pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0114961**
Facility Type	**Municipal**	APS ID	**1047854**
Major / Minor	**Minor**	Authorization ID	**1369698**

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Applicant and Facility Information

Applicant Name	**Hughesville Borough & Wolf Township Joint Municipal Authority**	Facility Name	**Hughesville Wolf Township Joint Municipal Authority WWTP**
Applicant Address	547 Woolen Mill Road Hughesville, PA 17737-9091	Facility Address	547 Woolen Mill Road Hughesville, PA 17737-9091
Applicant Contact	Addison Hanford	Facility Contact	Addison Hanford
Applicant Phone	(570) 584-4024	Facility Phone	(570) 584-4024
Client ID	87480	Site ID	262985
Ch 94 Load Status	Not Overloaded	Municipality	Wolf Township
Connection Status	No Limitations	County	Lycoming
Date Application Received	September 17, 2021	EPA Waived?	No
Date Application Accepted	September 17, 2021	If No, Reason	Significant CB Discharge

Purpose of Application: Renewal of existing NPDES permit

Summary of Review

The above applicant has submitted an NPDES renewal application for an existing discharge to Muncy Creek at their wastewater treatment plant in Wolf Township, Lycoming County. The treatment plant is a 0.675 MGD plant that serves Hughesville Borough, Wolf Township, and Muncy Creek Township. There are no industrial users and no hauled in wastes accepted. The plant consists of a wet well, auto rake/manual bar screen, oxidation ditch, clarifiers (2), phosphorus removal, chlorine gas disinfection units (2), chlorine contact tanks (2), aerobic sludge digesters (3), belt filter press, and covered sludge drying beds (3).

All applicable Standard Operating Procedures (SOPs) developed by the Department for new/reissuance of NPDES permits was used during the review of this application, unless otherwise noted. Based on the following review of the respective application, it is recommended the permit be drafted and published in the PA Bulletin to begin the 30-day public comment period.

Sludge use and disposal description and location(s): Lycoming County Landfill

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		*Chad A. Fabian* Chad A. Fabian / Project Manager	July 29, 2022
X		*Nicholas W. Hartranft, P.E.* Nicholas W. Hartranft, P.E. / Environmental Engineer Manager	August 1, 2022

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	001	Design Flow (MGD)	.675
Latitude	41º 13' 9.62"	Longitude	-76º 43' 49.31"
Quad Name	Hughesville	Quad Code	4-17.4
Wastewater Description:	Sewage Effluent		
Receiving Waters	Muncy Creek (TSF, MF)	Stream Code	19402
NHD Com ID	66914679	RMI	5.26
Drainage Area	112.5 miles^2	Yield (cfs/mi^2)	0.05
Q_{7-10} Flow (cfs)	5.77	Q_{7-10} Basis	Previous, watershed delineation
Elevation (ft)	520	Slope (ft/ft)	n/a
Watershed No.	10-D	Chapter 93 Class.	TSF, MF
Existing Use	TSF	Existing Use Qualifier	n/a
Exceptions to Use	none	Exceptions to Criteria	none
Assessment Status	Attaining Use(s)		
Nearest Downstream Public Water Supply Intake	PA American Water near Milton, approximately 22.6 river miles downstream of the discharge on the West Branch Susquehanna River.		

Changes Since Last Permit Issuance: None

Treatment Facility Summary

Treatment Facility Name: Hughesville Wolf Township Joint Municipal Authority

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary With Phosphorus Reduction	Oxidation Ditch	No Disinfection	0.675

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.675	1440	Not Overloaded	Aerobic Digestion	Landfill

Changes Since Last Permit Issuance: The facility has added a permanent influent pump station bypass, only to be used temporarily during improvements and maintenance. The facility also added a phosphorus removal system. Both installations were approved under amendments to Water Quality Management Permit No. 4105401.

Compliance History	
Summary of DMRs:	The facility utilizes the Department's eDMR system. A review of the eDMRs show two effluent violations have occurred in the past twelve months. Both effluent violations were for fecal coliforms and they are documented on the following page.
Summary of Inspections:	The most recent inspection performed by the Department was on 5/17/2022. No violations were noted during the inspection.

Other Comments: None.

Compliance History

Effluent Violations for Outfall 001, from: July 1, 2021 To: May 31, 2022

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
Fecal Coliform	08/31/21	IMAX	3654	No./100 ml	1000	No./100 ml
Fecal Coliform	07/31/21	IMAX	1046.2	No./100 ml	1000	No./100 ml

The above noted violations should not prevent the renewal of this NPDES permit. There are not any open violations or pending compliance actions.

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** .675
Latitude 41º 13' 7.00" **Longitude** -76º 43' 53.00"
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: None

Water Quality-Based Limitations

The Department's WQM 7.0 model allows the Department to evaluate point source discharges of dissolved oxygen (DO), carbonaceous BOD (CBOD5), and ammonia-nitrogen (NH3-N) into free-flowing streams and rivers. To accomplish this, the model simulates two basic processes: the mixing and degradation of NH3-N in the stream and the mixing and consumption of DO in the stream due to the degradation of CBOD5 and NH3-N. WQM 7.0 modeling was previously performed (see attached) for the discharge. The results of this modeling show that the existing limitations are protective of water quality standards. Per the Department's SOP for reissuance of NPDE Permits, additional modeling is not required since there has been no change to the discharge quality or the receiving stream.

The Department's Toxic Management Spreadsheet (TMS) was used to evaluate the toxics that were sampled and included in the effluent testing section of the NPDES renewal application. The TMS showed that effluent limitations for copper is required. The TMS has been attached. The Department believes he facility can meet the new copper limit based on the review of the previous 60 samples that were monitoring and reported throughout the past 5 years of the existing permit cycle. Therefore, no compliance schedule is necessary.

The chlorine spreadsheet shows that the technology standard of 0.5 mg/l monthly average limitation is protective of water quality. See attached model for results.

Emerging Pollutants (TDS, Sulfate, Chloride, Bromide, 1,4-Dioxane)

As a result of direction from the Environmental Quality Board and EPA, the Department has begun increased monitoring for the emerging pollutants of TDS, Sulfate, Chloride, Bromide, 1,4-Dioxane.

Where the TDS concentration from a discharge exceeds 1,000 mg/l or loading exceeds 20,000 lbs/day and the flow exceeds 0.1 MGD the permit should typically include monitoring for TDS, Sulfate, Chloride and Bromide. Therefore, because the application sampling showed the TDS concentration in Outfall 001 to be less than 1,000 mg/l (227 mg/l), the

permit will not include quarterly monitoring for TDS, as well as Sulfate and Chloride. Since sampling for Bromide was 0.037 mg/l, it will not be required to be monitored in the permit. Additionally, since there is not a known source of 1,4-Dioxane present, it also will not be required to be monitored in the permit.

Chesapeake Bay Nutrient Requirements

A portion of the Chesapeake Bay and many of its tidal tributaries have been listed as impaired under Section 303(d) of the Water Pollution Control Act, 33 U.S.C. §1313(d). Total Nitrogen and Total Phosphorus cap loads have been established for significant dischargers in Pennsylvania in order to reduce the total nutrient load to the Bay and meet State of Maryland Water Quality Standards. The applicant is considered a Phase 3 Significant Chesapeake Bay discharger. Nutrient cap loadings have previously been established for this facility pursuant to the Phase III Watershed Implementation Plan II (WIP II).

These respective annual nutrient loads are:

Total Nitrogen	Total Phosphorus
12,329 lbs per year	1,644 lbs per year

Best Professional Judgment (BPJ) Limitations

None

Anti-Backsliding

There is no proposal to reduce any effluent limitation in this draft permit.

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	Weekly Average	Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Metered
pH (S.U.)	XXX	XXX	6.0	XXX	9.0 Max	XXX	1/day	Grab
DO	XXX	XXX	Report	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.6	1/day	Grab
CBOD5	140	225	XXX	25	40	50	1/week	8-Hr Composite
BOD5 Raw Sewage Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	1/week	8-Hr Composite
TSS	165	250	XXX	30	45	60	1/week	8-Hr Composite
TSS Raw Sewage Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	1/week	8-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	1/week	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	1/week	Grab
E. Coli (No./100 ml)	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/quarter	Grab
Nitrate-Nitrite	XXX	XXX	XXX	Report	XXX	XXX	2/week	8-Hr Composite
Nitrate-Nitrite (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation

Outfall 001, Continued (from 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	Weekly Average	Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Total Nitrogen	XXX	XXX	XXX	Report	XXX	XXX	1/month	Calculation
Total Nitrogen (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Total Nitrogen (lbs) Effluent Net	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	Report	XXX	XXX	2/week	8-Hr Composite
Ammonia May 1 - Oct 31	50	70	XXX	9.0	13.0	18	2/week	8-Hr Composite
Ammonia (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
TKN	XXX	XXX	XXX	Report	XXX	XXX	2/week	8-Hr Composite
TKN (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Total Phosphorus	XXX	XXX	XXX	Report	XXX	XXX	2/week	8-Hr Composite
Total Phosphorus (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Total Phosphorus (lbs) Effluent Net	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Total Copper (ug/L)	XXX	XXX	XXX	45	90	112	1/month	8-Hr Composite

Compliance Sampling Location: 001

Other Comments: All of the above effluent limitations are the same as in the existing NPDES permit, with the exception of E. Coli and Total Copper (see above explanation). E. Coli has been added in accordance to the Department's Standard Operating Procedures (SOP) for establishing effluent limitations for sewage discharges (dated March 22, 2021).

Proposed Effluent Limitations and Monitoring Requirements

The limitations and monitoring requirements specified below are proposed for the draft permit, to comply with Pennsylvania's Chesapeake Bay Tributary Strategy.

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
	Monthly	Annual	Monthly	Monthly Average	Maximum	Instant. Maximum		
Total Nitrogen (lbs) Effluent Net	XXX	12329 Total Annual	XXX	XXX	XXX	XXX	1/year	Calculation
Total Nitrogen (lbs)	XXX	Report Total Annual	XXX	XXX	XXX	XXX	1/year	Calculation
Ammonia (lbs)	XXX	Report Total Annual	XXX	XXX	XXX	XXX	1/year	Calculation
Total Phosphorus (lbs)	XXX	Report Total Annual	XXX	XXX	XXX	XXX	1/year	Calculation
Total Phosphorus (lbs) Effluent Net	XXX	1644 Total Annual	XXX	XXX	XXX	XXX	1/year	Calculation

Compliance Sampling Location: 001

Other Comments: None

It is recommended the permit be drafted as described above.