Pennsylvania Department of Environmental Protection

Southcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**New**	Application No.	**PA0294188 & WQM 3215401**
Wastewater Type	**Sewage**	APS ID	**1129580**
Facility Type	**SRSTP**	Authorization ID	**1513621 & 1513619 WQM**

NPDES & WQM PERMITS FACT SHEET INDIVIDUAL SFTF/SRSTP

Applicant, Facility and Project Information

Applicant Name	**Deborah Roney**	Facility Name	**11078 Carriage Hill Rd, SRSTP**
Applicant Address	1211 Allison Street NE.	Facility Address	11078 Carriage Hill Road
	Washington, DC 20017-2707		Huntingdon, PA 16652-5550
Applicant Contact	Deborah Roney	Facility Contact	Deborah Roney
Applicant Phone	(814) 251-3072	Facility Phone	(814) 251-3072
Client ID	390414	Site ID	877536
SIC Code	8811	Municipality	Miller Township
SIC Description	Services - Private Households	County	Huntingdon
Date Application Received	January 21, 2025	WQM Required	
Date Application Accepted	February 5, 2025	WQM App. No.	3215401

Project Description: NPDES & WQM new permits.

Summary of Review

This fact sheet supports the issuance of a new NPDES permit for discharge of treated sewage from the Single Residence Sewage Treatment Plant (SRSTP) located in Miller Township, Huntingdon County. The annual average design flow is 500 gallons per day.

The discharge will be to Standing Stone Creek which is classified as High Quality-Cold Water & Migratory Fishes (HQ-CWF & MF). Therefore, this project does not qualify for PAG-04 General Permit.

The WQM permit for the construction of the treatment system with permit No. WQM 3215401 is concurrently under review. DEP Planning for the project was approved under Code No. A3-31926-054-3S.

DEP has prepared this report for the applications for both NPDES and WQM permits.

Based on the review outlined in this report, it is recommended that the NPDES permit be drafted and publish in the Pennsylvania Bulletin for public comments for 30 days.

Approve	Deny	Signatures	Date
X		*Hilaryle* Hilary H. Le / Environmental Engineering Specialist	February 14, 2025
X		/s/ Daniel W. Martin, P.E. / Environmental Engineer Manager	March 21, 2025

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	001	Design Flow (MGD)	0.0005
Latitude	40º 34' 33.20"	Longitude	-77º 53' 14.15"
Quad Name	Donation	Quad Code	
Wastewater Description:	Sewage Effluent		
Receiving Waters	Standing Stone Creek (HQ-CWF, MF)	Stream Code	15349
NHD Com ID	65605170	RMI	13.22 miles
Drainage Area	96.7	Yield (cfs/mi^2)	0.05
Q_{7-10} Flow (cfs)	5.2	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	663.47	Slope (ft/ft)	
Watershed No.	11-B	Chapter 93 Class.	HQ-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	Huntingdon Borough Water Dept, Juniata County		
PWS Waters	Juniata River	Flow at Intake (cfs)	
PWS RMI	93.22 miles	Distance from Outfall (mi)	Approximate 13.6 miles

Changes Since Last Permit Issuance: new

Drainage Area

The discharge is to Standing Stone Creek at RMI 13.22 miles. A drainage area upstream of the discharge is estimated to be 96.7 mi.^{2}, according to USGS StreamStats available at https://streamstats.usgs.gov/ss/. USGS StreamStats also produced a Q_{7-10} flow of 5.2 cfs at the point of proposed discharge. Yield flow is 0.05 cfs/mi.^{2} (5.2 cfs/96.7 mi.^{2}).

Standing Stone Creek

Under 25 Pa Code §93.9n, Standing Stone Creek is designated as High Quality Cold-Water and Migratory Fishes (HQ-CWF & MF), and attaining its uses. Additionally, the dilution ratio of >100/1 is sufficient to assimilate an effluent without impact (dilution ratio is Q_{stream} / $Q_{discharge}$ = 5.2 cfs / [0.0005 MGD * (1.55 cfs/MGD)] = 6709.7:1) [*Water Quality Antidegradation Implementation Guidance No. 391-0300-002/November 29, 2003/Page 60*]. Therefore, HQ limits do not apply to the discharge.

