Pennsylvania Department of Environmental Protection

Southcentral Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0083020**
Facility Type	**Non-Municipal**	APS ID	**293**
Major / Minor	**Minor**	Authorization ID	**1489545**

Applicant and Facility Information

Applicant Name	**Forbes Road School District**	Facility Name	**Forbes Road High School & Elementary School**
Applicant Address	283 Hillside Avenue	Facility Address	159 Red Bird Drive
	Altoona, PA 16601-7722		Waterfall, PA 16689-7137
Applicant Contact	Andrew Meloy	Facility Contact	Andrew Meloy
Applicant Phone	(814) 329-8811	Facility Phone	(814) 329-8811
Client ID	63858	Site ID	451513
Ch 94 Load Status	Not Overloaded	Municipality	Taylor Township
Connection Status		County	Fulton
Date Application Received	June 20, 2024	EPA Waived?	Yes
Date Application Accepted	June 25, 2024	If No, Reason	

Purpose of Application: NPDES Renewal.

Summary of Review

Forbes Road School District (Authority/Permittee), applied to the Pennsylvania Department of Environmental Protection (DEP) for issuance of the NPDES permit. The permit was reissued on December 18, 2019 and became effective on January 1, 2020. The permit expires on December 31, 2024.

The design discharge flow from the facility is 0.012 MGD. The facility is closed during the summer when the school is not in session. The discharge is to a dry swale that is to Elders Branch of Wooden Bridge Creek. The Elders Branch is classified as High Quality - Cold Water Fishes (HQ-CWF). The previous protection indicates that, the facility pre-dates the classification of the stream as High-Quality Tributary, therefore, HQ limits do not apply to the discharge. The limits were developed following the old Implementation Guidance for Evaluating Wastewater Discharges to Drainage Swales and Ditches (Document ID 391-2000-014).

WQM No. 2974401 was issued on 9/30/1974.

Sludge use and disposal description and location(s): N/A because sludge is hauled by County Septic contractor.

Changes from the previous permit: The E. Coli. monitoring and report requirements will add to the proposed permit.

Based on the review outlined in this fact sheet, it is recommended that the permit be drafted. A public notice of the draft permit will be published in the *Pennsylvania Bulletin* for public comments for 30 days.

Approve	Deny	Signatures	Date
X		*Hilaryle* Hilary H. Le / Environmental Engineering Specialist	November 8, 2024
X		*Maria D. Bebenek for* Daniel W. Martin, P.E. / Environmental Engineer Manager	December 6, 2024

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	001	Design Flow (MGD)	0.012
Latitude	40º 5' 2.94"	Longitude	-78º 4' 0.21"
Quad Name	Hustontown	Quad Code	
Wastewater Description:	Sewage Effluent		
Receiving Waters	Elders Branch (HQ-CWF)	Stream Code	None (12966)
NHD Com ID	66213475	RMI	2.9 miles
Drainage Area	1.31 mi.^{2}	Yield (cfs/mi^2)	0.01
Q_{7-10} Flow (cfs)	0.013	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)		Slope (ft/ft)	
Watershed No.	12-C	Chapter 93 Class.	HQ-CWF
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	
Nearest Downstream Public Water Supply Intake	Mifflintown Borough Municipal authority, Juniata County		
PWS Waters	Juniata River	Flow at Intake (cfs)	
PWS RMI	37.2 miles	Distance from Outfall (mi)	Approximate 88.0 miles

Changes Since Last Permit Issuance: The USGS PA StreamStats is showing a drainage area of 1.31 mi.^{2} and a Q_{7-10} flow of 0.013 ft^3/s at the point of discharge.

Drainage Area
The discharge is to Elders Branch of Wooden Bridge Creek at RMI 2.9 miles. A drainage area upstream of the discharge is estimated to be 1.31 mi.^{2}, according to USGS PA StreamStats available at https://streamstats.usgs.gov/ss/.

Unnamed Tributary Elders Branch of Wooden Bridge Creek
Under 25 Pa Code § 93.9n, the Elders Branch of Wooden Bridge Creek is designated as High Quality-Cold Water Fishes (HQ-CWF). However, the Wooden Bridge Creek is a tributary to Sideling Hill Creek. Approximately 200 feet from the discharge point, a spring emerges from under a tree trunk. The stream was observed to be perennial at this point. The confluence with Elders Branch is approximately 200 yards from this point. This facility pre-dates the classification of the stream as High-Quality, therefore, HQ limits do not apply to the discharge.

Potable Water Supply Intake
The nearest downstream public water supply intake is the Mifflintown Borough Municipal Authority, Juniata County intake on the Juniata River, approximately 88.0 miles from the point of discharge. Given the nature and dilution, the discharge is not expected to significantly impact the water supply.

