PROJECT SNAPSHOT

AQUA POINT
ADVANCED WASTEWATER TREATMENT SYSTEMS & SERVICES

BEAU RIVAGE WWTP – WILMINGTON, NC

Retrofitting a Municipal Treatment Plant on a Tight Timeline

October 5, 2020



DESIGN CHARACTERISTICS

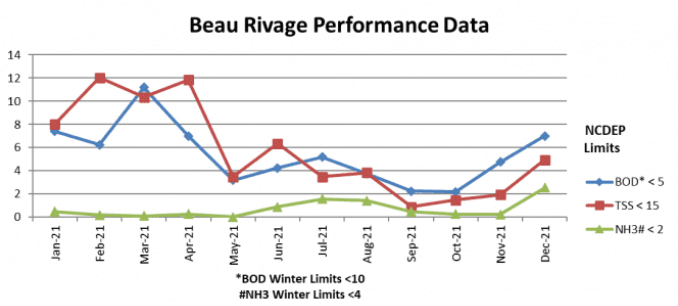
	Influent	Effluent
DESIGN FLOW (MGD)	0.2	0.2
BOD5 (mg/l)	250	< 5
TSS (mg/l)	250	< 15
TKN (mg/l)	50	–
AMMONIA-N (mg/l)	–	<2

OVERVIEW

Aqua-America was facing a multitude of challenges at a municipal treatment plant it owns & operated in Wilmington, NC. The existing treatment plant had become obsolete, could not meet substantially increased daily flows or the new permit requirements that increased the effluent limits. As the coordinator for Aqua-America said, “We need the new plant operational within a year (from Spring 2017) & you have a postage size land allocation to fit the plant. We need you to deliver the system in (2) phases of parallel treatment trains as we cannot stop the treatment & processing of wastewater for a single day.” AquaPoint was selected to provide a treatment system to meet these very restrictive challenges.

In order to fit Aqua-America’s timeline, AquaPoint developed an aggressive project schedule & based on the design criteria opted to use the AquaFAS Integrated Fixed Film Activated Sludge process in a fabricated carbon steel treatment plant. Coordinating with the project engineer & general contractor, AquaPoint was able to design, fabricate, install, & commission a dual train AquaFAS treatment system that went online in May 2018. Furthermore, AquaPoint delivered the system within the specified footprint in complete phases so that Aqua-America could continue its wastewater treatment without interruption.

PERFORMANCE DATA



- System Commissioned: May 2018. Avg. year prior (mg/l): BOD = 27.41; TSS = 2.94; NH3 = 23.91
- Detectable Limit for BOD & TSS: 2 & 3 mg/l respectively
- Data Source: ECHO (U.S. EPA)

DATE	BOD5 (mg/l)	TSS (mg/l)	NH3 (mg/l)
JAN. 2021	7.40	8.02	0.50
FEB. 2021	6.25	12.03	0.20
MAR. 2021	11.20	10.35	0.10
APR. 2021	7.00	11.85	0.28
MAY 2021	3.20	3.50	0.04
JUN. 2021	4.25	6.35	0.90
JUL. 2021	5.20	3.48	1.56
AUG. 2021	3.75	3.83	1.43
SEP. 2021	2.25	0.90	0.48
OCT. 2021	2.20	1.48	0.26
NOV. 2021	4.75	1.95	0.25
DEC. 2021	7.00	4.94	2.54
AVG.	**5.37**	**5.72**	**0.71**

SYSTEM DIAGRAM

