

Application Type New
Wastewater Type Sewage
Facility Type SRSTP

NPDES PERMIT FACT SHEET INDIVIDUAL SFTF/SRSTP

Application No. PA0285447
APS ID 1145103
Authorization ID 1540457

Applicant, Facility and Project Information

Applicant Name <u>Day Beth</u>	Facility Name <u>56 Gorby Rd SRSTP</u>
Applicant Address <u>56 Gorby Road</u>	Facility Address <u>56 Gorby Road</u>
<u>Washington, PA 15301-7743</u>	<u>Washington, PA 15301-7743</u>
Applicant Contact <u>Beth Day</u>	Facility Contact <u>Same as Applicant</u>
Applicant Phone <u>(724) 344-1557</u>	Facility Phone <u>Same as Applicant</u>
Client ID <u>394959</u>	Site ID <u>882765</u>
SIC Code <u>8800</u>	Municipality <u>Buffalo Township</u>
SIC Description <u>Private Households</u>	County <u>Washington</u>
Date Application Received <u>September 4, 2025</u>	WQM Required <u>Yes</u>
Date Application Accepted <u>September 9, 2025</u>	WQM App. No. <u>6325402</u>
Project Description <u>Application for a new NPDES Permit for Discharge of Treated Sewage</u>	

Summary of Review

The permittee proposed to construct a 0.0004 MGD Single Residence Sewage Treatment Plant (SRSTP) to serve an existing 3-bedroom house. The SRSTP will replace a malfunctioning on-lot system.

The sewage at this facility is treated using a Norweco Sinulair Model 960-500-HKBFR Combo and Norweco AT 1500 UV disinfection unit. This system used septic tank pre-treatment, extended aeration, bio-kinetic bio-film reaction, and UV disinfection. Treated effluent discharges to a dry swale which drains to Tributary 32995 of Buffalo Creek, which is classified as a High Quality (HQ) Warm Water Fishery (WWF) per Chapter 93 Designated Use and located in State Watershed 20-E.

The Associated WQM Permit No. 6325402 is also pending issuance by DEP.

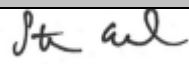

SRSTP permittees are not required to register for eDMR.

Act 14-PL 834 Municipal Notification was documented by letters sent to Buffalo Township and Washington County on July 30, 2025.

Biosolids treatment and disposal was not indicated on 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-

Approve	Deny	Signatures	Date
X		 Stephanie Conrad / Environmental Engineering Specialist	September 8, 2025
X		 Christopher Kriley, P.E. / Program Manager	September 8, 2025

Summary of Review

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.

Discharge and Stream Data – 2 - Receiving Waters and PWS

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	001	Design Flow (MGD)	.0004
Latitude	40° 10' 0.04"	Longitude	-80° 19' 17.33"
Quad Name	Washington West	Quad Code	1703
Wastewater Description: Sewage Effluent			
Receiving Waters	Tributary 32955 of Buffalo Creek (HQ-WWF)	Stream Code	32955
NHD Com ID	73865154	RMI	0.3600
Drainage Area	0.26	Yield (cfs/mi ²)	0.00627
Q ₇₋₁₀ Flow (cfs)	0.00163	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	None within PA Borders (20.47 Miles)		
PWS Waters		Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	

Changes Since Last Permit Issuance:

Other Comments:

Treatment Facility Summary				
Treatment Facility Name: McConnell Properties SRSTP				
WQM Permit No.	Issuance Date	Purpose		
6325402	Under Department Review	Permit from the Pennsylvania Department of Environmental Protection approving construction of a 400 GPD treatment system including Norweco Sinulair Model 960-500-HKBFR Combo and Norweco AT 1500 UV disinfection unit.		
Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Tertiary	Norweco Singular Biofilm Reactor	UV Disinfection	0.0004
Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.0004	0.90	Not Overloaded	-	-

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

Other Comments: Act 537 Planning was approved on July 21, 2025

Development of Effluent Limitations

Outfall No.	001	Design Flow (MGD)	0.0004
Latitude	40° 10' 0.04"	Longitude	-80° 19' 17.33"
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 Department's Standard Operating Procedure (SOP) for *New and Reissuance Small Flow Treatment Facility Individual NPDES Permit Application* [SOP No. BCW-PMT-003 Version 1.8].

Parameter	Avg	IMAX	Sample Type	Frequency: SFTFs	Frequency: SRSTPs
Flow (GPD)	Report	XXX	Estimate (SRSTPs) Measured (SFTFs)	1/month	1/year
BOD ₅ (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).

Advanced Treatment Requirements

Outfall 001 discharges to a dry stream channel. The Department issued *Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers* [Doc. No. 391-2000-014] on April 12, 2008, which documents advanced treatment requirements for discharges to dry swales. SRSTPs are exempt from these treatment requirements.

Antidegradation Considerations:

Outfall 001 discharges to a dry channel connecting to Tributary 32955 to Buffalo Creek, which is classified as a HQ-WWF.

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].

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	<i>Determined by the size and characteristics of the proposed discharge, may include – NO₂/NO₃-N, Total Phosphorus, Copper, Lead, Zinc</i>
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The limitations and monitoring requirements, specified on page 7 of this Fact Sheet, reflect the most stringent limitation amongst the above Technology-Based Effluent Limitations.

Permit Limits

The limits to be imposed, which are provided below, represent the most stringent limitations between the TBELs and ABACT limits.

Parameter	Limit (mg/l)	SBC	Model	Basis
Fecal Coliform	200	Average	N/A	TBEL
BOD ₅	10	Average	N/A	TBEL
TSS	10	Average	N/A	TBEL
Ammonia-Nitrogen	5.0	Average Monthly	N/A	Antidegradation ABACT
pH	6.0	Instantaneous Minimum	N/A	TBEL

Additional Considerations

Ultraviolet (UV) disinfection is used; therefore, Total Residual Chlorine (TRC) limits are not applicable. In accordance with the Department's SOP for *New and Reissuance Small Flow Treatment Facility Individual NPDES Permit Application* [SOP No. BCW-PMT-003 Version 1.8], routine monitoring of UV transmittance or intensity is not required for SRSTPs. Part C II has been added to the permit which requires the UV system to be cleaned monthly.

In accordance with the Department's SOP for *Establishing Effluent Limitations for Individual Sewage Permits* [SOP No. BCW-PMT-033 Version 1.9], SRSTPs are not required to monitor for Total Nitrogen or 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
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 Geo Mean	XXX	XXX	1/year	Grab
Ammonia	XXX	XXX	XXX	5.0	XXX	10.0	1/year	Grab

Compliance Sampling Location: Outfall 001

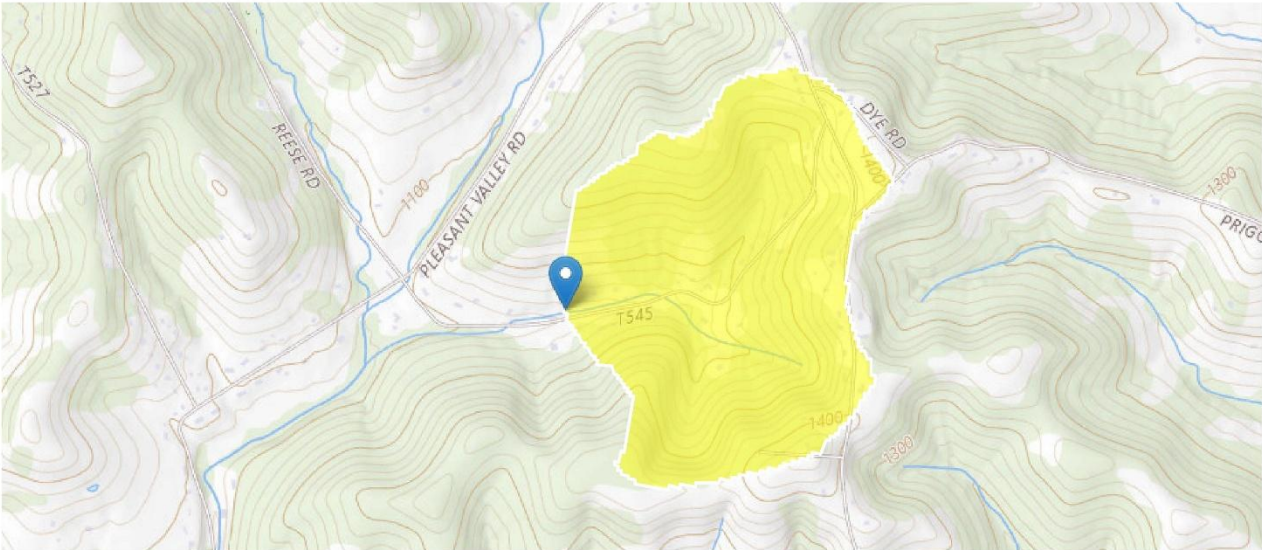
Other Comments: None

ATTACHMENT A

USGS Stream Stats Output

StreamStats Report

Region ID: PA
Workspace ID: PA20250908172318587000
Clicked Point (Latitude, Longitude): 40.16664, -80.32152
Time: 2025-09-08 13:23:44 -0400



+ Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.26	square miles
ELEV	Mean Basin Elevation	1292	feet

Low-Flow Statistics

Low-Flow Statistics Parameters [Low Flow Region 4]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.26	square miles	2.26	1400
ELEV	Mean Basin Elevation	1292	feet	1050	2580

Low-Flow Statistics Disclaimers [Low Flow Region 4]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors.

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

Statistic	Value	Unit
7 Day 2 Year Low Flow	0.00644	ft ³ /s
30 Day 2 Year Low Flow	0.0133	ft ³ /s
7 Day 10 Year Low Flow	0.00163	ft ³ /s
30 Day 10 Year Low Flow	0.00388	ft ³ /s
90 Day 10 Year Low Flow	0.00862	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/>)

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Application Version: 4.29.2

StreamStats Services Version: 1.2.22

NSS Services Version: 2.2.1