pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northcentral Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0112771**
Facility Type	**Municipal**	APS ID	**1005469**
Major / Minor	**Minor**	Authorization ID	**1295023**

Applicant and Facility Information

Applicant Name	**Port Matilda Borough Authority**	Facility Name	**Port Matilda Borough Authority STP**
Applicant Address	PO Box 519	Facility Address	Route 220
	Port Matilda, PA 16870-0519		Port Matilda, PA 16870
Applicant Contact	Timothy Estright	Facility Contact	Timothy Estright
Applicant Phone	(814) 692-7513	Facility Phone	(814) 692-7513
Client ID	66814	Site ID	246511
Ch 94 Load Status	Not Overloaded	Municipality	Worth Township
Connection Status	No Limitations	County	Centre
Date Application Received	November 4, 2019	EPA Waived?	Yes
Date Application Accepted	November 9, 2019	If No, Reason	

Purpose of Application: Renewal of existing NPDES permit.

Summary of Review

The above facility has submitted an NPDES renewal application for an existing discharge to Bald Eagle Creek. The sewage treatment plant (STP) serves the Borough of Port Matilda and Worth Township. The STP is a 0.08 MGD sequencing batch reactor (SBR) plant consisting of a wet well, raw sewage pumps, comminutor, alum addition, SBR's, decanters, UV disinfection, flow meters, and aerobic digesters.

Unless otherwise noted, the Department's standard operating procedures (SOPs) for reissuance of NPDES permits were followed during the review of this application.

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 28, 2020
X		*Nicholas W. Hartranft, P.E.* Nicholas W. Hartranft, P.E. / Environmental Engineer Manager	July 29, 2020

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	001	Design Flow (MGD)	.08
Latitude	40º 48' 17.46"	Longitude	-78º 2' 37.79"
Quad Name	Port Matilda	Quad Code	1221
Wastewater Description:	Sewage Effluent		
Receiving Waters	Bald Eagle Creek	Stream Code	22412
NHD Com ID	67180448	RMI	
Drainage Area	30	Yield (cfs/mi^2)	0.071
Q_{7-10} Flow (cfs)	2.1	Q_{7-10} Basis	Basin delineation
Elevation (ft)	980	Slope (ft/ft)	n/a
Watershed No.	9-C	Chapter 93 Class.	TSF-MF
Existing Use	TSF-MF	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	n/a	Name	n/a
Nearest Downstream Public Water Supply Intake	Near Milton, PA on the West Branch Susquehanna River greater than 50 miles downstream		

Changes Since Last Permit Issuance: None

Compliance History	
Summary of DMRs:	The facility utilizes the Department's eDMR system. There have been no reported violations in the previous 12 months. The most recent effluent violation was a phosphorus exceedance in July of 2018. The facility has consistently met effluent limitations during the existing permit cycle. A summary of the effluent results for the past 12 months can be found in the table on the next page.
Summary of Inspections:	The most recent inspection was performed by the Department on 4/1/2019. The only violation noted during the inspection was the phosphorus exceedance highlighted above. There was no visible impact observed at and below the outfall location.

Compliance History

DMR Data for Outfall 001 (from June 1, 2019 to May 31, 2020)

