

Public Hearing on the Proposed Modification of Artesian Wastewater Management, Inc.'s Beaver Creek Wastewater Treatment Plant's Onsite Wastewater Treatment and Disposal System State of Delaware Permit (No. 359014-06)

**Docket #2020-P-W-0026
November 17, 2020**



**Division of Water
Groundwater Discharges Section**

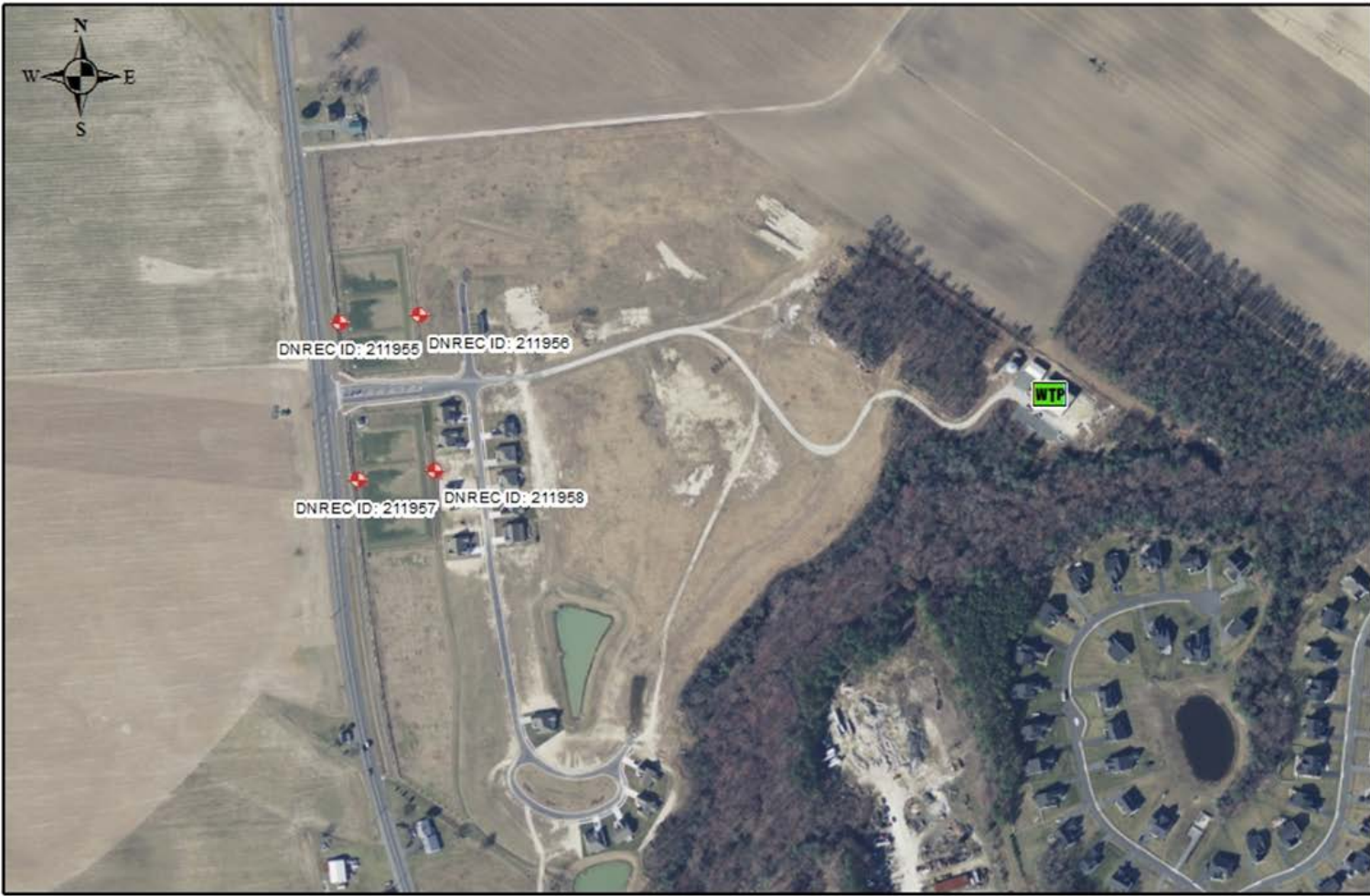
Purpose

In accordance with Section 6.5.3.3.1 of 7 Del. Admin. C. §7101, *Regulations Governing the Design, Installation and Operation of On-Site Wastewater Treatment and Disposal Systems* (the Regulations) the Department (in consultation with the permittee) may modify or amend an existing permit provided that the modifications would not result in an increased impact or risk to the environment or to public health.

The current OWTDS Operations Permit includes operation, monitoring, and reporting conditions designed to protect public health and the environment. The Department is proposing to modify the current permit by including additional notification and reporting requirements associated with the proposed Route 9 force main interconnections.

General Facility Description

- The discharge consists of residential wastewater that is generated from areas identified in a Conditional Use Approval from Sussex County
- The influent is treated by a Sequencing Batch Reactor (SBR) wastewater treatment system and treated wastewater (effluent) is discharged to six (6) Rapid Infiltration Basins (RIBs) for final disposal
- The influent flows may not exceed a daily monthly average of 150,000 gallons per day (GPD) until a second SBR is brought online and a digester is constructed. At that time, the wastewater treatment system will have the capacity to treat 300,000 GPD of wastewater



Legend

Beaver Creek



Effluent Limitations

- Total Nitrogen (TN) annual average concentration shall not exceed **10** mg/L
- Total Phosphorous (TP) annual average concentration shall not exceed **7.85** mg/L
- Fecal coliform concentration shall not exceed **200** col/100 ml
- Biological Oxygen Demand (BOD) monthly average concentration shall not exceed **30** mg/l
- Total Suspended Solids (TSS) monthly average concentration shall not exceed **30** mg/l

Parameter	Unit Measurement	Monitoring Frequency	Sample Type	
			Influent	Effluent
Flow	Gallons Per Day	Continuous	Recorded	Recorded
BOD ₅	mg/L	2 x Month	Grab	Composite
TSS	mg/L	2 x Month	Grab	Composite
Total Dissolved Solids	mg/L	Quarterly	NA	Grab
Fecal Coliform	Col/100 ml	Quarterly	NA	Grab
Total Nitrogen	mg/L	2 x Month	Grab	Composite
Ammonia Nitrogen	mg/L	Monthly	Grab	Composite
Nitrate/Nitrite as Nitrogen	mg/L	Monthly	Grab	Composite
pH	S.U.	3 x per week	Grab	Grab
Total Phosphorus	mg/L	Monthly	Grab	Composite
Chloride	mg/L	Quarterly	Grab	Composite
Sodium	Mg/L	Quarterly	NA	Composite

MONITORING REQUIREMENTS: INFLUENT & EFFLUENT

Parameter	Unit Measurement	Monitoring Frequency	Sample Type
pH	S.U.	Quarterly	Field Test
Temperature	°F	Quarterly	Field Test
Specific Conductance	µS/cm	Quarterly	Field Test
Dissolved Oxygen	mg/L	Quarterly	Field Test
Depth to Water Table	Hundredth of a foot	Quarterly	Field Test
Ammonia Nitrogen	mg/L	Quarterly	Grab
Nitrate + Nitrite Nitrogen	mg/L	Quarterly	Grab
Total Nitrogen	mg/L	Quarterly	Grab
Total Coliforms	Col/100 ml	Quarterly	Grab
Fecal Coliform	Col/100 ml	Quarterly	Grab
Total Phosphorus	mg/L	Quarterly	Grab
Sodium	mg/L	Quarterly	Grab
Chloride	mg/L	Quarterly	Grab
Total Dissolved Solids	mg/L	Quarterly	Grab

MONITORING REQUIREMENTS: FOUR MONITORING WELLS

Standard Conditions

- Submission of monthly monitoring reports
- Employing a licensed operator to operate, maintain, and monitor the wastewater treatment system
- Annual inspections by GWDS staff
- Non-compliance notification requirements
- The requirement to take all reasonable steps to minimize any adverse impact to waters of the State resulting from this discharge, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge

Proposed Special Conditions

- Submission of record drawings of completed wastewater treatment plant upgrades
- Submission of a request for authorization to begin treatment and disposal of 300,000 GPD of wastewater
- Condition that only sources authorized by the Conditional Use Approval granted by Sussex County are authorized to be treated and discharged at the Beaver Creek Wastewater Treatment Plant
- Condition that no industrial/commercial wastewater may be treated and discharged at the Beaver Creek Wastewater Treatment Plant without Department approval