

Application Type Renewal  
Wastewater Type Sewage  
Facility Type SFTF

## NPDES PERMIT FACT SHEET INDIVIDUAL SFTF/SRSTP

Application No. PA0254975  
APS ID 1127151  
Authorization ID 1509056

### Applicant, Facility and Project Information

|                           |   |                  |   |
|---------------------------|---|------------------|---|
| Applicant Name            | <u>Mark R &amp; Cari A Coe Skuse &amp; Brian N &amp; Jessica N Kirby Joint Client</u> | Facility Name    | <u>131 Brewer Rd SFTF</u>                                   |
| Applicant Address         | <u>137 Brewer Road</u><br><u>Freedom, PA 15042-9636</u>                               | Facility Address | <u>131-137 Brewer Road</u><br><u>Freedom, PA 15042-9636</u> |
| Applicant Contact         | <u>Mark Skuse</u>   | Facility Contact | <u>Mark Skuse</u>   |
| Applicant Phone           | <u>(630) 886-7487</u>   | Facility Phone   | <u>(630) 886-7487</u>                                       |
| Client ID                 | <u>352454</u>   | Site ID          | <u>791837</u>   |
| SIC Code                  | <u>8811</u>   | Municipality     | <u>New Sewickley Township</u>                               |
| SIC Description           | <u>Services - Private Households</u>  | County           | <u>Beaver</u>   |
| Date Application Received | <u>November 25, 2024</u>  | WQM Required     | <u>N/A</u>  |
| Date Application Accepted | <u>December 11, 2024</u>  | WQM App. No.     | <u></u>   |
| Project Description       | <u>Application for renewal of a NPDES Permit for treated sewage.</u>                  |                  |   |

### Summary of Review

Mark Skuse has applied for a renewal of NPDES Permit No. PA0254975. PA0254975 was previously issued by the Pennsylvania Department of Environmental Protection (DEP) on September 01, 2015. The permit expired August 31, 2020.

Planning modules for this project were approved by DEP on March 20, 2015. Planning approved two individual SFTF's (One 3-bedroom single family home and one 4-bedroom single family home), one to serve each home, but with a common outfall pipe. There is only one outfall pipe, so one NPDES permit was issued. The single discharge point is to an unnamed tributary of Snake Run. They are classified as Warm Water Fisheries (WWF).

Two WQM permit were issued to authorize the installation of two small flow treatment facility systems.

WQM Permit No. 0419401 was issued to Mark and Cari Coe Skuse and WQM Permit No. 0419402 was issued to Brian and Jessica Kirby.

WQM Permit No. 0419401 approves the use of a SFTF to serve the 4-bedroom home. The capacity of the STP is 500 gpd. It consists of:

- A 1,500-gallon dual compartment septic tank. A Zabel A300 effluent filter is required to be installed at the outlet of the second compartment.
- Septic tank effluent will flow by gravity to an Ecoflo 570P peat filter, rated for 500 gpd.
- The filtered effluent will flow by gravity through a Salcor 3G UV disinfection unit.

| Approve | Deny | Signatures   | Date               |
|---------|------|--|--------------------|
| X       |      | <i>Fahmida Amin</i><br>Fahmida Amin / Environmental Engineering Specialist               | August 22, 2025    |
| X       |      | <i>MAHBUBA IASMIN</i><br>Mahbuba Iasmin, Ph.D., P.E. / Environmental Engineering Manager | September 15, 2025 |

### Summary of Review

- Discharge will be through a 4-inch outfall pipe on the Skuse property.

WQM Permit No. 0419402 was issued to replace a malfunctioning on-lot system. WQM Permit No. 0419402 approves the use of a SFTF to serve the 3-bedroom home. The capacity of the STP is 400 gpd. It consists of:

- A 1,000-gallon dual compartment septic tank. A Zabel A300 effluent filter is required to be installed at the outlet of the second compartment.
- Septic tank effluent will flow by gravity to an Ecoflo 570P peat filter, rated for 500 gpd.
- The filtered effluent will flow by gravity through a Salcor 3G UV disinfection unit.
- After disinfection, the treated effluent will flow to a 500-gallon lift tank with a Goulds WE03M pump that will convey the flow to the common 4-inch discharge pipe.
- Discharge will be through a 4-inch outfall pipe on the Skuse property.

An individual permit is required because the peat filter system is not described in the Small Flow Design Manual. Peat systems have been approved by DEP in the past.

No AMRs have been received to date. Operation has been made aware of this missing document. A new AMR for the permittee to fill up and submit to DEP will be issued with the permit.

The permittee has complied with Act 14 notifications as evidenced by updated letters sent to New Sewickley Township and Beaver County.

Permit Issuance is recommended.

### Anti-Backsliding

Section 402(o) of the Clean Water Act (CWA), enacted in the Water Quality Act of 1987, establishes anti-backsliding rules governing two situations. The first situation occurs when a permittee seeks to revise a Technology-Based effluent limitation based on BPJ to reflect a subsequently promulgated effluent guideline which is less stringent. The second situation addressed by Section 402(o) arises when a permittee seeks relaxation of an effluent limitation which is based upon a State treatment standard of water quality standard.

Previous limits can be used pursuant to EPA's anti-backsliding regulation 40 CFR 122.44 ***(1) Reissued permits. (1) Except as provided in paragraph (1)(2) of this section when a permit is renewed or reissued. Interim effluent limitations, standards or conditions must be at least as stringent as the final effluent limitations, standards, or conditions in the previous permit (unless the circumstances on which the previous permit was based have materially and substantially changed since the time the permit was issued and would constitute cause for permit modification or revocation and reissuance under §122.62). (2) In the case of effluent limitations established on the basis of Section 402(a)(1)(B) of the CWA, a permit may not be renewed, reissued, or modified on the basis of effluent guidelines promulgated under section 304(b) subsequent to the original issuance of such permit, to contain effluent limitations which are less stringent than the comparable effluent limitations in the previous permit.***

### 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.

Discharge and Stream Data – 2 - Receiving Waters and PWS

| Discharge, Receiving Waters and Water Supply Information |                                    |                            |                  |
|--|------------------------------------|----------------------------|------------------|
| Outfall No.  | 001                                | Design Flow (MGD)          | .001             |
| Latitude   | 40° 42' 24.07"                     | Longitude                  | -80° 13' 0.19"   |
| Quad Name  | Baden                              | Quad Code                  | 1304             |
| Wastewater Description: Sewage Effluent                  |                                    |                            |                  |
| Receiving Waters   | Tributary 36565 to Snake Run (WWF) | Stream Code                | 36565            |
| NHD Com ID   | 99678162                           | RMI                        | 0.1              |
| Drainage Area  | 0.25                               | Yield (cfs/mi²)            | 0.00568          |
| Q7-10 Flow (cfs)   | 0.00142                            | Q7-10 Basis                | USGS StreamStats |
| Elevation (ft)   | 1113                               | Slope (ft/ft)              |                  |
| Watershed No.  | 20-G                               | Chapter 93 Class.          | 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            | Center Township Water Authority    |                            |                  |
| PWS Waters   | Ohio River                         | Flow at Intake (cfs)       | 3 MGD            |
| PWS RMI  | 12.881                             | Distance from Outfall (mi) | 9.41 miles       |

Changes Since Last Permit Issuance: None  
Other Comments: None

| Treatment Facility Summary                            |                            |   |                     |                        |
|---|----------------------------|---|---------------------|------------------------|
| Treatment Facility Name: 131 Brewer Rd SFTF           |                            |   |                     |                        |
| <div>WQM Permit No.<br/>0419401 and<br/>0419402</div> |                            | <div>Issuance Date<br/>11/18/2019,<br/>simultaneously with<br/>NPDES permit<br/>PA0254975<br/>Amendment</div> |                     |                        |
| Waste Type  | Degree of Treatment        | Process Type  | Disinfection        | Avg Annual Flow (MGD)  |
| Sewage  | Tertiary                   | ECOFLOW Peat Filter   | Ultraviolet         | Not Reported           |
|   |                            |   |                     |                        |
| Hydraulic Capacity (MGD)                              | Organic Capacity (lbs/day) | Load Status   | Biosolids Treatment | Biosolids Use/Disposal |
| 0.0009  | N/A                        | Not Overloaded  | N/A                 | N/A                    |

| Compliance History      |  |
|-------------------------|--|
|                         |  |
| Summary of DMRs:        | No limit violation was noticed   |
| Summary of Inspections: | According to the operations inspection report they did on February 28, 2025; No Violations were noticed. |

## **Operations Compliance Check Summary Report**

**Facility:** 131 BREWER RD SFTF

**NPDES Permit No.:** PA0254975

**Compliance Review Period:** 2/1/20-2/27/25

**Inspection Summary:**

| INSPECTED<br>DATE | INSP TYPE                     | AGENCY                                    | INSPECTION RESULT<br>DESC |
|-------------------|-------------------------------|---|---------------------------|
| 08/19/2021        | Administrative/File<br>Review | PA Dept of<br>Environmental<br>Protection | No Violations Noted       |

**Violation Summary:**

No violations noted during review period

**Open Violations by Client ID:**

No open violations for Client ID 352454

**Enforcement Summary:**

No enforcements executed during review period

**Effluent Violation Summary:**

N/A

**Compliance Status:** Facility is generally in compliance with no open violations or pending enforcements.

**Completed by:** Amanda Illar **Completed date:** 2/28/25

|  |                |                          |                |
|--|----------------|--------------------------|----------------|
| <b>Outfall No.</b>                             | 001            | <b>Design Flow (MGD)</b> | .001           |
| <b>Latitude</b>                                | 40° 42' 24.07" | <b>Longitude</b>         | -80° 13' 0.19" |
| <b>Wastewater Description:</b> 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 *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:<br>SFTFs | Frequency:<br>SRSTPs |
|-----------------------------|---|----------|---------------------------------------|---------------------|----------------------|
| Flow (GPD)                  | Report  | XXX      | Estimate (SRSTPs)<br>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.<br>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).

Please note that the winter fecal coliform limit previously imposed is being removed and a year-round fecal coliform limit of 200 cfu/100 mL is being imposed in accordance with DEP's SOP for *New and Reissuance Small Flow Treatment Facility Individual NPDES Permit Application* [SOP No. BCW-PMT-003 Version 1.8].

Comments: These are two SRSTPs with UV disinfection. The facility will not be required to measure TRC due to the absence of chlorination facilities.

**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) <sup>(1)</sup> |                   | Concentrations (mg/L) |                    |         |                     | Minimum <sup>(2)</sup><br>Measurement<br>Frequency | Required<br>Sample<br>Type |
|   | Average<br>Monthly                  | Average<br>Weekly | Minimum               | Average<br>Monthly | Maximum | Instant.<br>Maximum |  |                            |
| Flow (MGD)                                    | Report                              | XXX               | XXX                   | XXX                | XXX     | XXX                 | 1/month  | Measured                   |
| pH (S.U.)                                     | XXX                                 | XXX               | 6.0<br>Inst Min       | XXX                | XXX     | 9.0                 | 1/month  | Grab                       |
| CBOD5   | XXX                                 | XXX               | XXX                   | 10                 | XXX     | 20                  | 1/month  | Grab                       |
| TSS   | XXX                                 | XXX               | XXX                   | 10                 | XXX     | 20                  | 1/month  | Grab                       |
| Fecal Coliform (No./100 ml)<br>Oct 1 - Apr 30 | XXX                                 | XXX               | XXX                   | 2000<br>Geo Mean   | XXX     | 10000               | 1/month  | Grab                       |
| Fecal Coliform (No./100 ml)<br>May 1 - Sep 30 | XXX                                 | XXX               | XXX                   | 200<br>Geo Mean    | XXX     | 1000                | 1/month  | Grab                       |

Compliance Sampling Location: Outfall 001

Other Comments: N/A

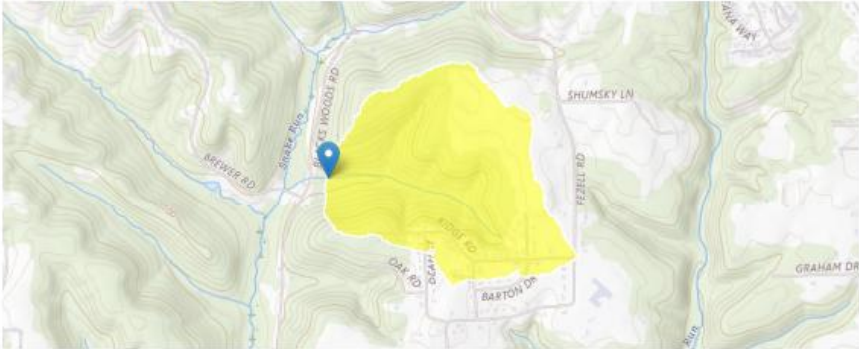


## **Attachment A**

### **USGS Stream Stats Output**

StreamStats Report

Region ID: PA  
Workspace ID: PA20250806171704063000  
Clicked Point (Latitude, Longitude): 40.70664, -80.21627  
Time: 2025-08-06 13:17:24 -0400



131 Brewer Rd SFTF

Collapse All

Basin Characteristics

| Parameter Code | Parameter Description                   | Value | Unit         |
|----------------|---|-------|--------------|
| DRNAREA        | Area that drains to a point on a stream | 0.25  | square miles |
| ELEV           | Mean Basin Elevation                    | 1113  | 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        | 0.25  | square miles | 2.26      | 1400      |
| ELEV           | Mean Basin Elevation | 1113  | 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 | 0.00544 | ft <sup>3</sup> /s |

| Statistic               | Value   | Unit               |
|-------------------------|---------|--------------------|
| 30 Day 2 Year Low Flow  | 0.0111  | ft <sup>3</sup> /s |
| 7 Day 10 Year Low Flow  | 0.00142 | ft <sup>3</sup> /s |
| 30 Day 10 Year Low Flow | 0.00336 | ft <sup>3</sup> /s |
| 90 Day 10 Year Low Flow | 0.00723 | ft <sup>3</sup> /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/>)**

USGS Data Disclaimer: Unless otherwise stated, all data, metadata and related materials are considered to satisfy the quality standards relative to the purpose for which the data were collected. Although these data and associated metadata have been reviewed for accuracy and completeness and approved for release by the U.S. Geological Survey (USGS), no warranty expressed or implied is made regarding the display or utility of the data for other purposes, nor on all computer systems, nor shall the act of distribution constitute any such warranty.

USGS Software Disclaimer: This software has been approved for release by the U.S. Geological Survey (USGS). Although the software has been subjected to rigorous review, the USGS reserves the right to update the software as needed pursuant to further analysis and review. No warranty, expressed or implied, is made by the USGS or the U.S. Government as to the functionality of the software and related material nor shall the fact of release constitute any such warranty. Furthermore, the software is released on condition that neither the USGS nor the U.S. Government shall be held liable for any damages resulting from its authorized or unauthorized use.

USGS Product Names Disclaimer: Any use of trade, firm, or product names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

Application Version: 4.29.2

StreamStats Services Version: 1.2.22

NSS Services Version: 2.2.1