pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southeast Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0033880**
Facility Type	**Non-Municipal**	APS ID	**1027633**
Major / Minor	**Minor**	Authorization ID	**1334729**

Applicant and Facility Information

Applicant Name	**Boyertown Area School District**	Facility Name	**New Hanover Upper Frederick Elementary School STP**
Applicant Address	1131 Montgomery Avenue	Facility Address	2547 Big Road
	Boyertown, PA 19512-1299		Frederick, PA 19435-9701
Applicant Contact	Charlie Dresher	Facility Contact	Allan Gamler
Applicant Phone	(610) 473-3470	Facility Phone	(610) 754-9580
Client ID	34909	Site ID	444494
Ch 94 Load Status	Not Overloaded	Municipality	New Hanover Township
Connection Status		County	Montgomery
Date Application Received	November 16, 2020	EPA Waived?	Yes
Date Application Accepted		If No, Reason	

Purpose of Application: Permit Renewal

Summary of Review

The applicant requests renewal of an NPDES permit to discharge treated sewage from New Hanover Upper Frederick Elementary School STP. The receiving stream unnamed tributary to Swamp Creek is not impaired, however Swamp Creek is impaired at confluence with tributary from municipal point source and urban runoff.

The treatment plant consists of comminutor, aeration tanks, clarifiers, siphon tank, sand filters, chlorine contact tank and sludge holding/digesting tank. Phosphorus control is through chemical addition. No upgrades are proposed over the next five years.

Sludge is hauled away to Pottstown WWTP.

Based on the review of the eDMRs, the discharge is in compliance with the permit limits. Inspection report shows the plant is operating well. The discharge flow is much lower than the permitted flow of 0.01 mgd.

There are no changes in the stream designation, treatment units, influent quality etc.
The existing effluent limits are recommended to continue for the new permit.

Act 14 Notifications:

New Hanover Township	-	October 6, 2020
Upper Frederick Township	-	October 13, 2020
Montgomery County	-	October 6, 2020

Approve	Deny	Signatures	Date
X		*Sara Abraham* Sara Reji Abraham, E.I.T. / Project Manager	December 28, 2020
X		*Pravin Patel* Pravin C. Patel, P.E. / Environmental Engineer Manager	12/29/2020

Summary of Review

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.

Permit Conditions:

A. No Stormwater
B. Acquire Necessary Property Rights
C. Proper Sludge Disposal
D. Abandon STP When Municipal Sewers Available
E. Chlorine Optimization
F. Dry Stream Discharge
G. Operator Notification
H. Fecal Coliform Reporting
I. Solids Management

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	001	Design Flow (MGD)	.01
Latitude	40º 18' 57.79"	Longitude	-75º 33' 15.58"
Quad Name	Sassamansville	Quad Code	07-21-2
Wastewater Description:	Sewage Effluent		
Receiving Waters	Unnamed Tributary to Swamp Creek (TSF, MF)	Stream Code	01326
NHD Com ID	25994222	RMI	1.0
Drainage Area	0.15 mi^2		
Q_{7-10} Flow (cfs)	0	Q_{7-10} Basis	Previous fact sheet
Watershed No.	3-E	Chapter 93 Class.	TSF, MF
Assessment Status	Attaining Use(s)		

Treatment Facility Summary

Treatment Facility Name: New Hanover Upper Frederick Elementary School STP

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Tertiary	Extended Aeration with Solids Removal	Hypochlorite	0.01

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.01		Not Overloaded		Other WWTP

Compliance History

DMR Data for Outfall 001 (from November 1, 2019 to October 31, 2020)

Parameter	OCT-20	SEP-20	AUG-20	JUL-20	JUN-20	MAY-20	APR-20	MAR-20	FEB-20	JAN-20	DEC-19	NOV-19
Flow (GPD) Average Monthly	1100	850	1962	1910	1380	974	2020	2390	2860	3340	2950	3070
Flow (GPD) Daily Maximum	2300	3390	11440	5750	3340	3900	8710	5740	5920	21230	7000	9600
pH (S.U.) Instantaneous Minimum	7.3	7.7	7.2	7.6	7.8	7.6	7.4	7.2	7.3	7.2	7.0	7.4
pH (S.U.) Instantaneous Maximum	8.1	8.0	8.1	8.1	8.0	8.1	7.9	7.8	7.7	7.7	7.8	7.8
DO (mg/L) Instantaneous Minimum	8.96	8.22	7.47	6.03	6.49	7.45	9.01	9.64	10.63	10.59	10.21	8.79
TRC (mg/L) Average Monthly	0.18	0.26	0.15	0.24	0.15	0.13	0.20	0.26	0.27	0.42	0.29	0.37
TRC (mg/L) Instantaneous Maximum	0.65	0.58	0.35	0.71	0.30	0.20	0.54	0.72	0.90	0.89	0.58	0.61
CBOD5 (lbs/day) Average Monthly	0.023	0.014	0.032	0.032	0.023	0.016	0.034	0.040	0.048	0.055	0.049	0.051
CBOD5 (mg/L) Average Monthly	2.5	2.0	2.0	< 2.0	2.0	< 2.0	2.0	< 2.0	2.0	2.0	< 2.0	2.0
TSS (lbs/day) Average Monthly	0.009	0.039	0.041	0.040	0.052	0.012	0.059	0.020	0.073	0.084	0.049	0.051
TSS (mg/L) Average Monthly	1.0	5.5	2.5	2.5	4.5	1.5	3.5	1.0	3.0	3.0	2.0	2.0
Fecal Coliform (CFU/100 ml) Geometric Mean	1.0	1.7	< 1	2.1	11.7	< 1.0	1	1.0	3.2	1	1	1.4
Fecal Coliform (CFU/100 ml) Instantaneous Maximum	1.0	8	< 1	9	140	< 1.0	1	1.0	25	1	1	4
Total Nitrogen (mg/L) Average Monthly	41.5	27.1	22.6	27.5	36.7	42.2	50.35	60.3	72.7	68.6	63.5	75.5

Ammonia (lbs/day) Average Monthly	0.0009	0.001	0.002	0.005	0.002	0.001	0.002	0.002	0.002	0.003	0.002	0.003
Ammonia (mg/L) Average Monthly	0.10	0.01	0.10	0.29	0.13	0.12	< 0.10	0.1	< 0.10	0.11	< 0.10	0.10
Total Phosphorus (lbs/day) Average Monthly	0.003	0.002	0.006	0.010	0.009	0.001	0.016	0.006	0.012	0.013	0.019	0.013
Total Phosphorus (mg/L) Average Monthly	0.38	0.34	0.41	0.65	0.77	1.23	0.97	0.32	0.50	0.45	0.77	0.50

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** .01
Latitude 40º 18' 50.31" **Longitude** -75º 32' 55.08"
Wastewater Description: Sewage Effluent

Since this discharge is to a dry stream, the existing limits based on the dry swale guidance are recommended for the new permit. Also included the following other limits based on technology or water quality.

Parameter	Limit (mg/l)	SBC	Basis
$CBOD_5$	10	Average Monthly	Previous Dry Swale Guidance
TSS	10	Average Monthly	Previous Dry Swale Guidance
NH_3-N	3.0	Average Monthly	Previous Dry Swale Guidance
Total Phosphorus	1.5	Average Monthly	Existing/achievable Technology
Dissolved Oxygen	5.0	Inst.Minimum	Chapter 93
Fecal Coliform	200/1000	Ave.Month./Inst.Max.	Chapter 92a/DRBC
pH	6.0 to 9.0 at all times		Chapters 95/93
Total Residual Chlorine	0.5	Average Monthly	Chapter 92a
Total Nitrogen	Report	Average Monthly	Data Collection

* These limits are established historically based on the previous Dry Swale Guidance. If the facility plans to expand in the future the effluent limits need to be reevaluated.

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 (GPD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	1/week	Weir
pH (S.U.) Sep 1 - May 31	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	5/week	Grab
pH (S.U.) Jun 1 - Aug 31	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/week	Grab
DO Sep 1 - May 31	XXX	XXX	5.0 Inst Min	XXX	XXX	XXX	5/week	Grab
DO Jun 1 - Aug 31	XXX	XXX	5.0 Inst Min	XXX	XXX	XXX	1/week	Grab
TRC Sep 1 - May 31	XXX	XXX	XXX	0.5	XXX	1.0	5/week	Grab
TRC Jun 1 - Aug 31	XXX	XXX	XXX	0.5	XXX	1.0	1/week	Grab
CBOD5	0.834	XXX	XXX	10.0	XXX	20	2/month	8-Hr Composite
TSS	0.834	XXX	XXX	10.0	XXX	20	2/month	8-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	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	Report	XXX	XXX	2/month	8-Hr Composite
Ammonia	0.250	XXX	XXX	3.0	XXX	6	2/month	8-Hr Composite

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	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Total Phosphorus	0.125	XXX	XXX	1.5	XXX	3	2/month	8-Hr Composite