Pennsylvania Department of Environmental Protection

Southcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0088978**
Facility Type	**Municipal**	APS ID	**798512**
Major / Minor	**Minor**	Authorization ID	**1521620**

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Applicant and Facility Information

Applicant Name	**West Pennsboro Township Municipal Authority**	Facility Name	**West Pennsboro STP**
Applicant Address	2150 Newville Road	Facility Address	20 Bears Road
	Carlisle, PA 17015-7747		Carlisle, PA 17015-8958
Applicant Contact	Jake Fealtman	Facility Contact	Jake Fealtman
Applicant Phone	(717) 706-4660	Facility Phone	(717) 706-4660
Client ID	159752	Site ID	551070
Ch 94 Load Status	Not Overloaded	Municipality	West Pennsboro Township
Connection Status	No Limitations	County	Cumberland
Date Application Received	March 31, 2025	EPA Waived?	Yes
Date Application Accepted	April 2, 2025	If No, Reason	
Purpose of Application	NPDES Permit Renewal.		

Summary of Review

West Pennsboro Township Municipal Authority (WPTMA) has applied to the Pennsylvania Department of Environmental Protection (DEP) for reissuance of its NPDES permit. The permit was last reissued on September 15, 2020 and became effective on October 1, 2020. The permit expires on September 30, 2025 but the terms and conditions of the permit have been extended since that time.

Based on the review, it is recommended that the permit be drafted.

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		*Jinsu Kim* Jinsu Kim / Environmental Engineering Specialist	October 9, 2025
x		*Maria D. Bebenek* for Daniel W. Martin, P.E. / Environmental Engineer Manager	October 20, 2025
x		*Maria D. Bebenek* Maria D. Bebenek, P.E. / Program Manager	October 20, 2025

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	001	Design Flow (MGD)	0.0835
Latitude	40° 12’ 52.00”	Longitude	77° 17’ 34.00”
Quad Name	Plainfield	Quad Code	1727
Wastewater Description:	Treated sewage		
Receiving Waters	Conodoguinet Creek	Stream Code	10194
NHD Com ID	56406747	RMI	46.04
Drainage Area	340	Yield (cfs/mi^2)	0.105
Q_{7-10} Flow (cfs)	35.6	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)		Slope (ft/ft)	
Watershed No.	7-B	Chapter 93 Class.	WWF, MF
Existing Use	WWF, MF	Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	Organic Enrichment, Low Dissolved Oxygen		
Source(s) of Impairment	Unknown		
TMDL Status		Name	
Nearest Downstream Public Water Supply Intake	Carlisle Borough		
PWS Waters	Conodoguinet Creek	Flow at Intake (cfs)	62
PWS RMI	35.95	Distance from Outfall (mi)	10

Drainage Area
The discharge is to Conodoguinet Creek at RM 46.04. A drainage area upstream of the point of discharge is estimated to be 340 sq.mi. using USGS StreamStats available at https://streamstats.usgs.gov/ss/.

Streamflow
USGS StreamStats produced a Q7-10 flow of 35.6 cfs at the point of discharge, resulting a low flow yield of 35.8 cfs / 340 sq.mi. = 0.105 cfs/sq.mi.

Conodoguinet Creek
Under 25 Pa Code §93.9o, Conodoguinet Creek from PA 997 at Roxbury to Mouth is designated as warm water fishes and supports migratory fishes. Conodoguinet Creek is a tributary of Susquehanna River which is also designated as warm water fishes. No special protection water is therefore impacted by this discharge. DEP’s latest integrated water quality report prepared in 2024 shows that sections of the Conodoguinet Creek near the discharge location is impaired for organic enrichment and low dissolved oxygen as a result of unknown sources. This impairment was identified as Category 5 by DEP in 2024 which requires the development of a Total Maximum Daily Load (TMDL). The TMDL development date is not yet defined as of the date of this fact sheet.

Public Water Supply Intake
The fact sheet prepared for the last permit renewal indicates that the nearest downstream public water supply intake is Carlisle Borough located on the Conodoguinet Creek approximately 10 miles from the discharge. Given the distance and nature, the discharge is not expected to impact the water supply.

Treatment Facility Summary				
Treatment Facility Name: West Pennsboro STP				
WQM Permit No.	**Issuance Date**			
2101409	12/13/2002			
2101409	12/09/2022			
Waste Type	**Degree of Treatment**	**Process Type**	**Disinfection**	**Avg Annual Flow (MGD)**
Sewage	Secondary With Phosphorus Reduction	Extended Aeration	Ultraviolet	0.0835
Hydraulic Capacity (MGD)	**Organic Capacity (lbs/day)**	**Load Status**	**Biosolids Treatment**	**Biosolids Use/Disposal**
0.1	208	Not Overloaded	Aerobic Digestion	Other WWTP

WPTMA owns and operates a municipal wastewater treatment plant serving the area of the West Pennsboro Township only (about 531 population). All sewer systems are 100% separated. The facility utilizes an extended aeration activated sludge treatment process consisting of a bar screen, aeration lagoon, clarifier, UV disinfection, and outfall structure. Alum is used for settlement. Sludge is held in a sludge holding tank prior to being hauled off site via a local septic hauler. About 0.04 MGD of influent is generated from PA Turnpike Service Plaza. No industrial users are connected to the sewer system.

(During 10/07/2025 Site Visit)

Compliance History	
Summary of DMRs:	A summary of past 12-month DMR data is presented on the next page.
Summary of Inspections:	08/01/2022: DEP conducted a routine inspection. No significant violations were noted at the time of inspection.
Other Comments:	DEP's database revealed that there is no open violation associated with this facility or permittee. Since the last permit reissuance, the facility had no effluent violation.

Effluent Data

DMR Data for Outfall 001 (from August 1, 2024 to July 31, 2025)

Parameter	JUL-25	JUN-25	MAY-25	APR-25	MAR-25	FEB-25	JAN-25	DEC-24	NOV-24	OCT-24	SEP-24	AUG-24
Flow (MGD) Average Monthly	0.05299	0.05132	0.04977	0.04709	0.04711	0.04523	0.04695	0.04813	0.04609	0.04598	0.04492	0.05160
Flow (MGD) Daily Maximum	0.07584	0.06890	0.06256	0.05760	0.05487	0.06115	0.06388	0.05723	0.06230	0.05726	0.05986	0.06999
pH (S.U.) Instantaneous Minimum	7.73	7.34	6.97	7.37	7.54	7.54	7.1	7.89	7.13	7.48	7.61	7.54
pH (S.U.) Instantaneous Maximum	7.98	8.13	8.26	8.27	8.17	8.24	8.7	8.23	8.37	8.31	7.95	8.24
DO (mg/L) Daily Minimum	5.28	5.10	5.20	5.07	5.09	5.05	5.03	5.02	5.40	5.07	5.01	5.06
CBOD5 (lbs/day) Average Monthly	1.42	1.66	1.18	1.52	1.09	1.06	1.31	2.56	3.41	5.14	3.72	4.41
CBOD5 (lbs/day) Weekly Average	1.44	2.08	1.24	2.05	1.19	1.07	1.47	3.89	4.07	6.12	3.97	4.98
CBOD5 (mg/L) Average Monthly	3.45	4.10	3.10	4.30	3.0	3.00	3.0	6.75	8.05	15.30	10.70	9.40
CBOD5 (mg/L) Weekly Average	3.60	5.00	3.20	5.60	3.0	3.00	3.0	10.50	8.60	20.40	11.60	10.20
BOD5 (lbs/day) Raw Sewage Influent Average Monthly	101.55	81.76	70.57	97.63	78.23	75.92	68.47	74.59	111.75	93.68	87.43	73.96
BOD5 (lbs/day) Raw Sewage Influent Daily Maximum	106.50	88.68	74.42	111.95	85.37	83.66	69.37	80.0	116.32	122.52	100.31	77.62
BOD5 (mg/L) Raw Sewage Influent Average Monthly	247.5	204	186	279	216	216	1.52	192	269.3	258	251.5	1.59
TSS (lbs/day) Average Monthly	1.41	1.44	0.91	3.22	3.06	4.15	3.03	2.04	1.50	1.76	0.91	1.36
TSS (lbs/day) Raw Sewage Influent Average Monthly	197.17	82.92	73.97	82.32	69.81	41.11	29.21	38.70	55.90	45.30	35.82	83.17
TSS (lbs/day) Raw Sewage Influent Daily Maximum	199.45	127.58	77.52	109.75	98.80	46.01	32.31	47.76	60.72	57.17	40.39	97.64
TSS (lbs/day) Weekly Average	1.69	1.56	1.09	5.71	3.42	4.32	3.52	3.26	1.68	1.80	0.92	1.56

Parameter	JUL-25	JUN-25	MAY-25	APR-25	MAR-25	FEB-25	JAN-25	DEC-24	NOV-24	OCT-24	SEP-24	AUG-24
TSS (mg/L) Average Monthly	3.40	3.60	2.40	8.90	8.60	11.80	6.90	5.40	3.70	5.10	2.60	2.90
TSS (mg/L) Raw Sewage Influent Average Monthly	480	210	195	241	187	117	68	98	137	119	103	177
TSS (mg/L) Weekly Average	4.00	4.00	2.80	15.60	10.40	12.40	7.20	8.80	4.60	6.00	2.60	3.20
Fecal Coliform (No./100 ml) Geometric Mean	1	1	1	3	2	1	1	1	1	1	1	1.41
Fecal Coliform (No./100 ml) Instantaneous Maximum	1	1	1	4.1	3.1	1	1	1	1	3	1	2
UV Intensity (mW/cm²) Daily Minimum	2.0	1.9	1.1	0.7	1.6	0.7	1.0	1.0	1.20	1.4	1.6	1.5
Nitrate-Nitrite (mg/L) Daily Maximum		2.13			37.8			28.6			16.7	
Total Nitrogen (mg/L) Daily Maximum		9.22			38.7			30.0			17.9	
Ammonia (lbs/day) Average Monthly	0.5984	2.40	0.6722	1.2021	0.3654	0.09968	0.043	0.050	0.077	0.042	0.082	0.046
Ammonia (mg/L) Average Monthly	0.95	5.84	1.81	3.32	1.10	0.29	0.10	0.13	0.19	0.13	0.24	0.10
TKN (mg/L) Daily Maximum		7.09			0.90			1.41			1.14	
Total Phosphorus (lbs/day) Average Monthly	0.1802	0.18	0.1800	0.1751	0.0951	0.08825 9	0.13	0.10	0.104	0.150	0.150	0.187
Total Phosphorus (mg/L) Average Monthly	0.44	0.46	0.48	0.50	0.27	0.25	0.31	0.27	0.25	0.45	0.43	0.40

Existing Effluent Limits and Monitoring Requirements

The table below summarizes effluent limitations and monitoring requirements implemented in the existing NPDES permit.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) [1]		Concentrations (mg/L)				Minimum [2] Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average	Daily Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
Dissolved Oxygen	XXX	XXX	5.0	XXX	XXX	XXX	1/day	Grab
Carbonaceous Biochemical Oxygen Demand (CBOD5)	17.0	27.0	XXX	25.0	40.0	50	2/month	8-Hr Composite
Biochemical Oxygen Demand (BOD5) Raw Sewage Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	2/month	8-Hr Composite
Total Suspended Solids	20.0	31.0	XXX	30.0	45.0	60	2/month	8-Hr Composite
Total Suspended Solids Raw Sewage Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	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
Ultraviolet light intensity (mW/cm^2)	XXX	XXX	Report	XXX	XXX	XXX	1/day	Metered
Nitrate-Nitrite as N	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/quarter	8-Hr Composite
Total Nitrogen	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/quarter	Calculation
Ammonia-Nitrogen	Report	XXX	XXX	Report	XXX	XXX	2/month	8-Hr Composite
Total Kjeldahl Nitrogen	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/quarter	8-Hr Composite
Total Phosphorus	0.7	XXX	XXX	1.0	XXX	2	2/month	8-Hr Composite

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** .0835
Latitude 40º 12' 52.00" **Longitude** -77º 17' 34.00"
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
$CBOD_5$	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: Since the facility utilizes UV disinfection, total residual chlorine effluent standard is not applicable.

Water Quality-Based Limitations

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 technical guidance no. 391-2000-007 describes the technical methods contained in the model for conducting wasteload allocation analyses and for determining recommended limits for point source discharges. The model output shows all existing effluent limits are still protective of water quality. No change is therefore recommended.

Toxics
DEP's minor sewage facility permit application does not require sampling of toxic pollutants for facilities less than 0.1 MGD. No toxic pollutants have therefore been taken into consideration as pollutants of concern at this time.

Best Professional Judgment (BPJ) Limitations

Dissolved Oxygen
A minimum of 5.0 mg/L for DO is an existing effluent limit and is a current state water quality criterion found in 25 Pa. Code § 93.7(a). This effluent limit will remain unchanged for the upcoming permit renewal to ensure the protection of water quality standards. This approach is also consistent with DEP's SOP no. BPNPSM-PMT-033. This requirement has also been assigned to other facilities throughout the state.

Total Phosphorus
The facility will also continue to control Total Phosphorus effluent levels by average monthly and instantaneous maximum (IMAX) limits of 1.0 mg/L and 2.0 mg/L, respectively. This was previously developed based on the previous regional biologist's determination that phosphorus loadings from this facility need to be controlled during the growing season for any newer facilities on the Conodoguinet Creek watershed.

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).

Influent BOD & TSS Monitoring
As a result of negotiation with EPA, the existing influent monitoring reporting requirement for TSS and BOD5 will be maintained in the draft permit. This requirement has been consistently assigned to all municipal wastewater treatment facilities.

E. Coli Monitoring Requirement
DEP's SOP no. BPNPSM-PMT-033 recommends a quarterly routine monitoring of E. Coli for all sewage facilities that have design flow less than 0.1 MGD but greater than 0.05 MGD. A quarterly monitoring for E. Coli will therefore be included in the permit.

Ultraviolet (UV) Monitoring
DEP's Standard Operating Procedure (SOP no. BPNPSM-PMT-033) recommends a routine monitoring of Ultraviolet (UV) transmittance or intensity when the facility is utilizing an UV disinfection system in lieu of chlorination. This is a reasonable approach and has been assigned to other facilities equipped with similar technology. Accordingly, existing UV monitoring requirement will remain in the permit.

Chesapeake Bay TMDL & TN/TP SOP Monitoring Requirement
The discharge is located within the Chesapeake Bay watershed and is considered under the Supplement to Phase III Watershed Implementation Plan (WIP) a Phase 5 facility designed to treat between 0.002 MGD and 0.2 MGD. The facility has been monitored for nutrients on a quarterly basis. The SOP recommends that a routine monitoring for Total Phosphorous and Total Nitrogen regardless for any sewage facilities. It is therefore recommended to maintain existing nutrient monitoring requirements.

Monitoring Frequency and Sample Type
Unless stated otherwise in this fact sheet, all existing monitoring frequencies and sample types will remain unchanged in the permit and are consistent with recommended requirements specified in DEP's technical guidance no. 362-0400-001.

Mass Loading Limitations
All effluent mass loading limits will be based on the formula: design flow x concentration limit x conversion factor of 8.34.

Class A Wild Trout Fishery
A Class A Wild Trout Fishery is not impacted by this discharge.

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

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.

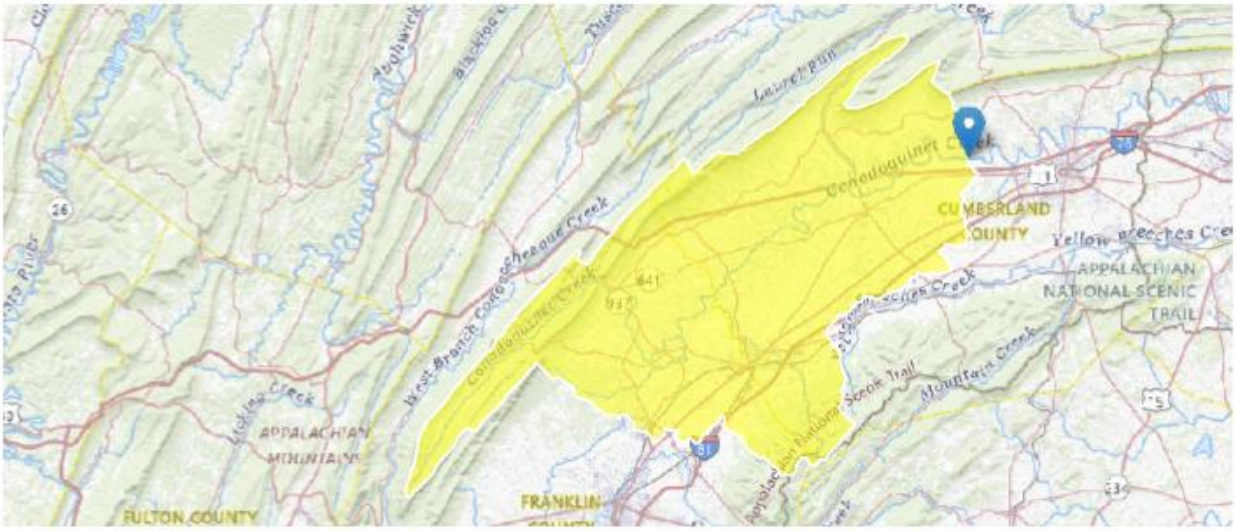
Outfall 001, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average	Daily Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	5.0	XXX	XXX	XXX	1/day	Grab
CBOD5	17.0	27.0	XXX	25.0	40.0	50	2/month	8-Hr Composite
BOD5 Raw Sewage Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	2/month	8-Hr Composite
TSS Raw Sewage Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	2/month	8-Hr Composite
TSS	20.0	31.0	XXX	30.0	45.0	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 Intensity (mW/cm^2)	XXX	XXX	Report	XXX	XXX	XXX	1/day	Metered
Nitrate-Nitrite	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/quarter	8-Hr Composite
Total Nitrogen	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/quarter	Calculation
Ammonia	Report	XXX	XXX	Report	XXX	XXX	2/month	8-Hr Composite
TKN	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/quarter	8-Hr Composite
Total Phosphorus	0.7	XXX	XXX	1.0	XXX	2	2/month	8-Hr Composite
E. Col (no. / 100 mL)	XXX	XXX	XXX	XXX	XXX	Report	1/quarter	Grab

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:

StreamStats Report

Region ID: PA
Workspace ID: PA20250930124143402000
Clicked Point (Latitude, Longitude): 40.21447, -77.29268
Time: 2025-09-30 08:42:05 -0400



Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
CARBON	Percentage of area of carbonate rock	31.94	percent
DRNAREA	Area that drains to a point on a stream	340	square miles
PRECIP	Mean Annual Precipitation	39	inches
ROCKDEP	Depth to rock	4.5	feet
STRDEN	Stream Density -- total length of streams divided by drainage area	1.87	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	31.94	percent	0	99
DRNAREA	Drainage Area	340	square miles	4.93	1280
PRECIP	Mean Annual Precipitation	39	inches	35	50.4
ROCKDEP	Depth to Rock	4.5	feet	3.32	5.65
STRDEN	Stream Density	1.87	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	58.5	ft^3/s	38	38
30 Day 2 Year Low Flow	71.3	ft^3/s	33	33
7 Day 10 Year Low Flow	35.6	ft^3/s	51	51
30 Day 10 Year Low Flow	43.8	ft^3/s	46	46
90 Day 10 Year Low Flow	56.8	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: 4.29.3
StreamStats Services Version: 1.2.22
NSS Services Version: 2.2.1

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
07B	10194	CONODOGUINET CREEK	**46.040**	435.61	340.00	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	0.100	0.00	35.60	0.000	0.000	0.0	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
West Pennsboro	PA0088978	0.0835	0.0835	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	5.00	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
07B	10194	CONODOGUINET CREEK	**45.000**	430.00	340.13	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	0.100	0.00	36.50	0.000	0.000	0.0	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	0.00	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