pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northeast Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0033529**
Facility Type	**Non-Municipal**	APS ID	**39255**
Major / Minor	**Minor**	Authorization ID	**1282143**

Applicant and Facility Information

Applicant Name	**The Pennsylvania State University**	Facility Name	**Penn State Wilkes-Barre Campus STP**
Applicant Address	139-J Physical Plant Building	Facility Address	University Drive
	University Park, PA 16802-1118		Dallas, PA 18612
Applicant Contact	Andrew Gutberlet	Facility Contact	Gary Beisel
Applicant Phone	(814) 865-0545	Facility Phone	(570) 675-2171
Client ID	81628	Site ID	256753
Ch 94 Load Status	Not Overloaded	Municipality	Lehman Township
Connection Status	No Limitations	County	Luzerne
Date Application Received	July 22, 2019	EPA Waived?	Yes
Date Application Accepted	July 30, 2019	If No, Reason	

Purpose of Application: Renewal of an existing permit to discharge 0.050 mgd of treated sewage.

Summary of Review

The applicant is requesting renewal of NPDES Permit No. PA0033529 to authorize a discharge of up to 0.050 mgd of treated sewage from a minor sewage treatment plant into Unnamed Tributary #28320 to East Fork of Harveys Creek (CWF, MF) in State Water Plan Watershed 05-B. The facility discharged an annual average flow of approximately 0.011 mgd in 2018. Per the Department's current existing use list, the receiving tributary does not have an existing use classification. The discharge is not expected to affect public water supplies. The 2018 Pennsylvania Integrated Water Quality Monitoring and Assessment Report lists the receiving tributary as 'Supporting' for aquatic life.

The 'Point of First Use' is taken as the intersection of Unnamed Tributary #28320 with East Fork of Harveys Creek, which is approximately 1.4 miles downstream from the facility's outfall, per a 1987 review of the permittee's NPDES permit renewal.

The new permit includes more stringent limitations for Ammonia-Nitrogen. The WQM 7.0 water quality model was utilized to calculate new summertime ammonia-nitrogen limits of 1.8 mg/L average monthly and 3.6 mg/L IMAX. This is a reduction from 2.5 mg/L average monthly and 5.0 mg/L IMAX, which were originally calculated in a 1987 report and carried forward. Accordingly, the wintertime ammonia-nitrogen limits have been adjusted to continue to be 3x the summertime limits. A review of eDMR submittals indicates that the facility has historically met the new ammonia-nitrogen limits; see graph on page 2.

The facility utilizes UV disinfection. Liquid chlorine is used for cleaning the membrane bioreactor. The existing permit did not include chlorine in the primary effluent monitoring table; it is included in the new permit. The new permit includes an IMAX limitation of 0.38 mg/L, which was calculated using the Department's Total Residual Chlorine spreadsheet. The sampling frequency is 'Daily When Discharging', which is applicable on days chlorine is added.

Approve	Deny	Signatures	Date
X		Joseph Cherinko (signed) Joseph Cherinko, E.I.T. / Environmental Engineering Specialist	December 18, 2020
X		Amy M. Bellanca (signed) Amy M. Bellanca, P.E. / Environmental Engineer Manager	12-22-20

Summary of Review

Minimum measurement frequencies have been adjusted in accordance with Table 6-3 of DEP's Technical Guidance for the Development and Specification of Effluent Limitations.

- The minimum measurement frequency for pH and Dissolved Oxygen has increased from **1/weekday to 1/day**.
  - The existing permit contains a condition in Part C which reads "The permittee shall sample for pH and dissolved oxygen on weekend days when the campus holds events that will contribute significant flow to the wastewater treatment plant." This condition is removed from the new permit because the new 1/day sampling requirement makes it obsolete.

