Pennsylvania Department of Environmental Protection

Southwest Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0030864**
Facility Type	**Non-Municipal**	APS ID	**1151457**
Major / Minor	**Minor**	Authorization ID	**1550889**

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Applicant and Facility Information

Applicant Name	**Western Beaver County School District**	Facility Name	**Fairview Elementary School STP**
Applicant Address	343 Ridgemont Drive	Facility Address	343 Ridgemont Drive
	Midland, PA 15059-2219		Midland, PA 15059-2219
Applicant Contact	Robert Postupac	Facility Contact	
Applicant Phone	(724) 643-9310	Facility Phone	
Client ID	1103	Site ID	251942
Ch 94 Load Status	Not Overloaded	Municipality	Ohioville Borough
Connection Status	No Limitations	County	Beaver
Date Application Received	December 3, 2025	EPA Waived?	Yes
Date Application Accepted		If No, Reason	

Purpose of Application: Renewal of NPDES Permit of Minor Sewage Facility

Summary of Review

Overview

The permittee applied to renew the permit on 12/03/2025. The permit is set to expire on 05/31/2026. WQM Permit 365S56 approved a flow rate of 6500 GPD.

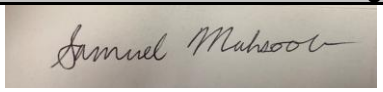
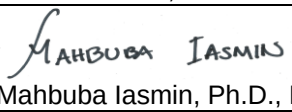
Note that the permittee has installed a completely new treatment system without applying for a WQM permit. The new system is not currently in use. Miscommunications between the employed engineer and the school board and urgency to qualify for a grant funding the treatment unit resulted in this error. The requirement to submit the WQM permit application has been conveyed to the permittee and the engineer.

Facility Information

The discharge location, Outfall 001, is located at 40° 41’ 32”, -80° 28’ 24”. The facility discharges to Island Run, which is a Warm-Water Fishery (WWF).

The facility consists of aeration, return activated sludge (RAS), settling via a clarifier, solids management, and chlorine disinfection.

The permittee has installed a completely new package plant that is currently not in use. The system consists of an underground tank that contains four chambers. The package system appears to feature a Moving-bed biofilm reactor, clarifier, and UV disinfection. This Draft permit is being prepared in consideration of the new system.

Approve	Return	Deny	Signatures	Date
x			 Sam Mahsoob, EIT / Environmental Engineering Specialist	2/13/2026
x			 Mahbuba Iasmin, Ph.D., P.E. / Environmental Engineer Manager	3/3/2026

Summary of Review

Act 14 Notifications

Act 14 Notifications were sent to Ohioville Borough and Beaver County on November 26, 2025

Client ID Compliance Check

The permittee has **2** violations by client ID.

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.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	.0065
Latitude	40º 41' 32"	Longitude	-80º 28' 24"
Quad Name		Quad Code	
Wastewater Description:	Sewage Effluent		
Receiving Waters	Island Run (WWF)	Stream Code	33298
NHD Com ID	99680082	RMI	1.9900
Drainage Area	0.05	Yield (cfs/mi^2)	0.00418
Q_{7-10} Flow (cfs)	0.000209	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	1179	Slope (ft/ft)	0.023
Watershed No.	20-B	Chapter 93 Class.	WWF
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	

Background/Ambient Data		Data Source
pH (SU)		
Temperature (°F)		
Hardness (mg/L)		
Other:		

Nearest Downstream Public Water Supply Intake	N/A – Next closest intake would be in Ohio		
PWS Waters	Ohio River	Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	

Changes Since Last Permit Issuance: None

Other Comments: None

Treatment Facility Summary

Treatment Facility Name: Fairview Elementary School STP

WQM Permit No.	Issuance Date
365S56	June 20, 1966
365S56 T-1	March 11, 2020

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary With Ammonia Reduction	Extended Aeration	Hypochlorite	0.0065

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.0065	8	Not Overloaded	Combination	Other WWTP

Changes Since Last Permit Issuance: None

Other Comments: As stated above, the permittee has installed a completely new package unit consisting of a moving-bed biofilm reactor, clarifier, and UV disinfection.

Compliance History

Operations Compliance Check Summary Report

Facility: FAIRVIEW ELEM SCH STP
NPDES Permit No.: PA0030864
Compliance Review Period: 1/1/21-1/12/26

Inspection Summary:

INSPECTED DATE	INSP TYPE	AGENCY	INSPECTION RESULT DESC
10/03/2024	Compliance Evaluation	PA Dept of Environmental Protection	Violation(s) Noted
07/29/2021	Compliance Evaluation	PA Dept of Environmental Protection	No Violations Noted
06/22/2021	Administrative/File Review	PA Dept of Environmental Protection	Administratively Closed

Violation Summary:

VIOLATION DATE	VIOLATION TYPE	VIOLATION TYPE DESC	RESOLVED DATE	VIOLATION COMMENT
10/03/2024	92A.44	NPDES - Violation of effluent limits in Part A of permit	02/28/2025	Effluent exceedances occurring during monitoring periods of 7/23, 10/23, 11/23, 12/23, 1/24, 2/24, 3/24, 4/24 and 5/24

Open Violations by Client ID:

No open violations for Client ID 1103

Enforcement Summary:

ENF TYPE	ENF TYPE DESC	EXECUTED DATE	VIOLATIONS	ENF FINALSTATUS	ENF CLOSED DATE
NOV	Notice of Violation	10/03/2024	92A.44	COMPLY/CLOSED	1/12/2026

Effluent Violation Summary:

MON PD	PARAMETER	REPORTED VALUE	PERMIT LIMIT	UNIT	STAT_BASE_CODE	FACILITY COMMENTS
Apr-25	Total Residual Chlorine (TRC)	0.59	.5	mg/L	Average Monthly	

Mar-25	Total Residual Chlorine (TRC)	0.57	.5	mg/L	Average Monthly	putting in shims to reduce exposure; increase dechlorinator
May-24	Total Residual Chlorine (TRC)	0.64	.5	mg/L	Average Monthly	
Apr-24	Total Residual Chlorine (TRC)	1.97	1.6	mg/L	Instantaneous Maximum	DOSING OFF
Mar-24	Flow	0.0075	.0065	MGD	Average Monthly	
Mar-24	Total Residual Chlorine (TRC)	0.71	.5	mg/L	Average Monthly	
Mar-24	Total Residual Chlorine (TRC)	2.2	1.6	mg/L	Instantaneous Maximum	
Feb-24	Total Residual Chlorine (TRC)	1.07	.5	mg/L	Average Monthly	TABLETS WERE OVER SUBMERGED INCREASING THE AMOUNT OF CALCIUM HYOPCHLORITE BEING DISSOLVED IN THE EFFLUENT
Feb-24	Total Residual Chlorine (TRC)	2.2	1.6	mg/L	Instantaneous Maximum	TABLETS WERE OVER SUBMERGED INCREASING THE AMOUNT OF CALCIUM HYOPCHLORITE BEING DISSOLVED IN THE EFFLUENT
Jan-24	Ammonia-Nitrogen	15.0	13.2	mg/L	Instantaneous Maximum	
Jan-24	Ammonia-Nitrogen	9.20	6.6	mg/L	Average Monthly	
Nov-23	Ammonia-Nitrogen	24.40	6.6	mg/L	Average Monthly	
Nov-23	Ammonia-Nitrogen	26.0	13.2	mg/L	Instantaneous Maximum	
Nov-23	pH	5.95	6.0	S.U.	Instantaneous Minimum	
Oct-23	Ammonia-Nitrogen	6.10	2.3	mg/L	Average Monthly	
Oct-23	Ammonia-Nitrogen	7.0	4.6	mg/L	Instantaneous Maximum	
Oct-23	Dissolved Oxygen	4.5	5.0	mg/L	Instantaneous Minimum	
Jul-23	Ammonia-Nitrogen	4.55	2.3	mg/L	Average Monthly	Plant lost aeration, resulting in abnormally high levels, plant was pumped and reseeded to repair issue.

Compliance Status:

There are currently no open violations for this facility, however there are some potential violations that need to be addressed regarding the failure to submit WQM permit amendment applications prior to making modifications to the treatment process. Operations intends to conduct an inspection within a month.

Completed by: Amanda Illar
Completed date: 1/12/26

Compliance History

DMR Data for Outfall 001 (from December 1, 2024 to November 30, 2025)

Parameter	NOV-25	OCT-25	SEP-25	AUG-25	JUL-25	JUN-25	MAY-25	APR-25	MAR-25	FEB-25	JAN-25	DEC-24
Flow (MGD) Average Monthly	0.0064	0.0063	0.0029	0.0065	0.0065	0.0065	0.0065	0.0065	0.0065	0.0065	0.0035	0.0065
pH (S.U.) Instantaneous Minimum	7.25	6.03	6.01	6.01	7.78	7.86	7.61	7.77	7.69	7.34	7.82	7.63
pH (S.U.) Instantaneous Maximum	8.11	8.99	8.68	8.96	8.9	8.9	8.59	8.21	8.5	8.45	8.34	8.14
DO (mg/L) Instantaneous Minimum	5.11	5.29	5.2	5.08	5.15	5.04	5.14	5.58	7.92	5.35	5.08	5.66
TRC (mg/L) Average Monthly	0.23	0.26	0.32	0.27	0.47	0.41	0.5	0.59	0.57	0.29	0.50	0.28
TRC (mg/L) Instantaneous Maximum	0.5	0.65	0.9	0.6	1.06	1.22	1.4	1.33	1.22	1.08	1.29	0.75
CBOD5 (mg/L) Average Monthly	< 2.0	2.85	2.0	< 2.0	2.0	< 2.0	2.1	< 2.0	2.0	2.0	2.0	2.0
CBOD5 (mg/L) Instantaneous Maximum	< 2.0	3.7	< 2.0	< 2.0	2.0	< 2.0	2.2	< 2.0	2.0	2.0	2.0	2.0
TSS (mg/L) Average Monthly	< 5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	< 5.0	< 5.0	5.0	5.0	7.5	5.0
TSS (mg/L) Instantaneous Maximum	< 5.0	< 5.0	< 5.0	< 5.0	5.0	< 5.0	< 5.0	< 5.0	5.0	5.0	10.0	5.0
Fecal Coliform (No./100 ml) Geometric Mean	< 1.0	< 1.0	1.0	< 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	< 1.0	< 1.0	< 1.0	1.0	< 1.0	< 1.0	< 1.0	1.0	1.0	1.0	1.0
Total Nitrogen (mg/L) Daily Maximum												0.75
Ammonia (mg/L) Average Monthly	< 0.1	0.15	0.1	0.1	0.15	0.15	0.25	< 0.1	0.1	0.1	0.15	0.35

Ammonia (mg/L) Instantaneous Maximum	< 0.1	0.2	0.1	0.1	0.20	0.2	0.3	< 0.1	0.1	0.10	0.20	0.60
Total Phosphorus (mg/L) Daily Maximum												0.181

Compliance History

Effluent Violations for Outfall 001, from: January 1, 2025 To: November 30, 2025

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
TRC	04/30/25	Avg Mo	0.59	mg/L	.5	mg/L
TRC	03/31/25	Avg Mo	0.57	mg/L	.5	mg/L

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** .0065
Latitude 40º 41' 32.00" **Longitude** -80º 28' 24.00"
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
Flow	Report	Average Monthly	-	§§ 92a.27, 92a.61
Flow	Report	Max Daily	-	§§ 92a.27, 92a.61
$CBOD_5$	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)
Total Nitrogen	Report	Average Monthly	-	92a.61(7)
Total Phosphorus	Report	Average Monthly	-	92a.61(8)
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)
E. Coli (No./100 ml)	-	Report		93a.61(11)(12)
Total Residual Chlorine	0.5	Average Monthly	-	92a.48(b)(2)
Total Residual Chlorine	1.6	IMAX	-	92a.47-48(3)(4)
Ammonia-Nitrogen	25	Average Monthly	-	BPJ (5)
Ammonia-Nitrogen	50	IMAX	-	BPJ (5)
Dissolved Oxygen	4.0	IMIN	-	BPJ (6)

Comments: TBEL limits from the previous renewal will be maintained. The permittee has installed new treatment units that will have to meet these existing Technology-Based effluent limitations.

Water Quality-Based Limitations

The following limitations were determined through WQM 7.0 water quality modeling (Attachment 3):

Parameter	Limit (mg/l)	SBC	Model
Ammonia-Nitrogen (May 1 to Oct 31)	1.92	Average Monthly	WQM 7.0
Ammonia-Nitrogen (May 1 to Oct 31)	3.84	IMAX	
Ammonia-Nitrogen (Nov 1 to Apr 30)	2.85	Average Monthly	
Ammonia-Nitrogen (Nov 1 to Apr 30)	5.7	IMAX	
Dissolved Oxygen	5.0	Minimum	
Total Residual Chlorine (TRC)	0.012	Average Monthly	TRC_CALC
Total Residual Chlorine (TRC)	0.038	IMAX	

Comments: WQM 7.0 recommended stricter limits for Ammonia-Nitrogen in the summer. A minimum D.O. level will be maintained at 5.0 mg/L. TRC_Calc recommended a much lower TRC value. The previous renewal did not conduct water-quality modeling analysis to determine effluent limits, hence the relatively high summer Ammonia-Nitrogen limit (compared to the winter) and default TRC limits.

The permittee should be able to immediately comply with the stricter summer Ammonia-Nitrogen limit based on the past year's DMR data.

	NOV-25	OCT-25	SEP-25	AUG-25	JUL-25	JUN-25	MAY-25	APR-25	MAR-25	FEB-25	JAN-25	DEC-24
Ammonia (mg/L) Average Monthly	< 0.1	0.15	0.1	0.1	0.15	0.15	0.25	< 0.1	0.1	0.1	0.15	0.35

However, note that the permittee has had exceedances of Ammonia-Nitrogen in 2023 and 2024, according to the compliance check report.

Jan-24	Ammonia-Nitrogen	15.0	13.2	mg/L	Instantaneous Maximum
Jan-24	Ammonia-Nitrogen	9.20	6.6	mg/L	Average Monthly
Nov-23	Ammonia-Nitrogen	24.40	6.6	mg/L	Average Monthly
Nov-23	Ammonia-Nitrogen	26.0	13.2	mg/L	Instantaneous Maximum
Oct-23	Ammonia-Nitrogen	6.10	2.3	mg/L	Average Monthly
Oct-23	Ammonia-Nitrogen	7.0	4.6	mg/L	Instantaneous Maximum

TRC limits will be enforced one year after the permit effective date. This should give the permittee enough time to submit a WQM application to get their new package system online. Additionally, the new package treatment plant utilizes UV disinfection, so the permittee should not have an issue with complying with the more stringent TRC limit.

Additional Considerations

Anti-Backsliding

Section 402(o) of the Clean Water Act (CWA), enacted in the Water Quality Act of 1987, establishes anti-backsliding rules governing two situations. The first situation occurs when a permittee seeks to revise a Technology-Based effluent limitation based on BPJ to reflect a subsequently promulgated effluent guideline which is less stringent. The second situation addressed by Section 402(o) arises when a permittee seeks relaxation of an effluent limitation which is based upon a State treatment standard of water quality standard.

Previous limits can be used pursuant to EPA's anti-backsliding regulation. Reissued permits. (1) Except as provided in paragraph (l)(2) of this section when a permit is renewed or reissued. Interim effluent limitations, standards or conditions must be at least as stringent as the final effluent limitations, standards, or conditions in the previous permit (unless the circumstances on which the previous permit was based have materially and substantially changed since the time the permit was issued and would constitute cause for permit modification or revocation and reissuance under §122.62). (2) In the case of effluent limitations established on the basis of Section 402(a)(1)(B) of the CWA, a permit may not be renewed, reissued, or modified on the basis of effluent guidelines promulgated under section 304(b) subsequent to the original issuance of such permit, to contain effluent limitations which are less stringent than the comparable effluent limitations in the previous permit.

(40 CFR 122.44 (l)(2) Establishing limitations, standards, and other permit conditions., 40 CFR Ch. I (7-1-21 Edition))

No permits limits have been made less stringent in the renewal draft permit.

Ultraviolet Disinfection

The permittee has installed Ultraviolet (UV) disinfection as part of the new treatment units. This permit is being drafted in consideration of the new units. The permittee has been given one year compliance schedule to meet the new, more stringent TRC limits with the option of using UV monitoring at the end of the same compliance period. Routine monitoring of UV intensity is at the same monitoring frequency that is used for TRC.

(*Section I.A, Note 4, SOP for Clean Water Program, Establishing Effluent Limitations for Individual Sewage Permits, Final November 9, 2012, Revised March 24, 2021, Version 1.9* and *25 PA Code 92a.61(b)*.)

E. Coli

Sewage discharges will include monitoring, at a minimum, for E. Coli, in new and reissued permits, with a monitoring frequency of 1/month for design flows >= 1 MGD, 1/quarter for design flows >= 0.05 and < 1 MGD, 1/year for design flows of 0.002 – 0.05 MGD.

(*Note 12 SOP-Establishing Effluent Limitations for Individual Sewage Permits Final November 9, 2012, Revised February 5, 2024, Version 2.0.* and *25 PA Code 92a.61(b).)*

Table 6-3 – Self-Monitoring Requirements for SEWAGE Discharges

Plant Design Flow (MGD)	Flow Monitoring	C-BOD_5 or BOD_5	Suspended Solids	pH	Fecal Coliform	Chlorine Residual	NH_3-N	Phosphorus	DO	Toxics
Single Residence (Individual Permit)	2/year by estimate	2/year*	2/year*	1/month*	2/year*	1/month*	2/year*	2/year*	2/year*	N/A
.0005 to .002	weekly, using average pump rate or weir (a)	1/month*	1/month*	daily*	1/month*	daily*	1/month*	1/month*	daily*	N/A
.002 to .01	**weekly, using average pump rate or weir (a)**	**2/month***	**2/month***	**daily***	**2/month***	**daily***	**2/month***	**2/month***	**daily***	**N/A**
0.01 to 0.1	weekly, using average pump rate or weir (a)	2/month*	2/month*	daily*	2/month*	daily*	2/month*	2/month*	Daily*	1/week*
0.1 to 1.0	meter	1/week**	1/week**	daily*	1/week*	daily*	1/week**	1/week**	daily*	1/week****
1.0 to 5.0	meter	2/week***	2/week***	daily*	2/week*	daily*	2/week***	2/week***	daily*	1/week****
5.0 to 25.0	meter	daily***	daily***	daily*	daily*	1/shift*	daily***	daily***	daily*	1/week****
over 25.0	meter	daily***	daily***	1/shift*	daily*	1/shift*	1/shift***	1/shift***	1/shift*	1/week****

* Grab sample-these should be most representative of the effluent and are to be taken at a time when the normal daily maximum flow would reach the sampling point.

** 8-hour composite sample.

*** 24-hour composite sample.

**** Same sample type as for Industrial Process Wastewater (See Table 6-4).

Comments: A monitoring requirement of 5/week for DO, pH, and TRC will be maintained since the facility is a school, and the expected use will mostly occur on weekdays.

Permit Limit Changes

E. Coli yearly sampling has been added. Stricter limits for Ammonia-Nitrogen for the summer, Total Residual Chlorine, and the addition of UV monitoring have been imposed a year after the permit effective date

In this case, the permittee should have enough time to submit a WQM amendment to get their new package treatment online. The package treatment plant features a moving bed reactor and UV disinfection.

Previous Limits:

Ammonia-Nitrogen May 1 - Oct 31	XXX	XXX	XXX	6.6	XXX	13.2	2/month	Grab
Total Residual Chlorine	XXX	XXX	XXX	0.6	XXX	1.5	5/Week	Grab

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: End of Interim Period 1 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		
TRC	XXX	XXX	XXX	0.012	XXX	0.038	5/week	Grab
UV Transmittance (%)	XXX	XXX	Report	XXX	XXX	XXX	5/Week	Grab

Compliance Sampling Location: Outfall 001

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	XXX	XXX	XXX	XXX	XXX	2/month	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	5/week	Grab
DO	XXX	XXX	5.0 Inst Min	XXX	XXX	XXX	5/week	Grab
CBOD5	XXX	XXX	XXX	25.0	XXX	50.0	2/month	Grab
TSS	XXX	XXX	XXX	30.0	XXX	60.0	2/month	Grab
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
E. Coli (No./100 ml)	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab
Total Nitrogen	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/year	Grab
Ammonia-Nitrogen May 1 – Oct 31	XXX	XXX	XXX	1.92	XXX	3.84	2/month	Grab
Ammonia-Nitrogen Nov 1 - Apr 30	XXX	XXX	XXX	2.3	XXX	4.6	2/month	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/year	Grab

Compliance Sampling Location: Outfall 001

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 End of Interim Period 1.

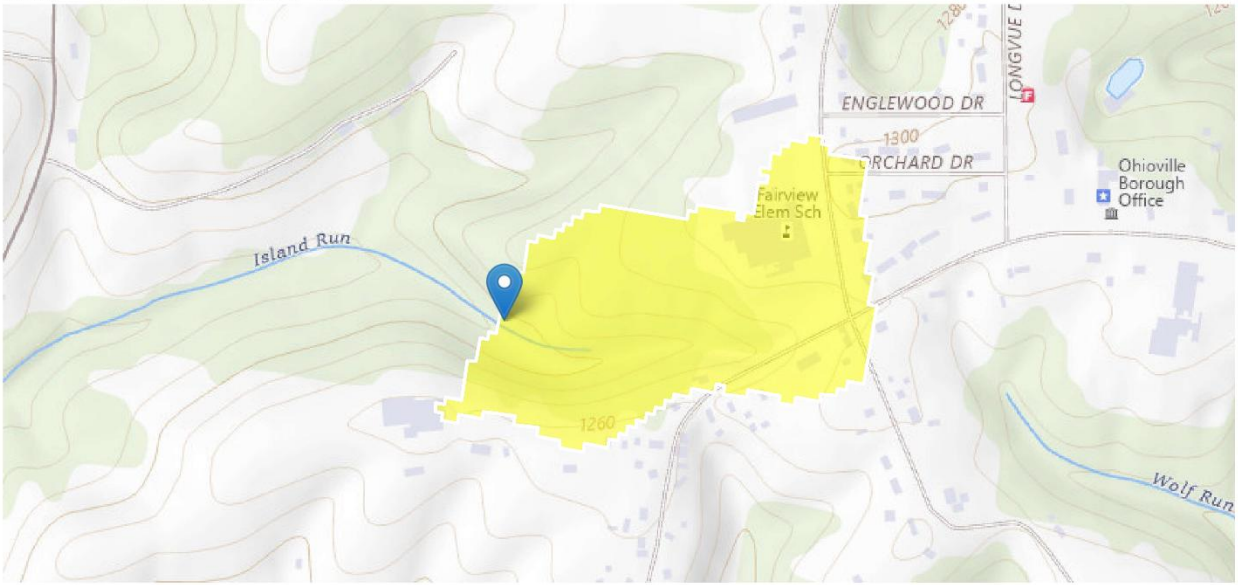
Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
TRC	XXX	XXX	XXX	0.5	XXX	1.6	5/week	Grab

Compliance Sampling Location: Outfall 001

Attachment 1
USGS StreamStats
Upstream

StreamStats Report

Region ID: PA
Clicked Point (Latitude, Longitude): 40.69203, -80.47507
Time: 2026-01-30 14:55:47 -0500



StreamStats Update

Starting with version 4.30.0, the StreamStats application uses services that were redeveloped with open-source software components. Users may observe minor variations in computed results when compared to those from previous versions. These differences are expected and do not reflect errors in the underlying data or analytical methods. Users are advised to consider these potential variations when interpreting or comparing results generated across different versions of StreamStats. Please email streamstats@usgs.gov with any questions or concerns. A full list of changes can be found at **https://www.usgs.gov/streamstats/news/streamstats-data-updates-open-source-code-release (https://www.usgs.gov/streamstats/news/streamstats-data-updates-open-source-code-release)** .

Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.05	square miles
ELEV	Mean Basin Elevation	1252.4	feet

Low-Flow Statistics

Low-Flow Statistics Parameters [Low Flow Region 4]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.05	square miles	2.26	1400
ELEV	Mean Basin Elevation	1252.4	feet	1050	2580

Low-Flow Statistics Disclaimers [Low Flow Region 4]

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 4]

Statistic	Value	Unit
7 Day 2 Year Low Flow	0.000959	ft^3/s
30 Day 2 Year Low Flow	0.00213	ft^3/s
7 Day 10 Year Low Flow	0.000209	ft^3/s
30 Day 10 Year Low Flow	0.000563	ft^3/s
90 Day 10 Year Low Flow	0.00135	ft^3/s

Low-Flow Statistics Citations

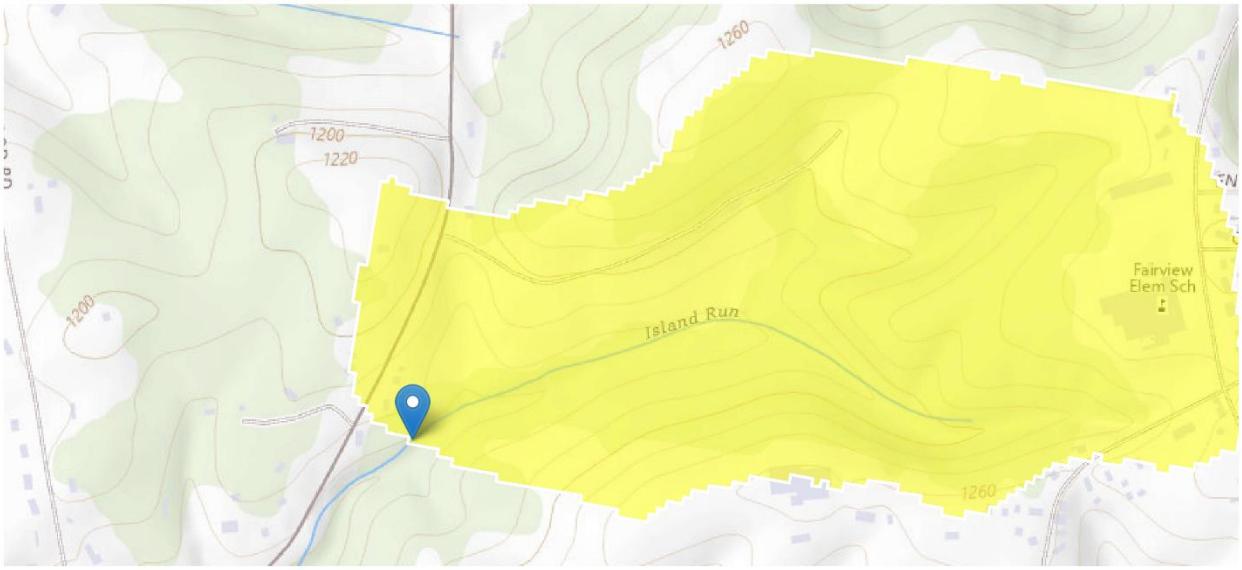
Stuckey, M.H.,2006, Low-flow, base-flow, and mean-flow regression equations for Pennsylvania streams: U.S. Geological Survey Scientific Investigations Report 2006-5130, 84 p. (http://pubs.usgs.gov/sir/2006/5130/)

Application Version: 4.30.0
SSHydro Services Version: 1.1.0
SSDelineate Services Version: 1.0.1
NSS Services Version: 2.2.1
GageStats Services Version: 1.2.1
Pourpoint Services Version: 1.2.0
Batch Processor Version: 1.6.1

Attachment 2
USGS StreamStats Downstream

Downstream StreamStats Report

Region ID: PA
Clicked Point (Latitude, Longitude): 40.69151, -80.48236
Time: 2026-01-30 15:09:18 -0500



StreamStats Update

Starting with version 4.30.0, the StreamStats application uses services that were redeveloped with open-source software components. Users may observe minor variations in computed results when compared to those from previous versions. These differences are expected and do not reflect errors in the underlying data or analytical methods. Users are advised to consider these potential variations when interpreting or comparing results generated across different versions of StreamStats. Please email streamstats@usgs.gov with any questions or concerns. A full list of changes can be found at **https://www.usgs.gov/streamstats/news/streamstats-data-updates-open-source-code-release (https://www.usgs.gov/streamstats/news/streamstats-data-updates-open-source-code-release)** .

Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.2	square miles
ELEV	Mean Basin Elevation	1219.3	feet

Low-Flow Statistics

Low-Flow Statistics Parameters [Low Flow Region 4]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.2	square miles	2.26	1400
ELEV	Mean Basin Elevation	1219.3	feet	1050	2580

Low-Flow Statistics Disclaimers [Low Flow Region 4]

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 4]

Statistic	Value	Unit
7 Day 2 Year Low Flow	0.00455	ft^3/s
30 Day 2 Year Low Flow	0.00947	ft^3/s
7 Day 10 Year Low Flow	0.00114	ft^3/s
30 Day 10 Year Low Flow	0.00276	ft^3/s
90 Day 10 Year Low Flow	0.00612	ft^3/s

Low-Flow Statistics Citations

Stuckey, M.H.,2006, Low-flow, base-flow, and mean-flow regression equations for Pennsylvania streams: U.S. Geological Survey Scientific Investigations Report 2006-5130, 84 p. (http://pubs.usgs.gov/sir/2006/5130/)

Application Version: 4.30.0
SSHydro Services Version: 1.1.0
SSDelineate Services Version: 1.0.1
NSS Services Version: 2.2.1
GageStats Services Version: 1.2.1
Pourpoint Services Version: 1.2.0
Batch Processor Version: 1.6.1

Attachment 3
WQM 7.0 Model - Summer

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
20B	33298	ISLAND RUN	**3.500**	1178.00	0.05	0.00000	0.00	☑

Stream Data

Design Cond.	LFY (cfsm)	Trib Flow (cfs)	Stream Flow (cfs)	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary Temp (°C)	Tributary pH	Stream Temp (°C)	Stream pH
Q7-10	0.004	0.00	0.00	0.000	0.000	10.0	0.00	0.00	25.00	7.00	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
Fairview Elem	PA0030864	0.0065	0.0065	0.0065	0.000	20.00	7.00

Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	25.00	2.00	0.00	1.50
Dissolved Oxygen	3.00	8.24	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
20B	33298	ISLAND RUN	**3.220**	1132.00	0.20	0.00000	0.00	☑

Stream Data

Design Cond.	LFY (cfsm)	Trib Flow (cfs)	Stream Flow (cfs)	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary Temp (°C)	Tributary pH	Stream Temp (°C)	Stream pH
Q7-10	0.006	0.00	0.00	0.000	0.000	10.0	0.00	0.00	25.00	7.00	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
		0.0000	0.0000	0.0000	0.000	25.00	7.00

Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	25.00	2.00	0.00	1.50
Dissolved Oxygen	3.00	8.24	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

WQM 7.0 Modeling Specifications

Parameters	Both	Use Inputted Q1-10 and Q30-10 Flows	☑
WLA Method	EMPR	Use Inputted W/D Ratio	☐
Q1-10/Q7-10 Ratio	0.64	Use Inputted Reach Travel Times	☐
Q30-10/Q7-10 Ratio	1.36	Temperature Adjust Kr	☑
D.O. Saturation	90.00%	Use Balanced Technology	☑
D.O. Goal	5		

WQM 7.0 Hydrodynamic Outputs

SWP Basin	Stream Code	Stream Name
20B	33298	ISLAND RUN

RMI	Stream Flow (cfs)	PWS With (cfs)	Net Stream Flow (cfs)	Disc Analysis Flow (cfs)	Reach Slope (ft/ft)	Depth (ft)	Width (ft)	W/D Ratio	Velocity (fps)	Reach Trav Time (days)	Analysis Temp (°C)	Analysis pH
Q7-10 Flow												
3.500	0.00	0.00	0.00	.0101	0.03111	.266	1.06	4	0.04	0.470	20.10	7.00
Q1-10 Flow												
3.500	0.00	0.00	0.00	.0101	0.03111	NA	NA	NA	0.04	0.472	20.07	7.00
Q30-10 Flow												
3.500	0.00	0.00	0.00	.0101	0.03111	NA	NA	NA	0.04	0.468	20.14	7.00

WQM 7.0 Wasteload Allocations

SWP Basin	Stream Code	Stream Name
20B	33298	ISLAND RUN

NH3-N Acute Allocations

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
3.500	Fairview Elem	16.67	16.89	16.67	16.89	0	0

NH3-N Chronic Allocations

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
3.500	Fairview Elem	1.87	1.92	1.87	1.92	0	0

Dissolved Oxygen Allocations

RMI	Discharge Name	CBOD5		NH3-N		Dissolved Oxygen		Critical Reach	Percent Reduction
		Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)		
3.50	Fairview Elem	25	25	1.92	1.92	5	5	0	0

WQM 7.0 D.O.Simulation

SWP Basin	Stream Code	Stream Name
20B	33298	ISLAND RUN

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
3.500	0.007	20.102	7.000
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
1.062	0.266	3.997	0.036
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
24.53	1.496	1.88	0.706
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
5.066	27.429	Owens	5
Reach Travel Time (days)			
0.470			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.047	22.86	1.82	6.46
0.094	21.30	1.76	6.95
0.141	19.84	1.71	7.17
0.188	18.49	1.65	7.32
0.235	17.23	1.60	7.45
0.282	16.05	1.54	7.56
0.329	14.95	1.49	7.66
0.376	13.93	1.44	7.76
0.423	12.98	1.40	7.84
0.470	12.10	1.35	7.93

WQM 7.0 Effluent Limits

SWP Basin	Stream Code	Stream Name
20B	33298	ISLAND RUN

RMI	Name	Permit Number	Disc Flow (mgd)	Parameter	Effl. Limit 30-day Ave. (mg/L)	Effl. Limit Maximum (mg/L)	Effl. Limit Minimum (mg/L)
3.500	Fairview Elem	PA0030864	0.007	CBOD5	25		
				NH3-N	1.92	3.84	
				Dissolved Oxygen			5

Attachment 4
WQM 7.0 Model - Winter

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
20B	33298	ISLAND RUN	**3.500**	1178.00	0.05	0.00000	0.00	☑

Stream Data

Design Cond.	LFY (cfsm)	Trib Flow (cfs)	Stream Flow (cfs)	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary Temp (°C)	Tributary pH	Stream Temp (°C)	Stream pH
Q7-10	0.008	0.00	0.00	0.000	0.000	10.0	0.00	0.00	5.00	7.00	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
Fairview Elem	PA0030864	0.0065	0.0065	0.0065	0.000	15.00	7.00

Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	25.00	2.00	0.00	1.50
Dissolved Oxygen	3.00	12.51	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
20B	33298	ISLAND RUN	**3.220**	1132.00	0.20	0.00000	0.00	☑

Stream Data

Design Cond.	LFY (cfsm)	Trib Flow (cfs)	Stream Flow (cfs)	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary Temp (°C)	Tributary pH	Stream Temp (°C)	Stream pH
Q7-10	0.011	0.00	0.00	0.000	0.000	10.0	0.00	0.00	5.00	7.00	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
		0.0000	0.0000	0.0000	0.000	25.00	7.00

Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	25.00	2.00	0.00	1.50
Dissolved Oxygen	3.00	8.24	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

WQM 7.0 Modeling Specifications

Parameters	Both	Use Inputted Q1-10 and Q30-10 Flows	☑
WLA Method	EMPR	Use Inputted W/D Ratio	☐
Q1-10/Q7-10 Ratio	0.64	Use Inputted Reach Travel Times	☐
Q30-10/Q7-10 Ratio	1.36	Temperature Adjust Kr	☑
D.O. Saturation	90.00%	Use Balanced Technology	☑
D.O. Goal	5		

WQM 7.0 Hydrodynamic Outputs

SWP Basin	Stream Code	Stream Name
20B	33298	ISLAND RUN

RMI	Stream Flow (cfs)	PWS With (cfs)	Net Stream Flow (cfs)	Disc Analysis Flow (cfs)	Reach Slope (ft/ft)	Depth (ft)	Width (ft)	W/D Ratio	Velocity (fps)	Reach Trav Time (days)	Analysis Temp (°C)	Analysis pH
Q7-10 Flow												
3.500	0.00	0.00	0.00	.0101	0.03111	.267	1.07	4	0.04	0.465	14.61	7.00
Q1-10 Flow												
3.500	0.00	0.00	0.00	.0101	0.03111	NA	NA	NA	0.04	0.469	14.74	7.00
Q30-10 Flow												
3.500	0.00	0.00	0.00	.0101	0.03111	NA	NA	NA	0.04	0.461	14.47	7.00

WQM 7.0 Wasteload Allocations

SWP Basin	Stream Code	Stream Name
20B	33298	ISLAND RUN

NH3-N Acute Allocations

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
3.500	Fairview Elem	24.1	24.74	24.1	24.74	0	0

NH3-N Chronic Allocations

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
3.500	Fairview Elem	2.7	2.85	2.7	2.85	0	0

Dissolved Oxygen Allocations

RMI	Discharge Name	CBOD5		NH3-N		Dissolved Oxygen		Critical Reach	Percent Reduction
		Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)		
3.50	Fairview Elem	25	25	2.85	2.85	5	5	0	0

WQM 7.0 D.O.Simulation

SWP Basin	Stream Code	Stream Name
20B	33298	ISLAND RUN

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
3.500	0.007	14.605	7.000
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
1.067	0.267	4.001	0.037
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
24.09	1.493	2.73	0.462
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
5.296	24.088	Owens	5
Reach Travel Time (days)			
0.465			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.047	22.82	2.68	7.29
0.093	21.62	2.62	8.00
0.140	20.48	2.56	8.30
0.186	19.39	2.51	8.45
0.233	18.37	2.45	8.55
0.279	17.40	2.40	8.64
0.326	16.48	2.35	8.72
0.372	15.61	2.30	8.79
0.419	14.79	2.25	8.86
0.465	14.01	2.20	8.92

WQM 7.0 Effluent Limits

SWP Basin	Stream Code	Stream Name
20B	33298	ISLAND RUN

RMI	Name	Permit Number	Disc Flow (mgd)	Parameter	Effl. Limit 30-day Ave. (mg/L)	Effl. Limit Maximum (mg/L)	Effl. Limit Minimum (mg/L)
3.500	Fairview Elem	PA0030864	0.007	CBOD5	25		
				NH3-N	2.85	5.7	
				Dissolved Oxygen			5

Attachment 5
TRC Model

TRC_CALC

TRC EVALUATION

Input appropriate values in A3:A9 and D3:D9

0.000209	= Q stream (cfs)	0.5	= CV Daily
0.0065	= Q discharge (MGD)	0.5	= CV Hourly
30	= no. samples	1	= AFC_Partial Mix Factor
0.3	= Chlorine Demand of Stream	1	= CFC_Partial Mix Factor
0	= Chlorine Demand of Discharge	15	= AFC_Criteria Compliance Time (min)
0.5	= BAT/BPJ Value	720	= CFC_Criteria Compliance Time (min)
0	= % Factor of Safety (FOS)		=Decay Coefficient (K)

Source	Reference	AFC Calculations	Reference	CFC Calculations
TRC	1.3.2.iii	WLA afc = 0.026	1.3.2.iii	WLA cfc = 0.017
PENTOXSD TRG	5.1a	LTAMULT afc = 0.373	5.1c	LTAMULT cfc = 0.581
PENTOXSD TRG	5.1b	LTA_afc= 0.010	5.1d	LTA_cfc = 0.010

Source		Effluent Limit Calculations	
PENTOXSD TRG	5.1f	AML MULT = 1.231	
PENTOXSD TRG	5.1g	AVG MON LIMIT (mg/l) = 0.012	AFC
		INST MAX LIMIT (mg/l) = 0.038	

WLA afc	**(.019/e(-k*AFC_tc)) + [(AFC_Yc*Qs*.019/Qd*e(-k*AFC_tc))...** **...+ Xd + (AFC_Yc*Qs*Xs/Qd)]*(1-FOS/100)**
LTAMULT afc	EXP((0.5*LN(cvh^2+1))-2.326*LN(cvh^2+1)^0.5)
LTA_afc	wla_afc*LTAMULT_afc
WLA_cfc	**(.011/e(-k*CFC_tc) + [(CFC_Yc*Qs*.011/Qd*e(-k*CFC_tc))...** **...+ Xd + (CFC_Yc*Qs*Xs/Qd)]*(1-FOS/100)**
LTAMULT_cfc	EXP((0.5*LN(cvd^2/no_samples+1))-2.326*LN(cvd^2/no_samples+1)^0.5)
LTA_cfc	wla_cfc*LTAMULT_cfc
AML MULT	EXP(2.326*LN((cvd^2/no_samples+1)^0.5)-0.5*LN(cvd^2/no_samples+1))
AVG MON LIMIT	MIN(BAT_BPJ,MIN(LTA_afc,LTA_cfc)*AML_MULT)
INST MAX LIMIT	**1.5*((av_mon_limit/AML_MULT)/LTAMULT_afc)**