pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southwest Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0205729**
Wastewater Type	**Sewage**	APS ID	**1010059**
Facility Type	**SRSTP**	Authorization ID	**1303090**

NPDES PERMIT FACT SHEET
INDIVIDUAL SFTF/SRSTP

Applicant, Facility and Project Information

Applicant Name	**Mr. Shawn H. & Mrs. Jayme S. Cunningham**	Facility Name	**Cunningham SRSTP**
Applicant Address	208 Rural Valley Road Claysville, PA 15323-1338	Facility Address	208 Rural Valley Road Claysville, PA 15323-1338
Applicant Contact	Mr. Shawn H. 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	January 23, 2020	WQM Required	Yes
Date Application Accepted	January 27, 2020	WQM App. No.	6391404 T-5

Project Description: Application for Renewal and Transfer of an Existing NPDES Permit.

Summary of Review

The applicant has applied for the renewal and transfer of NPDES Permit No. PA0205729. NPDES Permit No. PA0205524 was previously issued by the Department on June 3, 2015. That permit expires on June 30, 2020. This renewal and transfer permit will have an effective date of July 1, 2020.

WQM Permit No. 6391404 authorized the SRSTP to treat an average design flow of 800GPD (House Number 206 & 208). The discharge is to Wolf Run, which is classified as a HQ-WWF located in State Watershed 20-E. The WQM Permit will be transferred separately from this permit.

The existing treatment process consists of 2 septic tanks (one at each house), sand filtration, and chlorine disinfection.

The applicant has requested that the permitted design flow of the SRSTP be reduced from 800 GPD to 400 GPD. As stated on the application, 1 of the 2 homes is no longer occupied and is only used for storage purposes. Both homes are owned by Mr. & Mrs. Cunningham. As a result of this change sampling frequencies have been reduced from 1/month to 1/6 months for all parameters except TRC, which will remain at 1/month. The renewal permit also requires that an AMR be submitted to the Department annually as stated in Part C of the permit.

The previously imposed limits will again be reimposed due to Anti-Backsliding as stated in in 40CFR Section 122.44(l).

Secondary limits were imposed previously due to the large dilution ratio based upon the discharge and receiving water flows.

Technology-based effluent limits for CBOD5 (25.0 mg/L) and TSS (30.0 mg/L) will be imposed based upon State Regulation 92a.47(a)(1).

A technology-based effluent limit of 0.5mg/L for TRC will be imposed based upon State Regulation 92a.48(b)(2). This limit

Approve	Deny	Signatures	Date
X		William C. Mitchell, E.I.T. / Project Manager	2/12/2020
X		Christopher Kriley, P.E. / Program Manager	2/12/20

Summary of Review

was modeled using the Department's TRC_CALC Spreadsheet to verify, output files are attached.

Technology-based effluent limits for pH and Fecal Coliform will be imposed based upon State Regulation 95.2(1) & 92a.47(a)(5).

Seasonal effluent limits for Ammonia-Nitrogen (3.0 mg/L & 9.0 mg/L) will again be imposed based upon the Departments Water Quality Antidegradation Implementation Guidance Document as the discharge is to a HQ receiving stream.

Sewage discharges with design flows < 2,000 GPD are not required to monitor for Total Nitrogen and Total Phosphorus in new and reissued permits.

The applicant has complied with Act 14 Notifications and no comments were received.

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, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.0004
Latitude	40º 10' 5.00"	Longitude	-80º 22' 6.00""
Quad Name	Washington West	Quad Code	1703
Wastewater Description:	Sewage Effluent		
Receiving Waters	Wolf Run (HQ-WWF)	Stream Code	32943
NHD Com ID	73865468	RMI	0.758
Drainage Area	2.64	Yield (cfs/mi^2)	0.01038
Q_{7-10} Flow (cfs)	0.0274	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	1006.41	Slope (ft/ft)	0.0067
Watershed No.	20E	Chapter 93 Class.	High Quality Waters - Warm Water Fishes
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			
PWS Waters		Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	

Changes Since Last Permit Issuance: Updated DA, Yield, Q7-10 Flow, Elevation & Slope based upon data from USGS StreamStats.

Compliance History

Operations Compliance Check Summary Report

Facility: Lindley_SRSTP

NPDES Permit No.: PA0205729

Compliance Review Period: 01/30/2015 – 01/30/2020

Open Violations by Client Summary

None.

Inspection Summary

INSP ID	INSPECTED DATE	INSP TYPE	AGENCY	INSPECTION RESULT DESC	# OF VIOLATIONS
2490129	05/31/2016	Compliance Evaluation	PA Dept of Environmental Protection	No Violations Noted	0
2489649	05/31/2016	Compliance Evaluation	PA Dept of Environmental Protection	No Violations Noted	0

Violation Summary

No violations in eFACTs.

Enforcement Summary

No enforcement actions.

DMR Violation Summary

Not an eDMR user (SRSTP).

Effluent limit violation summary 1/30/2018 – 1/30/2020:

Paper DMR folder not located.

Compliance Status:

Facility has no apparent compliance issues.

Completed by: David Roote

Completed date: 1/30/2020

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.

