

2004

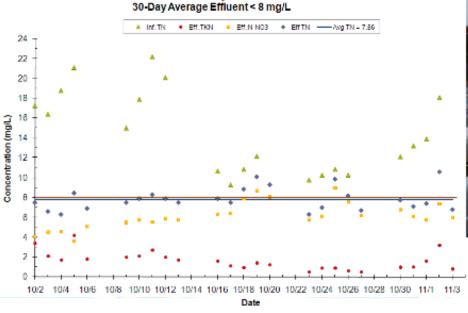
BACKGROUND

The West Warwick Regional WWTF needed to be upgraded for their new effluent permit as part of the Long Island Sound Nutrient Removal Program of RIDEM. With no place to expand the plant was looking for a technology that would help them achieve the desired pollutant removal in as little area as possible. The system was required to treat a design flow of 10.5 MGD for effluent TN reduction to < 8 mg/l and Ammonia-N to < 2 mg/l from June through October at a design temperature of 12 °C. The plant was further subject to high peak flows and required to handle Peak Flows of up to 25.4 MGD without impact on performance.

SOLUTION

After evaluation of several alternatives the BIOFOR® System was selected given its ability to achieve high levels of pollutant removal in a compact footprint. The system comprised 4 BIOFOR® N cells each 1,080 ft² filter area followed by 4 BIOFOR® DN cells each 448 ft² in filter area to achieve the desired nitrification and denitrification along with suspended solids removal thereby providing an efficient, cost effective solution by eliminating the need for further tertiary treatment and producing an effluent meeting stringent guarantees and capable of being discharged following disinfection.

RESULTS



West Warwick Biofor System TN Removal





