pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0229130**
Wastewater Type	**Sewage**	APS ID	**1044965**
Facility Type	**SFTF**	Authorization ID	**1364391**

NPDES PERMIT FACT SHEET
INDIVIDUAL SFTF/SRSTP

Applicant, Facility and Project Information

Applicant Name	**G. Stephen Snyder**	Facility Name	**Snyder (Apt) SFTF**
Applicant Address	185 Stauffer Road	Facility Address	849 Hunter Run Road
	Bellefonte, PA 16823-4261		Howard, PA 16841
Applicant Contact	G. Stephen Snyder (Billygoatranch@verizon.net)	Facility Contact	G. Stephen Snyder
Applicant Phone	(814) 355-5001	Facility Phone	(814) 355-5001
Client ID	262299	Site ID	677715
SIC Code	4952	Municipality	Liberty Township
SIC Description	Trans. & Utilities - Sewerage Systems	County	Centre
Date Application Received	August 3, 2021	WQM Required	No.
Date Application Accepted	August 16, 2021	WQM App. No.	N/A

Project Description: Renewal of an existing NPDES permit for the discharge of treated sewage.

Summary of Review

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		*Jonathan P. Peterman* Jonathan P. Peterman / Project Manager	October 20, 2021
X		*Nicholas W. Hartranft* Nicholas W. Hartranft, P.E. / Environmental Engineer Manager	October 20, 2021

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.0016
Latitude	41º 2' 49.08"	Longitude	-77º 38' 35.99"
Quad Name	Howard	Quad Code	1024
Wastewater Description:	Sewage Effluent		

Receiving Waters	Hunters Run (CWF)	Stream Code	22865
NHD Com ID	67177172	RMI	1.50
Drainage Area	0.63	Yield (cfs/mi^2)	0.014
Q_{7-10} Flow (cfs)	0.01	Q_{7-10} Basis	Streamgage No. 01547700
Elevation (ft)	680	Slope (ft/ft)	N/A
Watershed No.	09C	Chapter 93 Class.	CWF
Existing Use	N/A	Existing Use Qualifier	N/A
Exceptions to Use	N/A	Exceptions to Criteria	N/A
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment	N/A		
Source(s) of Impairment	N/A		
TMDL Status	N/A	Name	N/A

Nearest Downstream Public Water Supply Intake	PA American White Deer		
PWS Waters	West Branch Susquehanna River	Flow at Intake (cfs)	668
PWS RMI	10.64	Distance from Outfall (mi)	108.62

Changes Since Last Permit Issuance: The updated Q_{7-10} data was obtained from the updated stream gage information obtained from *Stuckey, M.H., and Roland, M.A., 2011, Selected Streamflow Statistics for Streamgage Locations In and Near Pennsylvania*. A comparative stream analysis was conducted using a comparative stream gage based on basin characteristics. The Q_{7-10} calculations indicate that the Q_{7-10} is 0.01 cfs.

Other Comments: None.

Treatment Facility Summary

Treatment Facility Name: Snyder Apartment Small Flow Treatment Facility

WQM Permit No.	Issuance Date	Comments:
1407403	7/6/2007	Initial Construction.
1407403 T-1	10/30/2009	Transfer to R&R Properties.
1407403 T-2	10/4/2012	Transfer to G. Stephen Snyder.

Waste Type	Degree of Treatment	Process Type	Disinfection	Design Flow (MGD)
Sewage	Tertiary	ECOFLOW Peat Filter	Ultraviolet	0.0016
Hydraulic Capacity (MGD)	**Organic Capacity (lbs/day)**	**Load Status**	**Biosolids Treatment**	**Biosolids Use/Disposal**
0.0016	N/A	Not Overloaded	N/A	N/A

Treatment System Components:
The small flow system consists of two (2) 1,500-gallon septic tanks, three (3) 200 ft^3 peat Bio-filters, and an ultraviolet disinfection.

Chesapeake Bay Requirements

Facilities that are designed based on a flow of less than 2,000 GPD (1,600 GPD design flow for this facility) are not a part of Pennsylvania's Chesapeake Bay Tributary Strategy. Accordingly, it is not practicable to require the permittee to perform nutrient monitoring.

Anti-Backsliding

In accordance with 40 CFR 122.44(l)(1) and (2), this permit does not contain effluent limitations, standards, or conditions that are less stringent than the previous permit.