Based on integrated report 2024, Standing Stone Creek, assessment ID 1365, is not impaired.

This discharge is not into a watershed that has proposed or final TMDL. No Exceptional Value Waters are impacted by this discharge.

Standing Stone Creek does not support a Class A Wild Trout fishery. Therefore, no Class A Wild Trout fishery is impacted by this discharge.

Public Water Supply Intake

According to DEP's eMapPA available at http://www.depgis.state.pa.us/emappa/, the nearest downstream public water supply intake is Huntingdon Boro Water, Juniata County located on Juniata river, approximately 13.6 miles. Given the nature and distance, the proposed discharge is not expected to impact the water supply.

Anti-Degradation Requirements (25 Pa Code § 93.4a)

The site-specific anti-degradation analysis was prepared as part of Act 537 planning module. In accordance with 25 Pa Code § 93.4c.(b)(1)(i)(A) and (B), this analysis included possible non-discharge alternatives (i.e., on-site sewage disposal, individual residential spray irrigation, connection to public sewer). However, the applicant indicated that these alternatives are not environmentally sound and cost-effective due to unsuitable soils, season high water table, and unavailable local wastewater treatment facilities nearby the property.

The applicant, according to social or economic justification (SEJ), determined that there is no other long term solution to the failure of the existing on-site sewage disposal system and the proposed facility is the best available and cost-effective technology to achieve water quality-based effluent limitations (WQBELs) specified in the Department's guidance, Water Quality Antidegradation Implementation Guidance-Appendix B (391-0300-002). The planning module with this SEJ and alternate analysis was approved by the Department. Based on the review, the permit will contain WQBELs specified in the Department's guidance to maintain and protect the existing water quality of the receiving stream. Therefore, no High-Quality Water are impacted by this discharge.

Treatment Facility Summary

The facility is proposed to serve the existing four-bedroom single family residence (500 GPD) located at 11078 Carriage Hill Road, Huntingdon, PA 16652. The facility will be owned and maintained by Deborah W. Roney. The proposed treatment process, according to the application, is as follows:

One (1) 1250-gallon dual compartment concrete septic tank (or equivalent) → Premier Tech ECP-530-P-P-PACK Coco filter → DiUV disinfection unit → Outfall.

The proposed septic tank will have enough capacity to handle the proposed design flow. An effluent filter will be provided at the end of the septic tank to reduce settleable and floatable solids in the effluent. "A" Biotube effluent filters will be provided, which has been demonstrated to produce effluent that does not exceed 10 mg/L BOD_5 and 10 mg/L TSS. The proposed UV disinfection system will be able to provide an effluent fecal coliform concentration less than or equal to 200 No./100 mL.

The primary treatment tank sludge levels will be monitored yearly and pumped out no longer than 3-year intervals. The outlet of the tank will have an effluent filter, preventing solids from leaving the tank. The surface filter will be inspected annually. The UV unit will be accessible from the ground surface, allowing the UV bulb to be replaced or cleaned. The UV unit has an alarm-light system to alert for a treatment malfunction, and one or more spare bulbs will be kept on site for emergency replacement.

Compliance History

On January 21, 2025, DEP approved the Act 537 planning as a revision to the Act 537 official sewage facilities plan of Miller Township (DEP Code No. A3-31926-054-3S).

This is a new facility; therefore, there are no effluent sample results / inspection reports associated with this facility. The Department's database indicates that there is currently no open violation associated with the facility or the applicant.

