Southcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal / Transfer**	Application No.	**PA0266752**
Wastewater Type	**Sewage**	APS ID	**1094306**
Facility Type	**SRSTP**	Authorization ID	**1449991**

NPDES PERMIT FACT SHEET INDIVIDUAL SFTF/SRSTP

Applicant, Facility and Project Information

Applicant Name	**Ross Bushnell**	Facility Name	**Bushnell Residence**
Applicant Address	471 Shady Dell Road	Facility Address	471 Shady Dell Road
	York, PA 17403-4484		York, PA 17403-4484
Applicant Contact	Ross Bushnell	Facility Contact	Ross Bushnell
Applicant Phone	(314) 614-0137	Facility Phone	(314) 614-0137
Client ID	379080	Site ID	828849
SIC Code	8811	Municipality	Spring Garden
SIC Description	Services - Private Households	County	York
Date Application Received	August 4, 2023	WQM Required	
Date Application Accepted	August 15, 2023	WQM App. No.	6718401

Project Description: This is an application for NPDES renewal.

Summary of Review

The facility's previous owner was Mr. Jeffrey W. Sargen. In conjunction with this current NPDES Permit renewal application, the ownership, and operation, WQM 6718401 T-1 are being transferred to Mr. Ross Bushnell.

The above referenced applicant has applied to the Pennsylvania Department of Environmental Protection (DEP) for reissuance of its NPDES permit. The permit was last reissued on January 25, 2019 and became effective on February 1, 2019. The permit expired on January 31, 2024.

The purpose of this Fact Sheet is to present the basis of information used for establishing the proposed NPDES permit effluent limitations. The Fact Sheet includes the following information:

1. Description of the facility
2. Type and Quantity of Wastewater or Pollutants Evaluated in the Permit
3. Facility NPDES Compliance History
4. Receiving Waters and Water Supply Information
5. Development of Effluent Limitations and Monitoring Requirements
6. NPDES Parameter Details

The subject facility is a 0.0007 MGD (700 GPD) treatment facility. The applicant does not anticipate any proposed upgrades to the treatment facility in the next five years. The NPDES application has been processed as a Small Flow Treatment Facility due to the type of sewage and the design flow rate for the facility.

The applicant disclosed the Act 14 requirement to York County Commissioners and Spring Garden Township and the notice was received by the parties on approximately July 19, 2023. A planning approval letter was not necessary as the facility is neither new nor expanding.

DEP has prepared this report for the applications for both NPDES and WQM permits. Based on the review outlined in this report, it is recommended that the NPDES permit be drafted and published in the Pennsylvania Bulletin for public comments for 30 days.

The proposed permit will expire five (5) years from the effective date.

Summary of Review
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. Any additional information or public review of documents associated with the discharge or facility may be available at PA DEP Southcentral Regional Office (SCRO), 909 Elmerton Avenue, Harrisburg, PA 17110. To make an appointment for file review, contact the SCRO File Review Coordinator at 717.705.4700.

Approve	Deny	Signatures	Date
X		Steven C. Roselle, P.E. / Environmental Engineer *Steven C. Roselle*	January 3, 2024
X		Daniel W. Martin, P.E. / Environmental Engineer Manager *Daniel W. Martin*	February 13, 2024

1. Description of the Facility

1.1 Consultant

A consultant was used to assist in the preparation of the NPDES Permit renewal application: Mr. Zane Williams, Sewage Systems Design, 403 Beaumont Road, York, PA 17403. (717) 747-5319, Zwilliamsseo@yahoo.com

1.2 Site location

A topographical and an aerial photograph of the facility are depicted as Figure 1 and Figure 2.

Figure 1: Topographical map of the subject facility

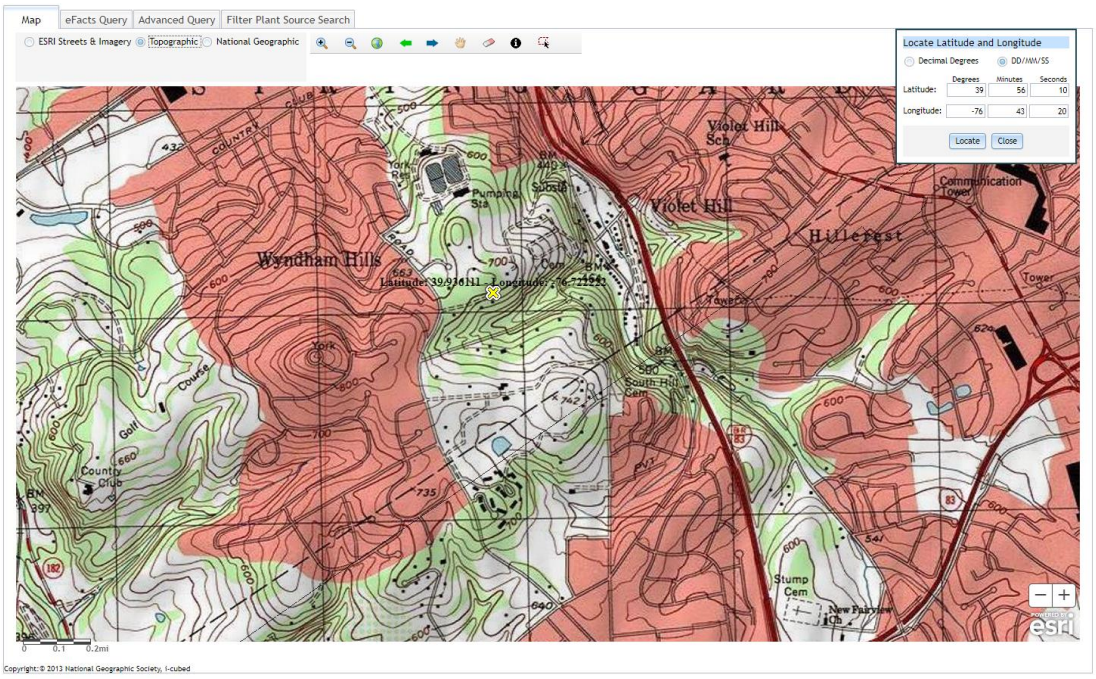
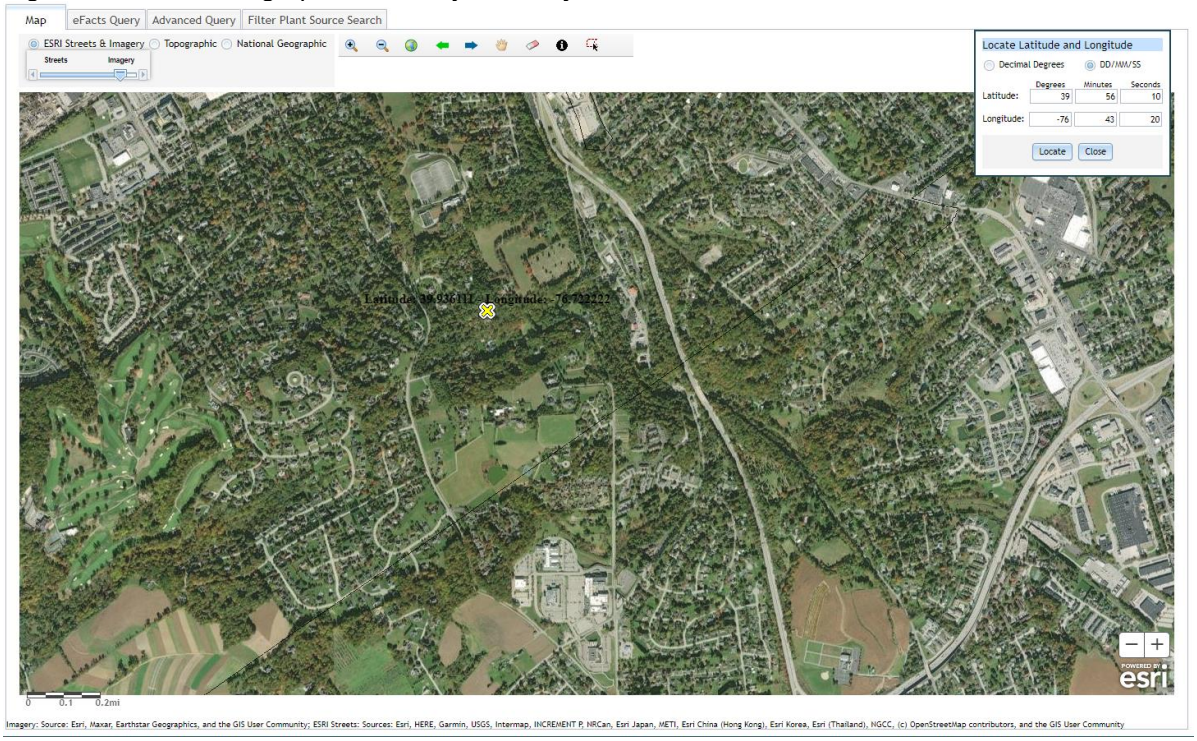


Figure 2: Aerial Photograph of the subject facility



1.3 Description of Wastewater Treatment Process

The subject facility is a 0.0007 MGD (700 GPD) design flow facility.

The treatment system is as follows:

> 1,500 gal Septic Tank → 1,500 gal Multi-Compartment Septic Tank (w/ Zabel A-300 Filter) → ECOFLO Rotomoule EC7-970P Bicouche → DiUV Disinfection Unit → Outfall

The septic tank has been designed with sufficient capacity to handle the design flow of 700 GPD. An effluent filter is provided at the end of the septic tank to reduce settleable and floatable solids in the effluent. An ECOFLO Rotomoule EC7-970P is provided, which has been demonstrated to produce effluent that does not exceed 10 mg/L cBOD5 and 10 mg/L TSS as monthly averages. The installed UV disinfection system has demonstrated capability to provide an effluent fecal coliform concentration less than or equal to 200 cfu/mL.

The facility is being evaluated for flow, BOD, TSS and fecal coliform. The existing permits limits for the facility is summarized in Section 2.2.

2. Type and Quantity of Wastewater or Pollutants Evaluated in the Permit

2.1 Facility Outfall Information

The facility has the following outfall information.

Outfall No.	001	**Design Flow (MGD)**	.0007
Latitude	39º 56' 10.00"	**Longitude**	-76º 43' 20.00"

Wastewater Description: Sewage Effluent

2.2 Existing NPDES Permits Limits

The existing NPDES permit limits are summarized in the table.

PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS

I. A. For Outfall 001 , **Latitude** 39º 56' 10.00" , **Longitude** 76º 43' 20.00" , **River Mile Index** 1.6000 , **Stream Code** 08080

Receiving Waters: Unnamed Tributary to Codorus Creek

Type of Effluent: Sewage Effluent

1. The permittee is authorized to discharge during the period from **February 1, 2019** through **January 31, 2024**.
2. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements and Footnotes).

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 (GPD)	Report Annl Avg	XXX	XXX	XXX	XXX	XXX	1/year	Estimate
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	200	1/year	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

at Outfall 001

3.0 Facility NPDES Compliance History

3.1 Summary of Inspections

A summary of the most recent inspections during the existing permit review cycle is as follows:

An administrative inspection by DEP Inspector, Ms. Heather L. Lock, was held on June 8, 2021. This administrative inspection was conducted by telephone. Items of discussion included tank cleaning schedule, maintenance schedule, and sample analysis. No violations or significant issues were reported as a result of this inspection.

According to records provided by the applicant the latest septic tank pumping record was performed on June 30, 2023 by S.A.F.E. Septic.

3.2 Summary of DMR Data

A summary of the results for the parameters below over the past two years were provided in the application and are included in the following table. Effluent testing information was reported by ALS Environmental laboratory in Middletown, PA.

Summary of DMR Data			
	$CBOD_5$ (mg/l)	**TSS (mg/l)**	**Fecal (MPN/100 mL)**
Maximum Daily Value	10.2	118, and 5 **(See Note Below)**	ND

3.3 NOTE: Non-Compliance for TSS

An undated sample result for TSS was provided with the 08/04/2023 application. The reported value was 118 mg/l, which exceeds the NPDES limit of 20.0 mg/l. The high value of 118 mg/l was considered an anomaly by the permittee, possibly caused by a dirty effluent weir, and is inconsistent with historical data.

A second sample was collected on 12/26/2023. The reported value from this sample was 5 mg/l, and complies with the NPDES limit for TSS.

3.4 Non-Compliance- Enforcement Actions

A summary of the non-compliance enforcement actions for the current permit cycle is as follows:

There were no reported enforcement action for the time frame beginning 02/01/2019 – 01/02/2024.

3.5 Open Violations

No open violations existed as of 01/02/2024.

4.0 Receiving Waters and Water Supply Information

4.1 Receiving Waters and Water Supply Information

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.0007
Latitude	39º 56' 10.00"	Longitude	-76º 43' 20.00"
Quad Name		Quad Code	
Wastewater Description:	Sewage Effluent		
Receiving Waters	Unnamed Tributary to Codorus Creek	Stream Code	08080
NHD Com ID	57469041	RMI	1.6000
Drainage Area	4.76 mi^2 (basin)	Yield (cfs/mi^2)	0.127
Q_{7-10} Flow (cfs)	0.606 cfs	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	446 ft	Slope (ft/ft)	
Watershed No.	07H	Chapter 93 Class.	Warm Water Fishes, Migratory Fishes
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	Siltation, Siltation, Water/Flow Variability, Water/Flow Variability, Water/Flow Variability, Water/Flow Variability		
Source(s) of Impairment	Agriculture, Agriculture, Urban Runoff/Storm Sewers, Urban Runoff/Storm Sewers, Urban Runoff/Storm Sewers, Urban Runoff/Storm Sewers		
TMDL Status		Name	
Nearest Downstream Public Water Supply Intake	Wrightsville Water Supply Company		
PWS Waters	Susquehanna River	Flow at Intake (cfs)	
PWS RMI	28.4	Distance from Outfall (mi)	21.6

Other Comments:

1. Changes Since Last Permit Issuance: 1) Transfer of Ownership 2) Requirement to clean UV disinfection contact surface at least monthly to ensure adequate disinfection. Refer to Part C.II.
2. Other Comments: The UNT to Codorus Creek is currently impaired for Siltation and Water/Flow Variability as a result of agriculture and urban runoff. TMDLs have not been developed to address these impairments.
3. The nearest downstream public water supply intake is the Wrightsville Water Supply Company located on the Susquehanna River, approximately 21 miles from the discharge point. Considering dilution and the distance from the intake, the discharge is not expected to significantly affect the water supply.

4.2 Class A Wild Trout Streams

The information obtained from eMapPA suggests that no Class A Wild Trout Fishery will be impacted by this discharge.

4.3 2024 Integrated List of All Waters (303d Listed Streams):

Section 303(d) of the Clean Water Act requires States to list all impaired surface waters not supporting uses even after appropriate and required water pollution control technologies have been applied. The 303(d) list includes the reason for impairment which may be one or more point sources (i.e. industrial or sewage discharges) or non-point sources (i.e. abandoned mine lands or agricultural runoff and the pollutant causing the impairment such as metals, pH, mercury or siltation).

States or the U.S. Environmental Protection Agency (EPA) must determine the conditions that would return the water to a condition that meets water quality standards. As a follow-up to listing, the state or EPA must develop a Total Maximum Daily Load (TMDL) for each waterbody on the list. A TMDL identifies allowable pollutant loads to a waterbody from both point and non-point sources that will prevent a violation of water quality standards. A TMDL also includes a margin of safety to ensure protection of the water.

The water quality status of Pennsylvania's waters uses a five-part categorization (lists) of waters per their attainment use status. The categories represent varying levels of attainment, ranging from Category 1, where all designated water uses are met to Category 5 where impairment by pollutants requires a TMDL for water quality protection.

The receiving waters is listed in the 2024 Pennsylvania Integrated Water Quality Monitoring and Assessment Report as a Category 2 waterbody. The surface waters is an attaining stream that supports aquatic life. The designated use has been classified as protected waters for warm water fishes and migratory fishes.

4.4 Low Flow Stream Conditions:

Water quality modeling estimates are based upon conservative data inputs. The data are typically estimated using either a stream gauge or through USGS web based StreamStats program. The NPDES effluent limits are based upon the combined flows from both the stream and the facility discharge.

A conservative approach to estimate the impact of the facility discharge using values which minimize the total combined volume of the stream and the facility discharge. The volumetric flow rate for the stream is based upon the seven-day, 10-year low flow (Q710) which is the lowest estimated flow rate of the stream during a 7 consecutive day period that occurs once in 10 year time period. StreamStats was used to estimate Q710. The facility discharge is based upon a known design capacity of the subject facility.

5. Development of Effluent Limitations and Monitoring Requirements

The proposed effluent limitations and monitoring requirements are recommended by the DEP's Standard Operating Procedure for New and Reissuance Small Flow Treatment Facility Individual NPDES Permit Applications (BPNPSM-PMT-003). This facility will utilize ultraviolet disinfection, so a monitoring requirement for TRC is not applicable. However, the UV disinfection contact surface must be cleaned at least monthly to ensure adequate disinfection.

The permitee will be required to submit a completed Annual Maintenance Report (AMR) as part of the permit requirements. The AMR must include the date(s) that the UV contact surface is cleaned. No DMR is necessary for any facilities that are required to report effluent monitoring results on AMRs annually.

Chapter 93.4a(b) of the Department's rules and regulations require that, "*existing instream water uses and the level of water quality necessary to protect the existing sues shall be maintained and protected*." The discharge will be to non-special protection waters/watershed. No high-quality waters will be impacted by this discharge. No exceptional value waters will be impacted by this discharge. All effluent limitations and monitoring requirements have been developed to ensure that existing instream level of water quality necessary to protect the existing uses are maintained and protected.

Facilities that are designed based on a flow of less than 2,000 gpd or are considered as SRSTPs are exempt from the Bay requirements. Accordingly, it is not necessary for the permittee to perform nutrient monitoring.

6.0 NPDES Parameter Details

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 (GPD)	Report Annl Avg	XXX	XXX	XXX	XXX	XXX	1/year	Estimate
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	200	1/year	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

at Outfall 001