pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0084646**
Facility Type	**Non-Municipal**	APS ID	**278297**
Major / Minor	**Minor**	Authorization ID	**1220306**

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Applicant and Facility Information

Applicant Name	**Southern Fulton School District**	Facility Name	**Southern Fulton Elementary School**
Applicant Address	3072 Great Cove Road, Suite # 100	Facility Address	3072 Great Cove Road
	Warfordsburg, PA 17267-8530		Warfordsburg, PA 17267-8530
Applicant Contact	John Bain	Facility Contact	John Bain
Applicant Phone	(717) 294-3251	Facility Phone	(717) 294-3251
Client ID	44393	Site ID	2355
Ch 94 Load Status	Not Overloaded	Municipality	Bethel Township
Connection Status		County	Fulton
Date Application Received	January 24, 2018	EPA Waived?	Yes
Date Application Accepted	March 30, 2018	If No, Reason	
Purpose of Application	NPDES permit renewal.		

Summary of Review

Southern Fulton School District has applied to the Pennsylvania Department of Environmental Protection (DEP) for reissuance of its NPDES permit. The permit was last reissued on July 19, 2013 and became effective on August 1, 2013. The permit expired on July 31, 2018 but the terms and conditions of the permit have been extended since that time.

Changes from the previous permit: Unit of Fecal Coliform changed from CFU/100 ml to No./100 ml.

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. Any additional information or public review of documents associated with the discharge or the applicant may be available at the PA DEP Southcentral Regional Office (SCRO), 909 Elmerton Avenue, Harrisburg, PA 17110. To make an appointment for file reviews, contact the SCRO File Review Coordinator at 717.705.4700.

Approve	Deny	Signatures	Date
X		Hilary H. Le / Environmental Engineering Specialist	October 4, 2019
		Daniel W. Martin, P.E. / Environmental Engineer Manager	
		Maria D. Bebenek, P.E. / Clean water Program Manager	

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	001	Design Flow (MGD)	0.01
Latitude	39º 47' 43.97"	Longitude	-78º 11' 15.09"
Quad Name	Needmore	Quad Code	
Wastewater Description:	Sewage Effluent		
Receiving Waters	UNT to White Oak Run (TSF)	Stream Code	60898
NHD Com ID	49477866	RMI	0.09 mile
Drainage Area	0.81 mi.^{2}	Yield (cfs/mi^2)	See comments below
Q_{7-10} Flow (cfs)	See comments below	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	630.0 ft	Slope (ft/ft)	
Watershed No.	13-B	Chapter 93 Class.	TSF
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	R.C. Wilson Water Treatment Plant near Williamsport, MD		
PWS Waters	Potomac River	Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	Approximate 23.0 miles

Drainage Area
The discharge is to Unnamed Tributary to White Oak Run at RMI 0.09 mile. A drainage area upstream of the discharge is estimated to be 0.81 mi.^{2}, according to USGS PA StreamStats available at https://streamstats.usgs.gov/ss/.

Stream Flow
According to StreamStats, the discharge point on Unnamed Tributary to White Oak Run has a Q_{7-10} of 0.00704 cfs and a drainage area of 0.81 mi.^{2} (resulting in a low flow yield of 0.00869 cfs/mi.^{2}). However, the drainage area at the discharge point is well below the minimum value for the regression equations used. Therefore, the entire White Oak Run watershed was chosen as an appropriate representative drainage area. The Q_{7-10} at the exit point of this watershed is 0.0372 cfs and the drainage area is 3.37 mi.^{2} which results in a Q_{7-10} low flow yield of 0.011 cfs/mi.^{2}. This information is used to obtain a chronic or 30-day (Q_{30-10}), and an acute or 1-day (Q_{1-10}) exposure stream flow for the point of first use as follows (Guidance No. 391-2000-023):

Low Flow Yield = 0.0372 cfs / 3.37 mi.^{2} ≈ 0.011 cfs/mi.^{2}
Q_{7-10} = 0.011 cfs/mi.^{2} * 0.81 mi.^{2} ≈ 0.0089 cfs
Q_{30-10} = 1.36 * 0.0089 cfs ≈ 0.0121 cfs
Q_{1-10} = 0.64 * 0.0089 cfs ≈ 0.0057 cfs

The resulting Q_{7-10} dilution ratio is: Q_{stream} / $Q_{discharge}$ = 0.0089 cfs / [0.01 MGD * (1.55 cfs/MGD)] = 0.57:1

Unnamed Tributary to White Oak Run to Little Tonoloway Creek
25 Pa. Code 93.9z classifies Little Tonoloway Creek as Trout Stocking Fishes (TSF) surface water. Based on the 2016 Integrated Report, Little Tonoloway Creek, is not impaired. A TMDL currently does not exist for this stream segment, therefore, no TMDL has been taken into consideration during this review.

Potable Water Supply Intake
The nearest downstream public water supply intake is the R.C. Wilson Water Treatment Plant near Williamsport, MD intake on the Potomac River, approximately 23.0 miles from the point of discharge. eMapPA confirms that there are still no public water supplies downstream of this facility prior to the PA-MD border (over nine miles of stream). Given the nature and dilution, the discharge is not expected to significantly impact the water supply.

Treatment Facility Summary				
Treatment Facility Name: Southern Fulton Elementary				
WQM Permit No.	**Issuance Date**			
Waste Type	**Degree of Treatment**	**Process Type**	**Disinfection**	**Avg Annual Flow (MGD)**
Sewage	Tertiary	Extended Aeration With Solids Removal	Gas Chlorine	0.01
Hydraulic Capacity (MGD)	**Organic Capacity (lbs/day)**	**Load Status**	**Biosolids Treatment**	**Biosolids Use/Disposal**
0.01		Not Overloaded	Aerobic Digestion	Combination of methods

Changes Since Last Permit Issuance: none

The WWTP train is as follows:

Comminutor / Bar Screen (1) ⇒ EQ Tank (1) ⇒ Aeration Tank (1) ⇒ Settling Tank (1) ⇒ Sand Filters (2) ⇒ Chlorine Contact Tank (with liquid feed) (1) ⇒ De-chlorination System (with tablet feed) (1) ⇒ Discharge

The system incorporates chemical addition in the form of liquid chlorine (for disinfection), sodium bisulfite tablets (for de-chlorination), and soda ash (for pH control). A sludge holding tank is used for solids storage.

Compliance History	
Summary of DMRs:	DMRs reported last 12 months from August 1, 2018 to July 31, 2019 are summarized in the Table below.
Summary of Inspections:	11/18/2016: Mr. Clark, DEP WQS, conducted a compliance evaluation inspection. The effluent was clear. There were no violations during inspection. There were recommendations: record composite sampler start and end times, and record results of process control testing. 11/30/2017: Mr. Clark, DEP WQS, conducted a compliance evaluation inspection. The effluent was clear. There were no violations during inspection. There were recommendations: flow chart adjusted, and record D.O. meter calibration information. 12/14/2018: Mr. Clark, DEP WQS, conducted a compliance evaluation inspection. The effluent was clear. The field tests were within permit limits. There was a violation due to pH meter not being calibrated as required. There were some recommendations as follows. - Calibrate pH meter each day it is used; - Submit annual C-Bay supplemental form for 2017-2018 report; - Have flow chart adjusted; and - Record all process control test results.
Other Comments:	There are no open violations against permittee or facility.

Other Comments: DMRs for the past 12 months indicate one instance of non-compliance (one under 5.0 mg/L for minimum limit of D.O.). The facility appears to be operating satisfactorily.

Compliance History

DMR Data for Outfall 001 (from August 1, 2018 to July 31, 2019)

Parameter	JUL-19	JUN-19	MAY-19	APR-19	MAR-19	FEB-19	JAN-19	DEC-18	NOV-18	OCT-18	SEP-18	AUG-18
Flow (MGD) Average Monthly	0.002468	0.002053	0.003696	0.00232	0.00214	0.00193	0.00217	0.00182	0.00169	0.001961	0.00233	0.00093
Flow (MGD) Daily Maximum	0.0065	0.0057	0.00754	0.00777	0.00512	0.00454	0.00587	0.00724	0.00546	0.00531	0.00833	0.00447
pH (S.U.) Minimum	6.85	6.78	7.04	7.02	7.27	7.41	7.29	7.08	6.99	6.91	6.85	6.91
pH (S.U.) Maximum	7.32	7.63	7.4	7.84	7.91	7.76	7.69	7.86	7.49	7.54	7.41	7.41
DO (mg/L) Minimum	6.9	6.9	7.6	8.1	9.3	< 0.01	9.8	8.9	9.2	8.3	7.6	8.0
TRC (mg/L) Average Monthly	0.04	< 0.04	< 0.02	< 0.02	< 0.02	< 0.01	< 0.01	< 0.02	< 0.02	< 0.02	< 0.01	0.01
TRC (mg/L) Instantaneous Maximum	0.09	0.13	0.05	0.03	< 0.03	0.03	0.03	0.04	< 0.10	0.04	0.03	0.02
CBOD5 (mg/L) Average Monthly	< 2.0	< 3.0	< 2	< 2.0	2.0	< 2	11	< 2.0	< 2	< 3	< 2	4
TSS (mg/L) Average Monthly	< 1	< 3.0	< 2	< 1	< 2	< 2	3.0	< 3.0	< 1	< 1	3	4
Fecal Coliform (CFU/100 ml) Geometric Mean	< 1	< 1.0	< 1	< 1	< 1	< 1	< 1	< 1.0	< 1	< 1	< 1	< 1
Fecal Coliform (CFU/100 ml) Instantaneous Maximum	< 1	< 1.0	< 1	< 1	< 1	< 1	< 1.0	< 1.0	< 1	< 1	1	< 1
Nitrate-Nitrite (mg/L) Annual Average											54.5	
Nitrate-Nitrite (lbs) Total Annual											205.7	
Total Nitrogen (mg/L) Annual Average											< 56.2	
Total Nitrogen (lbs) Total Annual											212	
Ammonia (mg/L) Average Monthly	< 1.0	< 0.5	< 1.0	< 1.0	< 1.0	< 0.5	1.0	< 0.5	< 1.0	< 1.0	< 1.0	2.0
TKN (mg/L) Annual Average											< 1.0	
TKN (lbs) Total Annual											< 3.77	
Total Phosphorus (mg/L) Annual Average											< 0.05	
Total Phosphorus (lbs) Total Annual											< 0.19	

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.01
Latitude 39º 47' 42.90" **Longitude** -78º 11' 21.04"
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

Carbonaceous Biochemical Oxygen Demand ($CBOD_5$):
The attached printout of the WQM 7.0 model indicates that a monthly average limit of 25.0 mg/L, or secondary treatment, is adequate to protect the water quality of the stream. Recent DMRs and inspection reports show that the facility has been consistently achieving concentrations well below this limit.

Ammonia (NH_3-N):
NH_3-N calculations were first based on the Department's Implementation Guidance of Section 93.7 Ammonia Criteria, dated 11/4/97 (ID No. 391-2000-013). The following data is necessary to determine the in-stream NH_3-N criteria used in the attached computer model of the stream:

- Discharge pH = 7.0 (Default)
- Discharge Temperature = 25°C (Estimated)
- Stream pH = 6.3 (Measurement)
- Stream Temperature = 20ºC (Estimated for shaded TSF)
- Background NH_3-N = 0 (Default)

The model input data and results are attached. The printout of the WQM 7.0 output indicates that at a discharge of 0.010 MGD, limits of 3.6 mg/L NH_3-N as a monthly average and 7.3 mg/L NH_3-N instantaneous maximum are necessary to protect the aquatic life from toxicity effects for summer, to calculate winter limits based on a typical multiplier of 3.0 used by DEP. The existing limits of 3.0 mg/L NH_3-N monthly average and 6.0 mg/L NH_3-N instantaneous maximum for summer are slightly more stringent and will remain in the proposed permit. The facility's recent DMRs indicate that the facility has been consistently achieving concentrations below these limits.

Total Suspended Solids (TSS):
The existing limits of 30.0 mg/L average monthly and 60.0 mg/L instantaneous maximum will remain in the proposed permit based on the minimum level of effluent quality attainable by secondary treatment based on 25 Pa. Code § 92a.47. Recent DMRs and inspection reports show that the facility has been consistently achieving concentrations well under 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.

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 25 Pa. Code § 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.

Total Residual Chlorine (TRC):
Based on the attached TRC Excel Spreadsheet calculator, which uses the equations and calculations from the Department's May 1, 2003 Implementation Guidance for Total Residual Chlorine (ID No. 391-2000-015), the facility's discharge must meet a monthly average limit of 0.09 mg/L and an instantaneous maximum limit of 0.30 mg/L. These limits are less stringent than those in the existing permit. Due to anti-backsliding policy, the existing TRC limits of 0.04 mg/L monthly average and 0.13 mg/L instantaneous maximum will remain in the proposed permit.

Chesapeake Bay Strategy:
The discharge of TN and TP from this facility is consistent with and covered under the Chesapeake Bay TMDL aggregate WLA for non-significant wastewater discharges.

This facility falls in Phase V of Pennsylvania's Chesapeake Bay Tributary Strategy Point Source Implementation Plan. At this time, the Department is not requiring a total maximum annual phosphorus or nitrogen loading cap.

The Supplement to Phase II Watershed Implementation Plan states the following:

"For Phase V sewage facilities with individual permits (average annual design flow on August 29, 2005 > 0.002 MGD and < 0.2 MGD), DEP will issue individual permits with monitoring and reporting for TN and TP throughout the permit term at a frequency no less than annually, unless 1) the facility has already conducted at least two years of nutrient monitoring and 2) a summary of the monitoring results are included in the next permit's fact sheet. If, however, Phase V facilities choose to expand, the renewed or amended permits will contain Cap Loads based on the lesser of a) existing TN/TP concentrations at existing average annual flow or b) 7,306 lbs/yr TN and 974 lbs/yr TP."

A 1/year "Monitor & Report" requirement for TN and TP will remain in the proposed permit.

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.

Antidegradation (93.4)

The effluent limits for this discharge have been developed to ensure that existing in-stream water uses and the level of water quality necessary to protect the existing uses are maintained and protected. No High Quality Waters are impacted by this discharge. No Exceptional Value Waters are impacted by this discharge.

303d LISTED STREAMS

This discharge is not located on a 303d listed stream segment.

Class A Wild Trout Fisheries

No Class A Wild Trout Fisheries are impacted by this discharge.

Additional Considerations

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 D.O., pH; and total residual chlorine; two-month effluent 8-hr composite samples of $CBOD_5$, and TSS; two-month effluent grab samples of fecal coliform; two-month influent 8-hr composite sample of ammonia-nitrogen; annually effluent 8-hr composite samples of TP, nitrate-nitrite as N, and total Kjeldahl Nitrogen; 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 existing monitoring frequencies will remain the same as those specified in the proposed permit.

WQM 7.0 Data:

MODEL INPUTS

There are no upstream discharges. Hence, the two nodes were used:

Node 1: Outfall 001 on UNT White Oak Run (60898)

Elevation:	630 ft (USGS National Map Viewer)
Drainage Area:	0.81 $mi.^2$ (USGS PA StreamStats)
River Mile Index:	0.09 mile (PA DEP eMapPA)
Low Flow Yield:	0.011 $cfs/mi.^2$
Discharge Flow:	0.010 MGD

Node 2: Just before confluence with White Oak Run

Elevation:	615 ft (USGS National Map Viewer)
Drainage Area:	0.82 $mi.^2$ (USGS PA StreamStats)
River Mile Index:	0.001 mile (PA DEP eMapPA)
Low Flow Yield:	0.011 $cfs/mi.^2$
Discharge Flow:	0.000 MGD

Attachment is WQM7.0 data.

WQm7.0 data.pdf

TRC Results:

1	**TRC EVALUATION**				
2	Input appropriate values in A3:A9 and D3:D9				
3	0.0089	= Q stream (cfs)	0.5	= CV Daily	
4	0.01	= Q discharge (MGD)	0.5	= CV Hourly	
5	30	= no. samples	1	= AFC_Partial Mix Factor	
6	0.3	= Chlorine Demand of Stream	1	= CFC_Partial Mix Factor	
7	0	= Chlorine Demand of Discharge	15	= AFC_Criteria Compliance Time (min)	
8	0.5	= BAT/BPJ Value	720	= CFC_Criteria Compliance Time (min)	
9	0	= % Factor of Safety (FOS)		=Decay Coefficient (K)	
10	Source	Reference	AFC Calculations	Reference	CFC Calculations
11	TRC	1.3.2.iii	WLA afc = 0.203	1.3.2.iii	WLA cfc = 0.190
12	PENTOXSD TRG	5.1a	LTAMULT afc = 0.373	5.1c	LTAMULT cfc = 0.581
13	PENTOXSD TRG	5.1b	LTA_afc= 0.075	5.1d	LTA_cfc = 0.110
14					
15	Source		Effluent Limit Calculations		
16	PENTOXSD TRG	5.1f	AML MULT = 1.231		
17	PENTOXSD TRG	5.1g	AVG MON LIMIT (mg/l) = 0.093	AFC	
18			INST MAX LIMIT (mg/l) = 0.304		
19					
20					
21					
22	WLA afc		**(.019/e(-k*AFC_tc)) + [(AFC_Yc*Qs*.019/Qd*e(-k*AFC_tc))...**		
23			**...+ Xd + (AFC_Yc*Qs*Xs/Qd)]*(1-FOS/100)**		
24	LTAMULT afc		EXP((0.5*LN(cvh^2+1))-2.326*LN(cvh^2+1)^0.5)		
25	LTA_afc		wla_afc*LTAMULT_afc		
26					
27	**WLA_cfc**		**(.011/e(-k*CFC_tc) + [(CFC_Yc*Qs*.011/Qd*e(-k*CFC_tc))...**		
28			**...+ Xd + (CFC_Yc*Qs*Xs/Qd)]*(1-FOS/100)**		
29	LTAMULT_cfc		EXP((0.5*LN(cvd^2/no_samples+1))-2.326*LN(cvd^2/no_samples+1)^0.5)		
30	**LTA_cfc**		wla_cfc*LTAMULT_cfc		
31					
32	AML MULT		EXP(2.326*LN((cvd^2/no_samples+1)^0.5)-0.5*LN(cvd^2/no_samples+1))		
33	AVG MON LIMIT		MIN(BAT_BPJ,MIN(LTA_afc,LTA_cfc)*AML_MULT)		
34	INST MAX LIMIT		**1.5*((av_mon_limit/AML_MULT)/LTAMULT_afc)**		
35					

Existing Effluent Limitations and Monitoring Requirements

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	0.04	XXX	0.13	1/day	Grab
$CBOD_5$	XXX	XXX	XXX	25.0	XXX	50.0	2/month	8-Hr Composite
TSS	XXX	XXX	XXX	30.0	XXX	60.0	2/month	8-Hr Composite
Fecal Coliform (CFU/100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1,000	2/month	Grab
Fecal Coliform (CFU/100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2,000 Geo Mean	XXX	10,000	2/month	Grab
Ammonia May 1 - Oct 31	XXX	XXX	XXX	3.0	XXX	6.0	2/month	8-Hr Composite
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	9.0	XXX	18.0	2/month	8-Hr Composite
Nitrate-Nitrite	XXX	Report	XXX	Report Annl Avg	XXX	XXX	1/year	8-Hr Composite
Total Nitrogen	XXX	Report	XXX	Report Annl Avg	XXX	XXX	1/year	Calculation
TKN	XXX	Report	XXX	Report Annl Avg	XXX	XXX	1/year	8-Hr Composite
Total Phosphorus	XXX	Report	XXX	Report Annl Avg	XXX	XXX	1/year	8-Hr Composite

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	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	0.04	XXX	0.13	1/day	Grab
$CBOD_5$	XXX	XXX	XXX	25.0	XXX	50.0	2/month	8-Hr Composite
TSS	XXX	XXX	XXX	30.0	XXX	60.0	2/month	8-Hr Composite
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1,000	2/month	Grab
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2,000 Geo Mean	XXX	10,000	2/month	Grab
Ammonia May 1 - Oct 31	XXX	XXX	XXX	3.0	XXX	6.0	2/month	8-Hr Composite
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	9.0	XXX	18.0	2/month	8-Hr Composite
Nitrate-Nitrite	XXX	Report	XXX	Report Annl Avg	XXX	XXX	1/year	8-Hr Composite
Total Nitrogen	XXX	Report	XXX	Report Annl Avg	XXX	XXX	1/year	Calculation
TKN	XXX	Report	XXX	Report Annl Avg	XXX	XXX	1/year	8-Hr Composite
Total Phosphorus	XXX	Report	XXX	Report Annl Avg	XXX	XXX	1/year	8-Hr Composite

Compliance Sampling Location:

Other Comments:

Tools and References Used to Develop Permit	
☒	WQM for Windows Model (see Attachment)
☐	PENTOXSD for Windows Model (see Attachment)
☒	TRC Model Spreadsheet (see Attachment)
☐	Temperature Model Spreadsheet (see Attachment)
☐	Toxics Screening Analysis Spreadsheet (see Attachment)
☐	Water Quality Toxics Management Strategy, 361-0100-003, 4/06.
☐	Technical Guidance for the Development and Specification of Effluent Limitations, 362-0400-001, 10/97.
☐	Policy for Permitting Surface Water Diversions, 362-2000-003, 3/98.
☐	Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 362-2000-008, 11/96.
☐	Technology-Based Control Requirements for Water Treatment Plant Wastes, 362-2183-003, 10/97.
☐	Technical Guidance for Development of NPDES Permit Requirements Steam Electric Industry, 362-2183-004, 12/97.
☐	Pennsylvania CSO Policy, 385-2000-011, 9/08.
☐	Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03.
☐	Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 391-2000-002, 4/97.
☒	Determining Water Quality-Based Effluent Limits, 391-2000-003, 12/97.
☐	Implementation Guidance Design Conditions, 391-2000-006, 9/97.
☒	Technical Reference Guide (TRG) WQM 7.0 for Windows, Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen, Version 1.0, 391-2000-007, 6/2004.
☐	Interim Method for the Sampling and Analysis of Osmotic Pressure on Streams, Brines, and Industrial Discharges, 391-2000-008, 10/1997.
☐	Implementation Guidance for Section 95.6 Management of Point Source Phosphorus Discharges to Lakes, Ponds, and Impoundments, 391-2000-010, 3/99.
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