pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northwest Regional Office
CLEAN WATER PROGRAM

Application Type	**New**	Application No.	**PA0289761**
Wastewater Type	**Sewage**	APS ID	**1043452**
Facility Type	**SFTF**	Authorization ID	**1361995**

NPDES PERMIT FACT SHEET
INDIVIDUAL SFTF/SRSTP

Applicant, Facility and Project Information

Applicant Name	**James Geer**	Facility Name	**James Geer SFTF**
Applicant Address	1252 Scandia Road	Facility Address	1165 Egypt Hollow Road
	Warren, PA 16365-8440		Warren, PA 16365-8125
Applicant Contact	James Geer	Facility Contact	James Geer
Applicant Phone	(814) 730-6100	Facility Phone	(814) 730-6100
Client ID	364269	Site ID	848421
SIC Code	4952	Municipality	Glade Township
SIC Description	Trans. & Utilities - Sewerage Systems	County	Warren
Date Application Received	July 12, 2021	WQM Required	Yes
Date Application Accepted	August 4, 2021	WQM App. No.	6221411

Project Description: Small Flow Treatment Facility for an existing residence and a proposed residence.

Summary of Review

This is a new discharge for an existing 3-bedroom home and a commercial structure (to be converted to a 3-bedroom home) being proposed to repair of an existing malfunctioning on-lot system.

Act 14 – Proof of Notification was submitted and received.

Proposed treatment will consist of (WQM Permit No. 1021412): Two parallel septic tanks, followed by a Premier Tech Ecoflo Coco Filter unit, followed by a chlorinator, then to a chlorine contact tank.

The EPA Waiver is in effect.

There are no open violations in WMS for the subject Client ID (363807) as of 9/23/2021.

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.

Approve	Deny	Signatures	Date
X		Jordan A. Frey, E.I.T. Jordan A. Frey, E.I.T. / Civil Engineer Trainee	September 30, 2021
X		Justin C. Dickey Justin C. Dickey, P.E. / Environmental Engineer Manager	October 1, 2021

Discharge and Stream Data – 2 - Receiving Waters and PWS

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	.0008
Latitude	41º 53' 43.82"	Longitude	-79º 4' 49.26"
Quad Name	Scandia	Quad Code	41079H1
Wastewater Description:	Sewage Effluent		
Receiving Waters	Unnamed Tributary to Hatch Run (CWF)	Stream Code	56356
NHD Com ID	129446968	RMI	1.1300
Drainage Area	0.047	Yield (cfs/mi^2)	0.1
Q_{7-10} Flow (cfs)	0.005	Q_{7-10} Basis	Default
Elevation (ft)	1859	Slope (ft/ft)	---
Watershed No.	16-B	Chapter 93 Class.	CWF
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)	7.0	Default
Temperature (°F)	20	Default
Hardness (mg/L)	100	Default
Other:	---	---

Nearest Downstream Public Water Supply Intake	Aqua Pennsylvania, Inc. - Emlenton		
PWS Waters	Allegheny River	Flow at Intake (cfs)	1376
PWS RMI	90.0	Distance from Outfall (mi)	>25

Changes Since Last Permit Issuance: N/A – This is a proposed discharge (Planning was approved on June 10, 2021).

Other Comments:

This SFTF was designed where applicable in accordance with the SFTF Manual, but it does not qualify for the PAG-04 General Permit due to the use of a Coco Filter. The proposed discharge is to resolve a repair of a malfunctioning on-lot system.

The Coco Filter unit is reportedly capable of meeting CBOD5 averages of 10 mg/l and TSS averages of 10 mg/l.

In accordance with the SOP, no water quality modeling other than the TRC calculation spreadsheet was performed since this is a SFTF.

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.

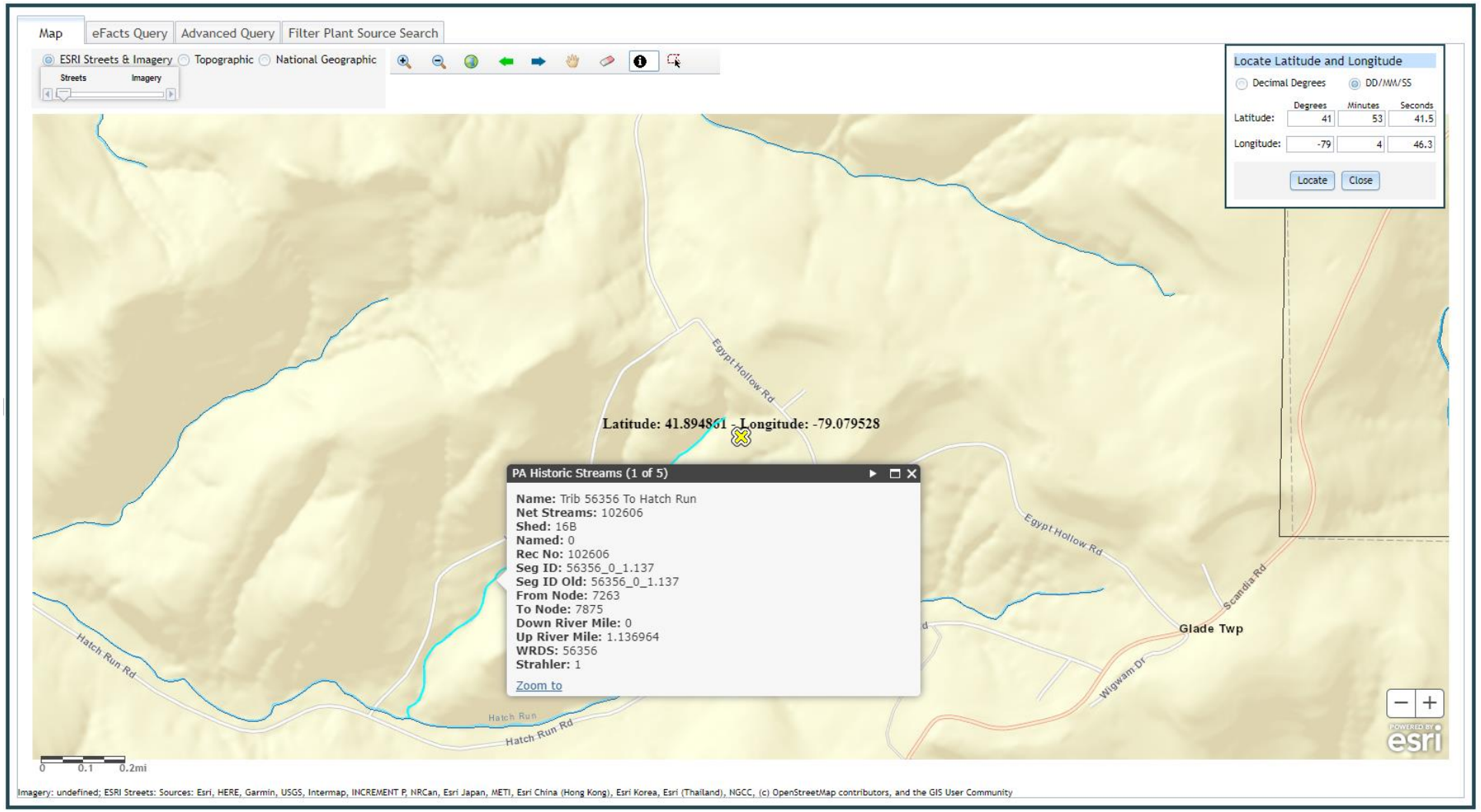
Outfall 001, Effective Period: Permit Effective Date through Permit Expiration Date.

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	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	XXX	XXX	XXX	XXX	XXX	1/month	Estimate
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/month	Grab
TRC	XXX	XXX	XXX	0.23	XXX	0.54	1/month	Grab
BOD5	XXX	XXX	XXX	10.0	XXX	20.0	1/month	Grab
TSS	XXX	XXX	XXX	20.0	XXX	40.0	1/month	Grab
Fecal Coliform (No./100 ml)	XXX	XXX	XXX	200 Geo Mean	XXX	XXX	1/month	Grab

Compliance Sampling Location: Outfall 001, after disinfection.

Other Comments: None.

Attachment 1
eMap – Location Map



Attachment 2
Google Earth Imagery

Attachment 3
TRC Evaluation Spreadsheet

TRC EVALUATION

Input appropriate values in A3:A9 and D3:D9

0.005	= Q stream (cfs)	0.5	= CV Daily
0.003	= Q discharge (MGD)	0.5	= CV Hourly
4	= no. samples	1	= AFC_Partial Mix Factor
0.3	= Chlorine Demand of Stream	1	= CFC_Partial Mix Factor
0	= Chlorine Demand of Discharge	15	= AFC_Criteria Compliance Time (min)
0.5	= BAT/BPJ Value	720	= CFC_Criteria Compliance Time (min)
0	= % Factor of Safety (FOS)		=Decay Coefficient (K)

Source	Reference	AFC Calculations	Reference	CFC Calculations
TRC	1.3.2.iii	WLA afc = 0.363	1.3.2.iii	WLA cfc = 0.346
PENTOXSD TRG	5.1a	LTAMULT afc = 0.373	5.1c	LTAMULT cfc = 0.581
PENTOXSD TRG	5.1b	LTA_afc= 0.135	5.1d	LTA_cfc = 0.201

Source		Effluent Limit Calculations	
PENTOXSD TRG	5.1f	AML MULT = 1.720	
PENTOXSD TRG	5.1g	AVG MON LIMIT (mg/l) = 0.232	AFC
		INST MAX LIMIT (mg/l) = 0.544	

WLA afc	(.019/e(-k*AFC_tc)) + [(AFC_Yc*Qs*.019/Qd*e(-k*AFC_tc))...
	...+ Xd + (AFC_Yc*Qs*Xs/Qd)]*(1-FOS/100)
LTAMULT afc	EXP((0.5*LN(cvh^2+1))-2.326*LN(cvh^2+1)^0.5)
LTA_afc	wla_afc*LTAMULT_afc
WLA_cfc	(.011/e(-k*CFC_tc) + [(CFC_Yc*Qs*.011/Qd*e(-k*CFC_tc))...
	...+ Xd + (CFC_Yc*Qs*Xs/Qd)]*(1-FOS/100)
LTAMULT_cfc	EXP((0.5*LN(cvd^2/no_samples+1))-2.326*LN(cvd^2/no_samples+1)^0.5)
LTA_cfc	wla_cfc*LTAMULT_cfc
AML MULT	EXP(2.326*LN((cvd^2/no_samples+1)^0.5)-0.5*LN(cvd^2/no_samples+1))
AVG MON LIMIT	MIN(BAT_BPJ,MIN(LTA_afc,LTA_cfc)*AML_MULT)
INST MAX LIMIT	1.5*((av_mon_limit/AML_MULT)/LTAMULT_afc)