pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0261319**
Wastewater Type	**Sewage**	APS ID	**689108**
Facility Type	**SRSTP**	Authorization ID	**1290037**

NPDES PERMIT FACT SHEET
INDIVIDUAL SFTF/SRSTP

Applicant, Facility and Project Information

Applicant Name	**Cindy M Sheets & Steve L Sheets**	Facility Name	**Sheets Residence STP**
Applicant Address	1669 Old Carlisle Road	Facility Address	1669 Old Carlisle Road
	Aspers, PA 17304-9472		Aspers, PA 17304-9472
Applicant Contact	Steve Sheets	Facility Contact	Steven Sheets
Applicant Phone	(717) 476-7070	Facility Phone	(717) 476-7070
Client ID	271614	Site ID	719167
SIC Code	8811	Municipality	Butler Township
SIC Description	Services - Private Households	County	Adams
Date Application Received	September 16, 2019	WQM Required	
Date Application Accepted	January 26, 2022	WQM App. No.	

Project Description: NPDES permit renewal.

Summary of Review

Cindy and Steve Sheets have applied to the Pennsylvania Department of Environmental Protection (DEP) for reissuance of a NPDES permit. The existing NPDES permit; issued on October 17, 2014; authorizes the discharge of treated sewage from the Single Residence Sewage Treatment Plant (SRSTP) located in Butler Township, Adams County. The permit became effective on November 1, 2014; expired on October 31, 2019. The application received on September 16, 2019 was incomplete. The Department has been working with the Sheets on submittal of their application. The permittee eventually provided the GIF and Act 14 notification to Township & County with received status until January 26, 2022.

The facility has a design capacity of 400 gpd, and discharges to an UNT to Opossum Creek, which is classified for trout stocking fishes.

The WQM Part II No. 0109401 issued on 7/29/2009.

Changes from the previous permit:

- Unit of Fecal Coliform is changed from CFU/100 ml to No./100 ml.
- pH limits monitoring requirement had been removed from the proposed permit per SOP-New and Reissuance Individual SFTF NPDES Permit Revised on May 17, 2019, version 1.8.
- Ammonia-Nitrogen monitoring requirement had been removed from the proposed permit.
- The SIC Code changed to 8811-Service-Private Household based on SOP No. BCW-PMT-003, revised May 17, 2019, version 1.8.

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		*Hilaryle* Hilary H. Le / Environmental Engineering Specialist	February 1, 2022
X		*Maria D. Bebenek for* Daniel W. Martin, P.E. / Environmental Engineer Manager	February 1, 2022

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	001	Design Flow (MGD)	0.0004
Latitude	39º 57' 30.52"	Longitude	-77º 12' 14.08"
Quad Name	Biglerville	Quad Code	
Wastewater Description:	Sewage Effluent		
Receiving Waters	Unnamed Tributary to Opossum Creek (TSF)	Stream Code	09066
NHD Com ID	57470837	RMI	0.41 mile
Drainage Area	2.17 mi.^{2}	Yield (cfs/mi^2)	0.18
Q_{7-10} Flow (cfs)	**0.38**	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	575	Slope (ft/ft)	
Watershed No.	7-F	Chapter 93 Class.	TSF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	SILTATION		
Source(s) of Impairment	AGRICULTURE		
TMDL Status	Tentative	Name	Opossum Creek
Nearest Downstream Public Water Supply Intake	Wrightsville Water Supply Co., York County		
PWS Waters	Susquehanna River	Flow at Intake (cfs)	
PWS RMI	28.51 miles	Distance from Outfall (mi)	Approximate 77.0 miles

Changes Since Last Permit Issuance: none

Stream Flow:
According to StreamStats, the discharge point has a Q_{7-10} of 0.38 cfs and a drainage area of 2.17 mi.^{2}, which results in a Q_{7-10} low flow yield of 0.18 cfs/mi.^{2}.

The resulting Q_{7-10} dilution ratio is: Q_{stream} / $Q_{discharge}$ = 0.38 cfs / [0.0004 MGD * (1.55 cfs/MGD)] = 613:1

Unnamed Tributary to Opossum Creek:
Under 25 Pa Code § 93.9o, Unnamed Tributary to Opossum Creek is designated as trout stocking (TSF). No special protection water(s) is impacted by this discharge. No Class A Wild Trout fishery is impacted by this discharge.

Public Water Supply:
The fact sheet prepared for the renewal permit indicated that the nearest downstream public water supply intake is Wrightsville Water Supply Co., York County located on Susquehanna River, approximately 77.0 miles from the discharge. Considering dilution, the discharge is not expected to impact the water supply.

Compliance History	
Summary of DMRs:	The lab results with application on August 18, 2021 were < 3.0 mg/L of $CBOD_5$, 10.0 mg/L of TSS, 7.4 S.U. of pH, < 1 No./100 ml of Fecal coliform, and < 0.1 mg/L of Ammonia-Nitrogen. These results indicated compliance with the permit limits.
Summary of Inspections:	7/31/2020: Brandon Bettinger, DEP Water Quality Specialist, an administrative inspection conducted via phone call. The violation noted failure to monitor pollutants as required by the NPDES permit and failure to sample for Ammonia-Nitrogen as required by Part A of the NPDES permit. Recommendations were documenting an estimate of annual average flow on the Annual Maintenance Report (AMR), and adhering to submit AMR by June 30th each year. The lab results with application on August 28, 2019 were 44.0 mg/L of $CBOD_5$, 15.0 mg/L of TSS, 7.8 S.U. of pH, 42 No./100 ml of Fecal coliform, and no test on Ammonia-Nitrogen. These results indicated compliance with the permit limits.

Other Comments: There were three violations associated with the permittee due to not able to provide the GIF and Act 14 notification to Township & County with received status until January 26, 2022. However, the open violations were removed by the Department after the documents were received.

Treatment Facility Summary

The facility is located in Butler Township, Adams County. The treatment system which serves a single residence (400 GPD) consists of a 1,500-gallon two (2) compartments septic tank, an Ecoflo peat filter unit, UV disinfection, and the outfall. The WQM Part II No. 0109401 issued on 7/29/2009.

Development of Effluent Limitations and Monitoring Requirements

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. BPNPSM-PMT-003 revised on May 17, 2019, version 1.8). Based on the proposed requirements, the permittee will no longer be required to monitor for pH.

Ammonia-Nitrogen is no longer a parameter of concern for SFTFs/SRSTPs, so the ammonia-nitrogen monitoring requirement in the previous permit has been eliminated.

Carbonaceous Biochemical Oxygen Demand ($CBOD_5$): Only the minimum treatment requirements of secondary treatment will be necessary to protect water quality. The limits of 25.0 mg/L average monthly and 50.0 mg/L instantaneous will remain in the proposed permit.

Total Suspended Solids (TSS): The existing limits of 30.0 mg/L average monthly and 60.0 mg/L instantaneous maximum will remain in the proposed permit based on the minimum level of effluent quality attainable by secondary treatment based on 25 Pa. Code § 92a.47

For Flow, it is not necessary to perform daily maximum monitoring since the treated effluent is less than 2,000 GPD. The permit included a non-seasonal fecal coliform limit of 200 / 100 mL which is more stringent than the seasonal fecal limits (200 / 100 mL for summer; and 10,000 / 100 mL for winter). The reviewer notes that the frequency of sampling for Flow, and Fecal Coliform are recommended to remain the same as the existing permit.

The facility utilizes ultraviolet disinfection.

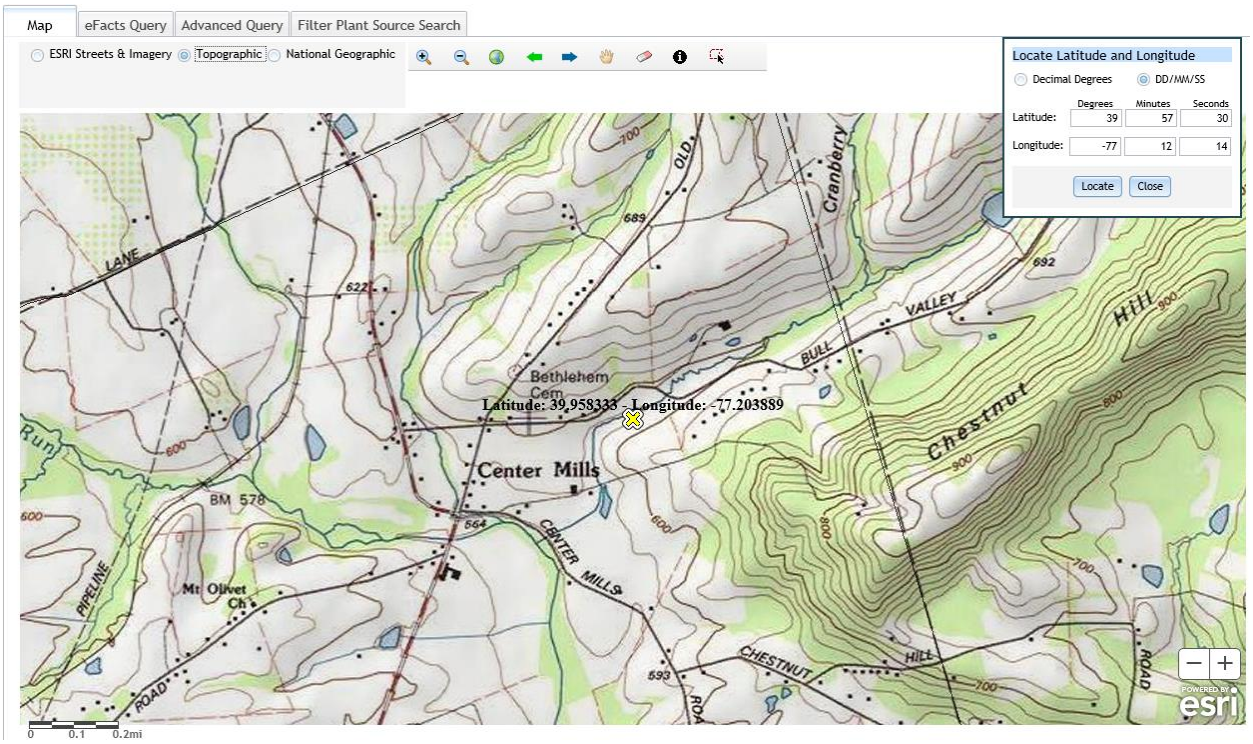
This facility is exempt from the Chesapeake Bay requirements for Total Nitrogen and Total Phosphorus because the flow is less than 2,000 gpd.

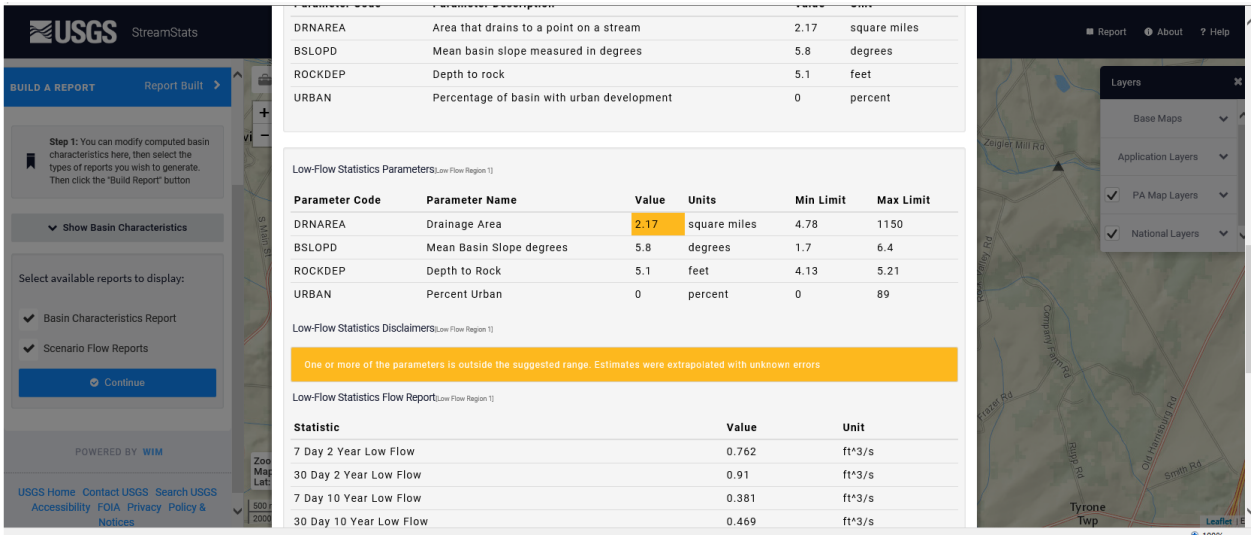
Antidegradation (93.4):
The effluent limits for this discharge have been developed to ensure that existing in-stream water uses and the level of water quality necessary to protect the existing uses are maintained and protected. No High-Quality Waters are impacted by this discharge. No Exceptional Value Waters are impacted by this discharge.

303d LISTED STREAMS:
eMapPA indicates that the receiving stream is impaired for siltation due to agriculture. A "tentative" TMDL currently exists for this impairment.

Class A Wild Trout Fisheries:

No Class A Wild Trout Fisheries are impacted by this discharge.





Existing Effluent Limitations and Monitoring Requirements

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day)		Concentrations (mg/L)				Minimum Measurement Frequency	Required Sample Type
	Average Monthly		Minimum	Average Monthly		Instant. Maximum		
Flow (MGD)	Report	XXX	XXX	XXX	XXX	XXX	1/month	Estimate
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/year	Grab
$CBOD_5$	XXX	XXX	XXX	25	XXX	50	1/year	Grab
Total Suspended Solids	XXX	XXX	XXX	30	XXX	60	1/year	Grab
Fecal Coliform (CFU/100 ml)	XXX	XXX	XXX	200 Geo Mean	XXX	XXX	1/year	Grab
Ammonia-Nitrogen	XXX	XXX	XXX	Report	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	25.0	XXX	50.0	1/year	Grab
TSS	XXX	XXX	XXX	30.0	XXX	60.0	1/year	Grab
Fecal Coliform (No./100 ml)	XXX	XXX	XXX	200	XXX	XXX	1/year	Grab

Compliance Sampling Location:

Other Comments: