pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southwest Regional Office
CLEAN WATER PROGRAM

Application Type	**New**	Application No.	**PA0284874**
Facility Type	**Non-Municipal**	APS ID	**1063615**
Major / Minor	**Minor**	Authorization ID	**1396634**

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Applicant and Facility Information

Applicant Name	**Sherman Brizzi**	Facility Name	**Brizzi Properties SRSTP**
Applicant Address	965 Fairoaks Street	Facility Address	102 Airport Road
	Bethel Park, PA 15102-2218		Finleyville, PA 15332-4204
Applicant Contact	Sherman Brizzi	Facility Contact	Same as applicant
Applicant Phone	(412) 719-7159	Facility Phone	Same as applicant
Client ID	370097	Site ID	857386
Ch 94 Load Status	**N/A – new facility**	Municipality	Union Township
Connection Status	**N/A – new facility**	County	Washington
Date Application Received	May 17, 2022	EPA Waived?	Yes
Date Application Accepted	May 17, 2022	If No, Reason	

Purpose of Application: Application for new discharge of treated sewage.

Summary of Review

The applicant proposes to construct a 0.0004 MGD single residence treatment facility to replace a malfunctioning on-lot system serving an existing residential property consisting of one 3-bedroom home. The treatment system will discharge on the Brizzi property and will be conveyed to a UNT to Froman Run by a township-owned culvert. UNT to Froman Run is located in State Watershed 19-C and is classified as a TSF.

DEP Biologists conducted a Point of First Use (POFU) survey on April 19, 2022 during the planning approval process. The POFU survey concluded that the UNT to Froman Run is capable of supporting aquatic life. The complete findings of the POFU survey can be found in Attachment B.

Act 537 Planning was approved for this project on May 12, 2022.

The Act 14 – PL 834 Municipal Notification was provided by the letters dated November 12, 2021.

Sludge use and disposal description and location(s): not indicated on 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		Grace Polakoski	
		Grace Polakoski, E.I.T. / Environmental Engineering Specialist	June 13, 2022
X		James Vanek, P.E.	
		On behalf of: Mahbuba Iasmin, Ph.D., P.E. / Environmental Engineer Manager	June 13, 2022

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, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.0004
Latitude	40º 14' 26.56"	Longitude	-80º 0' 19.24"
Quad Name	Hackett	Quad Code	40080B1
Wastewater Description:	Sewage Effluent		
Receiving Waters	Unnamed Tributary to Froman Run (TSF)	Stream Code	39687 (Froman Run)
NHD Com ID	99409018	RMI	0.267
Drainage Area	0.12 sq. mi.	Yield (cfs/mi^2)	0.00502
Q_{7-10} Flow (cfs)	0.000602	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	1110	Slope (ft/ft)	
Watershed No.	19-C	Chapter 93 Class.	TSF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment	**N/A**		
Source(s) of Impairment	**N/A**		
TMDL Status		Name	

Background/Ambient Data		Data Source
pH (SU)		
Temperature (°F)		
Hardness (mg/L)		
Other:		

Nearest Downstream Public Water Supply Intake	West Penn Power – Mitchell Station		
PWS Waters	Monongahela River	Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	5.13

Changes Since Last Permit Issuance: N/A – this is a new facility

Other Comments: UNT to Froman Run does not appear on eMapPA but does appear on USGS StreamStats.

Treatment Facility Summary				
Treatment Facility Name: Brizzi Properties SRSTP				
WQM Permit No.	**Issuance Date**			
6322401	Under DEP review			
Waste Type	**Degree of Treatment**	**Process Type**	**Disinfection**	**Avg Annual Flow (MGD)**
Sewage	Secondary	Septic Tank + Coco Filter	UV	0.0004
Hydraulic Capacity (MGD)	**Organic Capacity (lbs/day)**	**Load Status**	**Biosolids Treatment**	**Biosolids Use/Disposal**
0.0004		N/A		Septic Haulter

Changes Since Last Permit Issuance: N/A – this is a new facility

Compliance History

Other Comments: **This is a new facility therefore there is not any applicable Compliance History.**

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.0004
Latitude 40º 14' 26.56" **Longitude** -80º 0' 19.24"
Wastewater Description: Sewage Effluent

Technology-Based Limitations

The following effluent limitations and monitoring requirements, at a minimum, will be established in all new and renewed SRSTP 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/year
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).

Additional Considerations:

For SFTFs/SRSTPs with UV disinfection systems, it is not necessary to require UV intensity or transmittance monitoring in this permit.

SFTFs/SRSTPs are 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
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	1000	1/year	Grab

Compliance Sampling Location: Outfall 001

APPENDIX A:
USGS StreamStats Report

StreamStats Report

Region ID: PA
Workspace ID: PA20220523174755678000
Clicked Point (Latitude, Longitude): 40.24047, -80.00577
Time: 2022-05-23 13:48:18 -0400

Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.12	square miles
ELEV	Mean Basin Elevation	1203	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	0.12	square miles	2.26	1400

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
ELEV	Mean Basin Elevation	1203	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	0.00251	ft^3/s
30 Day 2 Year Low Flow	0.00535	ft^3/s
7 Day 10 Year Low Flow	0.000602	ft^3/s
30 Day 10 Year Low Flow	0.00151	ft^3/s
90 Day 10 Year Low Flow	0.00343	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/)

Application Version: 4.9.0
StreamStats Services Version: 1.2.22
NSS Services Version: 2.2.0

APPENDIX B:
POFU Survey Memo

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

MEMO

TO Terry Mattis
Sewage Planning Specialist 2
Clean Water Program

FROM Jamie Detweiler
Aquatic Biologist 2
Clean Water Program

THROUGH Richard Spear
Aquatic Biologist 3
Clean Water Program

DATE May 2, 2022

RE Point of First Use Survey
Froman Run
State Water Plan: 19C
Hydrologic Unit Code: 05020005
Stream Code: 39587
Aquatic Use Designation: TSF
102 Airport Rd, Finleyville, PA
Union Township, Washington County

INTRODUCTION

On April 19, 2022, at the request of Terry Mattis of the Clean Water Program, a Point of First Surface Water Use (POFU) survey was conducted on Froman Run, located in Union Township, Washington County (Figures 1 and 2). The objective of the survey was to determine if the tributary was capable of supporting an Aquatic Life Use as defined in 25 Pennsylvania Code §93.9q in the vicinity of a proposed discharge from a Small Flow Sewage Treatment Facility (SFTF) for 102 Airport Road, Finleyville, PA (Latitude: 40.240952, Longitude: -80.005818).

The survey location was parallel to Airport Road. Most of the channel upstream had been culverted. In 2014, a macroinvertebrate survey had been conducted for a Cause and Effect Study, approximately 1.5 km downstream from this location. Long-lived taxa (Hydropsychidae, Heptageniidae, Baetidae, Elmidae, Leptophlebiidae, and Sphaeriidae) were found at the previous study location.

According to USGS StreamStats (Figure 3), the drainage area to the stream at the location of the POFU survey is 0.12 square miles, and the drainage area is approximately 10% forest and 81% urban. Froman Run is in the Lower Allegheny, Monongahela, Redstone Creek, State Water Plan (19C), and the Lower Monongahela River Hydrologic Unit (Hydrologic Unit Code 05020005). This stream is listed as attaining its designated Aquatic Life Use for Trout Stocking (TSF).

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SAMPLING PROTOCOLS

The point of first aquatic life use is the location at which a body of water is capable of supporting aquatic life as defined in 25 Pennsylvania Code §93. Guidance for determining the point of first aquatic life use is in the Department's guidance document #391-2000-014, Policy and Procedures for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers (revised April 12, 2008). Specifically, Appendix B of the guidance document provides additional guidance when making a point of first use determination.

On April 19, 2022, macroinvertebrates (Table 1) were examined in Froman Run. The station was established approximately 200 meters downstream from the point where the SFTF discharge enters the stream channel (Figures 4, 5). Macroinvertebrates were collected by examining the underside of rocks and according to the Department's Qualitative Benthic Macroinvertebrate Data Collection Protocol, found in the Water Quality Monitoring Protocols for Streams and Rivers 2021 (Monitoring Book), which can be found by accessing the following website:
http://files.dep.state.pa.us/Water/Drinking%20Water%20and%20Facility%20Regulation/WaterQualityPortalFiles/Technical%20Documentation/MONITORING_BOOK.pdf

RESULTS

On the day of the survey, the wetted width of the channel was approximately 0.5 meters. Eight aquatic invertebrate taxa were found and identified at this location. By far, Gammaridae was the most common. They were very abundant. Of the macroinvertebrate taxa identified, crayfish, riffle beetles, and Tipulid crane flies are considered to be long-lived.

DISCUSSION AND CONCLUSIONS

The objective of this study was to examine aquatic life in Froman Run to determine if and where the stream is capable of supporting an aquatic life use as defined in 25 Pennsylvania Code §93.9q, where water quality standards must be met.

Findings from this study suggest that Froman Run, at the point of the POFU study, is capable of supporting aquatic life (Lat: 40.240339; Long:-80.005635). Three long-lived taxa were identified in the macroinvertebrate sample, and the stream exhibited defined bed and bank and substrate. The most dominant taxa in this stream by far was Gammaridae, which tends to be very pollution tolerant taxon. The stream was small and there were numerous houses along the stream, presumably discharging effluent into the stream. Given the number of stream discharges to the stream and the taxa that was present, this area would be a good candidate to have public sewage in the future.

cc: Stream File – Froman Run
Thomas Flanagan – SWRO, Sewage Planning Specialist Supervisor
Mahbuba Iasmin – SWRO, Environmental Group Manager
Stacey Greenwald – SWRO, Environmental Group Manager
Christopher Kriley – SWRO, Environmental Program Manager
Michael (Josh) Lookenbill – CO, Environmental Group Manager

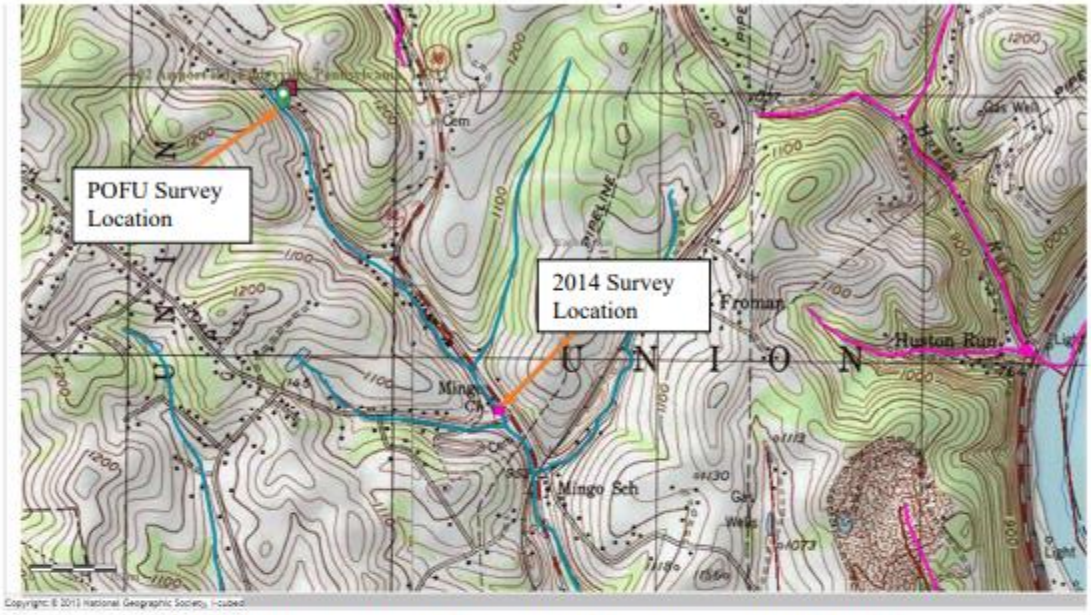

Figure 1. USGS Topographical map showing the survey location and Froman Run.

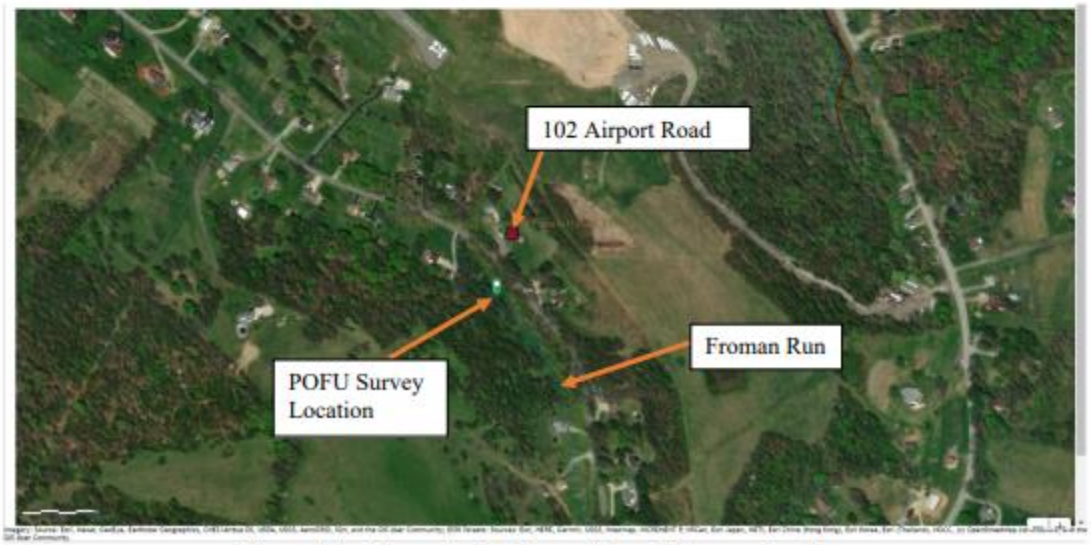

Figure 2. Aerial map showing Froman Run and the survey location.

StreamStats Report

Region ID:	PA
Workspace ID:	PA20220502124008350000
Clicked Point (Latitude, Longitude):	40.24075, -80.00607
Time:	2022-05-02 08:40:28 -0400

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.12	square miles
FOREST	Percentage of area covered by forest	10.2292	percent
LC11DEV	Percentage of developed (urban) land from NLCD 2011 classes 21-24	46.0312	percent
LC11IMP	Average percentage of impervious area determined from NLCD 2011 impervious dataset	5.6583	percent
URBAN	Percentage of basin with urban development	81.1026	percent

Figure 3. USGS StreamStats report for the drainage area to the POFU survey location.

Table 1. Macroinvertebrates observed in Froman Run.

TAXA	Family	Abundance in sample	Long lived taxa
Chironomidae	Chironomidae (Non-biting Midge)	Common	No
Tipula	Tipulidae (Crane Fly)	Rare	Yes
Optioservus (adults)	Elmidae (Riffle Beetle)	Rare	Yes
Hydrophilidae	Hydrophilidae (Water Scavenger Beetles)	Rare	No
Cambarus	Cambaridae (Crayfish)	Rare	Yes
Gamaridae	Gammaridae (scuds)	Dominant	No
Physidae	Physidae (Bladder Snails)	Rare	No
Platyhelminthes	Platyhelminthes (Flatworms)	Common	No

Figure 3. POFU survey location, facing upstream.

Figure 4. POFU survey location, facing downstream.