pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northwest Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0102768**
Facility Type	**Non-Municipal**	APS ID	**980451**
Major / Minor	**Minor**	Authorization ID	**1251144**

Applicant and Facility Information

Applicant Name	**Penncrest School District**	Facility Name	**Maplewood Jr./Sr. High School**
Applicant Address	18741 State Highway 198, P.O. Box 808	Facility Address	30383 Guys Mills Road
	Saegertown, PA 16433-4315		Guys Mills, PA 16327-5913
Applicant Contact	Patrick Connelly	Facility Contact	Dan Gricks
Applicant Phone	(814) 337-1628	Facility Phone	(814) 657-4366
Client ID	164165	Site ID	243196
Ch 94 Load Status	Not Overloaded	Municipality	Randolph Township
Connection Status		County	Crawford
Date Application Received	October 24, 2018	EPA Waived?	Yes
Date Application Accepted	November 21, 2018	If No, Reason	

Purpose of Application: Renewal of a NPDES Permit for an existing discharge of treated sewage.

Summary of Review

This treatment facility treats sewage from the Maplewood Jr./Sr. High School

No changes to discharge quantity or quality are proposed as part of this permit renewal.

A CACP between the Department and Permittee was executed on August 29, 2019 for the submission of a late application.

There are currently no open violations listed in EFACTS for the permittee (9/09/2019).

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		Adam J. Pesek, E.I.T. / Environmental Engineering Specialist	
X		Justin C. Dickey, P.E. / Environmental Engineer Manager	

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.018
Latitude	41º 39' 11"	Longitude	-79º 56' 7.0"
Quad Name	Townville	Quad Code	0506
Wastewater Description:	Sewage Effluent		
Receiving Waters	Unnamed Tributary to Woodcock Creek	Stream Code	52802
NHD Com ID	127353131	RMI	0.96
Drainage Area	2.06	Yield (cfs/mi^2)	0.09
Q_{7-10} Flow (cfs)	0.19	Q_{7-10} Basis	USGS #03022540
Elevation (ft)	1475	Slope (ft/ft)	0.01833
Watershed No.	16-A	Chapter 93 Class.	HQ-CWF
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)	7.5	8/30/2010 field sample on Woodcock Crk @ Hanks Road Bridge
Temperature (°C)	20	Default (CWF)
Hardness (mg/L)		
Other: NH_3-N	0.06	8/30/2010 field sample on Woodcock Crk @ Hanks Road Bridge

Nearest Downstream Public Water Supply Intake		Aqua Pennsylvania, Inc. – Emlenton	
PWS Waters	Allegheny River	Flow at Intake (cfs)	
PWS RMI	90.0	Distance from Outfall (mi)	51

Changes Since Last Permit Issuance:

Other Comments:

Treatment Facility Summary

Treatment Facility Name: Maplewood High School

WQM Permit No.	Issuance Date
2074450	11/21/1974
2074450 A-1	11/26/2013

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Extended Aeration	Hypochlorite	0.018

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.018	---	Not Overloaded	Aerobic Digestion	Land Application

Changes Since Last Permit Issuance: Removal of alum and dechlorination feed equipment (under WQM Permit No. 2074450 A-1).

Other Comments:

Compliance History

DMR Data for Outfall 001 (from August 1, 2018 to July 31, 2019)

Parameter	JUL-19	JUN-19	MAY-19	APR-19	MAR-19	FEB-19	JAN-19	DEC-18	NOV-18	OCT-18	SEP-18	AUG-18
Flow (MGD) Average Monthly							0.002	0.0015	0.0026	0.003	0.0033	0.0017
Flow (MGD) Daily Maximum							0.01	0.0048	0.009	0.01	0.006	0.0031
pH (S.U.) Minimum							7.3	7.4	7.8	7.4	7.5	7.7
pH (S.U.) Maximum							7.4	7.5	8.0	7.8	7.5	7.9
DO (mg/L) Minimum							6.6	5.3	6.2	5.3	5.5	5.4
TRC (mg/L) Average Monthly							0.5	0.4	0.3	0.4	0.4	0.5
TRC (mg/L) Instantaneous Maximum							0.8	0.65	0.64	0.54	0.7	0.6
CBOD5 (mg/L) Average Monthly							< 8	< 5	< 3	< 3	< 5	6
TSS (mg/L) Average Monthly							< 12	< 13	< 9	< 10	< 5	< 8
Fecal Coliform (CFU/100 ml) Geometric Mean							3	13	< 1	13	< 2	< 7
Fecal Coliform (CFU/100 ml) Instantaneous Maximum							4	166	2	82	< 5	< 10
Total Nitrogen (mg/L) Average Monthly							10.9	10.9	6.7	36.6	37.5	28.1
Ammonia (mg/L) Average Monthly							7.5	24.6	< 3.5	6.7	< 0.8	< 0.8
Total Phosphorus (mg/L) Average Monthly							1	3.8	2.0	9.4	8.4	16

Compliance History

Effluent Violations for Outfall 001, from: September 1, 2018 To: July 31, 2019

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
Ammonia	12/31/18	Avg Mo	24.6	mg/L	16.5	mg/L
Ammonia	10/31/18	Avg Mo	6.7	mg/L	5.5	mg/L

Summary of Inspections: 4/10/2019 the Department conducted a scheduled plant inspection. The inspection report noted that some lab and solids disposal records were missing.

Other Comments:

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.018
Latitude 41º 39' 11.00" **Longitude** -79º 56' 7.00"
Wastewater Description: Treated 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)

Water Quality-Based Limitations

The following limitations were determined through water quality modeling (output files attached):

Parameter	Limit (mg/l)	SBC	Model
Ammonia Nitrogen (5/1 – 10/31)	5.5	Average Monthly	Previous WQBEL
Ammonia Nitrogen (5/1 – 10/31)	11	IMAX	Previous WQBEL
Ammonia Nitrogen (11/1 - 4/30)	16.5	Average Monthly	Previous WQBEL
Ammonia Nitrogen (11/1 - 4/30)	33	IMAX	Previous WQBEL
Dissolved Oxygen	5.0	Daily Minimum	Previous WQBEL
Total Residual Chlorine	1.6	IMAX	Previous TRC Spreadsheet

Comments: Current modeling did not determine the need for any more-stringent WQBELs.

Best Professional Judgment (BPJ) Limitations

Comments: Monitoring for total nitrogen and total phosphorus will be retained in this permit renewal in accordance with the Department's SOP entitled "Establishing Effluent Limitations for Individual Sewage Permits."

Anti-Backsliding

N/A

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/week	Measured
pH (S.U.)	XXX	XXX	6.0 Daily Min	XXX	9.0 Daily Max	XXX	Daily when Discharging	Grab
DO	XXX	XXX	5.0 Daily Min	XXX	XXX	XXX	Daily when Discharging	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.2	Daily when Discharging	Grab
CBOD5	XXX	XXX	XXX	25.0	XXX	50	2/month	Grab
TSS	XXX	XXX	XXX	30.0	XXX	60	2/month	Grab
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
Total Nitrogen	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/quarter	Grab
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	16.5	XXX	33	2/month	Grab
Ammonia May 1 - Oct 31	XXX	XXX	XXX	5.5	XXX	11	2/month	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/quarter	Grab

Compliance Sampling Location: Outfall 001 (after disinfection)

Other Comments: Monitoring frequency was relaxed for total nitrogen and total phosphorus as part of this renewal. Monitoring frequency for pH, D.O. and TRC was made "daily when discharging" (1/day) in accordance with the Department's SOP entitled "Establishing Effluent Limitations for Individual Sewage Permits."

ATTACHMENT A

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Figure 1 - WQM 7.0 Modeling

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Figure 2 - TRC Evaluation Spreadsheet

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Figure 3 - Discharge pH