Southcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0247561**
Wastewater Type	**Sewage**	APS ID	**867336**
Facility Type	**SRSTP**	Authorization ID	**1434829**

NPDES PERMIT FACT SHEET INDIVIDUAL SFTF/SRSTP

Applicant, Facility and Project Information

Applicant Name	**Amos E Stoltzfus**	Facility Name	**Amos Stoltzfus Residence**
Applicant Address	1651 Mountain Road	Facility Address	1651 Mountain Road
	Newburg, PA 17240-9123		Newburg, PA 17240-9123
Applicant Contact	Amos Stoltzfus	Facility Contact	Amos Stoltzfus
Applicant Phone	(717) 423-9993	Facility Phone	(717) 423-9993
Client ID	318475	Site ID	631434
SIC Code	6514,8811	Municipality	Upper Mifflin Township
SIC Description	Fin, Ins & Real Est - Dwelling Operators, Except Apartments,Services - Private Households	County	Cumberland
Date Application Received	April 6, 2023	WQM Required	Not applicable
Date Application Accepted	April 11, 2023	WQM App. No.	

Project Description: This is an application for NPDES renewal.

Summary of Review

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 May 24, 2018 and became effective on June 1, 2018. The permit expired on May 31, 2023. It has been administratively extended since that time.

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 0.0005 MGD (500 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.

Approve	Deny	Signatures	Date
X		Steven C. Roselle, P.E. / Environmental Engineer *Steven C. Roselle*	May 6, 2024
X		Daniel W. Martin, P.E. / Environmental Engineering Manager *Daniel W. Martin*	June 5, 2024
X		Maria Bebenek, P.E./ Environmental Program Manager *Maria Bebenek*	June 6, 2024

The applicant disclosed the Act 14 requirement to Cumberland County Planning Department and the Upper Mifflin Township and the notice was received by the parties on March 30, 2023. A planning approval letter was not necessary as the facility is neither new nor expanding.

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.

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.

1. Description of the Facility

1.1 Consultant

A consultant was used to assist in the preparation of the NPDES Permit renewal application: Mr. Grant A. Marshall, P.E., Consulting Engineer, 149 Kerrs Road, Carlisle, PA 17013. (717) 776-3008, **grant.marshall@comcast.net**.

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

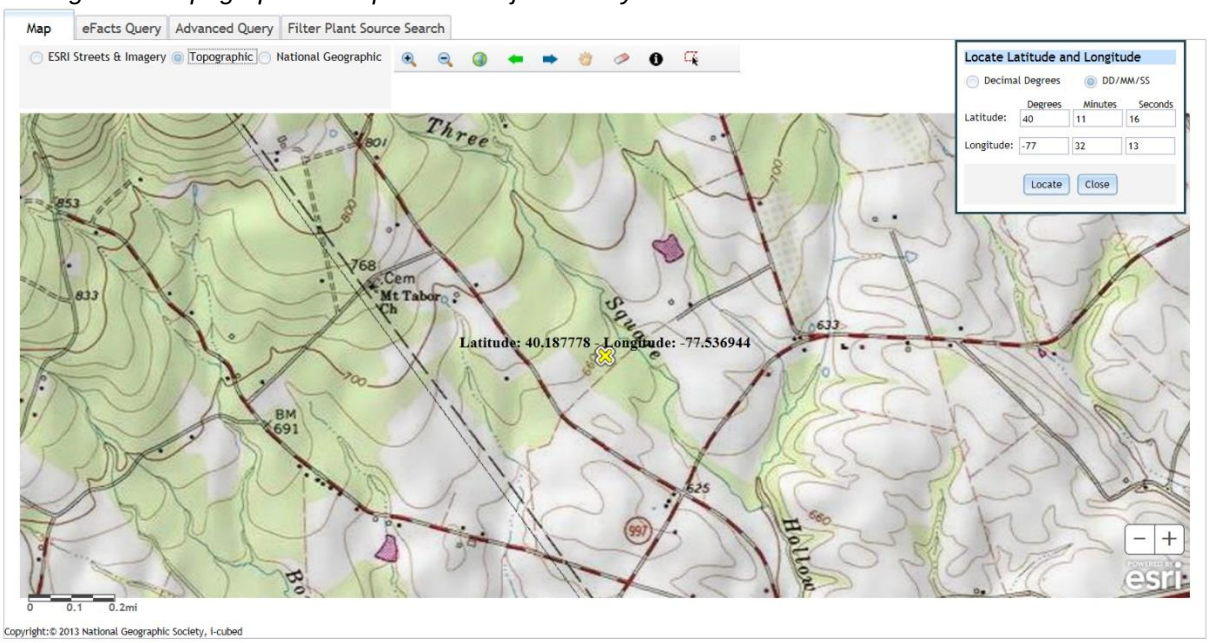
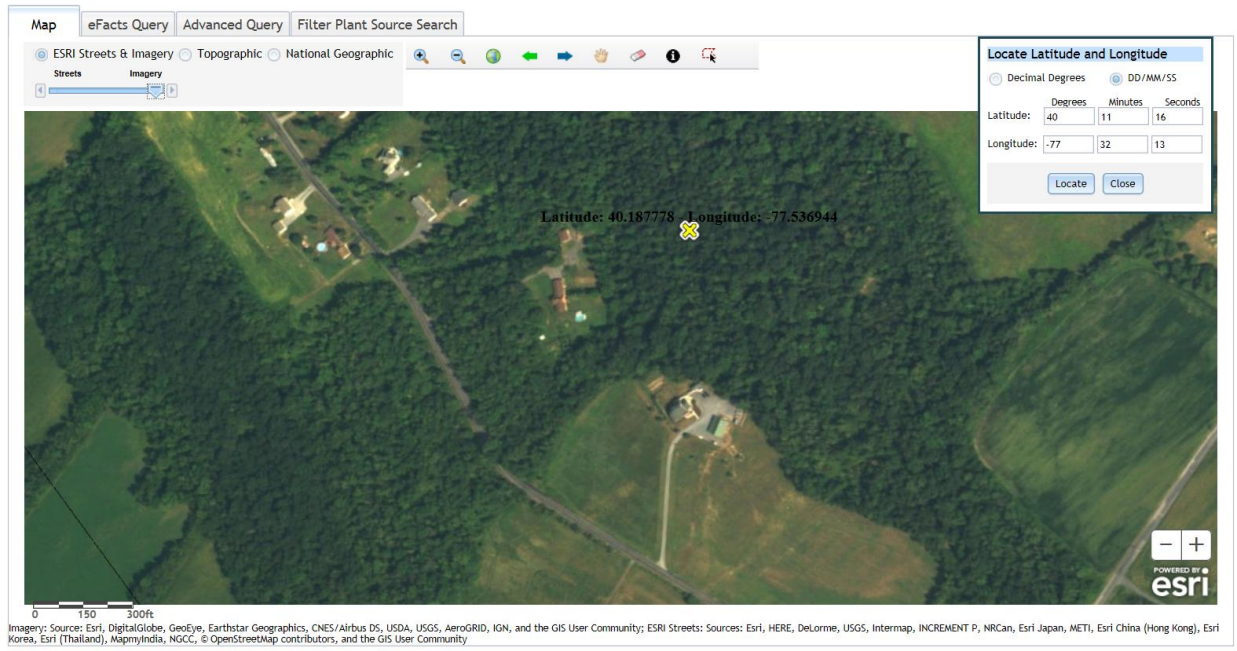


Figure 2: Aerial Photograph of the subject facility



1.3 Description of Wastewater Treatment Process

The Amos Stoltzfus residence is a 4 bedroom facility generating 500 gpd design flow. It treats wastewater using a 1250 gallon septic tank, a Zabel effluent filter, a Premier Tech EC7-600-P-G coco bio-filter, and a chlorine contact chamber tank for disinfection. The facility is being evaluated for flow, TRC, CBOD5, TSS, and fecal coliform.

