

Application Type New  
Wastewater Type Sewage  
Facility Type SRSTP

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

Application No. PA0292761  
APS ID 1078140  
Authorization ID 1421922

**Applicant, Facility and Project Information**

Applicant Name	<u>Theodore Henderson</u>	Facility Name	<u>Theodore Henderson SRSTP</u>
Applicant Address	<u>83 Koncar Road</u> <u>Pulaski, PA 16143-1317</u>	Facility Address	<u>83 Koncar Road</u> <u>Pulaski, PA 16143-1317</u>
Applicant Contact	<u>Theodore Henderson</u>	Facility Contact	<u></u>
Applicant Phone	<u>(814) 432-8160</u>	Facility Phone	<u></u>
Client ID	<u>374392</u>	Site ID	<u>859482</u>
SIC Code	<u>8800</u>	Municipality	<u>Shenango Township</u>
SIC Description	<u>Private Households</u>	County	<u>Mercer</u>
Date Application Received	<u>December 14, 2022</u>	WQM Required	<u>Yes</u>
Date Application Accepted	<u>January 18, 2023</u>	WQM App. No.	<u>4322411</u>
Project Description	<u>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 on-lot septic system.

Proposed treatment will consist of (WQM Permit No. 4322411): A Norweco Singulair Bio-Kinetic Model 960-500/600 GPO 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.

If it is determined that a pump is not required for the discharged effluent to reach the proposed point of discharge (Outfall 001), a 4" PVC discharge pipe sloping towards the point of discharge at a minimum grade of ¼" per foot shall be installed in lieu of the effluent pump and the 1 ½" PVC discharge pipe shown on the Plot Plan, and the effluent will gravity flow to the discharge at the existing roadside drainage ditch.

Act 14 – Proof of Notification was submitted and received.

Act 537 Sewage Facilities Planning Module Component 3s was approved 11/1/2022 cww

SPECIAL CONDITIONS: NONE

The EPA waiver is in effect.

Approve	Deny	Signatures	Date
X		Aeshah Shameseldin Aeshah Shameseldin / Civil Engineer Trainee	January 18, 2023
X		Chad W. Yurisc Chad W. Yurisc, P.E. / Environmental Engineer Manager	February 1, 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.

DRAFT

Discharge and Stream Data – 2 - Receiving Waters and PWS

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	001	Design Flow (MGD)	.0004
Latitude	41° 8' 53.88"	Longitude	-80° 24' 3.96"
Quad Name	Sharon East	Quad Code	41080B4
Wastewater Description: Sewage Effluent			
Receiving Waters	Unnamed Tributary to Buchanan Run (WWF)	Stream Code	35911
NHD Com ID	130033636	RMI	---
Drainage Area		Yield (cfs/mi <sup>2</sup> )	
Q <sub>7-10</sub> Flow (cfs)		Q <sub>7-10</sub> Basis	
Elevation (ft)	1177	Slope (ft/ft)	---
Watershed No.	20-A	Chapter 93 Class.	WWF
Existing Use	---	Existing Use Qualifier	---
Exceptions to Use	---	Exceptions to Criteria	---
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment	---		
Source(s) of Impairment	---		
TMDL Status	---	Name	---
Background/Ambient Data		Data Source	
pH (SU)	7	Default	
Temperature (°F)	25	Default	
Hardness (mg/L)	100	Default	
Other:			
Nearest Downstream Public Water Supply Intake	Pennsylvania American Water Company - New Castle		
PWS Waters	Shenango River	Flow at Intake (cfs)	100
PWS RMI	5.1	Distance from Outfall (mi)	28.53 (Approximately)

Changes Since Last Permit Issuance: N/A -This is a proposed discharge (Planning was approved on November 1, 2022)

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 Bio-Kinetic Model 960 Aerobic Treatment unit with a Norweco Singulair Hydro-Kinetic Bio-Film Reactor

Norweco Singulair Bio-Kinetic Model 960 Aerobic Treatment unit 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) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> 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 Inst Min	XXX	XXX	9	Upon Request	Grab
BOD5	XXX	XXX	XXX	10	XXX	20	1/year	Grab
TSS	XXX	XXX	XXX	10	XXX	20	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, and 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



**pennsylvania**  
DEPARTMENT OF ENVIRONMENTAL PROTECTION



PA STATE AGENCIES
ONLINE SERVICES
Tom Wolf, Governor
Ramez Ziadeh, Acting Secretary
DEP Home

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Layers Legend

**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

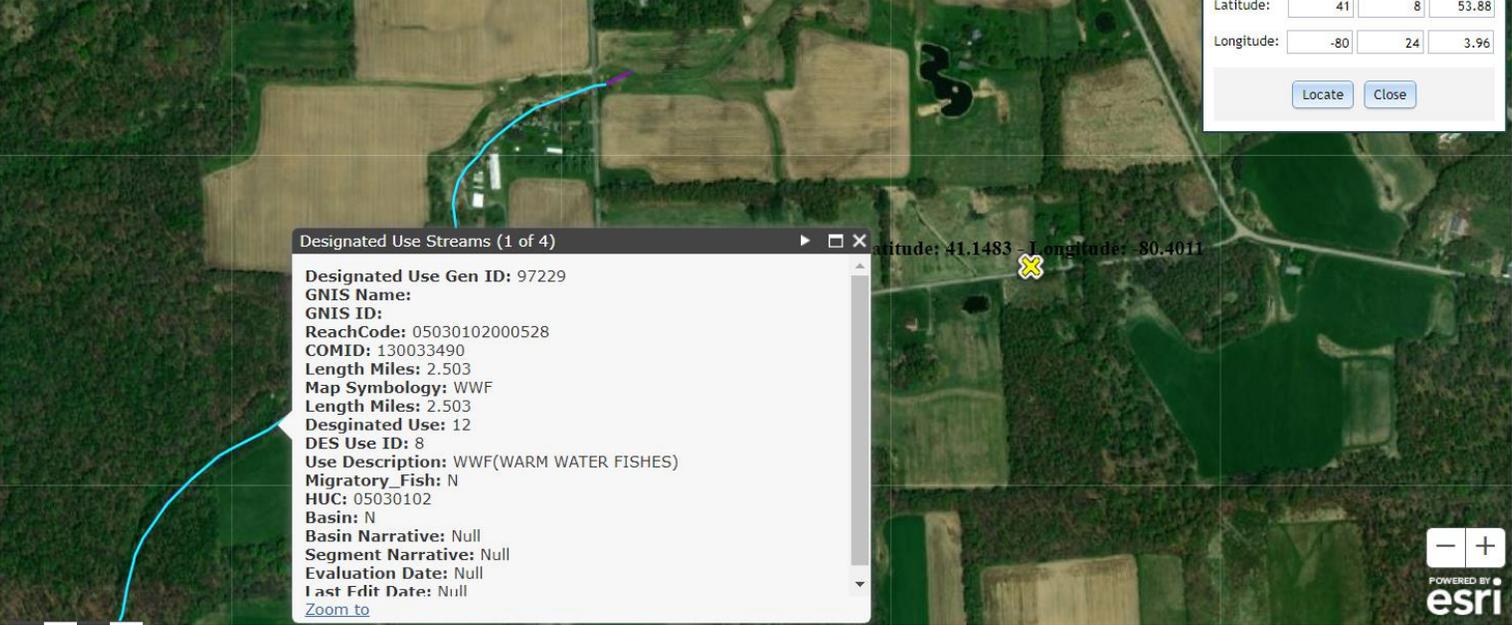
Designated Use Streams

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

Map eFacts Query Advanced Query Filter Plant Source Search

ESRI Streets & Imagery
  Topographic
  National Geographic

Streets Imagery



Designated Use Streams (1 of 4)

**Designated Use Gen ID:** 97229

**GNIS Name:**

**GNIS ID:**

**ReachCode:** 05030102000528

**COMID:** 130033490

**Length Miles:** 2.503

**Map Symbology:** WWF

**Length Miles:** 2.503

**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 Fdlr Date:** Null

[Zoom to](#)

**Locate Latitude and Longitude**

Decimal Degrees
  DD/MM/SS

Latitude:	Degrees	Minutes	Seconds
	41	8	53.88
Longitude:	Degrees	Minutes	Seconds
	-80	24	3.96

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:** PA20230118165453136000  
**Clicked Point (Latitude, Longitude):** 41.14832, -80.40112  
**Time:** 2023-01-18 11:55:17 -0500



+ Collapse All

➤ Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.000116	square miles