pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southwest Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0217042**
Facility Type	**Non-Municipal**	APS ID	**1026443**
Major / Minor	**Minor**	Authorization ID	**1332572**

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Applicant and Facility Information

Applicant Name	**PA Game Commission**	Facility Name	**PA Game Commission STP**
Applicant Address	4820 Route 711	Facility Address	4820 Route 711
	Bolivar, PA 15923-2420		Bolivar, PA 15923-2420
Applicant Contact	Jason Farabaugh	Facility Contact	Jason Farabaugh
Applicant Phone	724-238-9523	Facility Phone	724-238-9523
Client ID	65977	Site ID	262760
Ch 94 Load Status	Not Overloaded	Municipality	Fairfield Township
Connection Status	N/A	County	Westmoreland
Date Application Received	November 4, 2020	EPA Waived?	Yes
Date Application Accepted	November 4, 2020	If No, Reason	

Purpose of Application: NPDES permit renewal.

Summary of Review

This application is for the renewal of a NPDES Permit. The existing treatment consists of septic tanks, intermittent sand filters and tablet chlorination. The design flow of the facility is 4,000 gallons per day (gpd). It was noted in the 2016 Permit renewal that the discharge was limited to 2,000 gpd and will be treated as a Small Flow Treatment Facility (SFTF). Due to this change, the effluent limitations from the WQM were still used in the previous renewal.

As noted in the 2016 Fact Sheet, the treatment plant once served an elementary school that closed. The PA Game Commission purchased the school and located their SWRO in the facility. The expected flow from the facility was 600 gpd. It was noted in the application that the chlorine tank was converted into a holding tank and the wastewater is pumped off site. The facility wants to retain their NPDES permit in case the plant is needed in the future.

The limitations in this permit renewal are the same as those in the current permit. The only difference is the addition of E coli under Chapter 92a.61.

Ran an Open Violations report on 11/15/2021 and there were no open violations.

Sludge use and disposal description and location(s): Hauled off-site

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

Approve	Deny	Signatures	Date
X		Harmonie Hawley, PhD, PE / Environmental Engineering Specialist /s/	November 15, 2021
X		Pravin C. Patel, P.E. / Environmental Engineer Manager /s/	11/16/2021

Summary of Review
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)	0.002
Latitude	40º 18' 48.00"	Longitude	-79º 8' 54.00"
Quad Name	Wilpen	Quad Code	1612
Wastewater Description:	Sewage Effluent		
Receiving Waters	Unnamed Tributary of Hendricks Creek (TSF)	Stream Code	44867
NHD Com ID	123725665	RMI	0.49
Drainage Area	0.04 square miles	Yield (cfs/mi^2)	0.25
Q_{7-10} Flow (cfs)	0.01	Q_{7-10} Basis	PA StreamStats
Elevation (ft)	1415	Slope (ft/ft)	0.07497
Watershed No.	18-D	Chapter 93 Class.	TSF
Existing Use	**TSF**	Existing Use Qualifier	N/A
Exceptions to Use	None	Exceptions to Criteria	None
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment	N/A		
Source(s) of Impairment	N/A		
TMDL Status	Final	Name	Kiskiminetas-Conemaugh River Watersheds TMDL

Background/Ambient Data		Data Source
pH (SU)	7	TRG WQM (391-2000-007 default data)
Temperature (°F)	68 (20 °C)	TRG WQM (391-2000-007 default data)

Nearest Downstream Public Water Supply Intake — Saltsburg Municipal Water Works on the Conemaugh River

Changes Since Last Permit Issuance: N/A

Other Comments: The TMDL is for Acid Mine Drainage.

Treatment Facility Summary

Treatment Facility Name: PA Game Comm STP

WQM Permit No.	Issuance Date
9171S	Unknown

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Primary	Septic Tank	No Disinfection	0.002

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.004	N/A	Not Overloaded	N/A	N/A

Changes Since Last Permit Issuance: None

Other Comments: None

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.002
Latitude 40º 18' 48.00" **Longitude** -79º 8' 54.00"
Wastewater Description: Sewage Effluent

Technology-Based Limitations

The following technology-based limitations apply, subject to water quality analysis and BPJ where applicable:

Pollutant	Limit (mg/l)	SBC	Federal Regulation	State Regulation
$CBOD_5$	25	Average Monthly	133.102(a)(4)(i)	92a.47(a)(1)
	40	Average Weekly	133.102(a)(4)(ii)	92a.47(a)(2)
Total Suspended Solids	30	Average Monthly	133.102(b)(1)	92a.47(a)(1)
	45	Average Weekly	133.102(b)(2)	92a.47(a)(2)
pH	6.0 – 9.0 S.U.	Min – Max	133.102(c)	95.2(1)
Fecal Coliform (5/1 – 9/30)	200 / 100 ml	Geo Mean	-	92a.47(a)(4)
Fecal Coliform (5/1 – 9/30)	1,000 / 100 ml	IMAX	-	92a.47(a)(4)
Fecal Coliform (10/1 – 4/30)	2,000 / 100 ml	Geo Mean	-	92a.47(a)(5)
Fecal Coliform (10/1 – 4/30)	10,000 / 100 ml	IMAX	-	92a.47(a)(5)
Total Residual Chlorine	0.5	Average Monthly	-	92a.48(b)(2)

Comments: The current permit and/or model results are the same as, or more stringent, than the TBELs and will be retained in the permit. E. coli monitoring was added per Chapter 92a.61.

Water Quality-Based Limitations

The WQM 7.0 model was run and the resulting limitations for CBOD5, NH3-N and DO were the same as in the current permit. The TRC spreadsheet was run and the resulting limitation was the same as the TBELs and the current permit.

Comments: There is a TMDL for the Kiskiminetas-Conemaugh River which appears to be for acid mine drainage (AMD) and is for iron, aluminum and manganese. This permit was not found in the TMDL as having a wasteload allocation.

The monitoring frequencies in the current permit will be retained.

Best Professional Judgment (BPJ) Limitations

Comments: None

Anti-Backsliding

None

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)	0.002	XXX	XXX	XXX	XXX	XXX	1/month	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	9.0	XXX	1/month	Grab
DO	XXX	XXX	3.0	XXX	XXX	XXX	1/month	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.6	1/month	Grab
CBOD5	XXX	XXX	XXX	10.0	XXX	20.0	1/month	Grab
TSS	XXX	XXX	XXX	10.0	XXX	20.0	1/month	Grab
Fecal Coliform (CFU/100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	1/month	Grab
Fecal Coliform (CFU/100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	1/month	Grab
E. Coli (No./100 ml)	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab
Total Nitrogen	XXX	XXX	XXX	Report Daily Max	XXX	XXX	1/year	Grab
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	24.0	XXX	48.0	1/month	Grab
Ammonia May 1 - Oct 31	XXX	XXX	XXX	8.0	XXX	16.0	1/month	Grab
Total Phosphorus	XXX	XXX	XXX	Report Daily Max	XXX	XXX	1/year	Grab

Compliance Sampling Location: Outfall 001

Other Comments: None

WQM Model Output

WQM 7.0 Effluent Limits

SWP Basin	Stream Code	Stream Name
16D	44867	Trib 44867 of "Loves Hollow"

RMI	Name	Permit Number	Disc Flow (mgd)	Parameter	Effl. Limit 30-day Ave. (mg/L)	Effl. Limit Maximum (mg/L)	Effl. Limit Minimum (mg/L)
0.490	PA0217402	\ Game Comm	0.002	CBOD5	10		
				NH3-N	8	16	
				Dissolved Oxygen			3

TRC Spreadsheet Results

TRC EVALUATION

Input appropriate values in A3:A9 and D3:D9

0.01	= Q stream (cfs)	0.5	= CV Daily
0.002	= 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)		=Decay Coefficient (K)

Source	Reference	AFC Calculations	Reference	CFC Calculations
TRC	1.3.2.iii	WLA afc = 1.050	1.3.2.iii	WLA cfc = 1.016
PENTOXSD TRG	5.1a	LTAMULT afc = 0.373	5.1c	LTAMULT cfc = 0.581
PENTOXSD TRG	5.1b	LTA_afc= 0.391	5.1d	LTA_cfc = 0.591

Source		Effluent Limit Calculations	
PENTOXSD TRG	5.1f	AML MULT = 1.231	
PENTOXSD TRG	5.1g	AVG MON LIMIT (mg/l) = 0.482	AFC
		INST MAX LIMIT (mg/l) = 1.575	

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)