Treatment Facility Summary				
Treatment Facility Name: Forbes Road Hs & Elementary				
WQM Permit No.	**Issuance Date**			
2974401	9/30/1974			
Waste Type	**Degree of Treatment**	**Process Type**	**Disinfection**	**Avg Annual Flow (MGD)**
Sewage	Secondary	Extended Aeration	Hypochlorite	0.012
Hydraulic Capacity (MGD)	**Organic Capacity (lbs/day)**	**Load Status**	**Biosolids Treatment**	**Biosolids Use/Disposal**
0.012		Not Overloaded	Aerobic Digestion	Other WWTP

Changes Since Last Permit Issuance:

Other Comments:

The process includes: Comminutor (1) – Bar Screen (1) – Aeration Tank (1) – Setting Tank (1) – Chlorine Contact Tank (1) – Sludge Holding Tank (1) – Blowers (2) – Outfall to Unnamed Tributary (12976) of Elders Branch of Wooden Bridge Creek.

The system incorporates chemical addition in the form of chlorine tablets (for disinfection), soda ash (for pH control), and dechlorane tablets (for reducing Chlorine). Two sludge holding tanks are used for solids storage.

Compliance History	
Summary of DMRs:	A summary of past 12-month DMR data is presented on the next page.
Summary of Inspections:	3/14/2024: Mr. Clark, DEP WQS, conducted a compliance evaluation inspection. The effluent appeared clear with fine solids. Field tested within permit limits. There were violations identified during inspection. Recommendations were 1. Have past three years of laboratory sample results and monthly bench sheets available for review at the treatment plant. 2. Attach a revised sludge Disposal Supplemental form to May 2023 eDMR. 3. Clean debris from clarifier scum pit. 4. Conduct process control testing. 3/9/2023: Mr. Clark, DEP WQS, conducted a compliance evaluation inspection. The effluent appeared clear with fine solids. Field tested within permit limits. There were violations identified during inspection. Recommendations were 1. Obtain copies of sludge hauling receipts for past five years and place records at treatment plant for department review. 2. Review process control testing with back up operator.
Other Comments:	There are three (3) violations against or associated to the facility or permittee.

Other Comments:

Compliance History

DMR Data for Outfall 001 (from October 1, 2023 to September 30, 2024)

Parameter	SEP-24	AUG-24	JUL-24	JUN-24	MAY-24	APR-24	MAR-24	FEB-24	JAN-24	DEC-23	NOV-23	OCT-23
Flow (MGD) Average Monthly	0.006295	0.004036	0.00298	0.005025		0.002106 3	0.003804	0.004817	0.004102	0.003232	0.00357	0.003546
Flow (MGD) Daily Maximum	0.021635	0.009082	0.006905	0.009654		0.007196	0.008493	0.01842	0.009985	0.005916	0.005759	0.007604
pH (S.U.) Daily Minimum	6.68	6.7	6.94	6.89		6.59	6.0	6.42	6.54	6.36	6.7	6.74
pH (S.U.) Instantaneous Maximum	7.07	7.3	7.27	7.18		7.33	7.28	7.18	7.29	7.25	7.34	7.87
DO (mg/L) Daily Minimum	6.09	6.08	7.88	6.67		6.56	7.82	8.07	7.85	7.84	7.2	6.17
TRC (mg/L) Average Monthly	< 0.01	< 0.01	< 0.01	< 0.01		< 0.01	< 0.01	< 0.01	< 0.01	0.01	< 0.01	< 0.02
TRC (mg/L) Instantaneous Maximum	< 0.01	0.01	0.01	0.01		0.01	< 0.02	0.03	0.04	0.04	0.03	0.05
CBOD5 (mg/L) Average Monthly	< 3.0	< 3.0	< 3.0	38.0		< 4.0	< 10.0	< 2.0	< 2.0	3.0	< 3.0	10.0
TSS (mg/L) Average Monthly	5.5	3.5	9.0	6.75		5.0	< 10.3	4.0	< 3.25	9.0	7.25	< 2.25
Fecal Coliform (No./100 ml) Geometric Mean	< 1.0	< 8.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Fecal Coliform (No./100 ml) Instantaneous Maximum	< 1.0	58.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Nitrogen (lbs/day) Total Annual										2		
Total Nitrogen (mg/L) Annual Average										5.614		
Total Phosphorus (lbs/day) Total Annual										0.3		
Total Phosphorus (mg/L) Annual Average										1.01		

Existing Effluent Limitations and Monitoring Requirements

Outfall 001,

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Total Annual	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	5.0	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.6	1/day	Grab
$CBOD_5$	XXX	XXX	XXX	20.0	XXX	40.0	2/month	24-Hr Composite
TSS	XXX	XXX	XXX	20.0	XXX	30.0	2/month	24-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 – Apr 30	XXX	XXX	XXX	2,000 Geo Mean	XXX	10,000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 – Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1,000	2/month	Grab
Total Nitrogen	XXX	Report	XXX	Report Annl Avg	XXX	XXX	1/year	Calculation
Total Phosphorus	XXX	Report	XXX	Report Annl Avg	XXX	XXX	1/year	24-Hr Composite

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.012
Latitude 40º 5' 2.94" **Longitude** -78º 4' 0.21"
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:

Water Quality-Based Limitations

The discharge is to a dry swale. Previous protection reports indicate that modeling of the Point of First Use (POFU) is not necessary because the dry stream limits are significantly more stringent than the effluent limits that would be protective at the POFU. Because the discharge is to a dry swale, limits will also be established based on the Implementation Guidance for Evaluating Wastewater Discharges to Drainage Swales and Ditches (Document ID 391-2000-014).

Additionally, Implementation Guidance for Evaluating Wastewater Discharges to Drainage Swales and Ditches (Document ID 391-2000-014) are as follows.

1. Section IV A.3. states: *Whenever an existing wastewater discharge permit is being developed as part of the NPDES renewal process and no significant change in waste-load (pollution load) is indicated, the Regional Permitting Section will review the case file to see if the files have information indicating that the discharge caused public health and/or nuisance problems. If no adverse data exists, it may be assumed that the discharge is not causing public health and/or nuisance problems*.
2. Section IV.B.1a(4) states: "*Minimum treatment" requirements should be required if any of the above three conditions are met for a new or proposed discharge. In cases where there is an existing discharge, then Conditions IV.A.3 and 4 should be considered before recommending that a discharge upgrade to meet "minimum treatment" requirements.*

The data and the stream were evaluated in 1997, 2002, 2012, 2017, and for this renewal. No adverse effects have been documented; therefore the existing limits will remain in the proposed permit.

Total Residual Chlorine (TRC):
As per the TRC Guidance dated May 1, 2003, a BAT limit of 0.5 mg/L monthly average and 1.6 mg/L max will be placed in the proposed permit.

pH:
The effluent discharge pH should remain above 6.0 and below 9.0 standard units according to 25 Pa Code § 95.2(2).

Fecal Coliform:
The recent coliform guidance in 25 PA code § 92a.47.(a)(4) requires a summer technology limit of 200/100 ml as a geometric mean and an instantaneous maximum not greater than 1,000/100 ml and § 92a.47.(a)(5) requires a winter limit of 2,000/100 ml as a geometric mean and an instantaneous maximum not greater than 10,000/100 ml.

E. Coli:
As recommended by DEP's SOP No. BCW-PMT-033, version 2.0 revised February 5, 2024, a routine monitoring for E. Coli will be included in the proposed permit under 25 Pa. Code § 92a.61. This requirement applies to all sewage dischargers greater than 0.002 MGD in their new and reissued permits. A monitoring frequency of 1/year will be included in the permit to be consistent with the recommendation from this SOP.

Total Suspended Solids (TSS):
The existing dry stream limits of 20.0 mg/L monthly average and 30.0 mg/L instantaneous maximum will remain in the proposed permit as per guidance document 391-2000-014. Recent DMRs and inspection reports show that the facility has been consistently achieving these limits.

Dissolved Oxygen (D.O.):
A minimum D.O. of 5.0 mg/L is required per 25 Pa. Code § 93.7. This is consistent with the previous permit and current Department criteria.

Carbonaceous Biochemical Oxygen Demand ($CBOD_5$):
The existing limits of 20.0 mg/L monthly average and 40.0 mg/L instantaneous maximum will remain in the proposed permit as per guidance document 391-2000-014. Recent DMRs and inspection reports show that the facility has been consistently achieving these limits.

Chesapeake Bay Strategy:
The Department formulated a strategy to comply with the EPA and Chesapeake Bay Foundation requirements by reducing point source loadings of Total Nitrogen (TN) and Total Phosphorus (TP). Sewage discharges have been prioritized by Central Office based on their delivered TN loadings to the Bay. The highest priority (Phases I, II, and III) dischargers will receive annual loading caps based on their design flow on August 29, 2005 and concentrations of 6 mg/L TN and 0.8 mg/L TP. These limits may be achieved through a combination of treatment technology, credits, or offsets. Phase IV (0.2 - 0.4 MGD) will be required to monitor and report TN and TP during permit renewal monthly and Phase V (below 0.2 MGD) will monitor during current permit renewal once a year. However, any facility in Phases IV and V that undergoes expansion is subjected to cap load right away. This plant is classified as a phase V, the monitor and report TP and TN once a year will remain in the proposed permit.

Anti-Degradation (93.4):
The effluent limits for this discharge have been developed to ensure that existing instream water uses and the level of water quality necessary to protect the existing uses are maintained and protected. The Point of First Use is classified as a High-Quality Stream. The facility pre-dates the designation. No Exceptional Value Waters are impacted by this discharge.

Class A Wild Trout Fisheries:
No Class A Wild Trout Fisheries are impacted by this charge.

303d Listed Streams:
The discharge from this facility is not to a stream listed on the 1998 303d list.

Toxic:
This is a minor sewage facility receiving domestic wastewater only and the current application does not require sampling of toxic pollutants (or heavy metals) for those facilities with design flows less than 0.1 MGD. Therefore, no reasonable potential analysis for toxic pollutants has been performed for this permit renewal.

Additional Consideration

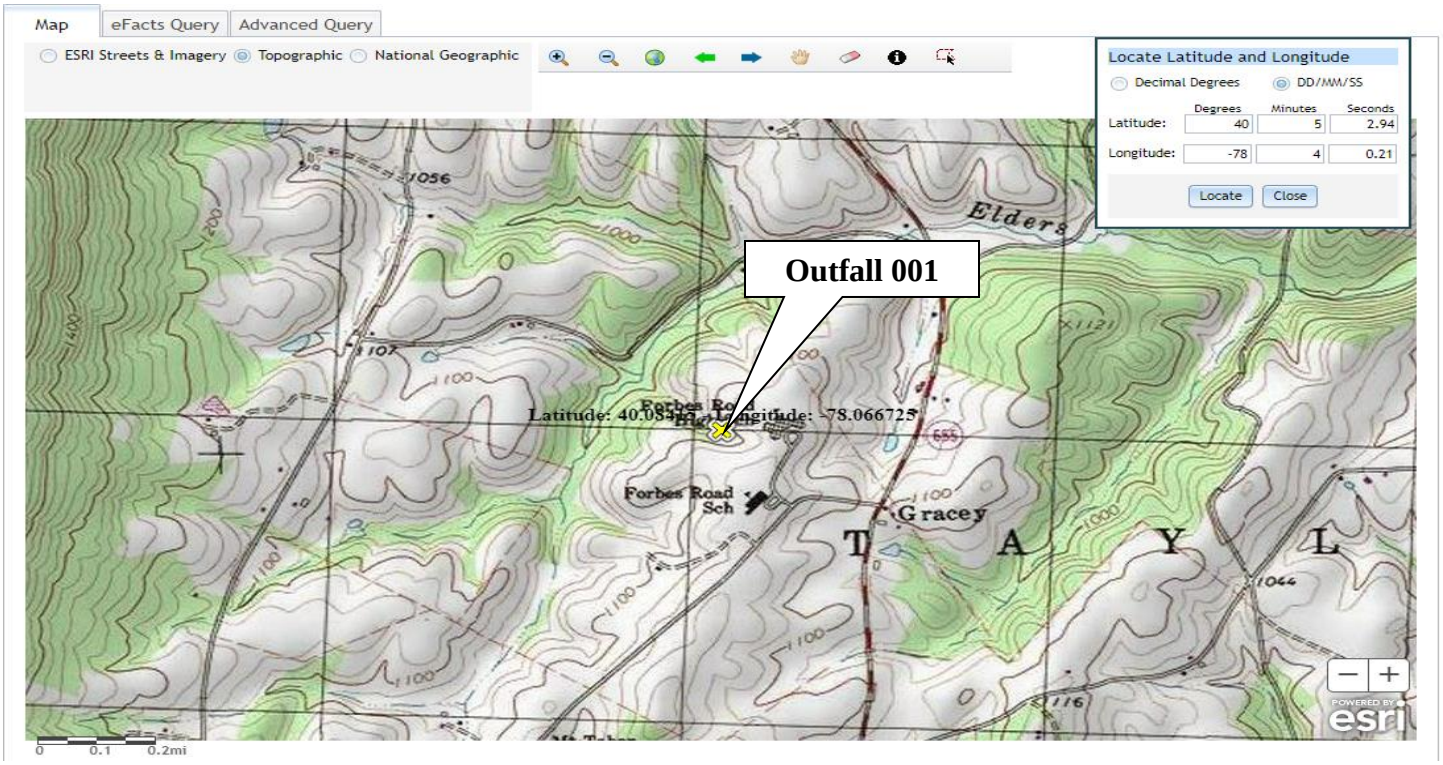
Flow Monitoring
The requirement to monitor the volume of effluent will remain in the proposed permit per 40 CFR § 122.44(i)(1)(ii).

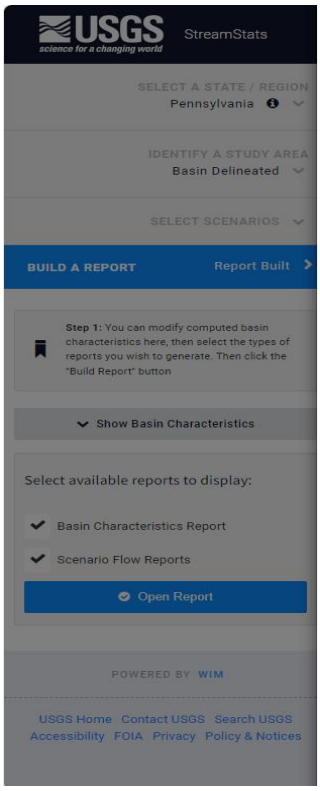
Monitoring Frequency and Sample Type
The facility currently is required to collect daily effluent grab samples for DO, TRC, and pH; bi-monthly effluent 24-hr composite samples of $CBOD_5$, and TSS; bi-monthly effluent grab samples of fecal coliform, annually effluent 24-hr composite samples of TP; and annually effluent calculation samples of TN. Based on the best professional judgement of

the author, the existing monitoring frequencies are sufficient and necessary. Therefore, the renewal permit monitoring frequencies will remain the same as those specified in the existing permit.

Anti-Backsliding

Unless stated otherwise in this fact sheet, all permit requirements proposed in this fact sheet are at least as stringent as existing permit requirements in accordance with 40 CFR §122.44(l)(1).





Parameter Code	Parameter Description	Value	Unit
CARBON	Percentage of area of carbonate rock	0	percent
DRNAREA	Area that drains to a point on a stream	1.31	square miles
PRECIP	Mean Annual Precipitation	38	inches
ROCKDEP	Depth to rock	3.6	feet
STRDEN	Stream Density -- total length of streams divided by drainage area	2.19	miles per square mile

Low-Flow Statistics

Low-Flow Statistics Parameters [Low Flow Region 2]

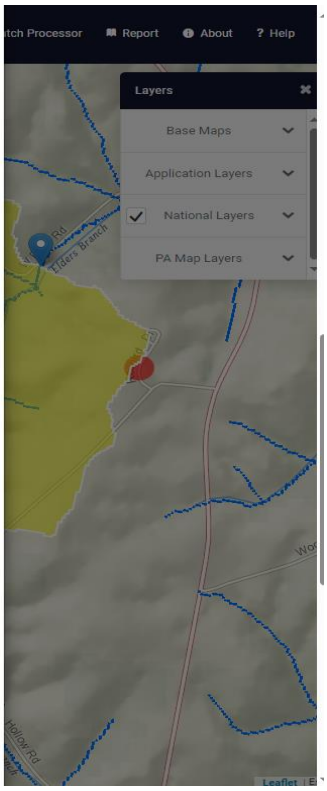
Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	1.31	square miles	4.93	1280
PRECIP	Mean Annual Precipitation	38	inches	35	50.4
STRDEN	Stream Density	2.19	miles per square mile	0.51	3.1
ROCKDEP	Depth to Rock	3.6	feet	3.32	5.65
CARBON	Percent Carbonate	0	percent	0	99

Low-Flow Statistics Disclaimers [Low Flow Region 2]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors.

Low-Flow Statistics Flow Report [Low Flow Region 2]

Statistic	Value	Unit
7 Day 2 Year Low Flow	0.0445	ft^3/s
30 Day 2 Year Low Flow	0.0711	ft^3/s
7 Day 10 Year Low Flow	0.0131	ft^3/s
30 Day 10 Year Low Flow	0.022	ft^3/s
90 Day 10 Year Low Flow	0.0456	ft^3/s



WATER QUALITY MANAGEMENT PROGRAM
WATER QUALITY PROTECTION REPORT
(Effect of Discharges on Receiving Waters)

PROJECT DESCRIPTION:

☐ New Discharge ☐ Expansion
☒ Renewal ☐ Preliminary

A. Application/Permit No. **PA0083020**
B. Application, Case Name or Permittee **Forbes Road School District**
High School & Elementary School
Municipality **Taylor Township** County **Fulton**

C. Type Waste ☒ Sewage ☐ Design Year
SIC **4952** ☐ Industrial Waste ☒ Wastewater Flow **0.012 MGD**

D. USGS-Q **Hustontown** Latitude **40°05'01"** Longitude **78°03'59"**
File Code **1821** Method: **Topozone.com**

WATER USES AND CRITERIA:

E. Receiving Waters: **UNT Elders Branch of Wooden Bridge Creek**

Stream Code -----; RMI **2.9** mi.; Sub-basin **12-C**
Drainage Area **0.2** sq. mi.; Flow **--** cfs: (see attached report)

Water Uses Protected:
☐ **HQ -CWF** (Chapter 93) List **N**
☒ Dry Stream
☐ Impoundment
☐ Other

Exceptions to Specific Criteria:
☒ None
☐ Add
☐ Delete

F Secondary Waters: **Elders Branch Wooden Bridge Creek**

Stream Code **12966** ; RMI **2.92** mi.; Sub-basin **12-C**
Drainage Area sq. mi.; Flow cfs:

Water Uses Protected:
☒ **HQ-CWF** (Chapter 93) List **N**
☐ Dry Stream
☐ Impoundment
☐ Other

Exceptions to Specific Criteria:
☒ None
☐ Add
☐ Delete

APPROVALS

G. Reviewer/Permits Section Maria J. Bebenek Date 5/29/07
Hydrogeologist/WQ _____ Date _____
Aquatic Biologist/WQ _____ Date _____
Chief of Permitting Crystal Newcomer Date 6/6/07

WATER QUALITY MANAGEMENT PROGRAM
WATER QUALITY PROTECTION REPORT
(Effect of Discharges on Receiving Waters)

Forbes Road School District
Elementary & High School
PA0083020
UNT Elders Branch of Wooden Bridge Creek – Dry Stream

Background:

This protection report is in support of the renewal of the NPDES permit for Forbes Road School District Elementary & High School. The facility is a 0.012 MGD extended aeration plant with a tertiary filter that is used only when necessary. The discharge is to an Unnamed Tributary of Elders Branch of Wooden Bridge Creek. Elders Branch is classified as High Quality - CWF.

The treatment plant has the following treatment units:

Comminutor
Bar Screen
Aeration Tank
Settling Tank
Chlorinator – Tablet
Chlorine Contact Tank
Tertiary Filter

The discharge is to a dry swale that is tributary to Elders Branch of Wooden Bridge Creek. Wooden Bridge Creek is tributary to Sideling Hill Creek. Approximately 200 feet from the discharge point, a spring emerges from under a tree trunk. The stream was observed to be perennial at this point. The confluence with Elders Branch is approximately 200 yds from this point. This facility pre-dates the classification of the stream as High Quality.

Existing NPDES Limits:

Discharge Parameter	Mass Units (lbs/day)		Concentration (mg/L)					
	Avg. Mon.	Max Daily	Inst Min	Avg Mon	Max Daily	Inst. Max	Frequency	Sample Type
Flow (mgd)	M&R	M&R	XXX	XXX	XXX	XXX	1/day	Estimated
Total Residual Chlorine	XXX	XXX	XXX	1	XXX	2	1/day	Grab
pH	XXX	XXX	6.0 to 9.0 S.U. at all times				1/day	Grab
D.O. (Minimum)	XXX	XXX	5.0 mg/L at all times				1/day	Grab
Total Suspended Solids	XXX	XXX	XXX	20	XXX	40	2/month	8 hr comp
5-Day CBOD	XXX	XXX	XXX	20	XXX	40	2/month	8 hr comp
Fecal Coliform (5/1-9/30)	XXX	XXX	XXX	200	XXX	XXX	2/month	Grab
Fecal Coliform (10/1-4/30)	XXX	XXX	XXX	2,000	XXX	XXX	2/month	Grab

Inspection Data:

Date	TRC	DO	Temp	pH	$CBOD_5$	TSS	NH_3-N	NO_2-N	NO_3-N	P	Fecals
	mg/L	mg/l		S.U.	mg/L	mg/l	mg/l	mg/l	mg/l	mg/l	per/100ml
2/9/2004	0.36	10.75	7.4	7.14	3.4	4	17.4	0.02	42.7	10.8	20
2/1/2005	0.3	10.2	9.5	7.01	2.3	8	0.8	0.25	63.01	2.3	70
3/2/2006	2.2	9.27	5.4	7.33	35.3	18	53.88	0.05	0.1	5.27	<20

WATER QUALITY MANAGEMENT PROGRAM
WATER QUALITY PROTECTION REPORT
(Effect of Discharges on Receiving Waters)

Inspection History:

2/9/04 – Plant operating well. Periodic problems with freezing. Effluent clear. No violations
2/1/05 – Canopy constructed to help with freezing issues. Effluent clear. No violations.
3/2/06 – Plant upset in November due to Wood Shop Chemicals. TRC is high. Tablets removed from one tube. Effluent clear. No violations.

DMR Data:

Date	Flow	Flow	pH min	pH max	pH avg	DO	TRC min	TRC avg	TRC max	Fecals	TSS	5 Day CBOD
	Avg. Mon	Max Daily			Avg. monthly	min				Avg. monthly	Avg mon	Avg. Mon
Dec-06	0.0039	0.0058	7.11	7.3	7.2	7	0.02	0.07	0.1	141	8	4
Nov-06	0.004	0.0061	6.7	7.2	7.1	6.7	0.04	0.15	0.64	14	1	2
Oct-06	0.0039	0.0052	6.99	7.31	7.2	7.9	0.03	0.1	0.19	4	4	2
Sep-06	0.0035	0.0051	6.7	7.2	7.12	7	0.04	0.13	0.87	4	6	4
Aug-06												
Jul-06												
Jun-06												
May-06	0.0044	0.0062	7.3	7.5	7.4	6.7	0.04	0.22	1.04	6	1	2
Apr-06	0.0044	0.0062	7.2	7.5	7.3	6.8	0.07	0.1	0.14	5	17	7
Mar-06	0.00429	0.0054	7.28	7.41	7.32	6.3	0	0.3	1.53	1	7	4
Feb-06	0.0044	0.0061	6.9	7.3	7.2	6.1	0.07	0.1	0.43	1	6	5
Jan-06	0.00392	0.0048	7.18	7.51	7.4	7.1	0.08	0.408	1.36	25	11	5
Dec-05	0.00474	0.0088	7.15	7.31	7.2	6.7	0.01	0.0986	0.18	22	5	6
Nov-05	0.03348	0.00862	6.87	7.45	7.2	7.1	0.08	0.12	0.21	8.944	3	2.04
Oct-05	0.00417	0.0059	6.59	7.38	7.15	6.5	0.02	0.238	1.17	266	1.7	2.15
Sep-05	0.0045	0.0062	6.98	7.21	7.2	6.7	0.02	0.11	0.22	133	5.8	2.9
Aug-05												
Jul-05												
Jun-05												
May-05	0.00414	0.0054	6.98	7.22	7.2	6.8	0.02	0.12	0.21	15.6	6.2	5.3
Apr-05	0.005	0.007	6.98	7.64	7.2	6.1	0.02	0.201	1.32	33	8.9	5.45
Mar-05	0.00414	0.0057	7.19	8.1	7.5	6.1	0.01	0.14	0.51	2	2.4	2.7
Feb-05	0.00455	0.0061	6.99	7.93	7.5	6.1	0.04	0.1	0.21	363	4.6	3.09
Jan-05	0.0045	0.006	6.53	7.79	7.2	6.2	0.01	0.1	0.33	2	4.4	2.31

* There is no discharge from this plant during the summer months when school is not in session.

Public Water Supply

The nearest downstream public water supply intake is an experimental system for Newport Borough on the Juniata River. An emergency permit was granted to Newport Borough Authority to use the water in the distribution system in December of 2000. It is highly probable that this system will become a permanent surface water source. Because of the distance, effluent limits and dilution, the discharge is not expected to impact the water supply.

Drainage Area

The drainage area calculated for the previous renewals was 1.1 mi^2.

WATER QUALITY MANAGEMENT PROGRAM
WATER QUALITY PROTECTION REPORT
(Effect of Discharges on Receiving Waters)

Discussion of Effluent Limits:

This facility pre-dates the designation of the Point of First Use as a High Quality Tributary, therefore HQ limits do not apply to the discharge.

The discharge is to a dry swale. Previous protection reports indicate that modeling of the Point of First Use (POFU) is not necessary because the dry stream limits are significantly more stringent than the effluent limits that would be protective at the POFU. Because the discharge is to a dry swale, limits will also be established based on the Implementation Guidance for Evaluating Wastewater Discharges to Drainages Swales and Ditches.

Section IV.B.1a(4) of the guidance states:

Minimum treatment requirements should be required for new or proposed discharges. In cases were there is an existing discharge, then Conditions IV.A.3 and 4 should be considered before recommending that a discharge upgrade to meet "minimum treatment" requirements.

Condition IV.A.3 states

Whenever and existing discharge permit is being developed as part of the NPDES renewal process and no significant change in the wasteload is indicated, the Regional office will review the case file to see if the files have information indication that the discharge caused public health and/or nuisance problems. If no adverse data exists, it may be assumed that the discharge is not causing public health and or nuisance problems, and the existing limits may remain in the permit.

The data and the stream were evaluated in 1997, 2002 and for this renewal. No adverse effects have been documented; therefore the existing limits can remain in the permit.

FECAL COLIFORMS:

Dry stream limits apply.

TOTAL RESIDUAL CHLORINE:

As per the TRC Guidance dated May 1, 2003, a BAT limit of 0.5 mg/l monthly average and 1.6 mg/l max will be placed in the permit.

Total Nitrogen and Total Phosphorous:

This facility is located within the Chesapeake Bay drainage area. It is considered a phase five facility with a design flow of 0.012 MGD. Therefore, no limits are necessary for this renewal.

WATER QUALITY MANAGEMENT PROGRAM
WATER QUALITY PROTECTION REPORT
(Effect of Discharges on Receiving Waters)

ANTIDEGRADATION (93.4):

The effluent limits for this discharge have been developed to ensure that the existing instream water uses and the level of water quality necessary to protect the existing uses are maintained and protected. The Point of First Use is classified as a High Quality Stream. This facility pre-dates the designation. No Exceptional Value Waters are impacted by this discharge.

CLASS A WILD TROUT FISHERIES:

No Class A Wild Trout Fisheries are impacted by this discharge

303d LISTED STREAMS:

The discharge from this facility is not to a stream listed on the 1998 303d list.

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" (386-0400-001), 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 (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	5.0	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.6	1/day	Grab
CBOD5	XXX	XXX	XXX	20.0	XXX	40.0	2/month	24-Hr Composite
TSS	XXX	XXX	XXX	20.0	XXX	30.0	2/month	24-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10,000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1,000	2/month	Grab
E. Coli (No./100 ml)	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab
Total Nitrogen	XXX	Report Total Annual	XXX	Report Annl Avg	XXX	XXX	1/year	Calculation
Total Phosphorus	XXX	Report Total Annual	XXX	Report Annl Avg	XXX	XXX	1/year	24-Hr Composite

Compliance Sampling Location:

Other Comments:

Tools and References Used to Develop Permit	
☐	WQM for Windows Model (see Attachment)
☐	Toxics Management Spreadsheet (see Attachment)
☐	TRC Model Spreadsheet (see Attachment)
☐	Temperature Model Spreadsheet (see Attachment)
☐	Water Quality Toxics Management Strategy, 361-0100-003, 4/06.
☐	Technical Guidance for the Development and Specification of Effluent Limitations, 386-0400-001, 10/97.
☐	Policy for Permitting Surface Water Diversions, 386-2000-019, 3/98.
☐	Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 386-2000-018, 11/96.
☐	Technology-Based Control Requirements for Water Treatment Plant Wastes, 386-2183-001, 10/97.
☐	Technical Guidance for Development of NPDES Permit Requirements Steam Electric Industry, 386-2183-002, 12/97.
☐	Pennsylvania CSO Policy, 386-2000-002, 9/08.
☐	Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03.
☐	Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 386-2000-008, 4/97.
☐	Determining Water Quality-Based Effluent Limits, 386-2000-004, 12/97.
☐	Implementation Guidance Design Conditions, 386-2000-007, 9/97.
☐	Technical Reference Guide (TRG) WQM 7.0 for Windows, Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen, Version 1.0, 386-2000-016, 6/2004.
☐	Interim Method for the Sampling and Analysis of Osmotic Pressure on Streams, Brines, and Industrial Discharges, 386-2000-012, 10/1997.
☐	Implementation Guidance for Section 95.6 Management of Point Source Phosphorus Discharges to Lakes, Ponds, and Impoundments, 386-2000-009, 3/99.
☐	Technical Reference Guide (TRG) PENTOXSD for Windows, PA Single Discharge Wasteload Allocation Program for Toxics, Version 2.0, 386-2000-015, 5/2004.
☐	Implementation Guidance for Section 93.7 Ammonia Criteria, 386-2000-022, 11/97.
☐	Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers, 386-2000-013, 4/2008.
☐	Implementation Guidance Total Residual Chlorine (TRC) Regulation, 386-2000-011, 11/1994.
☐	Implementation Guidance for Temperature Criteria, 386-2000-001, 4/09.
☐	Implementation Guidance for Section 95.9 Phosphorus Discharges to Free Flowing Streams, 386-2000-021, 10/97.
☐	Implementation Guidance for Application of Section 93.5(e) for Potable Water Supply Protection Total Dissolved Solids, Nitrite-Nitrate, Non-Priority Pollutant Phenolics and Fluorides, 386-2000-020, 10/97.
☐	Field Data Collection and Evaluation Protocol for Determining Stream and Point Source Discharge Design Hardness, 386-2000-005, 3/99.
☐	Implementation Guidance for the Determination and Use of Background/Ambient Water Quality in the Determination of Wasteload Allocations and NPDES Effluent Limitations for Toxic Substances, 386-2000-010, 3/1999.
☐	Design Stream Flows, 386-2000-003, 9/98.
☐	Field Data Collection and Evaluation Protocol for Deriving Daily and Hourly Discharge Coefficients of Variation (CV) and Other Discharge Characteristics, 386-2000-006, 10/98.
☐	Evaluations of Phosphorus Discharges to Lakes, Ponds and Impoundments, 386-3200-001, 6/97.
☐	Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, 4/07.
☒	SOP: BCW-PMT-033
☐	Other: