



PROJECT HIGHLIGHTS

- Commissioned January 2016
- Dairy, Retrofit + Greenfield
- Permit(s); Surface Water Discharge
- 7/0.04/2 (TN/TP/Turbidity)
- Cheese production
- MMF Capacity: 1.2 MGD
- 1 FTE (Full-Time Employees)



“Two stage system meets low TN and TP effluent limits”

PROJECT OVERVIEW

System Type(s): Ovivo[®] MBR

Previous Facility Type: SBR

Owner: Mullins Cheese

Engineer: The Probst Group

Contractor: Lees Contracting Fabricating Inc.

Operations: Mullins Cheese

Delivery Method: Negotiation

Time To Retrofit: 8 months

Total Installed Project Cost: NA

DESCRIPTION

Rocky Gap State Park in MD was in need to upgrade their existing WWTP and meet low TN and TP permit. MBR was the best available technology for this project since space was limited along with the need to meet ENR quality effluent. "Best Value Improvement" process was used to pre-select the MBR system supplier based on criteria such. With the space efficient OV technology, the existing aeration tanks were converted to 4-stage process including pre-anoxic, pre-aeration, post-anoxic and MBR zones.

The secondary clarifiers were abandoned and equipment pad was constructed in their place. During the interim phase, when the tanks were undergoing retrofit work, the treatment plant needed to be online and Ovivo's microBLOX package plant was used to process water during this phase. Asset Management Tool; WaterExpert, greatly simplifies the operators day to day work, provides access to information and the ability to remotely monitor the facility.



PLANT DESIGN INFORMATION

Fine Screen Type : Rotary Drum Screen

Aperture or Slot Size : 2 mm

Supplemental Aeration Technology : Fine bubble, strips

MBR Blower Type : Positive displacement

Solids Management Data : digester

SCADA System : Wonderware

Disinfection Method : None

Process Stages : 2

MBR (MEMBRANE ZONE) DESIGN

Filtration Mode: gravity

of Reactors: 2

Submerged Membrane Unit (SMU): OV416

SMU: 28

Design Flux (MMF): 10

Minimum Temperature: 28

Peak Factor: 1

of Maintenance Cleans: