pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southwest Regional Office
CLEAN WATER PROGRAM

Application Type	**New**	Application No.	**PA0284998**
Wastewater Type	**Sewage**	APS ID	**1068396**
Facility Type	**SRSTP**	Authorization ID	**1404871**

NPDES PERMIT FACT SHEET
INDIVIDUAL SFTF/SRSTP

Applicant, Facility and Project Information

Applicant Name	**Richard Fanning**	Facility Name	**Fanning Properties SRSTP**
Applicant Address	24 Fanning Drive	Facility Address	24 Fanning Drive
	Claysville, PA 15323-1301		Claysville, PA 15323-1301
Applicant Contact	Richard Fanning	Facility Contact	Same as Applicant
Applicant Phone	(724) 825-0639	Facility Phone	Same as Applicant
Client ID	371500	Site ID	858924
SIC Code	8800	Municipality	Donegal Township
SIC Description	Private Households	County	Washington
Date Application Received	July 28, 2022	WQM Required	Yes
Date Application Accepted	August 3, 2022	WQM App. No.	6322405

Project Description: Application for new NPDES Permit for discharge of treated sewage.

Summary of Review

The permittee proposes to construct a 0.0004 MGD single residence treatment facility to replace a malfunctioning on lot septic system serving an existing single-family residence.

The sewage from this facility is treated with extended aeration, biofilm filtration, and UV disinfection prior to discharging to Trib 32881 to Dutch Fork, which is classified as a High-Quality Warm Water Fishery (WWF) per Chapter 93 Designated Use.

Associated WQM Permit No. 6322405 is also pending issuance by the department.

Single Residence Sewage Treatment Plant Permittees are not required to register for eDMR.

Act 14-PL 834 Municipal Notification was provided by letters sent to Washington County and Donegal Township dated June 30, 2022.

Act 537 Planning Approval was documented by a letter dated January 24, 2022.

Sludge use and disposal was not indicated in the application.

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

Approve	Deny	Signatures	Date
X		Stephanie Conrad / Environmental Engineering Specialist	August 30, 2022
x		Mahbuba Iasmin, Ph.D., P.E. / Environmental Engineering Manager	November 15, 2022

Summary of Review
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.

Discharge and Stream Data – 2 - Receiving Waters and PWS

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	.0004
Latitude	40º 7' 32"	Longitude	-80º 24' 30"
Quad Name	West Middletown	Quad Code	1702
Wastewater Description:	Sewage Effluent		
Receiving Waters	Tributary 32881 to Dutch Fork	Stream Code	32881
NHD Com ID	73866650	RMI	0.50
Drainage Area	0.49	Yield (cfs/mi^2)	0.007204
Q_{7-10} Flow (cfs)	0.00353	Q_{7-10} Basis	USGS Stream Stats
Elevation (ft)		Slope (ft/ft)	
Watershed No.	20-E	Chapter 93 Class.	HQ-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		Pennsylvania/West Virginia State Line	
PWS Waters		Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	14.31

Changes Since Last Permit Issuance: N/A, new permit issuance

Other Comments: None

Treatment Facility Summary				
Treatment Facility Name: Fanning Properties SRSTP				
WQM Permit No.	**Issuance Date**			
6322405	Under Department Review			
Waste Type	**Degree of Treatment**	**Process Type**	**Disinfection**	**Avg Annual Flow (MGD)**
Sewage	Tertiary	Extended Aeration and Biofilm Filtration	Ultraviolet (UV)	0.0004
Hydraulic Capacity (MGD)	**Organic Capacity (lbs/day)**	**Load Status**	**Biosolids Treatment**	**Biosolids Use/Disposal**
0.0004	0.9	Not Overloaded		

Changes Since Last Permit Issuance: N/A -New Permit Issuance

Other Comments: WQM Permit No. 6322405, currently under Department review, approves construction of a STP with a rated annual average design flow of 0.0004 MGD. The treatment process consists of:

- One (1) 1300-gallon Singulair Bio-Kinetic Model 960-500 extended aeration treatment
- One (1) 1055-gallon Hydro-Kinetic-Bio-Film Reactor
- One (1) Model AT 1500 UV disinfection.

Compliance History

Other Comments: **This is a new facility, therefore, there is no applicable compliance history.**

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** .0004
Latitude 40º 7' 32.00" **Longitude** -80º 24' 30.00"
Wastewater Description: Sewage Effluent

Technology-Based Limitations (TBELs)

The following effluent limitations and monitoring requirements, at a minimum, will be established in all new and renewed SFTF permits based on the requirements of DEP's "Standard Operating Procedure (SOP) for Clean Water Program New and Reissuance Small Flow Treatment Facility Individual NPDES Permit Application" (SOP No. BCW-PMT-003, Version 1.8, Final, November 9, 2012, Revised May 17, 2019).

Parameter	Avg	IMAX	Sample Type	Frequency: SFTFs	Frequency: SRSTPs
Flow (GPD)	Report	XXX	Estimate (SRSTPs) Measured (SFTFs)	1/month	1/year
BOD5 (mg/L)	10	20	Grab	1/month	1/year
TSS (mg/L)	10	20	Grab	1/month	1/year
pH*	6.0 S.U. Inst. Min.	9.0 S.U.	Grab	1/month	1/year
TRC (mg/L)	Report for SRSTPs; Use TRC Spreadsheet to determine WQBELs or 0.02 mg/L for SFTFs		Grab	1/month	1/month
Fecal Coliform (No./100 ml)	200 Geometric Mean (SFTFs) / Average (SRSTPs)		Grab	1/month	1/year

***** Technology-Based effluent limits for pH will be imposed based upon Federal Regulation 133.102(c) and State Regulation 95.2(1).

Antidegradation Best Available Combination of Technologies (ABACT)

Outfall 001 discharges to Tributary 32881 to Dutch Fork, which is classified as a HQ-WWF. The proposed SFTF is a repair for an existing on-lot system and an anti-degradation analysis is typically not required. Act 537 Planning was approved for this SRSTP on January 24, 2022.

The following Antidegradation Best Available Combination of Technologies (ABACT) effluent limits, at a minimum, will be established based on the requirements of DEP's "Water Quality Antidegradation Implementation Guidance" (Doc. No. 391-0300-002; November 29, 2003).

Parameter	Treatment Process Performance Expectations (mg/L)		
	<2,000 gpd	2,000-50,000 gpd	>50,000 gpd
$CBOD_5$ (May 1 – Oct. 31)	10	10	10
$CBOD_5$ (Nov. 1 – Apr. 30)	20	20	10
Suspended Solids	20	10	10
NH_3-N (May 1 – Oct. 31)	5.0	3.0	1.5
NH_3-N (Nov. 1 – Apr. 30)	15.0	9.0	4.5
Effective disinfection	Disinfection should be accomplished using a method that leaves no detectable residual. Disinfection using ultra-violet light or other non-chlorine based systems is encourage and must be considered.		
Other parameters, as needed	*Determined by the size and characteristics of the proposed discharge, may include – NO_2/NO_3-N, Total Phosphorus, Copper, Lead, Zinc*		

The limitations and monitoring requirements, specified on page 8 of this Fact Sheet, reflect the most stringent limitation amongst the above Technology-Based Effluent Limitations.

Additional Considerations

Ultraviolet (UV) disinfection is used; therefore, Total Residual Chlorine (TRC) limits are not applicable. Routine monitoring of UV transmittance or intensity is not required for SRSTPs.

SRSTPs ae not required to monitor for Total Nitrogen and Total Phosphorus in new and reissued permits.

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
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/year	Grab
BOD_5	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
Ammonia-Nitrogen	XXX	XXX	XXX	15.0	XXX	XXX	1/year	Grab

Compliance Sampling Location: Outfall 001

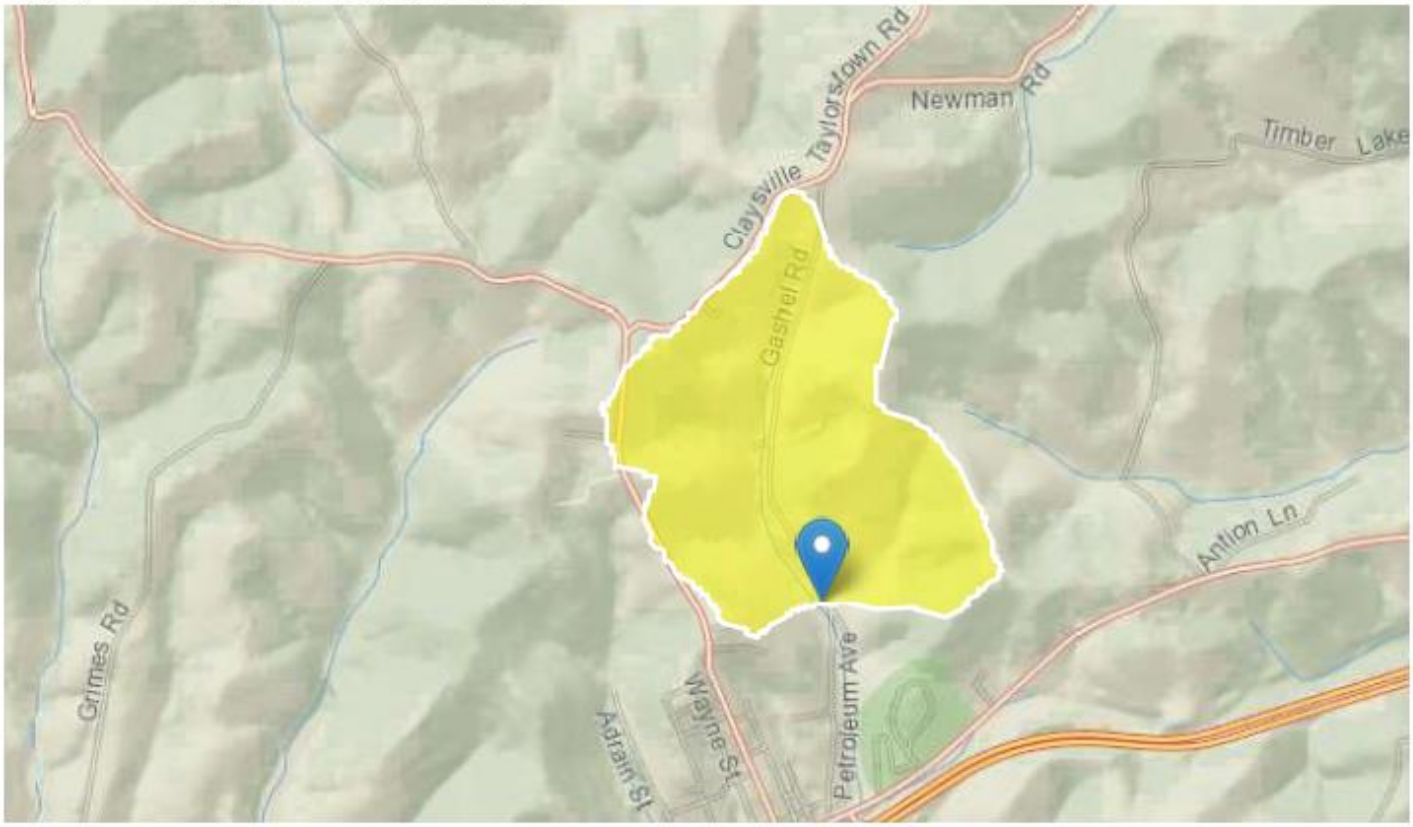
Other Comments: None

ATTACHMENT A

USGS Stream Stats Output

StreamStats Report

Region ID: PA
Workspace ID: PA20220830104817393000
Clicked Point (Latitude, Longitude): 40.12559, -80.40874
Time: 2022-08-30 06:48:36 -0400



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.49	square miles
ELEV	Mean Basin Elevation	1279	feet

Low-Flow Statistics Flow Report [Low Flow Region 4]

Statistic	Value	Unit
7 Day 2 Year Low Flow	0.0131	ft^3/s
30 Day 2 Year Low Flow	0.0263	ft^3/s
7 Day 10 Year Low Flow	0.00353	ft^3/s
30 Day 10 Year Low Flow	0.00803	ft^3/s
90 Day 10 Year Low Flow	0.0173	ft^3/s

Low-Flow Statistics Citations

Stuckey, M.H.,2006, Low-flow, base-flow, and mean-flow regression equations for Pennsylvania streams: U.S. Geological Survey Scientific Investigations Report 2006-5130, 84 p. (http://pubs.usgs.gov/sir/2006/5130/)