Pennsylvania Department of Environmental Protection

Northwest Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0021610**
Facility Type	**Municipal**	APS ID	**802527**
Major / Minor	**Major**	Authorization ID	**961299**

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Applicant and Facility Information

Applicant Name	**Blairsville Municipal Authority**	Facility Name	**Blairsville Municipal Authority WWTP**
Applicant Address	203 East Market Street	Facility Address	529 Industrial Park Road
	Blairsville, PA 15717-1120		Blairsville, PA 15717-8533
Applicant Contact	Thomas Barberich	Facility Contact	Same as Applicant
Applicant Phone	(724) 459-5020	Facility Phone	Same as Applicant
Client ID	53197	Site ID	262089
Ch 94 Load Status	Not Overloaded	Municipality	Blairsville Borough
Connection Status	**Not Limited**	County	Indiana
Date Application Received	January 31, 2013	EPA Waived?	No
Date Application Accepted	January 31, 2013	If No, Reason	Major Facility

Purpose of Application: Application for the renewal of an NPDES permit for the discharge of treated Sewage.

Summary of Review

Introduction

The Authority has applied for the renewal of existing NPDES Permit No. PA0021610, which was previously issued on February 29, 2008, amended on April 17, 2009, and expired on February 28, 2013. This permit was previously drafted on May 15, 2013.

Facility Overview

WQM Permit No. 363S3 A-3 authorized plant expansion with a rated annual average design flow & design hydraulic capacity of 1.353 MGD, and a design organic capacity of 1,638 lbs./day.

The treatment process consists of primary clarification, activated sludge using oxidation ditches, secondary clarification, and UV disinfection. The discharge is to the Conemaugh River which is classified as a Warm Water Fishery (WWF) per 25 Pa. Chapter 93 Designated Use and is located in State Watershed 18-D. A comprehensive listing of outfalls can be found below.

001	—	Treated Sewage
002	MH-24, overflow at Pump Station No. 1	CSO
003	MH-9, overflow at Pump Station No. 2	CSO
005	MH-49A, overflow at Pump Station No. 3	CSO
006	MH-39, overflow at Pump Station No. 4	CSO
007	MH-101, overflow at Main Pump Station	CSO

Combined Sewer Overflow (CSO) Outfalls 002, 003, 005, 006, and 007 will again be permitted. These outfalls serve as CSOs necessitated by stormwater entering the sewer system and exceeding the hydraulic capacity of the sewers and/or the

Approve	Deny	Signatures	Date
X		William C. Mitchell, E.I.T. / Project Manager	May 13, 2025
X		Mahbuba Iasmin, Ph.D., P.E. / Environmental Engineering Manager	May 14, 2025

Summary of Review

treatment plant and are permitted to discharge only for this reason. Part C.II, Combined Sewer Overflows, has been incorporated into the permit.

WQM Permit No. 363S3 A-3 authorized partial sewer separation of the combined sewer system (CSS) resulting in the elimination of CSO Outfalls 004, 008, 009, 010, 011, 013, 016, 017.

Application data indicates that there are no Stormwater Outfalls for this facility.

Updated application data indicates the following Industrial Users Information (Sampling required for Pollutant Groups 1-5):

- Clark Metal Products Company, Applicable Pretreatment Standard: 40 CFR Part: 433
- H&W Global Industries, Inc., Applicable Pretreatment Standard: 40 CFR Part: 433
- Specialty Bar Products, Applicable Pretreatment Standard: 40 CFR Part: 433

Combined Sewer Overflows

Part C requires the permittee to continue implementation of the NMCs and demonstrate system-wide compliance with the NMCs. Site specific O&M obligations were taken from the NMC Plan (received May 14, 2002, and updated on May 31, 2023). A Department NMC inspection will occur after permit issuance to ensure continued compliance.

Part C requires the permittee to implement an LTCP that complies with the EPA CSO Policy's Presumption Approach criteria to meet receiving Water Quality Standards (WQS) by capturing no less than at least **85%** of the system-wide combined sewage volume collected in the combined sewer system during precipitation events under design conditions.

The Department approved the LTCP on July 24, 2007, which called for sewer separation. After completing the construction activities approved under WQM Permit No. 363S3 A-3, 5 CSO Outfalls remained. A revised LTCP was later received by the Department on December 24, 2024. In an email, dated April 23, 2025, the Department made the following statement:

"The Department has reviewed the attached LTCP Report, dated December 2024, and has the following comments:

- The Department has concerns with Figure 3, January 2023 – August 2023 CSO Volume vs. Rainfall Design Range Event. You state that the Authority has single speed pumps that can generally keep up with rainfall intensity up to 0.15 inches per hour, yet most of your CSO discharges occur between 0.15 and 0.25 inches of rainfall volume in a day. If on one hand you say that your pumps can keep up with rainfall intensity of 0.15 inches per hour, why can these same pumps not handle a daily rainfall volume 0.15 to 0.25 inches before discharging? Additionally, it appears counter intuitive that the reported CSO occurrences for higher size rainfall is lower compared to CSOs for 0.15-0.25 inches of rainfall volume in a day.

- The LTCP states that the "Design Storm" is the 10-year, 24-hour storm, with a rainfall intensity up to 0.151 inches per hour, which works out to a total rainfall depth of 3.624-inches. The rainfall depth for a 1-year, 12-hour storm works out to a total rainfall depth of 1.8-inches which is significantly less than the total rainfall depth of 3.624-inches for a 10-year, 24-hour storm in a day. These two storms were compared and 10-year, 24-hour storm was chosen as the design storm. The percent capture of the system was calculated to be 96.7% based upon an August 5, 2024 rain event (1.58-inches rainfall). It appears that your "Design Storm" is based upon the 1-year, 12-hour storm event.

Based upon the comments above, the Department has concerns that the LTCP does not comply with the EPA CSO Policy's Presumption Approach criteria to meet receiving Water Quality Standards by capturing no less than 85% by volume of the combined sewage collected in the CSS during precipitation events on a system-wide average annual basis. At this time the LTCP will not be approved.

A draft COA and NPDES Permit will be sent to the Authority shortly that will assist them with long-term compliance with the EPA CSO Program. When revising the LTCP it would be in the Authority's interest to evaluate both the demonstration & presumption approach criteria to demonstrate compliance with water quality standards."

The final NPDES Permit will be issued concurrently with the COA. Part C requires the submission of a revised LTCP & schedule within 90 days of the execution of the COA.

Summary of Review

Summary of Changes Since Last Permit Issuance

- Ammonia-Nitrogen monitoring added
- UV monitoring added
- *E. Coli* monitoring added
- Annual PFOA, PFOS, PFBS, and HFPO-DA monitoring added
- Total copper and Bis(2-Ethylhexyl)Phthalate monitoring added
- WQBEL for Hexachlorobutadiene imposed, application sampling did not meet Department's TQL
- WQBEL for Benzidine imposed
- TRC limit was removed because the facility no longer uses chlorine for disinfection
- Revised Part C language, Combined Sewer Overflow
- Revised Part C language, Whole Effluent Toxicity (annual Chronic WET testing required, and updates were made to the Dilution Series & TIWC)
- Addition of Part C language, Water Quality-Based Effluent Limitations for Toxic Pollutants

Sludge use and disposal description and location(s): Biosolids are taken by Synagro Mid-Altantic Inc. for land application under PA DEP NPDES Permit No. PAG-076102

Public Participation

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

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	1.353
Latitude	40º 26' 18.00"	Longitude	-79º 17' 27.00"
Quad Name	Blairsville	Quad Code	1511
Wastewater Description:	Sewage Effluent		
Receiving Waters	Conemaugh River (WWF)	Stream Code	43832
NHD Com ID	123714732	RMI	18.31
Drainage Area	875	Yield (cfs/mi^2)	0.094
Q_{7-10} Flow (cfs)	82.3	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	910	Slope (ft/ft)	0.00027
Watershed No.	18-D	Chapter 93 Class.	WWF
Existing Use		Existing Use Qualifier	
Exceptions to Use	NONE	Exceptions to Criteria	NONE
Assessment Status	Impaired		
Cause(s) of Impairment	METALS, PH, TOTAL SUSPENDED SOLIDS (TSS)		
Source(s) of Impairment	ACID MINE DRAINAGE		
TMDL Status	Final	Name	Kiskiminetas-Conemaugh River Watersheds TMDL

Background/Ambient Data		Data Source
pH (SU)		
Temperature (°F)		
Hardness (mg/L)		
Other:		

Nearest Downstream Public Water Supply Intake	Buffalo Township MA, Freeport Plant		
PWS Waters	Allegheny River	Flow at Intake (cfs)	2070
PWS RMI	29.4	Distance from Outfall (mi)	

Changes Since Last Permit Issuance: Elevation, Slope, DA, Q7/10 Flow, and Yield updated with current data taken from USGS StreamStats (Attachment 1).

Other Comments:

A TMDL for the Kiskiminetas-Conemaugh River watershed was approved on January 29, 2010, for the control of abandoned mine drainage pollutants: pH, iron, aluminum, and manganese. In accordance with 40 CFR § 122.44(d)(1)(vii)(B), when developing WQBELs, the permitting authority shall ensure that effluent limits developed to protect a narrative water quality criterion, a numeric water quality criterion, or both, are consistent with the assumptions and requirements of any available wasteload allocation (WLA) for the discharge prepared by the State and approved by the EPA pursuant to 40 CFR § 130.7.

The discharge is to the Conemaugh River which is part of the Kiskiminetas-Conemaugh River watershed, and this facility has been provided a WLA in the TMDL. This facility is listed as a negligible discharger in Appendix C of the approved TMDL and is covered under the aggregate WLA for negligible non-mining dischargers in Appendix G ("Negligible Discharge Gross WLAs" tab).

The TMDL ("Non-Mining NPDES Permits") states that "EPA developed aggregate WLAs based on the sum of the available information regarding flow from each facility multiplied by the applicable numeric water quality criterion." Therefore, this

facility's WLA was based on a flow of 1.353 MGD and the criterion for each pollutant of concern (aluminum, iron, and manganese).

Based upon the facility's application data for these parameters, the discharge has no RP to exceed the TMDL WLAs, or water quality criteria for these parameters.

No Monitoring requirements or limitation will be imposed on this facility at this time. These pollutants will be re-evaluated during the next permit renewal cycle.

Treatment Facility Summary

Treatment Facility Name: Blairsville Municipal Authority STP

WQM Permit No.	Issuance Date
363S3	August 19, 1963
363S3-A1	March 4, 1992
363S3-A2	April 2, 1996, with Letter Amendment dated March 1, 2002
363S3-A3	October 27, 2009

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary with NH3-N Reduction	Activated Sludge using Oxidation Ditches	Ultraviolet Radiation	1.353

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
1.353	1,638	Not Overloaded	Anaerobic Digestion and Reed Plant Sludge Drying Beds	Land Application

Changes Since Last Permit Issuance: NONE

Other Comments: N/A

Compliance History

Operations Compliance Check Summary Report

Facility: Blairsville MA WWTP

NPDES Permit No.: PA0021610

Compliance Review Period: 5/1/20-5/1/25

Inspection Summary:

INSPECTED DATE	INSP TYPE	INSPECTION RESULT DESC
06/12/2024	Routine/Partial Inspection	No Violations Noted
04/11/2024	Compliance Evaluation	No Violations Noted
04/07/2023	Chapter 94 Inspection	No Violations Noted
02/28/2023	Combined Sewer Overflow-Non-Sampling	No Violations Noted
05/05/2022	Compliance Evaluation	No Violations Noted
05/07/2021	Combined Sewer Overflow-Non-Sampling	No Violations Noted

Violation Summary:

No violations noted during review period

Open Violations by Client ID:

No open violations for Client ID 53197

Enforcement Summary:

No enforcements executed during review period

Effluent Violation Summary:

No effluent exceedances reported during review period

Unauthorized Discharges:

No unauthorized discharges reported in eDMR during review period

Compliance Status: Facility is in general compliance with NPDES Part A Limits and there are no open violations. There will be a COA to deal with CAP requirements and LTCP issues.

Completed by: Amanda Illar **Completed date:** 5/2/25

Compliance History

DMR Data for Outfall 001 (from April 1, 2024 to March 31, 2025)

Parameter	MAR-25	FEB-25	JAN-25	DEC-24	NOV-24	OCT-24	SEP-24	AUG-24	JUL-24	JUN-24	MAY-24	APR-24
Flow (MGD) Average Monthly	0.676	1.288	0.546	0.6655	0.652	0.416	0.364	0.4558	0.342	0.403	0.7358	1.3565
Flow (MGD) Daily Maximum	1.44	2.938	0.806	1.59	1.96	1.297	0.53	1.57	0.767	0.71	1.54	2.99
pH (S.U.) Minimum	7.1	6.9	7.0	7.1	7.1	7.1	7.1	7.4	7.1	7.0	7.0	7.1
pH (S.U.) Maximum	8.4	7.8	7.7	7.7	7.7	7.8	7.9	7.8	7.9	7.9	7.7	7.9
TRC (mg/L) Average Monthly	0.13	0.1	0.15	0.19	0.22	0.15	0.17	0.14	0.16	0.22	0.16	0.16
TRC (mg/L) Instantaneous Maximum	0.34	0.2	0.23	0.31	0.33	0.35	0.4	0.36	0.22	0.34	0.24	0.27
CBOD5 (lbs/day) Average Monthly	16.91	32.23	19.17	22.48	20.12	10.41	9.1	11.4	8.6	10.1	18.4	37.79
CBOD5 (lbs/day) Weekly Average	16.91	32.23	18.62	25.75	20.12	10.41	9.1	11.4	8.6	10.1	18.4	37.45
CBOD5 (mg/L) Average Monthly	3.00	3.00	4.21	4.05	3.70	3.00	3.00	3.00	3.00	3.00	3.00	3.34
CBOD5 (mg/L) Weekly Average	3.00	3.00	4.09	4.64	3.70	3.00	3.00	3.00	3.00	3.00	3.00	3.31
TSS (lbs/day) Average Monthly	10.71	25.78	11.11	13.54	23.11	7.77	6.1	6.1	6.1	10.1	12.0	28.17
TSS (lbs/day) Weekly Average	10.71	25.78	10.75	13.76	23.11	7.77	6.1	6.1	6.0	10.1	11.8	27.15
TSS (mg/L) Average Monthly	1.90	2.4	2.44	2.44	4.25	2.24	2	1.6	2.14	3.00	1.96	2.49
TSS (mg/L) Weekly Average	1.90	2.4	2.36	2.48	4.25	2.24	2	1.6	2.09	3.00	1.92	2.4
Fecal Coliform (CFU/100 ml) Geometric Mean	1.189	1.717	1.08	1.895	1.637	2.37	9.551	2.49	2.21	4.064	1.442	1.77
Fecal Coliform (CFU/100 ml) Instantaneous Maximum	2.00	6.3	2	4.1	6.3	80.9						13.4

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 1.353
Latitude 40º 26' 18.00" **Longitude** -79º 17' 27.00"
Wastewater Description: Sewage Effluent

Technology-Based Limitations

The following technology-based limitations apply, subject to water quality analysis and BPJ where applicable:

Pollutant	Limit (mg/l)	SBC	Federal Regulation	State Regulation
$CBOD_5$	25	Average Monthly	133.102(a)(4)(i)	92a.47(a)(1)
	40	Average Weekly	133.102(a)(4)(ii)	92a.47(a)(2)
Total Suspended Solids	30	Average Monthly	133.102(b)(1)	92a.47(a)(1)
	45	Average Weekly	133.102(b)(2)	92a.47(a)(2)
pH	6.0 – 9.0 S.U.	Min – Max	133.102(c)	95.2(1)
Fecal Coliform (5/1 – 9/30)	200 / 100 ml	Geo Mean	-	92a.47(a)(4)
Fecal Coliform (5/1 – 9/30)	1,000 / 100 ml	IMAX	-	92a.47(a)(4)
Fecal Coliform (10/1 – 4/30)	2,000 / 100 ml	Geo Mean	-	92a.47(a)(5)
Fecal Coliform (10/1 – 4/30)	10,000 / 100 ml	IMAX	-	92a.47(a)(5)
Total Residual Chlorine	0.5	Average Monthly	-	92a.48(b)(2)

Comments: The discharge was evaluated using WQM 7.0 Version 1.1 (Attachment 2) to evaluate $CBOD_5$, Ammonia Nitrogen, and Dissolved Oxygen. The modeling results show the above technology based effluent limitations are appropriate.

For existing discharges, if WQM modeling results for summer indicates that an average monthly limit of 25 mg/L (ammonia-nitrogen) is acceptable, the application manager will generally establish a year-round monitoring requirement for ammonia-nitrogen (Section I.A, Note 5, SOP No. BCW-PMT-033, Establishing Effluent Limitations for Individual Sewage Permits).

Water Quality-Based Limitations

A “Reasonable Potential Analysis” (Attachment 3 - TMS Version 1.4) determined the following parameters were candidates for monitoring and/or limitations: Total Copper, Benzidine, Bis(2-Ethylhexyl)Phthalate, and Hexachlorobutadiene.

The following limitations were determined through water quality modeling (output files attached):

Parameter	Limit (ug/l)	SBC	Model
Benzidine	0.015	Average Monthly	TMS Version 1.4
Hexachlorobutadiene	1.53	Average Monthly	TMS Version 1.4

The recommended limits for Benzidine and Hexachlorobutadiene are greater than the application reported concentration, and therefore, a compliance schedule is necessary. Part C.IV, Water Quality-Based Effluent Limitations for Toxic Pollutants, has been added to the permit. Please note that WQBELs were recommended for Hexachlorobutadiene, as application sampling did not meet the Department’s TQL. The applicant will be advised to resample during the draft permit comment period.

The TMS Model recommended Monitoring be established for Total Copper, and Bis(2-Ethylhexyl)Phthalate, as the discharge concentration of these pollutants is greater than 10% or 25% of the governing WQBELs (no RP).

Best Professional Judgment (BPJ) Limitations

Comments: A minimum Dissolved Oxygen (DO) limit of 4.0 mg/L will be established based on BPJ to ensure adequate operation and maintenance (Section I.A, Note 6, SOP No. BCW-PMT-033, Establishing Effluent Limitations for Individual Sewage Permits).

Anti-Backsliding

Section 402(o) of the Clean Water Act (CWA), enacted in the Water Quality Act of 1987, establishes anti-backsliding rules governing two situations. The first situation occurs when a permittee seeks to revise a Technology-Based effluent limitation based on BPJ to reflect a subsequently promulgated effluent guideline which is less stringent. The second situation addressed by Section 402(o) arises when a permittee seeks relaxation of an effluent limitation which is based upon a State treatment standard of water quality standard.

Previous limits can be used pursuant to EPA's anti-backsliding regulation 40 CFR 122.44 (l) Reissued permits. (1) Except as provided in paragraph (l)(2) of this section when a permit is renewed or reissued. Interim effluent limitations, standards or conditions must be at least as stringent as the final effluent limitations, standards, or conditions in the previous permit (unless the circumstances on which the previous permit was based have materially and substantially changed since the time the permit was issued and would constitute cause for permit modification or revocation and reissuance under §122.62). (2) In the case of effluent limitations established on the basis of Section 402(a)(1)(B) of the CWA, a permit may not be renewed, reissued, or modified on the basis of effluent guidelines promulgated under section 304(b) subsequent to the original issuance of such permit, to contain effluent limitations which are less stringent than the comparable effluent limitations in the previous permit.

The facility is not seeking to revise the previously permitted effluent limits.

Per- and Polyfluoroalkyl Substances (PFAS)

In February 2024, DEP implemented a new monitoring initiative for PFAS consistent with an EPA memorandum that provides guidance to states for addressing PFAS discharges. PFAS are a family of thousands of synthetic organic chemicals that contain a chain of strong carbon-fluorine bonds. Many PFAS are highly stable, water- and oil-resistant, and exhibit other properties that make them useful in a variety of consumer products and industrial processes. PFAS are resistant to biodegradation, photooxidation, direct photolysis, and hydrolysis and do not readily degrade naturally; thus, many PFAS accumulate over time. According to the United States Department of Health and Human Services, Agency for Toxic Substances and Disease Registry (ATSDR), the environmental persistence and mobility of some PFAS, combined with decades of widespread use, have resulted in their presence in surface water, groundwater, drinking water, rainwater, soil, sediment, ice caps, outdoor and indoor air, plants, animal tissue, and human blood serum across the globe. ATSDR also reported that exposure to certain PFAS can lead to adverse human health impacts Due to their durability, toxicity, persistence, and pervasiveness, PFAS have emerged as potentially significant pollutants of concern.

In accordance with Section II.G of DEP's "Standard Operating Procedure (SOP) for Clean Water Program – Establishing Effluent Limitations for Individual Sewage Permits" [SOP No. BCW-PMT-033] and under the authority of 25 Pa. Code § 92a.61(b), DEP has determined that monitoring for a subset of common/well-studied PFAS including Perfluorooctanoic acid (PFOA), Perfluorooctanesulfonic acid (PFOS), Perfluorobutanesulfonic acid (PFBS), and Hexafluoropropylene oxide dimer acid (HFPO-DA) is necessary to help understand the extent of environmental contamination by PFAS in the Commonwealth and the extent to which point source dischargers are contributors. SOP BCW-PMT-033 directs permit writers to consider special monitoring requirements for PFOA, PFOS, PFBS, and HFPO-DA in the following instances:

a. If sampling that is completed as part of the permit renewal application reveals a detection of PFOA, PFOS, HFPO-DA or PFBS (any of these compounds), the application manager will establish a quarterly monitoring requirement for PFOA, PFOS, HFPO-DA and PFBS (all of these compounds) in the permit.

b. If sampling that is completed as part of the permit renewal application demonstrates non-detect values at or below the Target QLs for PFOA, PFOS, HFPO-DA and PFBS (all of these compounds in a minimum of 3 samples), the application manager will establish an annual monitoring requirement for PFOA, PFOS, HFPO-DA and PFBS in the permit.

c. In all cases the application manager will include a condition in the permit that the permittee may cease monitoring for PFOA, PFOS, HFPO-DA and PFBS when the permittee reports non-detect values at or below

the Target QL for four consecutive monitoring periods for each PFAS parameter that is analyzed. Use the following language: The permittee may discontinue monitoring for PFOA, PFOS, HFPO-DA, and PFBS if the results in 4 consecutive monitoring periods indicate non-detects at or below Quantitation Limits of 4.0 ng/L for PFOA, 3.7 ng/L for PFOS, 3.5 ng/L for PFBS and 6.4 ng/L for HFPO-DA. When monitoring is discontinued, permittees should enter a No Discharge Indicator (NODI) Code of "GG" on DMRs.

Application sampling reveled a detection of PFOA, PFOS, and PFBS above the Target QLs. Therefore, quarterly monitoring of PFOA, PFOS, PFBS, and HFPO-DA will be established consistent with Section II.G of SOP BCW-PMT-033 and under the authority of 25 Pa. Code § 92a.61(b).

As stated in Section II.G.3 of SOP BCW-PMT-0332, if non-detect values at or below DEP's Target QLs are reported for four consecutive monitoring periods (i.e., four consecutive annual results), then the monitoring may be discontinued. Footnote (3) has been added to Part A of the NPDES Permit, which further discusses monitoring and reporting requirements.

Additional Considerations

Monitoring frequency for the proposed effluent limits are based upon Table 6-3, Self-Monitoring Requirements for Sewage Dischargers, from the Departments Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits (Document No. 386-0400-001).

For POTWs, mass loading limits will be established for $CBOD_5$, TSS, NH_3-N, and where necessary Total P and Total N. In general, average monthly mass loading limits will be established for $CBOD_5$, TSS, NH_3-N, and where necessary Total P and Total N, and average weekly mass loading limits will be established for $CBOD_5$ and TSS. Mass loading limits will also be established for toxic pollutants with effluent concentration limits (Section IV, SOP No. BCW-PMT-033, Establishing Effluent Limitations for Individual Sewage Permits).

For POTWs with design flows greater than 2,000 GPD and for non-municipal sewage facilities that service municipalities or portions thereof, the application manager will establish influent BOD_5 and TSS monitoring in the permit using the same frequency and sample type as is used for other effluent parameters (Section IV.E.8, SOP No BCW-PWT-002, New and Reissuance Sewage Individual NPDES Permit Applications).

Sewage discharges will include monitoring, at a minimum, for *E. Coli*, in new and reissued permits, with a monitoring frequency of 1/month for design flows >= 1 MGD per 25 Pa. Code § 92a.061 and Section I.A, Note 12, SOP No. BCW-PMT-033, Establishing Effluent Limitations for Individual Sewage Permits.

Nutrient monitoring is required to establish the nutrient load from the wastewater treatment facility and the impacts that load may have on the quality of the receiving stream(s). The discharge is to waters not impaired for nutrients. A 1/year monitoring requirement for Total N & Total P has been added to the permit per 25 Pa. Code § 92a.61 and Section I.A, Note 7 & 8, SOP No. BCW-PMT-033, Establishing Effluent Limitations for Individual Sewage Permits.

Where ultraviolet (UV) disinfection is used, TRC limits are not applicable, but the limits table(s) in Part A will generally contain, at a minimum, routine monitoring of UV transmittance (%), UV dosage (µWs/cm2 or mWs/cm2 or mjoules/cm2) or UV intensity (µW/cm2 or mW/cm2) at the same monitoring frequency that would be used for TRC per Section I.A, Note 4, SOP No. BCW-PMT-033, Establishing Effluent Limitations for Individual Sewage Permits.

Whole Effluent Toxicity (WET)

For Outfall 001, ☒ **Acute** ☐ **Chronic** WET Testing was completed:

☒ For the permit renewal application (4 tests).
☐ Quarterly throughout the permit term.
☐ Quarterly throughout the permit term and a TIE/TRE was conducted.
☐ Other:

The dilution series used for the tests was: 100%, 50%, 25%, 12.5%, and 6.25%. The Target Instream Waste Concentration (TIWC) to be used for analysis of the results is: 35%.

Summary of Four Most Recent Test Results

NOEC/LC50 Data Analysis

Test Date	*Ceriodaphnia* Results (% Effluent)			*Pimephales* Results (% Effluent)			Pass? *
	NOEC Survival	NOEC Reproduction	LC50	NOEC Survival	NOEC Growth	LC50	
9/13-17/2012	N/A	N/A	100	N/A	N/A	100	Yes
10/11-15/2012	N/A	N/A	100	N/A	N/A	100	Yes
11/15-19/2012	N/A	N/A	100	N/A	N/A	100	Yes
12/13-17/2012	N/A	N/A	100	N/A	N/A	100	Yes

***** *A "passing" result is that which is greater than or equal to the TIWC value.*

Is there reasonable potential for an excursion above water quality standards based on the results of these tests? (*NOTE – In general, reasonable potential is determined anytime there is at least one test failure in the previous four tests).*

☐ **YES** ☒ **NO**

Comments: This permit was last issued by the Department on February 29, 2008. The expired permit required that 4 WET Tests be submitted with the renewal application, which was received on January 31, 2013. The draft permit will require that WET testing be conducted annually, and Part C.V. language has been revised consistent with 40 CFR 122.21(j)(5)(iv).

Evaluation of Test Type, IWC and Dilution Series for Renewed Permit

Acute Partial Mix Factor (PMFa): **0.083** Chronic Partial Mix Factor (PMFc): **0.576**

1. Determine IWC – Acute (IWCa):

$(Q_d \times 1.547) / ((Q_{7\text{-}10} \times PMFa) + (Q_d \times 1.547))$

[(1.35 MGD x 1.547) / ((82.3 cfs x 0.083) + (1.353 MGD x 1.547))] x 100 = **23.50%**

Is IWCa < 1%? ☐ **YES** ☒ **NO** **(YES - Acute Tests Required OR NO - Chronic Tests Required)**

Type of Test for Permit Renewal: **Chronic WET Tests Required**

2a. Determine Target IWCa (If Acute Tests Required)

TIWCa = IWCa / 0.3 = 78.33**%**

2b. Determine Target IWCc (If Chronic Tests Required)

$(Q_d \times 1.547) / (Q_{7\text{-}10} \times PMFc) + (Q_d \times 1.547)$

[(1.353 MGD x 1.547) / ((82.3 cfs x 0.576) + (1.35 MGD x 1.547))] x 100 = **4.24%**

Please note that Department's WET Analysis Spreadsheet recommends a TIWCc of 4% Effluent be established in Part C.V of the permit.

3. Determine Dilution Series

(NOTE – check Attachment C of WET SOP for dilution series based on TIWCa or TIWCc, whichever applies).

Dilution Series = 100%, 60%, 30%, 4%, and 2%.

WET Limits

Has reasonable potential been determined? ☐ YES ☒ NO

Will WET limits be established in the permit? ☐ YES ☒ NO

If WET limits will be established, identify the species and the limit values for the permit (TU).

N/A

If WET limits will not be established, but reasonable potential was determined, indicate the rationale for not establishing WET limits:

N/A

Proposed Effluent Limitations and Monitoring Requirements

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (386-0400-001), SOPs and/or BPJ.

Outfall 001, Effective Period: Permit Effective Date through End of 24th Month.

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		
Benzidine (ug/L)	Report	Report	XXX	Report	Report	XXX	1/week	24-Hr Composite
Hexachloro-butadiene (ug/L)	Report	Report	XXX	Report	Report	XXX	1/week	24-Hr Composite

Compliance Sampling Location: Outfall 001

Proposed Effluent Limitations and Monitoring Requirements

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (386-0400-001), SOPs and/or BPJ.

Outfall 001, Effective Period: Beginning of 25th Month through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Benzidine (ug/L)	0.0002	0.0003	XXX	0.015	0.024	0.038	1/week	24-Hr Composite
Hexachloro-butadiene (ug/L)	0.017	0.027	XXX	1.53	2.38	3.82	1/week	24-Hr Composite

Compliance Sampling Location: Outfall 001

Proposed Effluent Limitations and Monitoring Requirements

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (386-0400-001), SOPs and/or BPJ.

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

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average	Instantaneous Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Recorded
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	4.0	XXX	XXX	XXX	1/day	Grab
CBOD5	280.0	450.0	XXX	25.0	40.0 Wkly Avg	50	2/week	24-Hr Composite
BOD5 Raw Sewage Influent	Report	Report	XXX	Report	Report Wkly Avg	XXX	2/week	24-Hr Composite
TSS	335.0	505.0	XXX	30.0	45.0 Wkly Avg	60	2/week	24-Hr Composite
TSS Raw Sewage Influent	Report	Report	XXX	Report	Report Wkly Avg	XXX	2/week	24-Hr Composite
Fecal Coliform (CFU/100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	2/week	Grab
Fecal Coliform (CFU/100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/week	Grab
E. Coli (No./100 ml)	XXX	XXX	XXX	XXX	XXX	Report	1/month	Grab
UV Transmittance (%)	XXX	XXX	Report	XXX	XXX	XXX	1/day	Measured
Total Nitrogen	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	24-Hr Composite
Ammonia-Nitrogen	Report	XXX	XXX	Report	XXX	XXX	2/week	24-Hr Composite
Total Phosphorus	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	24-Hr Composite

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

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average	Instantaneous Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Total Copper (ug/L)	Report	Report Daily Max	XXX	Report	Report	XXX	1/month	24-Hr Composite
Bis(2-Ethyl-hexyl)Phthalate (ug/L)	Report	Report Daily Max	XXX	Report	Report	XXX	1/month	24-Hr Composite
PFOA (ng/L)	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
PFOS (ng/L)	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
PFBS (ng/L)	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
HFPO-DA (ng/L)	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab

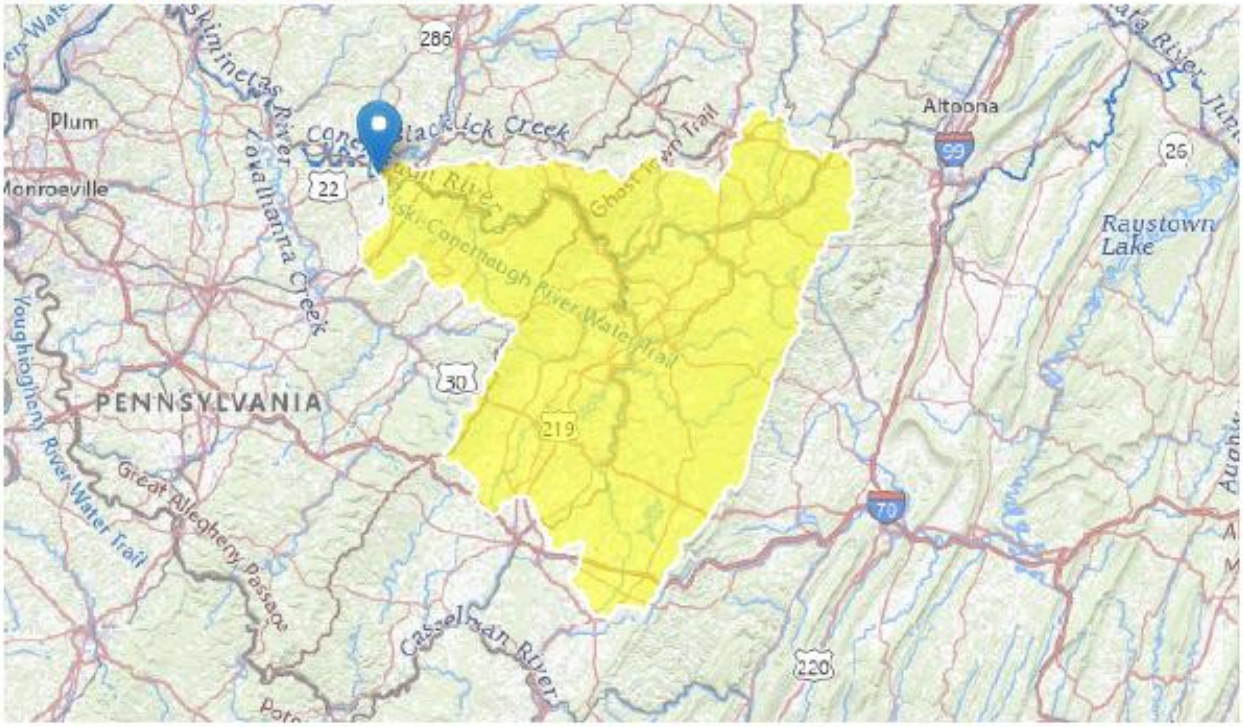
Compliance Sampling Location: Outfall 001

Other Comments: N/A

Attachment 1 – USGS StreamStats Report

StreamStats Report - PA0021610

Region ID: PA
Workspace ID: PA20250429180401808000
Clicked Point (Latitude, Longitude): 40.43689, -79.28919
Time: 2025-04-29 14:04:27 -0400



Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	875	square miles
ELEV	Mean Basin Elevation	1996	feet
PRECIP	Mean Annual Precipitation	45	inches

Low-Flow Statistics

Low-Flow Statistics Parameters [Low Flow Region 3]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	875	square miles	2.33	1720
ELEV	Mean Basin Elevation	1996	feet	898	2700
PRECIP	Mean Annual Precipitation	45	inches	38.7	47.9

Low-Flow Statistics Flow Report [Low Flow Region 3]

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	136	ft^3/s	43	43
30 Day 2 Year Low Flow	178	ft^3/s	38	38
7 Day 10 Year Low Flow	82.3	ft^3/s	54	54
30 Day 10 Year Low Flow	99	ft^3/s	49	49
90 Day 10 Year Low Flow	136	ft^3/s	41	41

Low-Flow Statistics Citations

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

USGS Product Names Disclaimer: Any use of trade, firm, or product names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

Application Version: 4.28.1
StreamStats Services Version: 1.2.22
NSS Services Version: 2.2.1

Attachment 2 – WQM 7.0 Version 1.1 – Summer Period

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
18C	43832	CONEMAUGH RIVER	18.310	910.00	875.00	0.00000	0.00	☑

Stream Data

Design Cond.	LFY (cfsm)	Trib Flow (cfs)	Stream Flow (cfs)	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary Temp (°C)	Tributary pH	Stream Temp (°C)	Stream pH
Q7-10	0.094	0.00	0.00	0.000	0.000	10.0	175.94	0.00	25.00	7.00	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
Blairsville MA	PA0021610	1.3530	1.3530	1.3530	0.000	20.00	7.00

Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	25.00	2.00	0.00	1.50
Dissolved Oxygen	3.00	8.38	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
18C	43832	CONEMAUGH RIVER	17.620	909.00	890.00	0.00000	0.00	☑

Stream Data

Design Cond.	LFY (cfsm)	Trib Flow (cfs)	Stream Flow (cfs)	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary Temp (°C)	Tributary pH	Stream Temp (°C)	Stream pH
Q7-10	0.094	0.00	0.00	0.000	0.000	0.0	0.00	0.00	25.00	7.00	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
		0.0000	0.0000	0.0000	0.000	25.00	7.00

Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	25.00	2.00	0.00	1.50
Dissolved Oxygen	3.00	8.24	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

WQM 7.0 Hydrodynamic Outputs

SWP Basin	Stream Code	Stream Name
18C	43832	CONEMAUGH RIVER

RMI	Stream Flow (cfs)	PWS With (cfs)	Net Stream Flow (cfs)	Disc Analysis Flow (cfs)	Reach Slope (ft/ft)	Depth (ft)	Width (ft)	W/D Ratio	Velocity (fps)	Reach Trav Time (days)	Analysis Temp (°C)	Analysis pH
Q7-10 Flow												
18.310	82.25	0.00	82.25	2.0931	0.00027	1.08	175.94	162.85	0.44	0.095	24.88	7.00
Q1-10 Flow												
18.310	52.64	0.00	52.64	2.0931	0.00027	NA	NA	NA	0.35	0.121	24.81	7.00
Q30-10 Flow												
18.310	111.86	0.00	111.86	2.0931	0.00027	NA	NA	NA	0.53	0.080	24.91	7.00

WQM 7.0 Modeling Specifications

Parameters	Both	Use Inputted Q1-10 and Q30-10 Flows	☑
WLA Method	EMPR	Use Inputted W/D Ratio	☐
Q1-10/Q7-10 Ratio	0.64	Use Inputted Reach Travel Times	☐
Q30-10/Q7-10 Ratio	1.36	Temperature Adjust Kr	☑
D.O. Saturation	90.00%	Use Balanced Technology	☑
D.O. Goal	5		

WQM 7.0 Wasteload Allocations

SWP Basin	Stream Code	Stream Name
18C	43832	CONEMAUGH RIVER

NH3-N Acute Allocations

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
18.310	Blairsville MA	11.25	50	11.25	50	0	0

NH3-N Chronic Allocations

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
18.310	Blairsville MA	1.38	25	1.38	25	0	0

Dissolved Oxygen Allocations

RMI	Discharge Name	CBOD5		NH3-N		Dissolved Oxygen		Critical Reach	Percent Reduction
		Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)		
18.31	Blairsville MA	25	25	25	25	3	3	0	0

WQM 7.0 D.O.Simulation

SWP Basin	Stream Code	Stream Name
18C	43832	CONEMAUGH RIVER

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
18.310	1.353	24.876	7.000
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
175.940	1.080	162.853	0.444
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
2.57	0.338	0.62	1.019
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
8.246	0.638	Tsivoglou	5
Reach Travel Time (days)			
0.095			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.010	2.56	0.61	7.55
0.019	2.55	0.61	7.55
0.029	2.54	0.60	7.55
0.038	2.53	0.60	7.55
0.048	2.52	0.59	7.55
0.057	2.51	0.59	7.55
0.067	2.50	0.58	7.55
0.076	2.49	0.57	7.55
0.086	2.48	0.57	7.55
0.095	2.47	0.56	7.55

WQM 7.0 Effluent Limits

SWP Basin	Stream Code	Stream Name
18C	43832	CONEMAUGH RIVER

RMI	Name	Permit Number	Disc Flow (mgd)	Parameter	Effl. Limit 30-day Ave. (mg/L)	Effl. Limit Maximum (mg/L)	Effl. Limit Minimum (mg/L)
18.310	Blairsville MA	PA0021610	1.353	CBOD5	25		
				NH3-N	25	50	
				Dissolved Oxygen			3

Attachment 3 – TMS Version 1.4

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Toxics Management Spreadsheet
Version 1.4, May 2023

Discharge Information

Instructions | Discharge | Stream

Facility: **Blairsville MA WWTP** NPDES Permit No.: **PA0021610** Outfall No.: **001**

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

Discharge Characteristics									
Design Flow (MGD)*	Hardness (mg/l)*	pH (SU)*	Partial Mix Factors (PMFs)				Complete Mix Times (min)	
			AFC	CFC	THH	CRL	Q_{7-10}	Q_h
1.353	203	7.735						

					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		488									
	Chloride (PWS)	mg/L		90.1									
	Bromide	mg/L	<	0.011									
	Sulfate (PWS)	mg/L		38.7									
	Fluoride (PWS)	mg/L											
Group 2	Total Aluminum	µg/L		179									
	Total Antimony	µg/L		0.309									
	Total Arsenic	µg/L	<	2.5									
	Total Barium	µg/L		30.6									
	Total Beryllium	µg/L	<	0.135									
	Total Boron	µg/L		0.145									
	Total Cadmium	µg/L		0.045									
	Total Chromium (III)	µg/L		0.00384									
	Hexavalent Chromium	µg/L	<	0.00025									
	Total Cobalt	µg/L		0.434									
	Total Copper	µg/L		8.29									
	Free Cyanide	µg/L		3									
	Total Cyanide	µg/L		0.008									
	Dissolved Iron	µg/L		28.2									
	Total Iron	µg/L		138									
	Total Lead	µg/L		0.554									
	Total Manganese	µg/L		51									
	Total Mercury	µg/L	<	0.0000932									
	Total Nickel	µg/L		3.78									
	Total Phenols (Phenolics) (PWS)	µg/L		0.006									
	Total Selenium	µg/L		0.409									
	Total Silver	µg/L	<	0.274									
	Total Thallium	µg/L	<	0.014									
	Total Zinc	µg/L		29.5									
	Total Molybdenum	µg/L		2.12									
	Acrolein	µg/L	<	1.95									
	Acrylamide	µg/L	<										
	Acrylonitrile	µg/L	<	0.51									
	Benzene	µg/L	<	0.43									
	Bromoform	µg/L	<	0.34									

Group 3	Carbon Tetrachloride	µg/L	<	0.51										
	Chlorobenzene	µg/L	<	0.21										
	Chlorodibromomethane	µg/L	<	0.32										
	Chloroethane	µg/L	<	0.42										
	2-Chloroethyl Vinyl Ether	µg/L	<	4										
	Chloroform	µg/L		4.19										
	Dichlorobromomethane	µg/L	<	0.39										
	1,1-Dichloroethane	µg/L	<	0.42										
	1,2-Dichloroethane	µg/L	<	0.39										
	1,1-Dichloroethylene	µg/L	<	0.33										
	1,2-Dichloropropane	µg/L	<	0.42										
	1,3-Dichloropropylene	µg/L	<	0.26										
	1,4-Dioxane	µg/L	<	3										
	Ethylbenzene	µg/L	<	0.27										
	Methyl Bromide	µg/L	<	0.46										
	Methyl Chloride	µg/L	<	0.36										
	Methylene Chloride	µg/L	<	0.45										
	1,1,2,2-Tetrachloroethane	µg/L	<	0.36										
	Tetrachloroethylene	µg/L	<	0.39										
	Toluene	µg/L	<	0.33										
	1,2-trans-Dichloroethylene	µg/L	<	0.39										
	1,1,1-Trichloroethane	µg/L	<	0.38										
	1,1,2-Trichloroethane	µg/L	<	0.24										
	Trichloroethylene	µg/L	<	0.46										
	Vinyl Chloride	µg/L	<	0.46										
Group 4	2-Chlorophenol	µg/L	<	0.13										
	2,4-Dichlorophenol	µg/L	<	0.25										
	2,4-Dimethylphenol	µg/L	<	0.26										
	4,6-Dinitro-o-Cresol	µg/L	<	0.9										
	2,4-Dinitrophenol	µg/L	<	0.86										
	2-Nitrophenol	µg/L	<	0.25										
	4-Nitrophenol	µg/L	<	0.19										
	p-Chloro-m-Cresol	µg/L	<	0.4										
	Pentachlorophenol	µg/L	<	0.97										
	Phenol	µg/L	<	0.25										
	2,4,6-Trichlorophenol	µg/L	<	0.24										
Group 5	Acenaphthene	µg/L	<	0.26										
	Acenaphthylene	µg/L	<	0.22										
	Anthracene	µg/L	<	0.13										
	Benzidine	µg/L		22										
	Benzo(a)Anthracene	µg/L	<	0.21										
	Benzo(a)Pyrene	µg/L	<	0.29										
	3,4-Benzofluoranthene	µg/L	<	0.31										
	Benzo(ghi)Perylene	µg/L	<	0.32										
	Benzo(k)Fluoranthene	µg/L	<	0.4										
	Bis(2-Chloroethoxy)Methane	µg/L	<	0.15										
	Bis(2-Chloroethyl)Ether	µg/L	<	0.25										
	Bis(2-Chloroisopropyl)Ether	µg/L	<	0.34										
	Bis(2-Ethylhexyl)Phthalate	µg/L		14										
	4-Bromophenyl Phenyl Ether	µg/L	<	0.19										
	Butyl Benzyl Phthalate	µg/L	<	0.38										
	2-Chloronaphthalene	µg/L	<	0.28										
	4-Chlorophenyl Phenyl Ether	µg/L	<	0.29										
	Chrysene	µg/L	<	0.45										
	Dibenzo(a,h)Anthrancene	µg/L	<	0.28										
	1,2-Dichlorobenzene	µg/L	<	3.2										
	1,3-Dichlorobenzene	µg/L	<	0.17										
	1,4-Dichlorobenzene	µg/L	<	0.15										
	3,3-Dichlorobenzidine	µg/L	<	0.13										
	Diethyl Phthalate	µg/L	<	0.27										
	Dimethyl Phthalate	µg/L	<	0.23										
	Di-n-Butyl Phthalate	µg/L		1.34										
	2,4-Dinitrotoluene	µg/L	<	0.77										

	2,6-Dinitrotoluene	µg/L	<	0.32										
	Di-n-Octyl Phthalate	µg/L	<	0.28										
	1,2-Diphenylhydrazine	µg/L	<	0.2										
	Fluoranthene	µg/L	<	3.5										
	Fluorene	µg/L	<	2.5										
	Hexachlorobenzene	µg/L	<	2.5										
	Hexachlorobutadiene	µg/L	<	2.7										
	Hexachlorocyclopentadiene	µg/L	<	2.2										
	Hexachloroethane	µg/L	<	2.6										
	Indeno(1,2,3-cd)Pyrene	µg/L	<	0.25										
	Isophorone	µg/L	<	0.23										
	Naphthalene	µg/L	<	0.25										
	Nitrobenzene	µg/L	<	0.26										
	n-Nitrosodimethylamine	µg/L	<	0.4										
	n-Nitrosodi-n-Propylamine	µg/L	<	0.31										
	n-Nitrosodiphenylamine	µg/L	<	0.27										
	Phenanthrene	µg/L	<	0.21										
	Pyrene	µg/L	<	0.16										
	1,2,4-Trichlorobenzene	µg/L	<	0.17										
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												

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DEPARTMENT OF ENVIRONMENTAL PROTECTION

Toxics Management Spreadsheet
Version 1.4, May 2023

Stream / Surface Water Information

Blairsville MA WWTP, NPDES Permit No. PA0021610, Outfall 001

Instructions | Discharge | *Stream*

Receiving Surface Water Name: **Conemaugh River**

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	043832	18.31	910	875			Yes
End of Reach 1	043832	17.62	909	890			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	18.31	0.094			10	175.94						100	7		
End of Reach 1	17.62	0.094													

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	18.31														
End of Reach 1	17.62														

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Toxics Management Spreadsheet
Version 1.4, May 2023

Model Results

Blairsville MA WWTP, NPDES Permit No. PA0021610, Outfall 001

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

☑ ***Hydrodynamics***

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

RMI	Stream Flow (cfs)	PWS Withdrawal (cfs)	Net Stream Flow (cfs)	Discharge Analysis Flow (cfs)	Slope (ft/ft)	Depth (ft)	Width (ft)	W/D Ratio	Velocity (fps)	Travel Time (days)	Complete Mix Time (min)
18.31	82.25		82.25	2.093	0.00027	1.08	175.94	10.	0.444	0.095	2168.782
17.62	83.66		83.66								

Q_h

RMI	Stream Flow (cfs)	PWS Withdrawal (cfs)	Net Stream Flow (cfs)	Discharge Analysis Flow (cfs)	Slope (ft/ft)	Depth (ft)	Width (ft)	W/D Ratio	Velocity (fps)	Travel Time (days)	Complete Mix Time (min)
18.31	350.60		350.60	2.093	0.00027	2.028	175.94	86.776	0.989	0.043	876.557
17.62	355.852		355.85								

☑ ***Wasteload Allocations***

☑ ***AFC*** CCT (min): 15 PMF: 0.083 Analysis Hardness (mg/l): 124.13 Analysis pH: 7.09

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	N/A	N/A	N/A	
Chloride (PWS)	0	0		0	N/A	N/A	N/A	
Sulfate (PWS)	0	0		0	N/A	N/A	N/A	
Total Aluminum	0	0		0	750	750	3,201	
Total Antimony	0	0		0	1,100	1,100	4,695	
Total Arsenic	0	0		0	340	340	1,451	Chem Translator of 1 applied
Total Barium	0	0		0	21,000	21,000	89,629	
Total Boron	0	0		0	8,100	8,100	34,571	
Total Cadmium	0	0		0	2.485	2.66	11.3	Chem Translator of 0.935 applied
Total Chromium (III)	0	0		0	680.124	2,152	9,186	Chem Translator of 0.316 applied
Hexavalent Chromium	0	0		0	16	16.3	69.5	Chem Translator of 0.982 applied
Total Cobalt	0	0		0	95	95.0	405	
Total Copper	0	0		0	16.475	17.2	73.2	Chem Translator of 0.96 applied
Free Cyanide	0	0		0	22	22.0	93.9	

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	81.654	108	459	Chem Translator of 0.76 applied
Total Manganese	0	0		0	N/A	N/A	N/A	
Total Mercury	0	0		0	1.400	1.65	7.03	Chem Translator of 0.85 applied
Total Nickel	0	0		0	562.203	563	2,404	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	4.666	5.49	23.4	Chem Translator of 0.85 applied
Total Thallium	0	0		0	65	65.0	277	
Total Zinc	0	0		0	140.736	144	614	Chem Translator of 0.978 applied
Acrolein	0	0		0	3	3.0	12.8	
Acrylonitrile	0	0		0	650	650	2,774	
Benzene	0	0		0	640	640	2,732	
Bromoform	0	0		0	1,800	1,800	7,682	
Carbon Tetrachloride	0	0		0	2,800	2,800	11,950	
Chlorobenzene	0	0		0	1,200	1,200	5,122	
Chlorodibromomethane	0	0		0	N/A	N/A	N/A	
2-Chloroethyl Vinyl Ether	0	0		0	18,000	18,000	76,824	
Chloroform	0	0		0	1,900	1,900	8,109	
Dichlorobromomethane	0	0		0	N/A	N/A	N/A	
1,2-Dichloroethane	0	0		0	15,000	15,000	64,020	
1,1-Dichloroethylene	0	0		0	7,500	7,500	32,010	
1,2-Dichloropropane	0	0		0	11,000	11,000	46,948	
1,3-Dichloropropylene	0	0		0	310	310	1,323	
Ethylbenzene	0	0		0	2,900	2,900	12,377	
Methyl Bromide	0	0		0	550	550	2,347	
Methyl Chloride	0	0		0	28,000	28,000	119,505	
Methylene Chloride	0	0		0	12,000	12,000	51,216	
1,1,2,2-Tetrachloroethane	0	0		0	1,000	1,000	4,268	
Tetrachloroethylene	0	0		0	700	700	2,988	
Toluene	0	0		0	1,700	1,700	7,256	
1,2-trans-Dichloroethylene	0	0		0	6,800	6,800	29,023	
1,1,1-Trichloroethane	0	0		0	3,000	3,000	12,804	
1,1,2-Trichloroethane	0	0		0	3,400	3,400	14,511	
Trichloroethylene	0	0		0	2,300	2,300	9,816	
Vinyl Chloride	0	0		0	N/A	N/A	N/A	
2-Chlorophenol	0	0		0	560	560	2,390	
2,4-Dichlorophenol	0	0		0	1,700	1,700	7,256	
2,4-Dimethylphenol	0	0		0	660	660	2,817	
4,6-Dinitro-o-Cresol	0	0		0	80	80.0	341	
2,4-Dinitrophenol	0	0		0	660	660	2,817	
2-Nitrophenol	0	0		0	8,000	8,000	34,144	
4-Nitrophenol	0	0		0	2,300	2,300	9,816	
p-Chloro-m-Cresol	0	0		0	160	160	683	
Pentachlorophenol	0	0		0	9.570	9.57	40.8	
Phenol	0	0		0	N/A	N/A	N/A	
2,4,6-Trichlorophenol	0	0		0	460	460	1,963	

Acenaphthene	0	0		0	83	83.0	354	
Anthracene	0	0		0	N/A	N/A	N/A	
Benzidine	0	0		0	300	300	1,280	
Benzo(a)Anthracene	0	0		0	0.5	0.5	2.13	
Benzo(a)Pyrene	0	0		0	N/A	N/A	N/A	
3,4-Benzofluoranthene	0	0		0	N/A	N/A	N/A	
Benzo(k)Fluoranthene	0	0		0	N/A	N/A	N/A	
Bis(2-Chloroethyl)Ether	0	0		0	30,000	30,000	128,041	
Bis(2-Chloroisopropyl)Ether	0	0		0	N/A	N/A	N/A	
Bis(2-Ethylhexyl)Phthalate	0	0		0	4,500	4,500	19,206	
4-Bromophenyl Phenyl Ether	0	0		0	270	270	1,152	
Butyl Benzyl Phthalate	0	0		0	140	140	598	
2-Chloronaphthalene	0	0		0	N/A	N/A	N/A	
Chrysene	0	0		0	N/A	N/A	N/A	
Dibenzo(a,h)Anthrancene	0	0		0	N/A	N/A	N/A	
1,2-Dichlorobenzene	0	0		0	820	820	3,500	
1,3-Dichlorobenzene	0	0		0	350	350	1,494	
1,4-Dichlorobenzene	0	0		0	730	730	3,116	
3,3-Dichlorobenzidine	0	0		0	N/A	N/A	N/A	
Diethyl Phthalate	0	0		0	4,000	4,000	17,072	
Dimethyl Phthalate	0	0		0	2,500	2,500	10,670	
Di-n-Butyl Phthalate	0	0		0	110	110	469	
2,4-Dinitrotoluene	0	0		0	1,600	1,600	6,829	
2,6-Dinitrotoluene	0	0		0	990	990	4,225	
1,2-Diphenylhydrazine	0	0		0	15	15.0	64.0	
Fluoranthene	0	0		0	200	200	854	
Fluorene	0	0		0	N/A	N/A	N/A	
Hexachlorobenzene	0	0		0	N/A	N/A	N/A	
Hexachlorobutadiene	0	0		0	10	10.0	42.7	
Hexachlorocyclopentadiene	0	0		0	5	5.0	21.3	
Hexachloroethane	0	0		0	60	60.0	256	
Indeno(1,2,3-cd)Pyrene	0	0		0	N/A	N/A	N/A	
Isophorone	0	0		0	10,000	10,000	42,680	
Naphthalene	0	0		0	140	140	598	
Nitrobenzene	0	0		0	4,000	4,000	17,072	
n-Nitrosodimethylamine	0	0		0	17,000	17,000	72,556	
n-Nitrosodi-n-Propylamine	0	0		0	N/A	N/A	N/A	
n-Nitrosodiphenylamine	0	0		0	300	300	1,280	
Phenanthrene	0	0		0	5	5.0	21.3	
Pyrene	0	0		0	N/A	N/A	N/A	
1,2,4-Trichlorobenzene	0	0		0	130	130	555	

☑ ***CFC*** CCT (min): 720 PMF: 0.576 Analysis Hardness (mg/l): 104.36 Analysis pH: 7.02

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

Chloride (PWS)	0	0		0	N/A	N/A	N/A	
Sulfate (PWS)	0	0		0	N/A	N/A	N/A	
Total Aluminum	0	0		0	N/A	N/A	N/A	
Total Antimony	0	0		0	220	220	5,201	
Total Arsenic	0	0		0	150	150	3,546	Chem Translator of 1 applied
Total Barium	0	0		0	4,100	4,100	96,930	
Total Boron	0	0		0	1,600	1,600	37,826	
Total Cadmium	0	0		0	0.253	0.28	6.6	Chem Translator of 0.907 applied
Total Chromium (III)	0	0		0	76.749	89.2	2,110	Chem Translator of 0.86 applied
Hexavalent Chromium	0	0		0	10	10.4	246	Chem Translator of 0.962 applied
Total Cobalt	0	0		0	19	19.0	449	
Total Copper	0	0		0	9.288	9.68	229	Chem Translator of 0.96 applied
Free Cyanide	0	0		0	5.2	5.2	123	
Dissolved Iron	0	0		0	N/A	N/A	N/A	
Total Iron	0	0		0	1,500	1,500	60,444	WQC = 30 day average; PMF = 1
Total Lead	0	0		0	2.636	3.36	79.4	Chem Translator of 0.785 applied
Total Manganese	0	0		0	N/A	N/A	N/A	
Total Mercury	0	0		0	0.770	0.91	21.4	Chem Translator of 0.85 applied
Total Nickel	0	0		0	53.917	54.1	1,279	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	118	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	307	
Total Zinc	0	0		0	122.486	124	2,937	Chem Translator of 0.986 applied
Acrolein	0	0		0	3	3.0	70.9	
Acrylonitrile	0	0		0	130	130	3,073	
Benzene	0	0		0	130	130	3,073	
Bromoform	0	0		0	370	370	8,747	
Carbon Tetrachloride	0	0		0	560	560	13,239	
Chlorobenzene	0	0		0	240	240	5,674	
Chlorodibromomethane	0	0		0	N/A	N/A	N/A	
2-Chloroethyl Vinyl Ether	0	0		0	3,500	3,500	82,745	
Chloroform	0	0		0	390	390	9,220	
Dichlorobromomethane	0	0		0	N/A	N/A	N/A	
1,2-Dichloroethane	0	0		0	3,100	3,100	73,289	
1,1-Dichloroethylene	0	0		0	1,500	1,500	35,462	
1,2-Dichloropropane	0	0		0	2,200	2,200	52,011	
1,3-Dichloropropylene	0	0		0	61	61.0	1,442	
Ethylbenzene	0	0		0	580	580	13,712	
Methyl Bromide	0	0		0	110	110	2,601	
Methyl Chloride	0	0		0	5,500	5,500	130,029	
Methylene Chloride	0	0		0	2,400	2,400	56,740	
1,1,2,2-Tetrachloroethane	0	0		0	210	210	4,965	
Tetrachloroethylene	0	0		0	140	140	3,310	
Toluene	0	0		0	330	330	7,802	

1,2-trans-Dichloroethylene	0	0		0	1,400	1,400	33,098	
1,1,1-Trichloroethane	0	0		0	610	610	14,421	
1,1,2-Trichloroethane	0	0		0	680	680	16,076	
Trichloroethylene	0	0		0	450	450	10,639	
Vinyl Chloride	0	0		0	N/A	N/A	N/A	
2-Chlorophenol	0	0		0	110	110	2,601	
2,4-Dichlorophenol	0	0		0	340	340	8,038	
2,4-Dimethylphenol	0	0		0	130	130	3,073	
4,6-Dinitro-o-Cresol	0	0		0	16	16.0	378	
2,4-Dinitrophenol	0	0		0	130	130	3,073	
2-Nitrophenol	0	0		0	1,600	1,600	37,826	
4-Nitrophenol	0	0		0	470	470	11,112	
p-Chloro-m-Cresol	0	0		0	500	500	11,821	
Pentachlorophenol	0	0		0	7.342	7.34	174	
Phenol	0	0		0	N/A	N/A	N/A	
2,4,6-Trichlorophenol	0	0		0	91	91.0	2,151	
Acenaphthene	0	0		0	17	17.0	402	
Anthracene	0	0		0	N/A	N/A	N/A	
Benzidine	0	0		0	59	59.0	1,395	
Benzo(a)Anthracene	0	0		0	0.1	0.1	2.36	
Benzo(a)Pyrene	0	0		0	N/A	N/A	N/A	
3,4-Benzofluoranthene	0	0		0	N/A	N/A	N/A	
Benzo(k)Fluoranthene	0	0		0	N/A	N/A	N/A	
Bis(2-Chloroethyl)Ether	0	0		0	6,000	6,000	141,849	
Bis(2-Chloroisopropyl)Ether	0	0		0	N/A	N/A	N/A	
Bis(2-Ethylhexyl)Phthalate	0	0		0	910	910	21,514	
4-Bromophenyl Phenyl Ether	0	0		0	54	54.0	1,277	
Butyl Benzyl Phthalate	0	0		0	35	35.0	827	
2-Chloronaphthalene	0	0		0	N/A	N/A	N/A	
Chrysene	0	0		0	N/A	N/A	N/A	
Dibenzo(a,h)Anthrancene	0	0		0	N/A	N/A	N/A	
1,2-Dichlorobenzene	0	0		0	160	160	3,783	
1,3-Dichlorobenzene	0	0		0	69	69.0	1,631	
1,4-Dichlorobenzene	0	0		0	150	150	3,546	
3,3-Dichlorobenzidine	0	0		0	N/A	N/A	N/A	
Diethyl Phthalate	0	0		0	800	800	18,913	
Dimethyl Phthalate	0	0		0	500	500	11,821	
Di-n-Butyl Phthalate	0	0		0	21	21.0	496	
2,4-Dinitrotoluene	0	0		0	320	320	7,565	
2,6-Dinitrotoluene	0	0		0	200	200	4,728	
1,2-Diphenylhydrazine	0	0		0	3	3.0	70.9	
Fluoranthene	0	0		0	40	40.0	946	
Fluorene	0	0		0	N/A	N/A	N/A	
Hexachlorobenzene	0	0		0	N/A	N/A	N/A	
Hexachlorobutadiene	0	0		0	2	2.0	47.3	

Hexachlorocyclopentadiene	0	0		0	1	1.0	23.6	
Hexachloroethane	0	0		0	12	12.0	284	
Indeno(1,2,3-cd)Pyrene	0	0		0	N/A	N/A	N/A	
Isophorone	0	0		0	2,100	2,100	49,647	
Naphthalene	0	0		0	43	43.0	1,017	
Nitrobenzene	0	0		0	810	810	19,150	
n-Nitrosodimethylamine	0	0		0	3,400	3,400	80,381	
n-Nitrosodi-n-Propylamine	0	0		0	N/A	N/A	N/A	
n-Nitrosodiphenylamine	0	0		0	59	59.0	1,395	
Phenanthrene	0	0		0	1	1.0	23.6	
Pyrene	0	0		0	N/A	N/A	N/A	
1,2,4-Trichlorobenzene	0	0		0	26	26.0	615	

☑ ***THH*** CCT (min): 720 PMF: 0.576 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	
Total Aluminum	0	0		0	N/A	N/A	N/A	
Total Antimony	0	0		0	5.6	5.6	132	
Total Arsenic	0	0		0	10	10.0	236	
Total Barium	0	0		0	2,400	2,400	56,740	
Total Boron	0	0		0	3,100	3,100	73,289	
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	94.6	
Dissolved Iron	0	0		0	300	300	7,092	
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	23,642	
Total Mercury	0	0		0	0.050	0.05	1.18	
Total Nickel	0	0		0	610	610	14,421	
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	5.67	
Total Zinc	0	0		0	N/A	N/A	N/A	
Acrolein	0	0		0	3	3.0	70.9	
Acrylonitrile	0	0		0	N/A	N/A	N/A	
Benzene	0	0		0	N/A	N/A	N/A	

Bromoform	0	0		0	N/A	N/A	N/A	
Carbon Tetrachloride	0	0		0	N/A	N/A	N/A	
Chlorobenzene	0	0		0	100	100.0	2,364	
Chlorodibromomethane	0	0		0	N/A	N/A	N/A	
2-Chloroethyl Vinyl Ether	0	0		0	N/A	N/A	N/A	
Chloroform	0	0		0	5.7	5.7	135	
Dichlorobromomethane	0	0		0	N/A	N/A	N/A	
1,2-Dichloroethane	0	0		0	N/A	N/A	N/A	
1,1-Dichloroethylene	0	0		0	33	33.0	780	
1,2-Dichloropropane	0	0		0	N/A	N/A	N/A	
1,3-Dichloropropylene	0	0		0	N/A	N/A	N/A	
Ethylbenzene	0	0		0	68	68.0	1,608	
Methyl Bromide	0	0		0	100	100.0	2,364	
Methyl Chloride	0	0		0	N/A	N/A	N/A	
Methylene Chloride	0	0		0	N/A	N/A	N/A	
1,1,2,2-Tetrachloroethane	0	0		0	N/A	N/A	N/A	
Tetrachloroethylene	0	0		0	N/A	N/A	N/A	
Toluene	0	0		0	57	57.0	1,348	
1,2-trans-Dichloroethylene	0	0		0	100	100.0	2,364	
1,1,1-Trichloroethane	0	0		0	10,000	10,000	236,415	
1,1,2-Trichloroethane	0	0		0	N/A	N/A	N/A	
Trichloroethylene	0	0		0	N/A	N/A	N/A	
Vinyl Chloride	0	0		0	N/A	N/A	N/A	
2-Chlorophenol	0	0		0	30	30.0	709	
2,4-Dichlorophenol	0	0		0	10	10.0	236	
2,4-Dimethylphenol	0	0		0	100	100.0	2,364	
4,6-Dinitro-o-Cresol	0	0		0	2	2.0	47.3	
2,4-Dinitrophenol	0	0		0	10	10.0	236	
2-Nitrophenol	0	0		0	N/A	N/A	N/A	
4-Nitrophenol	0	0		0	N/A	N/A	N/A	
p-Chloro-m-Cresol	0	0		0	N/A	N/A	N/A	
Pentachlorophenol	0	0		0	N/A	N/A	N/A	
Phenol	0	0		0	4,000	4,000	94,566	
2,4,6-Trichlorophenol	0	0		0	N/A	N/A	N/A	
Acenaphthene	0	0		0	70	70.0	1,655	
Anthracene	0	0		0	300	300	7,092	
Benzidine	0	0		0	N/A	N/A	N/A	
Benzo(a)Anthracene	0	0		0	N/A	N/A	N/A	
Benzo(a)Pyrene	0	0		0	N/A	N/A	N/A	
3,4-Benzofluoranthene	0	0		0	N/A	N/A	N/A	
Benzo(k)Fluoranthene	0	0		0	N/A	N/A	N/A	
Bis(2-Chloroethyl)Ether	0	0		0	N/A	N/A	N/A	
Bis(2-Chloroisopropyl)Ether	0	0		0	200	200	4,728	
Bis(2-Ethylhexyl)Phthalate	0	0		0	N/A	N/A	N/A	
4-Bromophenyl Phenyl Ether	0	0		0	N/A	N/A	N/A	

Butyl Benzyl Phthalate	0	0		0	0.1	0.1	2.36	
2-Chloronaphthalene	0	0		0	800	800	18,913	
Chrysene	0	0		0	N/A	N/A	N/A	
Dibenzo(a,h)Anthrancene	0	0		0	N/A	N/A	N/A	
1,2-Dichlorobenzene	0	0		0	1,000	1,000	23,642	
1,3-Dichlorobenzene	0	0		0	7	7.0	165	
1,4-Dichlorobenzene	0	0		0	300	300	7,092	
3,3-Dichlorobenzidine	0	0		0	N/A	N/A	N/A	
Diethyl Phthalate	0	0		0	600	600	14,185	
Dimethyl Phthalate	0	0		0	2,000	2,000	47,283	
Di-n-Butyl Phthalate	0	0		0	20	20.0	473	
2,4-Dinitrotoluene	0	0		0	N/A	N/A	N/A	
2,6-Dinitrotoluene	0	0		0	N/A	N/A	N/A	
1,2-Diphenylhydrazine	0	0		0	N/A	N/A	N/A	
Fluoranthene	0	0		0	20	20.0	473	
Fluorene	0	0		0	50	50.0	1,182	
Hexachlorobenzene	0	0		0	N/A	N/A	N/A	
Hexachlorobutadiene	0	0		0	N/A	N/A	N/A	
Hexachlorocyclopentadiene	0	0		0	4	4.0	94.6	
Hexachloroethane	0	0		0	N/A	N/A	N/A	
Indeno(1,2,3-cd)Pyrene	0	0		0	N/A	N/A	N/A	
Isophorone	0	0		0	34	34.0	804	
Naphthalene	0	0		0	N/A	N/A	N/A	
Nitrobenzene	0	0		0	10	10.0	236	
n-Nitrosodimethylamine	0	0		0	N/A	N/A	N/A	
n-Nitrosodi-n-Propylamine	0	0		0	N/A	N/A	N/A	
n-Nitrosodiphenylamine	0	0		0	N/A	N/A	N/A	
Phenanthrene	0	0		0	N/A	N/A	N/A	
Pyrene	0	0		0	20	20.0	473	
1,2,4-Trichlorobenzene	0	0		0	0.07	0.07	1.65	

☑ ***CRL*** CCT (min): 720 PMF: 0.906 Analysis Hardness (mg/l): N/A Analysis pH: N/A

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	N/A	N/A	N/A	
Chloride (PWS)	0	0		0	N/A	N/A	N/A	
Sulfate (PWS)	0	0		0	N/A	N/A	N/A	
Total 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	
Acrolein	0	0		0	N/A	N/A	N/A	
Acrylonitrile	0	0		0	0.06	0.06	9.17	
Benzene	0	0		0	0.58	0.58	88.6	
Bromoform	0	0		0	7	7.0	1,070	
Carbon Tetrachloride	0	0		0	0.4	0.4	61.1	
Chlorobenzene	0	0		0	N/A	N/A	N/A	
Chlorodibromomethane	0	0		0	0.8	0.8	122	
2-Chloroethyl Vinyl Ether	0	0		0	N/A	N/A	N/A	
Chloroform	0	0		0	N/A	N/A	N/A	
Dichlorobromomethane	0	0		0	0.95	0.95	145	
1,2-Dichloroethane	0	0		0	9.9	9.9	1,513	
1,1-Dichloroethylene	0	0		0	N/A	N/A	N/A	
1,2-Dichloropropane	0	0		0	0.9	0.9	138	
1,3-Dichloropropylene	0	0		0	0.27	0.27	41.3	
Ethylbenzene	0	0		0	N/A	N/A	N/A	
Methyl Bromide	0	0		0	N/A	N/A	N/A	
Methyl Chloride	0	0		0	N/A	N/A	N/A	
Methylene Chloride	0	0		0	20	20.0	3,056	
1,1,2,2-Tetrachloroethane	0	0		0	0.2	0.2	30.6	
Tetrachloroethylene	0	0		0	10	10.0	1,528	
Toluene	0	0		0	N/A	N/A	N/A	
1,2-trans-Dichloroethylene	0	0		0	N/A	N/A	N/A	
1,1,1-Trichloroethane	0	0		0	N/A	N/A	N/A	
1,1,2-Trichloroethane	0	0		0	0.55	0.55	84.0	
Trichloroethylene	0	0		0	0.6	0.6	91.7	
Vinyl Chloride	0	0		0	0.02	0.02	3.06	
2-Chlorophenol	0	0		0	N/A	N/A	N/A	
2,4-Dichlorophenol	0	0		0	N/A	N/A	N/A	
2,4-Dimethylphenol	0	0		0	N/A	N/A	N/A	
4,6-Dinitro-o-Cresol	0	0		0	N/A	N/A	N/A	

2,4-Dinitrophenol	0	0		0	N/A	N/A	N/A	
2-Nitrophenol	0	0		0	N/A	N/A	N/A	
4-Nitrophenol	0	0		0	N/A	N/A	N/A	
p-Chloro-m-Cresol	0	0		0	N/A	N/A	N/A	
Pentachlorophenol	0	0		0	0.030	0.03	4.58	
Phenol	0	0		0	N/A	N/A	N/A	
2,4,6-Trichlorophenol	0	0		0	1.5	1.5	229	
Acenaphthene	0	0		0	N/A	N/A	N/A	
Anthracene	0	0		0	N/A	N/A	N/A	
Benzidine	0	0		0	0.0001	0.0001	0.015	
Benzo(a)Anthracene	0	0		0	0.001	0.001	0.15	
Benzo(a)Pyrene	0	0		0	0.0001	0.0001	0.015	
3,4-Benzofluoranthene	0	0		0	0.001	0.001	0.15	
Benzo(k)Fluoranthene	0	0		0	0.01	0.01	1.53	
Bis(2-Chloroethyl)Ether	0	0		0	0.03	0.03	4.58	
Bis(2-Chloroisopropyl)Ether	0	0		0	N/A	N/A	N/A	
Bis(2-Ethylhexyl)Phthalate	0	0		0	0.32	0.32	48.9	
4-Bromophenyl Phenyl Ether	0	0		0	N/A	N/A	N/A	
Butyl Benzyl Phthalate	0	0		0	N/A	N/A	N/A	
2-Chloronaphthalene	0	0		0	N/A	N/A	N/A	
Chrysene	0	0		0	0.12	0.12	18.3	
Dibenzo(a,h)Anthrancene	0	0		0	0.0001	0.0001	0.015	
1,2-Dichlorobenzene	0	0		0	N/A	N/A	N/A	
1,3-Dichlorobenzene	0	0		0	N/A	N/A	N/A	
1,4-Dichlorobenzene	0	0		0	N/A	N/A	N/A	
3,3-Dichlorobenzidine	0	0		0	0.05	0.05	7.64	
Diethyl Phthalate	0	0		0	N/A	N/A	N/A	
Dimethyl Phthalate	0	0		0	N/A	N/A	N/A	
Di-n-Butyl Phthalate	0	0		0	N/A	N/A	N/A	
2,4-Dinitrotoluene	0	0		0	0.05	0.05	7.64	
2,6-Dinitrotoluene	0	0		0	0.05	0.05	7.64	
1,2-Diphenylhydrazine	0	0		0	0.03	0.03	4.58	
Fluoranthene	0	0		0	N/A	N/A	N/A	
Fluorene	0	0		0	N/A	N/A	N/A	
Hexachlorobenzene	0	0		0	0.00008	0.00008	0.012	
Hexachlorobutadiene	0	0		0	0.01	0.01	1.53	
Hexachlorocyclopentadiene	0	0		0	N/A	N/A	N/A	
Hexachloroethane	0	0		0	0.1	0.1	15.3	
Indeno(1,2,3-cd)Pyrene	0	0		0	0.001	0.001	0.15	
Isophorone	0	0		0	N/A	N/A	N/A	
Naphthalene	0	0		0	N/A	N/A	N/A	
Nitrobenzene	0	0		0	N/A	N/A	N/A	
n-Nitrosodimethylamine	0	0		0	0.0007	0.0007	0.11	
n-Nitrosodi-n-Propylamine	0	0		0	0.005	0.005	0.76	
n-Nitrosodiphenylamine	0	0		0	3.3	3.3	504	

Phenanthrene	0	0		0	N/A	N/A	N/A	
Pyrene	0	0		0	N/A	N/A	N/A	
1,2,4-Trichlorobenzene	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 Copper	Report	Report	Report	Report	Report	µg/L	46.9	AFC	Discharge Conc > 10% WQBEL (no RP)
Benzidine	0.0002	0.0003	0.015	0.024	0.038	µg/L	0.015	CRL	Discharge Conc ≥ 50% WQBEL (RP)
Bis(2-Ethylhexyl)Phthalate	Report	Report	Report	Report	Report	µg/L	48.9	CRL	Discharge Conc > 25% WQBEL (no RP)
Hexachlorobutadiene	0.017	0.027	1.53	2.38	3.82	µg/L	1.53	CRL	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
Total Aluminum	2,052	µg/L	Discharge Conc ≤ 10% WQBEL
Total Antimony	132	µg/L	Discharge Conc ≤ 10% WQBEL
Total Arsenic	N/A	N/A	Discharge Conc < TQL
Total Barium	56,740	µg/L	Discharge Conc ≤ 10% WQBEL
Total Beryllium	N/A	N/A	No WQS
Total Boron	22,159	µg/L	Discharge Conc ≤ 10% WQBEL
Total Cadmium	6.6	µg/L	Discharge Conc ≤ 10% WQBEL
Total Chromium (III)	2,110	µg/L	Discharge Conc ≤ 10% WQBEL
Hexavalent Chromium	44.6	µg/L	Discharge Conc < TQL
Total Cobalt	260	µg/L	Discharge Conc ≤ 10% WQBEL
Free Cyanide	60.2	µg/L	Discharge Conc ≤ 25% WQBEL
Total Cyanide	N/A	N/A	No WQS
Dissolved Iron	7,092	µg/L	Discharge Conc ≤ 10% WQBEL
Total Iron	60,444	µg/L	Discharge Conc ≤ 10% WQBEL
Total Lead	79.4	µg/L	Discharge Conc ≤ 10% WQBEL
Total Manganese	23,642	µg/L	Discharge Conc ≤ 10% WQBEL
Total Mercury	1.18	µg/L	Discharge Conc < TQL
Total Nickel	1,279	µg/L	Discharge Conc ≤ 10% WQBEL

Total Phenols (Phenolics) (PWS)		µg/L	PWS Not Applicable
Total Selenium	118	µg/L	Discharge Conc ≤ 10% WQBEL
Total Silver	15.0	µg/L	Discharge Conc < TQL
Total Thallium	5.67	µg/L	Discharge Conc < TQL
Total Zinc	394	µg/L	Discharge Conc ≤ 10% WQBEL
Total Molybdenum	N/A	N/A	No WQS
Acrolein	8.21	µg/L	Discharge Conc < TQL
Acrylonitrile	9.17	µg/L	Discharge Conc < TQL
Benzene	88.6	µg/L	Discharge Conc < TQL
Bromoform	1,070	µg/L	Discharge Conc < TQL
Carbon Tetrachloride	61.1	µg/L	Discharge Conc ≤ 25% WQBEL
Chlorobenzene	2,364	µg/L	Discharge Conc < TQL
Chlorodibromomethane	122	µg/L	Discharge Conc < TQL
Chloroethane	N/A	N/A	No WQS
2-Chloroethyl Vinyl Ether	49,241	µg/L	Discharge Conc < TQL
Chloroform	135	µg/L	Discharge Conc ≤ 25% WQBEL
Dichlorobromomethane	145	µg/L	Discharge Conc < TQL
1,1-Dichloroethane	N/A	N/A	No WQS
1,2-Dichloroethane	1,513	µg/L	Discharge Conc < TQL
1,1-Dichloroethylene	780	µg/L	Discharge Conc < TQL
1,2-Dichloropropane	138	µg/L	Discharge Conc < TQL
1,3-Dichloropropylene	41.3	µg/L	Discharge Conc < TQL
1,4-Dioxane	N/A	N/A	No WQS
Ethylbenzene	1,608	µg/L	Discharge Conc < TQL
Methyl Bromide	1,505	µg/L	Discharge Conc < TQL
Methyl Chloride	76,598	µg/L	Discharge Conc < TQL
Methylene Chloride	3,056	µg/L	Discharge Conc < TQL
1,1,2,2-Tetrachloroethane	30.6	µg/L	Discharge Conc < TQL
Tetrachloroethylene	1,528	µg/L	Discharge Conc < TQL
Toluene	1,348	µg/L	Discharge Conc < TQL
1,2-trans-Dichloroethylene	2,364	µg/L	Discharge Conc < TQL
1,1,1-Trichloroethane	8,207	µg/L	Discharge Conc < TQL
1,1,2-Trichloroethane	84.0	µg/L	Discharge Conc < TQL
Trichloroethylene	91.7	µg/L	Discharge Conc < TQL
Vinyl Chloride	3.06	µg/L	Discharge Conc < TQL
2-Chlorophenol	709	µg/L	Discharge Conc < TQL
2,4-Dichlorophenol	236	µg/L	Discharge Conc < TQL
2,4-Dimethylphenol	1,806	µg/L	Discharge Conc < TQL
4,6-Dinitro-o-Cresol	47.3	µg/L	Discharge Conc < TQL
2,4-Dinitrophenol	236	µg/L	Discharge Conc < TQL
2-Nitrophenol	21,885	µg/L	Discharge Conc < TQL
4-Nitrophenol	6,292	µg/L	Discharge Conc < TQL
p-Chloro-m-Cresol	438	µg/L	Discharge Conc < TQL
Pentachlorophenol	4.58	µg/L	Discharge Conc < TQL
Phenol	94,566	µg/L	Discharge Conc < TQL

2,4,6-Trichlorophenol	229	µg/L	Discharge Conc < TQL
Acenaphthene	227	µg/L	Discharge Conc < TQL
Acenaphthylene	N/A	N/A	No WQS
Anthracene	7,092	µg/L	Discharge Conc < TQL
Benzo(a)Anthracene	0.15	µg/L	Discharge Conc < TQL
Benzo(a)Pyrene	0.015	µg/L	Discharge Conc < TQL
3,4-Benzofluoranthene	0.15	µg/L	Discharge Conc < TQL
Benzo(ghi)Perylene	N/A	N/A	No WQS
Benzo(k)Fluoranthene	1.53	µg/L	Discharge Conc < TQL
Bis(2-Chloroethoxy)Methane	N/A	N/A	No WQS
Bis(2-Chloroethyl)Ether	4.58	µg/L	Discharge Conc < TQL
Bis(2-Chloroisopropyl)Ether	4,728	µg/L	Discharge Conc < TQL
4-Bromophenyl Phenyl Ether	739	µg/L	Discharge Conc < TQL
Butyl Benzyl Phthalate	2.36	µg/L	Discharge Conc < TQL
2-Chloronaphthalene	18,913	µg/L	Discharge Conc < TQL
4-Chlorophenyl Phenyl Ether	N/A	N/A	No WQS
Chrysene	18.3	µg/L	Discharge Conc < TQL
Dibenzo(a,h)Anthrancene	0.015	µg/L	Discharge Conc < TQL
1,2-Dichlorobenzene	2,243	µg/L	Discharge Conc ≤ 25% WQBEL
1,3-Dichlorobenzene	165	µg/L	Discharge Conc < TQL
1,4-Dichlorobenzene	1,997	µg/L	Discharge Conc < TQL
3,3-Dichlorobenzidine	7.64	µg/L	Discharge Conc < TQL
Diethyl Phthalate	10,943	µg/L	Discharge Conc < TQL
Dimethyl Phthalate	6,839	µg/L	Discharge Conc < TQL
Di-n-Butyl Phthalate	301	µg/L	Discharge Conc ≤ 25% WQBEL
2,4-Dinitrotoluene	7.64	µg/L	Discharge Conc < TQL
2,6-Dinitrotoluene	7.64	µg/L	Discharge Conc < TQL
Di-n-Octyl Phthalate	N/A	N/A	No WQS
1,2-Diphenylhydrazine	4.58	µg/L	Discharge Conc < TQL
Fluoranthene	473	µg/L	Discharge Conc ≤ 25% WQBEL
Fluorene	1,182	µg/L	Discharge Conc < TQL
Hexachlorobenzene	0.012	µg/L	Discharge Conc < TQL
Hexachlorocyclopentadiene	13.7	µg/L	Discharge Conc < TQL
Hexachloroethane	15.3	µg/L	Discharge Conc < TQL
Indeno(1,2,3-cd)Pyrene	0.15	µg/L	Discharge Conc < TQL
Isophorone	804	µg/L	Discharge Conc < TQL
Naphthalene	383	µg/L	Discharge Conc < TQL
Nitrobenzene	236	µg/L	Discharge Conc < TQL
n-Nitrosodimethylamine	0.11	µg/L	Discharge Conc < TQL
n-Nitrosodi-n-Propylamine	0.76	µg/L	Discharge Conc < TQL
n-Nitrosodiphenylamine	504	µg/L	Discharge Conc < TQL
Phenanthrene	13.7	µg/L	Discharge Conc < TQL
Pyrene	473	µg/L	Discharge Conc < TQL
1,2,4-Trichlorobenzene	1.65	µg/L	Discharge Conc < TQL