Pennsylvania Department of Environmental Protection

Southwest Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0205729**
Wastewater Type	**Sewage**	APS ID	**1124507**
Facility Type	**SFTF**	Authorization ID	**1504253**

NPDES PERMIT FACT SHEET
INDIVIDUAL SFTF/SRSTP

Applicant, Facility and Project Information

Applicant Name	**Jayme S & Shawn H Cunningham**	Facility Name	**208 Rural Valley Rd SFTF**
Applicant Address	208 Rural Valley Road	Facility Address	208 Rural Valley Road
	Claysville, PA 15323-1338		Claysville, PA 15323-1338
Applicant Contact	Shawn Cunningham	Facility Contact	Same as Applicant
Applicant Phone	(724) 263-9299	Facility Phone	Same as Applicant
Client ID	351359	Site ID	262268
SIC Code	8811	Municipality	Blaine Township
SIC Description	Services - Private Households	County	Washington
Date Application Received	October 25, 2024	WQM Required	No.
Date Application Accepted		WQM App. No.	

Project Description: Application for a renewal NPDES Permit the discharge of a treated Sewage.

Summary of Review

The applicant has applied for a renewal of 208 Rural Valley Rd SFTF NPDES Permit. NPDES Permit PA0205729 was previously issued by the Department on March 30, 2020 and amended on February 15, 2022. This permit will expire on June 30, 2025. Renewal application was submitted timely.

Per the revised SOP No. BCW-PMT-003, Version 1.8 Revised November 9, 2023 (see page 3 of the SOP), this review will refer to the permitted facility by the facility's address meaning, the renewal permit and other permit documents will have "208 Rural Valley Rd SFTF" as the facility name instead of Cunningham SFTF.

Per application, the existing treatment process consists of 2 septic tanks, sand filtration, and chlorine disinfection.

The receiving body is Wolf Run, which is classified as a HQ-WWF located in State Watershed 20-E.

The Department issued the amendment for the design flow of the SFTF to be increased to 0.0008 MGD. The applicant shows compliance with the permit obligations through the Operations compliance report (see page 5), and the reviewed DMRs & AMRs.

Checking on the effluent monitoring data (table attached to the application) that was sampled for the facility since the last permit issuance and the Operations compliance report, the facility is in compliance with no open violations.

The application stated that there were no changes to the facility conditions regarding discharge, receiving stream, or treatment technology. No changes are foreseen for the next five years, and therefore, Act 537 was not needed.

The applicant provides a proof of Act 14, P.L. 834 compliance with the October 10, 2024 letters. No comments were received.

Approve	Deny	Signatures	Date
X		Hazim Aldalli Hazim Aldalli / Environmental Engineering Specialist	April 11, 2025
X		Mahbuba Iasmin Mahbuba Iasmin, Ph.D., P.E. / Environmental Engineering Manager	April 14, 2025

Summary of Review

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)	0.0008
Latitude	40º 10' 5"	Longitude	-80º 22' 6"
Quad Name	Washington West	Quad Code	40080B3
Wastewater Description:	Sewage Effluent		
Receiving Waters	Wolf Run (HQ-WWF)	Stream Code	32943
NHD Com ID	73865468	RMI	0.758
Drainage Area	2.61	Yield (cfs/mi^2)	0.0103
Q_{7-10} Flow (cfs)	0.027	Q_{7-10} Basis	USGS StreamStats (see Attachment A)
Elevation (ft)	1218	Slope (ft/ft)	0.0067
Watershed No.	20-E	Chapter 93 Class.	High Quality Waters - Warm Water Fishes
Existing Use		Existing Use Qualifier	
Exceptions to Use	None.	Exceptions to Criteria	None.
Assessment Status	Attaining Use(s): Aquatic Life		
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	INDEPENDENCE TWP MUNI AUTH		
PWS Waters	Cross Creek	Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	14.8

Changes Since Last Permit Issuance: None.

Treatment Facility Summary

Treatment Facility Name: Cunningham SFTF

WQM Permit No.	Issuance Date
6391404	March 13, 1994

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Tertiary	Septic Tank, Sand Filter	Chlorination	0.000576

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.0008	----	Not Overloaded	Septic Tank	-----

Compliance History

Operations Compliance Check Summary Report

Facility: CUNNINGHAM SFTF
NPDES Permit No.: PA0205729
Compliance Review Period: 11/1/19-11/5/24
Inspection Summary:

INSPECTED DATE	INSP TYPE	AGENCY	INSPECTION RESULT DESC
09/07/2021	Administrative/File Review	PA Dept of Environmental Protection	Violation(s) Noted

Violation Summary:

VIOLATION DATE	VIOLATION TYPE	VIOLATION TYPE DESC	RESOLVED DATE
09/07/2021	92A.41(A)12 B	NPDES - Failure to submit monitoring report(s) or properly complete monitoring reports	11/22/2021

Open Violations by Client ID:
No open violations for Client ID 351359
Enforcement Summary:

ENF TYPE DESC	ENF CREATION DATE	EXECUTED DATE	ENF FINALSTATUS	ENF CLOSED DATE
Notice of Violation	11/22/2021	11/22/2021	Administrative Close Out	03/12/2024

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:** 11/5/24

Other Comments: **None.**

Development of Effluent Limitations

Outfall No. 001 Design Flow (MGD) 0.0008
Latitude 40º 10' 5.00" Longitude -80º 22' 6.00"
Wastewater Description: Treated 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 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 November 9, 2023).

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 TBELs:

Outfall 001 discharges to Wolf Run, which is classified as a HQ-WWF.

The Antidegradation Best Available Combination of Technologies (ABACT) effluent limits is not a requirement for renewals per DEP's SOP No. BCW-PMT-033, revised February 5, 2024.

Anti-Backsliding:

The applicant didn't request any revision to the current limits/monitoring requirements.

Additional Considerations:

The existing facility was originally permitted prior to the development of the "Water Quality Antidegradation Implementation Guidance" document (Doc. No. 391-0300-002; November 29, 2003); therefore, a TRC AML of 0.5 mg/L and IMAX of 1.1 mg/L will be re-imposed for this renewal (see Attachment B).

Additionally, Pa. Code 25 § 92a.48(b)(3) states: *"Facilities using chlorination that discharge to an Exceptional Value Water, or to a High Quality Water where economic or social justification under § 93.4c(b) (1)(iii) (relating to implementation of*

antidegradation requirements) has not been demonstrated under applicable State or Federal law or regulations, shall discontinue chlorination or dechlorinate their effluents prior to discharge into the waters."

Therefore, the Department recommends that the facility should dechlorinate the water prior to discharge and consider replacing the chlorination system with UV disinfection or other non-chlorine-based systems before or during the renewal of the next NPDES permitting cycle.

BOD_5 limitations were imposed instead of $CBOD_5$ which reflect the most stringent limitation amongst the Technology-Based Effluent Limitations, and based upon the Department's SOP – New and Reissuance Individual SFTF NPDES Permits, and per DEP Small Flow Treatment Facilities Manual (Nov. 2023).

The previously imposed seasonal limits for Ammonia-Nitrogen (AML 3.0 & 9.0 mg/l) will be unchanged.

SFTFs/SRSTPs are not required to monitor for Total Nitrogen and Total Phosphorus in new and reissued permits, also, the receiving stream is not impaired by nutrients.

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.

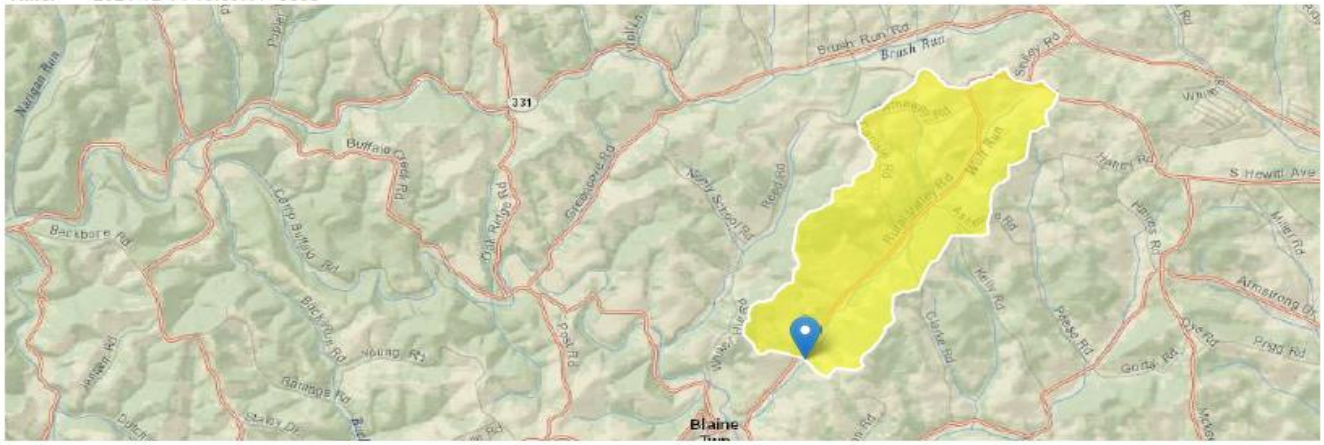
Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (GPD)	0.0008	XXX	XXX	XXX	XXX	XXX	1/month	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/month	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.1	1/month	Grab
BOD5	XXX	XXX	XXX	10	XXX	20.0	1/month	Grab
TSS	XXX	XXX	XXX	10.0	XXX	20.0	1/month	Grab
Fecal Coliform (No./100 ml)	XXX	XXX	XXX	200 Geo Mean	XXX	1000	1/month	Grab
Ammonia-Nitrogen Nov 1 - Apr 30	XXX	XXX	XXX	9.0	XXX	18.0	1/month	Grab
Ammonia-Nitrogen May 1 - Oct 31	XXX	XXX	XXX	3.0	XXX	6.0	1/month	Grab

Compliance Sampling Location: Outfall 001

ATTACHMENT A:
USGS StreamStats

StreamStats Report

Region ID: PA
Workspace ID: PA20241214155920274000
Clicked Point (Latitude, Longitude): 40.16841, -80.36636
Time: 2024-12-14 10:59:41 -0500



Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	2.61	square miles
ELEV	Mean Basin Elevation	1218	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	2.61	square miles	2.26	1400
ELEV	Mean Basin Elevation	1218	feet	1050	2580

Low-Flow Statistics Flow Report [Low Flow Region 4]

PIL: Lower 90% Prediction Interval, PIU: Upper 90% Prediction Interval, ASEp: Average Standard Error of Prediction, SE: Standard Error, PC: Percent Correct, RMSE: Root Mean Squared Error, PseudoR^2: Pseudo R Squared (other -- see report)

Statistic	Value	Unit	SE	ASEp
7 Day 2 Year Low Flow	0.0848	ft^3/s	43	43
30 Day 2 Year Low Flow	0.157	ft^3/s	38	38
7 Day 10 Year Low Flow	0.027	ft^3/s	66	66
30 Day 10 Year Low Flow	0.054	ft^3/s	54	54
90 Day 10 Year Low Flow	0.106	ft^3/s	41	41

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: 4.24.0
StreamStats Services Version: 1.2.22
NSS Services Version: 2.2.1

ATTACHMENT B:
DEP TRC Calculation Sheet

TRC EVALUATION

Input appropriate values in A3:A9 and D3:D9

0.027	= Q stream (cfs)	0.5	= CV Daily
0.0008	= 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 =	6.978	1.3.2.iii	WLA cfc =	6.796
PENTOXSD TRG	5.1a	LTAMULT afc =	0.373	5.1c	LTAMULT cfc =	0.581
PENTOXSD TRG	5.1b	LTA_afc=	2.600	5.1d	LTA_cfc =	3.951

Source	Reference	Effluent Limit Calculations		
PENTOXSD TRG	5.1f	AML MULT =	1.720	
PENTOXSD TRG	5.1g	AVG MON LIMIT (mg/l) =	0.500	BAT/BPJ
		INST MAX LIMIT (mg/l) =	1.170	

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)**