

## BACK EDDY RESTAURANT, WESTPORT MA WASTEWATER TREATMENT SYSTEM

# Harborside Restaurant Reduces Total Nitrogen

August 9, 2018



## DESIGN CHARACTERISTICS

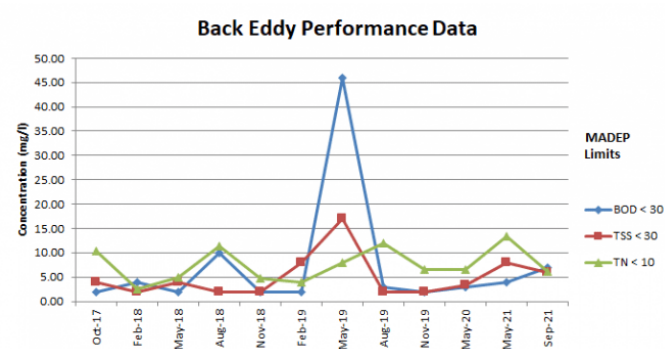
	Influent	Effluent
DESIGN FLOW (GPD)	8,750	8,750
DESIGN TEMP (C)	10	-
BOD5 (mg/l)	800	< 30
TSS (mg/l)	400	< 30
TKN (mg/l)	80	-
AMMONIA-N (mg/l)	60	< 10
NITRATE-N (mg/l)	-	< 10
TOTAL-N (mg/l)	-	< 25

## OVERVIEW

On the shore of the Westport Harbor in Westport, MA is the Back Eddy Restaurant. Specializing in fresh local seafood while sporting a beautiful harbor front view the Back Eddy is a popular summer hangout. Crowds from a nearby regional beach flock to the site for some of the best seafood in the area. In 1998 an expansion of the restaurant would not be supported by the existing septic system. The owner was required by the Massachusetts DEP to install an advanced wastewater treatment system to reduce BOD5, TSS and Total Nitrogen. By providing enhanced treatment, the restaurant was granted the ability to reduce the size of its disposal field which was critical given the value and lack of available waterfront property.

Restaurant waste streams can represent challenging conditions for biological treatment processes. The sanitary routines, organic loading from food preparation and erratic seasonal changes in hydraulic flow are all potential pitfalls. In order to combat swings on hydraulic and organic loading a flow equalization tank was installed ahead of the treatment process. The restaurant's engineer selected an AquaPoint Bioclere™ treatment system for its proven high strength waste and denitrification performance capability, energy efficiency and low life cycle costs. The plant is designed for a maximum daily flow rate of 8,750 gpd.

PERFORMANCE DATA



- System Commissioned: 1998
- Detectable Limit for BOD & TSS: 2 mg/l
- Data Source: MA DEP Records

Date	BOD5 (mg/l)	TSS (mg/l)	TN (mg/l)
OCT. 2017	2.00	4.00	10.27
FEB. 2018	4.00	2.00	2.53
MAY 2018	2.00	4.00	4.94
AUG. 2018	10.00	2.00	11.28
NOV. 2018	2.00	2.00	4.76
FEB. 2019	2.00	8.00	3.98
MAY 2019	46.00	17.00	8.00
AUG. 2019	3.00	2.00	11.95
NOV. 2019	2.00	2.00	6.62
MAY 2020	3.00	3.30	6.55
MAY 2021	4.00	8.00	13.47
SEP. 2021	7.00	6.00	6.17
AVG.	7.25	5.03	7.54

SYSTEM DIAGRAM