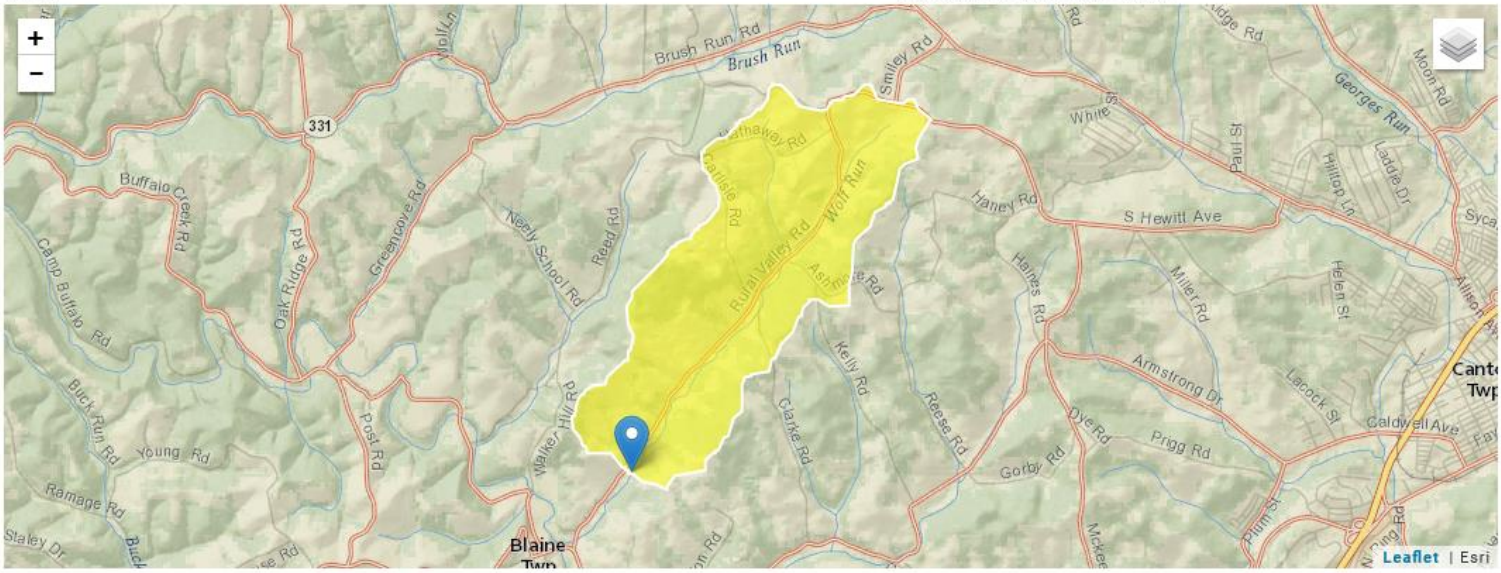
Outfall 001, Effective Period: Permit Effective Date through Permit Expiration Date.

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	Semi-Annual Average	Maximum	Instant. Maximum		
Flow (GPD)	400 SEMI AVG	XXX	XXX	XXX	XXX	XXX	1/6 months	Estimate
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/6 months	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.6	1/months	Grab
CBOD5	XXX	XXX	XXX	25.0	XXX	50.0	1/6 months	Grab
TSS	XXX	XXX	XXX	30.0	XXX	60.0	1/6 months	Grab
Fecal Coliform (No./100 ml)	XXX	XXX	XXX	200	XXX	1000	1/6 months	Grab
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	9.0	XXX	18.0	1/6 months	Grab
Ammonia May 1 - Oct 31	XXX	XXX	XXX	3.0	XXX	6.0	1/6 months	Grab

Compliance Sampling Location: Outfall 001

StreamStats Report

Region ID:	PA
Workspace ID:	PA20200212145124822000
Clicked Point (Latitude, Longitude):	40.16733, -80.36757
Time:	2020-02-12 09:51:41 -0500



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	2.64	square miles
ELEV	Mean Basin Elevation	1217.5	feet

Low-Flow Statistics Parameters[Low Flow Region 4]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	2.64	square miles	2.26	1400
ELEV	Mean Basin Elevation	1217.5	feet	1050	2580

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

PII: Prediction Interval-Lower, PIu: Prediction Interval-Upper, SEp: Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	SE	SEp
7 Day 2 Year Low Flow	0.0859	ft^3/s	43	43
30 Day 2 Year Low Flow	0.158	ft^3/s	38	38
7 Day 10 Year Low Flow	0.0274	ft^3/s	66	66
30 Day 10 Year Low Flow	0.0547	ft^3/s	54	54
90 Day 10 Year Low Flow	0.107	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.

TRC EVALUATION

0.0274	= Q stream (cfs)	0.5	= CV Daily
0.0004	= Q discharge (MGD)	0.5	= CV Hourly
4	= no. samples	0.995	= 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)
	= % Factor of Safety (FOS)		=Decay Coefficient (K)

Source	Reference	AFC Calculations		Reference	CFC Calculations	
TRC	**1.3.2.iii**	WLA afc =	14.073	**1.3.2.iii**	WLA cfc =	13.782
PENTOXSD TRG	**5.1a**	LTAMULT afc =	0.373	**5.1c**	LTAMULT cfc =	0.581
PENTOXSD TRG	**5.1b**	LTA_afc=	5.244	**5.1d**	LTA_cfc =	8.012

Source		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)**