Parameter	MAY-20	APR-20	MAR-20	FEB-20	JAN-20	DEC-19	NOV-19	OCT-19	SEP-19	AUG-19	JUL-19	JUN-19
Flow (MGD) Average Monthly	0.036	0.048	0.054	0.05	0.043	0.047	0.041	0.04	0.033	0.032	0.035	0.038
Flow (MGD) Daily Maximum	0.115	0.129	0.165	0.091	0.069	0.054	0.075	0.118	0.049	0.038	0.045	0.058
pH (S.U.) Minimum	7.0	7.0	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	7.0	7.1
pH (S.U.) Instantaneous Maximum	7.3	7.3	7.3	7.2	7.1	7.1	7.2	7.1	7.3	7.5	7.2	7.2
DO (mg/L) Minimum	6.8	6.6	7.1	7.4	7.5	7.1	6.8	6.4	6.4	5.8	6.0	6.0
CBOD5 (mg/L) Average Monthly	< 4.2	< 3.1	< 4.3	< 3.0	3.9	< 5.2	3.6	< 6.2	< 4.0	< 3.0	< 3.0	< 3.0
TSS (mg/L) Average Monthly	5.4	4.4	3.8	8.4	6.2	6.6	6.2	15.4	6.5	3.2	5.6	7.1
TSS (mg/L) Weekly Average	7.6	5.2	5.2	10.8	9.2	10.0	6.8	22	7.2	4.4	6.2	10.0
Fecal Coliform (No./100 ml) Geometric Mean	< 1.0	< 2.0	12	4.0	5.0	5.0	< 7.0	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Fecal Coliform (No./100 ml) Instantaneous Maximum	< 1.0	3.1	15.6	4.1	5.2	25.6	12.4	1.0	1.0	1.0	2.0	< 1.0
UV Transmittance (%) Minimum	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total Nitrogen (mg/L) Annual Average						< 8.6						
Dissolved Phosphorus (mg/L) Average Monthly	1.4	0.7	1.4	0.9	1.2	0.5	1.8	1.5	1.5	1.2	1.8	1.4
Total Phosphorus (mg/L) Annual Average						1.3						

Development of Effluent Limitations			
Outfall No.	001	**Design Flow (MGD)**	.08
Latitude	40º 48' 17.67"	**Longitude**	-78º 2' 38.22"
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)

Water Quality-Based Limitations

No "Reasonable Potential Analysis" was performed for toxics since they are not expected to be present in the wastewater nor were they required to test for them in the renewal application since the facility does not serve any industrial users.

The Department's WQM7.0 model allows the Department to evaluate point source discharges of dissolved oxygen (DO), carbonaceous BOD ($CBOD_5$), and ammonia-nitrogen (NH_3-N) into free-flowing streams and rivers. To accomplish this, the model simulates two basic processes: the mixing and degradation of NH_3-N in the stream and the mixing and consumption of DO in the stream due to the degradation of $CBOD_5$ and NH_3-N. During the previous NPDES renewal cycle, WQM7.0 modeling was performed for the discharge to Bald Eagle Creek. The modeling showed that the existing limitations are protective of water quality standards. Per the Department's SOP for reissuance of NPDES permits, no further modeling is needed during this permit renewal since there have been no changes to the receiving stream or the discharge since last permit issuance.

The existing dissolved phosphorus limitation is the result of the discharge being upstream from the Sayers Foster Lake Impoundment at Bald Eagle State Park. The Department's LAKE model confirms no additional controls are needed for phosphorus. See the attached model outputs for additional information regarding the phosphorus limitations.

Chesapeake Bay Requirements

According to the Department's Supplement to the Phase 2 Chesapeake Bay Watershed Implementation Plan (WIP), the facility is classified as a Phase 5 bay discharger (>0.002 MGD and <0.2 MGD). Phase 5 facilities are required to monitor for total nitrogen and total phosphorus at a rate of 1/year unless the facility has already conducted at least two years of nutrient monitoring and a summary of the results are included in the next permit fact sheet. The facility has been sampling for total nitrogen and total phosphorus during the existing permit cycle. The following is a summary of the peak values reported over the existing permit cycle:

Parameter	Instantaneous Maximum (mg/l)	Total Annual (lbs)
Total Nitrogen (TN)	8.6	2094
Total Phosphorus (TP)	1.3	317

Anti-Backsliding

This draft permit does not propose to relax any of the existing limitations at the facility.

Existing and 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	Daily Maximum	Daily Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	1/day	Metered
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	Report	XXX	XXX	XXX	1/day	Measured
CBOD5	16	26	XXX	25	40	50	2/month	8-Hr Composite
TSS	20	30	XXX	30	45	60	2/month	8-Hr Composite
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
UV Transmittance (%)	XXX	XXX	Report	XXX	XXX	XXX	1/day	Metered
Dissolved Phosphorus	1.3	2.0	XXX	2.0	3.0	4	2/month	8-Hr Composite

Compliance Sampling Location: 001

Other Comments: It is recommended that the permit be drafted as described within this fact sheet.