Pennsylvania Department of Environmental Protection

Southcentral Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0081817**
Facility Type	**Non-Municipal**	APS ID	**632726**
Major / Minor	**Minor**	Authorization ID	**1512832**

Applicant and Facility Information

Applicant Name	**Juniata County School District**	Facility Name	**East Juniata High School**
Applicant Address	32944 Route 35 N	Facility Address	146 Weatherby Way
	McAlisterville, PA 17049-8109		Mifflintown, PA 17059-8902
Applicant Contact	Matt Wray	Facility Contact	Matt Wray
Applicant Phone	(717) 436-2111	Facility Phone	(717) 463-2111
Client ID	32830	Site ID	451519
Ch 94 Load Status	Not Overloaded	Municipality	Fayette Township
Connection Status		County	Juniata
Date Application Received	January 16, 2025	EPA Waived?	Yes
Date Application Accepted	February 5, 2025	If No, Reason	

Purpose of Application: Renewal of existing NPDES permit

Summary of Review

The Juniata County School District has applied to the Pennsylvania Department of Environmental Protection (DEP) for reissuance of its NPDES permit for the East Juniata High School STP. The permit was last reissued on April 22, 2020 and became effective on May 1, 2020. The permit expired on April 30, 2025 but the terms and conditions of the permit have been administratively extended since that time.

Based on the review outlined in this fact sheet, it is recommended that the permit be drafted, and a notice of the draft permit be published in the *Pennsylvania Bulletin* for public comments for 30 days. A file review of documents associated with the discharge or permittee 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.

Sludge use and disposal description and location(s): Last disposal site not documented in application (biosolids last removed in 2022).

Public Participation

DEP will publish notice of the receipt of the NPDES permit application and a tentative decision to issue the individual NPDES permit in the *Pennsylvania Bulletin* in accordance with 25 Pa. Code § 92a.82. Upon publication in the *Pennsylvania Bulletin*, DEP will accept written comments from interested persons for a 30-day period (which may be extended for one additional 15-day period at DEP's discretion), which will be considered in making a final decision on the application. Any person may request or petition for a public hearing with respect to the application. A public hearing may be held if DEP determines that there is significant public interest in holding a hearing. If a hearing is held, notice of the hearing will be published in the *Pennsylvania Bulletin* at least 30 days prior to the hearing and in at least one newspaper of general circulation within the geographical area of the discharge.

Approve	Deny	Signatures	Date
x		*Aaron Baar* Aaron Baar / Project Manager	January 6, 2026
x		*Daniel W. Martin* Daniel W. Martin, P.E. / Environmental Engineer Manager	February 3, 2026

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	001	Design Flow (MGD)	.016
Latitude	40º 39' 19.79"	Longitude	-77º 12' 57.88"
Quad Name	Beaver Springs	Quad Code	1328
Wastewater Description:	Sewage Effluent		
Receiving Waters	Cocolamus Creek (TSF)	Stream Code	11638
NHD Com ID	66203613	RMI	0.11
Drainage Area	9.14 sq. mi.	Yield (cfs/mi^2)	0.0591
Q_{7-10} Flow (cfs)	0.54	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	642.73	Slope (ft/ft)	
Watershed No.	12-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	Newport Borough		
PWS Waters	Juniata River	Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	

Drainage Area

The discharge is to Cocolamus Creek at RMI 0.11. A drainage area upstream of the discharge point is determined to be 9.14 sq.mi. according to USGS PA StreamStats available at https://streamstats.usgs.gov/ss/.

Stream Flow

According to StreamStats, the watershed has a Q_{7-10} of 0.54 cfs. This information was used to obtain a Low Flow Yield (LFY) for the discharge point as follows (Guidance No. 391-2000-023).

Q_{7-10} = 0.54 cfs
LFY = 0.54 cfs/9.14 mi^2 = 0.0591 cfs/mi^2

Cocolamus Creek

25 Pa Code §93.9 classifies the receiving water, Cocolamus Creek, with a Trout Stocking Fishery (TSF) Existing Use designation. 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. The discharge is in a stream segment listed as attaining uses.

Local Watershed Total Maximum Daily Loads (TMDLs)

According to PA's 2024 Integrated Water Quality Monitoring and Assessment Report, Cocolamus Creek in the vicinity of the point of discharge is not impaired. The waterway's is listed as Category 2 in the 2024 Integrated Report, indicating that some but not all uses are met. The assessment status of the remaining uses may be unknown because data are insufficient to assess the water, or it may be impaired.

Public Water Supply Intake

The nearest downstream public water supply intake is the Newport Borough intake located on the Juniata River. Considering the distance and nature of the discharge, the discharge is not expected to significantly affect the water supply.

Class A Wild Trout Streams

The receiving stream is not a Class A Wild Trout stream.

Treatment Facility Summary

Treatment Facility Name: East Juniata Hs

WQM Permit No.	Issuance Date

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Extended Aeration	Ultraviolet	0.016

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

The Juniata County School District owns and operates the East Juniata High School sanitary wastewater treatment facility located in Fayette Township, Juniata County. The facility serves only the East Juniata High School, all wastes are residential in nature, and all sewer systems are 100% separated. Having an annual average design flow of 0.016 MGD and a hydraulic design capacity of 0.016 MGD, this facility consists of a grinder pump, an aeration tank, secondary clarification, UV disinfection and the outfall (Outfall 001). No chemical amendments are identified in the application

Wasted solids are stored in a sludge holding tank for disposal offsite.

Compliance History	
Summary of DMRs:	DMR results for the past year are presented below.
Summary of Inspections:	Since the last renewal of the facility's NPDES permit, the following inspections have been logged in WMS: May 28, 2020: A routine CEI was conducted by Michael Benham. No violations were noted. A recommend was made to revise the April 2020 DMR using a No Data Indicator (NODI) code E for report UV transmittance until the UV system is repaired or replaced. May 17, 2023: A routine CEI was conducted by Brandon Bettinger. No violations were noted. Only observations are recorded.

Other Comments: As of January 6, 2026, there are no open violations associated with this facility.

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	Average Weekly	Instantaneous 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/discharge	Grab
CBOD5	XXX	XXX	XXX	25	XXX	50	2/month	8-Hr Composite
TSS	XXX	XXX	XXX	30	XXX	60	2/month	8-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
UV Transmittance (%)	XXX	XXX	Report	XXX	XXX	XXX	1/day	Measured
Nitrate-Nitrite	XXX	Report Daily Max	XXX	Report Daily Max	XXX	XXX	1/6 months	8-Hr Composite
Total Nitrogen	XXX	Report Daily Max	XXX	XXX	XXX	XXX	1/6 months	Calculation
Ammonia	XXX	Report Daily Max	XXX	Report Daily Max	XXX	XXX	1/6 months	8-Hr Composite
TKN	XXX	Report Daily Max	XXX	Report Daily Max	XXX	XXX	1/6 months	8-Hr Composite
Total Phosphorus	XXX	Report Daily Max	XXX	Report Daily Max	XXX	XXX	1/6 months	8-Hr Composite

Compliance Sampling Location: Outfall 001

Compliance History

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	0.0003	0.0008	0.0005	0.0003	0.0005	0.0020	0.0030	0.0018	0.0021	0.0025	0.0020	0.0020
Flow (MGD) Daily Maximum	0.0010	0.0030	0.0015	0.0013	0.0036	0.0090	0.0093	0.0036	0.0044	0.0046	0.0033	0.0050
pH (S.U.) Instantaneous Minimum	6.2	6.2	6.2	6.9	7.5	7.8	6.3	6.2	6.2	6.3	6.2	6.5
pH (S.U.) Instantaneous Maximum	7.8	8.0	8.1	8.2	8.3	8.2	7.8	7.7	7.7	7.7	7.9	7.5
DO (mg/L) Instantaneous Minimum	5.8	5.7	6.2	5.9	6.1	6.0	5.4	5.3	5.0	5.2	5.2	5.3
TRC (mg/L) Average Monthly	GG	GG	GG	GG	GG	GG	GG	GG	GG	GG	GG	GG
TRC (mg/L) Instantaneous Maximum	GG	GG	GG	GG	GG	GG	GG	GG	GG	GG	GG	GG
CBOD5 (mg/L) Average Monthly	1.6	< 1	< 1	< 1	1.2	4.1	< 1	< 1	1.3	1.1	2.9	3.7
TSS (mg/L) Average Monthly	< 1	7.5	51	5	6	< 1	< 1	< 1	11.5	< 1	3	< 1
Fecal Coliform (No./100 ml) Geometric Mean	5.4	4.6	3.8	1	< 1	< 1	1.73	< 1	1	24	1.0	2
Fecal Coliform (No./100 ml) Instantaneous Maximum	7.2	5.2	7.3	2	< 1	< 1	3	< 1	1	141	1.0	4
UV Transmittance (%) Instantaneous Minimum	66	61	63	71	70	81	79	80	73	80	80	80
Nitrate-Nitrite (lbs/day) Daily Maximum						1.1						0.053
Nitrate-Nitrite (mg/L) Daily Maximum						1.1						10.5
Total Nitrogen (lbs/day) Daily Maximum						< 1						0.06

Ammonia (lbs/day) Daily Maximum						< 1						< 1
Ammonia (mg/L) Daily Maximum						< 1						< 1
TKN (lbs/day) Daily Maximum						< 1						0.008
TKN (mg/L) Daily Maximum						< 1						1.5
Total Phosphorus (lbs/day) Daily Maximum						0.075						0.008
Total Phosphorus (mg/L) Daily Maximum						0.075						1.5

Compliance History

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

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
TSS	09/30/25	Avg Mo	51	mg/L	30	mg/L

Other Comments: A non-compliance form was submitted, but the form only stated that one of the two monthly samples was cloudy. SCRO Operations will determine if further action is needed or not.

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** .016
Latitude 40º 39' 19.86" **Longitude** -77º 12' 57.95"
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: These standards apply, subject to water quality analysis and BPJ where applicable.

Water Quality-Based Limitations

CBOD5, NH3-N and Dissolved Oxygen (DO)

WQM 7.0 version 1.0b is a water quality model designed to assist DEP to determine appropriate permit requirements for CBOD5, NH3-N and DO. DEP's guidance no. 391-2000-007 provides the technical methods contained in WQM 7.0 for conducting wasteload allocation and for determining recommended NPDES effluent limits for point source discharges. The model was utilized using data derived by USGS StreamStats and the model output indicated that existing WQBELs for CBOD5 and ammonia are still protective of water quality.

The model also determined that the facility's existing DO limits of 5 mg/L are still protective of water quality.

See attached for model inputs and outputs.

Toxics

DEP's NPDES permit application for minor sewages (less than 0.1 MGD) does not require sampling for heavy metals including Total Copper, Total Lead, and Total Zinc.

E. Coli Monitoring

In conformity with the Department's *Establishing Effluent Limitations for Individual Sewage Permits* (SOP No. BCW-PMT-033) and as authorized by § 92a.61 of the PA Code, annual E. Coli monitoring has been proposed in this permit. The collection method will be via grab sample.

Best Professional Judgment (BPJ) Limitations

Total Residual Chlorine/UV Disinfection

In the previous renewal of this permit, TRC limits were left in place despite the fact that the facility's disinfection system has been switched to UV. The reasoning behind the decision at the time was an understanding that chlorine was still utilized occasionally for disinfection.

A review of the facility's DMRs has shown that the facility has not utilized chlorine for disinfection in many years. As such, the Department proposes to eliminate the existing TRC limits in this renewal. Existing UV transmittance monitoring requirements from previous permits are proposed to continue in this permit unchanged.

Total Phosphorus & Total Nitrogen

DEP's SOP no. BPNPSM-PMT-033 (Establishing Effluent Limitations for Individual Sewage Permits) recommends monitoring requirements for Total Phosphorus and Total Nitrogen for all sewage facilities. Therefore, routine monitoring for Total Phosphorus and Total Nitrogen are recommended to be continued in this permit. Sampling frequency is currently required 1/6 months. The sampling frequency for Total Phosphorus and for nitrogenous compounds (ammonia, TKN, NOx) are proposed to be increased in this permit to 2/month with a calculation of average monthly Total Nitrogen being required 1/month, which is consistent with Table 6.3 in Guidance Doc. 362-0400-001. This change is proposed to bring the sampling requirements of this facility up to the same standard of similarly sized facility in the Southcentral Region.

Additional Considerations

Flow Monitoring

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

Chesapeake Bay TMDL

The Department formulated a strategy in April 2007, to comply with the EPA's and Chesapeake Bay Foundation's requirements to reduce point source loadings of Total Nitrogen (TN) and Total Phosphorus (TP) to the Bay. In the Strategy, sewage dischargers have been prioritized by Central Office based on their delivered TN loadings to the Bay. The highest priority (Phases 1, 2, and 3) dischargers received 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. Phase 4 (0.2 -0.4mgd) and Phase 5 (below 0.2mdg) facilities were required to monitor and report TN and TP during permit renewal at a monitoring frequency following Table 6-3 of DEP's Technical Guidance for Development and Specification of effluent Limitations (No. 362-0400-001).

EPA published the Chesapeake Bay Total Maximum Daily Load (TMDL) in December of 2010. Despite extensive restoration efforts during the past 25 years, the TMDL was prompted by insufficient progress and continued poor water quality in the Chesapeake Bay and its tidal tributaries.

In order to address the TMDL, Pennsylvania developed, in addition to the Bay Strategy, a Chesapeake Watershed Implementation Plan (WIP) Phase 1 in January 2011, Phase 2 in March 2012, and Phase 3 in December 2019.

The Phase 3 WIP categorizes this facility as a phase 5 non-significant sewage facility that has a design flow less than 0.2 MGD but greater than 0.002 MGD. The WIP recommends monitoring and reporting for Total Nitrogen and Total Phosphorus throughout the permit term at a frequency no less than annual. The monitoring of these pollutants 2/month will be written in the permit in conformity with other permits issued in the region.

Monitoring Frequency and Sample Type

Unless discussed otherwise above, the permit's monitoring frequency and sample type for all parameters will remain unchanged from the last permit renewal.

Antidegradation Requirements

All effluent limitations and monitoring requirements 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.

Anti-backsliding Requirement

All effluent limits proposed in this fact sheet are as stringent as effluent limits specified in the existing permit renewal unless noted otherwise above. This approach is in accordance with 40 CFR §122.44(l(1).

Annual Fees

An annual fee clause is continued in the permit in accordance with 25 Pa. Code § 92a.62. The facility covered by the permit is classified in the Minor Sewage Facility <0.05 MGD fee category, which has an annual fee of $250.

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.

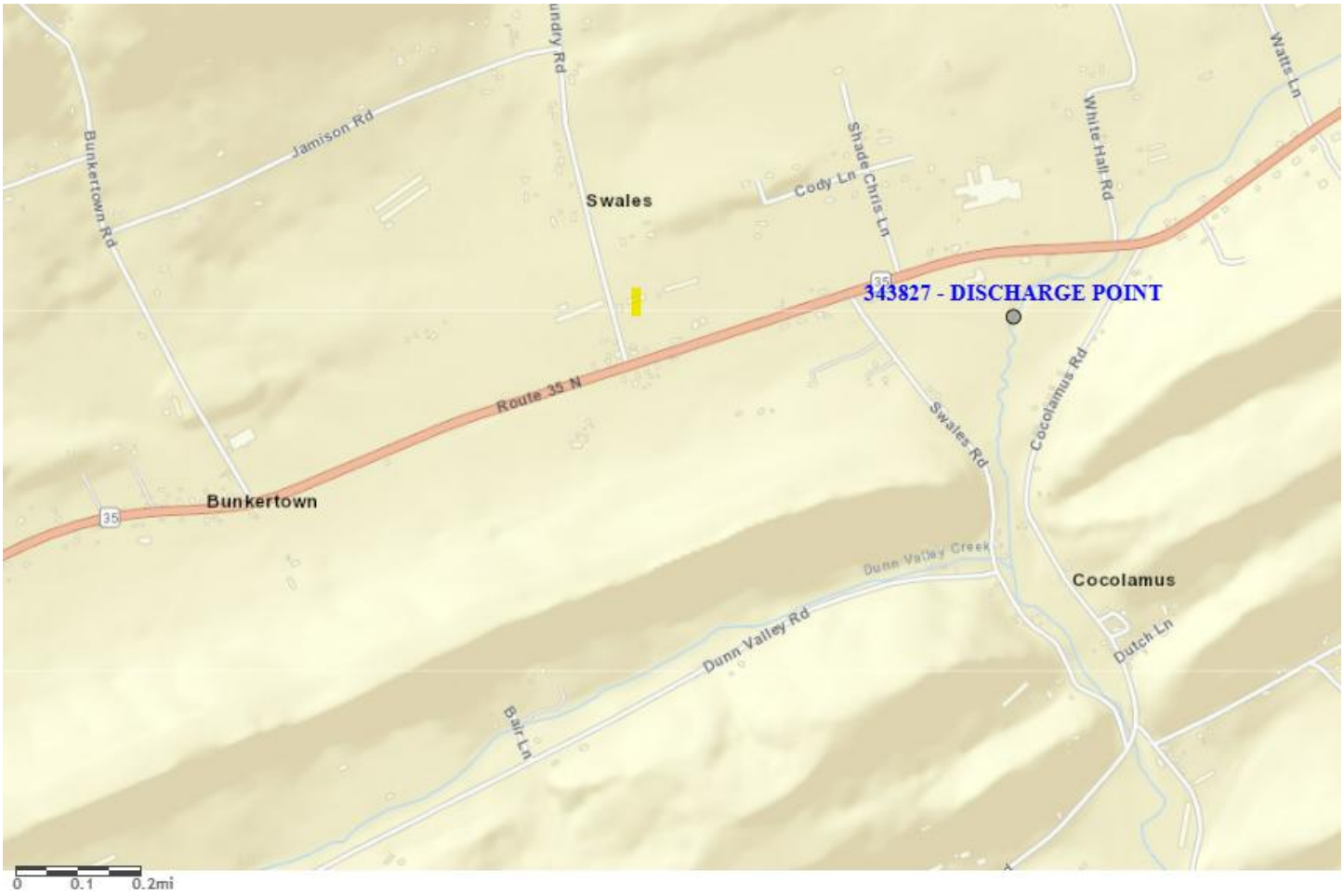
Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Instantaneous Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	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
CBOD5	XXX	XXX	XXX	25.0	XXX	50	2/month	8-Hr Composite
TSS	XXX	XXX	XXX	30.0	XXX	60	2/month	8-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
E. Coli (No./100 ml)	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab
UV Transmittance (%)	XXX	XXX	Report	XXX	XXX	XXX	1/day	Measured
Nitrate-Nitrite	Report	XXX	XXX	Report	XXX	XXX	2/month	8-Hr Composite
Total Nitrogen	Report	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Ammonia Nov 1 - Apr 30	Report	XXX	XXX	Report	XXX	XXX	2/month	8-Hr Composite
Ammonia May 1 - Oct 31	Report	XXX	XXX	Report	XXX	XXX	2/month	8-Hr Composite
TKN	Report	XXX	XXX	Report	XXX	XXX	2/month	8-Hr Composite

Outfall 001, Continued (from Permit Effective Date through Permit Expiration Date)

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Instantaneous Minimum	Average Monthly	Maximum	Instant. Maximum		
Total Phosphorus	Report	XXX	XXX	Report	XXX	XXX	2/month	8-Hr Composite

Compliance Sampling Location: Outfall 001

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:
☐	Other: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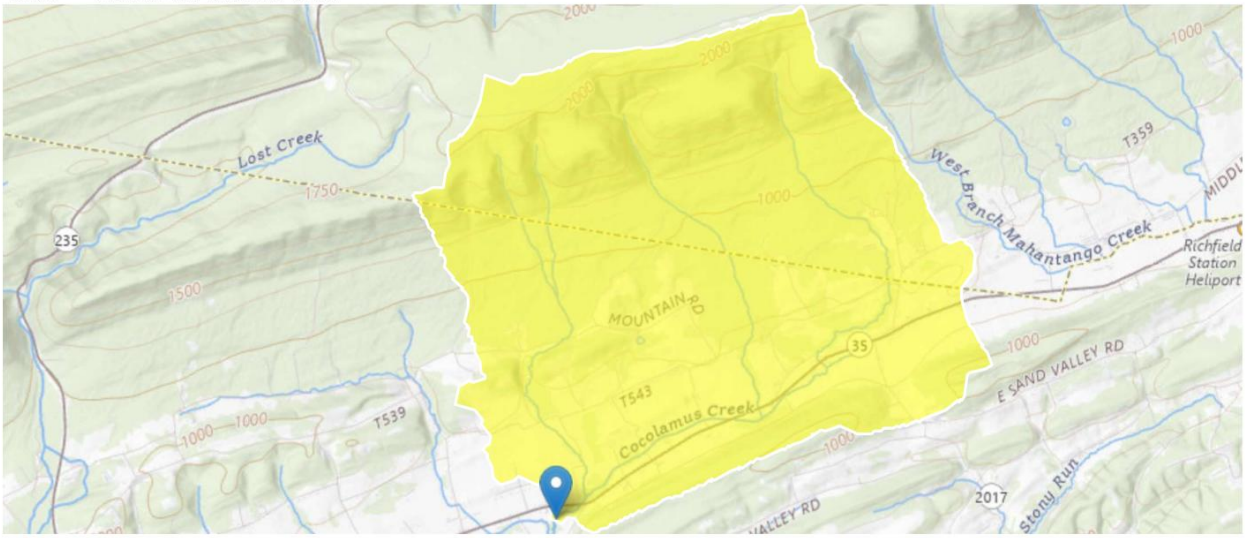
Bunkertown Rd
Swales
Cody Ln
Shade Chris Ln
White Hall Rd
Watts Ln
343827 - DISCHARGE POINT
Route 35 N
Swales Rd
Cocolamus Rd
Bunkertown
35
Dunn Valley Creek
Cocolamus
Dutch Ln
Dunn Valley Rd
Bair Ln
0
0.1
0.2mi

StreamStats Report

Region ID: PA
Clicked Point (Latitude, Longitude): 40.65557, -77.21608
Time: 2026-01-05 10:06:15 -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
CARBON	Percentage of area of carbonate rock	16.37	percent
DRNAREA	Area that drains to a point on a stream	9.14	square miles
PRECIP	Mean Annual Precipitation	44.1	inches
ROCKDEP	Depth to rock	4.04	feet
STRDEN	Stream Density -- total length of streams divided by drainage area	1.713	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
CARBON	Percent Carbonate	16.37	percent	0	99
DRNAREA	Drainage Area	9.14	square miles	4.93	1280
PRECIP	Mean Annual Precipitation	44.1	inches	35	50.4
ROCKDEP	Depth to Rock	4.04	feet	3.32	5.65
STRDEN	Stream Density	1.713	miles per square mile	0.51	3.1

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

PIL: Lower 90% Prediction Interval, PIU: Upper 90% Prediction Interval, ASEp: Average Standard Error of Prediction, SE: Standard Error, PC: Percent Correct, RMSE: Root Mean Squared Error, PseudoR^2: Pseudo R Squared (other -- see report)

Statistic	Value	Unit	SE	ASEp
7 Day 2 Year Low Flow	1.28	ft^3/s	38	38
30 Day 2 Year Low Flow	1.74	ft^3/s	33	33
7 Day 10 Year Low Flow	0.54	ft^3/s	51	51
30 Day 10 Year Low Flow	0.752	ft^3/s	46	46
90 Day 10 Year Low Flow	1.17	ft^3/s	36	36

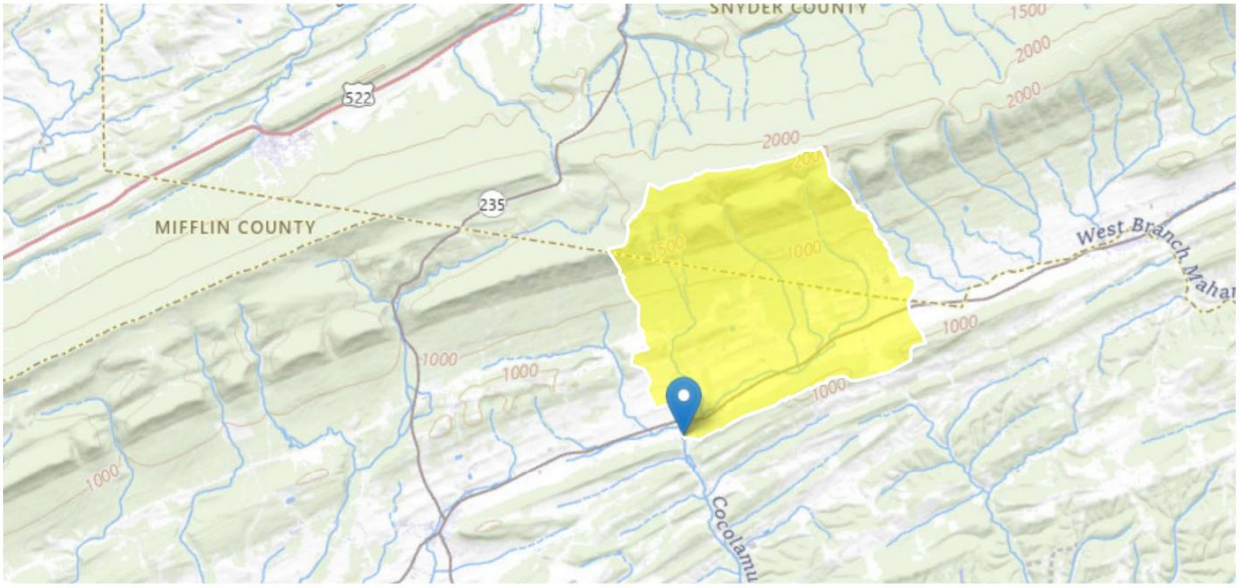
Low-Flow Statistics Citations

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: 1.0.0
SSDelineate Services Version: 1.0.0
NSS Services Version: 2.2.1
GageStats Services Version: 1.2.1
Pourpoint Services Version: 1.2.0
Batch Processor Version: 1.6.0

StreamStats Report

Region ID: PA
Clicked Point (Latitude, Longitude): 40.65399, -77.21685
Time: 2026-01-05 10:07:48 -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
CARBON	Percentage of area of carbonate rock	16.69	percent
DRNAREA	Area that drains to a point on a stream	9.17	square miles
PRECIP	Mean Annual Precipitation	44.1	inches
ROCKDEP	Depth to rock	4.04	feet
STRDEN	Stream Density -- total length of streams divided by drainage area	1.724	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
CARBON	Percent Carbonate	16.69	percent	0	99
DRNAREA	Drainage Area	9.17	square miles	4.93	1280
PRECIP	Mean Annual Precipitation	44.1	inches	35	50.4
ROCKDEP	Depth to Rock	4.04	feet	3.32	5.65
STRDEN	Stream Density	1.724	miles per square mile	0.51	3.1

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

PIL: Lower 90% Prediction Interval, PIU: Upper 90% Prediction Interval, ASEp: Average Standard Error of Prediction, SE: Standard Error, PC: Percent Correct, RMSE: Root Mean Squared Error, PseudoR^2: Pseudo R Squared (other -- see report)

Statistic	Value	Unit	SE	ASEp
7 Day 2 Year Low Flow	1.28	ft^3/s	38	38
30 Day 2 Year Low Flow	1.74	ft^3/s	33	33
7 Day 10 Year Low Flow	0.541	ft^3/s	51	51
30 Day 10 Year Low Flow	0.753	ft^3/s	46	46
90 Day 10 Year Low Flow	1.17	ft^3/s	36	36

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
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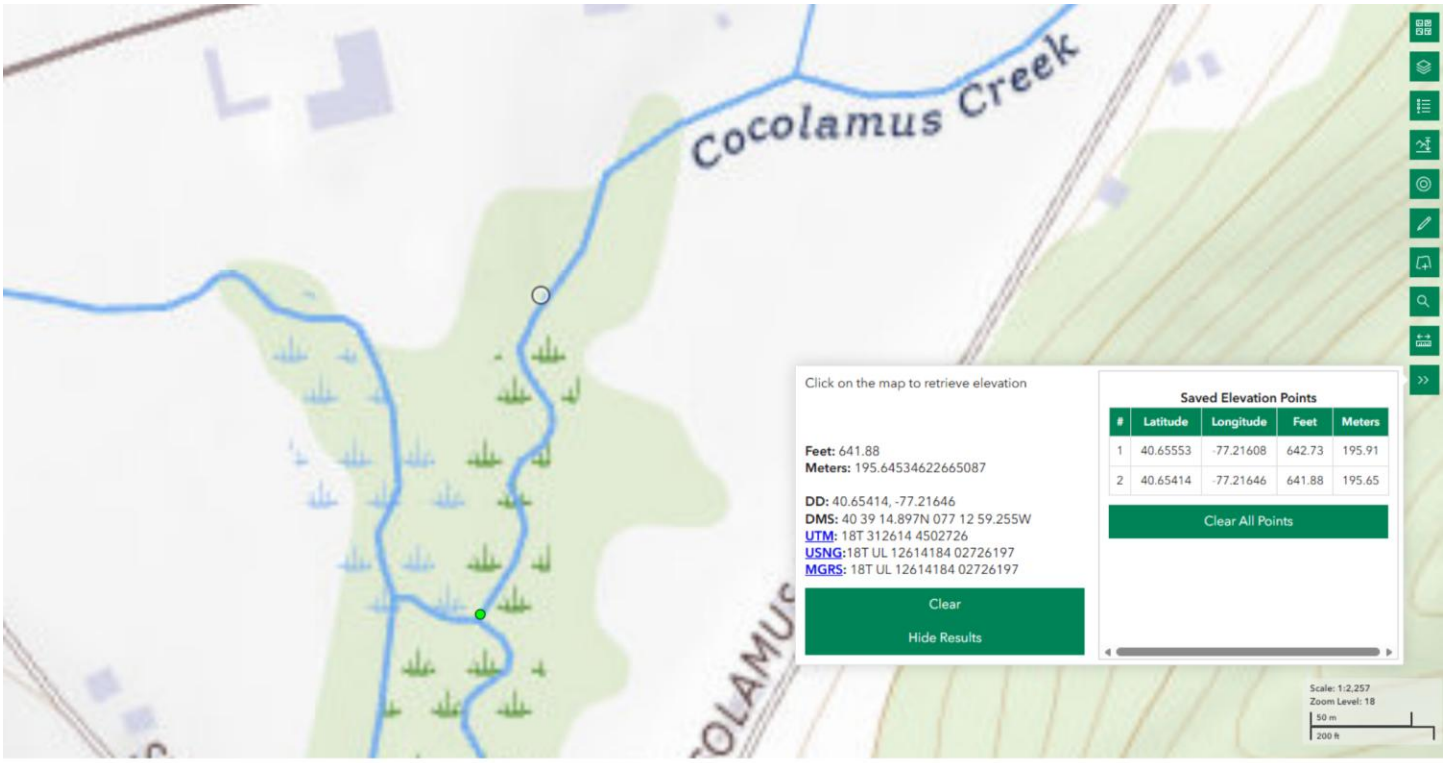
Pourpoint Services Version: 1.2.0
Batch Processor Version: 1.6.0


Cocolamus Creek
Click on the map to retrieve elevation
Feet: 641.88
Meters: 195.64534622665087
DD: 40.65414, -77.21646
DMS: 40 39 14.897N 077 12 59.255W
UTM: 18T 312614 4502726
USNG:18T UL 12614184 02726197
MGRS: 18T UL 12614184 02726197
Clear
Hide Results
Saved Elevation Points
Latitude Longitude Feet Meters
1 40.65553 -77.21608 642.73 195.91
2 40.65414 -77.21646 641.88 195.65
Clear All Points
Scale: 1:2,257
Zoom Level: 18
50 m
200 ft

WQM 7.0 Effluent Limits

SWP Basin	Stream Code	Stream Name
12B	11638	COCOLAMUS CREEK

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)
0.110	East Juniata HS	PA0081817	0.016	CBOD5	25		
				NH3-N	25	50	
				Dissolved Oxygen			5

WQM 7.0 Wasteload Allocations

SWP Basin	Stream Code	Stream Name
12B	11638	COCOLAMUS CREEK

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
0.110	East Juniata HS	17.13	50	17.13	50	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
0.110	East Juniata HS	1.89	25	1.89	25	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)		
0.11	East Juniata HS	25	25	25	25	5	5	0	0

WQM 7.0 D.O.Simulation

SWP Basin	Stream Code	Stream Name
12B	11638	COCOLAMUS CREEK

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
0.110	0.016	20.219	6.961
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
13.605	0.490	27.775	0.085
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
3.01	0.526	1.10	0.712
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
8.101	15.629	Owens	5
Reach Travel Time (days)			
0.079			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.008	3.00	1.09	8.17
0.016	2.98	1.08	8.21
0.024	2.97	1.08	8.21
0.031	2.96	1.07	8.21
0.039	2.95	1.07	8.21
0.047	2.93	1.06	8.21
0.055	2.92	1.05	8.21
0.063	2.91	1.05	8.21
0.071	2.90	1.04	8.21
0.079	2.89	1.04	8.21

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	1.3926	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
12B	11638	COCOLAMUS CREEK

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												
0.110	0.54	0.00	0.54	.0248	0.00148	.49	13.61	27.78	0.08	0.079	20.22	6.96
Q1-10 Flow												
0.110	0.35	0.00	0.35	.0248	0.00148	NA	NA	NA	0.07	0.100	20.33	6.94
Q30-10 Flow												
0.110	0.75	0.00	0.75	.0248	0.00148	NA	NA	NA	0.10	0.066	20.16	6.97

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
12B	11638	COCOLAMUS CREEK	**0.110**	642.73	9.14	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	0.000	0.54	0.00	0.000	0.000	0.0	0.00	0.00	20.00	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
East Juniata HS	PA0081817	0.0160	0.0160	0.0160	0.000	25.00	6.50

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	5.00	8.24	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70