pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0248223**
Wastewater Type	**Sewage**	APS ID	**322881**
Facility Type	**SFTF**	Authorization ID	**1449056**

NPDES PERMIT FACT SHEET
INDIVIDUAL SFTF/SRSTP

Applicant, Facility and Project Information

Applicant Name	**Douglas R Elsasser**	Facility Name	**Elsasser SFTF**
Applicant Address	83 Douglas Drive	Facility Address	83 Douglas Drive
	Cocolamus, PA 17014-8935		Cocolamus, PA 17014-8935
Applicant Contact	Douglas Elsasser	Facility Contact	Cory Fronk
Applicant Phone	(717) 319-9195	Facility Phone	(717) 319-9195
Client ID	143302	Site ID	2442
SIC Code	6514	Municipality	Fayette Township
SIC Description	Fin, Ins & Real Est - Dwelling Operators, Except Apartments	County	Juniata
Date Application Received	July 28, 2023	WQM Required	
Date Application Accepted	October 4, 2023	WQM App. No.	

Project Description: Renewal of existing discharge permit

Summary of Review

An NPDES permit application was submitted for a small flow sewage treatment plant located in Fayette Township, Juniata County.

Based on the review outlined in this report, it is recommended that the permit be drafted and published in the *Pennsylvania Bulletin* for public comments for 30 days.

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		*Aaron Baar* Aaron Baar / Project Manager	July 24, 2024
x		*Maria D. Bebenek* for Daniel W. Martin, P.E. / Environmental Engineer Manager	August 20, 2024

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	.0013
Latitude	40º 38' 49.03"	Longitude	-77º 12' 48.84"
Quad Name	Beaver Springs	Quad Code	1328
Wastewater Description:	Sewage Effluent		
Receiving Waters	Cocolamus Creek (TSF)	Stream Code	11638
NHD Com ID	66203707	RMI	15.9 mi.
Drainage Area	15.7	Yield (cfs/mi^2)	0.0623
Q_{7-10} Flow (cfs)	0.978	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	635.38	Slope (ft/ft)	
Watershed No.	12-B	Chapter 93 Class.	TSF
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	
Nearest Downstream Public Water Supply Intake	Newport Borough Water Authority		
PWS Waters	Juniata River	Flow at Intake (cfs)	21,100
PWS RMI	13.1 mi.	Distance from Outfall (mi)	19.9 mi.

Changes Since Last Permit Issuance: None

Treatment Facility Information

The facility is a small flow treatment facility (0.0013 MGD) serving a residence and post office. The treatment system, according to the inspection reports on file, is as follows:

> Two 900 gal septic tanks → one 1000 ft^2 Sand Filter → Chlorine contact tank with tablet chlorinator → Outfall to UNT to Cocolamus Creek.

There are indications in the inspection records that the outfall may discharge into a stormwater pipe and conveyed elsewhere, but it does not appear that the outfall location has ever been definitively determined. For the purpose of this renewal, the outfall site is considered to be UNT to Cocolamus Creek

The 2024 Integrated Report shows that the UNT to Cocolamus Creek in the vicinity of the discharge is supporting aquatic life and is listed as a Category 2 water, which means that UNT to Cocolamus Creek is a water where some but not all uses are met. The assessment status of the remaining uses may be unknown because data are insufficient to assess the water, or it may be impaired.

The facility was originally permitted under PAG043539. The permit was converted from a general permit to an individual permit in 2006 following numerous complaints regarding the operation and maintenance of the system.

Compliance History	
Summary of DMRs:	The last AMR on record is for the reporting period from June 1, 2016 to May 31, 2017. In a May 12, 2020 administrative inspection, it was noted that the 2018-2019 AMR was sent via email to Michael Benham (now retired) and a physical copy mailed to SCRO. These records, and records for 2019-2020 and beyond, have not been found by the reviewer
Summary of Inspections:	Since the last renewal of the facility's NPDES permit, the following inspections have been logged: December 17, 2019: A CEI was conducted by Michael Benham. A violation was recorded for failure to monitor pollutants as required. A recommendation was also made to attempt to locate the outfall pipe location. May 12, 2020: An administrative review was conducted via phone by Michael Benham due to the pandemic. No violations were noted. Recommendations were made to submit AMRs on time, that routine sampling for parameters in the NPDES permit should be occurring, that septic tanks should be pumped out at least every three years and that TRC should be checked monthly.

