

Application Type New
Wastewater Type Sewage
Facility Type SRSTP

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

Application No. PA0293024
APS ID 1084757
Authorization ID 1433145

Applicant, Facility and Project Information

Applicant Name	<u>Robert C Thompson</u>	Facility Name	<u>Robert Thompson SRSTP</u>
Applicant Address	<u>1267 Rutledge Road</u> <u>Transfer, PA 16154-2225</u>	Facility Address	<u>1267 Rutledge Road</u> <u>Transfer, PA 16154-2225</u>
Applicant Contact	<u>Robert Thompson</u>	Facility Contact	<u></u>
Applicant Phone	<u>(724) 854-9190</u>	Facility Phone	<u></u>
Applicant Email	<u>dkthompson1267@gmail.com</u>		
Client ID	<u>376326</u>	Site ID	<u>861344</u>
SIC Code	<u>8800</u>	Municipality	<u>Pymatuning Township</u>
SIC Description	<u>Private Households</u>	County	<u>Mercer</u>
Date Application Received	<u>March 13, 2023</u>	WQM Required	<u>Yes</u>
Date Application Accepted	<u>April 4, 2023</u>	WQM App. No.	<u>4323406</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 dwelling with proposed construction of a single residence sewage treatment plant to replace a malfunctioning on-lot sewage disposal system.

Proposed treatment will consist of (WQM Permit No. 4323406): A Singulair Bio-Kinetic Model 960-500 aerobic tank followed by a Hydro-Kinetic Bio-Film Reactor (HKBFR) with a Model AT 1500 UV disinfection system. The effluent is then discharged to an UNT to Brush Run (WWF), at a rate of 400 gpd. The Singulair 960-500/600 has a total capacity of 1300 gallons and is rated for 600 gpd. The HKBFR has capacity of 1055 gallons and is designed to treat up to 800 gpd.

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 (376326) as of April 4, 2023 *4/5/2023 CWY*

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.

Approve	Deny	Signatures	Date
X		Aeshah Shameseldin Aeshah Shameseldin / Civil Engineer Trainee	April 4, 2023
X		Chad W. Yurisc Chad W. Yurisc, P.E. / Environmental Engineer Manager	4/5/2023

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° 19' 14.00"</u>	Longitude	<u>-80° 24' 53.00"</u>
Quad Name	<u>Sharpsville</u>	Quad Code	<u>41080C4</u>
Wastewater Description: <u>Sewage Effluent</u>			
Receiving Waters	<u>Unnamed Tributary to Brush Run (WWF)</u>	Stream Code	<u>36036</u>
NHD Com ID	<u>130034301</u>	RMI	<u>1.0900</u>
Drainage Area	<u>0.0131</u>	Yield (cfs/mi ²)	<u>0.1</u>
Q ₇₋₁₀ Flow (cfs)	<u>0.00131</u>	Q ₇₋₁₀ Basis	<u>Default</u>
Elevation (ft)	<u>1093</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	
Temperature (°F)	<u>25</u>	Default	
Hardness (mg/L)	<u>100</u>	Default	
Other:	<u></u>		
Nearest Downstream Public Water Supply Intake	<u>Sharpsville Borough Water Company</u>		
PWS Waters	<u>Shenango River</u>	Flow at Intake (cfs)	<u>94.3</u>
PWS RMI	<u>33.2</u>	Distance from Outfall (mi)	<u>---</u>

Changes Since Last Permit Issuance: N/A -This is a proposed discharge (Planning was approved on February 2, 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 Singlair Bio-Kinetic Model 960-500 aerobic tank followed by a Hydro-Kinetic Bio-Film Reactor.

The Singlair Bio-Kinetic Model 960-500 aerobic tank is reportedly capable of meeting BOD5 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 stream overlays. A popup window titled "Designated Use Streams (1 of 3)" is open over a stream segment, displaying the following details:

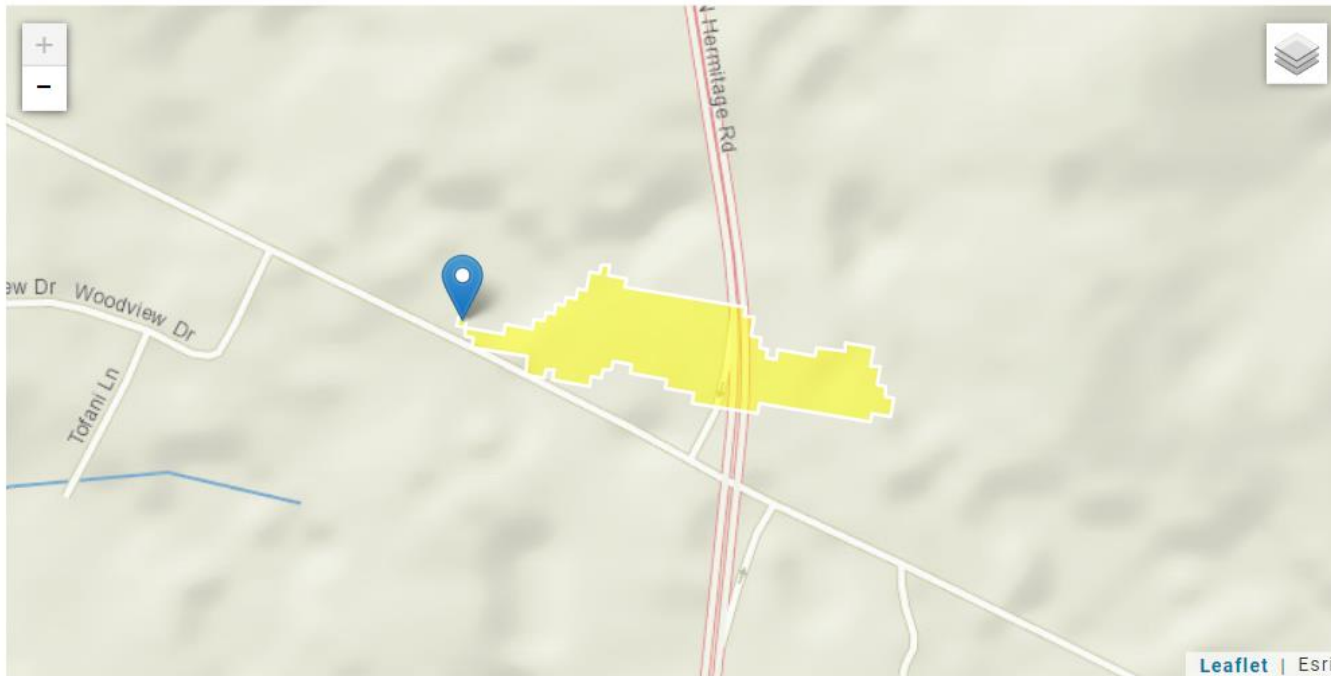
- Designated Use Gen ID: 28645
- GNIS Name:
- GNIS ID:
- ReachCode: 05030102000730
- COMID: 130034301
- Length Miles: 1.085
- Map Symbology: WWF
- Length Miles: 1.085
- Designated Use: 12
- DES Use ID: 8
- Use Description: WWF(WARM WATER FISHES)
- Migratory_Fish: N
- HUC: 05030102
- Basin: N
- Basin Narrative: Null
- Segment Narrative: Null
- Evaluation Date: Null
- Last Fdit Date: Null
- Zoom to

A "Locate Latitude and Longitude" dialog box is also visible, showing coordinates in DD/MM/SS format: Latitude 41 19 14 and Longitude -80 24 53. The map interface includes a legend on the left with categories for Regulated Facilities, Streams and Water Resources, and Boundaries. The map toolbar at the top right includes navigation and search tools.

Drainage Area Location – StreamStats with Aerial Imagery

StreamStats Report

Region ID: PA
Workspace ID: PA20230404185610362000
Clicked Point (Latitude, Longitude): 41.32056, -80.41477
Time: 2023-04-04 14:56:40 -0400



+ Collapse All

> Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.0131	square miles