



Application Type  
Facility Type  
Major / Minor

Renewal  
Municipal  
Minor

**NPDES PERMIT FACT SHEET  
INDIVIDUAL SEWAGE**

Application No. PA0085740  
APS ID 20614  
Authorization ID 1536184

**Applicant and Facility Information**

Applicant Name	<u>Mill Creek Borough Area Municipal Authority Huntingdon County</u>	Facility Name	<u>Mill Creek Area STP</u>
Applicant Address	<u>PO Box 4</u>	Facility Address	<u>Route 444</u>
	<u>Mill Creek, PA 17060-0004</u>		<u>Mill Creek, PA 17060</u>
Applicant Contact	<u>Cody Whitsel</u>	Facility Contact	<u>Keith Bollinger</u>
Applicant Phone	<u>(814) 643-5666</u>	Facility Phone	<u>(814) 388-4167</u>
Client ID	<u>44561</u>	Site ID	<u>451899</u>
Ch 94 Load Status	<u>Existing Hydraulic Overload</u>	Municipality	<u>Mill Creek Borough</u>
Connection Status	<u>No Exceptions Allowed</u>	County	<u>Huntingdon</u>
Date Application Received	<u>August 4, 2025</u>	EPA Waived?	<u>Yes</u>
Date Application Accepted	<u>August 5, 2025</u>	If No, Reason	
Purpose of Application	<u>NPDES permit renewal.</u>		

**Summary of Review**

Hegemann and Wray Consulting Engineers, on behalf of the Mill Creek Borough Area Municipal Authority (Authority/Permittee), applied to the Pennsylvania Department of Environmental Protection (DEP) for issuance of the NPDES permit. The permit was reissued on December 11, 2020, and became effective on January 1, 2021. The permit expires on December 31, 2025.

The Mill Creek Borough Area Municipal Authority Waste-Water Treatment Plant (WWTP) is located in Mill Creek Borough, Huntingdon County. The WWTP is owned and operated by the Authority. The WWTP has a design flow capacity and hydraulic design capacity of 0.12 MGD, and discharges to the Juniata River (WWF). The facility received 34% of influents from Mill Creek Borough, 48% of Brady Township, and 17% of Henderson Township.

WQM No. 3193401 & 3197404 were issued on 8/22/1995 & 11/24/1997.

On May 15, 2024 the letter from DEP accepted and approved the Corrective Action Plan (CAP) subject to comments as follows:

1. The Authority intends to be hydraulically compliant by 6/2025.
2. The Authority will complete structural improvements and become hydraulically compliant in accordance with the implementation schedule on page 4 of the CAP, which indicates completion of construction improvements by 3/2029.
3. In accordance with item 9 of your CAP, all connections to the Mill Creek Area Municipal Authority system will send all new tap in applications to the Department for approval.

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

Changes from the previous permit: The E. Coli monitoring and report requirements will add to the proposed permit. The Raw Sewage Influent "Daily Max" concentration (mg/L) report of BOD<sub>5</sub> & TSS added to the proposed permit which were missing in the previous permit.

Approve	Deny	Signatures	Date
X		<i>Hilaryle</i> Hilary H. Le / Environmental Engineering Specialist	October 31, 2025
X		<i>Daniel W. Martin</i> Daniel W. Martin, P.E. / Environmental Engineer Manager	November 18, 2025

**Summary of Review**

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

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	001	Design Flow (MGD)	0.12
Latitude	40° 25' 50.75"	Longitude	-77° 55' 52.04"
Quad Name	Mount Union	Quad Code	
Wastewater Description:	Sewage Effluent		
Receiving Waters	Juniata River (WWF)	Stream Code	11414
NHD Com ID	66209569	RMI	88.0 miles
Drainage Area	2,000 mi. <sup>2</sup>	Yield (cfs/mi <sup>2</sup> )	0.11
Q <sub>7-10</sub> Flow (cfs)	219	Q <sub>7-10</sub> Basis	
Elevation (ft)	574.26	Slope (ft/ft)	
Watershed No.	12-C	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		
Nearest Downstream Public Water Supply Intake	Mifflin Municipal Authority, Mifflin Borough		
PWS Waters	Juniata River	Flow at Intake (cfs)	
PWS RMI	34 miles	Distance from Outfall (mi)	Approximate 54.0 miles

Changes Since Last Permit Issuance:

#### Drainage Area

The discharge is to Juniata River at RMI 88.0 miles. A drainage area upstream of the discharge is estimated to be 2,000 mi.<sup>2</sup>, according to USGS PA StreamStats available at <https://streamstats.usgs.gov/ss/>.

#### Streamflow

According to StreamStats, the discharge point on Juniata River has a Q<sub>7-10</sub> of 219 cfs and a drainage area of 2,000 mi.<sup>2</sup>, which results in a Q<sub>7-10</sub> low flow yield of 0.102 cfs/mi.<sup>2</sup>. This information is used to obtain a chronic or 30-day (Q<sub>30-10</sub>), and an acute or 1-day (Q<sub>1-10</sub>) exposure stream flow for the discharge point as follows (Guidance No. 391-2000-023):

$$\begin{aligned}
 Q_{7-10} &= 219 \text{ cfs} \\
 \text{Low Flow Yield} &= 219 \text{ cfs} / 2,000 \text{ mi.}^2 \approx 0.11 \text{ cfs/mi.}^2 \\
 Q_{30-10} &= 1.36 * 219 \text{ cfs} \approx 293.46 \text{ cfs} \\
 Q_{1-10} &= 0.64 * 219 \text{ cfs} \approx 140.16 \text{ cfs}
 \end{aligned}$$

#### Juniata River

25 Pa Code § 93.9n classifies Juniata River as Warm Water Fishes (WWF) surface water. Based on the 2024 Integrated Report, Juniata River, assessment unit ID 16843, is not impaired. A TMDL currently does not exist for this stream segment, therefore, no TMDL has been taken into consideration during this review.

#### Public Water Supply

The nearest downstream public water supply intake is the Mifflintown Municipal Authority on the Juniata River in Mifflin Borough, approximately 54 miles downstream of this discharge. Considering distance and dilution, the discharge is not expected to impact the water supply.

Treatment Facility Summary				
<b>Treatment Facility Name:</b> Mill Creek STP				
<b>WQM Permit No.</b>		<b>Issuance Date</b>		
3193401		8/22/1995		
3197404		11/24/1997		
<b>Waste Type</b>	<b>Degree of Treatment</b>	<b>Process Type</b>	<b>Disinfection</b>	<b>Avg Annual Flow (MGD)</b>
Sewage	Secondary	Extended Aeration	Chlorine With Dechlorination	0.12
<b>Hydraulic Capacity (MGD)</b>	<b>Organic Capacity (lbs/day)</b>	<b>Load Status</b>	<b>Biosolids Treatment</b>	<b>Biosolids Use/Disposal</b>
0.12	204	Existing Hydraulic Overload	Belt Filtration	Landfill

Changes Since Last Permit Issuance:

Other Comments:

The WWTP train is as follows:

Equalization Tank (1) ⇒ Aeration Tanks (2) ⇒ Clarifiers (2) ⇒ Chlorine Contact Tank (1) ⇒ Sludge Holding Tank (1) ⇒ Sludge Baggers (2) ⇒ Blowers (4) ⇒ Discharge (Outfall 001)

The chemicals are sodium hypochlorite for disinfection, and sodium thiosulfate for de-chlorination.

Industrial/Commercial Users:

The permit application indicated there is no industrial/commercial contributor to the treatment plant.

Biosolids:

The total sewage sludge/biosolids production within the facility for the previous year was 12.5 dry tons.

Compliance History	
<b>Summary of DMRs:</b>	DMRs reported last 12 months are summarized in next page.
<b>Summary of Inspections:</b>	1/16/2025: Mr. Clark, DEP WQS, conducted compliance evaluation inspection. The recommendations were to replace any rusted or broken treatment plant walkway grates and attach an additional effluent supplemental report form to the October 2024 DMR. All treatment units were in service, effluent was clear with fine solids, and field tests results were within permit limits.
<b>Other Comments:</b>	There are currently no open violations associated to the permittee or the facility.

Other Comments: 

The table below summarizes the influent/effluent testing results submitted along with the application.

Influent Testing Results			Effluent Testing Results		
Parameter	Min/Max Value	Average Value	Parameter	Min/Max Value	Average Value
BOD <sub>5</sub> (mg/L)	176 mg/L	128 mg/L	pH (minimum)	7.03 S.U.	
BOD <sub>5</sub> (lbs/day)	225 lbs/day	121 lbs/day	pH (maximum)	7.64 S.U.	
TSS (mg/L)	119 mg/L	79 mg/L	D.O (minimum)	7.55 mg/L	9.09 mg/L
TSS (lbs/day)	141 lbs/day	73 lbs/day	TRC	0.53 mg/L	0.29 mg/L
TN (mg/L)	mg/L	mg/L	Fecal Coliform	2419 No./100mL	30 No./100mL
TN (lbs/day)	lbs/day	lbs/day	CBOD <sub>5</sub>	7.6 mg/L	3.4 mg/L
TP (mg/L)	mg/L	2.69 mg/L	TSS	8.8 mg/L	3.5 mg/L
TP (lbs/day)	lbs/day	lbs/day	NH <sub>3</sub> -N	0.23 mg/L	0.11 mg/L
NH <sub>3</sub> -N (mg/L)	mg/L	12.98 mg/L	TN	34.8 mg/L	20.8 mg/L
NH <sub>3</sub> -N (lbs/day)	lbs/day	lbs/day	TP	2.31 mg/L	2.14 mg/L
TDS (mg/L)	mg/L	342 mg/L	Temp	N/A F	N/A F
TDS (lbs/day)	lbs/day	lbs/day	TKN	<0.5 mg/L	<0.5 mg/L
TKN	mg/L	18.85 mg/L	NO <sub>2</sub> -N + NO <sub>3</sub> -N	22.3 mg/L	19.0 mg/L
NO <sub>2</sub> -N + NO <sub>3</sub> -N	mg/L	<0.481 mg/L	TDS	492 mg/L	431 mg/L
Fecal Coliform	No./100mL	2359000 No./100mL	Chloride	57.0 mg/L	50.1 mg/L
			Bromide	< 0.01 mg/L	< 0.01 mg/L
			Sulfate	123 mg/L	110 mg/L
			Oil and Grease	< 1.7 mg/L	< 1.7 mg/L
			Total Copper	0.0206 mg/L	0.0176 mg/L
			Total Lead	< 0.0003 mg/L	< 0.0002 mg/L
			Total Zinc	0.0367 mg/L	0.0329 mg/L

Compliance History

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

Parameter	AUG-25	JUL-25	JUN-25	MAY-25	APR-25	MAR-25	FEB-25	JAN-25	DEC-24	NOV-24	OCT-24	SEP-24
Flow (MGD) Average Monthly	0.0772	0.1053	0.1476	0.1669	0.1598	0.1354	0.1499	0.1048	0.1334	0.0871	0.0844	0.0633
Flow (MGD) Daily Maximum	0.0937	0.2384	0.3681	0.3773	0.4076	0.2601	0.3298	0.1251	0.3512	0.2219	0.2454	0.0937
pH (S.U.) Daily Minimum	6.88	7.17	7.3	7.01	6.91	6.96	7.22	7.21	7.19	6.97	7.06	7.01
pH (S.U.) Instantaneous Maximum	7.53	7.72	7.66	7.93	7.29	7.54	8.45	8.34	7.81	7.77	8.03	7.32
DO (mg/L) Daily Minimum	8.43	7.4	7.1	7.05	6.49	6.75	6.88	8.72	7.74	8.28	7.15	8.65
TRC (mg/L) Average Monthly	0.39	0.38	0.31	0.23	< 0.33	0.24	0.4	0.38	0.32	0.23	0.3	0.23
TRC (mg/L) Instantaneous Maximum	0.63	0.55	0.58	0.56	< 0.58	0.47	0.53	0.55	0.48	0.45	0.68	0.36
CBOD5 (lbs/day) Average Monthly	2.21	2.24	4.1	4.12	3.34	3.76	3.92	3.9	3.02	1.87	2.5	1.64
CBOD5 (lbs/day) Weekly Average	2.31	2.28	8.17	4.67	4.35	4.1283	5.15	5.405	3.54	2.06	3.07	1.84
CBOD5 (mg/L) Average Monthly	3	3	4	3.54	3.01	3.34	3	3	3	3	3	3
CBOD5 (mg/L) Weekly Average	3	3	5	4.08	3.01	3.67	3	4.34	3	3	3	3
BOD5 (lbs/day) Raw Sewage Influent Average Monthly	167	105	134	138	112	110	133	145	103	76	99	88
BOD5 (lbs/day) Raw Sewage Influent   Daily Maximum	201	109	179	141	119	137	145	167	113	102	110	96
BOD5 (mg/L) Raw Sewage Influent Average Monthly	224.5	140.5	134	118	108.2	95.15	108.25	164.5	107.65	119.6	128.35	162
TSS (lbs/day) Average Monthly	1.77	4.21	4.23	5.43	5.89	7.64	5.41	5.79	3.31	2.38	2.94	0.99
TSS (lbs/day) Raw Sewage Influent Average Monthly	76	95	95	117	110	98	96	92	81	38	73	47

