pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northeast Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0062243**
Facility Type	**Municipal**	APS ID	**612771**
Major / Minor	**Minor**	Authorization ID	**1449487**

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Applicant and Facility Information

Applicant Name	**Nesquehoning Borough**	Facility Name	**Nesquehoning Regional STP**
Applicant Address	114 W. Catawissa Street	Facility Address	US-209 & PA-93
	Nesquehoning, PA 18240-1511		Nesquehoning, PA 18240
Applicant Contact	David Hawk	Facility Contact	David Hawk
Applicant Phone	(570) 669-9588	Facility Phone	(570) 669-9588
Client ID	36538	Site ID	452066
Ch 94 Load Status	Not Overloaded	Municipality	Nesquehoning Borough
Connection Status	No Limitations	County	Carbon
Date Application Received	August 3, 2023	EPA Waived?	Yes
Date Application Accepted	August 3, 2023	If No, Reason	-
Purpose of Application	Renewal of NPDES permit.		

Summary of Review

The applicant is requesting renewal of an NPDES permit to discharge 0.65 MGD of treated sewage to Nesquehoning Creek, a cold water and migratory fish (CWF/MF) designated receiving water in state water plan basin 02-B (Middle Lehigh River). As per the Department's current existing use list, the receiving stream does not have an existing use classification that is more protective than its designated use. This segment of Nesquehoning Creek (from confluence with Bear Creek downstream to the mouth) is designated as a natural trout reproduction stream as per PA Fish & Boat Commission.

The $CBOD_5$, TSS, pH, TRC and Fecal Coliform limits are technology-based and carried over from the previous permit.

Modeling inputs from the previous renewal were used to remodel the discharge for this renewal. More stringent limitations were not recommended in WQM 7.0, the TRC Calculation Spreadsheet or the Toxics Management Spreadsheet. Data from stream gage 01449800 (Pohopoco Creek below Beltzville Dam near Parrysville, PA) was used to develop a representative low flow yield (LFY). The data was available between 1969 – 2008. The Watershed Information attachment includes a watershed comparison between Outfall 001 and gage 01449800. The resulting LFY is 0.17 cfs/mi^2. RMI values for modeling inputs were obtained using the Department's eMapPA, drainage areas were delineated using USGS's StreamStats interactive map, and elevations were obtained using the elevation profile tool in StreamStats. Acute and chronic partial mixing factors are both equal to 1 and were obtained using the Toxics Management Spreadsheet.

The 8.0 mg/L monthly average and 16.0 mg/L IMAX limitations for Ammonia-Nitrogen during the summer months are water quality-based and carried over from the previous permit. Monitoring/reporting requirements are included for Ammonia-Nitrogen during the winter months.

Monthly monitoring and reporting requirements are carried over from the previously issued permit for Total Phosphorus and Total Nitrogen (Nitrate+Nitrite-N + Total Kjeldahl Nitrogen). Monthly influent monitoring for BOD_5 and TSS are also carried over from the previous renewal. Quarterly monitoring/reporting for E. Coli is added to the permit as per recent guidance.

Approve	Deny	Signatures	Date
X		Brian Burden, E.I.T. / Project Manager	June 9, 2024
X		Amy M. Bellanca (signed) Amy M. Bellanca, P.E. / Program Manager	7-10-24

Summary of Review

A Total Maximum Daily Load (TMDL) for the Nesquehoning Creek Watershed was finalized on August 30, 2008. The TMDL addresses the three primary metals associated with acid mine drainage (Iron, Manganese and Aluminum) and pH. Treated sewage is not considered a major contributor of the primary metals to the affected streams, however, monitoring and reporting requirements are continued in this permit renewal for these pollutants of concern since the facility receives wastewater from a significant industrial user (Westchester Plastics – 9,000 gpd).

The current DRBC Docket for the facility (Docket No. D-1990-107 CP-4) doesn't include any additional requirements to add to the NPDES permit. All requirements from previous dockets are carried over in this renewal, including the 1,000 mg/L quarterly average limitation for Total Dissolved Solids (TDS).

All monitoring frequencies for parameters with limitations are consistent with the Department's *Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits* (document no. 362-0400-001). Note that since the TDS limitation is required by the DRBC, their recommended monitoring frequency was utilized.

The 2023 Chapter 94 report showed no current or projected hydraulic/organic overloads at the facility. There is one violation for the client that may warrant withholding the issuance of this permit from December 2021 for violation of effluent limitations.

The previously issued permit expired on January 31, 2024 and the application for permit renewal was submitted on time. Antibacksliding requirements have been met since no effluent limitations were made less stringent or removed from the permit. Although the STP discharges to TMDL waters, the EPA waiver is in effect since there are no WLAs for the facility.

Sludge use and disposal description and location(s): The permit renewal application indicates 37.045 dry tons of sewage sludge was disposed of at the Greater Hazleton Joint Sewer Authority WWTP in the previous year via Environmental Service Corp.

WQM Modeling.pdf | TMS PA0062243.pdf | TRC Calculation.pdf | Watershed Information.pdf | DRBC Docket.pdf | Nesquehoning Creek TMDL.pdf

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, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.65
Latitude	40º 52' 20"	Longitude	-75º 47' 20"
Quad Name	Nesquehoning	Quad Code	1239
Wastewater Description:	Sewage Effluent		

Receiving Waters	Nesquehoning Creek	Stream Code	4100
NHD Com ID	26288487	RMI	1.56
Drainage Area	28.1 mi^2	Yield (cfs/mi^2)	0.17
Q_{7-10} Flow (cfs)	4.77	Q_{7-10} Basis	Gage 01449800
Elevation (ft)	665	Slope (ft/ft)	0.016
Watershed No.	2-B	Chapter 93 Class.	CWF, MF
Existing Use	-	Existing Use Qualifier	-
Exceptions to Use	-	Exceptions to Criteria	-
Assessment Status	Impaired		
Cause(s) of Impairment	Metals		
Source(s) of Impairment	Abandoned Mine Drainage		
TMDL Status	Final	Name	Nesquehoning Creek

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

Nearest Downstream Public Water Supply Intake	Lehighton Water Authority		
PWS Waters	Lehigh River	Flow at Intake (cfs)	99 (using 0.17 LFY)
PWS RMI	44.3	Distance from Outfall (mi)	~6

Treatment Facility Summary

Treatment Facility Name: Nesquehoning Regional STP

WQM Permit No.	Issuance Date
1390407	1/9/1991

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Activated Sludge/ Extended Aeration	Gas Chlorine	0.65

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.65	1,400	Not Overloaded	Aerobic Digester	Hauled to GHJSA

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.65
Latitude 40º 52' 20" **Longitude** -75º 47' 20"
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
$CBOD_5$	25.0	Average Monthly	133.102(a)(4)(i)	92a.47(a)(1)
	40.0	Average Weekly	133.102(a)(4)(ii)	92a.47(a)(2)
	50.0	IMAX	-	-
Total Suspended Solids	30.0	Average Monthly	133.102(b)(1)	92a.47(a)(1)
	45.0	Average Weekly	133.102(b)(2)	92a.47(a)(2)
	60.0	IMAX	-	-
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)
Total Residual Chlorine	0.5	Average Monthly	-	92a.48(b)(2)
	1.6	IMAX	-	-

Water Quality-Based Limitations

The following limitations were determined through water quality modeling or other requirements:

Parameter	Limit (mg/l)	SBC	Model
Ammonia-Nitrogen (5/1 – 10/31)	8.0	Average Monthly	Previous modeling
	16.0	IMAX	
Total Dissolved Solids	1,000	Average Quarterly	DRBC Requirement

Anti-Backsliding

No limitations were made less stringent or removed from the permit.

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