

Application Type New
Wastewater Type Sewage
Facility Type SRSTP

**NPDES PERMIT FACT SHEET
INDIVIDUAL SFTF/SRSTP**

Application No. PA0293211
APS ID 1087982
Authorization ID 1438783

Applicant, Facility and Project Information

Applicant Name	<u>Justin J Bryan</u>	Facility Name	<u>Justin Bryan SRSTP</u>
Applicant Address	<u>447 State Route 18</u> <u>New Wilmington, PA 16412</u>	Facility Address	<u>447 State Route 18</u> <u>New Wilmington, PA 16412</u>
Applicant Contact	<u>Justin Bryan</u>	Facility Contact	<u></u>
Applicant Phone	<u>(724) 944-0037</u>	Facility Phone	<u></u>
Applicant Email	<u>jjbryan@gmail.com</u>		
Client ID	<u>377089</u>	Site ID	<u>860954</u>
SIC Code	<u>8800</u>	Municipality	<u>Wilmington Township</u>
SIC Description	<u>Private Households</u>	County	<u>Lawrence</u>
Date Application Received	<u>April 27, 2023</u>	WQM Required	<u>Yes</u>
Date Application Accepted	<u>May 9, 2023</u>	WQM App. No.	<u>3723404</u>
Project Description	<u>Installation of a Single Residence Sewage Treatment Plant</u>		

Summary of Review

This is a new discharge for an existing 3 bedrooms dwelling with proposed construction of a single residence sewage treatment plant to replace a malfunctioning spray irrigation system that is located on and shared with the neighboring property to the south of the subject property. The existing property is subjected to produce 400 gallons of sewage per day.

Proposed treatment will consist of (WQM Permit No. 3723404): A Norweco Singulair Model 960-500/600 Bio-Kinetic system with a Norweco Singulair Hydro-Kinetic Bio-Film Reactor. This system consists of two (2) separate treatment tanks:

- The first tank has a volume of 1,300 gallons and houses a 450-gallon pretreatment chamber, an extended aeration chamber with a Norweco Singulair Model 206C aerator, and a final clarification chamber with a bio-kinetic system and a bio-static sludge return.
- The second tank houses a hydro-kinetic bio-film reactor, an in-line Norweco Model AT 1500 UV Disinfection Unit, which will provide final disinfection of the effluent, a 500-gallon pump chamber, and an effluent pump.

The effluent will then be pumped to the proposed point of discharge (Outfall 001) at an existing roadside ditch that flows from south to north along the eastern boundary line of the subject property, on the west side of S.R. 18, and ultimately discharges to a perennial stream, an unnamed tributary to the Little Neshannock Creek.

Act 14 – Proof of Notification was submitted and received.

SPECIAL CONDITIONS: NONE

The EPA waiver is in effect.

There are NO open violations in WMS for the subject Client ID (377089) as of May 9, 2023 *5/15/2023 CWY*

Approve	Deny	Signatures	Date
X		Aeshah Shameseldin Aeshah Shameseldin / Civil Engineer Trainee	May 9, 2023
X		Chad W. Yurisc Chad W. Yurisc, P.E. / Environmental Engineer Manager	5/15/2023

Summary of Review

Public Participation

DEP will publish notice of the receipt of the NPDES permit application and a tentative decision to issue the individual NPDES permit in the *Pennsylvania Bulletin* in accordance with 25 Pa. Code § 92a.82. Upon publication in the *Pennsylvania Bulletin*, DEP will accept written comments from interested persons for a 30-day period (which may be extended for one additional 15-day period at DEP's discretion), which will be considered in making a final decision on the application. Any person may request or petition for a public hearing with respect to the application. A public hearing may be held if DEP determines that there is significant public interest in holding a hearing. If a hearing is held, notice of the hearing will be published in the *Pennsylvania Bulletin* at least 30 days prior to the hearing and in at least one newspaper of general circulation within the geographical area of the discharge.

Discharge and Stream Data – 2 - Receiving Waters and PWS

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	<u>001</u>	Design Flow (MGD)	<u>.0004</u>
Latitude	<u>41° 6' 2.0"</u>	Longitude	<u>-80° 21' 35.5"</u>
Quad Name	<u>New Castle North</u>	Quad Code	<u>41080A3</u>
Wastewater Description: <u>Sewage Effluent</u>			
Receiving Waters	<u>Unnamed Tributary to Little Neshannock Creek (TSF)</u>	Stream Code	<u>35537</u>
NHD Com ID	<u>130032044</u>	RMI	<u>0.4200</u>
Drainage Area	<u>---</u>	Yield (cfs/mi ²)	<u>---</u>
Q ₇₋₁₀ Flow (cfs)	<u>0</u>	Q ₇₋₁₀ Basis	<u>Dry Ditch</u>
Elevation (ft)	<u>1210</u>	Slope (ft/ft)	<u>---</u>
Watershed No.	<u>20-A</u>	Chapter 93 Class.	<u>TSF</u>
Existing Use	<u>---</u>	Existing Use Qualifier	<u>---</u>
Exceptions to Use	<u>---</u>	Exceptions to Criteria	<u>---</u>
Assessment Status	<u>Attaining Use(s)</u>		
Cause(s) of Impairment	<u>---</u>		
Source(s) of Impairment	<u>---</u>		
TMDL Status	<u>---</u>	Name	<u>---</u>
Background/Ambient Data		Data Source	
pH (SU)	<u>7</u>	Default	<u>---</u>
Temperature (°F)	<u>25</u>	Default	<u>---</u>
Hardness (mg/L)	<u>100</u>	Default	<u>---</u>
Other:	<u>---</u>		<u>---</u>
Nearest Downstream Public Water Supply Intake	<u>Pennsylvania American Water Company - Ellwood City</u>		
PWS Waters	<u>Beaver River</u>	Flow at Intake (cfs)	<u>292.50</u>
PWS RMI	<u>13</u>	Distance from Outfall (mi)	<u>---</u>

Changes Since Last Permit Issuance: N/A -This is a proposed discharge (Planning was approved on January 10, 2023)

Other Comments: This SRSTP was designed where applicable in accordance with the SFTF Manual, but it does not qualify for the PAG-04 General Permit due to the use of a Norweco Singulair Model 960-500/600 Bio-Kinetic system and a Norweco Singulair Hydro-Kinetic Bio-Film Reactor with Norweco Model AT 1500 UV Disinfection Unit.

The Norweco Singulair Model 960-500/600 Bio-Kinetic system and a Norweco Singulair Hydro-Kinetic Bio-Film Reactor is reportedly capable of meeting CBOD₅ averages of 10 mg/L and TSS averages of 10 mg/L.

In accordance with the SOP, no water quality modeling was performed since this is a SRSTP.

Proposed Effluent Limitations and Monitoring Requirements

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the “NPDES Permit Writer’s Manual” (362-0400-001), SOPs and/or BPJ.

Outfall 001, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) ⁽¹⁾		Concentrations (mg/L)				Minimum ⁽²⁾ Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Annual Average	Maximum	Instant. Maximum		
Flow (GPD)	Report Annl Avg	XXX	XXX	XXX	XXX	XXX	1/year	Estimate
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	Upon Request	Grab
BOD5	XXX	XXX	XXX	10.0	XXX	20.0	1/year	Grab
TSS	XXX	XXX	XXX	10.0	XXX	20.0	1/year	Grab
Fecal Coliform (No./100 ml)	XXX	XXX	XXX	200	XXX	XXX	1/year	Grab

Compliance Sampling Location: Outfall 001, after UV disinfection.

Other Comments: Flow is monitor only based on Chapter 92a.61. The limits for BOD5, Total Suspended Solids are BPJ-based on the Department’s “Small Flow Treatment Facilities Manual.” Fecal Coliform are technology-based on Chapter 92a.47. The limits for pH are technology-based on Chapter 93.7.

Outfall Location - eMap with Aerial Imagery

Legend

Regulated Facilities and Related Information

Streams and Water Resources

Water Quality

Existing Use Streams

- Cold Water Fish
- Exceptional Value
- High Quality
- Trout Stocking
- Warm Water Fish
- Overlap

Designated Use Streams

- Cold Water Fish
- Exceptional Value
- High Quality
- Trout Stocking
- Warm Water Fish
- Overlap
- Missing from CH93

Boundaries

County Boundaries

Municipalities

Designated Use Streams (1 of 3)

Designated Use Gen ID: 20219
 GNIS Name:
 GNIS ID:
 ReachCode: 05030102000518
 COMID: 130032044
 Length Miles: 0.421
 Map Symbology: TSF
 Length Miles: 0.421
 Designated Use: 10
 DES Use ID: 7
 Use Description: TSF(TROUT STOCKING)
 Migratory_Fish: N
 HUC: 05030102
 Basin: N
 Basin Narrative: Null
 Segment Narrative: Null
 Evaluation Date: Null
[Zoom to](#)

Locate Latitude and Longitude

Decimal Degrees DD/MM/SS

Latitude: Degrees: 41 Minutes: 6 Seconds: 2
 Longitude: -80 21 35.5

Locate Close

Imagery: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; ESRI Streets: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

Drainage Area Location – StreamStats with Aerial Imagery

StreamStats Report

Region ID: PA
Workspace ID: PA20230509165155887000
Clicked Point (Latitude, Longitude): 41.10053, -80.35989
Time: 2023-05-09 12:52:20 -0400



+ Collapse All

> Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.000656	square miles