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)**	0.0005
Latitude	40º 11' 17.00"	**Longitude**	77º 32' 9.00"
Wastewater Description:	Sewage Effluent		

2.2 Existing NPDES Permits Limits

The existing NPDES permit limits are summarized in the table.

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	2/year	Estimate
Total Residual Chlorine (TRC)	XXX	XXX	XXX	Report	XXX	XXX	1/month	Grab
Carbonaceous Biochemical Oxygen Demand (CBOD5)	XXX	XXX	XXX	25.0	XXX	50.0	2/year	Grab
Total Suspended Solids	XXX	XXX	XXX	30.0	XXX	60.0	2/year	Grab
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000	XXX	10000	2/year	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200	XXX	1000	2/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

Four (4) inspection were conducted during the existing permit review cycle is as follows:

January 17, 2020. A site compliance inspection has conducted. In attendance were Brandon Bettinger (DEP Environmental Trainee), Michael Benham (DEP Water Quality Specialist), and Amos Stoltzfus (Owner). This inspection resulted in a violation, which has since been resolved. See section 3.3.

August 19, 2020. An administrative inspection was conducted by telephone between Michael Benham (DEP Water Quality Specialist), and Amos Stoltzfus (Owner). Non compliances were noted.

1. 25 Pa. Code 92a.41(a)(5): Failure to properly operate and maintain all facilities which are installed or used by the permittee to achieve compliance
2. Rosenberry's Septic Services inspection of the peat filter tank stated standing water inside the unit.

The July 30, 2020 sample result for Fecal coliform was above permit limitations at > 20,000 CFU/100 ml. Rosenberry stated that the peat filter unit had standing water and the chlorine contact tank appeared murky. These two factors are likely the reason the fecal coliform results were elevated. Mr. Stoltzfus was reminded to follow the service provider's recommendations to replace the peat filter media and to clean the chlorine contact tank.

October 27, 2020. An administrative inspection was conducted by telephone between Michael Benham (Water Quality Specialist), and Amos Stoltzfus (Owner). The purpose of the inspection was to discuss accidental recent damage to the Premier Tech peat moss bio-filter, caused by a dump truck. Mr. Stoltzfus had contacted their service provider, Mr. Bill Neidigh (Rosenberry's Septic Services), after the incident. Mr. Neidigh contacted the Department on 10-6-2020. A new Premier Tech EC7-600-P-G coco bio-filter unit was installed on October 15 and 16, 2020. Per the request of Nicholas Hong, (Environmental Engineering Specialist), a post construction certification was provided, and was signed and sealed by Mr. Grant A. Marshall, P.E. on October 16, 2020.

March 20, 2023. An administrative/file review inspection was conducted by telephone by Kevin Buss (Water Program Specialist). This inspection resulted in a violation for failure to submit NPDES renewal application at least 180 days prior to expiration or later approved date. This violation has since been resolved. See section 3.3.

3.2 Summary of AMR Data

The historical AMR data for the current cycle is limited. The existing permit included minimum sampling measurement frequency at the request of DEP. In turn, the sampling data for the parameters BOD, TSS, and fecal coliform have generally not been collected by the homeowner and received by DEP. The available data shown in the table below are from 2021, and 2022, were included in the application, as reported by Franklin Analytical Inc., Chambersburg, PA. Based on the limited data available, the facility has demonstrated the capability to meet the NPDES Permit limits.

		CBOD (mg/l)	TSS (mg/l)	Fecal (MPN/100 mL) (Inst. Max.)	pH
Date Sampled	**Permit Limit**	**50 (Inst. Max.)**	**60 (Inst. Max.)**	**10000 Oct 1 – Apr 30 1000 May 1 – Sep 30**	**Monitoring not Required**
7/21/2021				<1	
7/22/2021			50.0		
7/26/2021		<3.00			
2/16/2022					6.98
2/17/2022				1	
2/21/2022		<2.00			
2/22/2022			8.00		

3.3 Violations

Two (2) violations were issued during the existing permit review cycle. Issuance dates and violations are noted below.

January 17, 2020: NPDES - **t**he monitoring of pollutants was not conducted in the 2018-2019 monitoring period in violation of NPDES Permit No. PA0247561 Part A. Resolved date: February 7, 2020.

March 20, 2023. NPDES - Failure to submit NPDES renewal application at least 180 days prior to expiration or later approved date. Resolved date: April 6, 2023.

3.4 Non-Compliance- Enforcement Actions

There were no reported enforcement action for the time frame from 06/01/2018 – 04/30/2024.

3.5 Open Violations

No open violations existed as of 04/30/2024.

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)	.0005
Latitude	40º 11' 17.20"	Longitude	-77º 32' 8.82""
Quad Name		Quad Code	
Wastewater Description:	Sewage Effluent		
Receiving Waters	Three Square Hollow Run	Stream Code	10459
NHD Com ID	56407901	RMI	4.0
Drainage Area	1.9	Yield (cfs/mi^2)	0.026
Q_{7-10} Flow (cfs)	0.0511	Q_{7-10} Basis	StreamStats
Elevation (ft)		Slope (ft/ft)	

Discharge, Receiving Waters and Water Supply Information			
Watershed No.	07B	Chapter 93 Class.	Warm Water Fishes & Migratory Fishes
Existing Use	Same as Chapter 93 Class.	Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	None
Assessment Status	Attaining Use(s) supports aquatic life and recreational use		
Cause(s) of Impairment	Not applicable		
Source(s) of Impairment	Not applicable		
TMDL Status	Not applicable	Name	Not applicable

Background/Ambient Data		Data Source
pH (SU)	Not applicable	Not applicable
Temperature (°F)	Not applicable	Not applicable
Hardness (mg/L)	Not applicable	Not applicable
Other:	Not applicable	Not applicable

Nearest Downstream Public Water Supply Intake	Carlisle Water Treatment Plant		
PWS Waters	Conodoguinet Creek	Flow at Intake (cfs)	
PWS RMI	37	Distance from Outfall (mi)	32

Note:

1. The nearest downstream public water supply intake is the Carlisle Water Treatment Plant (PWS ID #7210002) located approximately 32 miles downstream of the subject facility on the Conodoguinet Creek. 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

Class A Wild Trout Streams are waters that support a population of naturally produced trout of sufficient size and abundance to support long-term and rewarding sport fishery. DEP classifies these waters as high-quality coldwater fisheries.

Utilizing the DEP's web-based Emap-PA information system, the receiving waters has been determined to be Three Square Hollow Run. The sequence of receiving streams that Three Square Hollow Run discharges into are the Conodoguinet Creek and the Susquehanna River which eventually drains into the Chesapeake Bay. Due to the flow rate of the subject facility, the subject site is not subject to the Chesapeake Bay implementation requirements. The receiving water has protected water usage for warm water fishes and migratory fishes. No Class A Wild Trout fisheries are impacted by this discharge. The absence of high quality and/or exceptional value surface waters removes the need for an evaluation of anti-degradation requirements.

4.3 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 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 listed in section 6 of this fact sheet are unchanged from the current permit limits. The permit limits are derived from DEP's Standard Operating Procedure (SOP) for New and Reissuance Small Flow Treatment Facility Individual NPDES Permit Applications (SOP No. BPNPSM-PMT-003). Based on a review of available data, the system is capable of meeting these effluent limits if proper maintenance and operation is performed (i.e., periodic septic tank pumping, unit cleaning, and annual inspection).

The permitee will be required to submit a completed Annual Maintenance Report (AMR) as part of the permit requirements. 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 (MGD)	Report Annl Avg	XXX	XXX	XXX	XXX	XXX	2/year	Estimate
Total Residual Chlorine (TRC)	XXX	XXX	XXX	Report	XXX	XXX	1/month	Grab
Carbonaceous Biochemical Oxygen Demand (CBOD5)	XXX	XXX	XXX	25.0	XXX	50.0	2/year	Grab
Total Suspended Solids	XXX	XXX	XXX	30.0	XXX	60.0	2/year	Grab
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000	XXX	10000	2/year	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200	XXX	1000	2/year	Grab

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

at Outfall 001