Other Comments: There are presently two open violations for unpaid annual fees in 2022 2023. This permit will be able to be issued once these issues are resolved or there has been a legal override authorization.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

WATER MANAGEMENT SYSTEM
OPEN VIOLATIONS BY CLIENT

7/24/2024 9:42:49 AM

Permit: PA0248223
Client: All

Open Violations: 2

CLIENT ID	CLIENT	PF ID	FACILITY	PF KIND	PF STATUS	INSP PROGRAM	PROGRAM SPECIFIC ID	INSP ID	VIOLATION ID	INSPECTION CATEGORY	VIOLATION DATE	VIOLATION CODE
143302	ELSASSER DOUGLAS R	3261	SFS DOUGLAS DR	Sewage Non-Publicly Owned (Non-Muni)	Active	WPC NPDES	PA0248223	3440451	972210	PF	10/06/2022	92A.62
143302	ELSASSER DOUGLAS R	3261	SFS DOUGLAS DR	Sewage Non-Publicly Owned (Non-Muni)	Active	WPC NPDES	PA0248223	3643599	8164842	PF	10/04/2023	92A.62

SSRS_WMS_516 Ver 1.1

Page 1 of 1

Existing Effluent Limitations and Monitoring Requirements

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	Report Daily Max	XXX	XXX	XXX	XXX	2/year	Measured
Total Residual Chlorine (TRC)	XXX	XXX	XXX	0.5	XXX	1.6	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)	XXX	XXX	XXX	200 Geo Mean	XXX	XXXX	2/year	Grab

Compliance Sampling Location: Outfall 001

Existing Flow, CBOD5, TSS and Fecal measurement/sampling frequencies (2/year) are inconsistent with the monitoring frequencies and limits recommended in DEP SOP no. BPNPSM-PMT-003 for SFTFs. Measurement/sampling of these parameters is proposed to be increased to 1/month in this renewal in accordance with the SOP.

The SOP also recommends more stringent CBOD5 and TSS limits than what the current permit allows for. However the SOP also notes that it is not necessary to impose the recommended CBOD5 and TSS limitations for existing SFTFs that were permitted prior to publication of the Small Flow Treatment Facilities Manual (362-0300-002) when such facilities are not capable of meeting tertiary treatment limits and have no documented compliance concerns. The Elsasser SFTF has been in existence since at least 1991 according to Department records, while the first instance of the Small Flow Manual in the PA Bulletin only dates back to 1998. Therefore, the existing limits for CBOD5 and TSS are proposed to remain unchanged in this renewal.

Chesapeake Bay Requirements

No nutrient monitoring requirement is recommended for this facility. Facilities that are designed based on a flow of less than or equal to 2,000 GPD or considered as SRSTPs are exempt from the Bay requirements.

Total Maximum Daily Load (TMDL)

The discharge is in a stream segment listed as attaining uses; therefore, no TMDL has been taken into consideration during this review.

Anti-Degradation Requirements

The discharge is to non-special protection waters/watershed. No HQ/EV waters are impacted by this discharge. The effluent limits for this discharge have been developed to ensure that existing instream water uses and the level of water quality necessary to protect the existing uses are maintained and protected.

Total Residual Chlorine (TRC)

Chlorine is currently used for disinfection and the current NPDES permit contains water quality based effluent limits for TRC. It is necessary to utilize DEP's TRC_CALC excel worksheet to determine appropriate permit requirements for the upcoming permit term. The worksheet indicated that existing limits of 0.5 mg/L (average monthly) and 1.6 mg/L (instantaneous maximum) are still protective of water quality.

Other Considerations

Discharge is into a Stocked Trout Water. Considering size and nature of the discharge, there is not expected to be a negative impact to the trout.

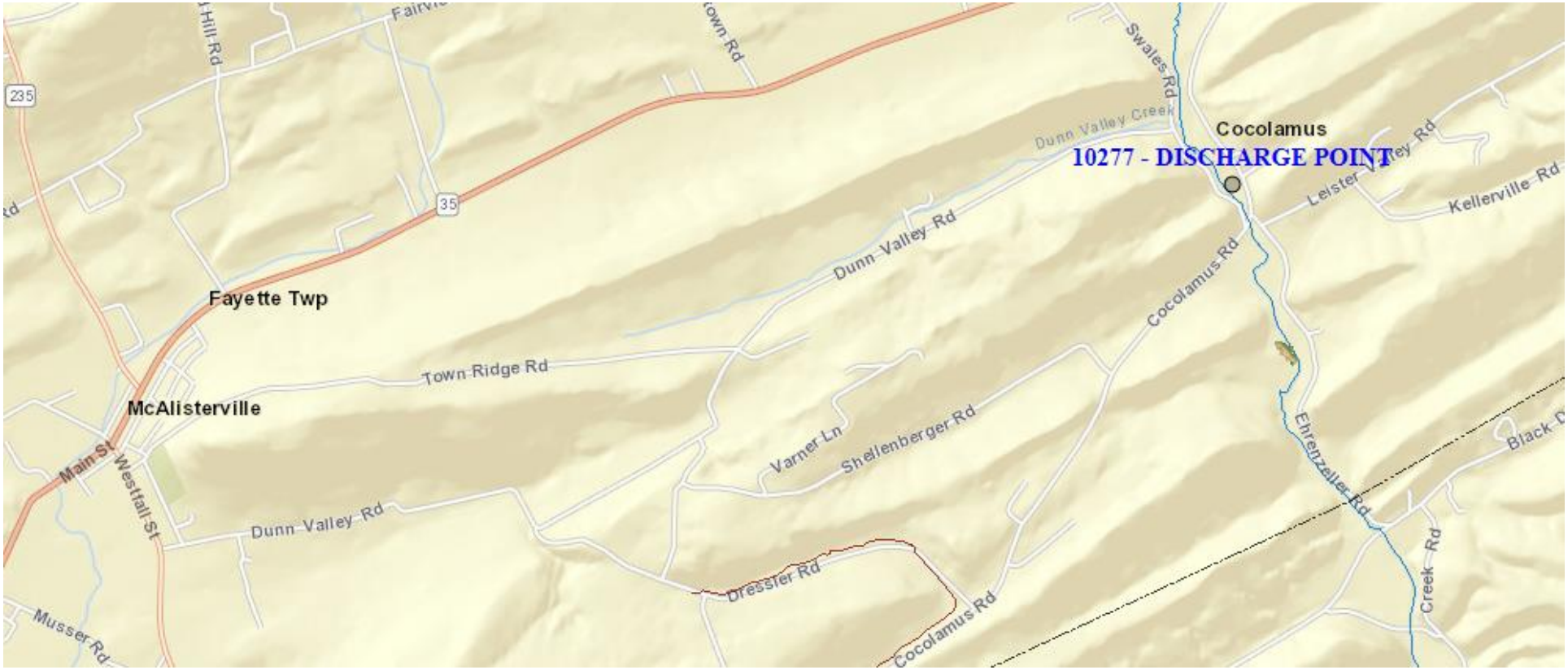
Proposed Effluent Limitations and Monitoring Requirements

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.

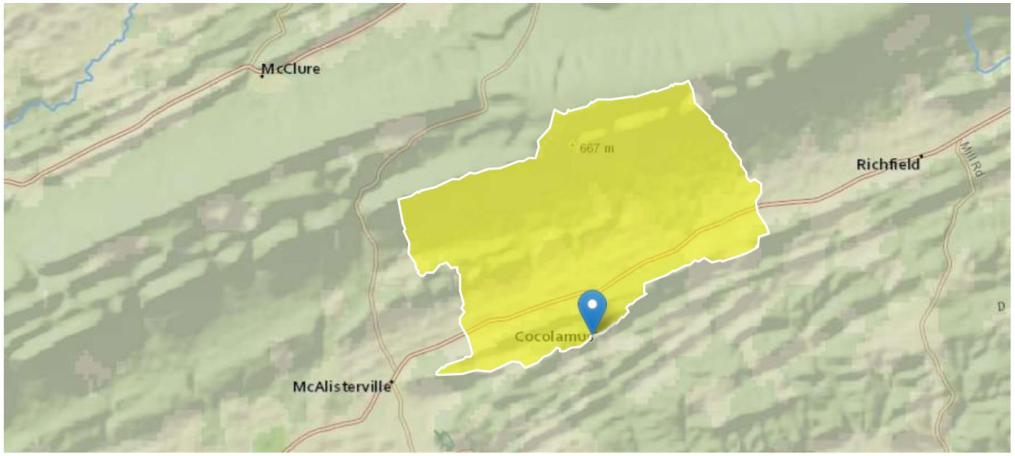
Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	1/month	Measured
TRC	XXX	XXX	XXX	0.5	XXX	1.6	1/month	Grab
CBOD5	XXX	XXX	XXX	25.0	XXX	50.0	1/month	Grab
TSS	XXX	XXX	XXX	30.0	XXX	60.0	1/month	Grab
Fecal Coliform (No./100 ml)	XXX	XXX	XXX	200	XXX	XXX	1/month	Grab

Compliance Sampling Location: Outfall 001


Cocolamus
10277 - DISCHARGE POINT
Fayette Twp
McAlisterville
Dunn Valley Rd
Town Ridge Rd
Cocolamus Rd
Shellenberger Rd
Varner Ln
Ehrenzeller Rd
Dressler Rd
Kellerville Rd
Swales Rd
Dunn Valley Creek
Main St
Westfall St
Musser Rd
Creek Rd
235
35

StreamStats Report

Region ID: PA
Workspace ID: PA20240724130840850000
Clicked Point (Latitude, Longitude): 40.64703, -77.21359
Time: 2024-07-24 09:09:02 -0400



Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
CARBON	Percentage of area of carbonate rock	17.25	percent
DRNAREA	Area that drains to a point on a stream	15.7	square miles
PRECIP	Mean Annual Precipitation	43	inches
ROCKDEP	Depth to rock	4	feet
STRDEN	Stream Density -- total length of streams divided by drainage area	1.58	miles per square mile

Low-Flow Statistics

Low-Flow Statistics Parameters [Low Flow Region 2]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	15.7	square miles	4.93	1280
PRECIP	Mean Annual Precipitation	43	inches	35	50.4
STRDEN	Stream Density	1.58	miles per square mile	0.51	3.1
ROCKDEP	Depth to Rock	4	feet	3.32	5.65

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
CARBON	Percent Carbonate	17.25	percent	0	99

Low-Flow Statistics Flow Report [Low Flow Region 2]

PIL: Lower 90% Prediction Interval, PIU: Upper 90% Prediction Interval, ASEp: Average Standard Error of Prediction, SE: Standard Error, PC: Percent Correct (other -- see report)

Statistic	Value	Unit	SE	ASEp
7 Day 2 Year Low Flow	2.26	ft^3/s	38	38
30 Day 2 Year Low Flow	3.05	ft^3/s	33	33
7 Day 10 Year Low Flow	0.978	ft^3/s	51	51
30 Day 10 Year Low Flow	1.36	ft^3/s	46	46
90 Day 10 Year Low Flow	2.11	ft^3/s	36	36

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: 4.21.0
StreamStats Services Version: 1.2.22
NSS Services Version: 2.2.1

TRC EVALUATION

Input appropriate values in B4:B8 and E4:E7

0.978	= Q stream (cfs)	0.5	= CV Daily
0.0013	= Q discharge (MGD)	0.5	= CV Hourly
30	= 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)	0	=Decay Coefficient (K)

Source	Reference	AFC Calculations		Reference	CFC Calculations	
TRC	1.3.2.iii	WLA afc =	155.149	1.3.2.iii	WLA cfc =	151.251
PENTOXSD TRG	5.1a	LTAMULT afc =	0.373	5.1c	LTAMULT cfc =	0.581
PENTOXSD TRG	5.1b	LTA_afc=	57.812	5.1d	LTA_cfc =	87.930

Source		Effluent Limit Calculations		
PENTOXSD TRG	5.1f	AML MULT =	1.231	
PENTOXSD TRG	5.1g	AVG MON LIMIT (mg/l) =	0.500	BAT/BPJ
		INST MAX LIMIT (mg/l) =	1.635	

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)