pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0261092**
Wastewater Type	**Sewage**	APS ID	**633462**
Facility Type	**SRSTP**	Authorization ID	**1318734**

NPDES PERMIT FACT SHEET
INDIVIDUAL SFTF/SRSTP

Applicant, Facility and Project Information

Applicant Name	**Snyder Carla C & Snyder Graham T**	Facility Name	**Snyder Res**
Applicant Address	1144 Piketown Road	Facility Address	1144 Piketown Road
	Harrisburg, PA 17112-9057		Harrisburg, PA 17112-9057
Applicant Contact	Graham And Carla Snyder	Facility Contact	Graham And Carla Snyder
Applicant Phone	(717) 469-0545	Facility Phone	(717) 469-0545
Client ID	260775	Site ID	699483
SIC Code	6514	Municipality	West Hanover Township
SIC Description	Fin, Ins & Real Est - Dwelling Operators, Except Apartments	County	Dauphin
Date Application Received	June 23, 2020	WQM Required	
Date Application Accepted	June 8, 2021	WQM App. No.	

Project Description: Permit renewal for discharge of treated sewage

Summary of Review

1.0 General Discussion

This report supports renewal of an existing NPDES permit for a discharge of treated sewage from a small flow treatment facility that serves a 4-bedroom single family residence. The facility has a design capacity of 500gpd discharges to an UNT of Beaver Creek, which is classified for warm water fishes. The existing permit was issued on June 23, 2015 with effective date of July 1, 2015 and expiration date of June 30, 2020. The permittee submitted a timely permit renewal application to the Department and has been operating under the conditions in the existing permit under administrative extension provision pending Department action on the permit renewal. Topographical map showing discharge location is presented in attachment A.

1.2 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		*J. Pascal Kwedza* J. Pascal Kwedza, P.E. / Environmental Engineer	June 17, 2021
X		*Maria D. Bebenek for Daniel W. Martin* Daniel W. Martin, P.E. / Environmental Engineer Manager	July 7, 2021

Summary of Review

1.3 Existing Limits

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly		Minimum	Average Monthly		Instant. Maximum		
Flow (MGD)	Report	XXX	XXX	XXX	XXX	XXX	1/year	Estimate
Total Residual Chlorine	XXX	XXX	XXX	Report	XXX	XXX	1/quarter	Grab
CBOD5	XXX	XXX	XXX	10	XXX	20	1/year	Grab
Total Suspended Solids	XXX	XXX	XXX	10	XXX	20	1/year	Grab
Fecal Coliform (CFU/100 ml)	XXX	XXX	XXX	200 Geo Mean	XXX	1000	1/year	Grab

1.4 Treatment Facility

The plant consists of two compartment septic tank of 1,250 gallons minimum with effluent filter (EFT-080), a 300- gallon dosing tank and pump with a dose volume of 25 gallons, a STB-650 Ecoflo peat filter, 415-gallon minimum contact tank with tablet chlorinator. WQM permit number is 2207405.

1.5 Streamflows:

Streamflows for the water quality analysis were taken from the nearby USGS gauging station No 01573500 on Manada Creek. The drainage area of the gage is 14.2 sq.mi. The yield at the gage are :

- Q_{7-10} =(1.51)/(14.2) = 0.106 cfs/sq.mi.
- Q_{30-10} / Q_{7-10} = 1.23
- Q_{1-10} / Q_{7-10} = 0.89

The drainage area at discharge calculated by streamStats = 0.29 mi^2

The Q_{7-10} at discharge = 0.29 mi^2 x 0.106 $ft^3/s/mi^2$ = 0.03ft^3/s.

Discharge and Stream Data – 2 - Receiving Waters and PWS

1.6 Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.0005
Latitude	40° 22’ 33.00”	Longitude	76° 45’ 32.00”
Quad Name	Enders	Quad Code	1531
Wastewater Description:	Sewage		
Receiving Waters	Unnamed Tributary to Beaver Creek	Stream Code	09467
NHD Com ID	56398405	RMI	2.25
Drainage Area	0.29	Yield (cfs/mi^2)	0.1
Q_{7-10} Flow (cfs)	0.03	Q_{7-10} Basis	USGS Gage Station
Elevation (ft)	560	Slope (ft/ft)	
Watershed No.	7-D	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)		
Temperature (°F)		
Hardness (mg/L)		
Other:		

Nearest Downstream Public Water Supply Intake	Middletown Borough		
PWS Waters	Swatara Creek	Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	21

Changes Since Last Permit Issuance: None

1.7 Water Supply Intake

The nearest water supply intake is 21 miles downstream by Middletown Borough on the Swatara Creek. No impact is expected from this discharge.

1.8 Compliance History

The permittee has been submitting the required annual monitoring reports(AMRs). The AMRs indicate the facility is in compliance with permit requirements. The tanks have been pumped regularly consistent with permit requirement. The facility was recently inspected by the Department via phone on. May 6, 2020

1.9 Development of Permit Limits

The existing limits are consistent with the technology limits recommended in the general permit for small flow treatment facilities and DEPs Standard Operating Procedure (SOP) for the Clean Water Program SOP No. BPNPSM-PMT-003 version 1.8 and the facility has been complying with the limits therefore, the existing limits will remain in the permit. The treatment system is a Septic tank/ Premier Tech's Ecoflo Peat biofilter which is capable of meeting an average monthly CBOD5 – 10 mg/L, IMAX CBOD5– 20 mg/L and average monthly TSS – 10 mg/L, IMAX TSS– 20 mg/L. Consistent with SOP No. BPNPSM-PMT-003 version 1.8, water quality modeling using WQM model was not conducted. Chlorine is used for disinfection, however TRC calculation is not required for residential small flow systems. The existing monitoring requirement for all pollutants except TRC will remain 1/year for consistency with the SOP. TRC monitoring will be revised to monthly for consistency with the SOP. Fecal coliform limit of 200/100 mL as a geometric will be revised to annual average in the current permit with no IMAX. Flow estimation 1/year is required.

2.0 Chesapeake Bay

The facility will discharge less than 2000 gpd and is exempt from Bay nutrient evaluations and requirements.

2.1 Color Evaluation

Peat filters discharge color that is an esthetics issue for a long period of time, up to several years. To address color, the Department is requiring a streamflow to discharge ratio of at least 6:1. The ratio is 0.03:0.0008 for this discharge resulting 37:1 which is larger than Department's requirement of at least 6:1. No color issue is expected from this discharge.

2.2 Anti-Degradation (93.4)

The effluent limits for this discharge 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. No High-Quality Waters are impacted by this discharge. No Exceptional Value Waters are impacted by this discharge.

2.3 Class A Wild Trout Fisheries

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

2.4 303d Listed Streams

The discharge is not located on a 303d listed stream.

2.5 The following conditions are listed in Part C of the permit:

- Annual Maintenance Report Requirement
- Measurement requirement of depth of septage and scum in all treatment units
- Septic & Treatment tank pumping requirement
- Chlorine Minimization
- Prohibition of Stormwater Discharges
- Collected screenings and solids Handling
- Abandonment of the treatment facility for public sewers

3.0 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
TRC	XXX	XXX	XXX	Report Avg Mo	XXX	XXX	1/month	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: At outfall 001

Attachments

Topographical Map