



Application Type  
Facility Type  
Major / Minor

Renewal  
Municipal  
Minor

Application No. PA0020478  
APS ID 10866  
Authorization ID 1540620

## NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

### Applicant and Facility Information

Applicant Name	<u>Bloomfield Borough Perry County</u>	Facility Name	<u>Bloomfield STP</u>
Applicant Address	25 E McClure Street New Bloomfield, PA 17068-9334	Facility Address	300 Barnett Woods Road New Bloomfield, PA 17068
Applicant Contact	<u>Damon Hartman</u>	Facility Contact	<u>Damon Hartman</u>
Applicant Phone	<u>(717) 582-2989</u>	Facility Phone	<u>(717) 582-2989</u>
Client ID	<u>71344</u>	Site ID	<u>248232</u>
Ch 94 Load Status	<u>Not Overloaded</u>	Municipality	<u>Bloomfield Borough</u>
Connection Status	<u>No Limitations</u>	County	<u>Perry</u>
Date Application Received	<u>September 4, 2025</u>	EPA Waived?	<u>Yes</u>
Date Application Accepted	<u>October 6, 2025</u>	If No, Reason	
Purpose of Application	<u>This is an application request for NPDES renewal.</u>		

Approve	Deny	Signatures	Date
X		Nicholas Hong, P.E. / Environmental Engineer Nick Hong (via electronic signature)	October 14, 2025
X		Daniel W. Martin, P.E. / Environmental Engineer Manager Maria D. Bebenek for	November 20, 2025
X		Maria D. Bebenek, P.E. / Environmental Program Manager Maria D. Bebenek	November 20, 2025

### Summary of Review

The application submitted by the applicant requests a NPDES renewal permit for the Bloomfield Borough WWTP located at 300 Barnett Woods Road, New Bloomfield, PA 17068 in Perry County, municipality of Bloomfield Borough. The existing permit became effective on January 1, 2021 and expires(d) on December 31, 2025. The application for renewal was received by DEP Southcentral Regional Office (SCRO) September 4, 2025.

The purpose of this Fact Sheet is to present the basis of information used for establishing the proposed NPDES permit effluent limitations. The Fact Sheet includes a description of the facility, a description of the facility's receiving waters, a description of the facility's receiving waters attainment/non-attainment assessment status, and a description of any changes to the proposed monitoring/sampling frequency. Section 6 provides the justification for the proposed NPDES effluent limits derived from technology based effluent limits (TBEL), water quality based effluent limits (WQBEL), total maximum daily loading (TMDL), antidegradation, anti-backsliding, and/or whole effluent toxicity (WET). A brief summary of the outlined descriptions has been included in the Summary of Review section.

The subject facility is a 0.15 MGD average annual treatment facility. The hydraulic design capacity is 0.25 MGD. The applicant does not anticipate any proposed upgrades to the treatment facility in the next five years. The NPDES application has been processed as a Minor Sewage Facility (Level 2) due to the type of sewage and the design flow rate for the facility. The applicant disclosed the Act 14 requirement to Perry County Commissioners and Bloomfield Borough Council and the notice was received by the parties on July 11, 2025 and July 15, 2025. A planning approval letter was not necessary as the facility is neither new or expanding.

Utilizing the DEP's web-based Emap-PA information system, the receiving waters has been determined to be Tributary 11404 to Trout Run. The sequence of receiving streams that the Tributary 11404 to Trout Run discharges into are Trout Run and Little Juniata Creek which eventually drains into the Chesapeake Bay. The subject site is subject to the Chesapeake Bay implementation requirements. The receiving water has protected water usage for cold water fish (CWF) and migratory fish (MF). No Class A Wild Trout fisheries are impacted by this discharge. The absence of high quality and/or exceptional value surface waters removes the need for an additional evaluation of anti-degradation requirements.

The Tributary 11404 to Trout Run is a Category 4c and 5 stream listed in the 2024 Integrated List of All Waters (formerly 303d Listed Streams). This stream is an impaired stream for aquatic life due to (1) habitat alterations from removal of riparian vegetation and (2) siltation from removal of riparian vegetation. The receiving waters is also impaired for recreational uses due to pathogens from an unknown source. The receiving waters is not subject to a total maximum daily load (TMDL) plan to improve water quality in the subject facility's watershed.

The existing permit and proposed permit differ as follows:

- **Monitoring for nitrogen species and phosphorus have been reduced to quarterly.**
- **Due to the EPA triennial review, monitoring for E.Coli shall be required.**
- **Monitoring and effluent limits shall be required for Total Lead and Total Zinc**

Sludge use and disposal description and location(s): DEP computer files do not show the facility submitted biosolids/sewage sludge disposal addendum.

The proposed permit will expire five (5) years from the effective date.

Based on the review in this report, 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.

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

## 1.0 Applicant

### 1.1 General Information

This fact sheet summarizes PA Department of Environmental Protection's review for the NPDES renewal for the following subject facility.

Facility Name: Bloomfield Borough WWTP

NPDES Permit #: PA0020478

Physical Address: 300 Barnett Woods Road  
New Bloomfield, PA 17068

Mailing Address: 25 East McClure Street  
New Bloomfield, PA 17068

Contact: damon.hartman78@gmail.com

Consultant: Timothy Yingling  
Senior Project Manager  
Herbert, Rowland and Grubic, Inc.  
(717) 564-1121  
tyingling@hrg-inc.com

### 1.2 Permit History

Permit submittal included the following information.

- NPDES Application
- Influent Sample Data
- Effluent Sample Data

## 2.0 Treatment Facility Summary

### 2.1.1 Site location

The physical address for the facility is 300 Barnett Woods Road, New Bloomfield, PA 17068. A topographical and an aerial photograph of the facility are depicted as Figure 1 and Figure 2.

Figure 1: Topographical map of the subject facility

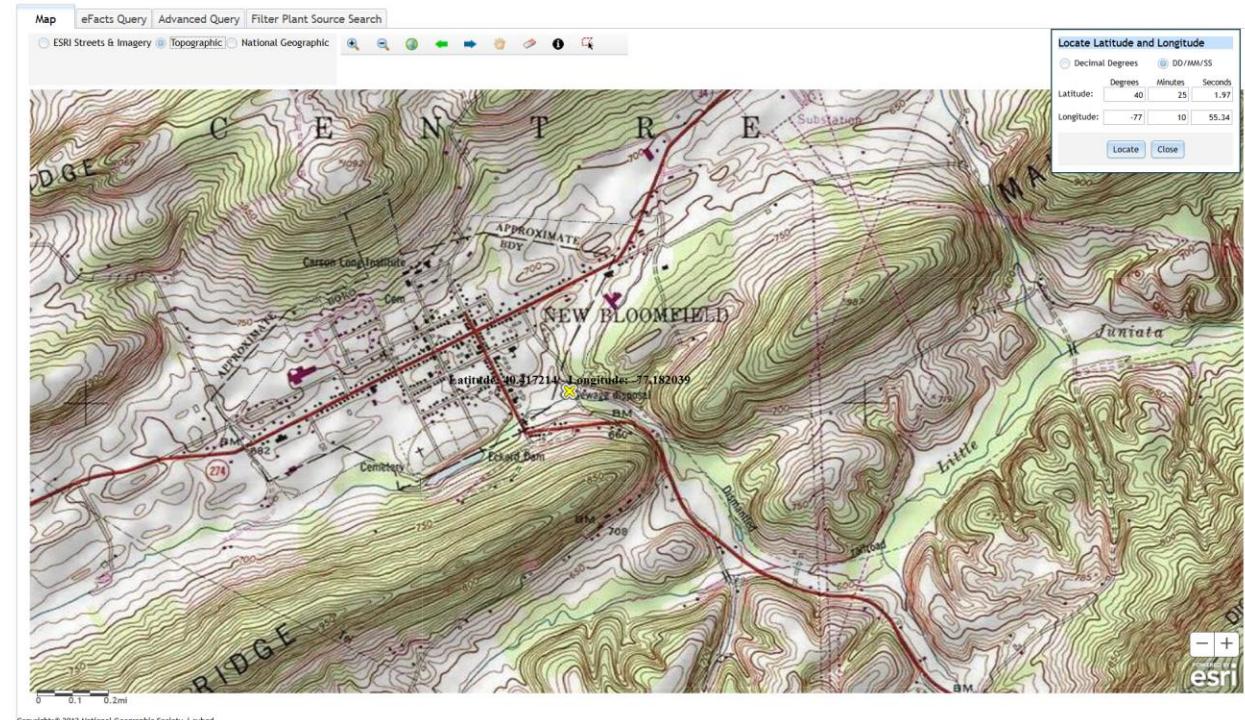
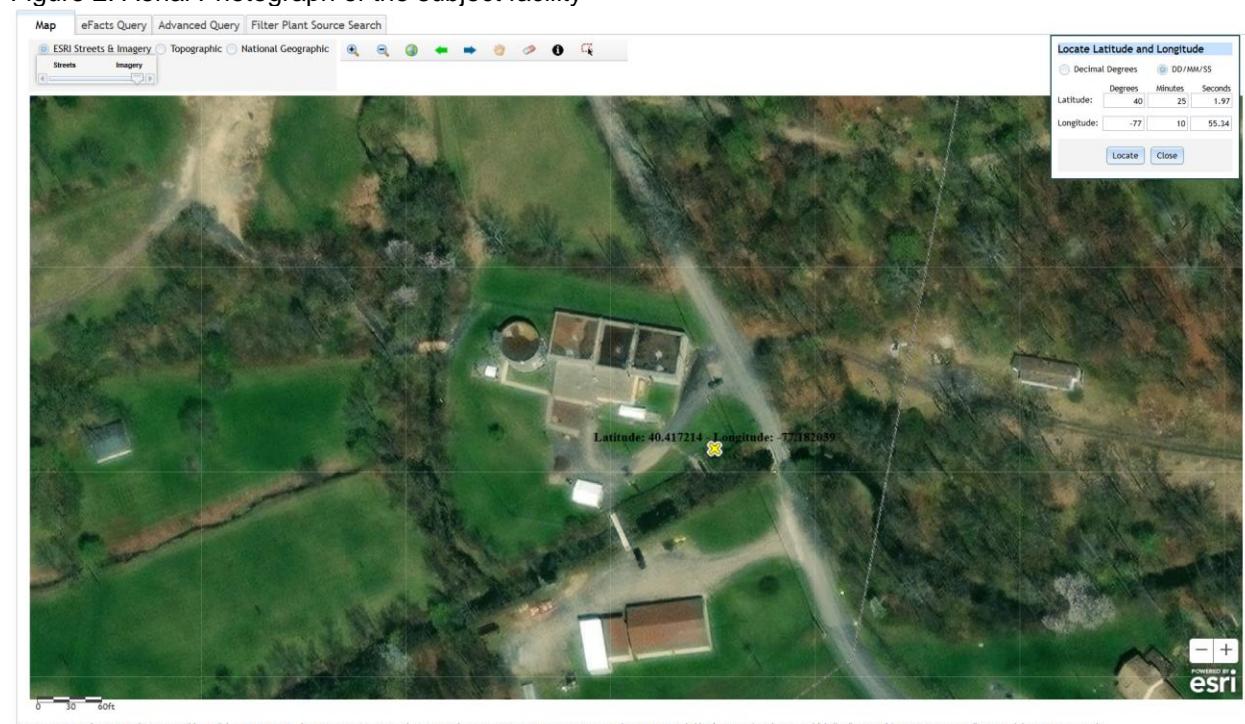


Figure 2: Aerial Photograph of the subject facility



### **2.1.2 Sources of Wastewater/Stormwater**

The wastewater treatment plant receives 100% of the flow contributions from Bloomfield Borough.

The facility reported they do not have industrial/commercial users.

The facility did not receive any hauled in wastes in the last three years and does not anticipate receiving hauled in wastes in the next five years.

### **2.2 Description of Wastewater Treatment Process**

The subject facility is a 0.25 MGD hydraulic design flow facility. The subject facility treats wastewater using a muffin monster, a SBR, and a UV disinfection unit prior to discharge through the outfall. The facility is being evaluated for flow, pH, dissolved oxygen, CBOD5, TSS, TRC, fecal coliform, UV, nitrogen species, phosphorus, total copper, total lead, and total zinc. The existing permits limits for the facility is summarized in Section 2.4.

The treatment process is summarized in the table.

<b>Treatment Facility Summary</b>				
<b>Treatment Facility Name:</b> Bloomfield STP				
Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Sequencing Batch Reactor	Ultraviolet	0.15
Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.25	460	Not Overloaded		

### **2.3 Facility Outfall Information**

The facility has the following outfall information for wastewater.

Outfall No. 001  
Latitude 40° 25' 1.97"

Design Flow (MGD) .25  
Longitude -77° 10' 55.34"

Wastewater Description: Sewage Effluent

### **2.3.1 Operational Considerations- Chemical Additives**

Chemical additives are chemical products introduced into a waste stream that is used for cleaning, disinfecting, or maintenance and which may be detected in effluent discharged to waters of the Commonwealth. Chemicals excluded are those used for neutralization of waste streams, the production of goods, and treatment of wastewater.

The subject facility utilizes the following chemicals as part of their treatment process.

- Zetage 1786 as polymer for sludge thickening
- Soda Ash Lime for adjusting pH in activated sludge

## 2.4 Existing NPDES Permits Limits

The existing NPDES permit limits are summarized in the table.

### PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS

I. A. For Outfall 001, Latitude 40° 25' 1.97", Longitude 77° 10' 55.34", River Mile Index 0.85, Stream Code 11404

Receiving Waters: Unnamed Tributary to Trout Run (CWF)

Type of Effluent: Sewage Effluent

1. The permittee is authorized to discharge during the period from January 1, 2021 through December 31, 2025.
2. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements and Footnotes).

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)					
Average Monthly	Weekly Average	Instantaneous Minimum	Average Monthly	Weekly Average	Instant. Maximum	Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type	
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
Dissolved Oxygen	XXX	XXX	5.0	XXX	XXX	XXX	1/day	Grab
Carbonaceous Biochemical Oxygen Demand (CBOD5)	52	83	XXX	25	40	50	1/week	8-Hr Composite
Biochemical Oxygen Demand (BOD5)	Report	Report Daily Max	XXX	Report	XXX	XXX	1/week	8-Hr Composite
Raw Sewage Influent								
Total Suspended Solids	62	93	XXX	30	45	60	1/week	8-Hr Composite
Total Suspended Solids Raw Sewage Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	1/week	8-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	1/week	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	1/week	Grab
Ultraviolet light transmittance (%)	XXX	XXX	Report	XXX	XXX	XXX	1/day	Measured
Nitrate-Nitrite as N	XXX	XXX	XXX	Report	XXX	XXX	1/month	8-Hr Composite

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

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)					
Average Monthly	Weekly Average	Instantaneous Minimum	Average Monthly	Weekly Average	Instant. Maximum	Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type	
Total Nitrogen	XXX	XXX	XXX	Report	XXX	XXX	1/month	Calculation
Ammonia-Nitrogen Nov 1 - Apr 30	18.0	XXX	XXX	9.0	XXX	18	1/week	8-Hr Composite
Ammonia-Nitrogen May 1 - Oct 31	6.0	XXX	XXX	3.0	XXX	6	1/week	8-Hr Composite
Total Kjeldahl Nitrogen	XXX	XXX	XXX	Report	XXX	XXX	1/month	8-Hr Composite
Total Phosphorus	XXX	XXX	XXX	Report	XXX	XXX	1/month	Composite
Copper, Total	XXX	XXX	XXX	Report Avg Qty	XXX	XXX	1/quarter	8-Hr Composite
Lead, Total	XXX	XXX	XXX	Report Avg Qty	XXX	XXX	1/quarter	8-Hr Composite
Zinc, Total	0.35	XXX	XXX	0.17	XXX	0.42	1/week	8-Hr Composite

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

at Outfall 001

### **3.0 Facility NPDES Compliance History**

#### **3.1 Summary of Inspections**

A summary of the most recent inspections during the existing permit review cycle is as follows.

The DEP inspector noted the following during the inspection.

11/09/2021:

- The facility was advised to ensure all SSO events are immediately reported to the DEP and submit the required 5-day report that summarizes the SSO.
- Recommend investigating/repairing the problem that is causing the intermittent low UV transmittance reading.
- Ensure calibration of facility flow meter is conducted annually.

06/28/2023:

- The purpose of the inspection was to discuss the facility's recent effluent non-compliances. Ammonia-Nitrogen exceedances were reported by the facility in April and May 2023. Mr. Hartman attributes the exceedances to low flow received by the treatment plant during those months. Mr. Hartman anticipates the facility maintaining compliance during the month of June. Laboratory analysis of Ammonia-Nitrogen on 6/7/2023 was 0.496 mg/L and 6/14/2023 was 0.167 mg/L.
- An influent pump seal failure occurred during the weekend prior to this inspection. A backup pump is maintained on-site.
- Bloomfield Borough is currently in the process of acquiring the lift station that serves Lakeside Estates.

#### **3.2 Summary of DMR Data**

A review of approximately 1-year of DMR data shows that the monthly average flow data for the facility below the design capacity of the treatment system. The maximum average flow data for the DMR reviewed was 0.214 MGD. The design capacity of the treatment system is 0.25 MGD.

The off-site laboratory used for the analysis of the parameters was ALS Environmental located at 301 Fulling Mill Road, Middletown, PA 17057

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	0.102	0.156	0.168	0.214	0.124	0.120	0.133	0.088	0.120	0.100	0.093	0.099
Flow (MGD) Daily Maximum	0.180	0.654	0.385	0.662	0.255	0.350	0.338	0.133	0.298	0.204	0.366	0.314
pH (S.U.) Instantaneous Minimum	6.9	7.1	7.0	7.1	7.1	6.9	7.3	7.2	7.2	7.2	7.2	7.2
pH (S.U.) Instantaneous Maximum	7.2	7.2	7.3	7.4	7.3	7.4	7.5	7.4	7.4	7.4	7.4	7.5
DO (mg/L) Instantaneous Minimum	6.8	6.9	7.0	7.0	7.0	6.9	7.0	7.0	7.0	7.0	7.2	7
CBOD5 (lbs/day) Average Monthly	2.7	4.7	4.6	6.7	2	4.6	26.7	3.9	3.8	2	5.9	17
CBOD5 (lbs/day) Weekly Average	4.8	14.9	9.4	17	2.7	7.6	100	7.1	8.7	2.6	19.8	63.8
CBOD5 (mg/L) Average Monthly	3.2	2.5	3.2	2.7	2.5	4.5	31.9	5.5	5.6	2.5	5.7	19
CBOD5 (mg/L) Weekly Average	5.5	4.0	5.2	4.3	3.5	9.6	120	10.1	12.9	3	14	69.5
BOD5 (lbs/day) Raw Sewage Influent   Average Monthly	207	189	204	172	180	181	159	170	268	106	161	263
BOD5 (lbs/day) Raw Sewage Influent   Daily Maximum	399.8	335	349	203	249	266	202	207	364	148	256	151
BOD5 (mg/L) Raw Sewage Influent   Average Monthly	265.8	184	145	110	229	175	192	243	252	132	213	222
TSS (lbs/day) Average Monthly	7.8	11.5	9.5	41.2	7.9	10.7	5.7	12.6	16.4	6.3	11.2	24.5
TSS (lbs/day) Raw Sewage Influent   Average Monthly	239.4	178	204	215	194	309	138	136	125	96	225	299
TSS (lbs/day) Raw Sewage Influent   Daily Maximum	451.4	230	416	360	305	636	385	232	276	126	436	176

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TSS (lbs/day) Weekly Average	16.6	30	14.4	86.8	16.6	32.4	8.3	27.3	34.6	9.3	19.4	38.5
TSS (mg/L) Average Monthly	9.3	7.4	7	16.5	10	15.3	7	18	12.4	8	13.6	23
TSS (mg/L) Raw Sewage Influent   Average Monthly	308	156	137	119	248	266	162	199	107	119	296	243
TSS (mg/L) Weekly Average	19	11	10	27	24	41	8	39	31	10	27	42
Fecal Coliform (No./100 ml) Geometric Mean	668.6	15	63	1.6	6	43	314	36	49	22	24	245
Fecal Coliform (No./100 ml) Instantaneous Maximum	2419.6	112	2419	7	59	2419.6	2420	136	2419	39	276	2419
UV Transmittance (%) Instantaneous Minimum	50	51	53	53	52	52	36	36	35	36	39	46
Nitrate-Nitrite (mg/L) Average Monthly	0.2	0.2	0.20	1.38	0.9	0.2	0.2	0.2	4.3	10	0.66	9.6
Total Nitrogen (mg/L) Average Monthly	5.9	4.9	4.0	5.0	4	6.6	2.8	4	6.6	12.5	7	11.7
Ammonia (lbs/day) Average Monthly	3.8	3.5	4.58	0.71	1.1	2.7	0.35	0.747	0.54	1.5	4.1	4.6
Ammonia (mg/L) Average Monthly	4.4	3.3	2.7	0.39	1.5	2.1	0.38	1.04	0.56	1.8	4.3	5.1
TKN (mg/L) Average Monthly	5.7	5.4	3.8	3.6	3.1	6.4	2.6	3.78	2.3	2.4	6.3	6.5
Total Phosphorus (mg/L) Average Monthly	4.2	0.78	3.2	1.5	2.6	0.5	0.10	0.68	3.6	5.5	1	6.6
Total Copper (mg/L) Average Quarterly			0.005			0.0080			0.007			0.015
Total Lead (mg/L) Average Quarterly			0.003			0.0030			0.003			0.003
Total Zinc (lbs/day) Average Monthly	0.042	0.036	0.039	0.116	0.045	0.076	0.061	0.065	0.14	0.072	0.040	0.061
Total Zinc (mg/L) Average Monthly	0.051	0.031	0.030	0.049	0.057	0.074	0.074	0.92	0.104	0.089	0.053	0.09

### **3.3 Non-Compliance**

#### **3.3.1 Non-Compliance- NPDES Effluent**

A summary of the non-compliance to the permit limits for the existing permit cycle is as follows.

From the DMR data beginning in January 1, 2021 to October 7, 2025, the following were observed effluent non-compliances.

Summary of Non-Compliance w/ NPDES Effluent Limits  
Beginning January 1, 2021 and Ending October 7, 2025

NON_COMPLIANCE_DATE	NON_COMPL_TYPER_DESC	NON_COMPL_CATEGORY_DESC	PARAMETER	SAMPLE_VALUE	VIOLATION_CONDITION	PERMIT_VALUE	UNIT_OF_MEASURE	STAT_BASE_CODE	DISCHARGE_COMMENTS	FACILITY_COMMENTS
3/30/2021	Late DMR Submission	Other Violations								
7/27/2021	Violation of permit condition	Effluent	Fecal Coliform	2430	>	1000	No./100 ml	Instantaneous Maximum		Cleaned entire U.V disinfection area. Washed and cleaned screens. The lab did mess up on my MLSS sample results this same week and had to re run my results. It is possible they had an error in the laboratory setting during initial testing. After cleaning the results have been well within parameters.
9/28/2021		Unauthorized Discharges							plant influent flow was .598 . sanitary piping could not convey water to plant fast enough. this manhole is 30" deep and is the weakest link in the system	
10/28/2021		Unauthorized Discharges							Hydraulic overload in collection system. plant received 1.140 MGD. Main sewer interceptor to plant was cleaned on 9/27/21 in an attempt to resolve the issue. a sizable amount of debris was removed.	
10/28/2021		Unauthorized Discharges							Plant received 1.061 MGD during this event. System could not convey to the plant fast enough.	
11/24/2021	Violation of permit condition	Effluent	Zinc, Total	0.20	>	.17	mg/L	Average Monthly		Concentration values from the lab results were in violation of the limit. But as a result the loading calculations are within the parameters. I will continue to track results as the lab produces them.
1/4/2022	Late DMR Submission	Other Violations								
5/27/2022	Violation of permit condition	Effluent	Fecal Coliform	2419.6	>	2000	No./100 ml	Geometric Mean		Unsure if issue is from lab results not being accurate. Lab has been short handed on staff since March. U.V system will be cleaned and bulbs changed. Effluent quality will continue to be monitored.
6/27/2022	Violation of permit condition	Effluent	Fecal Coliform	1543.2	>	200	No./100 ml	Geometric Mean		Faulty equipment on the U.V disinfection system was diagnosed and replaced. We had an intermittent operating issue again like we did in 2018 which prompted the replacement of the system. System has been repaired and is operating at 75% of capacity at this time. We are awaiting parts to repair the remainder of the system. Lab results on fecal for the month of June have all been single digits 7, 4, and 3 as of todays date.
6/27/2022	Violation of permit condition	Effluent	Fecal Coliform	2419.6	>	1000	No./100 ml	Instantaneous Maximum		All equipment has been diagnosed and process control has been cleaned and verified for proper operation. So far all results in the month of June have been in the single digit range. Some of the issues were also from process issues (MLSS too high) which were also corrected and seem to be well within parameters. I will continue to closely monitor results to ensure proper disinfection.
8/29/2022	Late DMR Submission	Other Violations								
5/25/2023	Violation of permit condition	Effluent	Ammonia-Nitrogen	9.8	>	9.0	mg/L	Average Monthly		
6/26/2023	Violation of permit condition	Effluent	Ammonia-Nitrogen	6.9	>	6.0	lbs/day	Average Monthly		
6/26/2023	Violation of permit condition	Effluent	Ammonia-Nitrogen	7.3	>	3.0	mg/L	Average Monthly		
9/26/2023	Violation of permit condition	Effluent	Total Suspended Solids	60	>	45	mg/L	Weekly Average		
1/18/2024	Violation of permit condition	Effluent	Total Suspended Solids	110	>	45	mg/L	Weekly Average		
1/18/2024	Violation of permit condition	Effluent	Total Suspended Solids	44.5	>	30	mg/L	Average Monthly		
10/28/2024	Violation of permit condition	Effluent	Ammonia-Nitrogen	5.1	>	3.0	mg/L	Average Monthly		

10/28/2024	Violation of permit condition	Effluent	Carbonaceous Biochemical Oxygen Demand (CBOD5)	69.5	>	40	mg/L	Weekly Average		
10/28/2024	Violation of permit condition	Effluent	Fecal Coliform	2419	>	1000	No./100 ml	Instantaneous Maximum		
10/28/2024	Violation of permit condition	Effluent	Fecal Coliform	245	>	200	No./100 ml	Geometric Mean		
11/24/2024	Violation of permit condition	Effluent	Ammonia-Nitrogen	4.3	>	3.0	mg/L	Average Monthly		
2/25/2025	Violation of permit condition	Effluent	Zinc, Total	0.92	>	.17	mg/L	Average Monthly		
3/27/2025	Violation of permit condition	Effluent	Carbonaceous Biochemical Oxygen Demand (CBOD5)	100	>	83	lbs/day	Weekly Average		
3/27/2025	Violation of permit condition	Effluent	Carbonaceous Biochemical Oxygen Demand (CBOD5)	120	>	40	mg/L	Weekly Average		
3/27/2025	Violation of permit condition	Effluent	Carbonaceous Biochemical Oxygen Demand (CBOD5)	31.9	>	25	mg/L	Average Monthly		
7/27/2025	Violation of permit condition	Effluent	Fecal Coliform	2419	>	1000	No./100 ml	Instantaneous Maximum		
8/28/2025	Violation of permit condition	Effluent	Ammonia-Nitrogen	3.3	>	3.0	mg/L	Average Monthly		
9/17/2025	Violation of permit condition	Effluent	Ammonia-Nitrogen	4.4	>	3.0	mg/L	Average Monthly		
9/17/2025	Violation of permit condition	Effluent	Fecal Coliform	2419.6	>	1000	No./100 ml	Instantaneous Maximum	Sludge pump was not pumping waste as efficiently as it should. ammonia levels increased as well as a fecal spike in SBR #1. Pump replaced with new sludge pump , levels appear to be returning to normal. will continue to monitor and adjust as needed.	
9/17/2025	Violation of permit condition	Effluent	Fecal Coliform	668.6	>	200	No./100 ml	Geometric Mean		

### **3.3.2 Non-Compliance- Enforcement Actions**

A summary of the non-compliance enforcement actions for the current permit cycle is as follows:

Beginning in January 1, 2021 to October 7, 2025, there were no observed enforcement actions.

### **3.4 Summary of Biosolids Disposal**

A summary of the biosolids disposed of from the facility is as follows.

DEP computer files do not show the facility submitted biosolids/sewage sludge disposal addendum.

DEP operations staff has been conducted to follow-up.

### **3.5 Open Violations**

No open violations existed as of October 2025.

## **4.0 Receiving Waters and Water Supply Information Detail Summary**

### **4.1 Receiving Waters**

The receiving waters has been determined to be Tributary 11404 to Trout Run. The sequence of receiving streams that the Tributary 11404 to Trout Run discharges into are Trout Run and Little Juniata Creek which eventually drains into the Chesapeake Bay.

### **4.2 Public Water Supply (PWS) Intake**

The closest PWS to the subject facility is Suez Water (PWS ID #72220015) located approximately 21 miles downstream of the subject facility on the Susquehanna River. Based upon the distance and the flow rate of the facility, the PWS should not be impacted.

### **4.3 Class A Wild Trout Streams**

Class A Wild Trout Streams are waters that support a population of naturally produced trout of sufficient size and abundance to support long-term and rewarding sport fishery. DEP classifies these waters as high-quality coldwater fisheries.

The information obtained from EMAP suggests that no Class A Wild Trout Fishery will be impacted by this discharge.

### **4.4 2024 Integrated List of All Waters (303d Listed Streams)**

Section 303(d) of the Clean Water Act requires States to list all impaired surface waters not supporting uses even after appropriate and required water pollution control technologies have been applied. The 303(d) list includes the reason for impairment which may be one or more point sources (i.e. industrial or sewage discharges) or non-point sources (i.e. abandoned mine lands or agricultural runoff and the pollutant causing the impairment such as metals, pH, mercury or siltation).

States or the U.S. Environmental Protection Agency (EPA) must determine the conditions that would return the water to a condition that meets water quality standards. As a follow-up to listing, the state or EPA must develop a Total Maximum Daily Load (TMDL) for each waterbody on the list. A TMDL identifies allowable pollutant loads to a waterbody from both point and non-point sources that will prevent a violation of water quality standards. A TMDL also includes a margin of safety to ensure protection of the water.

The water quality status of Pennsylvania's waters uses a five-part categorization (lists) of waters per their attainment use status. The categories represent varying levels of attainment, ranging from Category 1, where all designated water uses are met to Category 5 where impairment by pollutants requires a TMDL for water quality protection.

The receiving waters is listed in the 2024 Pennsylvania Integrated Water Quality Monitoring and Assessment Report as a Category 4c and 5 waterbody. This stream is an impaired stream for aquatic life due to (1) habitat alterations from removal of riparian vegetation and (2) siltation from removal of riparian vegetation. The receiving waters is also impaired for recreational uses due to pathogens from an unknown source. The designated use has been classified as protected waters for cold water fishes (CWF) and migratory fishes (MF).

#### **4.5 Low Flow Stream Conditions**

Water quality modeling estimates are based upon conservative data inputs. The data are typically estimated using either a stream gauge or through USGS web based StreamStats program. The NPDES effluent limits are based upon the combined flows from both the stream and the facility discharge.

A conservative approach to estimate the impact of the facility discharge using values which minimize the total combined volume of the stream and the facility discharge. The volumetric flow rate for the stream is based upon the seven-day, 10-year low flow (Q710) which is the lowest estimated flow rate of the stream during a 7 consecutive day period that occurs once in 10 -year time period. The facility discharge is based upon a known design capacity of the subject facility.

The closest WQN station to the subject facility is the Susquehanna River @ Harrisburg (WQN202). This WQN station is located approximately 27 miles downstream of the subject facility.

The closest gauge station to the subject facility is the Susquehanna River at Harrisburg, PA (USGS station number 1570500). This gauge station is located approximately 27 miles downstream of the subject facility.

For WQM modeling, pH and stream water temperature data from the water quality network station was used. pH was estimated to be 8.25 and the stream water temperature was estimated to be 23.75 C.

The hardness of the stream was estimated from the water quality network to be 109 mg/l CaCO<sub>3</sub>.

The low flow yield and Q710 differs from the previous Fact Sheet. USGS Selected Streamflow Statistics for Streamgauge Locations in and near Pennsylvania itemized two different sets of data. One data set was based upon the years 1901 to 1972. The second data set was based upon the years 1974 to 2008. The prior fact sheet used the older data set. This fact sheet used the later data set.