## NPDES Permit Fact Sheet

## Mill Creek Area STP

## NPDES Permit No. PA0085740

TSS (lbs/day) Raw Sewage Influent   Daily Maximum	85	104	121	121	126	103	100	94	83	66	79	50
TSS (lbs/day) Weekly Average	1.84	5.48	7.19	8.57	9.28	10.331	6.86	8.3887	3.32	2.75	2.8	1.23
TSS (mg/L) Average Monthly	2.4	5.6	4.2	4.6	7	7.4	4.2	6.4	3.4	3.8	4.1	1.8
TSS (mg/L) Raw Sewage Influent Average Monthly	103	128	62	100	103.5	90	80.5	106.5	83	57.2	90.5	87.5
TSS (mg/L) Weekly Average	2.4	7.2	4.4	7.2	7.6	11.2	4.4	8.8	4	4	4	2
Fecal Coliform (No./100 ml) Geometric Mean	< 1	< 10	6.32	< 10	< 4	86.61	2.51	9.01	4.32	< 1	49.18	10.49
Fecal Coliform (No./100 ml) Instantaneous Maximum	< 1	< 10	10	< 10	< 4	2419.6	6.3	15.6	18.7	< 1	2419	110
Nitrate-Nitrite (mg/L) Average Monthly	28.765	27.315	10.891	15.88	17.41	17.35	16.05	16.5	19.255	33.62	23.118	31.37
Total Nitrogen (mg/L) Average Monthly	29.265	27.815	11.391	16.38	17.91	17.85	16.55	17	19.755	34.12	36.818	31.87
Ammonia (mg/L) Average Monthly	< 0.1	0.1	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.1278	< 0.1
TKN (mg/L) Average Monthly	< 0.5	0.5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	13.7	< 0.5
Total Phosphorus (mg/L) Average Monthly	4.245	4.17	1.985	2.625	4.695	2.9	2.44	3.425	2.48	3.765	3.025	4.66

Existing Effluent Limitations and Monitoring Requirements

Outfall 001,

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
D.O.	XXX	XXX	5.0	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.6	1/day	Grab
CBOD <sub>5</sub>	25.0	40.0 Wkly Avg	XXX	25.0	40.0	50.0	2/month	8-Hr Composite
TSS	30.0	45.0 Wkly Avg	XXX	30.0	45.0	60.0	2/month	8-Hr Composite
BOD <sub>5</sub> Raw Sewage Influent	Report	Report	XXX	Report	XXX	XXX	2/month	8-Hr Composite
TSS Raw Sewage Influent	Report	Report	XXX	Report	XXX	XXX	2/month	8-Hr Composite
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1,000	2/month	Grab
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2,000 Geo Mean	XXX	10,000	2/month	Grab
Ammonia	XXX	XXX	XXX	Report	XXX	XXX	2/month	8-Hr Composite
TKN	XXX	XXX	XXX	Report	XXX	XXX	2/month	8-Hr Composite
Nitrate-Nitrite	XXX	XXX	XXX	Report	XXX	XXX	2/month	8-Hr Composite
Total Nitrogen	XXX	XXX	XXX	Report	XXX	XXX	2/month	Calculation
Total Phosphorus	XXX	XXX	XXX	Report	XXX	XXX	2/month	8-Hr Composite

**Proposed Effluent Limitations and Monitoring Requirements**

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (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) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average	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	XXX	XXX	9.0	1/day	Grab
D.O.	XXX	XXX	5.0	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.6	1/day	Grab
CBOD <sub>5</sub>	25.0	40.0	XXX	25.0	40.0	50.0	2/month	8-Hr Composite
BOD <sub>5</sub> Raw Sewage Influent	Report	Report Daily Max	XXX	Report	Report Daily Max	XXX	2/month	8-Hr Composite
TSS Raw Sewage Influent	Report	Report Daily Max	XXX	Report	Report Daily Max	XXX	2/month	8-Hr Composite
TSS	30.0	45.0	XXX	30.0	45.0	60.0	2/month	8-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2,000 Geo Mean	XXX	10,000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1,000	2/month	Grab
E. Coli (No./100 ml)	XXX	XXX	XXX	XXX	XXX	Report	1/quarter	Grab
Ammonia	XXX	XXX	XXX	Report	XXX	XXX	2/month	8-Hr Composite
TKN	XXX	XXX	XXX	Report	XXX	XXX	2/month	8-Hr Composite
Nitrate-Nitrite	XXX	XXX	XXX	Report	XXX	XXX	2/month	8-Hr Composite
Total Nitrogen	XXX	XXX	XXX	Report	XXX	XXX	2/month	Calculation
Total Phosphorus	XXX	XXX	XXX	Report	XXX	XXX	2/month	8-Hr Composite

**Development of Effluent Limitations**

Outfall No. 001  
Latitude 40° 25' 50.75"  
Wastewater Description: Sewage Effluent

Design Flow (MGD) 0.12  
Longitude -77° 55' 52.04"

**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 <sub>5</sub>	25	Average Monthly	133.102(a)(4)(i)	92a.47(a)(1)
	40	Average Weekly	133.102(a)(4)(ii)	92a.47(a)(2)
Total Suspended Solids	30	Average Monthly	133.102(b)(1)	92a.47(a)(1)
	45	Average Weekly	133.102(b)(2)	92a.47(a)(2)
pH	6.0 – 9.0 S.U.	Min – Max	133.102(c)	95.2(1)
Fecal Coliform (5/1 – 9/30)	200 / 100 ml	Geo Mean	-	92a.47(a)(4)
Fecal Coliform (5/1 – 9/30)	1,000 / 100 ml	IMAX	-	92a.47(a)(4)
Fecal Coliform (10/1 – 4/30)	2,000 / 100 ml	Geo Mean	-	92a.47(a)(5)
Fecal Coliform (10/1 – 4/30)	10,000 / 100 ml	IMAX	-	92a.47(a)(5)
Total Residual Chlorine	0.5	Average Monthly	-	92a.48(b)(2)

**Water Quality-Based Limitations**

**Ammonia (NH<sub>3</sub>-N)**

NH<sub>3</sub>-N calculations are based on the Department's Implementation Guidance of Section 93.7 Ammonia Criteria, dated 11/4/97 (ID No. 391-2000-013). The attached printout of the WQM 7.0 data indicates that at a discharge of 0.12 MGD, limits (rounded according to the NPDES Technical Guidance 362-0400-001) of 25.0 mg/L NH<sub>3</sub>-N as a monthly average and 50.0 mg/L NH<sub>3</sub>-N instantaneous maximum are necessary to protect the aquatic life from toxicity effects.

The following data is necessary to determine the in-stream NH<sub>3</sub>-N criteria used in the attached WQM 7.0 computer model of the stream:

- Discharge pH = 7.0 (Default)
- Discharge Temperature = 20°C (Default)
- Stream pH = 7.0 (Default)
- Stream Temperature = 25°C (Default for WWF)
- Background NH<sub>3</sub>-N = 0 (Default)

Analysis Results WQM 7.0

Hydrodynamics		NH <sub>3</sub> -N Allocations		D.O. Allocations		D.O. Simulation		Effluent Limitations																	
RMI	Discharge Name	Permit Number Disc Flow (mgd)																							
88.00	Mill Creek	PA0085740 0.1200																							
<table border="1"> <thead> <tr> <th>Parameter</th> <th>Effluent Limit 30 Day Average (mg/L)</th> <th>Effluent Limit Maximum (mg/L)</th> <th>Effluent Limit Minimum (mg/L)</th> </tr> </thead> <tbody> <tr> <td>CBOD<sub>5</sub></td> <td>25</td> <td></td> <td></td> </tr> <tr> <td>NH<sub>3</sub>-N</td> <td>25</td> <td>50</td> <td></td> </tr> <tr> <td>Dissolved Oxygen</td> <td></td> <td></td> <td>5</td> </tr> </tbody> </table>										Parameter	Effluent Limit 30 Day Average (mg/L)	Effluent Limit Maximum (mg/L)	Effluent Limit Minimum (mg/L)	CBOD <sub>5</sub>	25			NH <sub>3</sub> -N	25	50		Dissolved Oxygen			5
Parameter	Effluent Limit 30 Day Average (mg/L)	Effluent Limit Maximum (mg/L)	Effluent Limit Minimum (mg/L)																						
CBOD <sub>5</sub>	25																								
NH <sub>3</sub> -N	25	50																							
Dissolved Oxygen			5																						
Record: 1 of 1 < Back Next > No Filter Search																									
<input type="button" value="Print"/>		<input type="button" value="Archive"/>		<input type="button" value="Cancel"/>																					

There are no NH3-N effluent limits in this permit. The “Monitor & Report” twice per month for average monthly will remain in the proposed permit.

***Carbonaceous Biochemical Oxygen Demand (CBOD<sub>5</sub>)***

Only the minimum treatment requirements of secondary treatment will be necessary to protect water quality. The existing limits of 25.0 mg/L average monthly (AML), 40.0 mg/L average weekly (AWL), and 50.0 mg/L instantaneous maximum (IMAX) will remain in the permit. The facility has consistently achieved CBOD<sub>5</sub> levels well below these limits. Mass limits are calculated as follows:

$$\begin{aligned}\text{Mass based AML (lbs/day)} &= 25.0 \text{ (mg/L)} \times 0.12 \text{ (MG/day)} \times 8.34 \text{ (lb/MG)} \text{ (L/mg)} = 25.02 \text{ lbs/day} \\ \text{Mass based AWL (lbs/day)} &= 40.0 \text{ (mg/L)} \times 0.12 \text{ (MG/day)} \times 8.34 \text{ (lb/MG)} \text{ (L/mg)} = 40.03 \text{ lbs/day}\end{aligned}$$

***Dissolved Oxygen (D.O.)***

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

***pH***

The effluent discharge pH should remain above 6 and below 9 standard units according to 25 Pa. Code § 95.2(2).

***Total Suspended Solids (TSS)***

The existing limits of 30.0 mg/L average monthly (AML), 45.0 mg/L average weekly (AWL), and 60.0 mg/L instantaneous maximum (IMAX) will remain in the permit based on the minimum level of effluent quality attainable by secondary treatment based on 25 Pa. Code § 92a.47. Past DMRs and inspection reports show that the facility has been consistently achieving these limits. Mass limits are calculated as follows:

$$\begin{aligned}\text{Mass based AML (lbs/day)} &= 30.0 \text{ (mg/L)} \times 0.12 \text{ (MG/day)} \times 8.34 \text{ (lb/MG)} \text{ (L/mg)} = 30.02 \text{ lbs/day} \\ \text{Mass based AWL (lbs/day)} &= 45.0 \text{ (mg/L)} \times 0.12 \text{ (MG/day)} \times 8.34 \text{ (lb/MG)} \text{ (L/mg)} = 45.04 \text{ lbs/day}\end{aligned}$$

***Fecal Coliform***

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

***E. Coli***

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

***Toxics***

No toxic parameters of concern associated with this discharge.

***Biosolids Management***

Sludge is digested on-site, via an aerobic sludge digester, and removed by a certified hauler.

***Stormwater***

There is no known stormwater outfall associated with this facility.

***Chesapeake Bay Strategy***

According to DEP's Chesapeake Bay Phase II Watershed Implementation Plan (WIP) Wastewater Supplement, this facility is considered a phase 5 non-significant sewage discharger with design flow less than 0.2 MGD but greater than 0.002 MGD. In general, DEP will issue permits for all phase 5 facilities with monitoring and reporting for Total Nitrogen (TN) and Total Phosphorus (TP) throughout the permit term at a frequency no less than annually. Furthermore, DEP's SOP No. BPNPSM-PMT-033 states that in general, at a minimum, monitoring for TN and TP should be included in new and reissued permits for sewage discharges with design flows > 2,000 gpd. At this time, the Department is not requiring a total maximum annual nitrogen or phosphorus loading cap. Ammonia-Nitrogen, Nitrate-Nitrite as N, Total Kjeldahl Nitrogen, TN, and TP monitoring is already included in the existing permit and will remain in the proposed renewal.

The Chesapeake Bay parameters monitoring frequency for this facility will match that of the conventional pollutants monitoring frequency of two samples per month.

## Mill Creek Area STP

**Total Residual Chlorine**

The attached computer printout utilizes the equations and calculations as presented in the Department's 2003 Implementation Guidance for Residual Chlorine (TRC) (ID # 391-2000-015) for developing chlorine limitations. The attached printout indicates that an average monthly water quality limit of 0.5 mg/L and 1.6 mg/L maximum daily would be needed to prevent toxicity concerns. This is consistent with the existing permit. The treatment facility is meeting this limit.

<b>TRC EVALUATION</b>						
Input appropriate values in A3:A9 and D3:D9						
219	= Q stream (cfs)		0.5	= CV Daily		
0.12	= 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 = 376.344	1.3.2.iii	WLA_cfc = 366.899		
PENTOXSD TRG	5.1a	LTAMULT_afc = 0.373	5.1c	LTAMULT_cfc = 0.581		
PENTOXSD TRG	5.1b	LTA_afc = 140.235	5.1d	LTA_cfc = 213.298		
Source	Effluent Limit Calculations					
PENTOXSD TRG	5.1f	AML MULT = 1.231				
PENTOXSD TRG	5.1g	AVG MON LIMIT (mg/l) = 0.500				BAT/BPJ
		INST MAX LIMIT (mg/l) = 1.635				
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	$1.5*((av_mon_limit/AML_MULT)/LTAMULT_afc)$					

**Influent BOD<sub>5</sub> and TSS Monitoring**

The permit will include influent BOD<sub>5</sub> and TSS monitoring at the same frequency as is done for effluent in order to implement 25 Pa. Code § 94.12 and assess percent removal requirements, per DEP policy.

**Anti-Degradation (93.4)**

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

**Class A Wild Trout Fisheries**

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

**303d Listed Streams**

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

**Additional Considerations****Flow Monitoring**

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

**Monitoring Frequency and Sample Type**

The facility currently is required to collect daily effluent grab samples for D.O., TRC, and pH; two per month effluent 8-hr composite samples of CBOD<sub>5</sub>, and TSS; two per month effluent grab samples of Fecal Coliform; two per month effluent 8-hr composite samples of Ammonia-Nitrogen, Nitrate-Nitrite as N, Total Kjeldahl Nitrogen, and TP; and two per month effluent

**Mill Creek Area STP**

calculation samples of TN. Based on the best professional judgement of the author, the existing monitoring frequencies are sufficient and necessary. Therefore, the existing monitoring frequencies will remain the same as those specified in the proposed permit.

**WQM 7.0 data**

* Discharge pH	=	7.0	(Default)
* Discharge Temperature	=	25°C	(Default)
* Stream pH	=	7.0	(Default)
* Stream Temperature	=	20°C	(Default for WWF)
* Background NH <sub>3</sub> -N	=	0	(Default)

## Node 1: Outfall 001 on Juniata River (11414)

Elevation: 574.26 ft (USGS National Map Viewer)  
 Drainage Area: 2000.0 mi.<sup>2</sup> (USGS PA StreamStats)  
 River Mile Index: 88.00 (PA DEP eMapPA)  
 Low Flow Yield: 0.11 cfs/mi.<sup>2</sup>  
 Discharge Flow: 0.120 MGD (NPDES Application)

## Node 2: Station ID 01563500 on Juniata River at Mapleton Depot, PA

Elevation: 562.06 ft (USGS National Map Viewer)  
 Drainage Area: 2030.00 mi.<sup>2</sup> (USGS PA StreamStats)  
 River Mile Index: 85.21 (PA DEP eMapPA)  
 Low Flow Yield: 0.11 cfs/mi.<sup>2</sup>  
 Discharge Flow: 0.000 MGD

Analysis Results WQM 7.0

Hydrodynamics NH3-N Allocations D.O. Allocations D.O. Simulation Effluent Limitations

RMI	Discharge Name	Permit Number Disc Flow (mgd)		
		30 Day Average (mg/L)	Effluent Limit Maximum (mg/L)	Effluent Limit Minimum (mg/L)
88.00	Mill Creek	PA0085740	0.1200	
	Parameter			
	CBOD5	25		
	NH3-N	25	50	
	Dissolved Oxygen			5

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Mill Creek Area STP

NPDES Permit No. PA0085740

**rptEffLimits**

**WQM 7.0 Effluent Limits**

SWP Basin	Stream Code	Stream Name					
12B	11414	JUNATARMER					
RM	Name	Permit Number	Disch. Flow (mgd)	Parameter	Eff. Unit 30-day Ave. (mg/L)	Eff. Unit Minimum (mg/L)	Eff. Unit Maximum (mg/L)
88.000	Mill Creek Area	Pa0085740	0.120	CBG005	25		
				NH3-N	25	50	
				Dissolved Oxygen	5		

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**rpt\_WLA**

**WQM 7.0 Wasteload Allocations**

SWP Basin	Stream Code	Stream Name
12B	11414	JUNATA RIVER

**NH3-N Acute Allocations**

RM	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
88.000	Mill Creek Area	16.75	50	16.75	50	0	0

**NH3-N Chronic Allocations**

RM	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
88.000	Mill Creek Area	1.89	25	1.89	25	0	0

**Dissolved Oxygen Allocations**

RM	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	NH3-N Criterion (mg/L)	NH3-N WLA (mg/L)	Dissolved Oxygen Criterion (mg/L)	Dissolved Oxygen WLA (mg/L)	Critical Reach	Percent Reduction
88.000	Mill Creek Area	25	25	25	25	5	5	0	0

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**rptDOSim**

**WQM 7.0 D.O. Simulation**

SWP Basin	Stream Code	Stream Name
12B	11414	JUNATA RIVER

**WQM 7.0 D.O. Simulation Results**

RM	Total Discharge Flow (mgd)	Analyze Temperature (°C)	Analyze pH
88.000	0.120	20.004	7.000
Reach Width (ft)	Reach Depth (ft)	Reach WQ Ratio	Reach Velocity (fps)
263.562	1.172	2.241	
Reach DO (mg/L)	Reach DO (mg/L)	Reach DO (mg/L)	Reach DO (mg/L)
2.02	0.03	0.02	0.00
Reach DO (mg/L)	Reach Kt (1/day)	Kt Equation	Reach DO Goal (mg/L)
0.240	2.734	Talwegbou	5
Reach Travel Time (days)			
0.239			

**Subreach Results**

Inv Time (days)	CBG005 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.024	2.02	0.02	8.24
0.048	2.02	0.02	8.24
0.072	2.02	0.02	8.24
0.096	2.02	0.02	8.24
0.120	2.02	0.02	8.24
0.144	2.02	0.02	8.24
0.167	2.01	0.02	8.24
0.191	2.01	0.02	8.24
0.215	2.01	0.02	8.24
0.239	2.01	0.02	8.24

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**rptModelSpecs**

**WQM 7.0 Modeling Specifications**

Parameters	Value	Notes
WLA Method	EMPR	Use Inputted WLA Ratio
Q3-10Q/7-10 Ratio	0.84	Use Inputted Reach Travel Time
Q3-10Q/7-10 Ratio	1.38	Temperature Adjust Kt
DO Saturation	90.00%	Use Balanced Technology
DO Goal	5	

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**rptHydro**

**WQM 7.0 Hydrodynamic Outputs**

SWP Basin	Stream Code	Stream Name: JUNIATRMR											
12B	11414	Flow	PWS	Net	Disc	Reach	Depth	Width	WD	Velocity	Reach	Analysis	Analysis
(cfs)	(cfs)	Flow	Flow	Flow	(ft)	(ft)	(ft)	(ft)	Ratio	Time	Time	Temp	pH

**Q7-10 Flow**  
85.000 220.00 0.00 220.00 .1896 0.0003 1.172 283.96 224.9 0.71 0.239 20.00 7.00

**Q1-10 Flow**  
85.000 140.80 0.00 140.80 .1896 0.0003 NA NA 0.58 0.30 / 20.01 7.00

**Q30-10 Flow**  
85.000 288.20 0.00 288.20 .1896 0.0003 NA NA 0.85 0.201 20.00 7.00

**rptGeneral**

**Input Data WQM 7.0**

SWP Basin	Stream Code	Stream Name: JUNIATRMR									
12B	11414	Flow	PWS	Elevation	Drainage	Slope	PWS				
(cfs)	(cfs)	(ft)	(ft)	Area (sq mi)	(ft)	(ft)	Withdrawal (mgd)	Apply FC			

**Stream Data**

Design Cond. (cfs)	LFY	Trib Flow (cfs)	Stream Flow (cfs)	Rate Time (days)	Rate Velocity (ft/s)	WD Ratio	Rich Width (ft)	Rich Depth (ft)	Velocity (ft/s)	Tributary Temp (°C)	Stream Temp (°C)	Stream pH
Q7-10	0.110	0.00	0.00	0.000	0.0	0.0	0.0	0.0	0.00	20.00	7.00	7.00
Q1-10	0.00	0.00	0.00	0.000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Q30-10	0.00	0.00	0.00	0.000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00

**Discharge Data**

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Disc Reserve Factor	Disc Temp (°C)	Disc pH
Mill Creek Area	PA0085740	0.1200	0.1200	0.1200	0.000	25.00	7.00

**Parameter Data**

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (Molar)
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

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**rptGeneral**

**Input Data WQM 7.0**

SWP Basin	Stream Code	Stream Name: JUNIATRMR									
12B	11414	Flow	PWS	Elevation	Drainage	Slope	PWS				
(cfs)	(cfs)	(ft)	(ft)	Area (sq mi)	(ft)	(ft)	Withdrawal (mgd)	Apply FC			

**Stream Data**

Design Cond. (cfs)	LFY	Trib Flow (cfs)	Stream Flow (cfs)	Rate Time (days)	Rate Velocity (ft/s)	WD Ratio	Rich Width (ft)	Rich Depth (ft)	Velocity (ft/s)	Tributary Temp (°C)	Stream Temp (°C)	Stream pH
Q7-10	0.110	0.00	0.00	0.000	0.0	0.0	0.0	0.0	0.00	20.00	7.00	7.00
Q1-10	0.00	0.00	0.00	0.000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Q30-10	0.00	0.00	0.00	0.000	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00

**Discharge Data**

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Disc Reserve Factor	Disc Temp (°C)	Disc pH
Mill Creek Area	PA0085740	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 (Molar)
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

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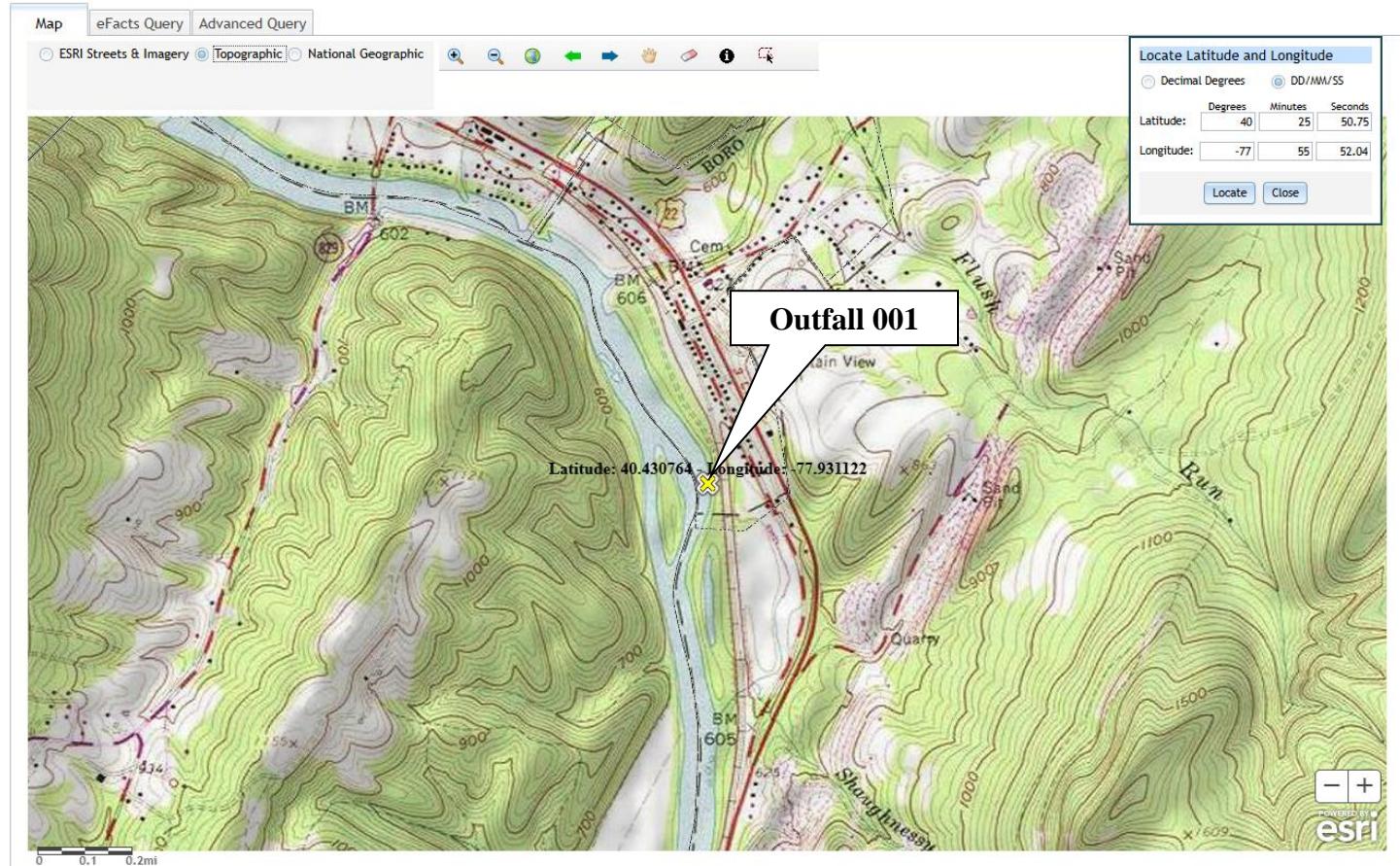
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NPDES Permit Fact Sheet  
Mill Creek Area STP

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**USGS StreamStats** science for a changing world

the build report button

Hide Basin Characteristics

Basin Characteristics can be edited here

Parameter	Value
DRNAREA	2000
PRECIP	39
STRDEN	2.05
ROCKDEP	4.5
CARBON	21.13

Select available reports to display:

- ✓ Basin Characteristics Report
- ✓ Scenario Flow Reports
- Hydrologic Features Report

Open Report

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**Basin Characteristics**

Parameter Code	Parameter Description	Value	Unit
CARBON	Percentage of area of carbonate rock	21.13	percent
DRNAREA	Area that drains to a point on a stream	2000	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	2.05	miles per square mile

**Low-Flow Statistics**

Low-Flow Statistics Parameters [Low Flow Region 2]

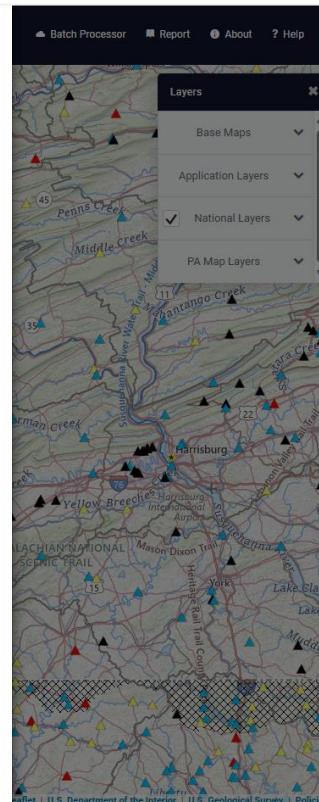
Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
CARBON	Percent Carbonate	21.13	percent	0	99
DRNAREA	Drainage Area	2000	square miles	4.93	1280
PRECIP	Mean Annual Precipitation	39	inches	35	50.4
ROCKDEP	Depth to Rock	4.5	feet	3.32	5.65
STRDEN	Stream Density	2.05	miles per square mile	0.51	3.1

Low-Flow Statistics Disclaimers [Low Flow Region 2]

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

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

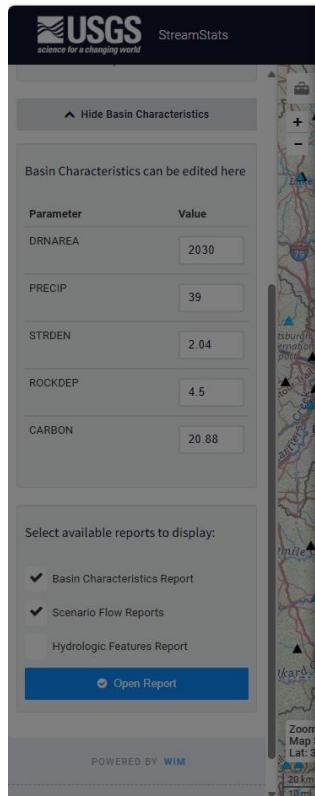
Statistic	Value	Unit
7 Day 2 Year Low Flow	335	ft^3/s
30 Day 2 Year Low Flow	407	ft^3/s
7 Day 10 Year Low Flow	219	ft^3/s
30 Day 10 Year Low Flow	267	ft^3/s
90 Day 10 Year Low Flow	342	ft^3/s



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## Mill Creek Area STP

NPDES Permit No. PA0085740



### Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
CARBON	Percentage of area of carbonate rock	20.88	percent
DRNAREA	Area that drains to a point on a stream	2030	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	2.04	miles per square mile

### Low-Flow Statistics

Low-Flow Statistics Parameters [Low Flow Region 2]

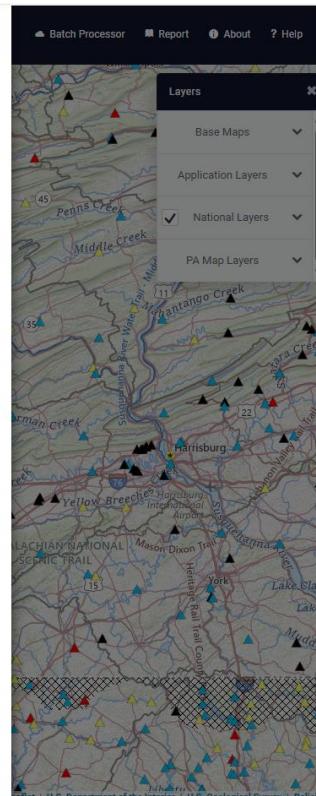
Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
CARBON	Percent Carbonate	20.88	percent	0	99
DRNAREA	Drainage Area	2030	square miles	4.93	1280
PRECIP	Mean Annual Precipitation	39	inches	35	50.4
ROCKDEP	Depth to Rock	4.5	feet	3.32	5.65
STRDEN	Stream Density	2.04	miles per square mile	0.51	3.1

Low-Flow Statistics Disclaimers [Low Flow Region 2]

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

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

Statistic	Value	Unit
7 Day 2 Year Low Flow	341	ft^3/s
30 Day 2 Year Low Flow	414	ft^3/s
7 Day 10 Year Low Flow	223	ft^3/s
30 Day 10 Year Low Flow	272	ft^3/s
90 Day 10 Year Low Flow	348	ft^3/s



Tools and References Used to Develop Permit	
<input checked="" type="checkbox"/>	WQM for Windows Model (see Attachment [REDACTED])
<input type="checkbox"/>	Toxics Management Spreadsheet (see Attachment [REDACTED])
<input checked="" type="checkbox"/>	TRC Model Spreadsheet (see Attachment [REDACTED])
<input type="checkbox"/>	Temperature Model Spreadsheet (see Attachment [REDACTED])
<input type="checkbox"/>	Water Quality Toxics Management Strategy, 361-0100-003, 4/06.
<input type="checkbox"/>	Technical Guidance for the Development and Specification of Effluent Limitations, 386-0400-001, 10/97.
<input type="checkbox"/>	Policy for Permitting Surface Water Diversions, 386-2000-019, 3/98.
<input type="checkbox"/>	Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 386-2000-018, 11/96.
<input type="checkbox"/>	Technology-Based Control Requirements for Water Treatment Plant Wastes, 386-2183-001, 10/97.
<input type="checkbox"/>	Technical Guidance for Development of NPDES Permit Requirements Steam Electric Industry, 386-2183-002, 12/97.
<input type="checkbox"/>	Pennsylvania CSO Policy, 386-2000-002, 9/08.
<input checked="" type="checkbox"/>	Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03.
<input type="checkbox"/>	Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 386-2000-008, 4/97.
<input type="checkbox"/>	Determining Water Quality-Based Effluent Limits, 386-2000-004, 12/97.
<input type="checkbox"/>	Implementation Guidance Design Conditions, 386-2000-007, 9/97.
<input checked="" type="checkbox"/>	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.
<input type="checkbox"/>	Interim Method for the Sampling and Analysis of Osmotic Pressure on Streams, Brines, and Industrial Discharges, 386-2000-012, 10/1997.
<input type="checkbox"/>	Implementation Guidance for Section 95.6 Management of Point Source Phosphorus Discharges to Lakes, Ponds, and Impoundments, 386-2000-009, 3/99.
<input type="checkbox"/>	Technical Reference Guide (TRG) PENTOXSD for Windows, PA Single Discharge Wasteload Allocation Program for Toxics, Version 2.0, 386-2000-015, 5/2004.
<input checked="" type="checkbox"/>	Implementation Guidance for Section 93.7 Ammonia Criteria, 386-2000-022, 11/97.
<input type="checkbox"/>	Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers, 386-2000-013, 4/2008.
<input type="checkbox"/>	Implementation Guidance Total Residual Chlorine (TRC) Regulation, 386-2000-011, 11/1994.
<input type="checkbox"/>	Implementation Guidance for Temperature Criteria, 386-2000-001, 4/09.
<input type="checkbox"/>	Implementation Guidance for Section 95.9 Phosphorus Discharges to Free Flowing Streams, 386-2000-021, 10/97.
<input type="checkbox"/>	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.
<input type="checkbox"/>	Field Data Collection and Evaluation Protocol for Determining Stream and Point Source Discharge Design Hardness, 386-2000-005, 3/99.
<input type="checkbox"/>	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.
<input type="checkbox"/>	Design Stream Flows, 386-2000-003, 9/98.
<input type="checkbox"/>	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.
<input type="checkbox"/>	Evaluations of Phosphorus Discharges to Lakes, Ponds and Impoundments, 386-3200-001, 6/97.
<input checked="" type="checkbox"/>	Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, 4/07.
<input checked="" type="checkbox"/>	SOP: BCW-PMT-033
<input type="checkbox"/>	Other: [REDACTED]