pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southwest Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0098990**
Wastewater Type	**Sewage**	APS ID	**1026629**
Facility Type	**SFTF**	Authorization ID	**1332946**

NPDES PERMIT FACT SHEET
INDIVIDUAL SFTF/SRSTP

Applicant, Facility and Project Information

Applicant Name	**Joseph P Graham**	Facility Name	**Joseph P Graham SFTF**
Applicant Address	PO Box 390	Facility Address	420 Constitution Boulevard
	Rochester, PA 15074		Rochester, PA 15074
Applicant Contact	Joseph Graham	Facility Contact	Timothy Bailey
Applicant Phone	(724) 846-5900	Facility Phone	(724)-777-8610
Client ID	82840	Site ID	246741
SIC Code		Municipality	Fallston Borough
SIC Description		County	Beaver
Date Application Received	November 4, 2020	WQM Required	N/A
Date Application Accepted	November 9, 2020	WQM App. No.	

Project Description: Application for Renewal of an NPDES Permit.

Summary of Review

The permittee has applied for a renewal of NPDES Permit No. PA0098990. NPDES Permit No. PA0098990 was previously issued by the PA Department of Environmental Protection (DEP) on April 29, 2016 and expires on April 30, 2021.

The existing STP consists of an aeration tank, gravel bed filter tank, and tablet chlorination.

Upon reviewing the permit renewal application, it was determined that the building associated with this STP is currently being used as a commercial property (trucking dispatch). Therefore, as a reflection of the change in property usage, during this renewal, this facility is being reclassified from an SRSTP to a SFTF.

Please note that the sampling frequency for all parameters have been changed from 1/year to 1/month to be consistent with the Department's SOP - New and Reissuance of SFTF Individual NPDES Permit Applications.

After evaluating the supplied annual sampling data, it was determined that the existing facility is not able to meet the effluent limits for CBOD5 and TSS as stated in DEP SOP No. BCW-PMT-002. As the facility is in compliance, however, the SOP also states, "application managers do not need to impose the CBOD5 and TSS limitations below 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." Therefore, the effluent limits from the previous permit will be reestablished for this permit.

Approve	Deny	Signatures	Date
X		Stephanie Conrad / Environmental Engineering Specialist	March 8, 2021
X		Donald J. Leone, P.E. / Environmental Engineer Manager	March 30, 2021
X		Christopher Kriley, P.E. / Program Manager	March 31, 2021

Summary of Review

The applicant does not use eDMR and current policy does not require eDMR to be used for SFTFs

Sewage discharges with design flows < 2,000 gpd do not require monitoring for Total Nitrogen and Total Phosphorus in new and reissued permits.

Technology-based effluent limits for pH will be imposed based upon State Regulation 95.2(1).

The previous permit required the applicant to monitor for TRC on an annual basis. Since the facility is now classified as a SFTF, current policy requires that the TRC_Calc Model (attached) be run. The model confirms that a Technology-based limit of 0.5 mg/L be imposed as an average monthly limit based upon State Regulation 92.a48(b)(2). Review of DMRs/AMRs show that the facility can meet this limit.

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)	.0005
Latitude	40º 43' 5.00	Longitude	-80º 18' 38.00"
Quad Name		Quad Code	
Wastewater Description:	Sewage Effluent		
Receiving Waters	Brady Run (TSF)	Stream Code	33959
NHD Com ID	123918419	RMI	0.52
Drainage Area	25.6	Yield (cfs/mi^2)	0.0169
Q_{7-10} Flow (cfs)	0.433	Q_{7-10} Basis	USGS Stream Stats
Elevation (ft)		Slope (ft/ft)	
Watershed No.	20-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	

Background/Ambient Data		Data Source
pH (SU)		
Temperature (°F)		
Hardness (mg/L)		
Other:		

Nearest Downstream Public Water Supply Intake	Center Township Water Authority		
PWS Waters	Ohio River	Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	

Changes Since Last Permit Issuance: None

Other Comments:

Compliance History	
Summary of DMRs:	
Summary of Inspections:	

Other Comments: A compliance check was requested on March 5, 2021 and the results are pending.

Proposed Effluent Limitations and Monitoring Requirements

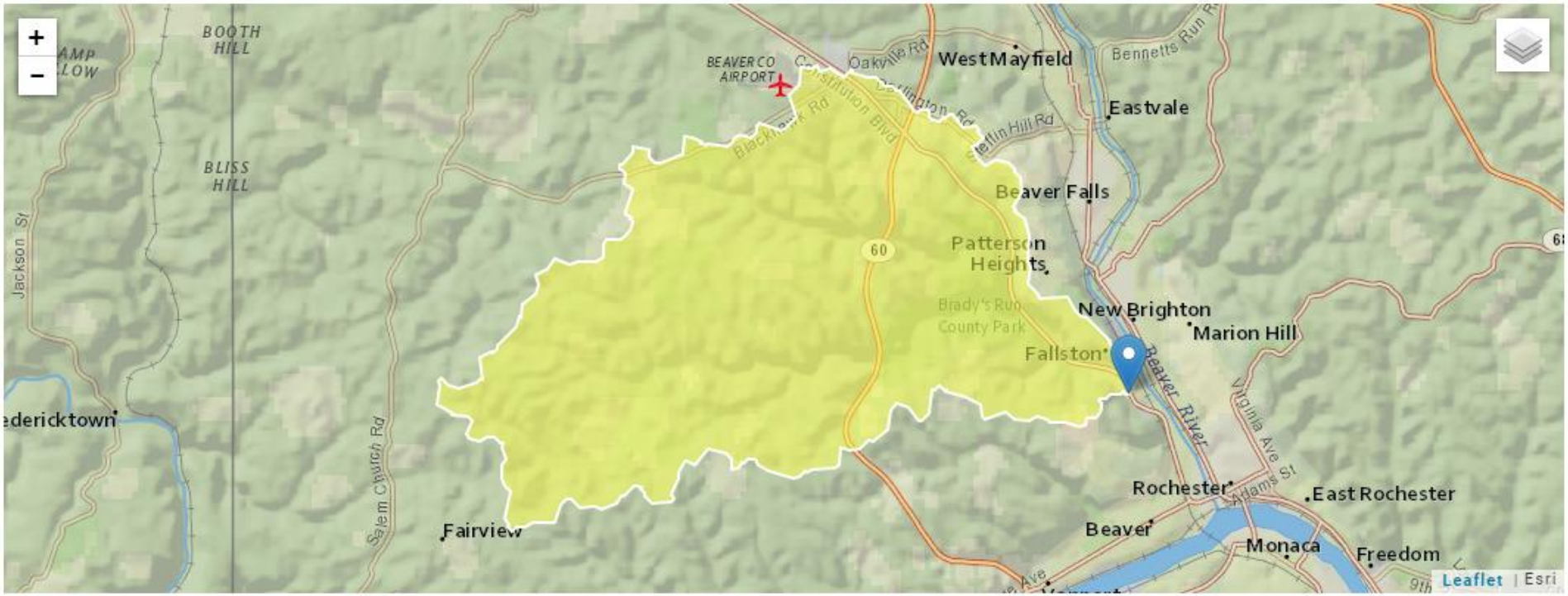
The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). 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)	0.0005	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	1.170	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	200.0 Geo Mean	XXX	XXX	1/month	Grab

StreamStats Report

Region ID:	PA
Workspace ID:	PA20210308151131794000
Clicked Point (Latitude, Longitude):	40.71801, -80.31023
Time:	2021-03-08 10:11:49 -0500



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	25.6	square miles
ELEV	Mean Basin Elevation	1128	feet

Low-Flow Statistics Parameters[Low Flow Region 4]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	25.6	square miles	2.26	1400
ELEV	Mean Basin Elevation	1128	feet	1050	2580

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

PII: Prediction Interval-Lower, Plu: 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	1.07	ft^3/s	43	43
30 Day 2 Year Low Flow	1.77	ft^3/s	38	38
7 Day 10 Year Low Flow	0.433	ft^3/s	66	66
30 Day 10 Year Low Flow	0.722	ft^3/s	54	54
90 Day 10 Year Low Flow	1.24	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

0.433	= Q stream (cfs)	0.5	= CV Daily
0.0005	= 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)
	= % Factor of Safety (FOS)		=Decay Coefficient (K)

Source	Reference	AFC Calculations	Reference	CFC Calculations
TRC	1.3.2.iii	WLA afc = 178.593	1.3.2.iii	WLA cfc = 174.107
PENTOXSD TRG	5.1a	LTAMULT afc = 0.373	5.1c	LTAMULT cfc = 0.581
PENTOXSD TRG	5.1b	LTA_afc= 66.548	5.1d	LTA_cfc = 101.217

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)**