The low flow yield and the Q710 for the subject facility was estimated as shown below.

Gauge Station Data		
USGS Station Number	1570500	
Station Name	Susquehanna River at Harrisburg, PA	
Q710	3200 ft <sup>3</sup> /sec	
Drainage Area (DA)	24,100 mi <sup>2</sup>	

**Calculations**

The low flow yield of the gauge station is:

Low Flow Yield (LFY) = Q710 / DA

$$LFY = (3,200 \text{ ft}^3/\text{sec} / 24,100 \text{ mi}^2)$$

$$LFY = 0.1328 \text{ ft}^3/\text{sec}/\text{mi}^2$$

The low flow at the subject site is based upon the DA of 4.56 mi<sup>2</sup>

$$Q710 = (LFY @ \text{gauge station})(DA @ \text{Subject Site})$$

$$Q710 = (0.1328 \text{ ft}^3/\text{sec}/\text{mi}^2)(4.56 \text{ mi}^2)$$

$$Q710 = 0.605 \text{ ft}^3/\text{sec}$$

**4.6 Summary of Discharge, Receiving Waters and Water Supply Information**

Outfall No.	001	Design Flow (MGD)	.25
Latitude	40° 25' 1.50"	Longitude	-77° 10' 55.19"
Quad Name		Quad Code	
Wastewater Description:	Sewage Effluent		
Receiving Waters	Unnamed Tributary to Trout Run (CWF)	Stream Code	11404
NHD Com ID	56399287	RMI	0.86
Drainage Area	4.56	Yield (cfs/mi <sup>2</sup> )	0.1328
Q <sub>7-10</sub> Flow (cfs)	0.605	Q <sub>7-10</sub> Basis	StreamStats/streamgauge
Elevation (ft)	640	Slope (ft/ft)	
Watershed No.	7-A	Chapter 93 Class.	CWF, MF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired for aquatic life		
Cause(s) of Impairment	Habitat alteration / Siltation		
Source(s) of Impairment	Removal of riparian vegetation		
TMDL Status	Not applicable	Name	
Background/Ambient Data		Data Source	
pH (SU)	8.25	WQN202; median Jul to Oct	
Temperature (°C)	23.75	WQN202; median Jul to Oct	
Hardness (mg/L)	109	WQN202; historical median	
Other:			
Nearest Downstream Public Water Supply Intake			
PWS Waters	Susquehanna River	Suez Water	
PWS RMI	76.3	Flow at Intake (cfs)	
		Distance from Outfall (mi)	21

## 5.0: Overview of Presiding Water Quality Standards

### 5.1 General

There are at least six (6) different policies which determines the effluent performance limits for the NPDES permit. The policies are technology based effluent limits (TBEL), water quality based effluent limits (WQBEL), antidegradation, total maximum daily loading (TMDL), anti-backsliding, and whole effluent toxicity (WET). The effluent performance limitations enforced are the selected permit limits that is most protective to the designated use of the receiving waters. An overview of each of the policies that are applicable to the subject facility has been presented in Section 6.

### 5.2.1 Technology-Based Limitations

TBEL treatment requirements under section 301(b) of the Act represent the minimum level of control that must be imposed in a permit issued under section 402 of the Act (40 CFR 125.3). Available TBEL requirements for the state of Pennsylvania are itemized in PA Code 25, Chapter 92a.47.

The presiding sources for the basis for the effluent limitations are governed by either federal or state regulation. The reference sources for each of the parameters is itemized in the tables. The following technology-based limitations apply, subject to water quality analysis and best professional judgement (BPJ) where applicable:

Parameter	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)

### 5.2.2 Mass Based Limits

For publicly owned treatment works (POTW), mass loadings are calculated based upon design flow rate of the facility and the permit limit concentration. The generalized calculation for mass loadings is shown below:

$$\text{Quantity } \left( \frac{\text{lb}}{\text{day}} \right) = (\text{MGD})(\text{Concentration})(8.34)$$

### 5.3 Water Quality-Based Limitations

WQBEL are based on the need to attain or maintain the water quality criteria and to assure protection of designated and existing uses (PA Code 25, Chapter 92a.2). The subject facility that is typically enforced is the more stringent limit of either the TBEL or the WQBEL.

Determination of WQBEL is calculated by spreadsheet analysis or by a computer modeling program developed by DEP. DEP permit engineers utilize the following computing programs for WQBEL permit limitations: (1) MS Excel worksheet for Total Residual Chlorine (TRC); (2) WQM 7.0 for Windows Wasteload Allocation Program for Dissolved Oxygen and

Ammonia Nitrogen Version 1.1 (WQM Model) and (3) Toxics using DEP Toxics Management Spreadsheet for Toxics pollutants.

The modeling point nodes utilized for this facility are summarized below.

<b>General Data 1</b>	<b>(Modeling Point #1)</b>	<b>(Modeling Point #2)</b>	<b>Units</b>
Stream Code	11404	11404	
River Mile Index	0.86	0	miles
Elevation	640	606	feet
Latitude	40.417214	40.41014	
Longitude	-77.182039	-77.171145	
Drainage Area	4.56	9.57	sq miles
Low Flow Yield	0.605	0.605	cfs/sq mile

### **5.3.1 Water Quality Modeling 7.0**

The WQM Model is a computer model that is used to determine NPDES discharge effluent limitations for Carbonaceous BOD (CBOD5), Ammonia Nitrogen (NH<sub>3</sub>-N), and Dissolved Oxygen (DO) for single and multiple point source discharges scenarios. WQM Model is a complete-mix model which means that the discharge flow and the stream flow are assumed to instantly and completely mixed at the discharge node.

WQM recommends effluent limits for DO, CBOD5, and NH<sub>3</sub>-N in mg/l for the discharge(s) in the simulation.

Four types of limits may be recommended. The limits are

- (a) a *minimum concentration for DO in the discharge as 30-day average*;
- (b) a *30-day average concentration for CBOD5 in the discharge*;
- (c) a *30-day average concentration for the NH<sub>3</sub>-N in the discharge*;
- (d) *24-hour average concentration for NH<sub>3</sub>-N in the discharge*.

The WQM Model requires several input values for calculating output values. The source of data originates from either EMAP, the National Map, or Stream Stats. Data for stream gauge information, if any, was abstracted from USGS Low-Flow, Base-Flow, and Mean-Flow Regression Equations for Pennsylvania Streams authored by Marla H. Stuckey (Scientific Investigations Report 2006-5130).

**The applicable WQM Effluent Limit Type are discussed in Section 6 under the corresponding parameter which is either DO, CBOD, or ammonia-nitrogen.**

### **5.3.2 Toxics Modeling**

The Toxics Management Spreadsheet model is a computer model that is used to determine effluent limitations for toxics (and other substances) for single discharge wasteload allocations. This computer model uses a mass-balance water quality analysis that includes consideration for mixing, first-order decay, and other factors used to determine recommended water quality-based effluent limits. Toxics Management Spreadsheet does not assume that all discharges completely mix with the stream. The point of compliance with water quality criteria are established using criteria compliance times (CCTs). The available CCTs are either acute fish criterion (AFC), chronic fish criterion (CFC), or human health criteria (THH & CRL).

**Acute Fish Criterion (AFC)** measures the criteria compliance time as either the maximum criteria compliance time (i.e. 15 minutes travel time downstream of the current discharge) or the complete mix time whichever comes first. AFC is evaluated at Q710 conditions.

**Chronic Fish Criterion (CFC)** measures the criteria compliance time as either the maximum criteria compliance time (i.e. 12 hours travel time downstream of the current discharge) or the complete mix time whichever comes first. CFC is evaluated at Q710 conditions.

**Threshold Human Health (THH)** measures the criteria compliance time as either the maximum criteria compliance time (i.e. 12 hours travel time downstream of the current discharge) or the estimated travel time downstream to the nearest potable water supply intake whichever comes first. THH is evaluated at Q710 conditions.

**Cancer Risk Level (CRL)** measures the criteria compliance time as either the maximum criteria compliance time (i.e. 12 hours travel time downstream of the current discharge) or the complete mix time whichever comes first. CRL is evaluated at Qh (harmonic mean or normal flow) conditions.

The Toxics Model requires several input values for calculating output values. The source of data originates from either EMAP, the National Map, or Stream Stats. Data for stream gauge information, if any, was abstracted from USGS Low-Flow, Base-Flow, and Mean-Flow Regression Equations for Pennsylvania Streams authored by Marla H. Stuckey (Scientific Investigations Report 2006-5130).

#### **5.3.2.1 Determining if NPDES Permit Will Require Monitoring/Limits in the Proposed Permit for Toxic Pollutants**

To determine if Toxics modeling is necessary, DEP has developed a Toxics Management Spreadsheet to identify toxics of concern. Toxic pollutants whose maximum concentrations as reported in the permit application or on DMRs are greater than the most stringent applicable water quality criterion are pollutants of concern. A Reasonable Potential Analysis was utilized to determine (a) if the toxic parameters modeled would require monitoring or (b) if permit limitations would be required for the parameters. The toxics reviewed for reasonable potential were the following pollutants: TDS, Chloride, Bromide, Sulfate, Total Copper, Total Lead, and Total Zinc.

The NPDES application collected one sample except for total zinc.

In lieu of the absent data for total zinc, DMR data was used for toxics modeling.

Based upon the SOP- Establishing Water Quality-Based Effluent Limitations (WQBELs) and Permit Conditions for Toxic Pollutants (Revised January 10, 2019), monitoring and/or limits will be established as follows.

- (a) When reasonable potential is demonstrated, establish limits where the maximum reported concentration equals or exceeds 50% of the WQBEL.
- (b) For non-conservative pollutants, establish monitoring requirements where the maximum reported concentration is between 25% - 50% of the WQBEL.
- (c) For conservative pollutants, establish monitoring requirements where the maximum reported concentration is between 10% - 50% of the WQBEL.

**Applicable monitoring or permit limits for toxics are summarized in Section 6.**

**The Toxics Management Spreadsheet output has been included in Attachment B.**

#### **5.3.3 Whole Effluent Toxicity (WET)**

The facility is not subject to WET.

#### **5.4 Total Maximum Daily Loading (TMDL)**

##### **5.4.1 TMDL**

The goal of the Clean Water Act (CWA), which governs water pollution, is to ensure that all of the Nation's waters are clean and healthy enough to support aquatic life and recreation. To achieve this goal, the CWA created programs designed to regulate and reduce the amount of pollution entering United States waters. Section 303(d) of the CWA requires states to assess their waterbodies to identify those not meeting water quality standards. If a waterbody is not meeting standards, it is listed as impaired and reported to the U.S. Environmental Protection Agency. The state then develops a plan to clean up

the impaired waterbody. This plan includes the development of a Total Maximum Daily Load (TMDL) for the pollutant(s) that were found to be the cause of the water quality violations. A Total Maximum Daily Load (TMDL) calculates the maximum amount of a specific pollutant that a waterbody can receive and still meet water quality standards.

A TMDL for a given pollutant and waterbody is composed of the sum of individual wasteload allocations (WLAs) for point sources and load allocations (LAs) for nonpoint sources and natural background levels. In addition, the TMDL must include an implicit or explicit margin of safety (MOS) to account for the uncertainty in the relationship between pollutant loads and the quality of the receiving waterbody. The TMDL components are illustrated using the following equation:

$$\text{TMDL} = \sum \text{WLAs} + \sum \text{LAs} + \text{MOS}$$

Pennsylvania has committed to restoring all impaired waters by developing TMDLs and TMDL alternatives for all impaired waterbodies. The TMDL serves as the starting point or planning tool for restoring water quality.

#### **5.4.1.1 Local TMDL**

The subject facility does not discharge into a local TMDL.

#### **5.4.1.2 Chesapeake Bay TMDL Requirement**

The Chesapeake Bay Watershed is a large ecosystem that encompasses approximately 64,000 square miles in Maryland, Delaware, Virginia, West Virginia, Pennsylvania, New York and the District of Columbia. An ecosystem is composed of interrelated parts that interact with each other to form a whole. All of the plants and animals in an ecosystem depend on each other in some way. Every living thing needs a healthy ecosystem to survive. Human activities affect the Chesapeake Bay ecosystem by adding pollution, using resources and changing the character of the land.

Most of the Chesapeake Bay and many of its tidal tributaries have been listed as impaired under Section 303(d) of the federal Water Pollution Control Act ("Clean Water Act"), 33 U.S.C. § 1313(d). While the Chesapeake Bay is outside the boundaries of Pennsylvania, more than half of the State lies within the watershed. Two major rivers in Pennsylvania are part of the Chesapeake Bay Watershed. They are (a) the Susquehanna River and (b) the Potomac River. These two rivers total 40 percent of the entire Chesapeake Bay watershed.

The overall management approach needed for reducing nitrogen, phosphorus and sediment are provided in the Bay TMDL document and the Phase I, II, and III WIPs which is described in the Bay TMDL document and Executive Order 13508.

The Bay TMDL is a comprehensive pollution reduction effort in the Chesapeake Bay watershed identifying the necessary pollution reductions of nitrogen, phosphorus and sediment across the seven Bay watershed jurisdictions of Delaware, Maryland, New York, Pennsylvania, Virginia, West Virginia and the District of Columbia to meet applicable water quality standards in the Bay and its tidal waters.

The Watershed Implementation Plans (WIPs) provides objectives for how the jurisdictions in partnership with federal and local governments will achieve the Bay TMDL's nutrient and sediment allocations.

Phase 3 WIP provides an update on Chesapeake Bay TMDL implementation activities for point sources and DEP's current implementation strategy for wastewater. The latest revision of the supplement was September 13, 2021.

The Chesapeake Bay TMDL (Appendix Q) categorizes point sources into four sectors:

- Sector A- significant sewage dischargers;
- Sector B- significant industrial waste (IW) dischargers;
- Sector C- non-significant dischargers (both sewage and IW facilities); and
- Sector D- combined sewer overflows (CSOs).

All sectors contain a listing of individual facilities with NPDES permits that were believed to be discharging at the time the TMDL was published (2010). All sectors with the exception of the non-significant dischargers have individual wasteload allocations (WLAs) for TN and TP assigned to specific facilities. Non-significant dischargers have a bulk or aggregate allocation for TN and TP based on the facilities in that sector that were believed to be discharging at that time and their estimated nutrient loads.

Cap Loads will be established in permits as Net Annual TN and TP loads (lbs/yr) that apply during the period of October 1 – September 30. For facilities that have received Cap Loads in any other form, the Cap Loads will be modified accordingly when the permits are renewed.

Offsets have been incorporated into Cap Loads in several permits issued to date. From this point forward, permits will be issued with the WLAs as Cap Loads and will identify Offsets separately to facilitate nutrient trading activities and compliance with the TMDL.

Based upon the supplement the subject facility has been categorized as a Sector C discharger. The supplement defines Sector C as a non-significant dischargers include sewage facilities (Phase 4 facilities:  $\geq 0.2$  MGD and  $< 0.4$  MGD and Phase 5 facilities:  $> 0.002$  MGD and  $< 0.2$  MGD), small flow/single residence sewage treatment facilities ( $\leq 0.002$  MGD), and non-significant IW facilities, all of which may be covered by statewide General Permits or may have individual NPDES permits.

At this time, there are approximately 850 Phase 4 and 5 sewage facilities, approximately 715 small flow sewage treatment facilities covered by a statewide General Permit, and approximately 300 non-significant IW facilities.

For Phase 5 sewage facilities with individual permits (average annual design flow on August 29, 2005  $> 0.002$  MGD and  $< 0.2$  MGD), DEP will issue individual permits with monitoring and reporting for TN and TP throughout the permit term at a frequency no less than annually, unless 1) the facility has already conducted at least two years of nutrient monitoring and 2) a summary of the monitoring results are included in the next permit's fact sheet. If, however, Phase 5 facilities choose to expand, the renewed or amended permits will contain Cap Loads based on the lesser of a) existing TN/TP concentrations at current design average annual flow or b) 7,306 lbs/yr TN and 974 lbs/yr TP.

If no data are available to determine existing concentrations for expanding Phase 4 or 5 facilities, default concentrations of 25 mg/l TN and 4 mg/l TP may be used (these are the average estimated concentrations of all non-significant sewage facilities).

DEP will not issue permits to existing Phase 4 and 5 facilities containing Cap Loads unless it is done on a broad scale or unless the facilities are expanding.

For new Phase 4 and 5 sewage discharges, in general DEP will issue new permits containing Cap Loads of "0" and new facilities will be expected to purchase credits and/or apply offsets to achieve compliance, with the exception of small flow and single residence facilities.

**This facility is subject to Sector C monitoring requirements. Monitoring for nitrogen species and phosphorus shall be at least 1x/quarterly.**

### **5.5 Anti-Degradation Requirement**

Chapter 93.4a of the PA regulations requires that surface water of the Commonwealth of Pennsylvania may not be degraded below levels that protect the existing uses. The regulations specifically state that *Existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected*. Antidegradation requirements are implemented through DEP's guidance manual entitled Water Quality Antidegradation Implementation Guidance (Document #391-0300-02).

The policy requires DEP to protect the existing uses of all surface waters and the existing quality of High Quality (HQ) and Exceptional Value (EV) Waters. Existing uses are protected when DEP makes a final decision on any permit or approval for an activity that may affect a protected use. Existing uses are protected based upon DEP's evaluation of the best available information (which satisfies DEP protocols and Quality Assurance/Quality Control (QA/QC) procedures) that indicates the protected use of the waterbody.

For a new, additional, or increased point source discharge to an HQ or EV water, the person proposing the discharge is required to utilize a nondischarge alternative that is cost-effective and environmentally sound when compared with the cost of the proposed discharge. If a nondischarge alternative is not cost-effective and environmentally sound, the person must use the best available combination of treatment, pollution prevention, and wastewater reuse technologies and assure that any discharge is nondegrading. In the case of HQ waters, DEP may find that after satisfaction of intergovernmental coordination and public participation requirements lower water quality is necessary to accommodate important economic or

social development in the area in which the waters are located. In addition, DEP will assure that cost-effective and reasonable best management practices for nonpoint source control in HQ and EV waters are achieved.

**The subject facility's discharge will be to a non-special protection waters and the permit conditions are imposed to protect existing instream water quality and uses. Neither HQ waters or EV waters is impacted by this discharge.**

### **5.6 Anti-Backsliding**

Anti-backsliding is a federal regulation which prohibits a permit from being renewed, reissued, or modified containing effluent limitations which are less stringent than the comparable effluent limitations in the previous permit (40 CFR 122.1.1 and 40 CFR 122.1.2). A review of the existing permit limitations with the proposed permit limitations confirm that the facility is consistent with anti-backsliding requirements. The facility has proposed effluent limitations that are as stringent as the existing permit.

## **6.0 NPDES Parameter Details**

The basis for the proposed sampling and their monitoring frequency that will appear in the permit for each individual parameter are itemized in this Section. The final limits are the more stringent of technology based effluent treatment (TBEL) requirements, water quality based (WQBEL) limits, TMDL, antidegradation, anti-degradation, or WET.

The reader will find in this section:

- a) a justification of recommended permit monitoring requirements and limitations for each parameter in the proposed NPDES permit;
- b) a summary of changes from the existing NPDES permit to the proposed permit; and
- c) a summary of the proposed NPDES effluent limits.

### **6.1 Recommended Monitoring Requirements and Effluent Limitations**

A summary of the recommended monitoring requirements and effluent limitations are itemized in the tables. The tables are categorized by (a) Conventional Pollutants and Disinfection, (b) Nitrogen Species and Phosphorus, (c) Toxics, and (d) Non-Conventional Pollutants, and (e) Chapter 92a.61 targeted parameters

**6.1.1 Conventional Pollutants and Disinfection**

Summary of Proposed NPDES Parameter Details for Conventional Pollutants and Disinfection Bloomfield STP; PA0020478			
Parameter	Permit Limitation Required by <sup>1</sup> :	Recommendation	
pH (S.U.)	TBEL	Monitoring: The monitoring frequency shall be daily as a grab sample (Table 6-3).	
		Effluent Limit: Effluent limits may range from pH = 6.0 to 9.0	
		Rationale: The monitoring frequency has been assigned in accordance with Table 6-3 and the effluent limits assigned by Chapter 95.2(1).	
Dissolved Oxygen	BPJ	Monitoring: The monitoring frequency shall be daily as a grab sample (Table 6-3).	
		Effluent Limit: Effluent limits shall be greater than 5.0 mg/l.	
		Rationale: The monitoring frequency has been assigned in accordance with Table 6-3 and the effluent limits assigned by best professional judgement.	
CBOD	TBEL	Monitoring: The monitoring frequency shall be 1x/wk as an 8-hr composite sample (Table 6-3).	
		Effluent Limit: Effluent limits shall not exceed 52 lbs/day and 25 mg/l as an average monthly.	
		Rationale: The monitoring frequency has been assigned in accordance with Table 6-3 and the effluent limits assigned by Chapter 92a.47(a)(1). WQM modeling indicates that the TBEL is more stringent than the WQBEL. Thus, the permit limit is confined to TBEL.	
TSS	TBEL	Monitoring: The monitoring frequency shall be 1x/wk as an 8-hr composite sample (Table 6-3).	
		Effluent Limit: Effluent limits shall not exceed 62 lbs/day and 30 mg/l as an average monthly.	
		Rationale: The monitoring frequency has been assigned in accordance with Table 6-3 and the effluent limits assigned by Chapter 92a.47(a)(1). While there is no WQM modeling for this parameter, the permit limit for TSS is generally assigned similar effluent limits as CBOD or BOD.	
UV disinfection	SOP	Monitoring: The monitoring frequency is 1x/day. The facility will be required to recording the UV transmittance.	
		Effluent Limit: No effluent requirements.	
		Rationale: Consistent with the SOP- Establishing Effluent Limitations for Individual Sewage Permits (Revised January 10, 2019), the facility will be required to have routine monitoring for UV transmittance, UV dosage, or UV intensity.	
Fecal Coliform	TBEL	Monitoring: The monitoring frequency shall be 1x/wk as a grab sample (Table 6-3).	
		Effluent Limit: Summer effluent limits shall not exceed 200 No./100 mL as a geometric mean. Winter effluent limits shall not exceed 2000 No./100 mL as a geometric mean.	
		Rationale: The monitoring frequency has been assigned in accordance with Table 6-3 and the effluent limits assigned by Chapter 92a.47(a)(4) and 92a.47(a)(5).	
<b>Notes:</b>			
1 The NPDES permit was limited by (a) anti-Backsliding, (b) Anti-Degradation, (c) SOP, (d) TBEL, (e) TMDL, (f) WQBEL, (g) WET, or (h) Other			
2 Monitoring frequency based on flow rate of 0.25 MGD.			
3 Table 6-3 (Self Monitoring Requirements for Sewage Discharges) in Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits (Document # 362-0400-001) Revised 10/97			
4 Water Quality Antidegradation Implementation Guidance (Document # 391-0300-002)			
5 Chesapeake Bay Phase 3 Watershed Implementation Plan Wastewater Supplement, Revised September 13, 2021			

**6.1.2 Nitrogen Species and Phosphorus**

**Summary of Proposed NPDES Parameter Details for Nitrogen Species and Phosphorus**

**Bloomfield STP; PA0020478**

Parameter	Permit Limitation Required by <sup>1</sup> :	Recommendation	
Ammonia-Nitrogen	WQBEL/Anti-backsliding	Monitoring:	The monitoring frequency shall be 1x/wk as an 8-hr composite sample
		Effluent Limit:	During the months of May 1 to Oct 31, effluent limits shall not exceed 6.0 lbs/day and 3.0 mg/l as an average monthly. During the months of Nov 1 to Apr 30, effluent limits shall not exceed 18 lbs/day and 9.0 mg/l as an average monthly.
		Rationale:	Due to anti-backsliding provisions, the current permit limit shall continue to the proposed permit.
Nitrate-Nitrite as N	Chesapeake Bay TMDL	Monitoring:	The monitoring frequency shall be 1x/quarter as an 8-hr composite sample
		Effluent Limit:	No effluent requirements.
		Rationale:	Due to the Chesapeake Bay Implementation Plan, the facility is required to be monitored on a frequency at least 1x/quarter
Total Nitrogen	Chesapeake Bay TMDL	Monitoring:	The monitoring frequency shall be 1x/quarter as an 8-hr composite sample
		Effluent Limit:	No effluent requirements.
		Rationale:	Due to the Chesapeake Bay Implementation Plan, the facility is required to be monitored on a frequency at least 1x/quarter
TKN	Chesapeake Bay TMDL	Monitoring:	The monitoring frequency shall be 1x/quarter as an 8-hr composite sample
		Effluent Limit:	No effluent requirements.
		Rationale:	Due to the Chesapeake Bay Implementation Plan, the facility is required to be monitored on a frequency at least 1x/quarter
Total Phosphorus	Chesapeake Bay TMDL	Monitoring:	The monitoring frequency shall be 1x/quarter as an 8-hr composite sample
		Effluent Limit:	No effluent requirements.
		Rationale:	Due to the Chesapeake Bay Implementation Plan, the facility is required to be monitored on a frequency at least 1x/quarter

**Notes:**

1 The NPDES permit was limited by (a) anti-Backsliding, (b) Anti-Degradation, (c) SOP, (d) TBEL, (e) TMDL, (f) WQBEL, (g) WET, or (h) Other  
2 Monitoring frequency based on flow rate of 0.25 MGD.

3 Table 6-3 (Self Monitoring Requirements for Sewage Discharges) in Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits (Document # 362-0400-001) Revised 10/97

4 Water Quality Antidegradation Implementaton Guidance (Document # 391-0300-002)

5 Chesapeake Bay Phase 3 Watershed Implementation Plan Wastewater Supplement, Revised September 13, 2021

### **6.1.3 Toxics**

Two modeling runs were completed for toxics.

Run #1 utilized monitoring results reported in the NPDES renewal application

Run #2 utilized DMR data collected from January 2021 to April 2025. Elevated levels of copper and lead were observed in the October 2023 DMR. The operator stated that water line repairs may have attributed to the elevated levels. The October 2023 DMR data was considered outliers and excluded from calculating the maximum values for the data set.

In either Run #1 and Run #2, effluent limits for lead and zinc were recommended by TMS.

Based upon the DMR from September 2024 to August 2025, the facility should be able to meet the proposed effluent limits for lead and zinc.

#### **Summary of Proposed NPDES Parameter Details for Toxics**

#### **Bloomfield STP; PA0020478**

Parameter	Permit Limitation Required by <sup>1</sup> :	Recommendation
Total Copper	WQBEL	Monitoring: The monitoring frequency shall be 1x/quarter as an 8-hr composite sample
		Effluent Limit: No effluent limit requirements
		Rationale: Toxics Management Spreadsheet recommends monitoring.
Total Lead	WQBEL	Monitoring: The monitoring frequency shall be 1x/mo as an 8-hr composite sample
		Effluent Limit: Effluent limits shall not exceed 0.059 lbs/day and 0.028 mg/l as an average monthly.
		Rationale: Toxics Management Spreadsheet recommends effluent limits
Total Zinc	WQBEL	Monitoring: The monitoring frequency shall be 1x/mo as an 8-hr composite sample
		Effluent Limit: Effluent limits shall not exceed 1.39 lbs/day and 0.66 mg/l as an average monthly.
		Rationale: Toxics Management Spreadsheet recommends effluent limits. Due to an update on the Q710, the proposed permit limit is less stringent than the current permit limit

Notes:

1 The NPDES permit was limited by (a) anti-Backsliding, (b) Anti-Degradation, (c) SOP, (d) TBEL, (e) TMDL, (f) WQBEL, (g) WET, or (h) Other  
2 Monitoring frequency based on flow rate of 0.25 MGD.

3 Table 6-3 (Self Monitoring Requirements for Sewage Discharges) in Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits (Document # 362-0400-001) Revised 10/97

4 Water Quality Antidegradation Implementation Guidance (Document # 391-0300-002)

5 Chesapeake Bay Phase 3 Watershed Implementation Plan Wastewater Supplement, Revised September 13, 2021

### **6.1.3.1 Implementation of Regulation- Chapter 92a.61**

Chapter 92a.61 provides provisions to DEP to monitor for pollutants that may have an impact on the quality of waters of the Commonwealth.

Based upon DEP policy directives the following pollutants shall be monitored:

- Consistent with DEP Management directives issued on March 22, 2021 and in conjunction with EPA's 2017 Triennial Review, monitoring for E. Coli shall be required. The monitoring frequency is based upon flow rate.

<b>Summary of Proposed NPDES Parameter Details for pollutants monitored under Chapter 92a.61</b> <b>Bloomfield STP; PA0020478</b>		
<b>Parameter</b>	<b>Permit Limitation Required by<sup>1</sup>:</b>	<b>Recommendation</b>
E. Coli	SOP; Chapter 92a.61	<p>Monitoring: The monitoring frequency shall be 1x/quarter as a grab sample (SOP).</p> <p>Effluent Limit: No effluent requirements.</p> <p>Rationale: Consistent with the SOP- Establishing Effluent Limitations for Individual Sewage Permits (Revised February 5, 2024) and under the authority of Chapter 92a.61, the facility will be required to monitor for E.Coli.</p>
Notes:		
1 The NPDES permit was limited by (a) anti-Backsliding, (b) Anti-Degradation, (c) SOP, (d) TBEL, (e) TMDL, (f) WQBEL, (g) WET, or (h) Other		
2 Monitoring frequency based on flow rate of 0.25 MGD.		
3 Table 6-3 (Self Monitoring Requirements for Sewage Discharges) in Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits (Document # 362-0400-001) Revised 10/97		
4 Water Quality Antidegradation Implementation Guidance (Document # 391-0300-002)		
5 Chesapeake Bay Phase 3 Watershed Implementation Plan Wastewater Supplement, Revised September 13, 2021		

### **6.2 Summary of Changes From Existing Permit to Proposed Permit**

A summary of how the proposed NPDES permit differs from the existing NPDES permit is summarized as follows.

- Monitoring for nitrogen species and phosphorus have been reduced to quarterly.
- Due to the EPA triennial review, monitoring for E.Coli shall be required.
- Monitoring and effluent limits shall be required for Total Lead and Total Zinc

**6.3.1 Summary of Proposed NPDES Effluent Limits**

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (362-0400-001), SOPs and/or BPJ.

The proposed NPDES effluent limitations are summarized in the table below.

**PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS**

I. A. For Outfall 001, Latitude 40° 25' 1.97", Longitude 77° 10' 55.34", River Mile Index 0.86, Stream Code 11404

Receiving Waters: Unnamed Tributary to Trout Run (CWF)

Type of Effluent: Sewage Effluent

1. The permittee is authorized to discharge during the period from Permit Effective Date through Permit Expiration Date.
2. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements and Footnotes).

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	Instantaneous Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Flow (MGD)	Report	Daily Max	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
Dissolved Oxygen	XXX	XXX	5.0	XXX	XXX	XXX	1/day	Grab
Carbonaceous Biochemical Oxygen Demand (CBOD5)	52	83	XXX	25	40	50	1/week	8-Hr Composite
Biochemical Oxygen Demand (BOD5)	Report	Report Daily Max	XXX	Report	XXX	XXX	1/week	8-Hr Composite
Raw Sewage Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	1/week	8-Hr Composite
Total Suspended Solids Raw Sewage Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	1/week	8-Hr Composite
Total Suspended Solids	62	93	XXX	30	45	60	1/week	8-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	1/week	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	1/week	Grab
E. Coli (No./100 ml)	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/quarter	Grab
Ultraviolet light transmittance (%)	XXX	XXX	Report	XXX	XXX	XXX	1/day	Measured

Outfall 001, Continued (from 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	Instantaneous Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Nitrate-Nitrite as N	XXX	XXX	XXX	Report Avg <del>Qrtly</del>	XXX	XXX	1/quarter	8-Hr Composite
Total Nitrogen	XXX	XXX	XXX	Report Avg <del>Qrtly</del>	XXX	XXX	1/quarter	Calculation
Ammonia-Nitrogen Nov 1 - Apr 30	18.0	XXX	XXX	9.0	XXX	18	1/week	8-Hr Composite
Ammonia-Nitrogen May 1 - Oct 31	6.0	XXX	XXX	3.0	XXX	6	1/week	8-Hr Composite
Total Kjeldahl Nitrogen	XXX	XXX	XXX	Report Avg <del>Qrtly</del>	XXX	XXX	1/quarter	8-Hr Composite
Total Phosphorus	XXX	XXX	XXX	Report Avg <del>Qrtly</del>	XXX	XXX	1/quarter	8-Hr Composite
Copper, Total	XXX	XXX	XXX	Report Avg <del>Qrtly</del>	XXX	XXX	1/quarter	8-Hr Composite
Lead, Total	0.059	XXX	XXX	0.028	0.044 Daily Max	0.071	1/month	8-Hr Composite
Zinc, Total	1.39	XXX	XXX	0.66	1.03 Daily Max	1.66	1/month	8-Hr Composite

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

at Outfall 001

### **6.3.2 Summary of Proposed Permit Part C Conditions**

The subject facility has the following Part C conditions.

- SBR Batch Discharge Condition
- UV Monitoring Conditions
- Peak Flow Management Plan
- Hauled-in Waste Restrictions
- Chesapeake Bay Nutrient Definitions
- Solids Management for Non-Lagoon Treatment Systems

Tools and References Used to Develop Permit	
<input checked="" type="checkbox"/>	WQM for Windows Model (see Attachment [REDACTED])
<input checked="" type="checkbox"/>	Toxics Management Spreadsheet (see Attachment [REDACTED])
<input 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 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 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 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 type="checkbox"/>	Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, 4/07.
<input checked="" type="checkbox"/>	SOP: [REDACTED]
<input type="checkbox"/>	Other: [REDACTED]

# Attachment A

## Stream Stats/Gauge Data

14 Selected Streamflow Statistics for Streamgage Locations in and near Pennsylvania

Table 1. List of U.S. Geological Survey streamgage locations in and near Pennsylvania with updated streamflow statistics.—Continued  
[Latitude and Longitude in decimal degrees; mi<sup>2</sup>, square miles]

Streamgage number	Streamgage name	Latitude	Longitude	Drainage area (mi <sup>2</sup> )	Regulated <sup>1</sup>
01561000	Brush Creek at Gapsville, Pa.	39.956	-78.254	36.8	N
01562000	Raystown Branch Juniata River at Saxton, Pa.	40.216	-78.265	756	N
01562500	Great Trough Creek near Marklesburg, Pa.	40.350	-78.130	84.6	N
01563200	Raystown Branch Juniata River below Rays Dam nr Huntingdon, Pa.	40.429	-77.991	960	Y
01563500	Juniata River at Mapleton Depot, Pa.	40.392	-77.935	2,030	Y
01564500	Aughwick Creek near Three Springs, Pa.	40.213	-77.925	205	N
01565000	Kishacoquillas Creek at Reedsville, Pa.	40.655	-77.583	164	N
01565700	Little Lost Creek at Oakland Mills, Pa.	40.605	-77.311	6.52	N
01566000	Tuscarora Creek near Port Royal, Pa.	40.515	-77.419	214	N
01566500	Cocolamus Creek near Millerstown, Pa.	40.566	-77.118	57.2	N
01567000	Juniata River at Newport, Pa.	40.478	-77.129	3,354	Y
01567500	Bixler Run near Loysville, Pa.	40.371	-77.402	15.0	N
01568000	Sherman Creek at Shermans Dale, Pa.	40.323	-77.169	207	N
01568500	Clark Creek near Carsonville, Pa.	40.460	-76.751	22.5	LF
01569000	Stony Creek nr Dauphin, Pa.	40.380	-76.907	33.2	N
01569800	Letort Spring Run near Carlisle, Pa.	40.235	-77.139	21.6	N
01570000	Conodoguinet Creek near Hogestown, Pa.	40.252	-77.021	470	LF
01570500	Susquehanna River at Harrisburg, Pa.	40.255	-76.886	24.100	Y
01571000	Paxton Creek near Penbrook, Pa.	40.308	-76.850	11.2	N
01571500	Yellow Breeches Creek near Camp Hill, Pa.	40.225	-76.898	213	N
01572000	Lower Little Swatara Creek at Pine Grove, Pa.	40.538	-76.377	34.3	N
01572025	Swatara Creek near Pine Grove, Pa.	40.533	-76.402	116	N
01572190	Swatara Creek near Inwood, Pa.	40.479	-76.531	167	N
01573000	Swatara Creek at Harper Tavern, Pa.	40.403	-76.577	337	N
01573086	Beck Creek near Cleona, Pa.	40.323	-76.483	7.87	N
01573160	Quittapahilla Creek near Bellefonte, Pa.	40.343	-76.562	74.2	N
01573500	Manada Creek at Manada Gap, Pa.	40.397	-76.709	13.5	N
01573560	Swatara Creek near Hershey, Pa.	40.298	-76.668	483	N
01574000	West Conewago Creek near Manchester, Pa.	40.082	-76.720	510	N
01574500	Codorus Creek at Spring Grove, Pa.	39.879	-76.853	75.5	Y
01575000	South Branch Codorus Creek near York, Pa.	39.921	-76.749	117	Y
01575500	Codorus Creek near York, Pa.	39.946	-76.755	222	Y
01576000	Susquehanna River at Marietta, Pa.	40.055	-76.531	25,990	Y
01576085	Little Conestoga Creek near Churchtown, Pa.	40.145	-75.989	5.82	N
01576500	Conestoga River at Lancaster, Pa.	40.050	-76.277	324	N
01576754	Conestoga River at Conestoga, Pa.	39.946	-76.368	470	N
01578310	Susquehanna River at Conowingo, Md.	39.658	-76.174	27,100	Y
01578400	Bowery Run near Quarryville, Pa.	39.895	-76.114	5.98	N
01580000	Deer Creek at Rocks, Md.	39.630	-76.403	94.4	N
01581500	Bynum Run at Bel Air, Md.	39.541	-76.330	8.52	N
01581700	Winters Run near Benson, Md.	39.520	-76.373	34.8	N
01582000	Little Falls at Blue Mount, Md.	39.604	-76.620	52.9	N
01582500	Gunpowder Falls at Glenco, Md.	39.550	-76.636	160	Y
01583000	Slade Run near Glyndon, Md.	39.495	-76.795	2.09	N
01583100	Piney Run at Dover, Md.	39.521	-76.767	12.3	N

Table 2 27

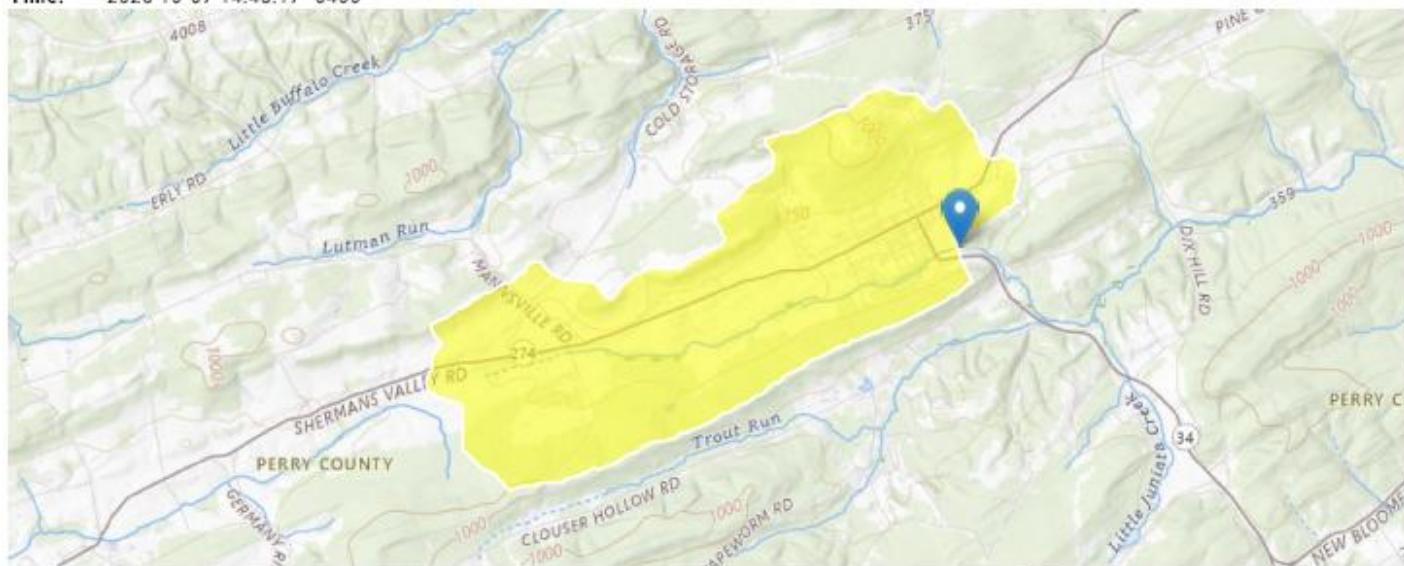
Table 2. Selected low-flow statistics for streamgage locations in and near Pennsylvania.—Continued

[ft<sup>3</sup>/s; cubic feet per second; —, statistic not computed; <, less than]

Streamgage number	Period of record used in analysis <sup>1</sup>	Number of years used in analysis	1-day, 10-year (ft <sup>3</sup> /s)	7-day, 10-year (ft <sup>3</sup> /s)	7-day, 2-year (ft <sup>3</sup> /s)	30-day, 10-year (ft <sup>3</sup> /s)	30-day, 2-year (ft <sup>3</sup> /s)	90-day, 10-year (ft <sup>3</sup> /s)
01565000	1941–2008	37	17.6	18.6	28.6	20.3	32.4	24.4
01565700	1965–1981	17	.4	.4	.9	.5	1.1	.8
01566000	1913–2008	52	4.3	7.9	18.8	12.4	25.6	19.2
01566500	1932–1958	27	1.7	2.4	4.0	3.2	5.7	4.9
01567000	<sup>2</sup> 1974–2008	35	504	534	725	589	857	727
01567000	<sup>3</sup> 1901–1972	72	311	367	571	439	704	547
01567500	1955–2008	54	2.0	2.2	3.3	2.6	3.8	3.1
01568000	1931–2008	78	12.7	15.5	25.5	19.2	32.0	26.0
01568500	<sup>2</sup> 1943–1997	55	1.8	2.3	4.3	2.7	5.0	3.1
01569000	1939–1974	14	2.6	4.0	7.4	5.1	9.4	7.8
01569800	1978–2008	31	15.9	17.0	24.4	18.4	26.1	20.3
01570000	<sup>3</sup> 1913–1969	35	—	63.1	110	76.1	124	95.3
01570000	<sup>2</sup> 1971–2008	38	63.1	69.3	109	78.3	125	97.8
01570500	<sup>3</sup> 1901–1972	72	2,310	2,440	4,000	2,830	4,950	3,850
01570500	<sup>2</sup> 1974–2008	35	3,020	3,200	5,180	3,690	6,490	4,960
01571000	1941–1995	16	.1	.2	.6	.3	1.2	.8
01571500	1911–2008	62	81.6	86.8	115	94.0	124	105
01572000	1921–1984	14	2.1	2.3	4.8	3.0	6.5	4.5
01572025	1990–2008	17	15.2	16.4	26.7	18.5	34.6	27.7
01572190	1990–2008	17	19.1	20.5	36.2	23.9	45.8	35.3
01573000	1920–2008	89	18.0	22.0	52.0	30.8	69.2	50.9
01573086	1965–1981	17	.5	.6	2.6	.8	3.3	1.1
01573160	1977–1994	18	26.9	29.6	46.4	33.6	51.9	39.5
01573500	1939–1958	20	1.3	1.4	2.5	1.8	3.2	2.6
01573560	1977–2008	30	50.3	62.0	104	76.9	131	108
01574000	1930–2008	79	8.0	11.1	32.0	17.7	47.0	33.9
01574500	<sup>2</sup> 1968–2008	41	14.2	24.0	35.9	29.4	42.0	33.3
01574500	<sup>3</sup> 1930–1966	34	2.3	7.1	11.5	9.3	14.8	12.7
01575000	<sup>2</sup> 1973–1995	23	.7	1.4	6.7	3.2	12.0	9.3
01575000	<sup>3</sup> 1929–1971	43	.1	.6	10.3	2.3	15.0	6.1
01575500	<sup>2</sup> 1948–1996	49	12.1	18.7	41.3	23.9	50.0	33.8
01576000	<sup>3</sup> 1933–1972	40	2,100	2,420	4,160	2,960	5,130	4,100
01576000	<sup>2</sup> 1974–2008	35	2,990	3,270	5,680	3,980	7,180	5,540
01576085	1984–1995	12	.4	.5	.8	.7	1.2	1.2
01576500	1931–2008	78	27.2	38.6	79.4	49.1	97.3	66.1
01576754	1986–2008	23	74.2	84.9	151	106	189	147
*01578310	1969–2008	40	549	2,820	5,650	4,190	7,380	6,140
01578400	1964–1981	18	1.4	1.5	2.7	1.9	3.2	2.5
*01580000	1928–2008	81	19.7	22.8	48.1	28.1	51.8	35.4
*01581500	1946–2008	28	.2	.3	1.2	.8	1.7	1.5
*01581700	1969–2008	40	4.7	5.5	17.5	8.1	18.3	12.0
*01582000	1946–2008	63	11.3	12.5	25.0	15.5	28.0	20.3
*01582500	1979–2008	27	41.2	43.9	78.8	53.8	90.6	74.1
*01583000	1949–1981	33	.3	.3	.7	.3	1.0	.6
*01583100	1984–2008	15	2.1	2.4	5.5	3.2	6.0	4.2

## StreamStats Report

Region ID: PA  
Workspace ID: PA20251007184756130000  
Clicked Point (Latitude, Longitude): 40.41714, -77.18207  
Time: 2025-10-07 14:48:17 -0400



Bloomfield Borough WWTP PA0020478 Modeling Point #1 October 2025

[Collapse All](#)

### Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
CARBON	Percentage of area of carbonate rock	38.3	percent
DRNAREA	Area that drains to a point on a stream	4.56	square miles
PRECIP	Mean Annual Precipitation	41	inches
ROCKDEP	Depth to rock	5.7	feet
STRDEN	Stream Density – total length of streams divided by drainage area	0.84	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	38.3	percent	0	99
DRNAREA	Drainage Area	4.56	square miles	4.93	1280
PRECIP	Mean Annual Precipitation	41	inches	35	50.4
ROCKDEP	Depth to Rock	5.7	feet	3.32	5.65
STRDEN	Stream Density	0.84	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	2.11	ft^3/s
30 Day 2 Year Low Flow	2.35	ft^3/s
7 Day 10 Year Low Flow	1.48	ft^3/s
30 Day 10 Year Low Flow	1.59	ft^3/s
90 Day 10 Year Low Flow	1.91	ft^3/s

*Low-Flow Statistics Citations*

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

USGS Data Disclaimer: Unless otherwise stated, all data, metadata and related materials are considered to satisfy the quality standards relative to the purpose for which the data were collected. Although these data and associated metadata have been reviewed for accuracy and completeness and approved for release by the U.S. Geological Survey (USGS), no warranty expressed or implied is made regarding the display or utility of the data for other purposes, nor on all computer systems, nor shall the act of distribution constitute any such warranty.

