Pennsylvania Department of Environmental Protection

**Southcentral Regional Office**
**CLEAN WATER PROGRAM**

| | | | |
|---|---|---|---|
| Application Type | **Renewal** | Application No. | **PA0085120** |
| Facility Type | **Industrial** | APS ID | **444** |
| Major / Minor | **Minor** | Authorization ID | **1550294** |

# NPDES PERMIT FACT SHEET INDIVIDUAL INDUSTRIAL WASTE (IW) AND IW STORMWATER

## Applicant and Facility Information

| | | | |
|---|---|---|---|
| Applicant Name | **Altoona Water Authority** | Facility Name | **Altoona Water Authority** |
| Applicant Address | 900 Chestnut Avenue | Facility Address | 3070 Old Route 22 West |
| | Altoona, PA 16601-4617 | | Duncansville, PA 16635 |
| Applicant Contact | Michael Bianconi | Facility Contact | Irina Hott |
| Applicant Phone | (814) 944-2597 | Facility Phone | (814) 944-2597 |
| Client ID | 85897 | Site ID | 238359 |
| SIC Code | 4941 | Municipality | Juniata Township |
| SIC Description | Trans. & Utilities - Water Supply | County | Blair |
| Date Application Received | November 25, 2025 | EPA Waived? | Yes |
| Date Application Accepted | December 18, 2025 | If No, Reason | |

Purpose of Application: This is an application request for NPDES renewal.

| Approve | Deny | Signatures | Date |
|---|---|---|---|
| X | | Nicholas Hong, P.E. / Environmental Engineer<br>Nick Hong (via electronic signature) | February 25, 2026 |
| x | | Daniel W. Martin, P.E. / Environmental Engineer Manager<br>Maria D. Bebenek for | February 25, 2026 |
| x | | Maria D. Bebenek, P.E. / Environmental Program Manager<br>Maria D. Bebenek | February 25, 2026 |

**Summary of Review**

The application submitted by the applicant requests a NPDES renewal permit for the Altoona Water – Plane 9 located at 3070 Old Route 22 West, Duncansville, PA 16635 in Blair County, municipality of Juniata Township. The existing permit became effective on February 1, 2021 and expired on January 31, 2026. The application for renewal was received by DEP Southcentral Regional Office (SCRO) on November 25, 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 0.24 MGD hydraulic design flow treatment facility. The applicant anticipates proposed upgrades to the treatment facility. A membrane filtration pilot study was performed and approved in 2023 with the intensions of replacing the existing traveling bridge dual media filters with a membrane filtration system. The construction project is expected to begin within the next five (5) years. The NPDES application has been processed as an Industrial Wastewater due to the type of wastewater and the design flow rate for the facility. The applicant disclosed the Act 14 requirement to Blair County Commissioners and Juniata Township Supervisors and the notice was received by the parties on September 19, 2025.

Utilizing the DEP's web-based Emap-PA information system, the receiving waters has been determined to be Blair Gap Run. The sequence of receiving streams that the Blair Gap Run discharges into are Beaverdam Branch, Frankstown Branch Juniata River, the Juniata River and the Susquehanna River 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 trout stocking fishes (TSF) and migratory fishes (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 Blair Gap Run is a Category 2 stream listed in the 2024 Integrated List of All Waters (formerly 303d Listed Streams). This stream is an attaining stream that supports aquatic life. The receiving waters is subject to the Beaverdam Branch 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 frequency for copper have increased**
- **Monitoring frequency for aluminum, iron, and manganese reduced to 2x/month**

Sludge use and disposal description and location(s):

- The facility did not report any biosolids disposal in 2025.

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: | Altoona Water – Plane 9 |
| NPDES Permit # | PA0085120 |
| Physical Address: | 3070 Old Route 22 West<br>Duncansville, PA 16635 |
| Mailing Address: | 900 Chestnut Street<br>Altoona, PA 16601 |
| Contact: | Mark Perry<br>Manager<br>(814) 949-2222<br>mperry@altoonawater.gov<br><br>Irina Holt<br>Water Treatment Supervisor<br>(814) 944-2597<br>ihott@altoonawater.gov |
| Consultant: | Maggie Weitzel<br>Sr. Environmental Scientist<br>Gwin, Dobson, and Foreman<br>(814) 943-5214<br>mweitzel@gdfengineers.com |

### 1.2 Permit History

Permit submittal included the following information.

- NPDES Application
- Flow Diagrams
- Influent Sample Data
- Effluent Sample Data

## 2.0 Treatment Facility Summary

### 2.1.1 Site location

The physical address for the facility is 3070 Old Route 22 West, Duncansville, PA 16635. 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

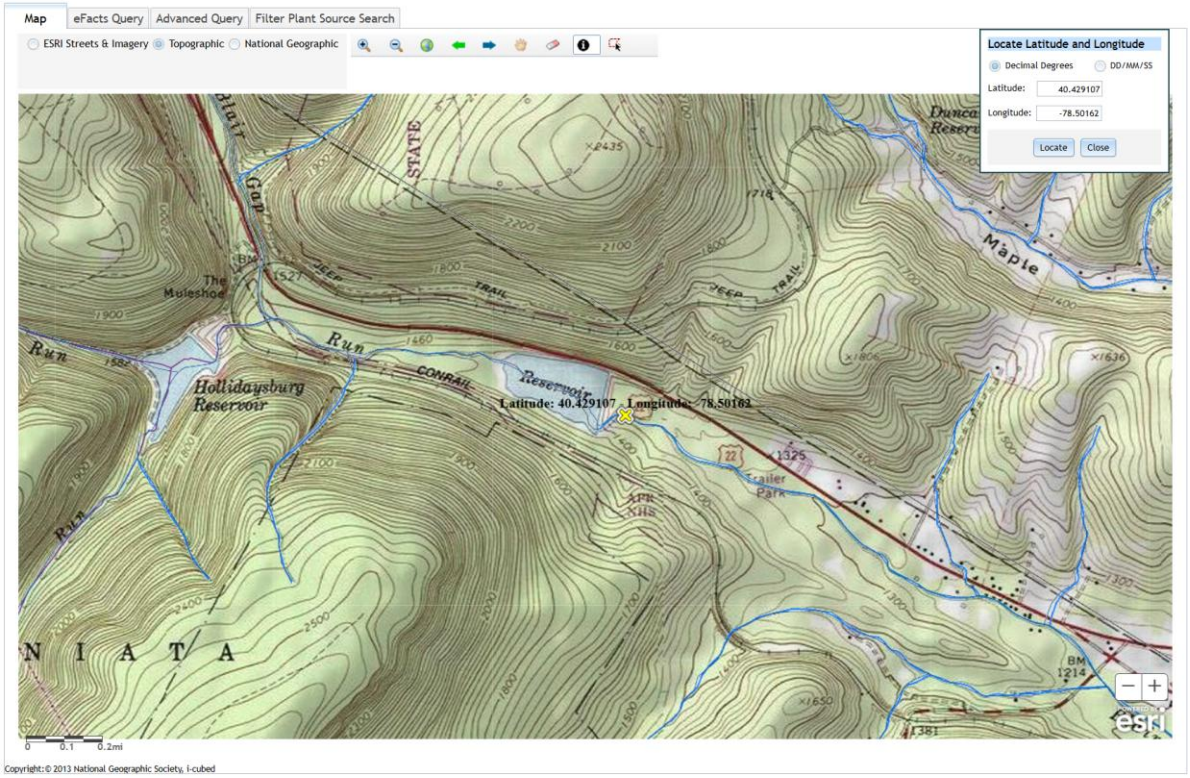
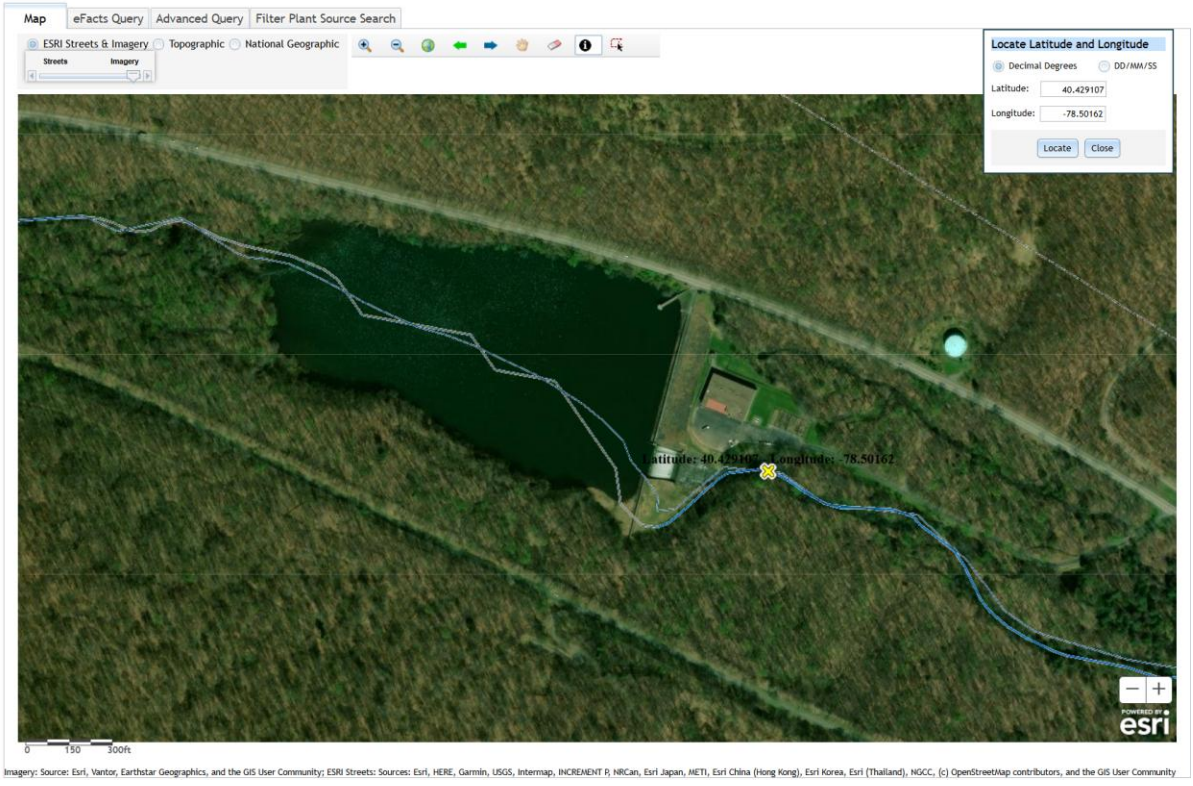



Figure 2: Aerial Photograph of the subject facility



## 2.2 Description of Wastewater Treatment Process

The subject facility is a 0.24 MGD design flow facility.

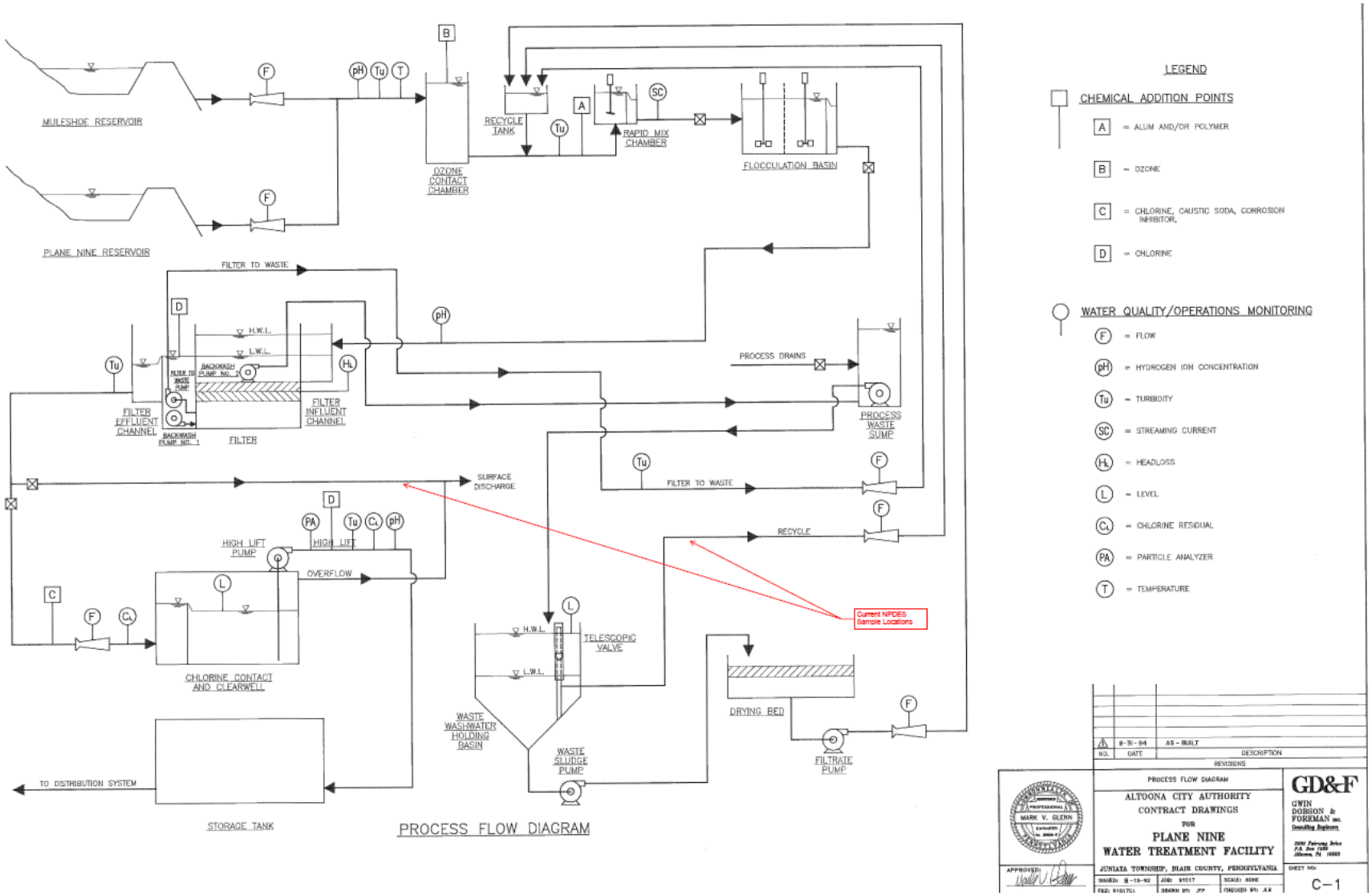
The facility began treatment of the surface water sources in the early 1990s. The facility is comprised of ozone, rapid mixing, flocculation and traveling bridge dual media filters.

Chemical treatment consists of coagulation with alum, post chlorine disinfection and corrosion control. A waste washwater holding basin collects the filter backwash water where waste sludge pumps convey the tank solids to sand drying beds. The treatment facility currently produces an average of 0.0556 MGD, while operating the plant for 24-hours to 36-hour period until the Plane 9 and Duncansville water storage tanks are full.

Wastewater originates from (a) non-chlorinated filtered potable water (Outfall 001) and (b) wash water tank decant (MP101).

The facility is being evaluated for flow, pH, TSS, aluminum, copper, iron, manganese, phosphorus, and nitrogen. The existing permits limits for the facility is summarized in Section 2.4.

A schematic of the treatment process is depicted.



## 2.3 Facility Outfall Information

The facility has the following outfall information for wastewater.

| | | | |
|---|---|---|---|
| **Outfall No.** | 001 | **Design Flow (MGD)** | .24 |
| **Latitude** | 40º 25' 47.00" | **Longitude** | -78º 30' 5.00" |
| **Wastewater Description:** | Water Treatment Effluent | | |

| | | | |
|---|---|---|---|
| **Outfall No.** | 101 | **Design Flow (MGD)** | ___ |
| **Latitude** | 40º 25' 47.00" | **Longitude** | -78º 30' 5.00" |
| **Wastewater Description:** | | | |

### 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.

- Chlorine for disinfection
- Caustic soda (effluent) for pH adjustment
- Aluminum sulfate for coagulant
- Orthophosphate for corrosion inhibitor

## 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** 40º 25' 47.00" , **Longitude** 78º 30' 5.00" , **River Mile Index** 5.51 , **Stream Code** 16335

**Receiving Waters:** Blair Gap Run (TSF)

**Type of Effluent:** Water Treatment Effluent

1. The permittee is authorized to discharge during the period from **February 1, 2021** through **January 31, 2026**.
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) (1) | | Concentrations (mg/L) | | | | Minimum (2) Measurement Frequency | Required Sample Type |
| | Average Monthly | Average Weekly | Minimum | Average Monthly | Maximum | Instant. Maximum | | |
| Flow (MGD) | Report | Report Daily Max | XXX | XXX | XXX | XXX | Continuous | Measured |
| pH (S.U.) | XXX | XXX | 6.0 Inst Min | XXX | XXX | 9.0 | 1/day | Grab |

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

at Outfall 001

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

**I. B. For Outfall** 101 , **Latitude** 40º 25' 47.00" , **Longitude** 78º 30' 5.00" , **River Mile Index** 5.51 , **Stream Code** 16335

**Receiving Waters:** Blair Gap Run (TSF)

**Type of Effluent:** Internal Monitoring Point- Water Treatment Effluent

1. The permittee is authorized to discharge during the period from **February 1, 2021** through **January 31, 2026**.
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) (1) | | Concentrations (mg/L) | | | | Minimum (2) Measurement Frequency | Required Sample Type |
| | Average Monthly | Daily Maximum | Minimum | Average Monthly | Daily Maximum | Instant. Maximum | | |
| Flow (MGD) | Report | Report | XXX | XXX | XXX | XXX | Continuous | Measured |
| pH (S.U.) | XXX | XXX | 6.0 Inst Min | XXX | XXX | 9.0 | 1/day | Grab |
| Total Suspended Solids | Report | Report | XXX | 30 | 60 | 75 | 1/week | 8-Hr Composite |
| Total Nitrogen | XXX | XXX | XXX | Report Annl Avg | XXX | XXX | 1/year | Calculation |
| Total Phosphorus | XXX | XXX | XXX | Report Annl Avg | XXX | XXX | 1/year | 8-Hr Composite |
| Aluminum, Total | 0.6 | 1.2 | XXX | 1.2 | 2.4 | 3 | 1/week | 8-Hr Composite |
| Copper, Total | Report Avg Qrtly | Report | XXX | Report Avg Qrtly | XXX | XXX | 1/quarter | 8-Hr Composite |
| Iron, Total | 1.0 | 2.0 | XXX | 2.0 | 4.0 | 5 | 1/week | 8-Hr Composite |
| Manganese, Total | Report | Report | XXX | 1.0 | 2.0 | 2.5 | 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 101

## 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.

03/17/2022:

- The facility is permitted for two outfalls. Outfall 101 is for the discharge of treated filter backwash water and outfall 001 is the discharge of “diversion flow”, which is treated (non-chlorinated) drinking water from the filter tank that cannot be used. Diversion flows occur at plant start-up and when water conditions are not suitable.
- An in-pipe magmeter is used to measure the flow of the treated backwash discharge and the diversion flow is measured with a pressure differential meter. Both meters are calibrated in-house by the Authority’s instrument technician on a yearly basis.
- Backwash treatment consists of a single large metal tank used for settling out solids. When the tank is full, an automatic valve will release the supernatant. When the tank discharges, the SCADA system activates a solenoid, which sends water samples to a collection bottle about every 15 minutes.
- The pH of the diversion flow is tested by a plant operator if they are on-site during the discharge. Otherwise, the pH is checked by an analyzer located before the filter unit.
- Doug stated that the Authority has plans to install a pH analyzer after the filter, as required by the NPDES permit. The new analyzer will be installed within the next three months.
- Sludge from the settling tank is sent to outdoor drying beds. Drain water from beds is mixed with the plant’s raw water intake. The Authority has plans to clean the sand drying beds and replace the sand this year.
- The effluent supplemental report needs to be updated to include a column for the Copper result

04/04/2023:

- The facility has two permitted outfalls. Outfall 101 is for the discharge of treated filter backwash water and outfall 001 is the discharge of “diversion flow”, which is treated (non-chlorinated) drinking water from the filter tank that cannot be used. Diversion flows occur at plant start-up and when water conditions are not suitable.
- The NPDES permit for the facility requires the diversion flow to be tested for pH any day there is a discharge.
- An in-pipe magmeter is used to measure the flow of the treated backwash discharge and the diversion flow is measured with a pressure differential meter. Both meters are calibrated in-house by the Authority’s instrument technician on a yearly basis.
- Backwash treatment consists of a single large metal tank used for settling out solids. When the tank is full, an automatic valve will release the supernatant. When the tank discharges, the SCADA system activates a solenoid, which sends water samples to a collection bottle about every 15 minutes.
- The pH is checked with the new pH analyzer. The pH of the diversion flow is tested by a plant operator if they are on-site during the discharge. Otherwise, the pH is checked by a newly installed pH analyzer located after the filter unit.

- Sludge from the settling tank is sent to outdoor drying beds. Drain water from the beds is mixed with the plant's raw water intake.
- Sludge was removed from the sand drying beds last year.

**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 0.0708 MGD in May 2025. The design capacity of the treatment system is 0.24 MGD.

The off-site laboratory used for the analysis of the parameters was Pace Analytical located at 1803 Philadelphia Street, Indiana, PA 15701

**DMR Data for Outfall 001 (from November 1, 2024 to October 31, 2025)**

| Parameter | OCT-25 | SEP-25 | AUG-25 | JUL-25 | JUN-25 | MAY-25 | APR-25 | MAR-25 | FEB-25 | JAN-25 | DEC-24 | NOV-24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flow (MGD) Average Monthly | 0.040182 | 0.0452 | 0.029362 | 0.083 | 0.023124 | 0.087358 | 0.047308 | 0.7347 | 0.0387 | 0.0354 | 0.0488 | 0.0426 |
| Flow (MGD) Daily Maximum | 0.112735 | 0.066 | 0.0739 | 0.4083 | 0.057625 | 0.366447 | 0.217537 | 0.4649 | 0.0847 | 0.096 | 0.0783 | 0.0775 |
| pH (S.U.) Instantaneous Minimum | 6.59 | 6.46 | 6.34 | 6.22 | 6.41 | 6.18 | 6.48 | 6.43 | 6.67 | 6.61 | 6.48 | 6.64 |
| pH (S.U.) Instantaneous Maximum | 6.78 | 6.8 | 6.70 | 6.44 | 6.81 | 6.69 | 6.80 | 6.69 | 6.84 | 6.79 | 6.80 | 6.83 |

**DMR Data for Outfall 101 (from November 1, 2024 to October 31, 2025)**

| Parameter | OCT-25 | SEP-25 | AUG-25 | JUL-25 | JUN-25 | MAY-25 | APR-25 | MAR-25 | FEB-25 | JAN-25 | DEC-24 | NOV-24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flow (MGD) Average Monthly | 0.060526 | 0.061695 | 0.061973 | 0.069266 | 0.067906 | 0.070789 | 0.056247 | 0.0587 | 0.0593 | 0.058 | 0.0655 | 0.0556 |
| Flow (MGD) Daily Maximum | 0.095018 | 0.102529 | 0.096298 | 0.134 | 0.101934 | 0.1 | 0.100772 | 0.1016 | 0.1019 | 0.0967 | 0.0974 | 0.0954 |
| pH (S.U.) Instantaneous Minimum | 6.88 | 6.6 | 6.65 | 6.59 | 6.55 | 6.39 | 6.37 | 6.3 | 6.60 | 6.50 | 6.38 | 6.46 |
| pH (S.U.) Instantaneous Maximum | 7.13 | 7.19 | 7.08 | 6.89 | 7.04 | 6.85 | 6.83 | 6.85 | 6.96 | 6.94 | 6.92 | 7.12 |
| TSS (lbs/day) Average Monthly | < 3 | < 4 | < 4 | < 5 | 4 | 5 | 2.814 | 4 | 3 | 3 | 2.87 | 2.32 |
| TSS (lbs/day) Daily Maximum | 4 | < 4 | < 4 | 8 | 6 | 8 | 6.387 | 7 | 6 | 5 | 4.87 | 4.0 |
| TSS (mg/L) Average Monthly | < 5 | < 5 | < 5 | < 6 | 8 | 8 | 6 | 7 | 5 | 6 | 5.25 | < 5 |
| TSS (mg/L) Daily Maximum | 6 | < 5 | 5 | 10 | 9 | 14.8 | 7.6 | 10 | 7 | 7 | 6 | < 5 |
| Total Nitrogen (mg/L) Annual Average | | | | | | | | | | | < 0.729 | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Phosphorus (mg/L) Annual Average | | | | | | | | | | | < 0.10 | |
| Total Aluminum (lbs/day) Average Monthly | 0.1 | 0.2 | 0.3 | 0.5 | 0.5 | 0.6 | 0.375 | 0.5 | 0.6 | 0.5 | 0.38 | 0.14 |
| Total Aluminum (lbs/day) Daily Maximum | 0.3 | 0.3 | 0.3 | 1.0 | 0.7 | 0.8 | 0.785 | 0.8 | 0.8 | 0.8 | 0.84 | 0.283 |
| Total Aluminum (mg/L) Average Monthly | 0.2 | 0.3 | 0.4 | 0.6 | 0.9 | 1.1 | 0.8 | 1.1 | 0.9 | 0.8 | 0.69 | 0.30 |
| Total Aluminum (mg/L) Daily Maximum | 0.556 | 0.392 | 0.443 | 0.999 | 0.934 | 1.36 | 0.935 | 1.14 | 0.982 | 0.956 | 1.04 | 0.356 |
| Total Copper (lbs/day) Average Quarterly | | 0.00751 38 | | | 0.02169 157 | | | 0.009 | | | 1.09 | |
| Total Copper (lbs/day) Daily Maximum | | 0.01565 598 | | | 0.03402 722 | | | 0.009 | | | 0.07 | |
| Total Copper (mg/L) Average Quarterly | | 0.014 | | | 0.040 | | | 0.026 | | | 0.084 | |
| Total Iron (lbs/day) Average Monthly | < 0.09 | 0.2 | 0.3 | 0.1 | 0.05 | < 0.1 | 0.0938 | < 0.1 | < 0.1 | 0.06 | 0.0377 | 0.037 |
| Total Iron (lbs/day) Daily Maximum | 0.2 | 0.2 | 0.3 | 0.2 | 0.06 | < 0.1 | 0.1680 | < 0.1 | < 0.2 | 0.09 | 0.073 | 0.074 |
| Total Iron (mg/L) Average Monthly | < 0.1 | 0.2 | 0.4 | 0.2 | 0.1 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | 0.1 | 0.069 | 0.08 |
| Total Iron (mg/L) Daily Maximum | 0.401 | 0.313 | 0.46 | 0.29 | 0.104 | < 0.2 | < 0.2 | < 0.2 | < 0.2 | 0.148 | 0.0899 | 0.0931 |
| Total Manganese (lbs/day) Average Monthly | 0.1 | 0.1 | 0.1 | 0.1 | 0.03 | 0.03 | 0.0187 | 0.02 | 0.02 | 0.02 | 0.017 | 0.019 |
| Total Manganese (lbs/day) Daily Maximum | 0.2 | 0.1 | 0.1 | 0.1 | 0.04 | 0.04 | 0.0518 | 0.04 | 0.04 | 0.03 | 0.03 | 0.034 |
| Total Manganese (mg/L) Average Monthly | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.04 | 0.04 | 0.03 | 0.03 | 0.031 | 0.041 |
| Total Manganese (mg/L) Daily Maximum | 0.306 | 0.201 | 0.174 | 0.231 | 0.069 | 0.0675 | 0.0617 | 0.0577 | 0.044 | 0.074 | 0.0371 | 0.043 |

## 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 February 1, 2021 to January 20, 2026, the following were observed effluent non-compliances.

**Summary of Non-Compliance with NPDES Effluent Limits**
**Beginning Feburary 1, 2021 and Ending Juanary 20, 2026**

| NON_COMPLIANCE_DATE | NON_COMPL_TYPE_DESC | NON_COMPL_CATEGORY_DESC | PARAMETER | SAMPLE_VALUE | VIOLATION_CONDITION | PERMIT_VALUE | UNIT_OF_MEASURE | STAT_BASE_CODE | FACILITY_COMMENTS |
|---|---|---|---|---|---|---|---|---|---|
| 4/28/2021 | Violation of permit condition | Effluent | Aluminum, Total | 0.7 | > | .6 | lbs/day | Average Monthly | Continue to decrease Alum. |
| 6/30/2024 | Late DMR Submission | Other Violations | | | | | | | |

### 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 February 1, 2021 and ending January 20, 2026, the following were observed enforcement actions.

**Summary of Enforcement Actions**
**Beginning February 1, 2021 and ending January 20, 2026**

| ENF ID | ENF TYPE | EXECUTED DATE | VIOL CODE ID | PROGRAM NAME | VIOLATIONS | ENF FINALSTATUS | DATE |
|---|---|---|---|---|---|---|---|
| 394768 | NOV | 05/28/2021 | 17291 | WPCNP | 92A.44 | Comply/Closed | 05/28/2021 |

## 3.4 Summary of Biosolids Disposal

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

The facility did not report any biosolids disposal in 2025.

## 3.5 Open Violations

As of January 2026, the following open violations existed with the client. The final executed NPDES permit may be withheld pending remediation of the violation.

**Summary of Open Violations**

| FACILITY | PF STATUS | INSP PROGRAM | PROGRAM SPECIFIC ID | INSP ID | VIOLATION ID | INSPECTION CATEGORY | VIOLATION DATE | VIOLATION CODE | VIOLATION |
|---|---|---|---|---|---|---|---|---|---|
| ALTOONA WATER AUTH/WESTERLY | Active | Air Quality | 23-6268625-1 | 3657892 | 8167952 | PF | 11/14/2023 | 127.444 | Construction, Modification, Reactivation and Operation of Sources, Operating Permit Requirements, Compliance requirements. |

## 4.0 Receiving Waters and Water Supply Information Detail Summary

## 4.1 Receiving Waters

The receiving waters has been determined to be Blair Gap Run. The sequence of receiving streams that the Blair Gap Run discharges into are Beaverdam Branch, Frankstown Branch Juniata River, the Juniata River and the Susquehanna River which eventually drains into the Chesapeake Bay.

## 4.2 Public Water Supply (PWS) Intake

The closest PWS to the subject facility is Mifflintown Municipal Authority (PWS ID # 4340008) located approximately 109 miles downstream of the subject facility on the Juniata 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 2 waterbody. The surface waters is an attaining stream that supports aquatic life. The designated use has been classified as protected waters for trout stocking fishes (TSF) 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 Beaverdam Branch Juniata River station (WQN252). This WQN station is located approximately 9 miles downstream of the subject facility.

The closest gauge station to the subject facility is the Frankstown Br Juniata River at Williamsburg, PA (USGS station number 1556000). This gauge station is located approximately 23 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 7.3 and the stream water temperature was estimated to be 19.5 C.

The hardness of the stream was estimated by collecting a sample upstream of the facility. The sampling result was 17 mg/l $CaCO_3$.

The low flow yield and the Q710 for the subject facility was estimated using StreamStats.

The low flow yield is 0.0967 $ft^3/s/mi^2$ and the Q710 is 1.18 $ft^3/s$

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

| | | | |
|---|---|---|---|
| Outfall No. | 001 | Design Flow (MGD) | .24 |
| Latitude | 40º 25' 42.91" | Longitude | -78º 30' 11.51" |
| Quad Name | | Quad Code | |
| Wastewater Description: | Water Treatment Effluent | | |

| | | | |
|---|---|---|---|
| Receiving Waters | Blair Gap Run (CWF) | Stream Code | 16403 |
| NHD Com ID | 65609170 | RMI | 5.62 |
| Drainage Area | 12.2 | Yield (cfs/mi$^2$) | 0.0967 |
| $Q_{7-10}$ Flow (cfs) | 1.18 | $Q_{7-10}$ Basis | StreamStata/streamgauge |
| Elevation (ft) | 1360 | Slope (ft/ft) | |
| Watershed No. | 11-A | Chapter 93 Class. | CWF, MF |
| Existing Use | | Existing Use Qualifier | |
| Exceptions to Use | | Exceptions to Criteria | |
| Assessment Status | Attaining Use(s) supports aquatic life | | |
| Cause(s) of Impairment | Not applicable | | |
| Source(s) of Impairment | Not applicable | | |
| TMDL Status | Final | Name | Beaverdam Branch Watershed |

| Background/Ambient Data | | Data Source |
|---|---|---|
| pH (SU) | 7.3 | WQN252; median July to Sept |
| Temperature (°C) | 19.5 | WQN252; median July to Sept |
| Hardness (mg/L) | 17 | NPDES renewal application dated 11/19/2025 |
| Other: | | |

| | | | |
|---|---|---|---|
| Nearest Downstream Public Water Supply Intake | | Mifflintown MA | |
| PWS Waters | Juniata River | Flow at Intake (cfs) | 1,000,000 |
| PWS RMI | 37 | Distance from Outfall (mi) | 109 |

## 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.

Permit limits for water treatment plant wastes are subject to handling and disposal of water treatment plant (WTP) using Best Practicable Control Technology (BPCT) currently available. Waste water from treatment of WTP sludges and filter backwash shall have the following permit limits.

| Parameter | Monthly Average | Daily Max |
|---|---|---|
| | mg/l | mg/l |
| Suspended Solids | 30 | 60 |
| Iron (total) | 2 | 4 |
| Aluminum (total) | 4 | 8 |
| Manganese (total) | 1 | 2 |
| pH | 6 - 9 | ----- |
| TRC | 0.5 | 1 |

Notes:
Source: TECHNOLOGY-BASED CONTROL REQUIREMENTS FOR WATER TREATMENT PLANT WASTES

### 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:

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

### 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 Chorine (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.

| ***General Data 1*** | ***(Modeling Point #1)*** | ***(Modeling Point #2)*** | ***Units*** |
|---|---|---|---|
| Stream Code | 16335 | 16335 | |
| River Mile Index | 5.62 | 4.33 | miles |
| Elevation | 1360 | 1230 | feet |
| Latitude | 40.429107 | 40.421184 | |
| Longitude | -78.50162 | -78.480592 | |
| Drainage Area | 12.2 | 13.3 | sq miles |
| Low Flow Yield | 0.0967 | 0.0887 | cfs/sq mile |

**5.3.1 Water Quality Modeling 7.0**

**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 pollutants in Groups 1 and 2

The NPDES application collected three samples.

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:

$$TMDL = \Sigma WLAs + \Sigma LAs + MOS$$

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 directly into a local TMDL. The facility discharges into Blair Gap Run and subsequently the Beaverdam Branch. The Beaverdam Branch waters has a TMDL called the Beaverdam Branch TMDL. The entire length of Beaverdam Branch is listed as impaired, as well as three of its tributaries: Mill Run, Sugar Run, and Burgoon Run.

The Beaverdam Branch Total Maximum Daily Load (TMDL) was developed for a stream segment in the Beaverdam Branch Watershed. This was done to address impairments noted on the 1996, 1998, and 2002 Pennsylvania Section 303(d) lists, and the 2004 and 2006 Integrated Lists required under the Clean Water Act and covers one segment on this list. High levels of metals caused these impairments. The sources of the impairments are listed as urban runoff/storm sewers and combined sewer overflows (CSOs). The TMDL addresses the two primary metals (iron and aluminum) identified as the causes of impairment in the watershed. Beaverdam Branch is listed for abandoned mine drainage; this is addressed in a draft TMDL proposed in 2003 (Beaverdam Branch Watershed TMDL).

Blair Gap Run was not listed as one of Beaverdam tributaries. However, the TMDL includes the facility in the TMDL with effluent limits for iron and aluminum. See Table 6 of the Beaverdam Branch TDML.

**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: ≥ 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 (≤ 0.002 MGD), and non-significant IW facilities, all of which may be covered by statewide General Permits or may have individual NPDES permits.

For non-significant IW facilities, monitoring and reporting of TN and TP will be required throughout the permit term in renewed or amended permits anytime the facility has the potential to introduce a net TN or TP increase to the load contained within the intake water used in processing. In general, facilities that discharge groundwater and cooling water with no addition of chemicals containing N or P do not require monitoring. Monitoring for facilities with other discharges will generally conform to the following minimum sampling frequencies, with the permit writer having final discretion.

Non-significant IW facilities that propose expansion or production increases and as a result will discharge at least 75 lbs/day TN or 25 lbs/day TP (on an annual average basis), will be classified as Significant IW dischargers and receive Cap Loads in their permits based on existing performance (existing TN/TP concentrations at current average annual flow).

In general, for new non-significant IW discharges (including existing facilities discharging without a permit), DEP will issue permits containing Cap Loads of "0" and these facilities will be expected to purchase credits and/or apply offsets to achieve compliance.

**Due to the Chesapeake Bay WIP, this facility is subject to Sector C monitoring requirements. Monitoring shall be at least 1x/yr.**

## 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.l.1 and 40 CFR 122.l.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.

## 6.1.1 Conventional Pollutants- Outfall 101

| Summary of Proposed NPDES Parameter Details for Conventional Pollutants and Disinfection<br>Altoona Water - Plane 9, PA0085120; Outfall 101 | | | |
|---|---|---|---|
| **Parameter** | **Permit Limitation Required by[1]:** | **Recommendation** | |
| **pH (S.U.)** | TBEL | Monitoring: | The monitoring frequency shall be daily as a grab sample (Table 6-4). |
| | | Effluent Limit: | Effluent limits may range from pH = 6.0 to 9.0 |
| | | Rationale: | Effluent limits are defined by DEP Guidance Document- Technology-Based Control Requirements for Water Treatment Plant Wastes- Waste Water from Treatment of WTP Sludges and Filter Backwash |
| **TSS** | TBEL | Monitoring: | The monitoring frequency shall be 1/week as an 8-hr composite sample (Table 6-4). |
| | | Effluent Limit: | The average monthly limit should not exceed 30 mg/l as an average monthly . |
| | | Rationale: | Effluent limits are defined by DEP Guidance Document- Technology-Based Control Requirements for Water Treatment Plant Wastes- Waste Water from Treatment of WTP Sludges and Filter Backwash |
| **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 0.24 MGD. | | | |
| 3 Table 6-4 (Self Monitoring Requirements for Industrial 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 | | | |

## 6.1.2 Nitrogen Species and Phosphorus- Outfall 101

| Summary of Proposed NPDES Parameter Details for Nitrogen Species and Phosphorus<br>Altoona Water - Plane 9, PA0085120; Outfall 101 | | | |
|---|---|---|---|
| **Parameter** | **Permit Limitation Required by[1]:** | **Recommendation** | |
| **Total Nitrogen** | Chesapeake Bay TMDL | Monitoring: | The monitoring frequency shall be 1x/yr as a calculation |
| | | 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/yr. |
| **Total Phosphorus** | Chesapeake Bay TMDL | Monitoring: | The monitoring frequency shall be 1x/yr as a calculation |
| | | 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/yr. |
| **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 0.24 MGD. | | | |
| 3 Table 6-4 (Self Monitoring Requirements for Industrial 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- Outfall 101

Two toxics modeling runs were conducted with Toxics Management Spreadsheet.

Modeling Run #1 utilized the sampling results in the NPDES renewal application.

Modeling Run #2 utilized the maximum data result for aluminum, iron, and manganese from the DMR beginning in February 2021 and ending in November 2025. For copper, the CV and concentration data was used from DEP's ToxStats worksheet.

Modeling Run #1 recommends monitoring for aluminum and copper

Modeling Run #2 recommends monitoring for aluminum.

Effluent limits for copper were recommended. In lieu of effluent limits, DEP elected to increase monitoring for copper. Pending favorable results, the monitoring may be reduced or eliminated in future renewals. The NPDES permit shall include a permit re-opener to include effluent limits should the monitoring data in the first 24 months appear unfavorable.

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

**Altoona Water - Plane 9, PA0085120; Outfall 101**

| Parameter | Permit Limitation Required by[1]: | Recommendation | |
|---|---|---|---|
| **Aluminum** | TMDL | Monitoring: | The monitoring frequency shall be 2x/mo as a 24-hr composite sample (Table 6-3). |
| | | Effluent Limit: | The effluent limit shall not exceed 0.6 lb/day and 1.2 mg/l as a monthly average. |
| | | Rationale: | The Beaverdam Branch TMDL outlines wasteload allocations. |
| **Copper** | WQBEL | Monitoring: | The monitoring frequency shall be 2x/mo as a 24-hr composite sample (Table 6-3). |
| | | Effluent Limit: | No effluent limits |
| | | Rationale: | Toxics management spreadsheet recommends effluent limits. . In lieu of effluent limits, DEP elected to increase monitoring for copper. Pending favorable results, the monitoring may be reduced or eliminated in future renewals. The NPDES permit shall include a permit re-opener to include effluent limits should the monitoring data in the first 24 months appears unfavorable. |
| **Iron** | TMDL | Monitoring: | The monitoring frequency shall be 2x/mo as a 24-hr composite sample (Table 6-3). |
| | | Effluent Limit: | The performance effluent limit shall not exceed 1.0 lb.day and 2 mg/l as a monthly average. |
| | | Rationale: | The Beaverdam Branch TMDL outlines wasteload allocations. |
| **Manganese** | DEP Guidance Document-Water Treatment Plant Wastes | Monitoring: | The monitoring frequency shall be 2x/mo as a 24-hr composite sample (Table 6-3). |
| | | Effluent Limit: | The performance effluent limit shall not exceed 1 mg/l as a monthly average. |
| | | Rationale: | Effluent limits are defined by DEP Guidance Document- Technology-Based Control Requirements for Water Treatment Plant Wastes- Waste Water from Treatment of WTP Sludges and Filter Backwash |

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 0.0556 MGD.

3 Table 6-4 (Self Monitoring Requirements for Industrial 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

### 6.1.4 Conventional Pollutants and Disinfection- Outfall 001

| Summary of Proposed NPDES Parameter Details for Conventional Pollutants and Disinfection<br>Altoona Water- Plane 9; PA0085120; Outfall 001 | | | |
|---|---|---|---|
| **Parameter** | **Permit Limitation Required by[1]:** | **Recommendation** | |
| **pH (S.U.)** | TBEL | Monitoring: | The monitoring frequency shall be daily as a grab sample (Table 6-4). |
| | | Effluent Limit: | Effluent limits may range from pH = 6.0 to 9.0 |
| | | Rationale: | The monitoring frequency has been assigned in accordance with Table 6-4 and the effluent limits assigned by Chapter 95.2(1). |

### 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 frequency for copper have increased
- Monitoring frequency for aluminum, iron, and manganese reduced to 2x/month

### 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** 40º 25' 47.00" , **Longitude** 78º 30' 5.00" , **River Mile Index** 5.62 , **Stream Code** 16335

**Receiving Waters:** Blair Gap Run (CWF)

**Type of Effluent:** Water Treatment 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) (1) | | Concentrations (mg/L) | | | | Minimum (2) Measurement Frequency | Required Sample Type |
| | Average Monthly | Average Weekly | Minimum | Average Monthly | Maximum | Instant. Maximum | | |
| Flow (MGD) | Report | Report Daily Max | XXX | XXX | XXX | XXX | Continuous | Measured |
| pH (S.U.) | XXX | XXX | 6.0 Inst Min | XXX | XXX | 9.0 | 1/day | Grab |

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

at Outfall 001

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

**I. B. For Outfall** 101 , **Latitude** 40° 25' 47.00" , **Longitude** 78° 30' 5.00" , **River Mile Index** 5.62 , **Stream Code** 16335

**Receiving Waters:** Blair Gap Run (CWF)

**Type of Effluent:** Internal Monitoring Point – Water Treatment 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) (1) | | Concentrations (mg/L) | | | | Minimum (2) | Required |
| | Average Monthly | Daily Maximum | Minimum | Average Monthly | Daily Maximum | Instant. Maximum | Measurement Frequency | Sample Type |
| Flow (MGD) | Report | Report | XXX | XXX | XXX | XXX | Continuous | Measured |
| pH (S.U.) | XXX | XXX | 6.0 Inst Min | XXX | XXX | 9.0 | 1/day | Grab |
| Total Suspended Solids | Report | Report | XXX | 30 | 60 | 75 | 1/week | 8-Hr Composite |
| Total Nitrogen | XXX | XXX | XXX | Report Annl Avg | XXX | XXX | 1/year | Calculation |
| Total Phosphorus | XXX | XXX | XXX | Report Annl Avg | XXX | XXX | 1/year | 8-Hr Composite |
| Aluminum, Total | 0.6 | 1.2 | XXX | 1.2 | 2.4 | 3 | 2/month | 8-Hr Composite |
| Copper, Total | Report | XXX | XXX | Report | Report | XXX | 2/month | 24-Hr Composite |
| Iron, Total | 1.0 | 2.0 | XXX | 2.0 | 4.0 | 5 | 2/month | 8-Hr Composite |
| Manganese, Total | Report | Report | XXX | 1.0 | 2.0 | 2.5 | 2/month | 8-Hr Composite |

## 6.3.2 Summary of Proposed Permit Part C Conditions

The subject facility has the following Part C conditions.

- Chesapeake Bay Nutrient Definitions
- Solids Management for Non-Lagoon Treatment Systems

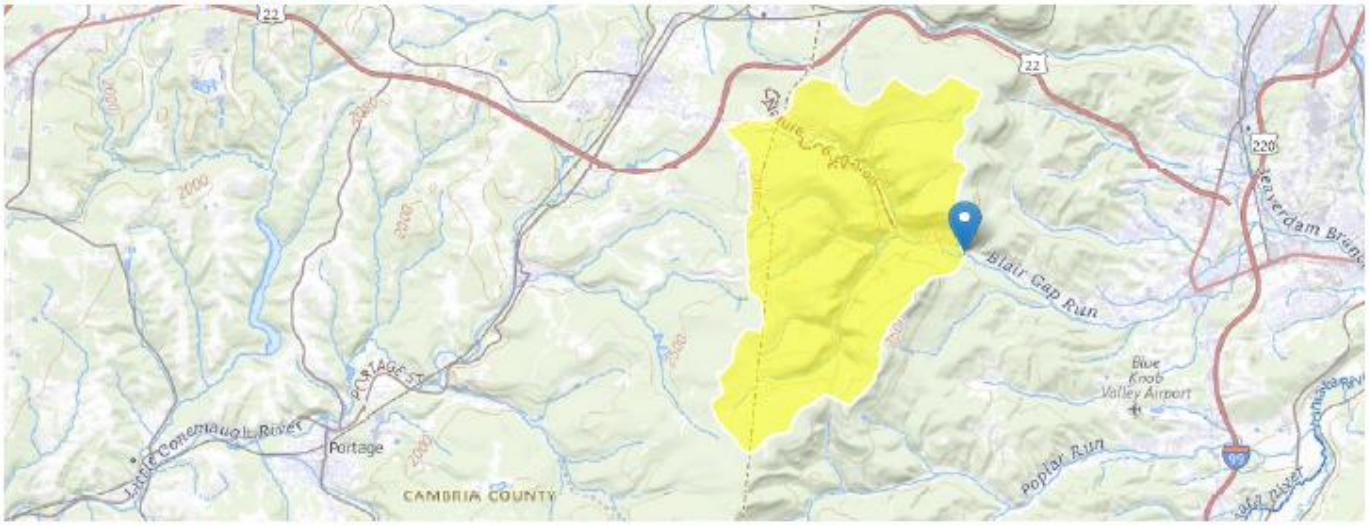
| Tools and References Used to Develop Permit | |
|---|---|
| | |
| ☐ | WQM for Windows Model (see Attachment ) |
| ☒ | Toxics Management Spreadsheet (see Attachment ) |
| ☐ | TRC Model Spreadsheet (see Attachment ) |
| ☐ | Temperature Model Spreadsheet (see Attachment ) |
| ☐ | Water Quality Toxics Management Strategy, 361-0100-003, 4/06. |
| ☐ | Technical Guidance for the Development and Specification of Effluent Limitations, 386-0400-001, 10/97. |
| ☐ | Policy for Permitting Surface Water Diversions, 386-2000-019, 3/98. |
| ☐ | Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 386-2000-018, 11/96. |
| ☐ | Technology-Based Control Requirements for Water Treatment Plant Wastes, 386-2183-001, 10/97. |
| ☐ | Technical Guidance for Development of NPDES Permit Requirements Steam Electric Industry, 386-2183-002, 12/97. |
| ☐ | Pennsylvania CSO Policy, 386-2000-002, 9/08. |
| ☐ | Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03. |
| ☐ | Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 386-2000-008, 4/97. |
| ☐ | Determining Water Quality-Based Effluent Limits, 386-2000-004, 12/97. |
| ☐ | Implementation Guidance Design Conditions, 386-2000-007, 9/97. |
| ☐ | Technical Reference Guide (TRG) WQM 7.0 for Windows, Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen, Version 1.0, 386-2000-016, 6/2004. |
| ☐ | Interim Method for the Sampling and Analysis of Osmotic Pressure on Streams, Brines, and Industrial Discharges, 386-2000-012, 10/1997. |
| ☐ | Implementation Guidance for Section 95.6 Management of Point Source Phosphorus Discharges to Lakes, Ponds, and Impoundments, 386-2000-009, 3/99. |
| ☐ | Technical Reference Guide (TRG) PENTOXSD for Windows, PA Single Discharge Wasteload Allocation Program for Toxics, Version 2.0, 386-2000-015, 5/2004. |
| ☐ | Implementation Guidance for Section 93.7 Ammonia Criteria, 386-2000-022, 11/97. |
| ☐ | Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers, 386-2000-013, 4/2008. |
| ☐ | Implementation Guidance Total Residual Chlorine (TRC) Regulation, 386-2000-011, 11/1994. |
| ☐ | Implementation Guidance for Temperature Criteria, 386-2000-001, 4/09. |
| ☐ | Implementation Guidance for Section 95.9 Phosphorus Discharges to Free Flowing Streams, 386-2000-021, 10/97. |
| ☐ | Implementation Guidance for Application of Section 93.5(e) for Potable Water Supply Protection Total Dissolved Solids, Nitrite-Nitrate, Non-Priority Pollutant Phenolics and Fluorides, 386-2000-020, 10/97. |
| ☐ | Field Data Collection and Evaluation Protocol for Determining Stream and Point Source Discharge Design Hardness, 386-2000-005, 3/99. |
| ☐ | Implementation Guidance for the Determination and Use of Background/Ambient Water Quality in the Determination of Wasteload Allocations and NPDES Effluent Limitations for Toxic Substances, 386-2000-010, 3/1999. |
| ☐ | Design Stream Flows, 386-2000-003, 9/98. |
| ☐ | Field Data Collection and Evaluation Protocol for Deriving Daily and Hourly Discharge Coefficients of Variation (CV) and Other Discharge Characteristics, 386-2000-006, 10/98. |
| ☐ | Evaluations of Phosphorus Discharges to Lakes, Ponds and Impoundments, 386-3200-001, 6/97. |
| ☐ | Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, 4/07. |
| ☒ | SOP: |
| ☐ | Other: |

# Attachment A

# Stream Stats/Gauge Data

## StreamStats Report

**Region ID:** PA
**Clicked Point (Latitude, Longitude):** 40.42913, -78.50158
**Time:** 2026-01-23 07:37:22 -0500




Altoona Water - Plane 9 PA0085120 Modeling Point #1 January 2026

### StreamStats Update

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

Collapse All

### Basin Characteristics

| Parameter Code | Parameter Description | Value | Unit |
|---|---|---|---|
| CARBON | Percentage of area of carbonate rock | 0 | percent |
| DRNAREA | Area that drains to a point on a stream | 12.2 | square miles |
| PRECIP | Mean Annual Precipitation | 46.3 | inches |
| ROCKDEP | Depth to rock | 4.8 | feet |
| STRDEN | Stream Density -- total length of streams divided by drainage area | 1.745 | 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 | 0 | percent | 0 | 99 |
| DRNAREA | Drainage Area | 12.2 | square miles | 4.93 | 1280 |
| PRECIP | Mean Annual Precipitation | 46.3 | inches | 35 | 50.4 |

| Parameter Code | Parameter Name | Value | Units | Min Limit | Max Limit |
|---|---|---|---|---|---|
| ROCKDEP | Depth to Rock | 4.8 | feet | 3.32 | 5.65 |
| STRDEN | Stream Density | 1.745 | miles per square mile | 0.51 | 3.1 |

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

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

| Statistic | Value | Unit | SE | ASEp |
|---|---|---|---|---|
| 7 Day 2 Year Low Flow | 2.31 | ft^3/s | 38 | 38 |
| 30 Day 2 Year Low Flow | 2.99 | ft^3/s | 33 | 33 |
| 7 Day 10 Year Low Flow | 1.18 | ft^3/s | 51 | 51 |
| 30 Day 10 Year Low Flow | 1.5 | ft^3/s | 46 | 46 |
| 90 Day 10 Year Low Flow | 2.14 | ft^3/s | 36 | 36 |

*Low-Flow Statistics Citations*

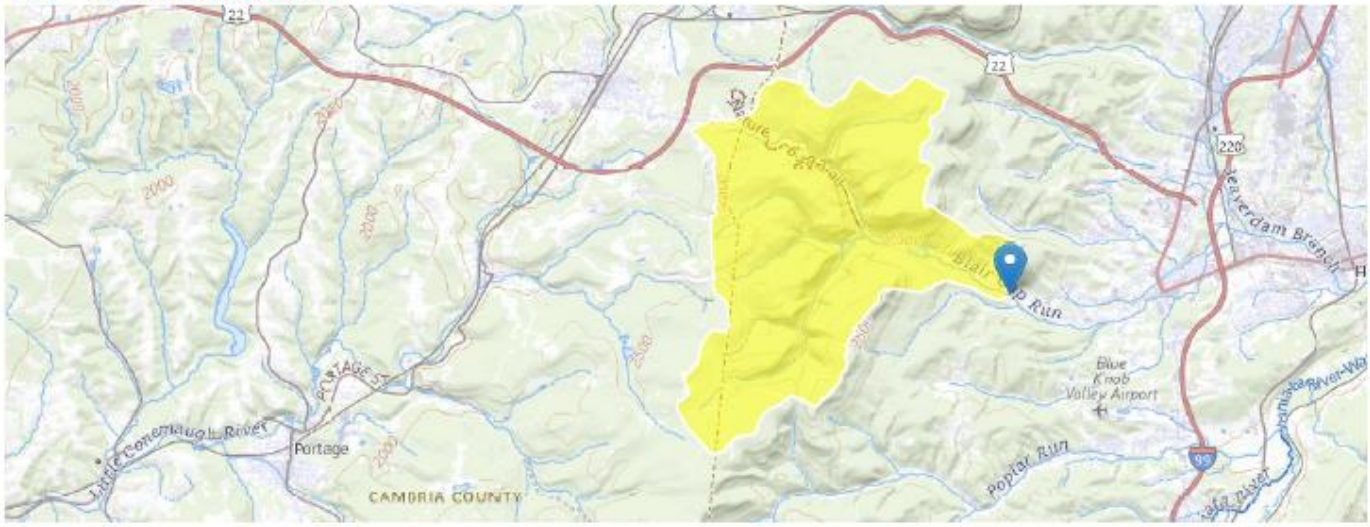
**Stuckey, M.H.,2006, Low-flow, base-flow, and mean-flow regression equations for Pennsylvania streams: U.S. Geological Survey Scientific Investigations Report 2006-5130, 84 p. (http://pubs.usgs.gov/sir/2006/5130/)**



Application Version: 4.30.0
SSHydro Services Version: 1.0.0
SSDelineate Services Version: 1.0.0
NSS Services Version: 2.2.1
GageStats Services Version: 1.2.1
Pourpoint Services Version: 1.2.0
Batch Processor Version: 1.6.0

## StreamStats Report

**Region ID:** PA
**Clicked Point (Latitude, Longitude):** 40.42114, -78.48068
**Time:** 2026-01-23 07:39:55 -0500




Altoona Water- Plane 9 PA0085120 Modeling Point #2 January 2026

### StreamStats Update

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

Collapse All

### Basin Characteristics

| Parameter Code | Parameter Description | Value | Unit |
|---|---|---|---|
| CARBON | Percentage of area of carbonate rock | 0 | percent |
| DRNAREA | Area that drains to a point on a stream | 13.3 | square miles |
| PRECIP | Mean Annual Precipitation | 45.8 | inches |
| ROCKDEP | Depth to rock | 4.71 | feet |
| STRDEN | Stream Density -- total length of streams divided by drainage area | 1.748 | 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 | 0 | percent | 0 | 99 |
| DRNAREA | Drainage Area | 13.3 | square miles | 4.93 | 1280 |
| PRECIP | Mean Annual Precipitation | 45.8 | inches | 35 | 50.4 |

| Parameter Code | Parameter Name | Value | Units | Min Limit | Max Limit |
|---|---|---|---|---|---|
| ROCKDEP | Depth to Rock | 4.71 | feet | 3.32 | 5.65 |
| STRDEN | Stream Density | 1.748 | miles per square mile | 0.51 | 3.1 |

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

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

| Statistic | Value | Unit | SE | ASEp |
|---|---|---|---|---|
| 7 Day 2 Year Low Flow | 2.35 | ft^3/s | 38 | 38 |
| 30 Day 2 Year Low Flow | 3.07 | ft^3/s | 33 | 33 |
| 7 Day 10 Year Low Flow | 1.18 | ft^3/s | 51 | 51 |
| 30 Day 10 Year Low Flow | 1.51 | ft^3/s | 46 | 46 |
| 90 Day 10 Year Low Flow | 2.2 | ft^3/s | 36 | 36 |

*Low-Flow Statistics Citations*

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



Application Version: 4.30.0
SSHydro Services Version: 1.0.0
SSDelineate Services Version: 1.0.0
NSS Services Version: 2.2.1
GageStats Services Version: 1.2.1
Pourpoint Services Version: 1.2.0
Batch Processor Version: 1.6.0

**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; mi², square miles]

| Streamgage number | Streamgage name | Latitude | Longitude | Drainage area (mi²) | Regulated[1] |
|---|---|---|---|---|---|
| 01541303 | West Branch Susquehanna River at Hyde, Pa. | 41.005 | -78.457 | 474 | Y |
| 01541308 | Bradley Run near Ashville, Pa. | 40.509 | -78.584 | 6.77 | N |
| 01541500 | Clearfield Creek at Dimeling, Pa. | 40.972 | -78.406 | 371 | Y |
| 01542000 | Moshannon Creek at Osceola Mills, Pa. | 40.850 | -78.268 | 68.8 | N |
| 01542500 | WB Susquehanna River at Karthaus, Pa. | 41.118 | -78.109 | 1,462 | Y |
| 01542810 | Waldy Run near Emporium, Pa. | 41.579 | -78.293 | 5.24 | N |
| 01543000 | Driftwood Branch Sinnemahoning Creek at Sterling Run, Pa. | 41.413 | -78.197 | 272 | N |
| 01543500 | Sinnemahoning Creek at Sinnemahoning, Pa. | 41.317 | -78.103 | 685 | N |
| 01544000 | First Fork Sinnemahoning Creek near Sinnemahoning, Pa. | 41.402 | -78.024 | 245 | Y |
| 01544500 | Kettle Creek at Cross Fork, Pa. | 41.476 | -77.826 | 136 | N |
| 01545000 | Kettle Creek near Westport, Pa. | 41.320 | -77.874 | 233 | Y |
| 01545500 | West Branch Susquehanna River at Renovo, Pa. | 41.325 | -77.751 | 2,975 | Y |
| 01545600 | Young Womans Creek near Renovo, Pa. | 41.390 | -77.691 | 46.2 | N |
| 01546000 | North Bald Eagle Creek at Milesburg, Pa. | 40.942 | -77.794 | 119 | N |
| 01546400 | Spring Creek at Houserville, Pa. | 40.834 | -77.828 | 58.5 | N |
| 01546500 | Spring Creek near Axemann, Pa. | 40.890 | -77.794 | 87.2 | N |
| 01547100 | Spring Creek at Milesburg, Pa. | 40.932 | -77.786 | 142 | N |
| 01547200 | Bald Eagle Creek below Spring Creek at Milesburg, Pa. | 40.943 | -77.786 | 265 | N |
| 01547500 | Bald Eagle Creek at Blanchard, Pa. | 41.052 | -77.604 | 339 | Y |
| 01547700 | Marsh Creek at Blanchard, Pa. | 41.060 | -77.606 | 44.1 | N |
| 01547800 | South Fork Beech Creek near Snow Shoe, Pa. | 41.024 | -77.904 | 12.2 | N |
| 01547950 | Beech Creek at Monument, Pa. | 41.112 | -77.702 | 152 | N |
| 01548005 | Bald Eagle Creek near Beech Creek Station, Pa. | 41.081 | -77.549 | 562 | Y |
| 01548500 | Pine Creek at Cedar Run, Pa. | 41.522 | -77.447 | 604 | N |
| 01549000 | Pine Creek near Waterville, Pa. | 41.313 | -77.379 | 750 | N |
| 01549500 | Blockhouse Creek near English Center, Pa. | 41.474 | -77.231 | 37.7 | N |
| 01549700 | Pine Creek below Little Pine Creek near Waterville, Pa. | 41.274 | -77.324 | 944 | Y |
| 01550000 | Lycoming Creek near Trout Run, Pa. | 41.418 | -77.033 | 173 | N |
| 01551500 | WB Susquehanna River at Williamsport, Pa. | 41.236 | -76.997 | 5,682 | Y |
| 01552000 | Loyalsock Creek at Loyalsockville, Pa. | 41.325 | -76.912 | 435 | N |
| 01552500 | Muncy Creek near Sonestown, Pa. | 41.357 | -76.535 | 23.8 | N |
| 01553130 | Sand Spring Run near White Deer, Pa. | 41.059 | -77.077 | 4.93 | N |
| 01553500 | West Branch Susquehanna River at Lewisburg, Pa. | 40.968 | -76.876 | 6,847 | Y |
| 01553700 | Chillisquaque Creek at Washingtonville, Pa. | 41.062 | -76.680 | 51.3 | N |
| 01554000 | Susquehanna River at Sunbury, Pa. | 40.835 | -76.827 | 18,300 | Y |
| 01554500 | Shamokin Creek near Shamokin, Pa. | 40.810 | -76.584 | 54.2 | N |
| 01555000 | Penns Creek at Penns Creek, Pa. | 40.867 | -77.048 | 301 | N |
| 01555500 | East Mahantango Creek near Dalmatia, Pa. | 40.611 | -76.912 | 162 | N |
| 01556000 | Frankstown Branch Juniata River at Williamsburg, Pa. | 40.463 | -78.200 | 291 | N |
| 01557500 | Bald Eagle Creek at Tyrone, Pa. | 40.684 | -78.234 | 44.1 | N |
| 01558000 | Little Juniata River at Spruce Creek, Pa. | 40.613 | -78.141 | 220 | N |
| 01559000 | Juniata River at Huntingdon, Pa. | 40.485 | -78.019 | 816 | LF |
| 01559500 | Standing Stone Creek near Huntingdon, Pa. | 40.524 | -77.971 | 128 | N |
| 01559700 | Sulphur Springs Creek near Manns Choice, Pa. | 39.978 | -78.619 | 5.28 | N |
| 01560000 | Dunning Creek at Belden, Pa. | 40.072 | -78.493 | 172 | N |

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

[ft³/s; cubic feet per second; —, statistic not computed; <, less than]

| Streamgage number | Period of record used in analysis[1] | Number of years used in analysis | 1-day, 10-year (ft³/s) | 7-day, 10-year (ft³/s) | 7-day, 2-year (ft³/s) | 30-day, 10-year (ft³/s) | 30-day, 2-year (ft³/s) | 90-day, 10-year (ft³/s) |
|---|---|---|---|---|---|---|---|---|
| 01546000 | 1912–1934 | 17 | 1.8 | 2.2 | 6.8 | 3.7 | 12.1 | 11.2 |
| 01546400 | 1986–2008 | 23 | 13.5 | 14.0 | 19.6 | 15.4 | 22.3 | 18.7 |
| 01546500 | 1942–2008 | 67 | 26.8 | 29.0 | 41.3 | 31.2 | 44.2 | 33.7 |
| 01547100 | 1969–2008 | 40 | 102 | 105 | 128 | 111 | 133 | 117 |
| 01547200 | 1957–2008 | 52 | 99.4 | 101 | 132 | 106 | 142 | 115 |
| 01547500 | [2]1971–2008 | 38 | 28.2 | 109 | 151 | 131 | 172 | 153 |
| 01547500 | [3]1956–1969 | 14 | 90.0 | 94.9 | 123 | 98.1 | 131 | 105 |
| 01547700 | 1957–2008 | 52 | .5 | .6 | 2.7 | 1.1 | 3.9 | 2.2 |
| 01547800 | 1971–1981 | 11 | 1.6 | 1.8 | 2.4 | 2.1 | 2.9 | 3.5 |
| 01547950 | 1970–2008 | 39 | 12.1 | 13.6 | 28.2 | 17.3 | 36.4 | 23.8 |
| 01548005 | [2]1971–2000 | 25 | 142 | 151 | 206 | 178 | 241 | 223 |
| 01548005 | [3]1912–1969 | 58 | 105 | 114 | 147 | 125 | 165 | 140 |
| 01548500 | 1920–2008 | 89 | 21.2 | 24.2 | 50.1 | 33.6 | 68.6 | 49.3 |
| 01549000 | 1910–1920 | 11 | 26.0 | 32.9 | 78.0 | 46.4 | 106 | 89.8 |
| 01549500 | 1942–2008 | 67 | .6 | .8 | 2.5 | 1.4 | 3.9 | 2.6 |
| 01549700 | 1959–2008 | 50 | 33.3 | 37.2 | 83.8 | 51.2 | 117 | 78.4 |
| 01550000 | 1915–2008 | 94 | 6.6 | 7.6 | 16.8 | 11.2 | 24.6 | 18.6 |
| 01551500 | [2]1963–2008 | 46 | 520 | 578 | 1,020 | 678 | 1,330 | 919 |
| 01551500 | [3]1901–1961 | 61 | 400 | 439 | 742 | 523 | 943 | 752 |
| 01552000 | 1927–2008 | 80 | 20.5 | 22.2 | 49.5 | 29.2 | 69.8 | 49.6 |
| 01552500 | 1942–2008 | 67 | .9 | 1.2 | 3.1 | 1.7 | 4.4 | 3.3 |
| 01553130 | 1969–1981 | 13 | 1.0 | 1.1 | 1.5 | 1.3 | 1.8 | 1.7 |
| 01553500 | [2]1968–2008 | 41 | 760 | 838 | 1,440 | 1,000 | 1,850 | 1,470 |
| 01553500 | [3]1941–1966 | 26 | 562 | 619 | 880 | 690 | 1,090 | 881 |
| 01553700 | 1981–2008 | 28 | 9.1 | 10.9 | 15.0 | 12.6 | 17.1 | 15.2 |
| 01554000 | [2]1981–2008 | 28 | 1,830 | 1,990 | 3,270 | 2,320 | 4,210 | 3,160 |
| 01554000 | [3]1939–1979 | 41 | 1,560 | 1,630 | 2,870 | 1,880 | 3,620 | 2,570 |
| 01554500 | 1941–1993 | 53 | 16.2 | 22.0 | 31.2 | 25.9 | 35.7 | 31.4 |
| 01555000 | 1931–2008 | 78 | 33.5 | 37.6 | 58.8 | 43.4 | 69.6 | 54.6 |
| 01555500 | 1931–2008 | 78 | 4.9 | 6.5 | 18.0 | 9.4 | 24.3 | 16.6 |
| 01556000 | 1918–2008 | 91 | 43.3 | 47.8 | 66.0 | 55.1 | 75.0 | 63.7 |
| 01557500 | 1946–2008 | 63 | 2.8 | 3.2 | 6.3 | 4.2 | 8.1 | 5.8 |
| 01558000 | 1940–2008 | 69 | 56.3 | 59.0 | 79.8 | 65.7 | 86.2 | 73.7 |
| 01559000 | 1943–2008 | 66 | 104 | 177 | 249 | 198 | 279 | 227 |
| 01559500 | 1931–1958 | 28 | 9.3 | 10.5 | 15.0 | 12.4 | 17.8 | 15.8 |
| 01559700 | 1963–1978 | 16 | .1 | .1 | .2 | .1 | .3 | .2 |
| 01560000 | 1941–2008 | 68 | 8.5 | 9.4 | 15.6 | 12.0 | 20.2 | 16.2 |
| 01561000 | 1932–1958 | 27 | .4 | .5 | 1.6 | .8 | 2.5 | 1.7 |
| 01562000 | 1913–2008 | 96 | 64.1 | 67.1 | 106 | 77.4 | 122 | 94.5 |
| 01562500 | 1931–1957 | 27 | 1.1 | 1.6 | 3.8 | 2.3 | 5.4 | 3.7 |
| 01563200 | [2]1974–2008 | 35 | — | — | — | 112 | 266 | 129 |
| 01563200 | [3]1948–1972 | 25 | 10.3 | 28.2 | 86.1 | 64.5 | 113 | 95.5 |
| 01563500 | [2]1974–2008 | 35 | 384 | 415 | 519 | 441 | 580 | 493 |
| 01563500 | [3]1939–1972 | 34 | 153 | 242 | 343 | 278 | 399 | 333 |
| 01564500 | 1940–2008 | 69 | 3.6 | 4.2 | 10.0 | 6.2 | 14.4 | 10.6 |

# Attachment B

# Toxics Management Spreadsheet Output Values

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Toxics Management Spreadsheet
Version 1.4, May 2023

Run #1

# Discharge Information

Instructions | Discharge | Stream

Facility: Altoona Water - Plane 9 NPDES Permit No.: PA0085120 Outfall No.: 001

Evaluation Type: Major Sewage / Industrial Waste Wastewater Description: Effluent Filter Backwash

| Discharge Characteristics | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Design Flow (MGD)* | Hardness (mg/l)* | pH (SU)* | Partial Mix Factors (PMFs) | | | | Complete Mix Times (min) | |
| | | | AFC | CFC | THH | CRL | $Q_{7-10}$ | $Q_h$ |
| 0.0556 | 18.3 | 6.75 | | | | | | |

| | | | | | 0 if left blank | | 0.5 if left blank | | 0 if left blank | | | 1 if left blank | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Discharge Pollutant | Units | Max Discharge Conc | | Trib Conc | Stream Conc | Daily CV | Hourly CV | Stream CV | Fate Coeff | FOS | Criteria Mod | Chem Transl |
| Group 1 | Total Dissolved Solids (PWS) | mg/L | | 33 | | | | | | | | | |
| | Chloride (PWS) | mg/L | | 1.33 | | | | | | | | | |
| | Bromide | mg/L | < | 0.1 | | | | | | | | | |
| | Sulfate (PWS) | mg/L | | 9.6 | | | | | | | | | |
| | Fluoride (PWS) | mg/L | < | 0.05 | | | | | | | | | |
| Group 2 | Total Aluminum | µg/L | | 426 | | | | | | | | | |
| | Total Antimony | µg/L | < | 0.4 | | | | | | | | | |
| | Total Arsenic | µg/L | | 2 | | | | | | | | | |
| | Total Barium | µg/L | | 33 | | | | | | | | | |
| | Total Beryllium | µg/L | < | 0.4 | | | | | | | | | |
| | Total Boron | µg/L | < | 47 | | | | | | | | | |
| | Total Cadmium | µg/L | < | 0.1 | | | | | | | | | |
| | Total Chromium (III) | µg/L | < | 1 | | | | | | | | | |
| | Hexavalent Chromium | µg/L | < | 0.1 | | | | | | | | | |
| | Total Cobalt | µg/L | < | 1 | | | | | | | | | |
| | Total Copper | µg/L | | 2 | | | | | | | | | |
| | Free Cyanide | µg/L | < | 0.5 | | | | | | | | | |
| | Total Cyanide | µg/L | < | 5 | | | | | | | | | |
| | Dissolved Iron | µg/L | < | 20 | | | | | | | | | |
| | Total Iron | µg/L | | 120 | | | | | | | | | |
| | Total Lead | µg/L | < | 1 | | | | | | | | | |
| | Total Manganese | µg/L | | 153 | | | | | | | | | |
| | Total Mercury | µg/L | < | 0.2 | | | | | | | | | |
| | Total Nickel | µg/L | | 1 | | | | | | | | | |
| | Total Phenols (Phenolics) (PWS) | µg/L | < | 5 | | | | | | | | | |
| | Total Selenium | µg/L | < | 0.5 | | | | | | | | | |
| | Total Silver | µg/L | < | 0.2 | | | | | | | | | |
| | Total Thallium | µg/L | < | 0.05 | | | | | | | | | |
| | Total Zinc | µg/L | < | 4 | | | | | | | | | |
| | Total Molybdenum | µg/L | < | 4 | | | | | | | | | |
| | Acrolein | µg/L | < | | | | | | | | | | |
| | Acrylamide | µg/L | < | | | | | | | | | | |
| | Acrylonitrile | µg/L | < | | | | | | | | | | |
| | Benzene | µg/L | < | | | | | | | | | | |
| | Bromoform | µg/L | < | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Group 3 | 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 | < | | | | | | | | | | |
| Group 4 | 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 | < | | | | | | | | | | |
| Group 5 | 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)Anthrancene | 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 | < | | | | | | | | | | | |
| | Isophorone | µg/L | < | | | | | | | | | | | |
| | Naphthalene | µg/L | < | | | | | | | | | | | |
| | Nitrobenzene | µg/L | < | | | | | | | | | | | |
| | n-Nitrosodimethylamine | µg/L | < | | | | | | | | | | | |
| | n-Nitrosodi-n-Propylamine | µg/L | < | | | | | | | | | | | |
| | n-Nitrosodiphenylamine | µg/L | < | | | | | | | | | | | |
| | Phenanthrene | µg/L | < | | | | | | | | | | | |
| | Pyrene | µg/L | < | | | | | | | | | | | |
| | 1,2,4-Trichlorobenzene | µg/L | < | | | | | | | | | | | |
| Group 6 | Aldrin | µg/L | < | | | | | | | | | | | |
| | alpha-BHC | µg/L | < | | | | | | | | | | | |
| | beta-BHC | µg/L | < | | | | | | | | | | | |
| | gamma-BHC | µg/L | < | | | | | | | | | | | |
| | delta BHC | µg/L | < | | | | | | | | | | | |
| | Chlordane | µg/L | < | | | | | | | | | | | |
| | 4,4-DDT | µg/L | < | | | | | | | | | | | |
| | 4,4-DDE | µg/L | < | | | | | | | | | | | |
| | 4,4-DDD | µg/L | < | | | | | | | | | | | |
| | Dieldrin | µg/L | < | | | | | | | | | | | |
| | alpha-Endosulfan | µg/L | < | | | | | | | | | | | |
| | beta-Endosulfan | µg/L | < | | | | | | | | | | | |
| | Endosulfan Sulfate | µg/L | < | | | | | | | | | | | |
| | Endrin | µg/L | < | | | | | | | | | | | |
| | Endrin Aldehyde | µg/L | < | | | | | | | | | | | |
| | Heptachlor | µg/L | < | | | | | | | | | | | |
| | Heptachlor Epoxide | µg/L | < | | | | | | | | | | | |
| | PCB-1016 | µg/L | < | | | | | | | | | | | |
| | PCB-1221 | µg/L | < | | | | | | | | | | | |
| | PCB-1232 | µg/L | < | | | | | | | | | | | |
| | PCB-1242 | µg/L | < | | | | | | | | | | | |
| | PCB-1248 | µg/L | < | | | | | | | | | | | |
| | PCB-1254 | µg/L | < | | | | | | | | | | | |
| | PCB-1260 | µg/L | < | | | | | | | | | | | |
| | PCBs, Total | µg/L | < | | | | | | | | | | | |
| | Toxaphene | µg/L | < | | | | | | | | | | | |
| | 2,3,7,8-TCDD | ng/L | < | | | | | | | | | | | |
| Group 7 | Gross Alpha | pCi/L | | | | | | | | | | | | |
| | Total Beta | pCi/L | < | | | | | | | | | | | |
| | Radium 226/228 | pCi/L | < | | | | | | | | | | | |
| | Total Strontium | µg/L | < | | | | | | | | | | | |
| | Total Uranium | µg/L | < | | | | | | | | | | | |
| | Osmotic Pressure | mOs/kg | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Toxics Management Spreadsheet
Version 1.4, May 2023

## Stream / Surface Water Information

**Altoona Water - Plane 9, NPDES Permit No. PA0085120, Outfall 001**

Instructions | Discharge | *Stream*

Receiving Surface Water Name: **Blair Gap Run**

No. Reaches to Model: 1

- (●) Statewide Criteria
- ( ) Great Lakes Criteria
- ( ) ORSANCO Criteria

| Location | Stream Code* | RMI* | Elevation (ft)* | DA ($mi^2$)* | Slope (ft/ft) | PWS Withdrawal (MGD) | Apply Fish Criteria* |
|---|---|---|---|---|---|---|---|
| Point of Discharge | 016335 | 5.62 | 1360 | 12.2 | | | Yes |
| End of Reach 1 | 016635 | 4.33 | 1230 | 13.3 | | | Yes |

***$Q_{7-10}$***

| Location | RMI | LFY ($cfs/mi^2$)* | 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 | 5.62 | 0.0967 | 1.18 | | | | | | | | | 17 | 7.3 | | |
| End of Reach 1 | 4.33 | 0.0887 | | | | | | | | | | 17 | 7.3 | | |

***$Q_h$***

| Location | RMI | LFY ($cfs/mi^2$) | 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 | 5.62 | | 1.18 | | | | | | | | | | | | |
| End of Reach 1 | 4.33 | | | | | | | | | | | | | | |

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Toxics Management Spreadsheet
Version 1.4, May 2023

## Model Results

**Altoona Water - Plane 9, NPDES Permit No. PA0085120, Outfall 001**

Instructions | Results | RETURN TO INPUTS | SAVE AS PDF | PRINT | ◉ All ○ Inputs ○ Results ○ Limits

☐ ***Hydrodynamics***

☑ ***Wasteload Allocations***

☑ ***AFC*** CCT (min): 4.687 PMF: 1 Analysis Hardness (mg/l): 17.088 Analysis pH: 7.23

| 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 | |
| Fluoride (PWS) | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Aluminum | 0 | 0 | | 0 | 750 | 750 | 11,039 | |
| Total Antimony | 0 | 0 | | 0 | 1,100 | 1,100 | 16,191 | |
| Total Arsenic | 0 | 0 | | 0 | 340 | 340 | 5,004 | Chem Translator of 1 applied |
| Total Barium | 0 | 0 | | 0 | 21,000 | 21,000 | 309,095 | |
| Total Boron | 0 | 0 | | 0 | 8,100 | 8,100 | 119,222 | |
| Total Cadmium | 0 | 0 | | 0 | 0.360 | 0.35 | 5.21 | Chem Translator of 1.018 applied |
| Total Chromium (III) | 0 | 0 | | 0 | 134.053 | 424 | 6,244 | Chem Translator of 0.316 applied |
| Hexavalent Chromium | 0 | 0 | | 0 | 16 | 16.3 | 240 | Chem Translator of 0.982 applied |
| Total Cobalt | 0 | 0 | | 0 | 95 | 95.0 | 1,398 | |
| Total Copper | 0 | 0 | | 0 | 2.543 | 2.65 | 39.0 | Chem Translator of 0.96 applied |
| Free Cyanide | 0 | 0 | | 0 | 22 | 22.0 | 324 | |
| Dissolved Iron | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Iron | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Lead | 0 | 0 | | 0 | 9.030 | 8.61 | 127 | Chem Translator of 1.048 applied |
| Total Manganese | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Mercury | 0 | 0 | | 0 | 1.400 | 1.65 | 24.2 | Chem Translator of 0.85 applied |
| Total Nickel | 0 | 0 | | 0 | 105.034 | 105 | 1,549 | Chem Translator of 0.998 applied |
| Total Phenols (Phenolics) (PWS) | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Selenium | 0 | 0 | | 0 | N/A | N/A | N/A | Chem Translator of 0.922 applied |
| Total Silver | 0 | 0 | | 0 | 0.154 | 0.18 | 2.67 | Chem Translator of 0.85 applied |
| Total Thallium | 0 | 0 | | 0 | 65 | 65.0 | 957 | |
| Total Zinc | 0 | 0 | | 0 | 26.225 | 26.8 | 395 | Chem Translator of 0.978 applied |

☑ ***CFC*** CCT (min): 4.687 PMF: 1 Analysis Hardness (mg/l): 17.088 Analysis pH: 7.23

| 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 | |
| Fluoride (PWS) | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Aluminum | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Antimony | 0 | 0 | | 0 | 220 | 220 | 3,238 | |
| Total Arsenic | 0 | 0 | | 0 | 150 | 150 | 2,208 | Chem Translator of 1 applied |
| Total Barium | 0 | 0 | | 0 | 4,100 | 4,100 | 60,347 | |
| Total Boron | 0 | 0 | | 0 | 1,600 | 1,600 | 23,550 | |
| Total Cadmium | 0 | 0 | | 0 | 0.072 | 0.073 | 1.08 | Chem Translator of 0.983 applied |
| Total Chromium (III) | 0 | 0 | | 0 | 17.437 | 20.3 | 298 | Chem Translator of 0.86 applied |
| Hexavalent Chromium | 0 | 0 | | 0 | 10 | 10.4 | 153 | Chem Translator of 0.962 applied |
| Total Cobalt | 0 | 0 | | 0 | 19 | 19.0 | 280 | |
| Total Copper | 0 | 0 | | 0 | 1.979 | 2.06 | 30.3 | Chem Translator of 0.96 applied |
| Free Cyanide | 0 | 0 | | 0 | 5.2 | 5.2 | 76.5 | |
| Dissolved Iron | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Iron | 0 | 0 | | 0 | 1,500 | 1,500 | 22,078 | WQC = 30 day average; PMF = 1 |
| Total Lead | 0 | 0 | | 0 | 0.352 | 0.34 | 4.94 | Chem Translator of 1.048 applied |
| Total Manganese | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Mercury | 0 | 0 | | 0 | 0.770 | 0.91 | 13.3 | Chem Translator of 0.85 applied |
| Total Nickel | 0 | 0 | | 0 | 11.666 | 11.7 | 172 | Chem Translator of 0.997 applied |
| Total Phenols (Phenolics) (PWS) | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Selenium | 0 | 0 | | 0 | 4.600 | 4.99 | 73.4 | Chem Translator of 0.922 applied |
| Total Silver | 0 | 0 | | 0 | N/A | N/A | N/A | Chem Translator of 1 applied |
| Total Thallium | 0 | 0 | | 0 | 13 | 13.0 | 191 | |
| Total Zinc | 0 | 0 | | 0 | 26.440 | 26.8 | 395 | Chem Translator of 0.986 applied |

☑ ***THH*** CCT (min): 4.687 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 | 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 | |
| Fluoride (PWS) | 0 | 0 | | 0 | 2,000 | 2,000 | N/A | |
| Total Aluminum | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Antimony | 0 | 0 | | 0 | 5.6 | 5.6 | 82.4 | |
| Total Arsenic | 0 | 0 | | 0 | 10 | 10.0 | 147 | |
| Total Barium | 0 | 0 | | 0 | 2,400 | 2,400 | 35,325 | |
| Total Boron | 0 | 0 | | 0 | 3,100 | 3,100 | 45,628 | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Total Cadmium | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Chromium (III) | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Hexavalent Chromium | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Cobalt | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Copper | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Free Cyanide | 0 | 0 | | 0 | 4 | 4.0 | 58.9 | |
| Dissolved Iron | 0 | 0 | | 0 | 300 | 300 | 4,416 | |
| Total Iron | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Lead | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Manganese | 0 | 0 | | 0 | 1,000 | 1,000 | 14,719 | |
| Total Mercury | 0 | 0 | | 0 | 0.050 | 0.05 | 0.74 | |
| Total Nickel | 0 | 0 | | 0 | 610 | 610 | 8,978 | |
| Total Phenols (Phenolics) (PWS) | 0 | 0 | | 0 | 5 | 5.0 | N/A | |
| Total Selenium | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Silver | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Thallium | 0 | 0 | | 0 | 0.24 | 0.24 | 3.53 | |
| Total Zinc | 0 | 0 | | 0 | N/A | N/A | N/A | |

☑ ***CRL*** CCT (min): 4.687 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 | |
| Fluoride (PWS) | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Aluminum | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Antimony | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Arsenic | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Barium | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Boron | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Cadmium | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Chromium (III) | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Hexavalent Chromium | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Cobalt | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Copper | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Free Cyanide | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Dissolved Iron | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Iron | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Lead | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Manganese | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Mercury | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Nickel | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Phenols (Phenolics) (PWS) | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Selenium | 0 | 0 | | 0 | N/A | N/A | N/A | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Total Silver | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Thallium | 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

| | *Mass Limits* | | *Concentration Limits* | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Pollutants | AML (lbs/day) | MDL (lbs/day) | AML | MDL | IMAX | Units | Governing WQBEL | WQBEL Basis | Comments |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

☑ ***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 |
| Fluoride (PWS) | N/A | N/A | Discharge Conc < TQL |
| Total Aluminum | 7,076 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Antimony | N/A | N/A | Discharge Conc < TQL |
| Total Arsenic | 147 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Barium | 35,325 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Beryllium | N/A | N/A | No WQS |
| Total Boron | 23,550 | µg/L | Discharge Conc < TQL |
| Total Cadmium | 1.08 | µg/L | Discharge Conc < TQL |
| Total Chromium (III) | 298 | µg/L | Discharge Conc < TQL |
| Hexavalent Chromium | 153 | µg/L | Discharge Conc < TQL |
| Total Cobalt | 280 | µg/L | Discharge Conc < TQL |
| Total Copper | 25.0 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Free Cyanide | 58.9 | µg/L | Discharge Conc < TQL |
| Total Cyanide | N/A | N/A | No WQS |
| Dissolved Iron | 4,416 | µg/L | Discharge Conc < TQL |
| Total Iron | 22,078 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Lead | 4.94 | µg/L | Discharge Conc < TQL |
| Total Manganese | 14,719 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Mercury | 0.74 | µg/L | Discharge Conc < TQL |

| | | | |
|---|---|---|---|
| Total Nickel | 172 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Phenols (Phenolics) (PWS) | | µg/L | Discharge Conc < TQL |
| Total Selenium | 73.4 | µg/L | Discharge Conc < TQL |
| Total Silver | 1.71 | µg/L | Discharge Conc < TQL |
| Total Thallium | 3.53 | µg/L | Discharge Conc < TQL |
| Total Zinc | 253 | µg/L | Discharge Conc < TQL |
| Total Molybdenum | N/A | N/A | No WQS |

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Toxics Management Spreadsheet
Version 1.4, May 2023

RUN 2

# Discharge Information

Instructions | Discharge | Stream

Facility: **Altoona Water - Plane 9** NPDES Permit No.: **PA0085120** Outfall No.: **001**

Evaluation Type: **Major Sewage / Industrial Waste** Wastewater Description: **Effluent Filter Backwash**

| Discharge Characteristics | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Design Flow (MGD)* | Hardness (mg/l)* | pH (SU)* | Partial Mix Factors (PMFs) | | | | Complete Mix Times (min) | |
| | | | AFC | CFC | THH | CRL | $Q_{7-10}$ | $Q_h$ |
| 0.0556 | 18.3 | 6.75 | | | | | | |

| | Discharge Pollutant | Units | Max Discharge Conc | | 0 if left blank: Trib Conc | 0 if left blank: Stream Conc | 0.5 if left blank: Daily CV | 0.5 if left blank: Hourly CV | 0 if left blank: Strea m CV | 0 if left blank: Fate Coeff | 0 if left blank: FOS | 1 if left blank: Criteri a Mod | 1 if left blank: Chem Transl |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Group 1 | Total Dissolved Solids (PWS) | mg/L | | 33 | | | | | | | | | |
| | Chloride (PWS) | mg/L | | 1.33 | | | | | | | | | |
| | Bromide | mg/L | < | 0.1 | | | | | | | | | |
| | Sulfate (PWS) | mg/L | | 9.6 | | | | | | | | | |
| | Fluoride (PWS) | mg/L | < | 0.05 | | | | | | | | | |
| Group 2 | Total Aluminum | mg/L | | 0.774 | | | | | | | | | |
| | Total Antimony | µg/L | < | 0.4 | | | | | | | | | |
| | Total Arsenic | µg/L | | 2 | | | | | | | | | |
| | Total Barium | µg/L | | 33 | | | | | | | | | |
| | Total Beryllium | µg/L | < | 0.4 | | | | | | | | | |
| | Total Boron | µg/L | < | 47 | | | | | | | | | |
| | Total Cadmium | µg/L | < | 0.1 | | | | | | | | | |
| | Total Chromium (III) | µg/L | < | 1 | | | | | | | | | |
| | Hexavalent Chromium | µg/L | < | 0.1 | | | | | | | | | |
| | Total Cobalt | µg/L | < | 1 | | | | | | | | | |
| | Total Copper | mg/L | | 0.04765 | | | 0.48 | | | | | | |
| | Free Cyanide | µg/L | < | 0.5 | | | | | | | | | |
| | Total Cyanide | µg/L | < | 5 | | | | | | | | | |
| | Dissolved Iron | µg/L | < | 20 | | | | | | | | | |
| | Total Iron | mg/L | | 0.4 | | | | | | | | | |
| | Total Lead | µg/L | < | 1 | | | | | | | | | |
| | Total Manganese | mg/L | | 0.333 | | | | | | | | | |
| | Total Mercury | µg/L | < | 0.2 | | | | | | | | | |
| | Total Nickel | µg/L | | 1 | | | | | | | | | |
| | Total Phenols (Phenolics) (PWS) | µg/L | < | 5 | | | | | | | | | |
| | Total Selenium | µg/L | < | 0.5 | | | | | | | | | |
| | Total Silver | µg/L | < | 0.2 | | | | | | | | | |
| | Total Thallium | µg/L | < | 0.05 | | | | | | | | | |
| | Total Zinc | µg/L | < | 4 | | | | | | | | | |
| | Total Molybdenum | µg/L | < | 4 | | | | | | | | | |
| | Acrolein | µg/L | < | | | | | | | | | | |
| | Acrylamide | µg/L | < | | | | | | | | | | |
| | Acrylonitrile | µg/L | < | | | | | | | | | | |
| | Benzene | µg/L | < | | | | | | | | | | |
| | Bromoform | µg/L | < | | | | | | | | | | |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Group 3 | 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 | < | | | | | | | | | | | |
| Group 4 | 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 | < | | | | | | | | | | | |
| Group 5 | 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)Anthrancene | 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 | < | | | | | | | | | | | |
| | Isophorone | µg/L | < | | | | | | | | | | | |
| | Naphthalene | µg/L | < | | | | | | | | | | | |
| | Nitrobenzene | µg/L | < | | | | | | | | | | | |
| | n-Nitrosodimethylamine | µg/L | < | | | | | | | | | | | |
| | n-Nitrosodi-n-Propylamine | µg/L | < | | | | | | | | | | | |
| | n-Nitrosodiphenylamine | µg/L | < | | | | | | | | | | | |
| | Phenanthrene | µg/L | < | | | | | | | | | | | |
| | Pyrene | µg/L | < | | | | | | | | | | | |
| | 1,2,4-Trichlorobenzene | µg/L | < | | | | | | | | | | | |
| Group 6 | Aldrin | µg/L | < | | | | | | | | | | | |
| | alpha-BHC | µg/L | < | | | | | | | | | | | |
| | beta-BHC | µg/L | < | | | | | | | | | | | |
| | gamma-BHC | µg/L | < | | | | | | | | | | | |
| | delta BHC | µg/L | < | | | | | | | | | | | |
| | Chlordane | µg/L | < | | | | | | | | | | | |
| | 4,4-DDT | µg/L | < | | | | | | | | | | | |
| | 4,4-DDE | µg/L | < | | | | | | | | | | | |
| | 4,4-DDD | µg/L | < | | | | | | | | | | | |
| | Dieldrin | µg/L | < | | | | | | | | | | | |
| | alpha-Endosulfan | µg/L | < | | | | | | | | | | | |
| | beta-Endosulfan | µg/L | < | | | | | | | | | | | |
| | Endosulfan Sulfate | µg/L | < | | | | | | | | | | | |
| | Endrin | µg/L | < | | | | | | | | | | | |
| | Endrin Aldehyde | µg/L | < | | | | | | | | | | | |
| | Heptachlor | µg/L | < | | | | | | | | | | | |
| | Heptachlor Epoxide | µg/L | < | | | | | | | | | | | |
| | PCB-1016 | µg/L | < | | | | | | | | | | | |
| | PCB-1221 | µg/L | < | | | | | | | | | | | |
| | PCB-1232 | µg/L | < | | | | | | | | | | | |
| | PCB-1242 | µg/L | < | | | | | | | | | | | |
| | PCB-1248 | µg/L | < | | | | | | | | | | | |
| | PCB-1254 | µg/L | < | | | | | | | | | | | |
| | PCB-1260 | µg/L | < | | | | | | | | | | | |
| | PCBs, Total | µg/L | < | | | | | | | | | | | |
| | Toxaphene | µg/L | < | | | | | | | | | | | |
| | 2,3,7,8-TCDD | ng/L | < | | | | | | | | | | | |
| Group 7 | Gross Alpha | pCi/L | | | | | | | | | | | | |
| | Total Beta | pCi/L | < | | | | | | | | | | | |
| | Radium 226/228 | pCi/L | < | | | | | | | | | | | |
| | Total Strontium | µg/L | < | | | | | | | | | | | |
| | Total Uranium | µg/L | < | | | | | | | | | | | |
| | Osmotic Pressure | mOs/kg | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Toxics Management Spreadsheet
Version 1.4, May 2023

## Stream / Surface Water Information

**Altoona Water - Plane 9, NPDES Permit No. PA0085120, Outfall 001**

Instructions | Discharge | *Stream*

Receiving Surface Water Name: **Blair Gap Run**

No. Reaches to Model: 1

- (●) Statewide Criteria
- ( ) Great Lakes Criteria
- ( ) ORSANCO Criteria

| Location | Stream Code* | RMI* | Elevation (ft)* | DA ($mi^2$)* | Slope (ft/ft) | PWS Withdrawal (MGD) | Apply Fish Criteria* |
|---|---|---|---|---|---|---|---|
| Point of Discharge | 016335 | 5.62 | 1360 | 12.2 | | | Yes |
| End of Reach 1 | 016335 | 4.33 | 1230 | 13.3 | | | Yes |

$Q_{7\text{-}10}$

| Location | RMI | LFY ($cfs/mi^2$)* | 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 | 5.62 | 0.0967 | 1.18 | | | | | | | | | 17 | 7.3 | | |
| End of Reach 1 | 4.33 | 0.0887 | | | | | | | | | | 17 | 7.3 | | |

$Q_h$

| Location | RMI | LFY ($cfs/mi^2$) | 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 | 5.62 | | | | | | | | | | | | | | |
| End of Reach 1 | 4.33 | | | | | | | | | | | | | | |

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Toxics Management Spreadsheet
Version 1.4, May 2023

## Model Results

**Altoona Water - Plane 9, NPDES Permit No. PA0085120, Outfall 001**

Instructions | Results | RETURN TO INPUTS | SAVE AS PDF | PRINT | ◉ All | ○ Inputs | ○ Results | ○ Limits

☐ ***Hydrodynamics***

☑ ***Wasteload Allocations***

☑ ***AFC*** CCT (min): 4.687 PMF: 1 Analysis Hardness (mg/l): 17.088 Analysis pH: 7.23

| 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 | |
| Fluoride (PWS) | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Aluminum | 0 | 0 | | 0 | 750 | 750 | 11,039 | |
| Total Antimony | 0 | 0 | | 0 | 1,100 | 1,100 | 16,191 | |
| Total Arsenic | 0 | 0 | | 0 | 340 | 340 | 5,004 | Chem Translator of 1 applied |
| Total Barium | 0 | 0 | | 0 | 21,000 | 21,000 | 309,095 | |
| Total Boron | 0 | 0 | | 0 | 8,100 | 8,100 | 119,222 | |
| Total Cadmium | 0 | 0 | | 0 | 0.360 | 0.35 | 5.21 | Chem Translator of 1.018 applied |
| Total Chromium (III) | 0 | 0 | | 0 | 134.053 | 424 | 6,244 | Chem Translator of 0.316 applied |
| Hexavalent Chromium | 0 | 0 | | 0 | 16 | 16.3 | 240 | Chem Translator of 0.982 applied |
| Total Cobalt | 0 | 0 | | 0 | 95 | 95.0 | 1,398 | |
| Total Copper | 0 | 0 | | 0 | 2.543 | 2.65 | 39.0 | Chem Translator of 0.96 applied |
| Free Cyanide | 0 | 0 | | 0 | 22 | 22.0 | 324 | |
| Dissolved Iron | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Iron | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Lead | 0 | 0 | | 0 | 9.030 | 8.61 | 127 | Chem Translator of 1.048 applied |
| Total Manganese | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Mercury | 0 | 0 | | 0 | 1.400 | 1.65 | 24.2 | Chem Translator of 0.85 applied |
| Total Nickel | 0 | 0 | | 0 | 105.034 | 105 | 1,549 | Chem Translator of 0.998 applied |
| Total Phenols (Phenolics) (PWS) | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Selenium | 0 | 0 | | 0 | N/A | N/A | N/A | Chem Translator of 0.922 applied |
| Total Silver | 0 | 0 | | 0 | 0.154 | 0.18 | 2.67 | Chem Translator of 0.85 applied |
| Total Thallium | 0 | 0 | | 0 | 65 | 65.0 | 957 | |
| Total Zinc | 0 | 0 | | 0 | 26.225 | 26.8 | 395 | Chem Translator of 0.978 applied |

☑ ***CFC*** CCT (min): 4.687 PMF: 1 Analysis Hardness (mg/l): 17.088 Analysis pH: 7.23

| 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 | |
| Fluoride (PWS) | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Aluminum | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Antimony | 0 | 0 | | 0 | 220 | 220 | 3,238 | |
| Total Arsenic | 0 | 0 | | 0 | 150 | 150 | 2,208 | Chem Translator of 1 applied |
| Total Barium | 0 | 0 | | 0 | 4,100 | 4,100 | 60,347 | |
| Total Boron | 0 | 0 | | 0 | 1,600 | 1,600 | 23,550 | |
| Total Cadmium | 0 | 0 | | 0 | 0.072 | 0.073 | 1.08 | Chem Translator of 0.983 applied |
| Total Chromium (III) | 0 | 0 | | 0 | 17.437 | 20.3 | 298 | Chem Translator of 0.86 applied |
| Hexavalent Chromium | 0 | 0 | | 0 | 10 | 10.4 | 153 | Chem Translator of 0.962 applied |
| Total Cobalt | 0 | 0 | | 0 | 19 | 19.0 | 280 | |
| Total Copper | 0 | 0 | | 0 | 1.979 | 2.06 | 30.3 | Chem Translator of 0.96 applied |
| Free Cyanide | 0 | 0 | | 0 | 5.2 | 5.2 | 76.5 | |
| Dissolved Iron | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Iron | 0 | 0 | | 0 | 1,500 | 1,500 | 22,078 | WQC = 30 day average; PMF = 1 |
| Total Lead | 0 | 0 | | 0 | 0.352 | 0.34 | 4.94 | Chem Translator of 1.048 applied |
| Total Manganese | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Mercury | 0 | 0 | | 0 | 0.770 | 0.91 | 13.3 | Chem Translator of 0.85 applied |
| Total Nickel | 0 | 0 | | 0 | 11.666 | 11.7 | 172 | Chem Translator of 0.997 applied |
| Total Phenols (Phenolics) (PWS) | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Selenium | 0 | 0 | | 0 | 4.600 | 4.99 | 73.4 | Chem Translator of 0.922 applied |
| Total Silver | 0 | 0 | | 0 | N/A | N/A | N/A | Chem Translator of 1 applied |
| Total Thallium | 0 | 0 | | 0 | 13 | 13.0 | 191 | |
| Total Zinc | 0 | 0 | | 0 | 26.440 | 26.8 | 395 | Chem Translator of 0.986 applied |

☑ ***THH*** CCT (min): 4.687 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 | 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 | |
| Fluoride (PWS) | 0 | 0 | | 0 | 2,000 | 2,000 | N/A | |
| Total Aluminum | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Antimony | 0 | 0 | | 0 | 5.6 | 5.6 | 82.4 | |
| Total Arsenic | 0 | 0 | | 0 | 10 | 10.0 | 147 | |
| Total Barium | 0 | 0 | | 0 | 2,400 | 2,400 | 35,325 | |
| Total Boron | 0 | 0 | | 0 | 3,100 | 3,100 | 45,628 | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Total Cadmium | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Chromium (III) | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Hexavalent Chromium | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Cobalt | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Copper | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Free Cyanide | 0 | 0 | | 0 | 4 | 4.0 | 58.9 | |
| Dissolved Iron | 0 | 0 | | 0 | 300 | 300 | 4,416 | |
| Total Iron | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Lead | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Manganese | 0 | 0 | | 0 | 1,000 | 1,000 | 14,719 | |
| Total Mercury | 0 | 0 | | 0 | 0.050 | 0.05 | 0.74 | |
| Total Nickel | 0 | 0 | | 0 | 610 | 610 | 8,978 | |
| Total Phenols (Phenolics) (PWS) | 0 | 0 | | 0 | 5 | 5.0 | N/A | |
| Total Selenium | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Silver | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Thallium | 0 | 0 | | 0 | 0.24 | 0.24 | 3.53 | |
| Total Zinc | 0 | 0 | | 0 | N/A | N/A | N/A | |

☑ ***CRL*** CCT (min): 1.485 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 | |
| Fluoride (PWS) | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Aluminum | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Antimony | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Arsenic | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Barium | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Boron | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Cadmium | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Chromium (III) | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Hexavalent Chromium | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Cobalt | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Copper | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Free Cyanide | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Dissolved Iron | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Iron | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Lead | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Manganese | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Mercury | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Nickel | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Phenols (Phenolics) (PWS) | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Selenium | 0 | 0 | | 0 | N/A | N/A | N/A | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Total Silver | 0 | 0 | | 0 | N/A | N/A | N/A | |
| Total Thallium | 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

| | *Mass Limits* | | *Concentration Limits* | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Pollutants | AML (lbs/day) | MDL (lbs/day) | AML | MDL | IMAX | Units | Governing WQBEL | WQBEL Basis | Comments |
| Total Aluminum | Report | Report | Report | Report | Report | mg/L | 7.08 | AFC | Discharge Conc > 10% WQBEL (no RP) |
| Total Copper | 0.011 | 0.018 | 0.025 | 0.038 | 0.061 | mg/L | 0.025 | 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 |
| Fluoride (PWS) | N/A | N/A | Discharge Conc < TQL |
| Total Antimony | N/A | N/A | Discharge Conc < TQL |
| Total Arsenic | 147 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Barium | 35,325 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Beryllium | N/A | N/A | No WQS |
| Total Boron | 23,550 | µg/L | Discharge Conc < TQL |
| Total Cadmium | 1.08 | µg/L | Discharge Conc < TQL |
| Total Chromium (III) | 298 | µg/L | Discharge Conc < TQL |
| Hexavalent Chromium | 153 | µg/L | Discharge Conc < TQL |
| Total Cobalt | 280 | µg/L | Discharge Conc < TQL |
| Free Cyanide | 58.9 | µg/L | Discharge Conc < TQL |
| Total Cyanide | N/A | N/A | No WQS |
| Dissolved Iron | 4,416 | µg/L | Discharge Conc < TQL |
| Total Iron | 22.1 | mg/L | Discharge Conc ≤ 10% WQBEL |
| Total Lead | 4.94 | µg/L | Discharge Conc < TQL |
| Total Manganese | 14.7 | mg/L | Discharge Conc ≤ 10% WQBEL |
| Total Mercury | 0.74 | µg/L | Discharge Conc < TQL |
| Total Nickel | 172 | µg/L | Discharge Conc ≤ 10% WQBEL |
| Total Phenols (Phenolics) (PWS) | | µg/L | Discharge Conc < TQL |

| | | | |
|---|---|---|---|
| Total Selenium | 73.4 | µg/L | Discharge Conc < TQL |
| Total Silver | 1.71 | µg/L | Discharge Conc < TQL |
| Total Thallium | 3.53 | µg/L | Discharge Conc < TQL |
| Total Zinc | 253 | µg/L | Discharge Conc < TQL |
| Total Molybdenum | N/A | N/A | No WQS |

# Attachment D

# DMR Data

| Monitoring Period Begin Date | Monitoring Period End Date | DMR Received Date | Outfall | Discharge | Monitoring Location | Parameter Name | Parameter Code | DMR Value | | Permit Limit | Units | Statistical Base Code |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 04/01/2021 | 06/30/2021 | 07/22/2021 | 101 | Yes | Final Effluent | Copper, Total | 01042 | | 0.05 | Monitor and Report | mg/L | Average Quarterly |
| 07/01/2021 | 09/30/2021 | 10/28/2021 | 101 | Yes | Final Effluent | Copper, Total | 01042 | < | 0.082 | Monitor and Report | mg/L | Average Quarterly |
| 10/01/2021 | 12/31/2021 | 01/27/2022 | 101 | Yes | Final Effluent | Copper, Total | 01042 | < | 0.064 | Monitor and Report | mg/L | Average Quarterly |
| 01/01/2022 | 03/31/2022 | 04/28/2022 | 101 | Yes | Final Effluent | Copper, Total | 01042 | < | 0.052 | Monitor and Report | mg/L | Average Quarterly |
| 04/01/2022 | 06/30/2022 | 07/21/2022 | 101 | Yes | Final Effluent | Copper, Total | 01042 | | 0.0377 | Monitor and Report | mg/L | Average Quarterly |
| 07/01/2022 | 09/30/2022 | 10/27/2022 | 101 | Yes | Final Effluent | Copper, Total | 01042 | | 0.0532 | Monitor and Report | mg/L | Average Quarterly |
| 10/01/2022 | 12/31/2022 | 11/28/2022 | 101 | Yes | Final Effluent | Copper, Total | 01042 | | 0.072 | Monitor and Report | mg/L | Average Quarterly |
| 01/01/2023 | 03/31/2023 | 04/27/2023 | 101 | Yes | Final Effluent | Copper, Total | 01042 | < | 0.031 | Monitor and Report | mg/L | Average Quarterly |
| 04/01/2023 | 06/30/2023 | 07/27/2023 | 101 | Yes | Final Effluent | Copper, Total | 01042 | | 0.02 | Monitor and Report | mg/L | Average Quarterly |
| 07/01/2023 | 09/30/2023 | 10/25/2023 | 101 | Yes | Final Effluent | Copper, Total | 01042 | | 0.058 | Monitor and Report | mg/L | Average Quarterly |
| 10/01/2023 | 12/31/2023 | 01/25/2024 | 101 | Yes | Final Effluent | Copper, Total | 01042 | | 0.0493 | Monitor and Report | mg/L | Average Quarterly |
| 01/01/2024 | 03/31/2024 | 04/23/2024 | 101 | Yes | Final Effluent | Copper, Total | 01042 | | 0.041 | Monitor and Report | mg/L | Average Quarterly |
| 04/01/2024 | 06/30/2024 | 07/28/2024 | 101 | Yes | Final Effluent | Copper, Total | 01042 | | 0.066 | Monitor and Report | mg/L | Average Quarterly |
| 07/01/2024 | 09/30/2024 | 10/26/2024 | 101 | Yes | Final Effluent | Copper, Total | 01042 | | 0.046 | Monitor and Report | mg/L | Average Quarterly |
| 10/01/2024 | 12/31/2024 | 01/28/2025 | 101 | Yes | Final Effluent | Copper, Total | 01042 | | 0.084 | Monitor and Report | mg/L | Average Quarterly |
| 01/01/2025 | 03/31/2025 | 04/22/2025 | 101 | Yes | Final Effluent | Copper, Total | 01042 | | 0.026 | Monitor and Report | mg/L | Average Quarterly |
| 04/01/2025 | 06/30/2025 | 07/22/2025 | 101 | Yes | Final Effluent | Copper, Total | 01042 | | 0.04 | Monitor and Report | mg/L | Average Quarterly |
| 07/01/2025 | 09/30/2025 | 10/20/2025 | 101 | Yes | Final Effluent | Copper, Total | 01042 | | 0.014 | Monitor and Report | mg/L | Average Quarterly |
| | | | | | | | | | | | | |
| | | | | | | | Min | | 0.0140 | | | |
| | | | | | | | Max | | 0.0840 | | | |
| | | | | | | | Average | | 0.0492 | | | |

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

ToxStats Spreadsheet
Version 1.0, December 2025

Instructions | *Inputs* | CLEAR FORM | CALCULATE

| | | | |
|---|---|---|---|
| **Facility:** | Altoona Plane 9 | **No. Parameters:** | 1 |
| **NPDES #:** | PA0085120 | | |
| **Outfall #:** | 001 | | |
| **Sample Type*** | Effluent | **No. Samples:** | 18 |

| **Parameter Name*** | Total Copper | | | |
|---|---|---|---|---|
| **Units** | mg/L | | | |
| **Quantitation Limit** | 0.082 | | | |
| **Sample Date*** | **Sample Results*** | **Sample Results*** | **Sample Results*** | **Sample Results*** |
| 4/1/2021 | 0.05 | | | |
| 7/1/2021 | <0.082 | | | |
| 10/1/2021 | <0.064 | | | |
| 1/1/2022 | <0.052 | | | |
| 4/1/2022 | 0.0377 | | | |
| 7/1/2022 | 0.0532 | | | |
| 10/1/2022 | 0.072 | | | |
| 1/1/2023 | <0.031 | | | |
| 4/1/2023 | 0.02 | | | |
| 7/1/2023 | 0.058 | | | |
| 10/1/2023 | 0.0493 | | | |
| 1/1/2024 | 0.041 | | | |
| 4/1/2024 | 0.066 | | | |
| 7/1/2024 | 0.046 | | | |
| 10/1/2024 | 0.084 | | | |
| 1/1/2025 | 0.026 | | | |
| 4/1/2025 | 0.04 | | | |
| 7/1/2025 | 0.014 | | | |

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

ToxStats Spreadsheet
Version 1.0, December 2025

Instructions | *Results* | RETURN TO INPUTS | PRINT TO PDF

**Facility:** Altoona Plane 9
**NPDES #:** PA0085120
**Outfall #:** 001
**Sample Type:** Effluent

| Parameter | Distribution Applied | Daily CV | Concentration |
|---|---|---|---|
| Total Copper (mg/L) | Delta-Lognormal | 0.48 | 0.04765 |

| Monitoring Period End Date | DMR Received Date | Monitoring Location | Parameter Name | DMR Value | | Permit Limit | Units | Statistical Base Code |
|---|---|---|---|---|---|---|---|---|
| 02/28/2021 | 03/26/2021 | Final Effluent | Aluminum, Total | < | 0.774 | 1.2 | mg/L | Average Monthly |
| 03/31/2021 | 04/28/2021 | Final Effluent | Aluminum, Total | | 1.0 | 1.2 | mg/L | Average Monthly |
| 04/30/2021 | 05/21/2021 | Final Effluent | Aluminum, Total | | 0.4 | 1.2 | mg/L | Average Monthly |
| 05/31/2021 | 06/28/2021 | Final Effluent | Aluminum, Total | | 0.3 | 1.2 | mg/L | Average Monthly |
| 06/30/2021 | 07/21/2021 | Final Effluent | Aluminum, Total | | 0.5 | 1.2 | mg/L | Average Monthly |
| 07/31/2021 | 08/25/2021 | Final Effluent | Aluminum, Total | | 0.341 | 1.2 | mg/L | Average Monthly |
| 08/31/2021 | 09/27/2021 | Final Effluent | Aluminum, Total | | 0.2 | 1.2 | mg/L | Average Monthly |
| 09/30/2021 | 10/28/2021 | Final Effluent | Aluminum, Total | | 0.8 | 1.2 | mg/L | Average Monthly |
| 10/31/2021 | 11/28/2021 | Final Effluent | Aluminum, Total | | 0.4 | 1.2 | mg/L | Average Monthly |
| 11/30/2021 | 12/21/2021 | Final Effluent | Aluminum, Total | | 0.4 | 1.2 | mg/L | Average Monthly |
| 12/31/2021 | 01/26/2022 | Final Effluent | Aluminum, Total | | 0.5 | 1.2 | mg/L | Average Monthly |
| 01/31/2022 | 03/11/2022 | Final Effluent | Aluminum, Total | | 0.7 | 1.2 | mg/L | Average Monthly |
| 04/30/2022 | 05/22/2022 | Final Effluent | Aluminum, Total | | 0.6 | 1.2 | mg/L | Average Monthly |
| 05/31/2022 | 06/23/2022 | Final Effluent | Aluminum, Total | | 0.611 | 1.2 | mg/L | Average Monthly |
| 06/30/2022 | 07/21/2022 | Final Effluent | Aluminum, Total | | 0.4 | 1.2 | mg/L | Average Monthly |
| 07/31/2022 | 08/25/2022 | Final Effluent | Aluminum, Total | < | 0.2 | 1.2 | mg/L | Average Monthly |
| 08/31/2022 | 09/28/2022 | Final Effluent | Aluminum, Total | < | 0.3 | 1.2 | mg/L | Average Monthly |
| 09/30/2022 | 10/24/2022 | Final Effluent | Aluminum, Total | | 0.5 | 1.2 | mg/L | Average Monthly |
| 10/31/2022 | 11/28/2022 | Final Effluent | Aluminum, Total | | 0.4 | 1.2 | mg/L | Average Monthly |
| 11/30/2022 | 12/28/2022 | Final Effluent | Aluminum, Total | | 0.6 | 1.2 | mg/L | Average Monthly |
| 12/31/2022 | 01/26/2023 | Final Effluent | Aluminum, Total | | 0.6 | 1.2 | mg/L | Average Monthly |
| 01/31/2023 | 02/28/2023 | Final Effluent | Aluminum, Total | | 0.7 | 1.2 | mg/L | Average Monthly |
| 02/28/2023 | 03/22/2023 | Final Effluent | Aluminum, Total | | 0.6 | 1.2 | mg/L | Average Monthly |
| 03/31/2023 | 04/27/2023 | Final Effluent | Aluminum, Total | | 0.6 | 1.2 | mg/L | Average Monthly |
| 04/30/2023 | 05/22/2023 | Final Effluent | Aluminum, Total | | 0.3 | 1.2 | mg/L | Average Monthly |
| 05/31/2023 | 06/26/2023 | Final Effluent | Aluminum, Total | | 0.3 | 1.2 | mg/L | Average Monthly |
| 06/30/2023 | 07/27/2023 | Final Effluent | Aluminum, Total | | 0.2 | 1.2 | mg/L | Average Monthly |
| 07/31/2023 | 08/28/2023 | Final Effluent | Aluminum, Total | | 0.5 | 1.2 | mg/L | Average Monthly |
| 08/31/2023 | 09/28/2023 | Final Effluent | Aluminum, Total | | 0.5 | 1.2 | mg/L | Average Monthly |
| 09/30/2023 | 10/25/2023 | Final Effluent | Aluminum, Total | | 0.4 | 1.2 | mg/L | Average Monthly |
| 10/31/2023 | 11/28/2023 | Final Effluent | Aluminum, Total | | 0.2 | 1.2 | mg/L | Average Monthly |
| 11/30/2023 | 12/13/2023 | Final Effluent | Aluminum, Total | | 0.4 | 1.2 | mg/L | Average Monthly |
| 12/31/2023 | 01/25/2024 | Final Effluent | Aluminum, Total | | 0.6 | 1.2 | mg/L | Average Monthly |
| 01/31/2024 | 02/27/2024 | Final Effluent | Aluminum, Total | | 0.8 | 1.2 | mg/L | Average Monthly |
| 02/29/2024 | 03/21/2024 | Final Effluent | Aluminum, Total | | 0.7 | 1.2 | mg/L | Average Monthly |
| 03/31/2024 | 04/23/2024 | Final Effluent | Aluminum, Total | | 0.8 | 1.2 | mg/L | Average Monthly |
| 04/30/2024 | 05/18/2024 | Final Effluent | Aluminum, Total | | 0.80 | 1.2 | mg/L | Average Monthly |
| 05/31/2024 | 06/30/2024 | Final Effluent | Aluminum, Total | | 0.557 | 1.2 | mg/L | Average Monthly |
| 06/30/2024 | 07/27/2024 | Final Effluent | Aluminum, Total | | 0.233 | 1.2 | mg/L | Average Monthly |
| 07/31/2024 | 08/25/2024 | Final Effluent | Aluminum, Total | | 0.187 | 1.2 | mg/L | Average Monthly |
| 08/31/2024 | 09/23/2024 | Final Effluent | Aluminum, Total | | 0.135 | 1.2 | mg/L | Average Monthly |
| 09/30/2024 | 10/26/2024 | Final Effluent | Aluminum, Total | | 0.147 | 1.2 | mg/L | Average Monthly |
| 10/31/2024 | 11/16/2024 | Final Effluent | Aluminum, Total | | 0.349 | 1.2 | mg/L | Average Monthly |
| 11/30/2024 | 12/24/2024 | Final Effluent | Aluminum, Total | | 0.30 | 1.2 | mg/L | Average Monthly |
| 12/31/2024 | 01/21/2025 | Final Effluent | Aluminum, Total | | 0.69 | 1.2 | mg/L | Average Monthly |
| 01/31/2025 | 02/22/2025 | Final Effluent | Aluminum, Total | | 0.8 | 1.2 | mg/L | Average Monthly |
| 02/28/2025 | 03/25/2025 | Final Effluent | Aluminum, Total | | 0.9 | 1.2 | mg/L | Average Monthly |
| 03/31/2025 | 04/22/2025 | Final Effluent | Aluminum, Total | | 1.1 | 1.2 | mg/L | Average Monthly |
| 04/30/2025 | 05/27/2025 | Final Effluent | Aluminum, Total | | 0.8 | 1.2 | mg/L | Average Monthly |
| 05/31/2025 | 06/24/2025 | Final Effluent | Aluminum, Total | | 1.1 | 1.2 | mg/L | Average Monthly |
| 06/30/2025 | 07/22/2025 | Final Effluent | Aluminum, Total | | 0.9 | 1.2 | mg/L | Average Monthly |
| 07/31/2025 | 08/26/2025 | Final Effluent | Aluminum, Total | | 0.6 | 1.2 | mg/L | Average Monthly |
| 08/31/2025 | 09/23/2025 | Final Effluent | Aluminum, Total | | 0.4 | 1.2 | mg/L | Average Monthly |
| 09/30/2025 | 10/20/2025 | Final Effluent | Aluminum, Total | | 0.3 | 1.2 | mg/L | Average Monthly |
| 10/31/2025 | 11/25/2025 | Final Effluent | Aluminum, Total | | 0.2 | 1.2 | mg/L | Average Monthly |
| 11/30/2025 | 12/23/2025 | Final Effluent | Aluminum, Total | | 0.3 | 1.2 | mg/L | Average Monthly |
| | | | Min | | 0.200 | | | |
| | | | Max | | 0.774 | | | |
| | | | Average | | 0.425 | | | |

| Monitoring Period | DMR | Outfall | Discharge | Monitoring | Parameter Name | DMR Value | | Permit Limit | Units | Statistical Base Code |
|---|---|---|---|---|---|---|---|---|---|---|
| 02/28/2021 | 03/26/2021 | 101 | Yes | Final Effluent | Iron, Total | < | 0.10 | 2.0 | mg/L | Average Monthly |
| 03/31/2021 | 04/28/2021 | 101 | Yes | Final Effluent | Iron, Total | | 0.1 | 2.0 | mg/L | Average Monthly |
| 04/30/2021 | 05/21/2021 | 101 | Yes | Final Effluent | Iron, Total | < | 0.1 | 2.0 | mg/L | Average Monthly |
| 05/31/2021 | 06/28/2021 | 101 | Yes | Final Effluent | Iron, Total | < | 0.2 | 2.0 | mg/L | Average Monthly |
| 06/30/2021 | 07/21/2021 | 101 | Yes | Final Effluent | Iron, Total | < | 0.1 | 2.0 | mg/L | Average Monthly |
| 07/31/2021 | 08/25/2021 | 101 | Yes | Final Effluent | Iron, Total | < | 0.1 | 2.0 | mg/L | Average Monthly |
| 08/31/2021 | 09/27/2021 | 101 | Yes | Final Effluent | Iron, Total | < | 0.1 | 2.0 | mg/L | Average Monthly |
| 09/30/2021 | 10/28/2021 | 101 | Yes | Final Effluent | Iron, Total | < | 0.1 | 2.0 | mg/L | Average Monthly |
| 10/31/2021 | 11/28/2021 | 101 | Yes | Final Effluent | Iron, Total | < | 0.1 | 2.0 | mg/L | Average Monthly |
| 11/30/2021 | 12/21/2021 | 101 | Yes | Final Effluent | Iron, Total | < | 0.1 | 2.0 | mg/L | Average Monthly |
| 12/31/2021 | 01/26/2022 | 101 | Yes | Final Effluent | Iron, Total | < | 0.1 | 2.0 | mg/L | Average Monthly |
| 01/31/2022 | 03/11/2022 | 101 | Yes | Final Effluent | Iron, Total | < | 0.1 | 2.0 | mg/L | Average Monthly |
| 04/30/2022 | 05/22/2022 | 101 | Yes | Final Effluent | Iron, Total | < | 0.2 | 2.0 | mg/L | Average Monthly |
| 05/31/2022 | 06/23/2022 | 101 | Yes | Final Effluent | Iron, Total | < | 0.2 | 2.0 | mg/L | Average Monthly |
| 06/30/2022 | 07/21/2022 | 101 | Yes | Final Effluent | Iron, Total | < | 0.2 | 2.0 | mg/L | Average Monthly |
| 07/31/2022 | 08/25/2022 | 101 | Yes | Final Effluent | Iron, Total | < | 0.2 | 2.0 | mg/L | Average Monthly |
| 08/31/2022 | 09/28/2022 | 101 | Yes | Final Effluent | Iron, Total | < | 0.2 | 2.0 | mg/L | Average Monthly |
| 09/30/2022 | 10/24/2022 | 101 | Yes | Final Effluent | Iron, Total | < | 0.2 | 2.0 | mg/L | Average Monthly |
| 10/31/2022 | 11/28/2022 | 101 | Yes | Final Effluent | Iron, Total | < | 0.2 | 2.0 | mg/L | Average Monthly |
| 11/30/2022 | 12/28/2022 | 101 | Yes | Final Effluent | Iron, Total | < | 0.2 | 2.0 | mg/L | Average Monthly |
| 12/31/2022 | 01/26/2023 | 101 | Yes | Final Effluent | Iron, Total | < | 0.2 | 2.0 | mg/L | Average Monthly |
| 01/31/2023 | 02/28/2023 | 101 | Yes | Final Effluent | Iron, Total | | 0.2 | 2.0 | mg/L | Average Monthly |
| 02/28/2023 | 03/22/2023 | 101 | Yes | Final Effluent | Iron, Total | < | 0.2 | 2.0 | mg/L | Average Monthly |
| 03/31/2023 | 04/27/2023 | 101 | Yes | Final Effluent | Iron, Total | < | 0.2 | 2.0 | mg/L | Average Monthly |
| 04/30/2023 | 05/22/2023 | 101 | Yes | Final Effluent | Iron, Total | < | 0.2 | 2.0 | mg/L | Average Monthly |
| 05/31/2023 | 06/26/2023 | 101 | Yes | Final Effluent | Iron, Total | < | 0.2 | 2.0 | mg/L | Average Monthly |
| 06/30/2023 | 07/27/2023 | 101 | Yes | Final Effluent | Iron, Total | < | 0.2 | 2.0 | mg/L | Average Monthly |
| 07/31/2023 | 08/28/2023 | 101 | Yes | Final Effluent | Iron, Total | < | 0.2 | 2.0 | mg/L | Average Monthly |
| 08/31/2023 | 09/28/2023 | 101 | Yes | Final Effluent | Iron, Total | < | 0.2 | 2.0 | mg/L | Average Monthly |
| 09/30/2023 | 10/25/2023 | 101 | Yes | Final Effluent | Iron, Total | < | 0.2 | 2.0 | mg/L | Average Monthly |
| 10/31/2023 | 11/28/2023 | 101 | Yes | Final Effluent | Iron, Total | < | 0.2 | 2.0 | mg/L | Average Monthly |
| 11/30/2023 | 12/13/2023 | 101 | Yes | Final Effluent | Iron, Total | | 0.1 | 2.0 | mg/L | Average Monthly |
| 12/31/2023 | 01/25/2024 | 101 | Yes | Final Effluent | Iron, Total | | 0.1 | 2.0 | mg/L | Average Monthly |
| 01/31/2024 | 02/27/2024 | 101 | Yes | Final Effluent | Iron, Total | | 0.1 | 2.0 | mg/L | Average Monthly |
| 02/29/2024 | 03/21/2024 | 101 | Yes | Final Effluent | Iron, Total | | 0.1 | 2.0 | mg/L | Average Monthly |
| 03/31/2024 | 04/23/2024 | 101 | Yes | Final Effluent | Iron, Total | | 0.1 | 2.0 | mg/L | Average Monthly |
| 04/30/2024 | 05/18/2024 | 101 | Yes | Final Effluent | Iron, Total | | 0.1 | 2.0 | mg/L | Average Monthly |
| 05/31/2024 | 06/30/2024 | 101 | Yes | Final Effluent | Iron, Total | | 0.0823 | 2.0 | mg/L | Average Monthly |
| 06/30/2024 | 07/27/2024 | 101 | Yes | Final Effluent | Iron, Total | | 0.038 | 2.0 | mg/L | Average Monthly |
| 07/31/2024 | 08/25/2024 | 101 | Yes | Final Effluent | Iron, Total | | 0.1458 | 2.0 | mg/L | Average Monthly |
| 08/31/2024 | 09/23/2024 | 101 | Yes | Final Effluent | Iron, Total | | 0.0634 | 2.0 | mg/L | Average Monthly |
| 09/30/2024 | 10/26/2024 | 101 | Yes | Final Effluent | Iron, Total | | 0.054 | 2.0 | mg/L | Average Monthly |
| 10/31/2024 | 11/16/2024 | 101 | Yes | Final Effluent | Iron, Total | | 0.117 | 2.0 | mg/L | Average Monthly |
| 11/30/2024 | 12/24/2024 | 101 | Yes | Final Effluent | Iron, Total | | 0.08 | 2.0 | mg/L | Average Monthly |
| 12/31/2024 | 01/21/2025 | 101 | Yes | Final Effluent | Iron, Total | | 0.069 | 2.0 | mg/L | Average Monthly |
| 01/31/2025 | 02/22/2025 | 101 | Yes | Final Effluent | Iron, Total | | 0.1 | 2.0 | mg/L | Average Monthly |
| 02/28/2025 | 03/25/2025 | 101 | Yes | Final Effluent | Iron, Total | < | 0.2 | 2.0 | mg/L | Average Monthly |
| 03/31/2025 | 04/22/2025 | 101 | Yes | Final Effluent | Iron, Total | < | 0.2 | 2.0 | mg/L | Average Monthly |
| 04/30/2025 | 05/27/2025 | 101 | Yes | Final Effluent | Iron, Total | < | 0.2 | 2.0 | mg/L | Average Monthly |
| 05/31/2025 | 06/24/2025 | 101 | Yes | Final Effluent | Iron, Total | < | 0.2 | 2.0 | mg/L | Average Monthly |
| 06/30/2025 | 07/22/2025 | 101 | Yes | Final Effluent | Iron, Total | | 0.1 | 2.0 | mg/L | Average Monthly |
| 07/31/2025 | 08/26/2025 | 101 | Yes | Final Effluent | Iron, Total | | 0.2 | 2.0 | mg/L | Average Monthly |
| 08/31/2025 | 09/23/2025 | 101 | Yes | Final Effluent | Iron, Total | | 0.4 | 2.0 | mg/L | Average Monthly |
| 09/30/2025 | 10/20/2025 | 101 | Yes | Final Effluent | Iron, Total | | 0.2 | 2.0 | mg/L | Average Monthly |
| 10/31/2025 | 11/25/2025 | 101 | Yes | Final Effluent | Iron, Total | < | 0.1 | 2.0 | mg/L | Average Monthly |
| 11/30/2025 | 12/23/2025 | 101 | Yes | Final Effluent | Iron, Total | < | 0.1 | 2.0 | mg/L | Average Monthly |
| | | | | | Min | | 0.038 | | | |
| | | | | | Max | | 0.4 | | | |
| | | | | | Average | | 0.149 | | | |

| Monitoring Period Begin Date | Monitoring Period End Date | DMR Received Date | Outfall | Monitoring Location | Parameter Name | DMR Value | | Permit Limit | Units | Statistical Base Code |
|---|---|---|---|---|---|---|---|---|---|---|
| 02/01/2021 | 02/28/2021 | 03/26/2021 | 101 | Final Effluent | Manganese, Total | < | 0.1 | 1.0 | mg/L | Average Monthly |
| 03/01/2021 | 03/31/2021 | 04/28/2021 | 101 | Final Effluent | Manganese, Total | < | 0.1 | 1.0 | mg/L | Average Monthly |
| 04/01/2021 | 04/30/2021 | 05/21/2021 | 101 | Final Effluent | Manganese, Total | < | 0.1 | 1.0 | mg/L | Average Monthly |
| 05/01/2021 | 05/31/2021 | 06/28/2021 | 101 | Final Effluent | Manganese, Total | | 0.2 | 1.0 | mg/L | Average Monthly |
| 06/01/2021 | 06/30/2021 | 07/21/2021 | 101 | Final Effluent | Manganese, Total | | 0.1 | 1.0 | mg/L | Average Monthly |
| 07/01/2021 | 07/31/2021 | 08/25/2021 | 101 | Final Effluent | Manganese, Total | < | 0.2 | 1.0 | mg/L | Average Monthly |
| 08/01/2021 | 08/31/2021 | 09/27/2021 | 101 | Final Effluent | Manganese, Total | | 0.3 | 1.0 | mg/L | Average Monthly |
| 09/01/2021 | 09/30/2021 | 10/28/2021 | 101 | Final Effluent | Manganese, Total | < | 0.1 | 1.0 | mg/L | Average Monthly |
| 10/01/2021 | 10/31/2021 | 11/28/2021 | 101 | Final Effluent | Manganese, Total | | 0.1 | 1.0 | mg/L | Average Monthly |
| 11/01/2021 | 11/30/2021 | 12/21/2021 | 101 | Final Effluent | Manganese, Total | < | 0.1 | 1.0 | mg/L | Average Monthly |
| 12/01/2021 | 12/31/2021 | 01/26/2022 | 101 | Final Effluent | Manganese, Total | < | 0.1 | 1.0 | mg/L | Average Monthly |
| 01/01/2022 | 01/31/2022 | 03/11/2022 | 101 | Final Effluent | Manganese, Total | < | 0.1 | 1.0 | mg/L | Average Monthly |
| 04/01/2022 | 04/30/2022 | 05/22/2022 | 101 | Final Effluent | Manganese, Total | | 0.05 | 1.0 | mg/L | Average Monthly |
| 05/01/2022 | 05/31/2022 | 06/23/2022 | 101 | Final Effluent | Manganese, Total | | 0.03 | 1.0 | mg/L | Average Monthly |
| 06/01/2022 | 06/30/2022 | 07/21/2022 | 101 | Final Effluent | Manganese, Total | | 0.1 | 1.0 | mg/L | Average Monthly |
| 07/01/2022 | 07/31/2022 | 08/25/2022 | 101 | Final Effluent | Manganese, Total | | 0.04 | 1.0 | mg/L | Average Monthly |
| 08/01/2022 | 08/31/2022 | 09/28/2022 | 101 | Final Effluent | Manganese, Total | < | 0.04 | 1.0 | mg/L | Average Monthly |
| 09/01/2022 | 09/30/2022 | 10/24/2022 | 101 | Final Effluent | Manganese, Total | | 0.1 | 1.0 | mg/L | Average Monthly |
| 10/01/2022 | 10/31/2022 | 11/28/2022 | 101 | Final Effluent | Manganese, Total | | 0.2 | 1.0 | mg/L | Average Monthly |
| 11/01/2022 | 11/30/2022 | 12/28/2022 | 101 | Final Effluent | Manganese, Total | | 0.1 | 1.0 | mg/L | Average Monthly |
| 12/01/2022 | 12/31/2022 | 01/26/2023 | 101 | Final Effluent | Manganese, Total | | 0.04 | 1.0 | mg/L | Average Monthly |
| 01/01/2023 | 01/31/2023 | 02/28/2023 | 101 | Final Effluent | Manganese, Total | | 0.03 | 1.0 | mg/L | Average Monthly |
| 02/01/2023 | 02/28/2023 | 03/22/2023 | 101 | Final Effluent | Manganese, Total | | 0.3 | 1.0 | mg/L | Average Monthly |
| 03/01/2023 | 03/31/2023 | 04/27/2023 | 101 | Final Effluent | Manganese, Total | | 0.03 | 1.0 | mg/L | Average Monthly |
| 04/01/2023 | 04/30/2023 | 05/22/2023 | 101 | Final Effluent | Manganese, Total | | 0.03 | 1.0 | mg/L | Average Monthly |
| 05/01/2023 | 05/31/2023 | 06/26/2023 | 101 | Final Effluent | Manganese, Total | | 0.1 | 1.0 | mg/L | Average Monthly |
| 06/01/2023 | 06/30/2023 | 07/27/2023 | 101 | Final Effluent | Manganese, Total | < | 0.1 | 1.0 | mg/L | Average Monthly |
| 07/01/2023 | 07/31/2023 | 08/28/2023 | 101 | Final Effluent | Manganese, Total | | 0.3 | 1.0 | mg/L | Average Monthly |
| 08/01/2023 | 08/31/2023 | 09/28/2023 | 101 | Final Effluent | Manganese, Total | | 0.2 | 1.0 | mg/L | Average Monthly |
| 09/01/2023 | 09/30/2023 | 10/25/2023 | 101 | Final Effluent | Manganese, Total | | 0.1 | 1.0 | mg/L | Average Monthly |
| 10/01/2023 | 10/31/2023 | 11/28/2023 | 101 | Final Effluent | Manganese, Total | | 0.1 | 1.0 | mg/L | Average Monthly |
| 11/01/2023 | 11/30/2023 | 12/13/2023 | 101 | Final Effluent | Manganese, Total | | 0.1 | 1.0 | mg/L | Average Monthly |
| 12/01/2023 | 12/31/2023 | 01/25/2024 | 101 | Final Effluent | Manganese, Total | | 0.04 | 1.0 | mg/L | Average Monthly |
| 01/01/2024 | 01/31/2024 | 02/27/2024 | 101 | Final Effluent | Manganese, Total | | 0.04 | 1.0 | mg/L | Average Monthly |
| 02/01/2024 | 02/29/2024 | 03/21/2024 | 101 | Final Effluent | Manganese, Total | | 0.04 | 1.0 | mg/L | Average Monthly |
| 03/01/2024 | 03/31/2024 | 04/23/2024 | 101 | Final Effluent | Manganese, Total | | 0.03 | 1.0 | mg/L | Average Monthly |
| 04/01/2024 | 04/30/2024 | 05/18/2024 | 101 | Final Effluent | Manganese, Total | | 0.05 | 1.0 | mg/L | Average Monthly |
| 05/01/2024 | 05/31/2024 | 06/30/2024 | 101 | Final Effluent | Manganese, Total | | 0.0828 | 1.0 | mg/L | Average Monthly |
| 06/01/2024 | 06/30/2024 | 07/27/2024 | 101 | Final Effluent | Manganese, Total | | 0.112 | 1.0 | mg/L | Average Monthly |
| 07/01/2024 | 07/31/2024 | 08/25/2024 | 101 | Final Effluent | Manganese, Total | | 0.197 | 1.0 | mg/L | Average Monthly |
| 08/01/2024 | 08/31/2024 | 09/23/2024 | 101 | Final Effluent | Manganese, Total | | 0.333 | 1.0 | mg/L | Average Monthly |
| 09/01/2024 | 09/30/2024 | 10/26/2024 | 101 | Final Effluent | Manganese, Total | | 0.186 | 1.0 | mg/L | Average Monthly |
| 10/01/2024 | 10/31/2024 | 11/16/2024 | 101 | Final Effluent | Manganese, Total | | 0.123 | 1.0 | mg/L | Average Monthly |
| 11/01/2024 | 11/30/2024 | 12/24/2024 | 101 | Final Effluent | Manganese, Total | | 0.041 | 1.0 | mg/L | Average Monthly |
| 12/01/2024 | 12/31/2024 | 01/21/2025 | 101 | Final Effluent | Manganese, Total | | 0.031 | 1.0 | mg/L | Average Monthly |
| 01/01/2025 | 01/31/2025 | 02/22/2025 | 101 | Final Effluent | Manganese, Total | | 0.03 | 1.0 | mg/L | Average Monthly |
| 02/01/2025 | 02/28/2025 | 03/25/2025 | 101 | Final Effluent | Manganese, Total | | 0.03 | 1.0 | mg/L | Average Monthly |
| 03/01/2025 | 03/31/2025 | 04/22/2025 | 101 | Final Effluent | Manganese, Total | | 0.04 | 1.0 | mg/L | Average Monthly |
| 04/01/2025 | 04/30/2025 | 05/27/2025 | 101 | Final Effluent | Manganese, Total | | 0.04 | 1.0 | mg/L | Average Monthly |
| 05/01/2025 | 05/31/2025 | 06/24/2025 | 101 | Final Effluent | Manganese, Total | | 0.1 | 1.0 | mg/L | Average Monthly |
| 06/01/2025 | 06/30/2025 | 07/22/2025 | 101 | Final Effluent | Manganese, Total | | 0.1 | 1.0 | mg/L | Average Monthly |
| 07/01/2025 | 07/31/2025 | 08/26/2025 | 101 | Final Effluent | Manganese, Total | | 0.1 | 1.0 | mg/L | Average Monthly |
| 08/01/2025 | 08/31/2025 | 09/23/2025 | 101 | Final Effluent | Manganese, Total | | 0.2 | 1.0 | mg/L | Average Monthly |
| 09/01/2025 | 09/30/2025 | 10/20/2025 | 101 | Final Effluent | Manganese, Total | | 0.2 | 1.0 | mg/L | Average Monthly |
| 10/01/2025 | 10/31/2025 | 11/25/2025 | 101 | Final Effluent | Manganese, Total | | 0.2 | 1.0 | mg/L | Average Monthly |
| 11/01/2025 | 11/30/2025 | 12/23/2025 | 101 | Final Effluent | Manganese, Total | | 0.04 | 1.0 | mg/L | Average Monthly |
| | | | | | Min | | 0.03 | | | |
| | | | | | Max | | 0.333 | | | |
| | | | | | Average | | 0.108 | | | |

| Monitoring Period Begin Date | Monitoring Period End Date | DMR Received Date | Outfall | Discharge | Monitoring Location | Parameter Name | DMR Value | Permit Limit | Units | Statistical Base Code |
|---|---|---|---|---|---|---|---|---|---|---|
| 02/01/2021 | 02/28/2021 | 03/26/2021 | 1 | Yes | Final Effluent | Flow | 0.06238 | Monitor and Report | MGD | Average Monthly |
| 03/01/2021 | 03/31/2021 | 04/28/2021 | 1 | Yes | Final Effluent | Flow | 0.126 | Monitor and Report | MGD | Average Monthly |
| 04/01/2021 | 04/30/2021 | 05/21/2021 | 1 | Yes | Final Effluent | Flow | 0.0635 | Monitor and Report | MGD | Average Monthly |
| 05/01/2021 | 05/31/2021 | 06/28/2021 | 1 | Yes | Final Effluent | Flow | 0.0645 | Monitor and Report | MGD | Average Monthly |
| 06/01/2021 | 06/30/2021 | 07/21/2021 | 1 | Yes | Final Effluent | Flow | 0.0593 | Monitor and Report | MGD | Average Monthly |
| 07/01/2021 | 07/31/2021 | 08/25/2021 | 1 | Yes | Final Effluent | Flow | 0.0313 | Monitor and Report | MGD | Average Monthly |
| 08/01/2021 | 08/31/2021 | 09/27/2021 | 1 | Yes | Final Effluent | Flow | 0.0691 | Monitor and Report | MGD | Average Monthly |
| 09/01/2021 | 09/30/2021 | 10/28/2021 | 1 | Yes | Final Effluent | Flow | 0.049 | Monitor and Report | MGD | Average Monthly |
| 10/01/2021 | 10/31/2021 | 11/28/2021 | 1 | Yes | Final Effluent | Flow | 0.0526 | Monitor and Report | MGD | Average Monthly |
| 11/01/2021 | 11/30/2021 | 12/21/2021 | 1 | Yes | Final Effluent | Flow | 0.0431 | Monitor and Report | MGD | Average Monthly |
| 12/01/2021 | 12/31/2021 | 01/26/2022 | 1 | Yes | Final Effluent | Flow | 0.05214 | Monitor and Report | MGD | Average Monthly |
| 01/01/2022 | 01/31/2022 | 03/11/2022 | 1 | Yes | Final Effluent | Flow | 0.06877 | Monitor and Report | MGD | Average Monthly |
| 04/01/2022 | 04/30/2022 | 05/22/2022 | 1 | Yes | Final Effluent | Flow | 0.0706 | Monitor and Report | MGD | Average Monthly |
| 05/01/2022 | 05/31/2022 | 06/23/2022 | 1 | Yes | Final Effluent | Flow | 0.0378 | Monitor and Report | MGD | Average Monthly |
| 06/01/2022 | 06/30/2022 | 07/21/2022 | 1 | Yes | Final Effluent | Flow | 0.0815 | Monitor and Report | MGD | Average Monthly |
| 07/01/2022 | 07/31/2022 | 08/25/2022 | 1 | Yes | Final Effluent | Flow | 0.022452 | Monitor and Report | MGD | Average Monthly |
| 08/01/2022 | 08/31/2022 | 09/28/2022 | 1 | Yes | Final Effluent | Flow | 0.0692 | Monitor and Report | MGD | Average Monthly |
| 09/01/2022 | 09/30/2022 | 10/24/2022 | 1 | Yes | Final Effluent | Flow | 0.044248 | Monitor and Report | MGD | Average Monthly |
| 10/01/2022 | 10/31/2022 | 11/28/2022 | 1 | Yes | Final Effluent | Flow | 0.0836 | Monitor and Report | MGD | Average Monthly |
| 11/01/2022 | 11/30/2022 | 12/28/2022 | 1 | Yes | Final Effluent | Flow | 0.032602 | Monitor and Report | MGD | Average Monthly |
| 12/01/2022 | 12/31/2022 | 01/26/2023 | 1 | Yes | Final Effluent | Flow | 0.0447 | Monitor and Report | MGD | Average Monthly |
| 01/01/2023 | 01/31/2023 | 02/28/2023 | 1 | Yes | Final Effluent | Flow | 0.1075 | Monitor and Report | MGD | Average Monthly |
| 02/01/2023 | 02/28/2023 | 03/22/2023 | 1 | Yes | Final Effluent | Flow | 0.2995 | Monitor and Report | MGD | Average Monthly |
| 03/01/2023 | 03/31/2023 | 04/27/2023 | 1 | Yes | Final Effluent | Flow | 0.0315 | Monitor and Report | MGD | Average Monthly |
| 04/01/2023 | 04/30/2023 | 05/22/2023 | 1 | Yes | Final Effluent | Flow | 0.0132 | Monitor and Report | MGD | Average Monthly |
| 05/01/2023 | 05/31/2023 | 06/26/2023 | 1 | Yes | Final Effluent | Flow | 0.0408 | Monitor and Report | MGD | Average Monthly |
| 06/01/2023 | 06/30/2023 | 07/27/2023 | 1 | Yes | Final Effluent | Flow | 0.0416 | Monitor and Report | MGD | Average Monthly |
| 07/01/2023 | 07/31/2023 | 08/28/2023 | 1 | Yes | Final Effluent | Flow | 0.0897 | Monitor and Report | MGD | Average Monthly |
| 08/01/2023 | 08/31/2023 | 09/28/2023 | 1 | Yes | Final Effluent | Flow | 0.1308 | Monitor and Report | MGD | Average Monthly |
| 09/01/2023 | 09/30/2023 | 10/25/2023 | 1 | Yes | Final Effluent | Flow | 0.1604 | Monitor and Report | MGD | Average Monthly |
| 10/01/2023 | 10/31/2023 | 11/28/2023 | 1 | Yes | Final Effluent | Flow | 0.126611 | Monitor and Report | MGD | Average Monthly |
| 11/01/2023 | 11/30/2023 | 12/13/2023 | 1 | Yes | Final Effluent | Flow | 0.1547 | Monitor and Report | MGD | Average Monthly |
| 12/01/2023 | 12/31/2023 | 01/25/2024 | 1 | Yes | Final Effluent | Flow | 0.0783 | Monitor and Report | MGD | Average Monthly |
| 01/01/2024 | 01/31/2024 | 02/27/2024 | 1 | Yes | Final Effluent | Flow | 0.088 | Monitor and Report | MGD | Average Monthly |
| 02/01/2024 | 02/29/2024 | 03/21/2024 | 1 | Yes | Final Effluent | Flow | 0.0488 | Monitor and Report | MGD | Average Monthly |
| 03/01/2024 | 03/31/2024 | 04/23/2024 | 1 | Yes | Final Effluent | Flow | 0.0525 | Monitor and Report | MGD | Average Monthly |
| 04/01/2024 | 04/30/2024 | 05/18/2024 | 1 | Yes | Final Effluent | Flow | 0.069453 | Monitor and Report | MGD | Average Monthly |
| 05/01/2024 | 05/31/2024 | 06/30/2024 | 1 | Yes | Final Effluent | Flow | 0.0524 | Monitor and Report | MGD | Average Monthly |
| 06/01/2024 | 06/30/2024 | 07/27/2024 | 1 | Yes | Final Effluent | Flow | 0.0744 | Monitor and Report | MGD | Average Monthly |
| 07/01/2024 | 07/31/2024 | 08/25/2024 | 1 | Yes | Final Effluent | Flow | 0.0419 | Monitor and Report | MGD | Average Monthly |
| 08/01/2024 | 08/31/2024 | 09/23/2024 | 1 | Yes | Final Effluent | Flow | 0.0616 | Monitor and Report | MGD | Average Monthly |
| 09/01/2024 | 09/30/2024 | 10/26/2024 | 1 | Yes | Final Effluent | Flow | 0.057 | Monitor and Report | MGD | Average Monthly |
| 10/01/2024 | 10/31/2024 | 11/16/2024 | 1 | Yes | Final Effluent | Flow | 0.0272 | Monitor and Report | MGD | Average Monthly |
| 11/01/2024 | 11/30/2024 | 12/24/2024 | 1 | Yes | Final Effluent | Flow | 0.0426 | Monitor and Report | MGD | Average Monthly |
| 12/01/2024 | 12/31/2024 | 01/21/2025 | 1 | Yes | Final Effluent | Flow | 0.0488 | Monitor and Report | MGD | Average Monthly |
| 01/01/2025 | 01/31/2025 | 02/22/2025 | 1 | Yes | Final Effluent | Flow | 0.0354 | Monitor and Report | MGD | Average Monthly |
| 02/01/2025 | 02/28/2025 | 03/25/2025 | 1 | Yes | Final Effluent | Flow | 0.0387 | Monitor and Report | MGD | Average Monthly |
| 03/01/2025 | 03/31/2025 | 04/22/2025 | 1 | Yes | Final Effluent | Flow | 0.7347 | Monitor and Report | MGD | Average Monthly |
| 04/01/2025 | 04/30/2025 | 05/27/2025 | 1 | Yes | Final Effluent | Flow | 0.047308 | Monitor and Report | MGD | Average Monthly |
| 05/01/2025 | 05/31/2025 | 06/24/2025 | 1 | Yes | Final Effluent | Flow | 0.087358 | Monitor and Report | MGD | Average Monthly |
| 06/01/2025 | 06/30/2025 | 07/22/2025 | 1 | Yes | Final Effluent | Flow | 0.023124 | Monitor and Report | MGD | Average Monthly |
| 07/01/2025 | 07/31/2025 | 08/26/2025 | 1 | Yes | Final Effluent | Flow | 0.083 | Monitor and Report | MGD | Average Monthly |
| 08/01/2025 | 08/31/2025 | 09/23/2025 | 1 | Yes | Final Effluent | Flow | 0.029362 | Monitor and Report | MGD | Average Monthly |
| 09/01/2025 | 09/30/2025 | 10/20/2025 | 1 | Yes | Final Effluent | Flow | 0.0452 | Monitor and Report | MGD | Average Monthly |
| 10/01/2025 | 10/31/2025 | 11/25/2025 | 1 | Yes | Final Effluent | Flow | 0.040182 | Monitor and Report | MGD | Average Monthly |
| 11/01/2025 | 11/30/2025 | 12/23/2025 | 1 | Yes | Final Effluent | Flow | 0.04621 | Monitor and Report | MGD | Average Monthly |
| 12/01/2025 | 12/31/2025 | 01/19/2026 | 1 | Yes | Final Effluent | Flow | 0.02754 | Monitor and Report | MGD | Average Monthly |
| | | | | | | Min | 0.0132 | | | |
| | | | | | | Max | 0.7347 | | | |
| | | | | | | Average | 0.0773 | | | |

| Monitoring Period Begin Date | Monitoring Period End Date | DMR Received Date | Outfall | Discharge | Monitoring Location | Parameter Name | DMR Value | Permit Limit | Units | Statistical Base Code |
|---|---|---|---|---|---|---|---|---|---|---|
| 02/01/2021 | 02/28/2021 | 03/26/2021 | 101 | Yes | Final Effluent | Flow | 0.0503 | Monitor and Report | MGD | Average Monthly |
| 03/01/2021 | 03/31/2021 | 04/28/2021 | 101 | Yes | Final Effluent | Flow | 0.05239 | Monitor and Report | MGD | Average Monthly |
| 04/01/2021 | 04/30/2021 | 05/21/2021 | 101 | Yes | Final Effluent | Flow | 0.0445 | Monitor and Report | MGD | Average Monthly |
| 05/01/2021 | 05/31/2021 | 06/28/2021 | 101 | Yes | Final Effluent | Flow | 0.04897 | Monitor and Report | MGD | Average Monthly |
| 06/01/2021 | 06/30/2021 | 07/21/2021 | 101 | Yes | Final Effluent | Flow | 0.053091 | Monitor and Report | MGD | Average Monthly |
| 07/01/2021 | 07/31/2021 | 08/25/2021 | 101 | Yes | Final Effluent | Flow | 0.0488 | Monitor and Report | MGD | Average Monthly |
| 08/01/2021 | 08/31/2021 | 09/27/2021 | 101 | Yes | Final Effluent | Flow | 0.059024 | Monitor and Report | MGD | Average Monthly |
| 09/01/2021 | 09/30/2021 | 10/28/2021 | 101 | Yes | Final Effluent | Flow | 0.0566 | Monitor and Report | MGD | Average Monthly |
| 10/01/2021 | 10/31/2021 | 11/28/2021 | 101 | Yes | Final Effluent | Flow | 0.0487 | Monitor and Report | MGD | Average Monthly |
| 11/01/2021 | 11/30/2021 | 12/21/2021 | 101 | Yes | Final Effluent | Flow | 0.0491 | Monitor and Report | MGD | Average Monthly |
| 12/01/2021 | 12/31/2021 | 01/26/2022 | 101 | Yes | Final Effluent | Flow | 0.0582 | Monitor and Report | MGD | Average Monthly |
| 01/01/2022 | 01/31/2022 | 03/11/2022 | 101 | Yes | Final Effluent | Flow | 0.0546 | Monitor and Report | MGD | Average Monthly |
| 04/01/2022 | 04/30/2022 | 05/22/2022 | 101 | Yes | Final Effluent | Flow | 0.05 | Monitor and Report | MGD | Average Monthly |
| 05/01/2022 | 05/31/2022 | 06/23/2022 | 101 | Yes | Final Effluent | Flow | 0.0475 | Monitor and Report | MGD | Average Monthly |
| 06/01/2022 | 06/30/2022 | 07/21/2022 | 101 | Yes | Final Effluent | Flow | 0.0509 | Monitor and Report | MGD | Average Monthly |
| 07/01/2022 | 07/31/2022 | 08/25/2022 | 101 | Yes | Final Effluent | Flow | 0.0679421 | Monitor and Report | MGD | Average Monthly |
| 08/01/2022 | 08/31/2022 | 09/28/2022 | 101 | Yes | Final Effluent | Flow | 0.0581 | Monitor and Report | MGD | Average Monthly |
| 09/01/2022 | 09/30/2022 | 10/24/2022 | 101 | Yes | Final Effluent | Flow | 0.057965 | Monitor and Report | MGD | Average Monthly |
| 10/01/2022 | 10/31/2022 | 11/28/2022 | 101 | Yes | Final Effluent | Flow | 0.0485 | Monitor and Report | MGD | Average Monthly |
| 11/01/2022 | 11/30/2022 | 12/28/2022 | 101 | Yes | Final Effluent | Flow | 0.054397 | Monitor and Report | MGD | Average Monthly |
| 12/01/2022 | 12/31/2022 | 01/26/2023 | 101 | Yes | Final Effluent | Flow | 0.048674 | Monitor and Report | MGD | Average Monthly |
| 01/01/2023 | 01/31/2023 | 02/28/2023 | 101 | Yes | Final Effluent | Flow | 0.06796 | Monitor and Report | MGD | Average Monthly |
| 02/01/2023 | 02/28/2023 | 03/22/2023 | 101 | Yes | Final Effluent | Flow | 0.0683 | Monitor and Report | MGD | Average Monthly |
| 03/01/2023 | 03/31/2023 | 04/27/2023 | 101 | Yes | Final Effluent | Flow | 0.0683 | Monitor and Report | MGD | Average Monthly |
| 04/01/2023 | 04/30/2023 | 05/22/2023 | 101 | Yes | Final Effluent | Flow | 0.0698 | Monitor and Report | MGD | Average Monthly |
| 05/01/2023 | 05/31/2023 | 06/26/2023 | 101 | Yes | Final Effluent | Flow | 0.0702 | Monitor and Report | MGD | Average Monthly |
| 06/01/2023 | 06/30/2023 | 07/27/2023 | 101 | Yes | Final Effluent | Flow | 0.0509 | Monitor and Report | MGD | Average Monthly |
| 07/01/2023 | 07/31/2023 | 08/28/2023 | 101 | Yes | Final Effluent | Flow | 0.02658 | Monitor and Report | MGD | Average Monthly |
| 08/01/2023 | 08/31/2023 | 09/28/2023 | 101 | Yes | Final Effluent | Flow | 0.0353 | Monitor and Report | MGD | Average Monthly |
| 09/01/2023 | 09/30/2023 | 10/25/2023 | 101 | Yes | Final Effluent | Flow | 0.0474 | Monitor and Report | MGD | Average Monthly |
| 10/01/2023 | 10/31/2023 | 11/28/2023 | 101 | Yes | Final Effluent | Flow | 0.050169 | Monitor and Report | MGD | Average Monthly |
| 11/01/2023 | 11/30/2023 | 12/13/2023 | 101 | Yes | Final Effluent | Flow | 0.0522 | Monitor and Report | MGD | Average Monthly |
| 12/01/2023 | 12/31/2023 | 01/25/2024 | 101 | Yes | Final Effluent | Flow | 0.0451 | Monitor and Report | MGD | Average Monthly |
| 01/01/2024 | 01/31/2024 | 02/27/2024 | 101 | Yes | Final Effluent | Flow | 0.05 | Monitor and Report | MGD | Average Monthly |
| 02/01/2024 | 02/29/2024 | 03/21/2024 | 101 | Yes | Final Effluent | Flow | 0.0515 | Monitor and Report | MGD | Average Monthly |
| 03/01/2024 | 03/31/2024 | 04/23/2024 | 101 | Yes | Final Effluent | Flow | 0.0479 | Monitor and Report | MGD | Average Monthly |
| 04/01/2024 | 04/30/2024 | 05/18/2024 | 101 | Yes | Final Effluent | Flow | 0.056544 | Monitor and Report | MGD | Average Monthly |
| 05/01/2024 | 05/31/2024 | 06/30/2024 | 101 | Yes | Final Effluent | Flow | 0.046 | Monitor and Report | MGD | Average Monthly |
| 06/01/2024 | 06/30/2024 | 07/27/2024 | 101 | Yes | Final Effluent | Flow | 0.0485 | Monitor and Report | MGD | Average Monthly |
| 07/01/2024 | 07/31/2024 | 08/25/2024 | 101 | Yes | Final Effluent | Flow | 0.0551 | Monitor and Report | MGD | Average Monthly |
| 08/01/2024 | 08/31/2024 | 09/23/2024 | 101 | Yes | Final Effluent | Flow | 0.0553 | Monitor and Report | MGD | Average Monthly |
| 09/01/2024 | 09/30/2024 | 10/26/2024 | 101 | Yes | Final Effluent | Flow | 0.054 | Monitor and Report | MGD | Average Monthly |
| 10/01/2024 | 10/31/2024 | 11/16/2024 | 101 | Yes | Final Effluent | Flow | 0.0535 | Monitor and Report | MGD | Average Monthly |
| 11/01/2024 | 11/30/2024 | 12/24/2024 | 101 | Yes | Final Effluent | Flow | 0.0556 | Monitor and Report | MGD | Average Monthly |
| 12/01/2024 | 12/31/2024 | 01/21/2025 | 101 | Yes | Final Effluent | Flow | 0.0655 | Monitor and Report | MGD | Average Monthly |
| 01/01/2025 | 01/31/2025 | 02/22/2025 | 101 | Yes | Final Effluent | Flow | 0.058 | Monitor and Report | MGD | Average Monthly |
| 02/01/2025 | 02/28/2025 | 03/25/2025 | 101 | Yes | Final Effluent | Flow | 0.0593 | Monitor and Report | MGD | Average Monthly |
| 03/01/2025 | 03/31/2025 | 04/22/2025 | 101 | Yes | Final Effluent | Flow | 0.0587 | Monitor and Report | MGD | Average Monthly |
| 04/01/2025 | 04/30/2025 | 05/27/2025 | 101 | Yes | Final Effluent | Flow | 0.056247 | Monitor and Report | MGD | Average Monthly |
| 05/01/2025 | 05/31/2025 | 06/24/2025 | 101 | Yes | Final Effluent | Flow | 0.070789 | Monitor and Report | MGD | Average Monthly |
| 06/01/2025 | 06/30/2025 | 07/22/2025 | 101 | Yes | Final Effluent | Flow | 0.067906 | Monitor and Report | MGD | Average Monthly |
| 07/01/2025 | 07/31/2025 | 08/26/2025 | 101 | Yes | Final Effluent | Flow | 0.069266 | Monitor and Report | MGD | Average Monthly |
| 08/01/2025 | 08/31/2025 | 09/23/2025 | 101 | Yes | Final Effluent | Flow | 0.061973 | Monitor and Report | MGD | Average Monthly |
| 09/01/2025 | 09/30/2025 | 10/20/2025 | 101 | Yes | Final Effluent | Flow | 0.061695 | Monitor and Report | MGD | Average Monthly |
| 10/01/2025 | 10/31/2025 | 11/25/2025 | 101 | Yes | Final Effluent | Flow | 0.060526 | Monitor and Report | MGD | Average Monthly |
| 11/01/2025 | 11/30/2025 | 12/23/2025 | 101 | Yes | Final Effluent | Flow | 0.0641 | Monitor and Report | MGD | Average Monthly |
| 12/01/2025 | 12/31/2025 | 01/19/2026 | 101 | Yes | Final Effluent | Flow | 0.058676 | Monitor and Report | MGD | Average Monthly |
| | | | | | | Min | 0.0266 | | | |
| | | | | | | Max | 0.0708 | | | |
| | | | | | | Average | 0.0552 | | | |

# Attachment E- Correspondence

## Hong, Nicholas

**From:** Leslie Loughner <LLoughner@gdfengineers.com>
**Sent:** Tuesday, February 10, 2026 2:59 PM
**To:** Hong, Nicholas
**Cc:** Mark Perry; Irina Hott; Maggie Weitzel
**Subject:** [External] NPDES permit Plane 9 PA0085120
**Attachments:** NPDES_Appl_PlaneNine_Page 3&4 Revised.pdf

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

Good afternoon Nick,

Below are our responses to your email from today on behalf of AWA in regard to the Plane Nine NPDES Renewal.

1. Confirm the flow rate for Outfall 101. The current permit utilizes a flow rate of 0.24 MGD.

   **We confirmed that the design capacity is 0.24 MGD. The flow rate has been revised on Page 4 of the application form which is attached.**

2. The NPDES renewal application includes an average flow of 0.720 MGD. DMR from 02/2021 to 12/2025 has an average flow rate of 0.0552 MGD.

   **The average flow rate has been revised using the past two (2) years of daily flow rates which is 0.0556 MGD. That number has been revised on page 3 of the application form which is attached.**

3. Also confirm the hydraulic design flow rate for Outfall 101.

   **We confirmed that the correct design capacity is 0.24 MGD per *Page 4, Supplemental Information* section of the current permit.**

Please let us know if you have any more questions.

Thank you,

**Leslie A. Loughner, C.E.P - I.T.** | Environmental Scientist
GWIN, DOBSON & FOREMAN, INC. | gdfengineers.com
(814) 943-5214 | 3121 Fairway Drive Altoona, PA 16602