Existing Effluent Limitations and Monitoring Requirements

Existing Limits – Outfall 001

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	Average Quarterly	Maximum	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	1/month	Estimate
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/month	Grab
Carbonaceous Biochemical Oxygen Demand (CBOD5)	XXX	XXX	XXX	25.0	XXX	50.0	1/quarter	Grab
Total Suspended Solids	XXX	XXX	XXX	30.0	XXX	60.0	1/quarter	Grab
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	1/quarter	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	1/quarter	Grab

*The existing effluent limits for Outfall 001 were based on a design flow of 0.0016 MGD.

Development of Effluent Limitations and Monitoring Frequencies

Outfall No. 001 **Design Flow (MGD)** 0.0016
Latitude 41º 2' 49.08" **Longitude** -77º 38' 35.99"
Wastewater Description: Treated Sewage Effluent

Technology-Based Limitations

The following technology-based limitations apply, subject to water quality analysis and BPJ where applicable:

Pollutant	Limit (mg/l)	SBC	Federal Regulation	State Regulation
$CBOD_5$	25	Average Monthly	133.102(a)(4)(i)	92a.47(a)(1)
	40	Average Weekly	133.102(a)(4)(ii)	92a.47(a)(2)
Total Suspended Solids	30	Average Monthly	133.102(b)(1)	92a.47(a)(1)
	45	Average Weekly	133.102(b)(2)	92a.47(a)(2)
pH	6.0 – 9.0 S.U.	Min – Max	133.102(c)	95.2(1)
Fecal Coliform (5/1 – 9/30)	200 / 100 ml	Geo Mean	-	92a.47(a)(4)
Fecal Coliform (5/1 – 9/30)	1,000 / 100 ml	IMAX	-	92a.47(a)(4)
Fecal Coliform (10/1 – 4/30)	2,000 / 100 ml	Geo Mean	-	92a.47(a)(5)
Fecal Coliform (10/1 – 4/30)	10,000 / 100 ml	IMAX	-	92a.47(a)(5)

Water Quality-Based Limitations

The Department utilizes the WQM 7.0 v1.0b and Toxics Management Spreadsheet models to establish water quality based effluent limitations. This modeling is not utilized for facilities that discharge less than 2,000 gpd. See TRC section below.

Best Professional Judgement (BPJ) Limitations
None.
Comments: None.

Additional Considerations
None

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 the abovementioned 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) and/or BPJ.

Proposed Limits - Outfall 001, Effective Period: Permit Effective Date through Permit Expiration Date

Existing Limits – Outfall 001

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	Average Quarterly	Maximum	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	1/month	Estimate
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/month	Grab
Carbonaceous Biochemical Oxygen Demand (CBOD5)	XXX	XXX	XXX	25.0	XXX	50.0	1/quarter	Grab
Total Suspended Solids	XXX	XXX	XXX	30.0	XXX	60.0	1/quarter	Grab
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	1/quarter	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	1/quarter	Grab

*The proposed effluent limits for Outfall 001 were based on a design flow of 0.0016 MGD.

Flow
There are no proposed changes for flow monitoring which is required by §92a.61(d)(1).

Carbonaceous Biochemical Oxygen Demand (CBOD5)
Previously, secondary treatment standards (25 PA Code §92a.47 (a) (1&2)) were used for $CBOD_5$ effluent limits. The facility has demonstrated consistent compliance with these limits and no negative impacts have been observed in the receiving stream (Hunters Run). Accordingly, it is recommended that these technology-based limits remain in the permit.

Total Suspended Solids (TSS)
Previously, secondary treatment standards (25 PA Code §92a.47 (a) (1&2)) were used for TSS effluent limits. The facility has demonstrated consistent compliance with these limits and no negative impacts have been observed in the receiving stream (Hunters Run). Accordingly, it is recommended that these technology-based limits remain in the permit.

pH
40 CFR §133.102(c) and 25 PA Code §95.2(1) provide the basis of effluent limitations for pH. No changes are proposed for pH limitations.

Fecal Coliforms
The existing fecal coliform limits with IMAX limits were updated from the previous Chapter 92 code to correspond with what is specified in the updated 25 PA Code § 92a.47 (a)(4)&(5).

UV Disinfection
No monitoring is required for UV disinfection systems at SFTFs.

Sample Types
The sample types (grab and estimate) for all of the parameters correspond with the *Technical Guidance for the Development and Specification of Effluent Limitations* (362-0400-001) Table 6-3, are appropriate for small flow facilities, and will remain.

Monitoring Frequencies
The monitoring frequency (1/month and 1/quarter) for all of the parameters generally correspond with the *Technical Guidance for the Development and Specification of Effluent Limitations* (362-0400-001) Table 6-3, are appropriate for small flow facilities, and will remain.

Other Comments: None.

Compliance History

WMS Query Summary - A WMS Query was run at *Reports - Violations & Enforcements – Open Violations for Client Report* to determine whether there are any unresolved violations associated with the client that will affect issuance of the permit (per CSL Section 609). This query revealed that there were no unresolved violations.
File Review / AMR's – The last SFTF Compliance Inspection Report was conducted by the Department on 5/3/18. The report noted that they must indicate when the septic tanks were last pumped and properly maintain the UV bulbs.

Tools and References Used to Develop Permit	
☐	WQM for Windows Model (see Attachment)
☐	Toxics Management Spreadsheet (see Attachment)
☐	TRC Model Spreadsheet (see Attachment)
☐	Temperature Model Spreadsheet (see Attachment)
☐	Water Quality Toxics Management Strategy, 361-0100-003, 4/06.
☒	Technical Guidance for the Development and Specification of Effluent Limitations, 362-0400-001, 10/97.
☐	Policy for Permitting Surface Water Diversions, 362-2000-003, 3/98.
☒	Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 362-2000-008, 11/96.
☐	Technology-Based Control Requirements for Water Treatment Plant Wastes, 362-2183-003, 10/97.
☐	Technical Guidance for Development of NPDES Permit Requirements Steam Electric Industry, 362-2183-004, 12/97.
☐	Pennsylvania CSO Policy, 385-2000-011, 9/08.
☒	Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03.
☐	Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 391-2000-002, 4/97.
☒	Determining Water Quality-Based Effluent Limits, 391-2000-003, 12/97.
☐	Implementation Guidance Design Conditions, 391-2000-006, 9/97.
☒	Technical Reference Guide (TRG) WQM 7.0 for Windows, Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen, Version 1.0, 391-2000-007, 6/2004.
☐	Interim Method for the Sampling and Analysis of Osmotic Pressure on Streams, Brines, and Industrial Discharges, 391-2000-008, 10/1997.
☐	Implementation Guidance for Section 95.6 Management of Point Source Phosphorus Discharges to Lakes, Ponds, and Impoundments, 391-2000-010, 3/99.
☐	Technical Reference Guide (TRG) PENTOXSD for Windows, PA Single Discharge Wasteload Allocation Program for Toxics, Version 2.0, 391-2000-011, 5/2004.
☒	Implementation Guidance for Section 93.7 Ammonia Criteria, 391-2000-013, 11/97.
☐	Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers, 391-2000-014, 4/2008.
☒	Implementation Guidance Total Residual Chlorine (TRC) Regulation, 391-2000-015, 11/1994.
☐	Implementation Guidance for Temperature Criteria, 391-2000-017, 4/09.
☐	Implementation Guidance for Section 95.9 Phosphorus Discharges to Free Flowing Streams, 391-2000-018, 10/97.
☐	Implementation Guidance for Application of Section 93.5(e) for Potable Water Supply Protection Total Dissolved Solids, Nitrite-Nitrate, Non-Priority Pollutant Phenolics and Fluorides, 391-2000-019, 10/97.
☐	Field Data Collection and Evaluation Protocol for Determining Stream and Point Source Discharge Design Hardness, 391-2000-021, 3/99.
☐	Implementation Guidance for the Determination and Use of Background/Ambient Water Quality in the Determination of Wasteload Allocations and NPDES Effluent Limitations for Toxic Substances, 391-2000-022, 3/1999.
☒	Design Stream Flows, 391-2000-023, 9/98.
☐	Field Data Collection and Evaluation Protocol for Deriving Daily and Hourly Discharge Coefficients of Variation (CV) and Other Discharge Characteristics, 391-2000-024, 10/98.
☐	Evaluations of Phosphorus Discharges to Lakes, Ponds and Impoundments, 391-3200-013, 6/97.
☒	Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, 4/07.
☐	SOP:
☐	Other: