

Application Type New
Wastewater Type Sewage
Facility Type SRSTP

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

Application No. PA0293300
APS ID 1090126
Authorization ID 1442747

Applicant, Facility and Project Information

Applicant Name	<u>Steven Bowman</u>	Facility Name	<u>Bowman SRSTP</u>
Applicant Address	<u>1211 Blue Sky Drive</u> <u>New Castle, PA 16105-4741</u>	Facility Address	<u>1211 Blue Sky Drive</u> <u>New Castle, PA 16105-4741</u>
Applicant Contact	<u>Steven Bowman</u>	Facility Contact	<u></u>
Applicant Phone	<u>(704) 604-4969</u>	Facility Phone	<u></u>
Applicant Email	<u>coach74sb@comcast.net</u>		
Client ID	<u>377681</u>	Site ID	<u>864453</u>
SIC Code	<u>8800</u>	Municipality	<u>Neshannock Township</u>
SIC Description	<u>Private Households</u>	County	<u>Lawrence</u>
Date Application Received	<u>May 26, 2023</u>	WQM Required	<u>Yes</u>
Date Application Accepted	<u>June 7, 2023</u>	WQM App. No.	<u>3723406</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 bedroom residential dwelling with proposed construction of a single residence sewage treatment plant to replace a malfunctioning on-lot septic system. The daily sewage flow is projected to be 400 GPD.

Proposed treatment will consist of (WQM Permit No. 377681): A Norweco Singulair Bio-Kinetic Model 960-500/600 GPD Wastewater Treatment 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 west to east along the northern boundary line of the subject property and ultimately discharges to a perennial stream, an unnamed tributary to the Shenango River.

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 (377681) as of June 8, 2023 *CWY 6/9/2023*

Approve	Deny	Signatures	Date
X		Aeshah Shameseldin Aeshah Shameseldin / Civil Engineer Trainee	June 8, 2023
X		Chad W. Yurisc Chad W. Yurisc, P.E. / Environmental Engineer Manager	6/9/2023

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° 2' 29.78"</u>	Longitude	<u>-80° 23' 9.49"</u>
Quad Name	<u>Edinburg</u>	Quad Code	<u>41080A4</u>
Wastewater Description: <u>Sewage Effluent</u>			
Receiving Waters	<u>Unnamed Tributary to Shenango River (WWF)</u>	Stream Code	<u>35847</u>
NHD Com ID	<u>130025494</u>	RMI	<u>0.64</u>
Drainage Area	<u></u>	Yield (cfs/mi ²)	<u></u>
Q ₇₋₁₀ Flow (cfs)	<u>0</u>	Q ₇₋₁₀ Basis	<u></u>
Elevation (ft)	<u>916</u>	Slope (ft/ft)	<u>---</u>
Watershed No.	<u>20-A</u>	Chapter 93 Class.	<u>WWF</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 - New Castle</u>		
PWS Waters	<u>Shenango River</u>	Flow at Intake (cfs)	<u>100</u>
PWS RMI	<u>5.1</u>	Distance from Outfall (mi)	<u>2.24 (Approximately)</u>

Changes Since Last Permit Issuance: N/A -This is a proposed discharge (Planning was approved on May 18, 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 are 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

The screenshot displays the Pennsylvania eMapPA web application interface. At the top, the Pennsylvania Department of Environmental Protection logo is on the left, and navigation links for PA State Agencies, Online Services, and state officials are on the right. The main map area shows aerial imagery with several streams overlaid in different colors: purple for Exceptional Value, blue for High Quality, and yellow for Trout Stocking. A yellow 'X' marker is placed on a stream, with a popup window displaying its details. The popup includes the following information:

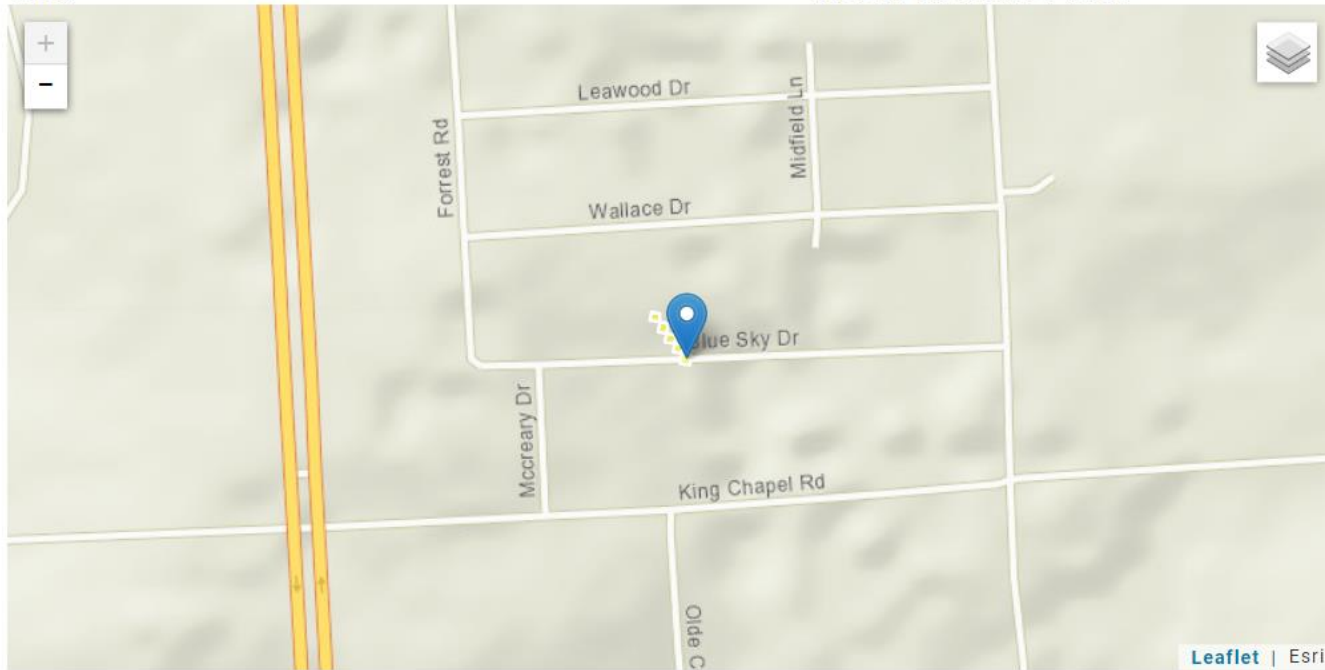
- Designated Use Gen ID: 94824
- GNIS Name:
- GNIS ID:
- ReachCode: 05030102011248
- COMID: 130025494
- Length Miles: 0.562
- Map Symbology: WWF
- Length Miles: 0.562
- Designated Use: 12
- DES Use ID: 8
- Use Description: WWF(WARM WATER FISHES)
- Migratory_Fish: N
- HUC: 05030102
- Basin: N
- Basin Narrative: Null
- Segment Narrative: Null
- Evaluation Date: Null
- Last Fdit Date: Null
- Zoom to

On the left side, a legend panel is visible, categorized into 'Regulated Facilities and Related Information', 'Streams and Water Resources', and 'Boundaries'. The 'Streams and Water Resources' section includes 'Water Quality' (Existing Use Streams: Cold Water Fish, Exceptional Value, High Quality, Trout Stocking, Warm Water Fish, Overlap) and 'Designated Use Streams' (Cold Water Fish, Exceptional Value, High Quality, Trout Stocking, Warm Water Fish, Overlap, Missing from CH93). The 'Boundaries' section includes 'County Boundaries' and 'Municipalities'. A 'Locate Latitude and Longitude' dialog box is also present on the right, showing coordinates: Latitude: 41 Degrees, 2 Minutes, 29.78 Seconds; Longitude: -80 Degrees, 23 Minutes, 9.49 Seconds.

Drainage Area Location – StreamStats with Aerial Imagery

StreamStats Report

Region ID: PA
Workspace ID: PA20230608151444679000
Clicked Point (Latitude, Longitude): 41.04159, -80.38599
Time: 2023-06-08 11:15:11 -0400



+ Collapse All

> Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.000193	square miles