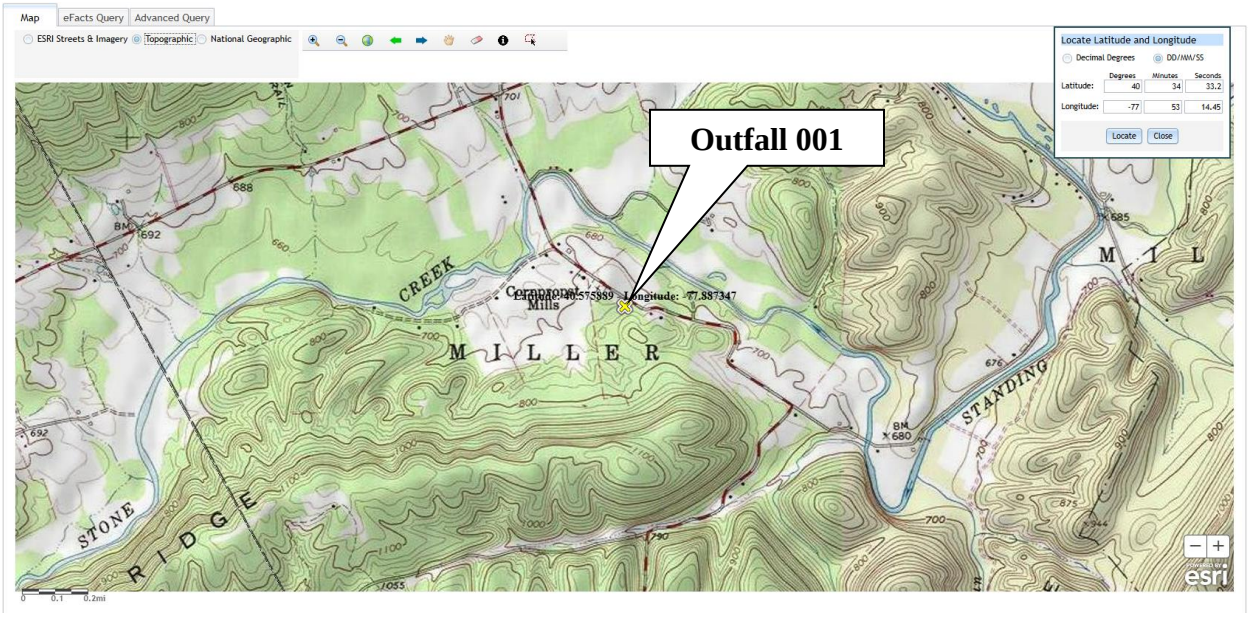
Development of Effluent Limitations and Monitoring Requirements

The 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. BPNPSM-PMT-003, revised November 9, 2023). Since the facility will utilize ultraviolet (UV) disinfection, monitoring requirements for total residual chlorine are not applicable.

According to the SOP referenced above, water quality monitoring using Toxic Management Spreadsheet and/or WQM are not required for SRSTPs. The permittee will be required to submit a completed Annual Maintenance Report (AMR) as part of the permit requirements. No DMR is necessary for any facilities that are required to report effluent monitoring results on AMRs annually.

The draft permit will include the following Part C conditions:

a. Small Flow Treatment Facility Maintenance, including measurement of the depth of septage and scum, 3-year septic tank pumping requirement, reporting requirement of a completed Annual Maintenance Form.
b. Stormwater Prohibition
c. Property Rights
d. Proper Disposal of Solids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ESRI Streets & Imagery
Topographic
National Geographic
Locate Latitude and Longitude
Decimal Degrees
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Degrees Minutes Seconds
Latitude: 40 34 33.2
Longitude: -77 53 14.45
Locate
Close
Outfall 001
Latitude: 40.575889 Longitude: -77.887347
CREEK
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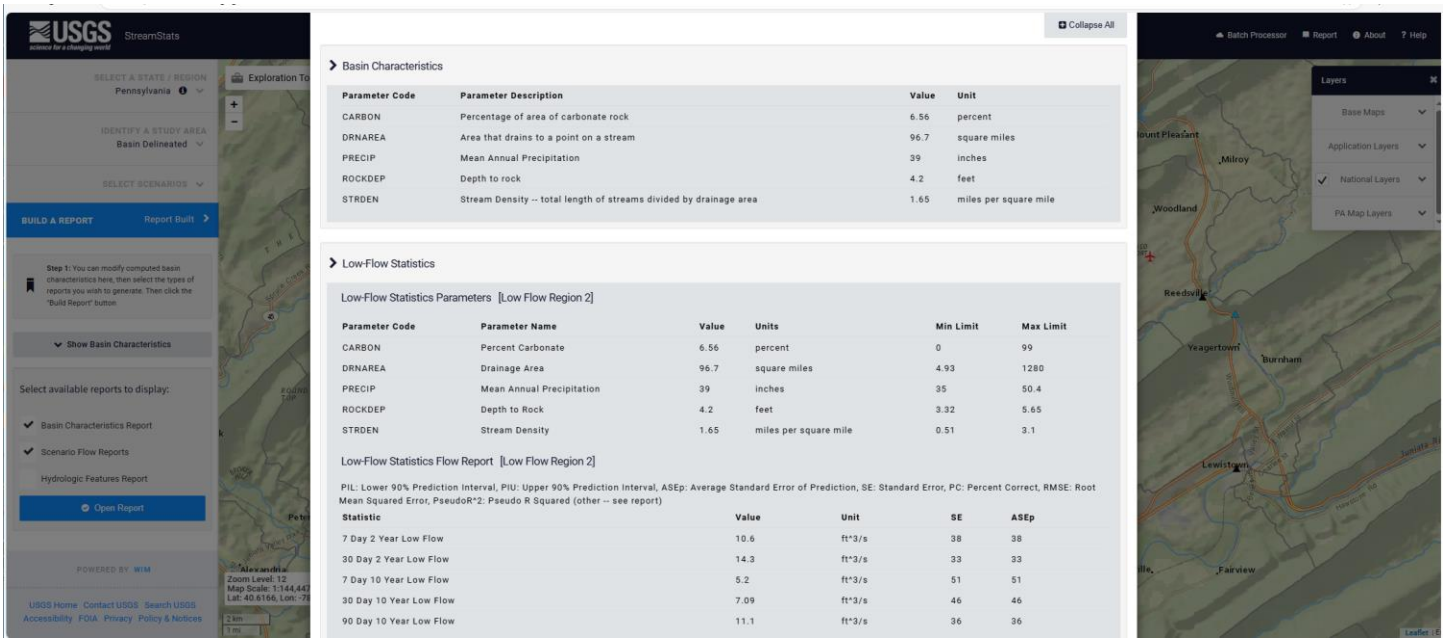
USGS StreamStats
Collapse All
Basin Characteristics
Parameter Code | Parameter Description | Value | Unit
CARBON | Percentage of area of carbonate rock | 6.56 | percent
DRNAREA | Area that drains to a point on a stream | 96.7 | square miles
PRECIP | Mean Annual Precipitation | 39 | inches
ROCKDEP | Depth to rock | 4.2 | feet
STRDEN | Stream Density -- total length of streams divided by drainage area | 1.65 | miles per square mile
Low-Flow Statistics
Low-Flow Statistics Parameters [Low Flow Region 2]
Parameter Code | Parameter Name | Value | Units | Min Limit | Max Limit
CARBON | Percent Carbonate | 6.56 | percent | 0 | 99
DRNAREA | Drainage Area | 96.7 | square miles | 4.93 | 1280
PRECIP | Mean Annual Precipitation | 39 | inches | 35 | 50.4
ROCKDEP | Depth to Rock | 4.2 | feet | 3.32 | 5.65
STRDEN | Stream Density | 1.65 | miles per square mile | 0.51 | 3.1
Low-Flow Statistics Flow Report [Low Flow Region 2]
PIL: Lower 90% Prediction Interval, PIU: Upper 90% Prediction Interval, ASEp: Average Standard Error of Prediction, SE: Standard Error, PC: Percent Correct, RMSE: Root Mean Squared Error, PseudoR^2: Pseudo R Squared (other -- see report)
Statistic | Value | Unit | SE | ASEp
7 Day 2 Year Low Flow | 10.6 | ft^3/s | 38 | 38
30 Day 2 Year Low Flow | 14.3 | ft^3/s | 33 | 33
7 Day 10 Year Low Flow | 5.2 | ft^3/s | 51 | 51
30 Day 10 Year Low Flow | 7.09 | ft^3/s | 46 | 46
90 Day 10 Year Low Flow | 11.1 | ft^3/s | 36 | 36
Batch Processor
Report
About
Help
Layers
Base Maps
Application Layers
National Layers
PA Map Layers
Mount Pleasant
Milroy
Woodland
Reedsville
Yeagertown
Burnham
Lewistown
Fairview

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)	XXX	Report Annl Avg	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: