

Application Type Renewal
Wastewater Type Sewage
Facility Type SRSTP

NPDES PERMIT FACT SHEET INDIVIDUAL SFTF/SRSTP

Application No. PA0266841
APS ID 1083985
Authorization ID 1478944

Applicant, Facility and Project Information

Applicant Name	<u>Ryan E. Sauder</u>	Facility Name	<u>Sauder Res</u>
Applicant Address	<u>3497 New Holland Road</u> <u>Mohnton, PA 19540-8621</u>	Facility Address	<u>3497 New Holland Road</u> <u>Mohnton, PA 19540-8621</u>
Applicant Contact	<u>Ryan Sauder</u>	Facility Contact	<u>Ryan Sauder</u>
Applicant Phone	<u>(717) 466-8482</u>	Facility Phone	<u>(717) 466-8482</u>
Client ID	<u>376191</u>	Site ID	<u>833410</u>
SIC Code	<u>8811</u>	Municipality	<u>Cumru Township</u>
SIC Description	<u>Services - Private Households</u>	County	<u>Berks</u>
Date Application Received	<u>April 1, 2024</u>	WQM Required	<u>no</u>
Date Application Accepted	<u>April 18, 2024</u>	WQM App. No.	<u></u>
Project Description	<u>NPDES permit renewal.</u>		

Summary of Review

An application was submitted on April 1, 2024 for reissuance of an NPDES permit to discharge treated sewage from the single-family residence sewage treatment plant located in Cumru Township, Berks County. The permit was last reissued on October 30, 2019 and became effective on November 1, 2019. The permit expires on October 31, 2024. The permit amendment was issued on 4/3/2023 for ownership transfer.

The facility has a design capacity of 400 gpd, and discharges to an UNT to Angelica Creek, which is classified for Cold Water and Migratory fishes. The facility is not eligible for coverage under the PAG-04 because the proposed design is not one of the ones included in the DEP's Small Flow Treatment Facilities (SFTF) Manual.

The WQM No. 0618404 original was issued on 9/26/2019, and 0618404 T-1 was issued on 4/13/2023.

Changes from the previous permit: BOD₅ limits changed to CBOD₅ limits.

Based on the review outline in this fact sheet, it is recommended that the permit be drafted and published in the Pennsylvania Bulletin for public comments for 30 days.

Approve	Deny	Signatures	Date
X		<i>Hilaryle</i> Hilary H. Le / Environmental Engineering Specialist	September 25, 2024
X		<i>Maria D. Bebenek for</i> Daniel W. Martin, P.E. / Environmental Engineer Manager	September 30, 2024

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	001	Design Flow (MGD)	0.0004
Latitude	40° 15' 39.08"	Longitude	-75° 57' 17.84"
Quad Name	Reading	Quad Code	
Wastewater Description: Sewage Effluent			
Receiving Waters	Angelica Creek (CWF, MF)	Stream Code	1827
NHD Com ID	25993038	RMI	4.9
Drainage Area	1.72 mi. ²	Yield (cfs/mi ²)	0.069
Q ₇₋₁₀ Flow (cfs)	0.12	Q ₇₋₁₀ Basis	USGS StreamStats
Elevation (ft)	503.70	Slope (ft/ft)	
Watershed No.	3-C	Chapter 93 Class.	CWF, MF
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		
Nearest Downstream Public Water Supply Intake	None nearby		
PWS Waters	Schuylkill River	Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	

Changes Since Last Permit Issuance:

Drainage Area:

The discharge is to the headwater of Unnamed Tributary 1827 to Angelica Creek at RMI 4.9 mile. A drainage area of the point of discharge is estimated to be 1.72 sq. miles according to USGS StreamStats available at <https://streamstats.usgs.gov/ss/>.

Streamflow:

USGS StreamStats produces a Q₇₋₁₀ 0.12 cfs at the point of discharge.

Compliance History	
Summary of DMRs:	The effluent sample results with the NPDES renewal 2024 application were 19.05 mg/L of BOD ₅ , 108 No./100 ml of Fecal Coliform, and 8 mg/L of TSS.
Summary of Inspections:	8/4/2021: Ms. Tomtishen, WQS DEP, conducted a compliance evaluation inspection. There was violation. Recommendations were to collect and analyze the annual samples by an accredited laboratory for pH, BOD ₅ , TSS, and Fecal Coliform, submit the AMRs to the DEP by June 30 th of each calendar year, remove sand & sediment accumulations from outfall pipe to prevent blockage.
Other Comments:	There are currently no open violations associated with the permittee or the facility.

Treatment Facility Summary

The treatment system serving single residence 3-bedrooms capacity 800 GPD consists of a primary tank, dosing tank/pump, coco media filter, UV disinfection, and an outfall.

Development of Effluent Limitations and Monitoring Requirements

Unless stated otherwise below, the proposed effluent limitations and monitoring requirements listed on page 6 of the Fact sheet are derived from DEP's Standard Operating Procedure (SOP) for New and Reissuance Small Flow Treatment Facility Individual NPDES Permit Applications (SOP No. BPNPSM-PMT-003) revised November 9, 2023.

The reviewer notes that the existing BOD₅ and TSS monitoring frequencies and limits are inconsistent with the monitoring frequencies and limits recommended in DEP SOP No. BPNPSM-PMT-003 for SRSTPs. Based on the best professional judgement of the author, the existing monitoring frequencies are sufficient and necessary. Therefore, the existing monitoring frequencies will remain the same as those specified in the existing permit. However, it is recommended that existing limits be carried over in this renewal and BOD₅ limits be replaced by CBOD₅ to comply with the recent SOP.

pH

The proposed effluent limitations and monitoring requirements are derived from DEP's Standard Operating Procedure (SOP) for New and Reissuance Small Flow Treatment Facility Individual NPDES Permit Applications (SOP No. BCW-PMT-003 revised on November 9, 2023, version 1.8). Based on the proposed requirements, the permittee will no longer be required to monitor for pH. Therefore, the pH monitoring will be removed in the proposed permit.

Fecal Coliform

Per SOP, a year-round average monthly limit for fecal coliform geometric mean is to be 200/100 ml for all new or renewal. The existing permit has a seasonal limit which is the recommended year-round limit.

Chesapeake Bay Requirements

No nutrient monitoring requirement is recommended for this facility. Facilities that are designed based on a flow of less than or equal to 2,000 GPD or considered as SRSTPs are exempt from the Bay requirements.

Total Maximum Daily Load (TMDL)

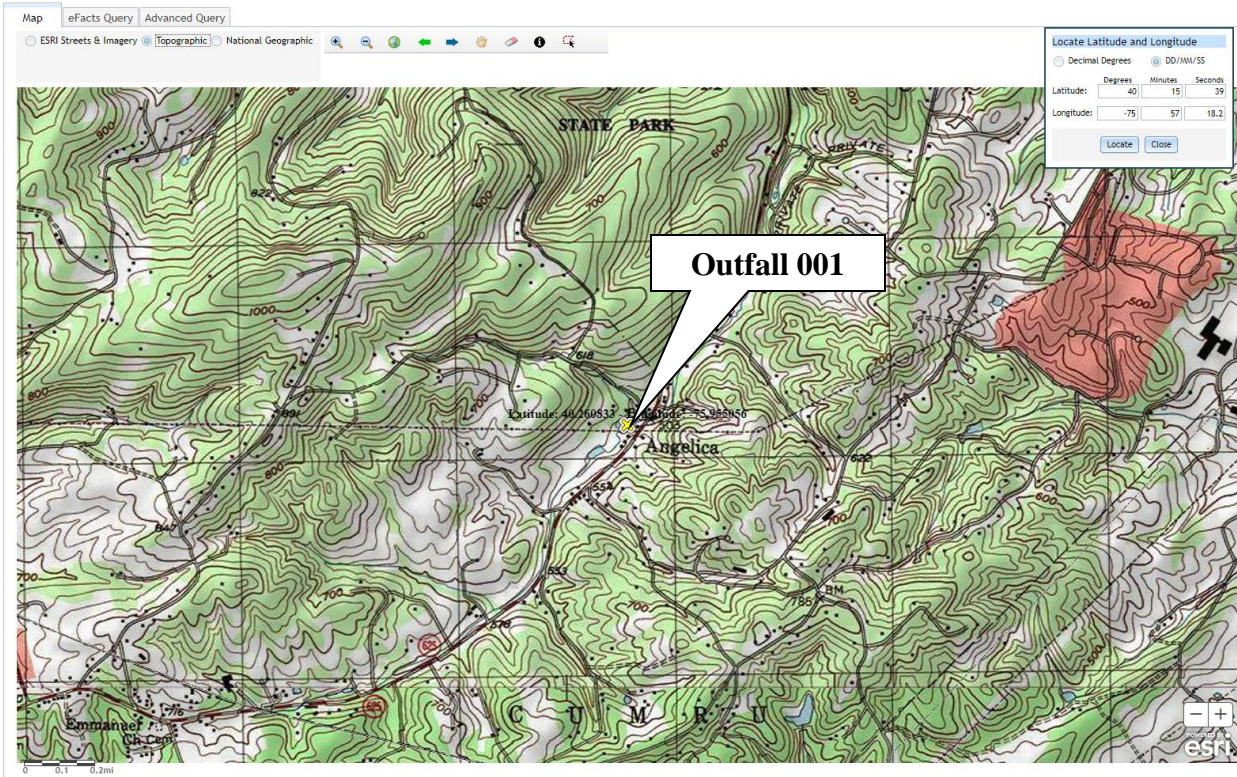
The discharge is located in a stream segment listed as attaining uses; therefore, no TMDL has been taken into consideration during this review.

