

## MOYOCK, NC MUNICIPAL WASTEWATER TREATMENT PLANT

# Wastewater Infrastructure Enables Economic Growth

October 6, 2016



## DESIGN CHARACTERISTICS

	Influent	Effluent
DESIGN FLOW (MGD)	0.2	0.2
PHASE # 1 FLOW (MGD)	0.1	0.1
BOD5 (mg/l)	420	< 10
TSS (mg/l)	315	< 15
TKN (mg/l)	70	-
AMMONIA-N (mg/l)	60	< 1
TOTAL-N (mg/l)	-	< 7
TOTAL-P (mg/l)	12	< 2
FECAL (mpn/100ml)	-	< 200

## OVERVIEW

Just to the north of Moyock, North Carolina – in southern Virginia – lies robust economic activity and development. The underlying infrastructure is a sewer system that enables this growth. The town of Moyock, NC had no such infrastructure and, as a result, no ability to develop & grow, despite tremendous potential.

### ANLAUF ENGINEERING & AQUAPOINT SOLVE THE PROBLEM

Consultant engineers Joe Anlauf, P.E. and Mike Robinson, P.E. sought a treatment technology for Moyock that could deliver;

- Performance against strict effluent standards, including Total Nitrogen and Phosphorus
- Phased construction with modular vessels
- Affordability for a small town

An Aquapoint AquaFAS™ Integrated Fixed Film Activated Sludge (IFAS) treatment system was specified for its proven enhanced nutrient removal (ENR) capability, ease of operation, scalability and capital cost. The plant will eventually treat 0.2 million gallons per day (MGD) average daily flow. The town opted to take advantage of the scalable nature of the AquaFAS™ technology and build only 50% of that capacity in the initial phase of the project. This allows the plant to grow with the town and not overburden the tax base.

PERFORMANCE DATA



This new build wastewater treatment plant includes integrated PLC controls with remote monitoring capability and a process control building. The AquaFASTM process train is followed by an AquaPoint GMF5-4247 model sand filter and UV disinfection for polishing. The plant, built by Enviro-Tech Inc. was completed at a price that was half that of several proposed alternatives. Aquapoint provided full support through design, installation and commissioning. Technical support continues throughout the life of the system.

SYSTEM DIAGRAM