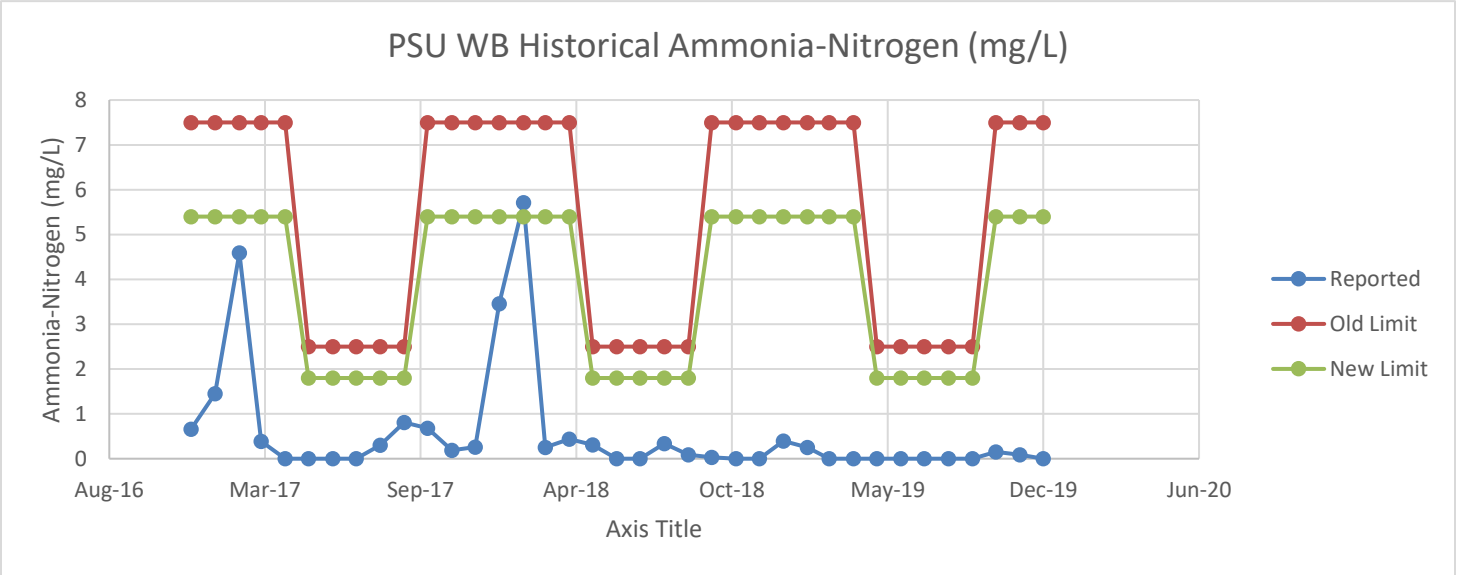
The existing 1/year sampling requirements for Total Phosphorus, Total Nitrogen, Total Kjedahl Nitrogen, and 'Nitrate-Nitrite as Nitrogen' remain in the permit.

The permit renewal application states that Liquid Motion Inc. disposes of the facility's sewage sludge at the Greater Hazleton Joint Sewer Authority STP.

The WMS query "Inspections Report" was performed. A Compliance Evaluation was performed on January 31, 2017, and no violations were noted.

The WMS query "Open Violations by Client Report" was performed; the applicant no open violations.

The existing NPDES permit expired on January 31, 2020. The renewal application was received timely on July 22, 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.

Summary of Review

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	.05
Latitude	41º 18' 27.1"	Longitude	-76º 1' 7.9"
Quad Name	Harveys Lake	Quad Code	0837
Wastewater Description:	Sewage Effluent		
Receiving Waters	Unnamed Tributary to East Fork Harveys Creek (CWF, MF)	Stream Code	28320
NHD Com ID	65633015	RMI	1.02
Drainage Area	0.56 mi^2	Yield (cfs/mi^2)	0.1
Q_{7-10} Flow (cfs)	0.056	Q_{7-10} Basis	Default
Elevation (ft)	1,253’	Slope (ft/ft)	-
Watershed No.	5-B	Chapter 93 Class.	CWF, MF
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	Danville Municipal Water Authority		
PWS Waters	Susquehanna River	Flow at Intake (cfs)	1122
PWS RMI	122.75	Distance from Outfall (mi)	~50

Changes Since Last Permit Issuance: -

Other Comments: -

Treatment Facility Summary

Treatment Facility Name: P S U/ W Barre Campus

WQM Permit No.	Issuance Date	Scope
4012403	10/19/2012	Extensive treatment unit upgrades
4072410	5/12/1972	Original STP Construction

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Membrane Bioreactor	Ultraviolet	0.011 (2018)

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.05	63	Not Overloaded	Aerated Holding Tank	Hauled Offsite

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.050
Latitude 41º 18' 27.1" **Longitude** -76º 1' 7.9"
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
Total Suspended Solids	30.0	Average Monthly	133.102(b)(1)	92a.47(a)(1)
	60.0	IMAX	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)
	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)
	10,000 / 100 ml	IMAX	-	92a.47(a)(5)

Water Quality-Based Limitations

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

Parameter	Limit (mg/l)	SBC	Model
Total Residual Chlorine	0.38	IMAX	TRC Spreadsheet
$CBOD_5$	25.0	Average Monthly	Technology-Based Limitation supported by WQM 7.0
	50.0	IMAX	
Dissolved Oxygen	5.0	Minimum	WQM 7.0
Ammonia-Nitrogen (May-September)	1.8	Average Monthly	WQM 7.0
	3.6	IMAX	
Ammonia-Nitrogen (May-September)	5.4	Average Monthly	WQM 7.0
	10.8	IMAX	