Antidegradation Requirements

All effluent limitations and monitoring requirements have been developed to ensure that existing instream water uses and the level of water quality necessary to protect the existing uses are maintained and protected.

Other Considerations

No Class A Wild Trout Fishery is impacted by this discharge. Considering dilution and distance from the intake, the discharge is not expected to affect the water supply.



USGS StreamStats
estimate for a changing world

SELECT A STATE / REGION
Pennsylvania

IDENTIFY A STUDY AREA
Basin Delineated

SELECT SCENARIOS

BUILD A REPORT Report Built

Step 3: You can modify computed basin characteristics here, then select the types of reports you wish to generate. Then click the "Build Report" button.

Show Basin Characteristics

Select available reports to display:

- Basin Characteristics Report
- Scenario Flow Reports

Open Report

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Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
BSLOPD	Mean basin slope measured in degrees	7.2202	degrees
DRNAREA	Area that drains to a point on a stream	1.72	square miles
ROCKDEP	Depth to rock	4	feet
URBAN	Percentage of basin with urban development	0.1211	percent

Low-Flow Statistics

Low-Flow Statistics Parameters [Low Flow Region 1]

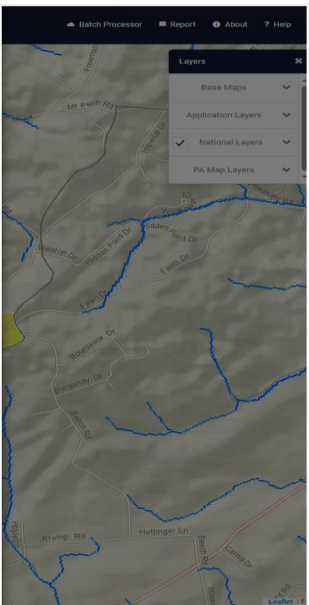
Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	1.72	square miles	4.78	1150
BSLOPD	Mean Basin Slope degrees	7.2202	degrees	1.7	6.4
ROCKDEP	Depth to Rock	4	feet	4.13	5.21
URBAN	Percent Urban	0.1211	percent	0	89

Low-Flow Statistics Disclaimers [Low Flow Region 1]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors.

Low-Flow Statistics Flow Report [Low Flow Region 1]

Statistic	Value	Unit
7 Day 2 Year Low Flow	0.282	ft ³ /s
30 Day 2 Year Low Flow	0.372	ft ³ /s
7 Day 10 Year Low Flow	0.12	ft ³ /s
30 Day 10 Year Low Flow	0.168	ft ³ /s
90 Day 10 Year Low Flow	0.246	ft ³ /s



Proposed Effluent Limitations and Monitoring Requirements

Outfall 001,

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) ⁽¹⁾		Concentrations (mg/L)				Minimum ⁽²⁾ Measurement Frequency	Required Sample Type
	Average	Average Weekly	Instant. Minimum	Annual Average	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report Annl Avg	XXX	XXX	XXX	XXX	XXX	1/year	Estimate
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/year	Grab
BOD5	XXX	XXX	XXX	10.0	XXX	20	1/year	Grab
TSS	XXX	XXX	XXX	10.0	XXX	20	1/year	Grab
Fecal Coliform (No./100 ml)	XXX	XXX	XXX	200	XXX	XXX	1/year	Grab

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 (MGD)	Report Annl Avg	XXX	XXX	XXX	XXX	XXX	1/year	Estimate
CBOD5	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:

Other Comments: