pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0261823**
Wastewater Type	**Sewage**	APS ID	**1045215**
Facility Type	**SRSTP**	Authorization ID	**1365397**

NPDES PERMIT FACT SHEET
INDIVIDUAL SFTF/SRSTP

Applicant, Facility and Project Information

Applicant Name	**Larry A and Barbara A Jones**	Facility Name	**Jones Residence**
Applicant Address	97 Sloop Road Shermans Dale, PA 17090	Facility Address	Adjacent to 97 Sloop Road (north side) Shermans Dale, PA 17090
Applicant Contact	Larry & Barbara Jones	Facility Contact	Larry & Barbara Jones
Applicant Phone	(717) 582-8212	Facility Phone	(717) 582-8212
Client ID	364766	Site ID	757991
SIC Code	6514	Municipality	Carroll Township
SIC Description	Fin, Ins & Real Est - Dwelling Operators, Except Apartments	County	Perry
Date Application Received	August 10, 2021	WQM Required	
Date Application Accepted	August 17, 2021	WQM App. No.	5012402 T-1

Project Description: This is an application for NPDES transfer and renewal.

Approve	Deny	Signatures	Date
X		Nicholas Hong, P.E. / Environmental Engineer Nick Hong (via electronic signature)	October 27, 2021
x		Daniel W. Martin, P.E. / Environmental Engineer Manager *Maria D. Bebenek for Daniel W. Martin*	October 28, 2021
x		Maria D. Bebenek, P.E. / Environmental Program Manager *Maria D. Bebenek*	October 28, 2021

Summary of Review

The application submitted by the applicant requests a NPDES transfer and renewal permit for the Jones residence located at the parcel adjacent to 97 Sloop Road (north side), Shermans Dale, PA 17090 in Perry County, municipality of Carroll.

The transfer will occur simultaneously with the renewal for the PA0261823 NPDES permit and the WQM 5012402 for Jones Residence. The applicant has requested these permits be transferred to reflect the change of ownership from David and Meagen Jones to Larry and Barbara Jones. The application for transfer was received by DEP Southcentral Regional Office (SCRO) on August 10, 2021.

The existing permit became effective on June 1, 2012 and expired on May 31, 2017. The application for renewal was received by DEP Southcentral Regional Office (SCRO) on August 10, 2021. The NPDES renewal application was returned to DEP missing significant information. We will continue to work with the applicant to update the application through the draft permit process.

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 a description of the facility, a description of the facility's receiving waters, a description of the facility's receiving waters attainment/non-attainment assessment status, and a description of any changes to the proposed monitoring/sampling frequency. Section 6 provides the justification for the proposed NPDES effluent limits derived from technology based effluent limits (TBEL), water quality based effluent limits (WQBEL), total maximum daily loading (TMDL), antidegradation, anti-backsliding, and/or whole effluent toxicity (WET). A brief summary of the outlined descriptions has been included in the Summary of Review section.

The subject facility is a 0.0004 MGD 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 (SFTF) due to the type of sewage and the design flow rate for the facility. Since the parcel is vacant and without a dwelling, the requirements for Act 14 were waived. A planning approval letter was not necessary as the facility is neither new or expanding.

Utilizing the DEP's web-based Emap-PA information system, the receiving waters has been determined to be UNT 11065 of Sherman Creek. The sequence of receiving streams that the UNT 11065 of Sherman Creek discharges into are UNT 11060 of Sherman Creek, Sherman Creek, and the Susquehanna River which eventually drains into the Chesapeake Bay. Due to the low flow rate generated by the facility, the subject site is not subject to the Chesapeake Bay implementation requirements. The receiving water has protected water usage for warm water fishes (WWF) and migratory fishes (MF). 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 additional evaluation of anti-degradation requirements.

The UNT 11065 of Sherman Creek is a Category 2 and 5 stream listed in the 2020 Integrated List of All Waters (formerly 303d Listed Streams). This stream is an attaining stream that supports aquatic life and fish consumption. The receiving waters is also impaired for recreation uses due to pathogens from agriculture. The receiving waters is not subject to a total maximum daily load (TMDL) plan to improve water quality in the subject facility's watershed.

The existing permit and proposed permit differ as follows:

- **The monitoring frequency for CBOD, TSS, and fecal coliform shall be 1x/yr.**
- **The monitoring requirement for pH has been eliminated.**
- **The performance limits for CBOD and TSS shall be reduced to 10 mg/l.**
- **The performance limit for fecal coliform shall be 200 MPN year round.**

Sludge use and disposal description and location(s): Since the facility has not been constructed, this is not applicable.

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

Based on the review in this report, it is recommended that the permit be drafted. 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

Summary of Review
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.

1.0 Applicant

1.1 General Information

This fact sheet summarizes PA Department of Environmental Protection's review for the NPDES renewal for the following subject facility.

Facility Name: Jones Residence

NPDES Permit # PA0261823

Physical Address: parcel adjacent to 97 Sloop Road (north side)
Shermans Dale, PA 17090

Mailing Address: 97 Sloop Road
Shermans Dale, PA 17090

Contact: Larry A and Barbara A Jones
Homeowner
(717) 582-8212
(717) 512-2299
labajones@centurylink.net

Consultant: There was not a consultant utilized for this transfer and NPDES renewal.

1.2 Permit History

Description of Facility

The permit expired on May 31, 2017 and was not renewed.

The parcel of land and treatment facility is being kept within the Jones family. David/Meagen Jones is requesting the treatment facility be transferred to parents Larry and Barbara Jones.

A Point of First Use (POFU) was conducted on March 12, 2012. The internal DEP memo stated that the treatment facility will discharge directly into UNT of Shermans Creek. UNT of Shermans Creek on the Jones property supported a viable benthic macroinvertebrate community. The POFU for the treatment facility is located at the proposed discharge point.

Permit submittal included the following information.

- Transfer Application
- NPDES Application

2.0 Treatment Facility Summary

2.1.1 Site location

The physical address for the facility is the parcel adjacent to 97 Sloop Road (north side), Shermans Dale, PA 17090. 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

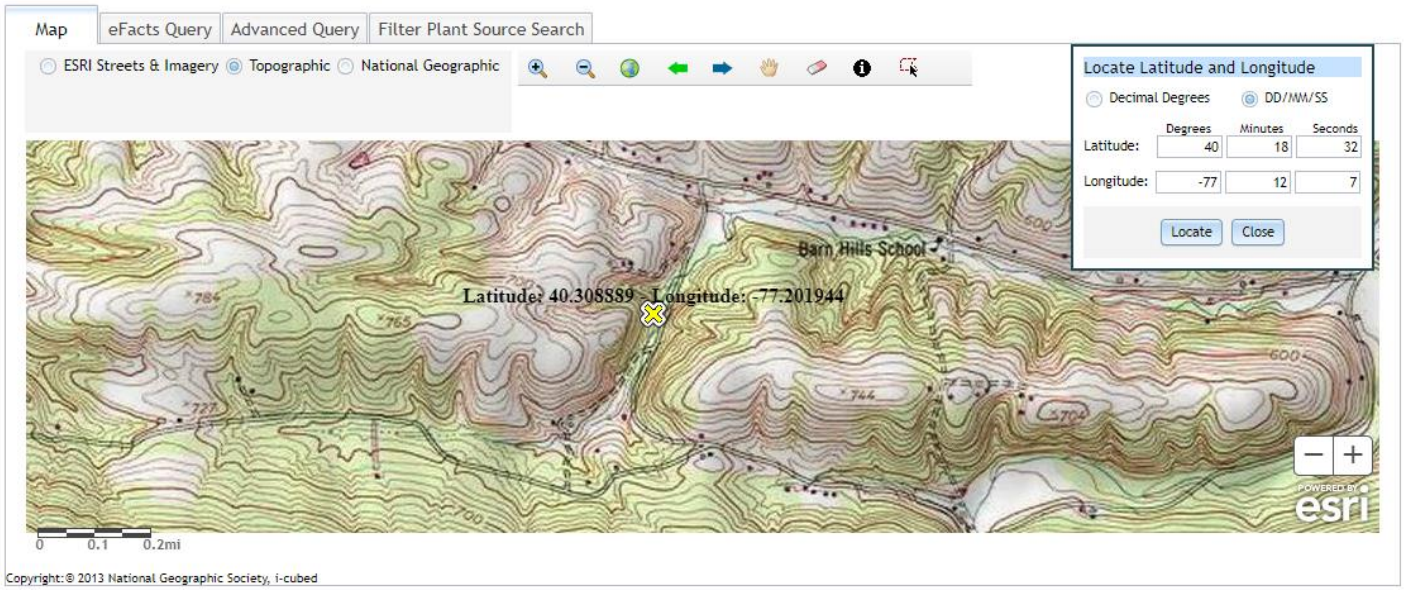
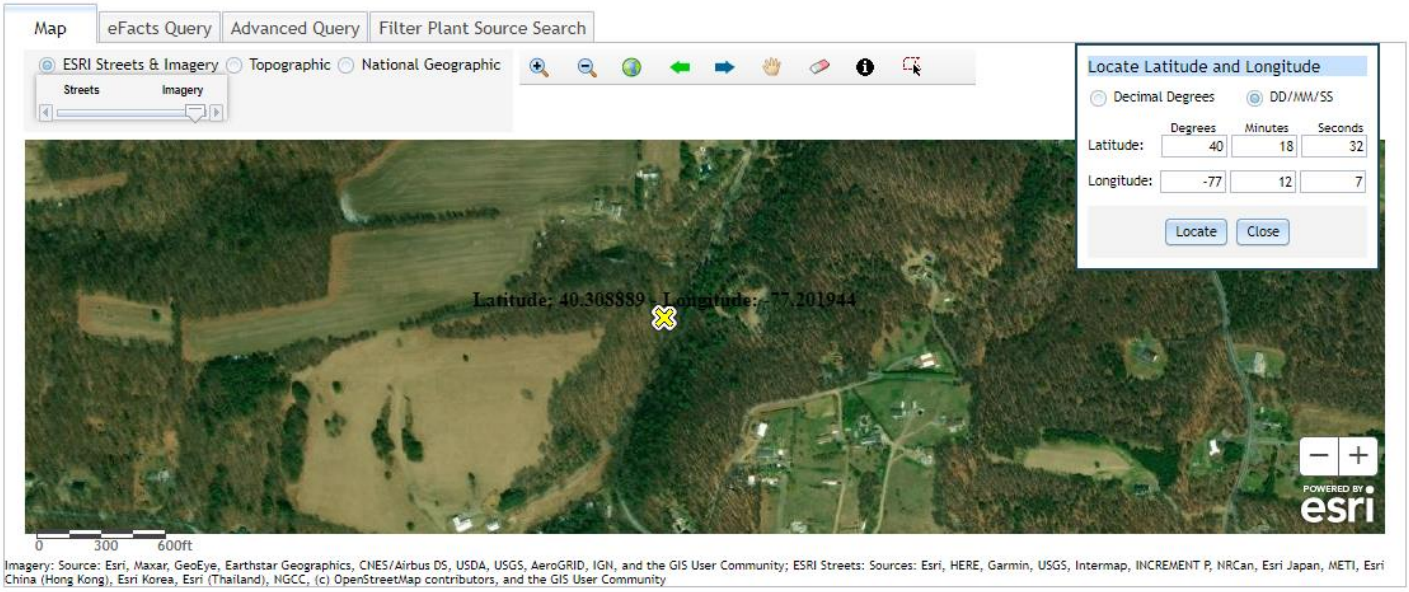


Figure 2: Aerial Photograph of the subject facility



2.2 Description of Wastewater Treatment Process

The subject facility is a 0.0004 MGD design flow facility. The subject facility treats wastewater using a septic tank, an effluent filter, a Premier Tech Ecoflo peat filter, and chlorine disinfection prior to discharge through the outfall. The facility is being evaluated for flow, pH, TRC, CBOD5, TSS, and fecal coliform. The existing permits limits for the facility is summarized in Section 2.4.

The treatment process is summarized in the table.

Treatment Facility Summary

Treatment Facility Name: Sfs Larry And Barbara Jones

WQM Permit No.	Issuance Date
5012402	05/07/2012

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Septic Tank Ecoflo peat filter	Hypochlorite	0.0004

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.0004		Not Overloaded		

2.3 Facility Outfall Information

The facility has the following outfall information for wastewater.

Outfall No. 001 **Design Flow (MGD)** .0004
Latitude 40º 18' 36.00" **Longitude** -77º 12' 4.00"
Wastewater Description: Sewage Effluent

2.4 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** 40° 18' 36" , **Longitude** 77° 12' 4" , **River Mile Index** 0.19 , **Stream Code** 11066

Discharging to Unnamed Tributary of Sherman Creek

which receives wastewater from wastewater treatment plant

1. The permittee is authorized to discharge during the period from June 1, 2012 through May 31, 2017.
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, Footnotes and Supplemental Information).

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) [1]		Concentrations (mg/L)				Minimum [2]	Required
	Average Monthly	Daily Maximum	Minimum	Average Monthly		Instant. Maximum	Measurement Frequency	Sample Type
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	2/year	Estimate
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	Upon Request	Grab
Total Residual Chlorine	XXX	XXX	XXX	Report	XXX	XXX	1/month	Grab
CBOD5	XXX	XXX	XXX	25	XXX	50	2/year	Grab
Total Suspended Solids	XXX	XXX	XXX	30	XXX	60	2/year	Grab
Fecal Coliform (CFU/100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1,000	2/year	Grab
Fecal Coliform (CFU/100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2,000 Geo Mean	XXX	10,000	2/year	Grab

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

The 2/year sampling shall consist of one sample taken in February and one sample taken in July.

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.

The DEP inspector noted the following during the inspection.

Since the facility has not been constructed, a summary of inspections was not available.

3.2 Summary of AMR/DMR Data

Since the facility has not been constructed, there are no available sampling data.

3.3 Non-Compliance

3.3.1 Non-Compliance- NPDES Effluent

A summary of the non-compliance to the permit limits for the existing permit cycle is as follows.

Since the facility has not been constructed, there are no available sampling data. Hence, no non-compliance with NDPES effluent exists.

3.3.2 Non-Compliance- Enforcement Actions

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

The facility has not been constructed. There are no enforcement actions.

3.4 Summary of Biosolids Disposal

A summary of the biosolids disposed of from the facility is as follows.

Since the facility has not been constructed, this is not applicable.

3.5 Open Violations

No open violations existed as of October 2021.

4.0 Receiving Waters and Water Supply Information Detail Summary

4.1 Receiving Waters

The receiving waters has been determined to be UNT 11065 of Sherman Creek. The sequence of receiving streams that the UNT 11065 of Sherman Creek discharges into are UNT 11060 of Sherman Creek, Sherman Creek, and the Susquehanna River which eventually drains into the Chesapeake Bay.

4.2 Public Water Supply (PWS) Intake

The closest PWS to the subject facility is Suez Water (PWS ID #7220015) located approximately 24 miles downstream of the subject facility on the Susquehanna River. Based upon the distance and the flow rate of the facility, the PWS should not be impacted.

4.3 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.

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

4.4 2020 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 2020 Pennsylvania Integrated Water Quality Monitoring and Assessment Report as a Category 2 and 5 waterbody. The surface waters is an attaining stream that supports aquatic life and fish consumption. The receiving waters is impaired for recreational purposes due to pathogens from agriculture. The designated use has been classified as protected waters for warm water fishes (WWF) and migratory fishes (MF).

4.5 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. The facility discharge is based upon a known design capacity of the subject facility.

The low flow yield and the Q710 for the subject facility was estimated using StreamStats.

The low flow yield is 0.01 $ft^3/s/mi^2$.

The Q710 is 0.0046 ft^3/s.

4.6 Summary of Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	.0004
Latitude	40º 18' 35.72"	Longitude	-77º12' 3.92"
Quad Name		Quad Code	
Wastewater Description:	Sewage Effluent		
Receiving Waters	Unnamed Tributary of Sherman Creek (WWF)	Stream Code	11065
NHD Com ID	56403303	RMI	1.41
Drainage Area	0.46	Yield (cfs/mi^2)	0.01
Q_{7-10} Flow (cfs)	0.0046	Q_{7-10} Basis	StreamStats
Elevation (ft)		Slope (ft/ft)	
Watershed No.	7-A	Chapter 93 Class.	WWF, MF
Existing Use	Same as Chapter 93 class	Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Attaining Use(s) supports aquatic life and fish consumption. Impaired for recreational purposes.		
Cause(s) of Impairment	Pathogens		
Source(s) of Impairment	Agriculture		
TMDL Status	Not appl.	Name	

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

Nearest Downstream Public Water Supply Intake	Suez Water		
PWS Waters	Susquehanna River	Flow at Intake (cfs)	
PWS RMI	45	Distance from Outfall (mi)	24

5.0: Overview of Presiding Water Quality Standards

5.1 General

There are at least six (6) different policies which determines the effluent performance limits for the NPDES permit. The policies are technology based effluent limits (TBEL), water quality based effluent limits (WQBEL), antidegradation, total maximum daily loading (TMDL), anti-backsliding, and whole effluent toxicity (WET) The effluent performance limitations enforced are the selected permit limits that is most protective to the designated use of the receiving waters. An overview of each of the policies that are applicable to the subject facility has been presented in Section 6.

5.2.1 Technology-Based Limitations

TBEL treatment requirements under section 301(b) of the Act represent the minimum level of control that must be imposed in a permit issued under section 402 of the Act (40 CFR 125.3). Small flow treatment facilities are confined to permit limitations promulgated by the Small Flow Treatment Facilities Manual (Document # 36-0300-002) and the SOP-New and Reissuance Small Flow Treatment Facility Individual NPDES Permit Application (Revised May 17, 2019).

Parameter	Avg Mo	IMAX	Sample Type	Frequency: SRSTPs
Flow (GPD)	Report	XXX	Estimate	1/year
BOD5 (mg/l)	10	20	Grab	1/year
TSS (mg/l)	10	20	Grab	1/year
TRC (mg/l)	Report for SRSTPs		Grab	1/month
Fecal Coliform (No/100 ml)	200 Geometric Mean		Grab	1/year

5.3 Water Quality-Based Limitations

WQBEL are based on the need to attain or maintain the water quality criteria and to assure protection of designated and existing uses (PA Code 25, Chapter 92a.2). The subject facility that is typically enforced is the more stringent limit of either the TBEL or the WQBEL.

The facility is not subject to water quality based effluent limits.

5.3.1 Water Quality Modeling 7.0

The facility is not subject to water quality modeling.

5.3.2 Toxics Modeling

The facility is not subject to toxics modeling.

5.3.3 Whole Effluent Toxicity (WET)

The facility is not subject to WET.

5.4 Total Maximum Daily Loading (TMDL)

5.4.1 TMDL

The goal of the Clean Water Act (CWA), which governs water pollution, is to ensure that all of the Nation's waters are clean and healthy enough to support aquatic life and recreation. To achieve this goal, the CWA created programs designed to regulate and reduce the amount of pollution entering United States waters. Section 303(d) of the CWA requires states to assess their waterbodies to identify those not meeting water quality standards. If a waterbody is not meeting standards, it is listed as impaired and reported to the U.S. Environmental Protection Agency. The state then develops a plan to clean up the impaired waterbody. This plan includes the development of a Total Maximum Daily Load (TMDL) for the pollutant(s) that were found to be the cause of the water quality violations. A Total Maximum Daily Load (TMDL) calculates the maximum amount of a specific pollutant that a waterbody can receive and still meet water quality standards.

Pennsylvania has committed to restoring all impaired waters by developing TMDLs and TMDL alternatives for all impaired waterbodies. The TMDL serves as the starting point or planning tool for restoring water quality.

5.4.1.1 Local TMDL

The subject facility does not discharge into a local TMDL.

5.4.1.2 Chesapeake Bay TMDL Requirement

The Chesapeake Bay Watershed is a large ecosystem that encompasses approximately 64,000 square miles in Maryland, Delaware, Virginia, West Virginia, Pennsylvania, New York and the District of Columbia. An ecosystem is composed of interrelated parts that interact with each other to form a whole. All of the plants and animals in an ecosystem depend on each other in some way. Every living thing needs a healthy ecosystem to survive. Human activities affect the Chesapeake Bay ecosystem by adding pollution, using resources and changing the character of the land.

Most of the Chesapeake Bay and many of its tidal tributaries have been listed as impaired under Section 303(d) of the federal Water Pollution Control Act ("Clean Water Act"), 33 U.S.C. § 1313(d). While the Chesapeake Bay is outside the boundaries of Pennsylvania, more than half of the State lies within the watershed. Two major rivers in Pennsylvania are part of the Chesapeake Bay Watershed. They are (a) the Susquehanna River and (b) the Potomac River. These two rivers total 40 percent of the entire Chesapeake Bay watershed.

The overall management approach needed for reducing nitrogen, phosphorus and sediment are provided in the Bay TMDL document and the Phase I, II, and III WIPs which is described in the Bay TMDL document and Executive Order 13508.

The Bay TMDL is a comprehensive pollution reduction effort in the Chesapeake Bay watershed identifying the necessary pollution reductions of nitrogen, phosphorus and sediment across the seven Bay watershed jurisdictions of Delaware, Maryland, New York, Pennsylvania, Virginia, West Virginia and the District of Columbia to meet applicable water quality standards in the Bay and its tidal waters.

The Watershed Implementation Plans (WIPs) provides objectives for how the jurisdictions in partnership with federal and local governments will achieve the Bay TMDL's nutrient and sediment allocations.

Phase 3 WIP provides an update on Chesapeake Bay TMDL implementation activities for point sources and DEP's current implementation strategy for wastewater. The latest revision of the supplement was December 17, 2019.

The Chesapeake Bay TMDL (Appendix Q) categorizes point sources into four sectors:

- Sector A- significant sewage dischargers;
- Sector B- significant industrial waste (IW) dischargers;
- Sector C- non-significant dischargers (both sewage and IW facilities); and

- Sector D- combined sewer overflows (CSOs).

All sectors contain a listing of individual facilities with NPDES permits that were believed to be discharging at the time the TMDL was published (2010). All sectors with the exception of the non-significant dischargers have individual wasteload allocations (WLAs) for TN and TP assigned to specific facilities. Non-significant dischargers have a bulk or aggregate allocation for TN and TP based on the facilities in that sector that were believed to be discharging at that time and their estimated nutrient loads.

Based upon the supplement the subject facility has been categorized as a Sector C discharger. The supplement defines Sector C as a non-significant discharger that includes sewage facilities (Phase 4 facilities: ≥ 0.2 MGD and < 0.4 MGD and Phase 5 facilities: > 0.002 MGD and < 0.2 MGD), small flow/single residence sewage treatment facilities (≤ 0.002 MGD), and non-significant IW facilities, all of which may be covered by statewide General Permits or may have individual NPDES permits.

At this time, there are approximately 850 Phase 4 and 5 sewage facilities, approximately 715 small flow sewage treatment facilities covered by a statewide General Permit, and approximately 300 non-significant IW facilities.

Due to the low flow rate generated by the facility, this facility is not subject to Sector C monitoring requirements.

5.5 Anti-Degradation Requirement

Chapter 93.4a of the PA regulations requires that surface water of the Commonwealth of Pennsylvania may not be degraded below levels that protect the existing uses. The regulations specifically state that *Existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected*. Antidegradation requirements are implemented through DEP's guidance manual entitled Water Quality Antidegradation Implementation Guidance (Document #391-0300-02).

The policy requires DEP to protect the existing uses of all surface waters and the existing quality of High Quality (HQ) and Exceptional Value (EV) Waters. Existing uses are protected when DEP makes a final decision on any permit or approval for an activity that may affect a protected use. Existing uses are protected based upon DEP's evaluation of the best available information (which satisfies DEP protocols and Quality Assurance/Quality Control (QA/QC) procedures) that indicates the protected use of the waterbody.

For a new, additional, or increased point source discharge to an HQ or EV water, the person proposing the discharge is required to utilize a nondischarge alternative that is cost-effective and environmentally sound when compared with the cost of the proposed discharge. If a nondischarge alternative is not cost-effective and environmentally sound, the person must use the best available combination of treatment, pollution prevention, and wastewater reuse technologies and assure that any discharge is nondegrading. In the case of HQ waters, DEP may find that after satisfaction of intergovernmental coordination and public participation requirements lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located. In addition, DEP will assure that cost-effective and reasonable best management practices for nonpoint source control in HQ and EV waters are achieved.

The subject facility's discharge will be to a non-special protection waters and the permit conditions are imposed to protect existing instream water quality and uses. Neither HQ waters or EV waters is impacted by this discharge.

5.6 Anti-Backsliding

Anti-backsliding is a federal regulation which prohibits a permit from being renewed, reissued, or modified containing effluent limitations which are less stringent than the comparable effluent limitations in the previous permit (40 CFR 122.l.1 and 40 CFR 122.l.2). A review of the existing permit limitations with the proposed permit limitations confirm that the facility is consistent with anti-backsliding requirements. The facility has proposed effluent limitations that are as stringent as the existing permit.

6.0 NPDES Parameter Details

The basis for the proposed sampling and their monitoring frequency that will appear in the permit for each individual parameter are itemized in this Section. The final limits are the more stringent of technology based effluent treatment (TBEL) requirements, water quality based (WQBEL) limits, TMDL, antidegradation, anti-degradation, or WET.

The reader will find in this section:

a) a justification of recommended permit monitoring requirements and limitations for each parameter in the proposed NPDES permit;
b) a summary of changes from the existing NPDES permit to the proposed permit; and
c) a summary of the proposed NPDES effluent limits.

6.1 Recommended Monitoring Requirements and Effluent Limitations

A summary of the recommended monitoring requirements and effluent limitations are itemized in the table. The tables is categorized by and Conventional Pollutants and Disinfection.

6.1.1 Conventional Pollutants and Disinfection

Summary of Proposed NPDES Parameter Details for Conventional Pollutants and Disinfection
Jones Residence, PA00261823

Parameter	Permit Limitation Required by[1]:	Recommendation	
CBOD	TBEL	Monitoring:	The monitoring frequency shall be 1x/yr as a grab sample (SOP)
		Effluent Limit:	Effluent limits shall not exceed 10 mg/l as an average monthly (SOP)
		Rationale:	The monitoring frequency and the effluent limits assigned by the SOP.
TSS	TBEL	Monitoring:	The monitoring frequency shall be 1x/yr as a grab sample (SOP).
		Effluent Limit:	Effluent limits shall not exceed 10 mg/l as an average monthly (SOP)
		Rationale:	The monitoring frequency and the effluent limits assigned by the SOP.
TRC	TBEL	Monitoring:	The monitoring frequency shall be on a 1x/mo basis as a grab sample (Table 6-3).
		Effluent Limit:	A peformance effluent limit is not required. However, the optimum TRC is 0.3 mg/l to 0.5 mg/l.
		Rationale: Chlorine in both combined (chloramine) and free form is extremely toxic to freshwater fish and other forms of aquatic life (Implementation Guidance Total Residual Chlorine 1). The TRC effluent limitations to be imposed on a discharger shall be the more stringent of either the WQBEL or TBEL requirements and shall be expressed in the NPDES permit as an average monthly and instantaneous maximum effluent concentration (Implementation Guidance Total Residual Chlorine 4).	
Fecal Coliform	TBEL	Monitoring:	The monitoring frequency shall be 1x/yr as a grab sample (SOP).
		Effluent Limit:	Effluent limits shall not exceed 200 MPN as a geometric mean (SOP).
		Rationale:	The monitoring frequency and the effluent limits assigned by the SOP.

Notes:
1 The NPDES permit was limited by (a) anti-Backsliding, (b) Anti-Degradation, (c) SOP, (d) TBEL, (e) TMDL, (f) WQBEL, or (g) WET
2 Monitoring frequency based on flow rate of 0.0004 MGD.
3 SOP, New and Reissuance Small Flow Treatment Facility Individual NPDES Permit Applications, Revised January 13, 2015
4 Water Quality Antidegradation Implementaton Guidance (Document # 391-0300-002)
5 Phase 2 Watershed Implementation Plan Wastewater Supplement, Revised September 6, 2017

6.2 Summary of Changes From Existing Permit to Proposed Permit

A summary of how the proposed NPDES permit differs from the existing NPDES permit is summarized as follows.

The change in monitoring frequency and effluent limits were made to be consistent with the most recent standard operating procedures. Since the facility has not been constructed the updates were made in this renewal application.

- **The monitoring frequency for BOD, TSS, and fecal coliform shall be 1x/yr.**
- **The monitoring requirement for pH has been eliminated.**

- **The performance limits for BOD and TSS shall be reduced to 10 mg/l.**
- **The performance limit for fecal coliform shall be 200 MPN year round.**

6.3.1 Summary of Proposed NPDES Effluent Limits

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.

The proposed NPDES effluent limitations are summarized in the table below.

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

I. A. For Outfall 001 , **Latitude** 40° 18' 36.00" , **Longitude** 77° 12' 4.00" , **River Mile Index** 1.41 , **Stream Code** 11065

Receiving Waters: Unnamed Tributary of Sherman Creek (WWF)

Type of Effluent: Sewage Effluent

1. The permittee is authorized to discharge during the period from **Permit Effective Date** through **Permit Expiration Date**.
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 (MGD)	Report Annl Avg	XXX	XXX	XXX	XXX	XXX	1/year	Estimate
TRC	XXX	XXX	XXX	Report Avg Mo	XXX	XXX	1/month	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	XXX	1/year	Grab

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

at Outfall 001

6.3.2 Summary of Proposed Permit Part C Conditions

The subject facility has the following Part C conditions.

- SFTF Maintenance
- Chlorine Minimization

StreamStats Report

Region ID: PA
Workspace ID: PA20210817175719700000
Clicked Point (Latitude, Longitude): 40.30881, -77.20202
Time: 2021-08-17 13:57:38 -0400

Jones Residence PA0261823 Modeling Point #1 August 2021

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.46	square miles
PRECIP	Mean Annual Precipitation	39	inches
STRDEN	Stream Density -- total length of streams divided by drainage area	1.72	miles per square mile
ROCKDEP	Depth to rock	3.4	feet
CARBON	Percentage of area of carbonate rock	0	percent

Low-Flow Statistics Parameters [Low Flow Region 2]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.46	square miles	4.93	1280
PRECIP	Mean Annual Precipitation	39	inches	35	50.4
STRDEN	Stream Density	1.72	miles per square mile	0.51	3.1
ROCKDEP	Depth to Rock	3.4	feet	3.32	5.65
CARBON	Percent Carbonate	0	percent	0	99

Low-Flow Statistics Disclaimers [Low Flow Region 2]

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 2]

Statistic	Value	Unit
7 Day 2 Year Low Flow	0.0174	ft^3/s
30 Day 2 Year Low Flow	0.0284	ft^3/s
7 Day 10 Year Low Flow	0.0046	ft^3/s
30 Day 10 Year Low Flow	0.008	ft^3/s
90 Day 10 Year Low Flow	0.0176	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: 4.6.2
StreamStats Services Version: 1.2.22
NSS Services Version: 2.1.2