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Application Version: 4.29.3

StreamStats Services Version: 1.2.22

NSS Services Version: 2.2.1

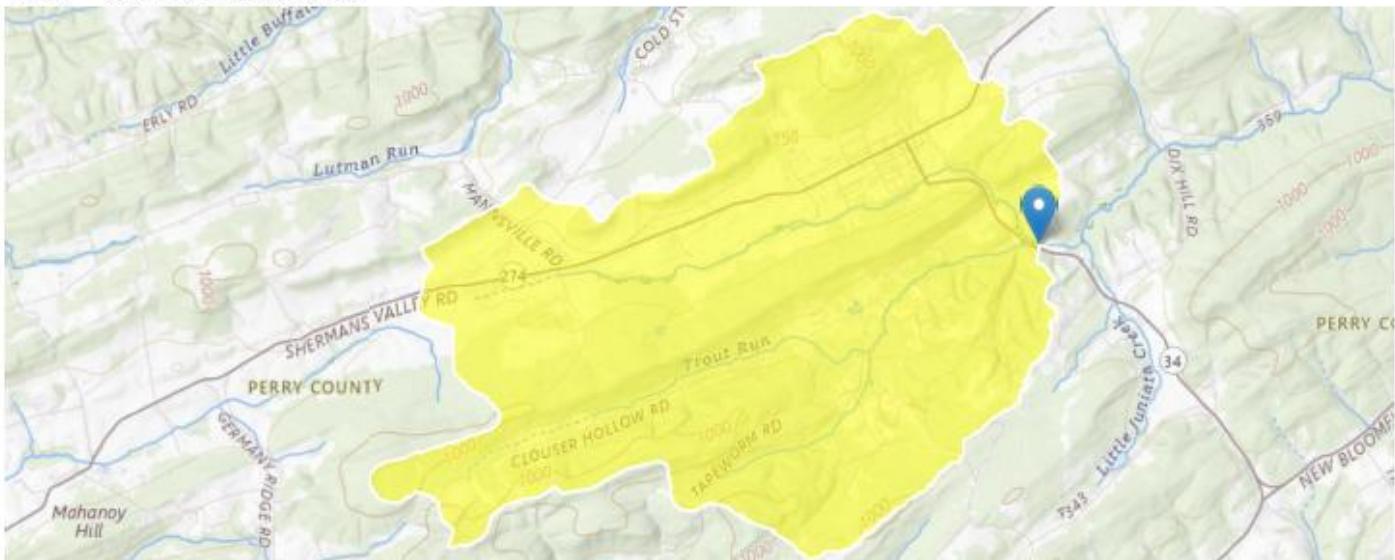
## StreamStats Report

Region ID: PA

Workspace ID: PA20251007185201713000

Clicked Point (Latitude, Longitude): 40.41011, -77.17080

Time: 2025-10-07 14:52:39 -0400



Bloomfield Borough WWTP PA0020478 Modeling Point #2 October 2025

[Collapse All](#)

### Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
CARBON	Percentage of area of carbonate rock	18.82	percent
DRNAREA	Area that drains to a point on a stream	9.57	square miles
PRECIP	Mean Annual Precipitation	41	inches
ROCKDEP	Depth to rock	5.4	feet
STRDEN	Stream Density -- total length of streams divided by drainage area	1.38	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	18.82	percent	0	99
DRNAREA	Drainage Area	9.57	square miles	4.93	1280
PRECIP	Mean Annual Precipitation	41	inches	35	50.4
ROCKDEP	Depth to Rock	5.4	feet	3.32	5.65
STRDEN	Stream Density	1.38	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, Pseudo R<sup>2</sup>: Pseudo R Squared (other -- see report)

Statistic	Value	Unit	SE	ASEp
7 Day 2 Year Low Flow	2.2	ft <sup>3</sup> /s	38	38
30 Day 2 Year Low Flow	2.65	ft <sup>3</sup> /s	33	33
7 Day 10 Year Low Flow	1.37	ft <sup>3</sup> /s	51	51
30 Day 10 Year Low Flow	1.59	ft <sup>3</sup> /s	46	46
90 Day 10 Year Low Flow	2.08	ft <sup>3</sup> /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/>)**

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Application Version: 4.29.3

StreamStats Services Version: 1.2.22

NSS Services Version: 2.2.1

## Attachment B

# WQM 7.0 Modeling Output Values Toxics Management Spreadsheet Output Values

### WQM 7.0 Effluent Limits

<u>SWP Basin</u>	<u>Stream Code</u>	<u>Stream Name</u>					
07A	11404	Trib 11404 to Trout Run					
RMI	Name	Permit Number	Disc Flow (mgd)	Parameter	Effl. Limit 30-day Ave. (mg/L)	Effl. Limit Maximum (mg/L)	Effl. Limit Minimum (mg/L)
0.860	Bloomfield STP	PA0020478	0.250	CBOD5	25		
				NH3-N	5.99	11.98	
				Dissolved Oxygen			5

Document was last saved: Just now

**WQM 7.0 Wasteload Allocations**

<u>SWP Basin</u>	<u>Stream Code</u>	<u>Stream Name</u>
07A	11404	Trib 11404 to Trout Run

**NH3-N Acute Allocation**

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
0.860	Bloomfield STP	3.35	25.83	3.35	25.83	0	0

**NH3-N Chronic Allocation**

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
0.860	Bloomfield STP	.65	5.99	.65	5.99	0	0

**Dissolved Oxygen Allocation**

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		
0.86	Bloomfield STP	25	25	5.99	5.99	5	5	0	0

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
07A	11404	Trib 11404 to Trout Run		0.860	640.00	4.56	0.00000	0.00	<input checked="" type="checkbox"/>
<b>Stream Data</b>									
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 pH
Q7-10	0.605	0.00	0.00	0.000	0.000	0.0	0.00	0.00	23.75 8.25
Q1-10		0.00	0.00	0.000	0.000				
Q30-10		0.00	0.00	0.000	0.000				
<b>Discharge Data</b>									
	Name	Permit Number	Existing Disc Flow (mgd)	Permittee d Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH	
	Bloomfield STP	PA0020478	0.2500	0.2500	0.2500	0.000	25.00	7.24	
<b>Parameter Data</b>									
	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
07A	11404	Trib 11404 to Trout Run	0.000	606.00	9.57	0.00000	0.00	<input checked="" type="checkbox"/>

Stream Data

Design Cond.	LFY	Trib Flow	Stream Flow	Rch Trav Time	Rch Velocity	WD Ratio	Rch Width	Rch Depth	Tributary Temp	Stream pH	Temp	pH
	(cfsm)	(cfs)	(cfs)	(days)	(fps)		(ft)	(ft)		(°C)		
Q7-10	0.605	0.00	0.00	0.000	0.000	0.0	0.00	0.00	23.75	8.25	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)
		0.0000	0.0000	0.0000	0.000	25.00
Parameter Data						
Parameter Name		Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)	
CBOD5		25.00	2.00	0.00	1.50	
Dissolved Oxygen		3.00	8.24	0.00	0.00	
NH3-N		25.00	0.00	0.00	0.70	

## WQM 7.0 D.O.Simulation

<u>SWP Basin</u>	<u>Stream Code</u>	<u>Stream Name</u>		
07A	11404	Trib 11404 to Trout Run		
<u>RMI</u>		<u>Total Discharge Flow (mgd)</u>	<u>Analysis Temperature (°C)</u>	<u>Analysis pH</u>
0.860		0.250	23.904	7.921
<u>Reach Width (ft)</u>		<u>Reach Depth (ft)</u>	<u>Reach WDRatio</u>	<u>Reach Velocity (fps)</u>
17.964		0.592	30.325	0.296
<u>Reach CBOD5 (mg/L)</u>		<u>Reach Kc (1/days)</u>	<u>Reach NH3-N (mg/L)</u>	<u>Reach Kn (1/days)</u>
4.83		0.898	0.74	0.945
<u>Reach DO (mg/L)</u>		<u>Reach Kr (1/days)</u>	<u>Kr Equation</u>	<u>Reach DO Goal (mg/L)</u>
7.844		23.071	Tsivoglou	5
<u>Reach Travel Time (days)</u>		<u>Subreach Results</u>		
0.178		TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)
				D.O. (mg/L)
		0.018	4.74	0.72
		0.036	4.65	0.71
		0.053	4.56	0.70
		0.071	4.47	0.69
		0.089	4.39	0.68
		0.107	4.30	0.67
		0.124	4.22	0.65
		0.142	4.14	0.64
		0.160	4.07	0.63
		0.178	3.99	0.62

WQM 7.0 Hydrodynamic Outputs

<u>SWP Basin</u>			<u>Stream Code</u>			<u>Stream Name</u>							
07A			11404			Trib 11404 to Trout Run							
RMI	Stream Flow	PWS With	Net Stream Flow (cfs)	Disc Analysis Flow (cfs)	Reach Slope (ft/ft)	Depth (ft)	Width (ft)	W/D Ratio	Velocity	Reach Trav Time (days)	Analysis Temp (°C)	Analysis pH	
<b>Q7-10 Flo</b>													
0.860	2.76	0.00	2.76	.3868	0.00749	.592	17.96	30.33	0.30	0.178	23.90	7.92	
<b>Q1-10 Flo</b>													
0.860	2.59	0.00	2.59	.3868	0.00749	NA	NA	NA	0.29	0.183	23.91	7.91	
<b>Q30-10 Flo</b>													
0.860	3.17	0.00	3.17	.3868	0.00749	NA	NA	NA	0.32	0.166	23.89	7.95	

## WQM 7.0 Modeling Specifications

Parameters	Both	Use Inputted Q1-10 and Q30-10 Flows	<input type="checkbox"/>
WLA Method	EMPR	Use Inputted W/D Ratio	<input type="checkbox"/>
Q1-10/Q7-10 Ratio	0.94	Use Inputted Reach Travel Times	<input type="checkbox"/>
Q30-10/Q7-10 Ratio	1.15	Temperature Adjust Kr	<input checked="" type="checkbox"/>
D.O. Saturation	90.00%	Use Balanced Technology	<input checked="" type="checkbox"/>
D.O. Goal	5		



## Discharge Information

Run #1

Instructions Discharge Stream

Facility: Bloomfield Borough WWTP      NPDES Permit No.: PA0020478      Outfall No.: 001

Evaluation Type: Major Sewage / Industrial Waste      Wastewater Description: Sewage effluent

Discharge Characteristics								
Design Flow (MGD)*	Hardness (mg/l)*	pH (SU)*	Partial Mix Factors (PMFs)			Complete Mix Times (min)		
			AFC	CFC	THH	CRL	Q <sub>7-10</sub>	Q <sub>h</sub>
0.25	100	7.24						

	Discharge Pollutant	Units	Max Discharge Conc	0 if left blank		0.5 if left blank		0 if left blank		1 if left blank		
				Trib Conc	Stream Conc	Daily CV	Hourly CV	Stream CV	Fate Coeff	FOS	Criteri a Mod	Chem Transl
Group 1	Total Dissolved Solids (PWS)	mg/L	110									
	Chloride (PWS)	mg/L	174									
	Bromide	mg/L	< 2.5									
	Sulfate (PWS)	mg/L	64.3									
	Fluoride (PWS)	mg/L										
Group 2	Total Aluminum	µg/L										
	Total Antimony	µg/L										
	Total Arsenic	µg/L										
	Total Barium	µg/L										
	Total Beryllium	µg/L										
	Total Boron	µg/L										
	Total Cadmium	µg/L										
	Total Chromium (III)	µg/L										
	Hexavalent Chromium	µg/L										
	Total Cobalt	µg/L										
	Total Copper	µg/L	< 15									
	Free Cyanide	µg/L										
	Total Cyanide	µg/L										
	Dissolved Iron	µg/L										
	Total Iron	µg/L										
	Total Lead	µg/L	< 44									
	Total Manganese	µg/L										
	Total Mercury	µg/L										
	Total Nickel	µg/L										
	Total Phenols (Phenolics) (PWS)	µg/L										
	Total Selenium	µg/L										
	Total Silver	µg/L										
	Total Thallium	µg/L										
	Total Zinc	µg/L	920									
	Total Molybdenum	µg/L										
	Acrolein	µg/L	<									
	Acrylamide	µg/L	<									
	Acrylonitrile	µg/L	<									
	Benzene	µg/L	<									
	Bromoform	µg/L	<									

Carbon Tetrachloride	µg/L	<												
Chlorobenzene	µg/L	<												
Chlorodibromomethane	µg/L	<												
Chloroethane	µg/L	<												
2-Chloroethyl Vinyl Ether	µg/L	<												
Chloroform	µg/L	<												
Dichlorobromomethane	µg/L	<												
1,1-Dichloroethane	µg/L	<												
1,2-Dichloroethane	µg/L	<												
1,1-Dichloroethylene	µg/L	<												
1,2-Dichloropropane	µg/L	<												
1,3-Dichloropropylene	µg/L	<												
1,4-Dioxane	µg/L	<												
Ethylbenzene	µg/L	<												
Methyl Bromide	µg/L	<												
Methyl Chloride	µg/L	<												
Methylene Chloride	µg/L	<												
1,1,2,2-Tetrachloroethane	µg/L	<												
Tetrachloroethylene	µg/L	<												
Toluene	µg/L	<												
1,2-trans-Dichloroethylene	µg/L	<												
1,1,1-Trichloroethane	µg/L	<												
1,1,2-Trichloroethane	µg/L	<												
Trichloroethylene	µg/L	<												
Vinyl Chloride	µg/L	<												
2-Chlorophenol	µg/L	<												
2,4-Dichlorophenol	µg/L	<												
2,4-Dimethylphenol	µg/L	<												
4,6-Dinitro-o-Cresol	µg/L	<												
2,4-Dinitrophenol	µg/L	<												
2-Nitrophenol	µg/L	<												
4-Nitrophenol	µg/L	<												
p-Chloro-m-Cresol	µg/L	<												
Pentachlorophenol	µg/L	<												
Phenol	µg/L	<												
2,4,6-Trichlorophenol	µg/L	<												
Acenaphthene	µg/L	<												
Acenaphthylene	µg/L	<												
Anthracene	µg/L	<												
Benzidine	µg/L	<												
Benzo(a)Anthracene	µg/L	<												
Benzo(a)Pyrene	µg/L	<												
3,4-Benzofluoranthene	µg/L	<												
Benzo(ghi)Perylene	µg/L	<												
Benzo(k)Fluoranthene	µg/L	<												
Bis(2-Chloroethoxy)Methane	µg/L	<												
Bis(2-Chloroethyl)Ether	µg/L	<												
Bis(2-Chloroisopropyl)Ether	µg/L	<												
Bis(2-Ethylhexyl)Phthalate	µg/L	<												
4-Bromophenyl Phenyl Ether	µg/L	<												
Butyl Benzyl Phthalate	µg/L	<												
2-Chloronaphthalene	µg/L	<												
4-Chlorophenyl Phenyl Ether	µg/L	<												
Chrysene	µg/L	<												
Dibenzo(a,h)Anthracene	µg/L	<												
1,2-Dichlorobenzene	µg/L	<												
1,3-Dichlorobenzene	µg/L	<												
1,4-Dichlorobenzene	µg/L	<												
3,3-Dichlorobenzidine	µg/L	<												
Diethyl Phthalate	µg/L	<												
Dimethyl Phthalate	µg/L	<												
Di-n-Butyl Phthalate	µg/L	<												
2,4-Dinitrotoluene	µg/L	<												





## Stream / Surface Water Information

Bloomfield Borough WWTP, NPDES Permit No. PA0020478, Outfall 001

Instructions **Discharge** Stream

Receiving Surface Water Name: Tributary 11404 to Trout Run

No. Reaches to Model: 1

Statewide Criteria  
 Great Lakes Criteria  
 ORSANCO Criteria

Location	Stream Code*	RMI*	Elevation (ft)*	DA (mi <sup>2</sup> )*	Slope (ft/ft)	PWS Withdrawal (MGD)	Apply Fish Criteria*
Point of Discharge	011404	0.86	640	4.56			Yes
End of Reach 1	011404	0	606	18.82			Yes

**Q<sub>7-10</sub>**

Location	RMI	LFY (cfs/mi <sup>2</sup> )*	Flow (cfs)		W/D Ratio	Width (ft)	Depth (ft)	Velocity (fps)	Travel Time (days)	Tributary		Stream		Analysis	
			Stream	Tributary						Hardness	pH	Hardness*	pH*	Hardness	pH
Point of Discharge	0.86	0.605										109	8.25		
End of Reach 1	0	0.605										109	8.25		

**Q<sub>h</sub>**

Location	RMI	LFY (cfs/mi <sup>2</sup> )*	Flow (cfs)		W/D Ratio	Width (ft)	Depth (ft)	Velocity (fps)	Travel Time (days)	Tributary		Stream		Analysis	
			Stream	Tributary						Hardness	pH	Hardness*	pH*	Hardness	pH
Point of Discharge	0.86														
End of Reach 1	0														



## Model Results

Bloomfield Borough WWTP, NPDES Permit No. PA0020478, Outfall 001

Instructions		Results		RETURN TO INPUTS		SAVE AS PDF		PRINT		<input checked="" type="radio"/> All	<input type="radio"/> Inputs	<input type="radio"/> Results	<input type="radio"/> Limits	
<input type="checkbox"/> <b>Hydrodynamics</b>														
<input checked="" type="checkbox"/> <b>Wasteload Allocations</b>														
<input checked="" type="checkbox"/> <b>AFC</b>		CCT (min): <b>8.624</b>		PMF: <b>1</b>		Analysis Hardness (mg/l): <b>107.89</b>		Analysis pH: <b>7.92</b>						
Pollutants		Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments					
Total Dissolved Solids (PWS)		0	0		0	N/A	N/A	N/A						
Chloride (PWS)		0	0		0	N/A	N/A	N/A						
Sulfate (PWS)		0	0		0	N/A	N/A	N/A						
Total Copper		0	0		0	14.436	15.0	122	Chem Translator of 0.96 applied					
Total Lead		0	0		0	70.144	89.9	731	Chem Translator of 0.78 applied					
Total Zinc		0	0		0	124.972	128	1,039	Chem Translator of 0.978 applied					
<input checked="" type="checkbox"/> <b>CFC</b>		CCT (min): <b>8.624</b>		PMF: <b>1</b>		Analysis Hardness (mg/l): <b>107.89</b>		Analysis pH: <b>7.92</b>						
Pollutants		Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments					
Total Dissolved Solids (PWS)		0	0		0	N/A	N/A	N/A						
Chloride (PWS)		0	0		0	N/A	N/A	N/A						
Sulfate (PWS)		0	0		0	N/A	N/A	N/A						
Total Copper		0	0		0	9.556	9.95	81.0	Chem Translator of 0.96 applied					
Total Lead		0	0		0	2.733	3.5	28.5	Chem Translator of 0.78 applied					
Total Zinc		0	0		0	125.994	128	1,039	Chem Translator of 0.986 applied					
<input checked="" type="checkbox"/> <b>THH</b>		CCT (min): <b>8.624</b>		PMF: <b>1</b>		Analysis Hardness (mg/l): <b>N/A</b>		Analysis pH: <b>N/A</b>						
Pollutants		Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments					
Total Dissolved Solids (PWS)		0	0		0	500,000	500,000	N/A						
Chloride (PWS)		0	0		0	250,000	250,000	N/A						
Sulfate (PWS)		0	0		0	250,000	250,000	N/A						

Model Results

10/9/2025

Page 5

Total Copper	0	0		0	N/A	N/A	N/A	
Total Lead	0	0		0	N/A	N/A	N/A	
Total Zinc	0	0		0	N/A	N/A	N/A	

CRL

CCT (min): 3.346

PMF: 1

Analysis Hardness (mg/l): N/A

Analysis pH: N/A

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	N/A	N/A	N/A	
Chloride (PWS)	0	0		0	N/A	N/A	N/A	
Sulfate (PWS)	0	0		0	N/A	N/A	N/A	
Total Copper	0	0		0	N/A	N/A	N/A	
Total Lead	0	0		0	N/A	N/A	N/A	
Total Zinc	0	0		0	N/A	N/A	N/A	

Recommended WQBELs & Monitoring Requirements

No. Samples/Month: 4

Pollutants	Mass Limits		Concentration Limits				Governing WQBEL	WQBEL Basis	Comments
	AML (lbs/day)	MDL (lbs/day)	AML	MDL	IMAX	Units			
Total Copper	Report	Report	Report	Report	Report	µg/L	78.4	AFC	Discharge Conc > 10% WQBEL (no RP)
Total Lead	0.059	0.093	28.5	44.5	71.3	µg/L	28.5	CFC	Discharge Conc ≥ 50% WQBEL (RP)
Total Zinc	1.39	2.17	666	1,039	1,665	µg/L	666	AFC	Discharge Conc ≥ 50% WQBEL (RP)

Other Pollutants without Limits or Monitoring

The following pollutants do not require effluent limits or monitoring based on water quality because reasonable potential to exceed water quality criteria was not determined and the discharge concentration was less than thresholds for monitoring, or the pollutant was not detected and a sufficiently sensitive analytical method was used (e.g., <= Target QL).

Pollutants	Governing WQBEL	Units	Comments
Total Dissolved Solids (PWS)	N/A	N/A	PWS Not Applicable
Chloride (PWS)	N/A	N/A	PWS Not Applicable
Bromide	N/A	N/A	No WQS
Sulfate (PWS)	N/A	N/A	PWS Not Applicable



RUN #2

## Discharge Information

Instructions **Discharge** Stream

Facility: Bloomfield Borough WWTP NPDES Permit No.: PA0020478 Outfall No.: 001

Evaluation Type Major Sewage / Industrial Waste Wastewater Description: Sewage effluent

Design Flow (MGD)*	Hardness (mg/l)*	pH (SU)*	Discharge Characteristics				Complete Mix Times (min)	
			Partial Mix Factors (PMFs)				Q <sub>7-10</sub>	
			AFC	CFC	THH	CRL	Q <sub>h</sub>	
0.25	100	7.24						

	Discharge Pollutant	Units	Max Discharge Conc	0 if left blank		0.5 if left blank		0 if left blank		1 if left blank	
				Trib Conc	Stream Conc	Daily CV	Hourly CV	Stream CV	Fate Coeff	FOS	Criteri a Mod
<b>Group 1</b>	Total Dissolved Solids (PWS)	mg/L	110								
	Chloride (PWS)	mg/L	174								
	Bromide	mg/L	< 2.5								
	Sulfate (PWS)	mg/L	64.3								
	Fluoride (PWS)	mg/L									
<b>Group 2</b>	Total Aluminum	µg/L									
	Total Antimony	µg/L									
	Total Arsenic	µg/L									
	Total Barium	µg/L									
	Total Beryllium	µg/L									
	Total Boron	µg/L									
	Total Cadmium	µg/L									
	Total Chromium (III)	µg/L									
	Hexavalent Chromium	µg/L									
	Total Cobalt	µg/L									
	Total Copper	µg/L	20								
	Free Cyanide	µg/L									
	Total Cyanide	µg/L									
	Dissolved Iron	µg/L									
	Total Iron	µg/L									
	Total Lead	µg/L	40								
	Total Manganese	µg/L									
	Total Mercury	µg/L									
	Total Nickel	µg/L									
	Total Phenols (Phenolics) (PWS)	µg/L									
	Total Selenium	µg/L									
	Total Silver	µg/L									
	Total Thallium	µg/L									
	Total Zinc	µg/L	920								
	Total Molybdenum	µg/L									
	Acrolein	µg/L	<								
	Acrylamide	µg/L	<								
	Acrylonitrile	µg/L	<								
	Benzene	µg/L	<								
	Bromoform	µg/L	<								
	Carbon Tetrachloride	µg/L	<								
	Chlorobenzene	µg/L									
	Chlorodibromomethane	µg/L	<								
	Chloroethane	µg/L	<								
	2-Chloroethyl Vinyl Ether	µg/L	<								

Chloroform	µg/L	<										
Dichlorobromomethane	µg/L	<										
1,1-Dichloroethane	µg/L	<										
1,2-Dichloroethane	µg/L	<										
1,1-Dichloroethylene	µg/L	<										
1,2-Dichloropropane	µg/L	<										
1,3-Dichloropropylene	µg/L	<										
1,4-Dioxane	µg/L	<										
Ethylbenzene	µg/L	<										
Methyl Bromide	µg/L	<										
Methyl Chloride	µg/L	<										
Methylene Chloride	µg/L	<										
1,1,2,2-Tetrachloroethane	µg/L	<										
Tetrachloroethylene	µg/L	<										
Toluene	µg/L	<										
1,2-trans-Dichloroethylene	µg/L	<										
1,1,1-Trichloroethane	µg/L	<										
1,1,2-Trichloroethane	µg/L	<										
Trichloroethylene	µg/L	<										
Vinyl Chloride	µg/L	<										
2-Chlorophenol	µg/L	<										
2,4-Dichlorophenol	µg/L	<										
2,4-Dimethylphenol	µg/L	<										
4,6-Dinitro-o-Cresol	µg/L	<										
2,4-Dinitrophenol	µg/L	<										
2-Nitrophenol	µg/L	<										
4-Nitrophenol	µg/L	<										
p-Chloro-m-Cresol	µg/L	<										
Pentachlorophenol	µg/L	<										
Phenol	µg/L	<										
2,4,6-Trichlorophenol	µg/L	<										
Acenaphthene	µg/L	<										
Acenaphthylene	µg/L	<										
Anthracene	µg/L	<										
Benzidine	µg/L	<										
Benzo(a)Anthracene	µg/L	<										
Benzo(a)Pyrene	µg/L	<										
3,4-Benzo fluoranthene	µg/L	<										
Benzo(ghi)Perylene	µg/L	<										
Benzo(k)Fluoranthene	µg/L	<										
Bis(2-Chloroethoxy)Methane	µg/L	<										
Bis(2-Chloroethyl)Ether	µg/L	<										
Bis(2-Chloroisopropyl)Ether	µg/L	<										
Bis(2-Ethylhexyl)Phthalate	µg/L	<										
4-Bromophenyl Phenyl Ether	µg/L	<										
Butyl Benzyl Phthalate	µg/L	<										
2-Chloronaphthalene	µg/L	<										
4-Chlorophenyl Phenyl Ether	µg/L	<										
Chrysene	µg/L	<										
Dibenzo(a,h)Anthracene	µg/L	<										
1,2-Dichlorobenzene	µg/L	<										
1,3-Dichlorobenzene	µg/L	<										
1,4-Dichlorobenzene	µg/L	<										
3,3-Dichlorobenzidine	µg/L	<										
Diethyl Phthalate	µg/L	<										
Dimethyl Phthalate	µg/L	<										
Di-n-Butyl Phthalate	µg/L	<										
2,4-Dinitrotoluene	µg/L	<										
2,6-Dinitrotoluene	µg/L	<										
Di-n-Octyl Phthalate	µg/L	<										
1,2-Diphenylhydrazine	µg/L	<										
Fluoranthene	µg/L	<										
Fluorene	µg/L	<										
Hexachlorobenzene	µg/L	<										
Hexachlorobutadiene	µg/L	<										
Hexachlorocyclopentadiene	µg/L	<										
Hexachloroethane	µg/L	<										
Indeno(1,2,3-cd)Pyrene	µg/L	<										





## Stream / Surface Water Information

Bloomfield Borough WWTP, NPDES Permit No. PA0020478, Outfall 001

Instructions Discharge Stream

Receiving Surface Water Name: Tributary 11404 to Trout Run

No. Reaches to Model: 1

Statewide Criteria  
 Great Lakes Criteria  
 ORSANCO Criteria

Location	Stream Code*	RMI*	Elevation (ft)*	DA (mi <sup>2</sup> )*	Slope (ft/ft)	PWS Withdrawal (MGD)	Apply Fish Criteria*
Point of Discharge	011404	0.86	640	4.56			Yes
End of Reach 1	011404	0	606	18.82			Yes

**Q<sub>7-10</sub>**

Location	RMI	LFY (cfs/mi <sup>2</sup> )*	Flow (cfs)		W/D Ratio	Width (ft)	Depth (ft)	Velocity (fps)	Travel Time	Tributary		Stream		Analysis	
			Stream	Tributary						Hardness	pH	Hardness*	pH*	Hardness	pH
Point of Discharge	0.86	0.605										109	8.25		
End of Reach 1	0	0.605										109	8.25		

**Q<sub>h</sub>**

Location	RMI	LFY (cfs/mi <sup>2</sup> )*	Flow (cfs)		W/D Ratio	Width (ft)	Depth (ft)	Velocity (fps)	Travel Time	Tributary		Stream		Analysis	
			Stream	Tributary						Hardness	pH	Hardness*	pH*	Hardness	pH
Point of Discharge	0.86														
End of Reach 1	0														



## Model Results

Bloomfield Borough WWTP, NPDES Permit No. PA0020478, Outfall 001

Instructions  Results     All  Inputs  Results  Limits

**Hydrodynamics**

**Wasteload Allocations**

**AFC**

CCT (min):

PMF:

Analysis Hardness (mg/l):

Analysis pH:

Pollutants	Stream Conc	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	N/A	N/A	N/A	
Chloride (PWS)	0	0		0	N/A	N/A	N/A	
Sulfate (PWS)	0	0		0	N/A	N/A	N/A	
Total Copper	0	0		0	14.436	15.0	122	Chem Translator of 0.96 applied
Total Lead	0	0		0	70.144	89.9	731	Chem Translator of 0.78 applied
Total Zinc	0	0		0	124.972	128	1,039	Chem Translator of 0.978 applied

**CFC**

CCT (min):

PMF:

Analysis Hardness (mg/l):

Analysis pH:

Pollutants	Stream Conc	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	N/A	N/A	N/A	
Chloride (PWS)	0	0		0	N/A	N/A	N/A	
Sulfate (PWS)	0	0		0	N/A	N/A	N/A	
Total Copper	0	0		0	9.556	9.95	81.0	Chem Translator of 0.96 applied
Total Lead	0	0		0	2.733	3.5	28.5	Chem Translator of 0.78 applied
Total Zinc	0	0		0	125.994	128	1,039	Chem Translator of 0.986 applied

**THH**

CCT (min):

PMF:

Analysis Hardness (mg/l):

Analysis pH:

Pollutants	Stream Conc	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	500,000	500,000	N/A	
Chloride (PWS)	0	0		0	250,000	250,000	N/A	
Sulfate (PWS)	0	0		0	250,000	250,000	N/A	
Total Copper	0	0		0	N/A	N/A	N/A	
Total Lead	0	0		0	N/A	N/A	N/A	
Total Zinc	0	0		0	N/A	N/A	N/A	

Model Results

10/14/2025

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CRL CCT (min): 3.346 PMF: 1 Analysis Hardness (mg/l): N/A Analysis pH: N/A

Pollutants	Stream Conc	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	N/A	N/A	N/A	
Chloride (PWS)	0	0		0	N/A	N/A	N/A	
Sulfate (PWS)	0	0		0	N/A	N/A	N/A	
Total Copper	0	0		0	N/A	N/A	N/A	
Total Lead	0	0		0	N/A	N/A	N/A	
Total Zinc	0	0		0	N/A	N/A	N/A	

Recommended WQBELs & Monitoring Requirements

No. Samples/Month: 4

Pollutants	Mass Limits		Concentration Limits				Governing WQBEL	WQBEL Basis	Comments
	AML (lbs/day)	MDL (lbs/day)	AML	MDL	IMAX	Units			
Total Copper	Report	Report	Report	Report	Report	µg/L	78.4	AFC	Discharge Conc > 10% WQBEL (no RP)
Total Lead	0.059	0.093	28.5	44.5	71.3	µg/L	28.5	CFC	Discharge Conc ≥ 50% WQBEL (RP)
Total Zinc	1.39	2.17	666	1,039	1,665	µg/L	666	AFC	Discharge Conc ≥ 50% WQBEL (RP)

Other Pollutants without Limits or Monitoring

The following pollutants do not require effluent limits or monitoring based on water quality because reasonable potential to exceed water quality criteria was not determined and the discharge concentration was less than thresholds for monitoring, or the pollutant was not detected and a sufficiently sensitive analytical method was used (e.g., <= Target QL).

Pollutants	Governing WQBEL	Units	Comments
Total Dissolved Solids (PWS)	N/A	N/A	PWS Not Applicable
Chloride (PWS)	N/A	N/A	PWS Not Applicable
Bromide	N/A	N/A	No WQS
Sulfate (PWS)	N/A	N/A	PWS Not Applicable

# Attachment C

## DMR Data

Monitoring Period Begin Date	Period End Date	DMR Received Date	Parameter Name	DMR Value	Units	Statistical Base Code
01/01/2021	03/31/2021	04/28/2021	Copper. Total	0.006	ma/L	Average Quarterly
04/01/2021	06/30/2021	07/27/2021	Copper. Total	< 0.005	ma/L	Average Quarterly
07/01/2021	09/30/2021	10/28/2021	Copper. Total	< 0.005	ma/L	Average Quarterly
10/01/2021	12/31/2021	01/28/2022	Copper. Total	0.009	ma/L	Average Quarterly
01/01/2022	03/31/2022	04/26/2022	Copper. Total	0.007	ma/L	Average Quarterly
04/01/2022	06/30/2022	07/27/2022	Copper. Total	0.008	ma/L	Average Quarterly
07/01/2022	09/30/2022	10/27/2022	Copper. Total	0.005	ma/L	Average Quarterly
10/01/2022	12/31/2022	01/12/2023	Copper. Total	0.005	ma/L	Average Quarterly
01/01/2023	03/31/2023	04/19/2023	Copper. Total	0.008	ma/L	Average Quarterly
04/01/2023	06/30/2023	07/26/2023	Copper. Total	0.006	ma/L	Average Quarterly
07/01/2023	09/30/2023	10/27/2023	Copper. Total	0.005	ma/L	Average Quarterly
10/01/2023	12/31/2023	01/18/2024	Copper. Total	966	ma/L	Average Quarterly
01/01/2024	03/31/2024	04/26/2024	Copper. Total	0.01	ma/L	Average Quarterly
04/01/2024	06/30/2024	06/28/2024	Copper. Total	0.011	ma/L	Average Quarterly
07/01/2024	09/30/2024	10/24/2024	Copper. Total	0.015	ma/L	Average Quarterly
10/01/2024	12/31/2024	01/24/2025	Copper. Total	0.007	ma/L	Average Quarterly
01/01/2025	03/31/2025	04/28/2025	Copper. Total	0.008	ma/L	Average Quarterly
04/01/2025	06/30/2025	07/27/2025	Copper. Total	0.005	ma/L	Average Quarterly
			Min	< 0.005		
			Max	966		
			Average	53.67		

Monitoring Period Begin Date	Period End Date	DMR Received Date	Parameter Name	DMR Value	Units	Statistical Base Code
01/01/2021	03/31/2021	04/28/2021	Copper. Total	0.006	ma/L	Average Quarterly
04/01/2021	06/30/2021	07/27/2021	Copper. Total	< 0.005	ma/L	Average Quarterly
07/01/2021	09/30/2021	10/28/2021	Copper. Total	< 0.005	ma/L	Average Quarterly
10/01/2021	12/31/2021	01/28/2022	Copper. Total	0.009	ma/L	Average Quarterly
01/01/2022	03/31/2022	04/26/2022	Copper. Total	0.007	ma/L	Average Quarterly
04/01/2022	06/30/2022	07/27/2022	Copper. Total	0.008	ma/L	Average Quarterly
07/01/2022	09/30/2022	10/27/2022	Copper. Total	0.005	ma/L	Average Quarterly
10/01/2022	12/31/2022	01/12/2023	Copper. Total	0.005	ma/L	Average Quarterly
01/01/2023	03/31/2023	04/19/2023	Copper. Total	0.008	ma/L	Average Quarterly
04/01/2023	06/30/2023	07/26/2023	Copper. Total	0.006	ma/L	Average Quarterly
07/01/2023	09/30/2023	10/27/2023	Copper. Total	0.005	ma/L	Average Quarterly
10/01/2023	12/31/2023	01/18/2024	Copper. Total	0.007	ma/L	Average Quarterly
01/01/2024	03/31/2024	04/26/2024	Copper. Total	0.01	ma/L	Average Quarterly
04/01/2024	06/30/2024	06/28/2024	Copper. Total	0.011	ma/L	Average Quarterly
07/01/2024	09/30/2024	10/24/2024	Copper. Total	0.015	ma/L	Average Quarterly
10/01/2024	12/31/2024	01/24/2025	Copper. Total	0.007	ma/L	Average Quarterly
01/01/2025	03/31/2025	04/28/2025	Copper. Total	0.008	ma/L	Average Quarterly
04/01/2025	06/30/2025	07/27/2025	Copper. Total	0.005	ma/L	Average Quarterly
			Min	< 0.005		
			Max	0.015		
			Average	0.007	**Data with outlier removed	

Period Begin Date	Period End Date	Received Date	Parameter Name	DMR Value	Permit Limit	Units	Statistical Base Code
01/01/2021	03/31/2021	04/28/2021	Lead. Total	0.003	Monitor and Report	mg/L	Average Quarterly
04/01/2021	06/30/2021	07/27/2021	Lead. Total	< 0.003	Monitor and Report	mg/L	Average Quarterly
07/01/2021	09/30/2021	10/28/2021	Lead. Total	< 0.003	Monitor and Report	mg/L	Average Quarterly
10/01/2021	12/31/2021	01/28/2022	Lead. Total	0.003	Monitor and Report	mg/L	Average Quarterly
01/01/2022	03/31/2022	04/26/2022	Lead. Total	0.003	Monitor and Report	mg/L	Average Quarterly
04/01/2022	06/30/2022	07/27/2022	Lead. Total	0.003	Monitor and Report	mg/L	Average Quarterly
07/01/2022	09/30/2022	10/27/2022	Lead. Total	0.003	Monitor and Report	mg/L	Average Quarterly
10/01/2022	12/31/2022	01/12/2023	Lead. Total	0.003	Monitor and Report	mg/L	Average Quarterly
01/01/2023	03/31/2023	04/19/2023	Lead. Total	0.003	Monitor and Report	mg/L	Average Quarterly
04/01/2023	06/30/2023	07/26/2023	Lead. Total	0.003	Monitor and Report	mg/L	Average Quarterly
07/01/2023	09/30/2023	10/27/2023	Lead. Total	0.003	Monitor and Report	mg/L	Average Quarterly
10/01/2023	12/31/2023	01/18/2024	Lead. Total	282	Monitor and Report	mg/L	Average Quarterly
01/01/2024	03/31/2024	04/26/2024	Lead. Total	0.003	Monitor and Report	mg/L	Average Quarterly
04/01/2024	06/30/2024	06/28/2024	Lead. Total	0.044	Monitor and Report	mg/L	Average Quarterly
07/01/2024	09/30/2024	10/24/2024	Lead. Total	0.003	Monitor and Report	mg/L	Average Quarterly
10/01/2024	12/31/2024	01/24/2025	Lead. Total	0.003	Monitor and Report	mg/L	Average Quarterly
01/01/2025	03/31/2025	04/28/2025	Lead. Total	0.003	Monitor and Report	mg/L	Average Quarterly
04/01/2025	06/30/2025	07/27/2025	Lead. Total	0.003	Monitor and Report	mg/L	Average Quarterly
			Min	< 0.003			
			Max	282			
			Average	15.67			

Period Begin Date	Period End Date	Received Date	Parameter Name	DMR Value	Permit Limit	Units	Statistical Base Code
01/01/2021	03/31/2021	04/28/2021	Lead. Total	0.003	Monitor and Report	mg/L	Average Quarterly
04/01/2021	06/30/2021	07/27/2021	Lead. Total	< 0.003	Monitor and Report	mg/L	Average Quarterly
07/01/2021	09/30/2021	10/28/2021	Lead. Total	< 0.003	Monitor and Report	mg/L	Average Quarterly
10/01/2021	12/31/2021	01/28/2022	Lead. Total	0.003	Monitor and Report	mg/L	Average Quarterly
01/01/2022	03/31/2022	04/26/2022	Lead. Total	0.003	Monitor and Report	mg/L	Average Quarterly
04/01/2022	06/30/2022	07/27/2022	Lead. Total	0.003	Monitor and Report	mg/L	Average Quarterly
07/01/2022	09/30/2022	10/27/2022	Lead. Total	0.003	Monitor and Report	mg/L	Average Quarterly
10/01/2022	12/31/2022	01/12/2023	Lead. Total	0.003	Monitor and Report	mg/L	Average Quarterly
01/01/2023	03/31/2023	04/19/2023	Lead. Total	0.003	Monitor and Report	mg/L	Average Quarterly
04/01/2023	06/30/2023	07/26/2023	Lead. Total	0.003	Monitor and Report	mg/L	Average Quarterly
07/01/2023	09/30/2023	10/27/2023	Lead. Total	0.003	Monitor and Report	mg/L	Average Quarterly
10/01/2023	12/31/2023	01/18/2024	Lead. Total	0.003	Monitor and Report	mg/L	Average Quarterly
01/01/2024	03/31/2024	04/26/2024	Lead. Total	0.003	Monitor and Report	mg/L	Average Quarterly
04/01/2024	06/30/2024	06/28/2024	Lead. Total	0.044	Monitor and Report	mg/L	Average Quarterly
07/01/2024	09/30/2024	10/24/2024	Lead. Total	0.003	Monitor and Report	mg/L	Average Quarterly
10/01/2024	12/31/2024	01/24/2025	Lead. Total	0.003	Monitor and Report	mg/L	Average Quarterly
01/01/2025	03/31/2025	04/28/2025	Lead. Total	0.003	Monitor and Report	mg/L	Average Quarterly
04/01/2025	06/30/2025	07/27/2025	Lead. Total	0.003	Monitor and Report	mg/L	Average Quarterly
			Min	< 0.003			
			Max	0.044			
			Average	0.005	**Data with outlier removed		

Monitoring Period Begin Date	Monitoring Period End Date	DMR Received Date	Parameter Name	DMR Value	Permit Limit	Units	Statistical Base Code
01/01/2021	01/31/2021	02/26/2021	Zinc. Total	0.13	0.17	mg/L	Average Monthly
02/01/2021	02/28/2021	03/30/2021	Zinc. Total	0.11	0.17	mg/L	Average Monthly
03/01/2021	03/31/2021	04/28/2021	Zinc. Total	0.078	0.17	mg/L	Average Monthly
04/01/2021	04/30/2021	05/19/2021	Zinc. Total	0.11	0.17	mg/L	Average Monthly
05/01/2021	05/31/2021	06/25/2021	Zinc. Total	0.12	0.17	mg/L	Average Monthly
06/01/2021	06/30/2021	07/27/2021	Zinc. Total	0.092	0.17	mg/L	Average Monthly
07/01/2021	07/31/2021	08/26/2021	Zinc. Total	0.048	0.17	mg/L	Average Monthly
08/01/2021	08/31/2021	09/28/2021	Zinc. Total	0.113	0.17	mg/L	Average Monthly
09/01/2021	09/30/2021	10/28/2021	Zinc. Total	0.069	0.17	mg/L	Average Monthly
10/01/2021	10/31/2021	11/24/2021	Zinc. Total	0.2	0.17	mg/L	Average Monthly
11/01/2021	11/30/2021	01/04/2022	Zinc. Total	0.125	0.17	mg/L	Average Monthly
12/01/2021	12/31/2021	01/28/2022	Zinc. Total	0.158	0.17	mg/L	Average Monthly
01/01/2022	01/31/2022	03/10/2022	Zinc. Total	0.09	0.17	mg/L	Average Monthly
02/01/2022	02/28/2022	03/28/2022	Zinc. Total	0.1	0.17	mg/L	Average Monthly
03/01/2022	03/31/2022	04/26/2022	Zinc. Total	0.106	0.17	mg/L	Average Monthly
04/01/2022	04/30/2022	05/27/2022	Zinc. Total	0.126	0.17	mg/L	Average Monthly
05/01/2022	05/31/2022	06/27/2022	Zinc. Total	0.069	0.17	mg/L	Average Monthly
06/01/2022	06/30/2022	07/27/2022	Zinc. Total	0.117	0.17	mg/L	Average Monthly
07/01/2022	07/31/2022	08/29/2022	Zinc. Total	0.092	0.17	mg/L	Average Monthly
08/01/2022	08/31/2022	09/27/2022	Zinc. Total	0.056	0.17	mg/L	Average Monthly
09/01/2022	09/30/2022	10/27/2022	Zinc. Total	0.074	0.17	mg/L	Average Monthly
10/01/2022	10/31/2022	11/23/2022	Zinc. Total	0.087	0.17	mg/L	Average Monthly
11/01/2022	11/30/2022	12/19/2022	Zinc. Total	0.113	0.17	mg/L	Average Monthly
12/01/2022	12/31/2022	01/12/2023	Zinc. Total	0.068	0.17	mg/L	Average Monthly
01/01/2023	01/31/2023	02/09/2023	Zinc. Total	0.051	0.17	mg/L	Average Monthly
02/01/2023	02/28/2023	03/28/2023	Zinc. Total	0.097	0.17	mg/L	Average Monthly
03/01/2023	03/31/2023	04/19/2023	Zinc. Total	0.078	0.17	mg/L	Average Monthly
04/01/2023	04/30/2023	05/25/2023	Zinc. Total	0.07	0.17	mg/L	Average Monthly
05/01/2023	05/31/2023	06/26/2023	Zinc. Total	0.05	0.17	mg/L	Average Monthly
06/01/2023	06/30/2023	07/26/2023	Zinc. Total	0.053	0.17	mg/L	Average Monthly
07/01/2023	07/31/2023	08/25/2023	Zinc. Total	0.042	0.17	mg/L	Average Monthly
08/01/2023	08/31/2023	09/26/2023	Zinc. Total	0.032	0.17	mg/L	Average Monthly
09/01/2023	09/30/2023	10/27/2023	Zinc. Total	0.06	0.17	mg/L	Average Monthly
10/01/2023	10/31/2023	11/22/2023	Zinc. Total	0.05	0.17	mg/L	Average Monthly
11/01/2023	11/30/2023	12/26/2023	Zinc. Total	0.061	0.17	mg/L	Average Monthly
12/01/2023	12/31/2023	01/18/2024	Zinc. Total	0.12	0.17	mg/L	Average Monthly
01/01/2024	01/31/2024	02/27/2024	Zinc. Total	0.073	0.17	mg/L	Average Monthly
02/01/2024	02/29/2024	03/19/2024	Zinc. Total	0.081	0.17	mg/L	Average Monthly
03/01/2024	03/31/2024	04/26/2024	Zinc. Total	0.042	0.17	mg/L	Average Monthly
04/01/2024	04/30/2024	05/23/2024	Zinc. Total	0.05	0.17	mg/L	Average Monthly
05/01/2024	05/31/2024	06/28/2024	Zinc. Total	0.051	0.17	mg/L	Average Monthly
06/01/2024	06/30/2024	07/25/2024	Zinc. Total	0.038	0.17	mg/L	Average Monthly
07/01/2024	07/31/2024	08/27/2024	Zinc. Total	0.045	0.17	mg/L	Average Monthly
08/01/2024	08/31/2024	09/25/2024	Zinc. Total	0.05	0.17	mg/L	Average Monthly
09/01/2024	09/30/2024	10/28/2024	Zinc. Total	0.09	0.17	mg/L	Average Monthly
10/01/2024	10/31/2024	11/24/2024	Zinc. Total	0.053	0.17	mg/L	Average Monthly
11/01/2024	11/30/2024	12/17/2024	Zinc. Total	0.089	0.17	mg/L	Average Monthly
12/01/2024	12/31/2024	01/24/2025	Zinc. Total	0.104	0.17	mg/L	Average Monthly
01/01/2025	01/31/2025	02/25/2025	Zinc. Total	0.92	0.17	mg/L	Average Monthly
02/01/2025	02/28/2025	03/27/2025	Zinc. Total	0.074	0.17	mg/L	Average Monthly
03/01/2025	03/31/2025	04/28/2025	Zinc. Total	0.074	0.17	mg/L	Average Monthly
04/01/2025	04/30/2025	05/28/2025	Zinc. Total	0.057	0.17	mg/L	Average Monthly
05/01/2025	05/31/2025	06/27/2025	Zinc. Total	0.049	0.17	mg/L	Average Monthly
06/01/2025	06/30/2025	07/27/2025	Zinc. Total	0.03	0.17	mg/L	Average Monthly
07/01/2025	07/31/2025	08/28/2025	Zinc. Total	0.031	0.17	mg/L	Average Monthly
08/01/2025	08/31/2025	09/17/2025	Zinc. Total	0.051	0.17	mg/L	Average Monthly
			Min	0.03			
			Max	0.92			
			Average	0.094			

# Attachment D

## Correspondence

**Hong, Nicholas**

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**From:** damon.hartman78 <damon.hartman78@gmail.com>  
**Sent:** Thursday, October 9, 2025 7:21 AM  
**To:** Hong, Nicholas  
**Cc:** tyingling@hrg-inc.com  
**Subject:** [External] RE: PA0020478 / Bloomfield / NPDE renewal application

**ATTENTION:** This email message is from an external sender. Do not open links or attachments from unknown senders. To report suspicious email, use the [Report Phishing button in Outlook](#).

Nick,  
After reviewing my records, it appears you are correct. My total copper was a 966 mg/l and the total lead was 282 mg/l on the 4th quarter of 2023.  
Normal numbers come back as non detected. I believe that was a one time occurrence, possibly from water line repairs / replacements.  
Any other questions let me know.

Sincerely,  
Damon

----- Original message -----  
From: "Hong, Nicholas" <nhong@pa.gov>  
Date: 10/8/25 2:16 PM (GMT-05:00)  
To: "damon.hartman78" <damon.hartman78@gmail.com>  
Cc: tyingling@hrg-inc.com  
Subject: PA0020478 / Bloomfield / NPDE renewal application

Bloomfield:

DEP has the following preliminary comments on the NPDES renewal application.

DMR data shows the October 1, 2023 DMR data for total copper at 966 mg/l. Please confirm this data is accurate.

DMR data shows the October 1, 2023 DMR data for total lead at 282 mg/l. Please confirm this data is accurate.

**Nick Hong, PE | Environmental Engineer**  
PA Department of Environmental Protection