Pennsylvania Department of Environmental Protection

Southcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0021067**
Facility Type	**Municipal**	APS ID	**276430**
Major / Minor	**Major**	Authorization ID	**1538473**

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Applicant and Facility Information

Applicant Name	**Mount Joy Borough Authority**	Facility Name	**Mount Joy Borough Authority WWTP**
Applicant Address	21 E Main Street, PO Box 25	Facility Address	159 S Jacob Street
	Mount Joy, PA 17552-1499		Mount Joy, PA 17552-0025
Applicant Contact	Scott Kapcsos	Facility Contact	Gary Karichner
Applicant Phone	(717) 653-5938	Facility Phone	(717) 653-4305
Client ID	251531	Site ID	252350
Ch 94 Load Status	Not Overloaded	Municipality	East Donegal Township
Connection Status	No Limitations	County	Lancaster
Date Application Received	August 22, 2025	EPA Waived?	No
Date Application Accepted	August 27, 2025	If No, Reason	Major Facility, Significant CB Discharge, Chiques Creek Alternate TMDL
Purpose of Application	NPDES Renewal		

Summary of Review

Mount Joy Borough Authority has applied to the Pennsylvania Department of Environmental Protection (DEP) for reissuance of its National Pollutant Discharge Elimination System (NPDES) permit. The existing permit was issued on February 18, 2021 and became effective on March 1, 2021, authorizing discharge of treated sewage from the facility into Little Chiques Creek. The existing permit expiration date was February 28, 2026, and the permit has been administratively extended since that time. An amendment to the NPDES permit was issued on March 9, 2021 to modify the UV parameter from UV transmittance to UV intensity.

Changes in this renewal: Monitoring for Total Aluminum and Total Zinc has been added to the permit. E. Coli monitoring has been added to the permit.

Sludge use and disposal description and location(s): Hauled offsite and land applied, or sent to landfill.

Supplemental information for this facility is provided at the end of this fact sheet.

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.

Approve	Deny	Signatures	Date
X		*Benjamin R. Lockwood* Benjamin R. Lockwood / Environmental Engineering Specialist	March 19, 2026
X		*Maria D. Bebenek for* Daniel W. Martin, P.E. / Environmental Engineer Manager	March 26, 2026

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	1.53
Latitude	40º 5' 57.9"	Longitude	76º 29' 37.5"
Quad Name		Quad Code	
Wastewater Description:	Sewage Effluent		
Receiving Waters	Little Chiques Creek (TSF)	Stream Code	7941
NHD Com ID	57463417	RMI	5.4
Drainage Area	40.4 mi^2	Yield (cfs/mi^2)	0.126
Q_{7-10} Flow (cfs)	5.09	Q_{7-10} Basis	USGS Gage #01576000
Elevation (ft)	320	Slope (ft/ft)	
Watershed No.	7-G	Chapter 93 Class.	TSF
Existing Use	N/A	Existing Use Qualifier	N/A
Exceptions to Use	N/A	Exceptions to Criteria	N/A
Assessment Status	Impaired		
Cause(s) of Impairment	Pathogens, Eutrophication, Habitat Alterations, Siltation		
Source(s) of Impairment	Source Unknown, Agriculture, Habitat Modification – Other Than Hydromodification, Agriculture		
TMDL Status	N/A	Name	N/A
Nearest Downstream Public Water Supply Intake	Columbia Water Company		
PWS Waters	Susquehanna River	Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	9.2

Changes Since Last Permit Issuance: A drainage area of 40.4 mi^2 and a Q_{7-10} flow of 5.09 cubic feet per second (cfs) were determined by establishing a correlation to the yield of USGS Gage Station # 01576000 on the Susquehanna River. The Q_{7-10} and drainage area at the gage are 3,270 cfs and 25,990 mi^2, respectively. These values are taken from the USGS document "Selected Streamflow Statistics for Streamgage Locations in and near Pennsylvania." The Q_{7-10} runoff rate at the gate station was calculated as follows:

Yield = (3,270 cfs)/ 25,990 mi^2 = 0.126 cfs/mi^2

The drainage area at the discharge point, taken from USGS PA StreamStats = 40.4 mi^2

The Q_{7-10} at the discharge point = 40.4 mi^2 x 0.126 cfs/mi^2 = 5.09 cfs

Other Comments: None

Treatment Facility Summary				
Waste Type	**Degree of Treatment**	**Process Type**	**Disinfection**	**Avg Annual Flow (MGD)**
Sewage	Secondary With Total Nitrogen Reduction	Activated Sludge	Ultraviolet	1.53
Hydraulic Capacity (MGD)	**Organic Capacity (lbs/day)**	**Load Status**	**Biosolids Treatment**	**Biosolids Use/Disposal**
1.79	4330	Not Overloaded	Anaerobic Digestion	Land Application/ Landfill

Changes Since Last Permit Issuance: None

Other Comments: The treatment process consists of: Influent fine screen with bar screen bypass, Floc tank (no longer in use), 3 Primary clarifiers (two primary clarifiers and former trickling filters are used for extra storage during high flow events), Settling pond/equalization tank, 3 Aeration tanks using Symbio process, 2 Secondary clarifiers, 3 Denitrification filters, UV Disinfection system, Outfall 001 to Little Chiques Creek.

The treatment process also includes 2 primary anaerobic digesters. Sludge is dewatered by a belt filter press. Lime is then added, and the dewatered sludge is stored undercover on a storage pad. The solids are then land applied by local farmers, or landfilled.

Compliance History	
Summary of DMRs:	A summary of the past 12-month DMR effluent data is presented on the next page of this fact sheet.
Summary of Inspections:	5/25/2021: A routine inspection was conducted. The effluent from the clarifiers appeared clear, and the effluent from the post aeration tank also appeared clear. Field sampling results were within permitted limits. No other issues were noted. 6/12/2023: A routine inspection was conducted. The effluent from the clarifiers appeared clear, and the effluent from the post aeration tank appeared clear. The chemical storage areas were inspected, and no issues were noted. Field sampling results were within permitted limits. 12/12/2024: A routine inspection was conducted. The clarifiers appeared clear with fine pin floc, and the effluent from the post aeration tank appeared clear. Field sampling results were within permitted limits. Outfall 001 was observed, and due to recent rain events, turbid conditions were observed upstream and downstream of the outfall.

Other Comments: There are currently no open violations associated with the permittee or facility.

Compliance History

DMR Data for Outfall 001 (from February 1, 2025 to January 31, 2026)

Parameter	JAN-26	DEC-25	NOV-25	OCT-25	SEP-25	AUG-25	JUL-25	JUN-25	MAY-25	APR-25	MAR-25	FEB-25
Flow (MGD) Average Monthly	0.793	0.805	0.785	0.789	0.756	0.807	1.372	1.006	0.981	0.829	0.795	0.848
Flow (MGD) Daily Maximum	0.860	0.944	0.896	1.199	0.869	0.935	3.733	1.409	1.472	1.097	0.897	1.211
pH (S.U.) Instantaneous Minimum	7.0	7.0	7.1	7.3	7.3	7.3	7.1	7.2	7.1	7.2	7.2	7.2
pH (S.U.) Instantaneous Maximum	7.4	7.6	7.6	8.0	7.7	7.7	7.7	7.8	7.6	7.4	7.6	7.4
DO (mg/L) Instantaneous Minimum	8.7	8.3	7.1	6.9	6.7	6.7	6.5	7.0	6.2	6.9	7.2	7.4
CBOD5 (lbs/day) Average Monthly	109	56	< 25	53	34	31	176	42	52	71	129	91
CBOD5 (lbs/day) Weekly Average	152	91	45	82	43	42	369	57	64	80	180	156
CBOD5 (mg/L) Average Monthly	17	8.0	< 4	8	5	5	10	5	6	11	20	14
CBOD5 (mg/L) Weekly Average	24	13	7	13	7	6	19	6	7	12	27	23
BOD5 (lbs/day) Raw Sewage Influent Average Monthly	1779	1850	2021	1562	1677	1821	1180	1305	2465	1815	2000	1747
BOD5 (lbs/day) Raw Sewage Influent Daily Maximum	2533	2619	3765	2209	2543	2269	2050	1755	3797	2922	2573	2109
BOD5 (mg/L) Raw Sewage Influent Average Monthly	261	264	305	241	258	268	125	167	285	263	290	245
TSS (lbs/day) Average Monthly	59	< 33	< 31	< 31	< 39	< 33	< 311	55	69	< 35	55	< 42
TSS (lbs/day) Raw Sewage Influent Average Monthly	1216	1411	1598	1560	1796	1804	1369	1548	2442	1832	1390	1572

TSS (lbs/day) Raw Sewage Influent Daily Maximum	2156	1983	2120	2190	2240	2569	2303	1973	3614	2342	1958	2459
TSS (lbs/day) Weekly Average	78	44	37	39	52	< 40	652	64	151	< 46	73	55
TSS (mg/L) Average Monthly	9	< 5	< 5	< 5	< 6	< 5	< 16	7	8	< 5	8	< 6
TSS (mg/L) Raw Sewage Influent Average Monthly	178	201	243	241	277	265	135	201	276	6287	201	219
TSS (mg/L) Weekly Average	13	6	6	6	8	6	31	7	16	< 7	10	8
Total Dissolved Solids (lbs/day) Average Monthly	9518	9752	9303	9129	9764	9619	11225	10839	12015	9535	10375	9816
Total Dissolved Solids (mg/L) Average Monthly	1500	1444	1425	1424	1495	1355	994	1250	1353	1488	1535	1468
Fecal Coliform (No./100 ml) Geometric Mean	< 1	< 2	4	< 2	< 2	< 2	< 5	< 2	< 4	< 1	< 2	< 7
Fecal Coliform (No./100 ml) Instantaneous Maximum	2	16	35	9	4	16	236	41	33	5	4	172
UV Transmittance (%) Instantaneous Minimum	2.19	0.52	0.24	0.59	0.14	1.26	0.21	0.18	0.25	0.19	0.13	2.03
Nitrate-Nitrite (mg/L) Average Monthly	8.38	9.31	4.58	3.58	4.12	4.6	4.58	12.05	6.44	4.12	1.5	4.34
Nitrate-Nitrite (lbs) Total Monthly	1669	1915	907	712	782	995	2238	2951	1795	824	309	818
Total Nitrogen (mg/L) Average Monthly	15.71	16.7	8.69	6.81	8.06	6.98	8.66	14.2	16.05	7.73	10.82	16.9
Total Nitrogen (lbs) Total Monthly	3167	3479	1718	1374	1527	1500	4416	3477	4549	1543	2229	3199
Total Nitrogen (lbs) Effluent Net Total Annual					27944							
Total Nitrogen (lbs) Total Annual					29904							
Ammonia (lbs/day) Average Monthly	41	42	19	16	< 18	< 4	44	< 6	48	8	39	63

Ammonia (mg/L) Average Monthly	6.3	6.2	2.9	2.3	< 2.8	< 0.7	2.5	< 0.8	5.2	1.2	5.9	9.3
Ammonia (lbs) Total Monthly	1283	1317	569	481	< 528	< 138	1349	< 182	1491	235	1208	1770
Ammonia (lbs) Total Annual					< 9676							
TKN (mg/L) Average Monthly	7.33	7.4	4.1	3.23	3.93	2.37	4.08	2.15	9.61	3.6	9.31	12.56
TKN (lbs) Total Monthly	1499	1566	811	662	745	505	2180	527	2754	719	1918	2378
Total Phosphorus (lbs/day) Average Monthly	2.3	2.3	1.9	2.6	3.5	4.2	13.6	8.1	8.4	< 1.4	2.0	3.8
Total Phosphorus (mg/L) Average Monthly	0.3	0.3	0.3	0.4	0.6	0.6	0.7	1.0	0.9	< 0.2	0.3	0.6
Total Phosphorus (lbs) Total Monthly	70.1	72.2	55.6	80.1	105.7	131.1	423.0	242.1	261.1	< 40.8	60.6	106.3
Total Phosphorus (lbs) Effluent Net Total Annual					< 1652							
Total Phosphorus (lbs) Total Annual					< 1652							
Sulfate (lbs/day) Average Monthly	640	662	613	613	616	621	735	604	728	565	606	553
Sulfate (mg/L) Average Monthly	100.8	98	93.8	95.7	94.5	87.5	62.7	70.8	81.7	88.3	89.5	82.6
Chloride (lbs/day) Average Monthly	4258	4244	4243	3730	4331	4379	4463	4756	5873	4408	4626	4523
Chloride (mg/L) Average Monthly	670	628	650	571	665	618	413	556	667	689	685	677
Bromide (lbs/day) Average Monthly	< 6	< 8	< 13	< 6	< 7	< 9	< 20	< 9	< 11	< 6	< 7	< 7
Bromide (mg/L) Average Monthly	< 1	< 1	< 2	< 1	< 1	< 1	< 2	< 1	< 1	< 1	< 1	< 1
Chronic WET - Ceriodaphnia Reproduction (TUc) Daily Maximum	GG	GG	GG	GG	GG	GG	GG	GG	GG	GG	GG	GG

Compliance History

Effluent Violations for Outfall 001, from: March 1, 2025 To: January 31, 2026

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
TSS	07/31/25	Wkly Avg	652	lbs/day	574	lbs/day
TSS	07/31/25	Wkly Avg	652	lbs/day	574	lbs/day
Ammonia	05/31/25	Avg Mo	5.2	mg/L	4.5	mg/L

Existing Effluent Limitations and Monitoring Requirements

Outfall 001

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day)		Concentrations (mg/L)				Minimum Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average	Instantaneous Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
Dissolved Oxygen	XXX	XXX	5.0	XXX	XXX	XXX	1/day	Grab
Carbonaceous Biochemical Oxygen Demand (CBOD5)	319	510	XXX	25	40	50	2/week	24-Hr Composite
Biochemical Oxygen Demand (BOD5) Raw Sewage Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	2/week	24-Hr Composite
Total Suspended Solids Raw Sewage Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	2/week	24-Hr Composite
Total Suspended Solids	383	574	XXX	30	45	60	2/week	24-Hr Composite
Total Dissolved Solids	Report	XXX	XXX	Report	XXX	XXX	1/week	24-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2,000 Geo Mean	XXX	10,000	2/week	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1,000	2/week	Grab
Ultraviolet light intensity (mW/cm²)	XXX	XXX	Report	XXX	XXX	XXX	1/day	Recorded
Ammonia-Nitrogen Nov 1 - Apr 30	172	XXX	XXX	13.5	XXX	27	2/week	24-Hr Composite
Ammonia-Nitrogen May 1 - Oct 31	57	XXX	XXX	4.5	XXX	9.0	2/week	24-Hr Composite
Total Phosphorus	25.5	XXX	XXX	2.0	XXX	4.0	2/week	24-Hr Composite
Sulfate, Total	Report	XXX	XXX	Report	XXX	XXX	1/week	24-Hr Composite
Chloride	Report	XXX	XXX	Report	XXX	XXX	1/week	24-Hr Composite
Bromide	Report	XXX	XXX	Report	XXX	XXX	1/week	24-Hr Composite

Outfall 001

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day)		Concentrations (mg/L)				Minimum Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average	Instantaneous Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Toxicity, Chronic - Ceriodaphnia Reproduction (TUc)	XXX	XXX	XXX	3.1 Daily Max	XXX	XXX	See Permit	24-Hr Composite

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

at Outfall 001

Outfall 001

Parameter	Effluent Limitations					Monitoring Requirements	
	Mass Units (lbs)		Concentrations (mg/L)			Minimum Measurement Frequency	Required Sample Type
	Monthly	Annual	Minimum	Monthly Average	Instantaneous Maximum		
Ammonia--N	Report	Report	XXX	Report	XXX	2/week	24-Hr Composite
Kjeldahl--N	Report	XXX	XXX	Report	XXX	2/week	24-Hr Composite
Nitrate-Nitrite as N	Report	XXX	XXX	Report	XXX	2/week	24-Hr Composite
Total Nitrogen	Report	Report	XXX	Report	XXX	1/month	Calculation
Total Phosphorus	Report	Report	XXX	Report	XXX	2/week	24-Hr Composite
Net Total Nitrogen	XXX	27,945	XXX	XXX	XXX	1/year	Calculation
Net Total Phosphorus	XXX	3,726	XXX	XXX	XXX	1/year	Calculation

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

at Outfall 001

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 1.53
Latitude 40º 5' 57.9" **Longitude** 76º 29' 37.5"
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)

Water Quality-Based Limitations

$CBOD_5$ & NH_3-N.

Pursuant to 40 CFR § 122.44(d)(1)(i), more stringent requirements should be considered when pollutants are discharged at the levels which have the reasonable potential to cause or contribute to excursions above water quality standards.

WQM 7.0 ver. 1.1b is a water quality model designed to assist DEP in determining appropriate water quality based effluent limits (WQBELs) for carbonaceous biochemical oxygen demand ($CBOD_5$), ammonia (NH_3-N) and dissolved oxygen (D.O.). DEP's Technical Guidance No. 391-2000-007 provides the technical methods contained in WQM 7.0 for determining wasteload allocations and for determining recommended NPDES effluent limits for point source discharges. The model was utilized for this permit renewal. The model output indicated a $CBOD_5$ average monthly limit of 25 mg/l, an NH_3-N average monthly limit of 6.82 mg/l, and a D.O. minimum limit of 5.0 mg/l were protective of water quality. The flow data used to run the model was acquired from USGS PA StreamStats, and is included as an attachment. The $CBOD_5$ limit is the same as the limit in the existing permit, which will remain in the renewal. The NH_3-N limit is less stringent than the existing average monthly limit of 4.5 mg/l, but due to anti-backsliding the existing limit will remain.

Toxics

Effluent sample results for toxic pollutants reported on the renewal application were entered into DEP's Toxics Management Spreadsheet Version 1.4 to develop appropriate permit requirements for toxic pollutants of concern. The Toxics Management Spreadsheet combines the functions of PENTOXSD and DEP's Toxics Screening Analysis. Effluent pH and hardness inputs were based on data included in the NPDES application. A stream hardness value of 250.9 mg/l and pH of 8.3 were used in modeling, taken from WQN Station ID 206. Based on effluent sample results reported on the application, the Toxics Management Spreadsheet recommended monitoring for Total Aluminum and Total Zinc.

This data was analyzed based on the guidelines found in DEP's Water Quality Toxics Management Strategy (Document No. 361-0100-003) and DEP's SOP No. BPNPSM-PMT-033. The results are attached to this fact sheet. The Toxics Management Spreadsheet uses the following logic:

a. Establish average monthly and instantaneous maximum (IMAX) limits in the draft permit where the maximum reported concentration 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.

Since the reported maximum concentration for these parameters were greater than 10% of their respective WQBELs, per DEP's SOP No. BPNPSM-PMT-033, monitoring will be required for Total Aluminum and Total Zinc.

UV Monitoring

DEP's SOP No. BPNPSM-PMT-033 recommends at a minimum, routine monitoring of UV transmittance, dosage, or intensity when the facility is utilizing a UV disinfection system. The monitoring should occur at the same frequency as would be used for TRC. This recommendation was implemented as a part of the proper operation and maintenance requirement specified in Part B of the NPDES permit, requesting permittees to demonstrate the effectiveness of UV disinfection system. This approach has been assigned to other facilities equipped with similar technology. A parameter for UV intensity is included in the existing permit, and will remain in the renewal.

Best Professional Judgement (BPJ) Limitations

Dissolved Oxygen
A minimum D.O. limit of 5.0 mg/L is a D.O. water quality criterion found in 25 Pa. Code § 93.7(a). This is the existing permit limit, and it is recommended that it remain in the permit to ensure that the facility continues to achieve compliance with water quality standards.

Total Phosphorus
For Total Phosphorus (TP), the existing NPDES permit requires the permittee to comply with average monthly and IMAX limits of 2.0 mg/L and 4.0 mg/L, respectively. These existing limits will remain unchanged in the permit to protect the local watershed, and due to the Chiques Creek Alternate Restoration Plan, discussed below.

Additional Considerations

Chesapeake Bay Total Maximum Daily Load (TMDL)

DEP developed a strategy to comply with the EPA and Chesapeake Bay Foundation requirements by reducing point source loadings of Total Nitrogen (TN) and Total Phosphorus (TP). This strategy can be located in the *Pennsylvania Chesapeake Watershed Implementation Plan* (WIP), dated January 11, 2011. Subsequently, an update to the WIP was published as the Phase 2 WIP. As part of the Phase 2 WIP, a *Phase 2 Watershed Implementation Plan Wastewater Supplement* (Phase 2 Supplement) was developed, providing an update on TMDL implementation for point sources and DEP's current implementation strategy for wastewater. A new update to the WIP was published as the Phase 3 WIP in August 2019. As part of the Phase 3 WIP, a *Phase 3 Watershed Implementation Plan Wastewater Supplement* (Phase 3 Supplement) was developed, and was most recently revised on July 29, 2022, and is the basis for the development of any Chesapeake Bay related permit parameters. Sewage discharges have been prioritized based on their design flow to the Bay. The highest priority (Phases 1, 2, and 3) dischargers will receive annual Cap Loads based on their design flow on August 29, 2005 and concentrations of 6 mg/l TN and 0.8 mg/l TP. These limits may be achieved through a combination of treatment technology, credits, or offsets. For Phase 4 and 5 facilities, Cap Loads are not currently being implemented for renewed or amended permits for facilities that do not increase design flow. For new Phase 4 and 5 sewage dischargers, in general DEP will issue new permits containing Cap Loads of "0" and new facilities will be expected to purchase credits and/or apply offsets to achieve compliance.

Mount Joy Borough Authority is a Phase 1 significant discharger. The facility's waste load allocation (WLA) is tracked under an individual WLA as a significant discharger in the Phase 3 Supplement. The following Cap Loads specified in the current Phase 3 Supplement will be included in the draft permit:

NPDES Permit No.	Phase	Facility	Latest Permit Issuance Date	Permit Expiration Date	Cap Load Compliance Start Date	TN Cap Load (lbs/yr)	TN Offsets Included in Cap Load (lbs/yr)	TP Cap Load (lbs/yr)	TN Delivery Ratio	TP Delivery Ratio
PA0021067	1	Mount Joy Borough	2/18/2021	2/28/2026	10/1/2010	27,945	-	3,726	0.698	0.477

The Cap Loads are unchanged from the existing permit. The Phase 3 Supplement states that "the minimum monitoring frequency for TN species and TP in new or renewed NPDES permits for significant sewage dischargers will be 2/week." This is consistent with the existing permit and a monitoring frequency of 2/week will remain in the renewal.

Chiques Creek Alternate Restoration Plan

This facility discharges to Little Chiques Creek, which is a tributary to Chiques Creek. Chiques Creek was included on Pennsylvania's 1996 303(d) List of Impaired Waters due to nutrient impairments. A Total Maximum Daily Load (TMDL) for the Chiques Creek Watershed was approved by the United States Environmental Protection Agency (EPA) on April 9, 2001. Due to several deficiencies within the TMDL, it was withdrawn with approval from EPA on October 28, 2015. DEP, Susquehanna River Basin Commission (SRBC) and watershed stakeholders have been in the process of developing a large scale monitoring and restoration plan. The goal of this Alternate Restoration Plan (ARP) is to address impacts to the Chiques Creek Watershed due to suspended solids/siltation and nutrient pollution. During the ongoing ARP development, this discharge permit will be renewed to conform with existing guidance. This permit will include a Total Phosphorus (TP) limit of 2.0 mg/l. The TP limit of 2.0 mg/l is derived from 25 Pa. Code § 96.5(c). This section states that "when it is determined that the discharge of phosphorus, alone or in combination with the discharge of other pollutants, contributes or threatens to impair existing or designated uses in a free flowing surface water, phosphorus discharges from point source discharges shall be limited to an average monthly concentration of 2 mg/l." This is consistent with the existing permit for this facility and with existing limits for other dischargers to the Chiques Creek Watershed.

Total Dissolved Solids

DEP's SOP No. BCW-PMT-033 states that at a minimum, a monitoring requirement for TDS should be established for any discharge that exceeds 1,000 mg/l. The requirement to monitoring these pollutants must be considered under the criteria specified in Pa Code 95.10. The maximum concentration reported in the application sampling was 1,990 mg/l, therefore monitoring will be required for TDS in the renewal permit. This is consistent with the existing permit requirements.

Fecal Coliform

PA Code § 92a.47.(a)(4) requires a monthly average limit of 200/100 mL as a geometric mean and an instantaneous maximum limit not greater than 1,000/100 mL from May through September for fecal coliform. PA Code § 92a.47.(a)(5) requires a monthly average limit of 2,000/100 mL as a geometric mean and an instantaneous maximum limit not greater than 10,000/100 mL from October through April for fecal coliform. This is consistent with the existing permit limits, which will remain in the renewal.

E. Coli

PA Code § 92a.61 requires IMAX reporting of E. Coli. Per DEP's SOP No. BCW-PMT-033, sewage dischargers with a design flow of >= 1 mgd will include E. Coli monitoring with a frequency of 1/month. This parameter has been added to the renewal permit.

Sampling Frequency & Sample Type

The monitoring requirements were established based on the BPJ and/or Table 6-3 of DEP's technical guidance No. 362-0400-001.

Flow Monitoring

Flow monitoring is required by 25 PA Code § 92a.61 and 40 CFR § 122.44(i)(1)(ii).

Influent BOD_5 and Total Suspended Solids (TSS) Monitoring

As a result of negotiation with US EPA, influent monitoring of TSS and BOD_5 are required for any publicly owned treatment works (POTWs); therefore, influent sampling of BOD_5 and TSS will remain in the permit.

Mass Loading Limitation

All mass loading effluent limitations recommended in the draft permit are concentration-based, calculated using a formula: design flow (MGD) x concentration limit (mg/l) x conversion factor of 8.34.

Anti-Degradation

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

303(d) Listed Streams

The discharge is located on a stream segment that is designated on the 303(d) list as impaired. There is a recreational impairment due to pathogens from an unknown source. There is an aquatic life impairment due to eutrophication and siltation from agriculture, and habitat alterations due to habitat modification – other than hydromodification.

Class A Wild Trout Fisheries

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

Anti-Backsliding

Pursuant to 40 CFR § 122.44(l)(1), all proposed permit requirements addressed in this fact sheet are at least as stringent as the requirements implemented in the existing NPDES permit, unless any exceptions are addressed by DEP in this fact sheet.

Whole Effluent Toxicity (WET)

For Outfall ___, ☐ **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%, 66%, 32%, 16%, and 8%. The Target Instream Waste Concentration (TIWC) to be used for analysis of the results is: 32.

Summary of Four Most Recent Test Results

TST Data Analysis

(NOTE – In lieu of recording information below, the application manager may attach the DEP WET Analysis Spreadsheet).

Test Date	*Ceriodaphnia* Results (Pass/Fail)		*Pimephales* Results (Pass/Fail)	
	Survival	Reproduction	Survival	Growth
10/25/2021	Pass	Pass	Pass	Pass
12/5/2022	Pass	Pass	Pass	Pass
4/24/2023	Pass	Pass	Pass	Pass
7/29/2024	Pass	Pass	Pass	Pass

** A "passing" result is that in which the replicate data for the TIWC is not statistically significant from the control condition. This is exhibited when the calculated t value ("T-Test Result") is greater than the critical t value. A "failing" result is exhibited when the calculated t value ("T-Test Result") is less than the critical t 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: None

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

Acute Partial Mix Factor (PMFa): **0.670** Chronic Partial Mix Factor (PMFc): **1**

1. Determine IWC – Acute (IWCa):

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

[(1.53 MGD x 1.547) / ((5.09 cfs x 0.67) + (1.53 MGD x 1.547))] x 100 = **41%**

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

If the discharge is to the tidal portion of the Delaware River, indicate how the type of test was determined:

N/A

Type of Test for Permit Renewal: **Chronic**

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

TIWCa = 0.67 / 0.3 = N/A

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

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

[(1.53 MGD x 1.547) / ((5.09 cfs x 1.0) + (1.53 MGD x 1.547))] x 100 = **31.7%**

3. Determine Dilution Series

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

Dilution Series = 100%, 66%, 32%, 16%, and 8%.

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).

The existing permit includes a limit for Ceriodaphnia Dubia of 3.1 Tuc, which will remain in the renewal.

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 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	Weekly Average	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	5.0	XXX	XXX	XXX	1/day	Grab
CBOD5	319	510	XXX	25	40	50	2/week	24-Hr Composite
BOD5 Raw Sewage Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	2/week	24-Hr Composite
TSS Raw Sewage Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	2/week	24-Hr Composite
TSS	383	574	XXX	30	45	60	2/week	24-Hr Composite
Total Dissolved Solids	Report	XXX	XXX	Report	XXX	XXX	1/week	24-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	2/week	Grab
Fecal Coliform (No./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
Ultraviolet light intensity (mW/cm^2)	XXX	XXX	Report	XXX	XXX	XXX	1/day	Recorded
Ammonia Nov 1 - Apr 30	172	XXX	XXX	13.5	XXX	27	2/week	24-Hr Composite
Ammonia May 1 - Oct 31	57	XXX	XXX	4.5	XXX	9	2/week	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	Weekly Average	Instant. Maximum		
Total Phosphorus	25.5	XXX	XXX	2.0	XXX	4	2/week	24-Hr Composite
Sulfate	Report	XXX	XXX	Report	XXX	XXX	1/week	24-Hr Composite
Chloride	Report	XXX	XXX	Report	XXX	XXX	1/week	24-Hr Composite
Bromide	Report	XXX	XXX	Report	XXX	XXX	1/week	24-Hr Composite
Chronic WET - Ceriodaphnia Reproduction (TUc)	XXX	XXX	XXX	3.1 Daily Max	XXX	XXX	See Permit	24-Hr Composite
Total Aluminum	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/month	24-Hr Composite
Total Zinc	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/month	24-Hr Composite

Compliance Sampling Location: Outfall 001

Other Comments: None

Proposed Effluent Limitations and Monitoring Requirements

The limitations and monitoring requirements specified below are proposed for the draft permit, to comply with Pennsylvania's Chesapeake Bay Tributary Strategy.

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
	Monthly	Annual	Minimum	Monthly Average	Daily Maximum	Instant. Maximum		
Ammonia--N	Report	Report	XXX	Report	XXX	XXX	2/week	24-Hr Composite
Kjeldahl--N	Report	XXX	XXX	Report	XXX	XXX	2/week	24-Hr Composite
Nitrate-Nitrite as N	Report	XXX	XXX	Report	XXX	XXX	2/week	24-Hr Composite
Total Nitrogen	Report	Report	XXX	Report	XXX	XXX	1/month	Calculation
Total Phosphorus	Report	Report	XXX	Report	XXX	XXX	2/week	24-Hr Composite
Net Total Nitrogen	XXX	27,945	XXX	XXX	XXX	XXX	1/year	Calculation
Net Total Phosphorus	XXX	3,726	XXX	XXX	XXX	XXX	1/year	Calculation

Compliance Sampling Location: Outfall 001

Other Comments: None

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: BCW-PMT-033, BCW-PMT-002
☐	Other:

Mt. Joy Borough Authority PA0021067 Outfall 001

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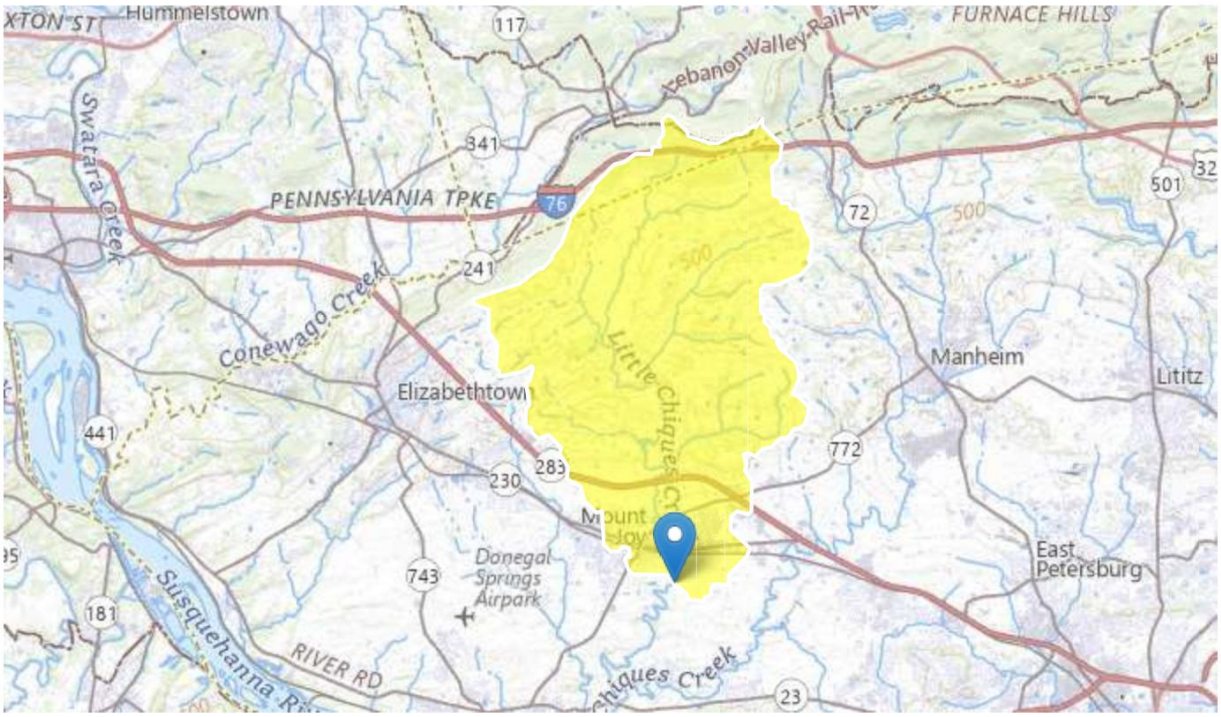

StreamStats Update

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
BSLOPD	Mean basin slope measured in degrees	3.7269	degrees
DRNAREA	Area that drains to a point on a stream	40.4	square miles
ROCKDEP	Depth to rock	4.12	feet
URBAN	Percentage of basin with urban development	3.6536	percent

Low-Flow Statistics

Low-Flow Statistics Parameters [Low Flow Region 1]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
BSLOPD	Mean Basin Slope degrees	3.7269	degrees	1.7	6.4
DRNAREA	Drainage Area	40.4	square miles	4.78	1150
ROCKDEP	Depth to Rock	4.12	feet	4.13	5.21
URBAN	Percent Urban	3.6536	percent	0	89

Low-Flow Statistics Disclaimers [Low Flow Region 1]

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

Low-Flow Statistics Flow Report [Low Flow Region 1]

Statistic	Value	Unit
7 Day 2 Year Low Flow	3.57	ft^3/s
30 Day 2 Year Low Flow	5.23	ft^3/s
7 Day 10 Year Low Flow	1.45	ft^3/s
30 Day 10 Year Low Flow	2.2	ft^3/s
90 Day 10 Year Low Flow	4.08	ft^3/s

Low-Flow Statistics Citations

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

Application Version: 4.31.1
SSHydro Services Version: 1.1.1
SSDelineate Services Version: 1.0.1
NSS Services Version: 2.2.1
GageStats Services Version: 1.2.1
Pourpoint Services Version: 1.2.0
Batch Processor Version: 1.6.1

Mt. Joy Borough Authority PA0021067 RMI = 0.0

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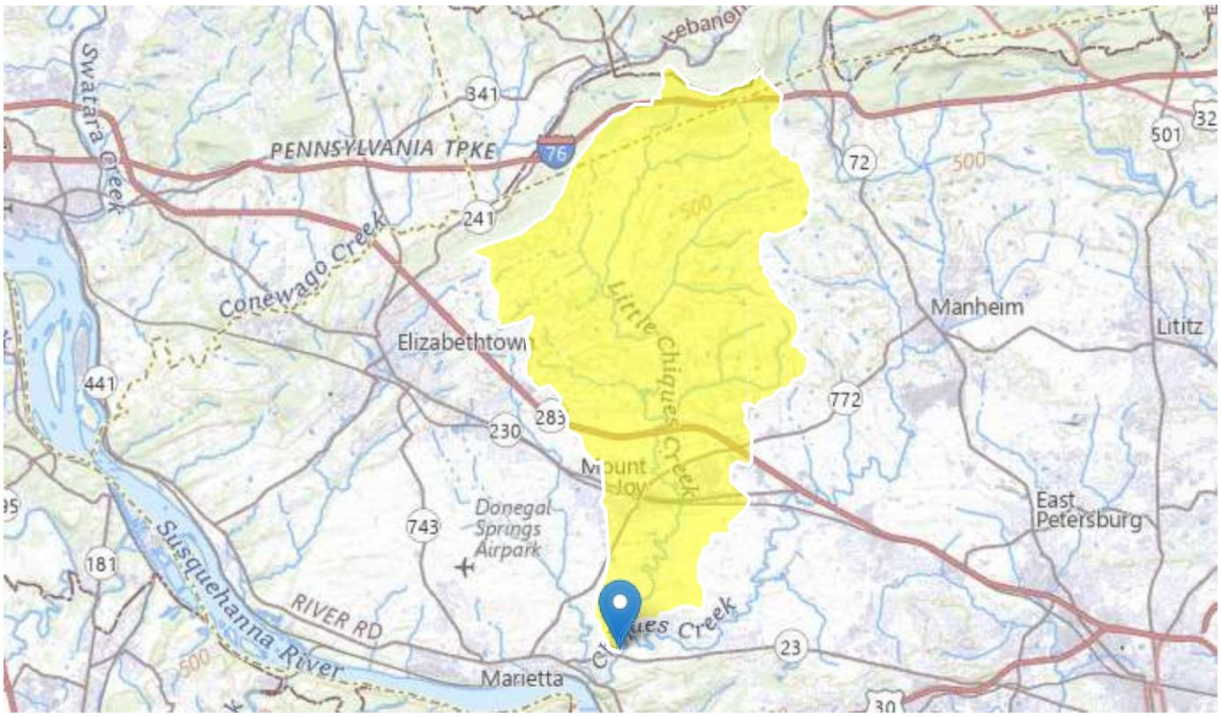

StreamStats Update

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Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
BSLOPD	Mean basin slope measured in degrees	3.6746	degrees
DRNAREA	Area that drains to a point on a stream	44.5	square miles
ROCKDEP	Depth to rock	4.26	feet
URBAN	Percentage of basin with urban development	3.7353	percent

Low-Flow Statistics

Low-Flow Statistics Parameters [Low Flow Region 1]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
BSLOPD	Mean Basin Slope degrees	3.6746	degrees	1.7	6.4
DRNAREA	Drainage Area	44.5	square miles	4.78	1150
ROCKDEP	Depth to Rock	4.26	feet	4.13	5.21
URBAN	Percent Urban	3.7353	percent	0	89

Low-Flow Statistics Flow Report [Low Flow Region 1]

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	4.47	ft^3/s	46	46
30 Day 2 Year Low Flow	6.43	ft^3/s	38	38
7 Day 10 Year Low Flow	1.87	ft^3/s	51	51
30 Day 10 Year Low Flow	2.77	ft^3/s	46	46
90 Day 10 Year Low Flow	5.05	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/)

Application Version: 4.31.1
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NSS Services Version: 2.2.1
GageStats Services Version: 1.2.1
Pourpoint Services Version: 1.2.0
Batch Processor Version: 1.6.1

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
07G	7941	LITTLE CHICKIES CREEK	**5.400**	320.00	40.40	0.00000	0.00	☑

Stream Data

Design Cond.	LFY (cfsm)	Trib Flow (cfs)	Stream Flow (cfs)	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary Temp (°C)	Tributary pH	Stream Temp (°C)	Stream pH
Q7-10	0.100	0.00	5.09	0.000	0.000	0.0	0.00	0.00	20.00	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
MJBA	PA0021067	1.5300	1.5300	1.5300	0.000	25.00	7.00

Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	25.00	2.00	0.00	1.50
Dissolved Oxygen	5.00	8.24	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
07G	7941	LITTLE CHICKIES CREEK	**0.000**	254.00	44.50	0.00000	0.00	☑

Stream Data

Design Cond.	LFY (cfsm)	Trib Flow (cfs)	Stream Flow (cfs)	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary Temp (°C)	Tributary pH	Stream Temp (°C)	Stream pH
Q7-10	0.100	0.00	5.60	0.000	0.000	0.0	0.00	0.00	20.00	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
07G	7941	LITTLE CHICKIES CREEK

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												
5.400	5.09	0.00	5.09	2.3669	0.00231	.712	38.91	54.63	0.27	1.226	21.59	7.00
Q1-10 Flow												
5.400	3.26	0.00	3.26	2.3669	0.00231	NA	NA	NA	0.23	1.436	22.10	7.00
Q30-10 Flow												
5.400	6.92	0.00	6.92	2.3669	0.00231	NA	NA	NA	0.30	1.084	21.27	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
07G	7941	LITTLE CHICKIES CREEK

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
5.400	MJBA	14.08	33.45	14.08	33.45	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
5.400	MJBA	1.74	6.82	1.74	6.82	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)		
5.40	MJBA	25	25	6.82	6.82	5	5	0	0

WQM 7.0 D.O.Simulation

SWP Basin	Stream Code	Stream Name
07G	7941	LITTLE CHICKIES CREEK

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
5.400	1.530	21.587	7.000
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
38.910	0.712	54.633	0.269
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
9.30	1.007	2.17	0.791
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
7.214	6.146	Tsivoglou	5
Reach Travel Time (days)			
1.226			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.123	8.14	1.97	6.26
0.245	7.13	1.78	6.01
0.368	6.24	1.62	6.09
0.491	5.47	1.47	6.28
0.613	4.79	1.33	6.52
0.736	4.19	1.21	6.76
0.858	3.67	1.10	6.99
0.981	3.21	1.00	7.20
1.104	2.81	0.90	7.38
1.226	2.46	0.82	7.55

WQM 7.0 Effluent Limits

SWP Basin	Stream Code	Stream Name
07G	7941	LITTLE CHICKIES CREEK

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)
5.400	MJBA	PA0021067	1.530	CBOD5	25		
				NH3-N	6.82	13.64	
				Dissolved Oxygen			5

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DEPARTMENT OF ENVIRONMENTAL PROTECTION

Toxics Management Spreadsheet
Version 1.4, May 2025

Discharge Information

Instructions | Discharge | Stream

Facility: **Mount Joy Borough Authority** NPDES Permit No.: **PA0021067** Outfall No.: **001**

Evaluation Type: **Major Sewage / Industrial Waste** Wastewater Description: **Treated 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
1.53	208	7.8						

					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		1990									
	Chloride (PWS)	mg/L		1160									
	Bromide	mg/L		5.66									
	Sulfate (PWS)	mg/L		114									
	Fluoride (PWS)	mg/L											
Group 2	Total Aluminum	µg/L		139									
	Total Antimony	µg/L		0.5									
	Total Arsenic	µg/L	<	1									
	Total Barium	µg/L		8									
	Total Beryllium	µg/L	<	0.4									
	Total Boron	µg/L		121									
	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		4									
	Free Cyanide	µg/L	<	0.5									
	Total Cyanide	µg/L	<	5									
	Dissolved Iron	µg/L		23									
	Total Iron	µg/L		61									
	Total Lead	µg/L	<	1									
	Total Manganese	µg/L		29									
	Total Mercury	µg/L	<	0.2									
	Total Nickel	µg/L		2									
	Total Phenols (Phenolics) (PWS)	µg/L		21									
	Total Selenium	µg/L	<	2									
	Total Silver	µg/L	<	0.2									
	Total Thallium	µg/L	<	0.4									
	Total Zinc	µg/L		51									
	Total Molybdenum	µg/L		2									
	Acrolein	µg/L	<	1									
	Acrylamide	µg/L	<										
	Acrylonitrile	µg/L	<	0.5									
	Benzene	µg/L	<	0.5									
	Bromoform	µg/L	<	0.5									

Group 3	Carbon Tetrachloride	µg/L	<	0.5									
	Chlorobenzene	µg/L	<	0.5									
	Chlorodibromomethane	µg/L	<	0.5									
	Chloroethane	µg/L	<	1									
	2-Chloroethyl Vinyl Ether	µg/L	<	0.5									
	Chloroform	µg/L	<	0.5									
	Dichlorobromomethane	µg/L	<	0.5									
	1,1-Dichloroethane	µg/L	<	0.5									
	1,2-Dichloroethane	µg/L	<	0.5									
	1,1-Dichloroethylene	µg/L	<	0.5									
	1,2-Dichloropropane	µg/L	<	0.5									
	1,3-Dichloropropylene	µg/L	<	0.5									
	1,4-Dioxane	µg/L	<	0.1									
	Ethylbenzene	µg/L	<	0.5									
	Methyl Bromide	µg/L	<	1									
	Methyl Chloride	µg/L	<	0.5									
	Methylene Chloride	µg/L	<	0.5									
	1,1,2,2-Tetrachloroethane	µg/L	<	0.5									
	Tetrachloroethylene	µg/L	<	0.5									
	Toluene	µg/L		2.3									
	1,2-trans-Dichloroethylene	µg/L		0.5									
	1,1,1-Trichloroethane	µg/L	<	0.5									
	1,1,2-Trichloroethane	µg/L	<	0.5									
	Trichloroethylene	µg/L	<	0.5									
	Vinyl Chloride	µg/L	<	0.5									
Group 4	2-Chlorophenol	µg/L	<	0.17									
	2,4-Dichlorophenol	µg/L	<	0.21									
	2,4-Dimethylphenol	µg/L	<	0.36									
	4,6-Dinitro-o-Cresol	µg/L	<	1.16									
	2,4-Dinitrophenol	µg/L	<	1.8									
	2-Nitrophenol	µg/L	<	0.22									
	4-Nitrophenol	µg/L	<	1.36									
	p-Chloro-m-Cresol	µg/L	<	0.25									
	Pentachlorophenol	µg/L	<	0.48									
	Phenol	µg/L	<	0.19									
	2,4,6-Trichlorophenol	µg/L		0.34									
Group 5	Acenaphthene	µg/L	<	0.34									
	Acenaphthylene	µg/L	<	0.34									
	Anthracene	µg/L	<	0.31									
	Benzidine	µg/L	<	0.59									
	Benzo(a)Anthracene	µg/L	<	0.26									
	Benzo(a)Pyrene	µg/L	<	0.24									
	3,4-Benzofluoranthene	µg/L	<	0.26									
	Benzo(ghi)Perylene	µg/L	<	0.4									
	Benzo(k)Fluoranthene	µg/L	<	0.32									
	Bis(2-Chloroethoxy)Methane	µg/L	<	0.23									
	Bis(2-Chloroethyl)Ether	µg/L	<	0.26									
	Bis(2-Chloroisopropyl)Ether	µg/L	<	0.26									
	Bis(2-Ethylhexyl)Phthalate	µg/L	<	1.52									
	4-Bromophenyl Phenyl Ether	µg/L	<	0.38									
	Butyl Benzyl Phthalate	µg/L	<	1									
	2-Chloronaphthalene	µg/L	<	0.34									
	4-Chlorophenyl Phenyl Ether	µg/L	<	0.33									
	Chrysene	µg/L	<	0.49									
	Dibenzo(a,h)Anthrancene	µg/L	<	0.4									
	1,2-Dichlorobenzene	µg/L	<	0.19									
	1,3-Dichlorobenzene	µg/L	<	0.41									
	1,4-Dichlorobenzene	µg/L	<	0.45									
	3,3-Dichlorobenzidine	µg/L	<	0.72									
	Diethyl Phthalate	µg/L	<	0.82									
	Dimethyl Phthalate	µg/L	<	0.49									
	Di-n-Butyl Phthalate	µg/L	<	2.6									
	2,4-Dinitrotoluene	µg/L	<	0.45									

	2,6-Dinitrotoluene	µg/L	<	0.43									
	Di-n-Octyl Phthalate	µg/L	<	0.35									
	1,2-Diphenylhydrazine	µg/L	<	0.51									
	Fluoranthene	µg/L	<	0.6									
	Fluorene	µg/L	<	0.3									
	Hexachlorobenzene	µg/L	<	0.4									
	Hexachlorobutadiene	µg/L	<	0.26									
	Hexachlorocyclopentadiene	µg/L	<	0.39									
	Hexachloroethane	µg/L	<	0.46									
	Indeno(1,2,3-cd)Pyrene	µg/L	<	0.38									
	Isophorone	µg/L	<	0.25									
	Naphthalene	µg/L	<	0.5									
	Nitrobenzene	µg/L	<	0.23									
	n-Nitrosodimethylamine	µg/L	<	0.23									
	n-Nitrosodi-n-Propylamine	µg/L	<	0.41									
	n-Nitrosodiphenylamine	µg/L	<	0.36									
	Phenanthrene	µg/L	<	0.4									
	Pyrene	µg/L	<	0.57									
	1,2,4-Trichlorobenzene	µg/L	<	0.26									
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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Toxics Management Spreadsheet
Version 1.4, May 2025

Stream / Surface Water Information

Mount Joy Borough Authority, NPDES Permit No. PA0021067, Outfall 001

Instructions | Discharge | *Stream*

Receiving Surface Water Name: **Little Chiques Creek**

No. Reaches to Model: **1**

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

Location	Stream Code*	RMI*	Elevation (ft)*	DA (mi²)*	Slope (ft/ft)	PWS Withdrawal (MGD)	Apply Fish Criteria*
Point of Discharge	007941	5.4	320	40.4			Yes
End of Reach 1	007941	0	254	44.5			Yes

Q $_{7\text{-}10}$

Location	RMI	LFY (cfs/mi²)*	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	5.4	0.1	5.09									250.9	8.3		
End of Reach 1	0	0.1	5.6									250.9	8.3		

Q $_{h}$

Location	RMI	LFY (cfs/mi²)	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	5.4														
End of Reach 1	0														

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Model Results

Mount Joy Borough Authority, NPDES Permit No. PA0021067, Outfall 001

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

☐ ***Hydrodynamics***

☑ ***Wasteload Allocations***

☑ ***AFC*** CCT (min): 15 PMF: 0.670 Analysis Hardness (mg/l): 233.32 Analysis pH: 8.02

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	750	750	1,830	
Total Antimony	0	0		0	1,100	1,100	2,684	
Total Arsenic	0	0		0	340	340	830	Chem Translator of 1 applied
Total Barium	0	0		0	21,000	21,000	51,248	
Total Boron	0	0		0	8,100	8,100	19,767	
Total Cadmium	0	0		0	4.586	5.05	12.3	Chem Translator of 0.909 applied
Total Chromium (III)	0	0		0	1140.378	3,609	8,807	Chem Translator of 0.316 applied
Hexavalent Chromium	0	0		0	16	16.3	39.8	Chem Translator of 0.982 applied
Total Cobalt	0	0		0	95	95.0	232	
Total Copper	0	0		0	29.858	31.1	75.9	Chem Translator of 0.96 applied
Free Cyanide	0	0		0	22	22.0	53.7	
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	160.257	240	586	Chem Translator of 0.668 applied
Total Manganese	0	0		0	N/A	N/A	N/A	
Total Mercury	0	0		0	1.400	1.65	4.02	Chem Translator of 0.85 applied
Total Nickel	0	0		0	958.856	961	2,345	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	13.813	16.3	39.7	Chem Translator of 0.85 applied
Total Thallium	0	0		0	65	65.0	159	
Total Zinc	0	0		0	240.227	246	599	Chem Translator of 0.978 applied
Acrolein	0	0		0	3	3.0	7.32	

Acrylonitrile	0	0		0	650	650	1,586	
Benzene	0	0		0	640	640	1,562	
Bromoform	0	0		0	1,800	1,800	4,393	
Carbon Tetrachloride	0	0		0	2,800	2,800	6,833	
Chlorobenzene	0	0		0	1,200	1,200	2,928	
Chlorodibromomethane	0	0		0	N/A	N/A	N/A	
2-Chloroethyl Vinyl Ether	0	0		0	18,000	18,000	43,927	
Chloroform	0	0		0	1,900	1,900	4,637	
Dichlorobromomethane	0	0		0	N/A	N/A	N/A	
1,2-Dichloroethane	0	0		0	15,000	15,000	36,606	
1,1-Dichloroethylene	0	0		0	7,500	7,500	18,303	
1,2-Dichloropropane	0	0		0	11,000	11,000	26,844	
1,3-Dichloropropylene	0	0		0	310	310	757	
Ethylbenzene	0	0		0	2,900	2,900	7,077	
Methyl Bromide	0	0		0	550	550	1,342	
Methyl Chloride	0	0		0	28,000	28,000	68,331	
Methylene Chloride	0	0		0	12,000	12,000	29,285	
1,1,2,2-Tetrachloroethane	0	0		0	1,000	1,000	2,440	
Tetrachloroethylene	0	0		0	700	700	1,708	
Toluene	0	0		0	1,700	1,700	4,149	
1,2-trans-Dichloroethylene	0	0		0	6,800	6,800	16,595	
1,1,1-Trichloroethane	0	0		0	3,000	3,000	7,321	
1,1,2-Trichloroethane	0	0		0	3,400	3,400	8,297	
Trichloroethylene	0	0		0	2,300	2,300	5,613	
Vinyl Chloride	0	0		0	N/A	N/A	N/A	
2-Chlorophenol	0	0		0	560	560	1,367	
2,4-Dichlorophenol	0	0		0	1,700	1,700	4,149	
2,4-Dimethylphenol	0	0		0	660	660	1,611	
4,6-Dinitro-o-Cresol	0	0		0	80	80.0	195	
2,4-Dinitrophenol	0	0		0	660	660	1,611	
2-Nitrophenol	0	0		0	8,000	8,000	19,523	
4-Nitrophenol	0	0		0	2,300	2,300	5,613	
p-Chloro-m-Cresol	0	0		0	160	160	390	
Pentachlorophenol	0	0		0	24.424	24.4	59.6	
Phenol	0	0		0	N/A	N/A	N/A	
2,4,6-Trichlorophenol	0	0		0	460	460	1,123	
Acenaphthene	0	0		0	83	83.0	203	
Anthracene	0	0		0	N/A	N/A	N/A	
Benzidine	0	0		0	300	300	732	
Benzo(a)Anthracene	0	0		0	0.5	0.5	1.22	
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	73,212	
Bis(2-Chloroisopropyl)Ether	0	0		0	N/A	N/A	N/A	
Bis(2-Ethylhexyl)Phthalate	0	0		0	4,500	4,500	10,982	
4-Bromophenyl Phenyl Ether	0	0		0	270	270	659	
Butyl Benzyl Phthalate	0	0		0	140	140	342	

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	2,001	
1,3-Dichlorobenzene	0	0		0	350	350	854	
1,4-Dichlorobenzene	0	0		0	730	730	1,781	
3,3-Dichlorobenzidine	0	0		0	N/A	N/A	N/A	
Diethyl Phthalate	0	0		0	4,000	4,000	9,762	
Dimethyl Phthalate	0	0		0	2,500	2,500	6,101	
Di-n-Butyl Phthalate	0	0		0	110	110	268	
2,4-Dinitrotoluene	0	0		0	1,600	1,600	3,905	
2,6-Dinitrotoluene	0	0		0	990	990	2,416	
1,2-Diphenylhydrazine	0	0		0	15	15.0	36.6	
Fluoranthene	0	0		0	200	200	488	
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	24.4	
Hexachlorocyclopentadiene	0	0		0	5	5.0	12.2	
Hexachloroethane	0	0		0	60	60.0	146	
Indeno(1,2,3-cd)Pyrene	0	0		0	N/A	N/A	N/A	
Isophorone	0	0		0	10,000	10,000	24,404	
Naphthalene	0	0		0	140	140	342	
Nitrobenzene	0	0		0	4,000	4,000	9,762	
n-Nitrosodimethylamine	0	0		0	17,000	17,000	41,487	
n-Nitrosodi-n-Propylamine	0	0		0	N/A	N/A	N/A	
n-Nitrosodiphenylamine	0	0		0	300	300	732	
Phenanthrene	0	0		0	5	5.0	12.2	
Pyrene	0	0		0	N/A	N/A	N/A	
1,2,4-Trichlorobenzene	0	0		0	130	130	317	

☑ ***CFC*** CCT (min): 33.435 PMF: 1 Analysis Hardness (mg/l): 237.28 Analysis pH: 8.07

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	693	
Total Arsenic	0	0		0	150	150	473	Chem Translator of 1 applied
Total Barium	0	0		0	4,100	4,100	12,917	
Total Boron	0	0		0	1,600	1,600	5,041	
Total Cadmium	0	0		0	0.448	0.51	1.62	Chem Translator of 0.873 applied
Total Chromium (III)	0	0		0	150.400	175	551	Chem Translator of 0.86 applied
Hexavalent Chromium	0	0		0	10	10.4	32.7	Chem Translator of 0.962 applied
Total Cobalt	0	0		0	19	19.0	59.9	
Total Copper	0	0		0	18.740	19.5	61.5	Chem Translator of 0.96 applied

Free Cyanide	0	0		0	5.2	5.2	16.4	
Dissolved Iron	0	0		0	N/A	N/A	N/A	
Total Iron	0	0		0	1,500	1,500	4,726	WQC = 30 day average; PMF = 1
Total Lead	0	0		0	6.357	9.56	30.1	Chem Translator of 0.665 applied
Total Manganese	0	0		0	N/A	N/A	N/A	
Total Mercury	0	0		0	0.770	0.91	2.85	Chem Translator of 0.85 applied
Total Nickel	0	0		0	108.027	108	341	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	15.7	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	41.0	
Total Zinc	0	0		0	245.673	249	785	Chem Translator of 0.986 applied
Acrolein	0	0		0	3	3.0	9.45	
Acrylonitrile	0	0		0	130	130	410	
Benzene	0	0		0	130	130	410	
Bromoform	0	0		0	370	370	1,166	
Carbon Tetrachloride	0	0		0	560	560	1,764	
Chlorobenzene	0	0		0	240	240	756	
Chlorodibromomethane	0	0		0	N/A	N/A	N/A	
2-Chloroethyl Vinyl Ether	0	0		0	3,500	3,500	11,027	
Chloroform	0	0		0	390	390	1,229	
Dichlorobromomethane	0	0		0	N/A	N/A	N/A	
1,2-Dichloroethane	0	0		0	3,100	3,100	9,766	
1,1-Dichloroethylene	0	0		0	1,500	1,500	4,726	
1,2-Dichloropropane	0	0		0	2,200	2,200	6,931	
1,3-Dichloropropylene	0	0		0	61	61.0	192	
Ethylbenzene	0	0		0	580	580	1,827	
Methyl Bromide	0	0		0	110	110	347	
Methyl Chloride	0	0		0	5,500	5,500	17,328	
Methylene Chloride	0	0		0	2,400	2,400	7,561	
1,1,2,2-Tetrachloroethane	0	0		0	210	210	662	
Tetrachloroethylene	0	0		0	140	140	441	
Toluene	0	0		0	330	330	1,040	
1,2-trans-Dichloroethylene	0	0		0	1,400	1,400	4,411	
1,1,1-Trichloroethane	0	0		0	610	610	1,922	
1,1,2-Trichloroethane	0	0		0	680	680	2,142	
Trichloroethylene	0	0		0	450	450	1,418	
Vinyl Chloride	0	0		0	N/A	N/A	N/A	
2-Chlorophenol	0	0		0	110	110	347	
2,4-Dichlorophenol	0	0		0	340	340	1,071	
2,4-Dimethylphenol	0	0		0	130	130	410	
4,6-Dinitro-o-Cresol	0	0		0	16	16.0	50.4	
2,4-Dinitrophenol	0	0		0	130	130	410	
2-Nitrophenol	0	0		0	1,600	1,600	5,041	
4-Nitrophenol	0	0		0	470	470	1,481	

p-Chloro-m-Cresol	0	0		0	500	500	1,575	
Pentachlorophenol	0	0		0	18.738	18.7	59.0	
Phenol	0	0		0	N/A	N/A	N/A	
2,4,6-Trichlorophenol	0	0		0	91	91.0	287	
Acenaphthene	0	0		0	17	17.0	53.6	
Anthracene	0	0		0	N/A	N/A	N/A	
Benzidine	0	0		0	59	59.0	186	
Benzo(a)Anthracene	0	0		0	0.1	0.1	0.32	
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	18,903	
Bis(2-Chloroisopropyl)Ether	0	0		0	N/A	N/A	N/A	
Bis(2-Ethylhexyl)Phthalate	0	0		0	910	910	2,867	
4-Bromophenyl Phenyl Ether	0	0		0	54	54.0	170	
Butyl Benzyl Phthalate	0	0		0	35	35.0	110	
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	504	
1,3-Dichlorobenzene	0	0		0	69	69.0	217	
1,4-Dichlorobenzene	0	0		0	150	150	473	
3,3-Dichlorobenzidine	0	0		0	N/A	N/A	N/A	
Diethyl Phthalate	0	0		0	800	800	2,520	
Dimethyl Phthalate	0	0		0	500	500	1,575	
Di-n-Butyl Phthalate	0	0		0	21	21.0	66.2	
2,4-Dinitrotoluene	0	0		0	320	320	1,008	
2,6-Dinitrotoluene	0	0		0	200	200	630	
1,2-Diphenylhydrazine	0	0		0	3	3.0	9.45	
Fluoranthene	0	0		0	40	40.0	126	
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	6.3	
Hexachlorocyclopentadiene	0	0		0	1	1.0	3.15	
Hexachloroethane	0	0		0	12	12.0	37.8	
Indeno(1,2,3-cd)Pyrene	0	0		0	N/A	N/A	N/A	
Isophorone	0	0		0	2,100	2,100	6,616	
Naphthalene	0	0		0	43	43.0	135	
Nitrobenzene	0	0		0	810	810	2,552	
n-Nitrosodimethylamine	0	0		0	3,400	3,400	10,712	
n-Nitrosodi-n-Propylamine	0	0		0	N/A	N/A	N/A	
n-Nitrosodiphenylamine	0	0		0	59	59.0	186	
Phenanthrene	0	0		0	1	1.0	3.15	
Pyrene	0	0		0	N/A	N/A	N/A	
1,2,4-Trichlorobenzene	0	0		0	26	26.0	81.9	

☑ ***THH*** CCT (min): 33.435 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	
Total Aluminum	0	0		0	N/A	N/A	N/A	
Total Antimony	0	0		0	5.6	5.6	17.6	
Total Arsenic	0	0		0	10	10.0	31.5	
Total Barium	0	0		0	2,400	2,400	7,561	
Total Boron	0	0		0	3,100	3,100	9,766	
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	12.6	
Dissolved Iron	0	0		0	300	300	945	
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	3,150	
Total Mercury	0	0		0	0.050	0.05	0.16	
Total Nickel	0	0		0	610	610	1,922	
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	0.76	
Total Zinc	0	0		0	N/A	N/A	N/A	
Acrolein	0	0		0	3	3.0	9.45	
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	315	
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	18.0	
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	104	
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	214	

Methyl Bromide	0	0		0	100	100.0	315	
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	180	
1,2-trans-Dichloroethylene	0	0		0	100	100.0	315	
1,1,1-Trichloroethane	0	0		0	10,000	10,000	31,505	
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	94.5	
2,4-Dichlorophenol	0	0		0	10	10.0	31.5	
2,4-Dimethylphenol	0	0		0	100	100.0	315	
4,6-Dinitro-o-Cresol	0	0		0	2	2.0	6.3	
2,4-Dinitrophenol	0	0		0	10	10.0	31.5	
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	12,602	
2,4,6-Trichlorophenol	0	0		0	N/A	N/A	N/A	
Acenaphthene	0	0		0	70	70.0	221	
Anthracene	0	0		0	300	300	945	
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	630	
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	0.32	
2-Chloronaphthalene	0	0		0	800	800	2,520	
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	3,150	
1,3-Dichlorobenzene	0	0		0	7	7.0	22.1	
1,4-Dichlorobenzene	0	0		0	300	300	945	
3,3-Dichlorobenzidine	0	0		0	N/A	N/A	N/A	
Diethyl Phthalate	0	0		0	600	600	1,890	
Dimethyl Phthalate	0	0		0	2,000	2,000	6,301	
Di-n-Butyl Phthalate	0	0		0	20	20.0	63.0	
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	63.0	
Fluorene	0	0		0	50	50.0	158	
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	12.6	
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	107	
Naphthalene	0	0		0	N/A	N/A	N/A	
Nitrobenzene	0	0		0	10	10.0	31.5	
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	63.0	
1,2,4-Trichlorobenzene	0	0		0	0.07	0.07	0.22	

☑ ***CRL*** CCT (min): 23.107 PMF: 1 Analysis Hardness (mg/l): N/A Analysis pH: N/A

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	N/A	N/A	N/A	
Chloride (PWS)	0	0		0	N/A	N/A	N/A	
Sulfate (PWS)	0	0		0	N/A	N/A	N/A	
Total 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	0.84	
Benzene	0	0		0	0.58	0.58	8.13	
Bromoform	0	0		0	7	7.0	98.1	
Carbon Tetrachloride	0	0		0	0.4	0.4	5.61	
Chlorobenzene	0	0		0	N/A	N/A	N/A	
Chlorodibromomethane	0	0		0	0.8	0.8	11.2	
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	13.3	
1,2-Dichloroethane	0	0		0	9.9	9.9	139	
1,1-Dichloroethylene	0	0		0	N/A	N/A	N/A	
1,2-Dichloropropane	0	0		0	0.9	0.9	12.6	
1,3-Dichloropropylene	0	0		0	0.27	0.27	3.78	
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	280	
1,1,2,2-Tetrachloroethane	0	0		0	0.2	0.2	2.8	
Tetrachloroethylene	0	0		0	10	10.0	140	
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	7.71	
Trichloroethylene	0	0		0	0.6	0.6	8.41	
Vinyl Chloride	0	0		0	0.02	0.02	0.28	
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	0.42	
Phenol	0	0		0	N/A	N/A	N/A	
2,4,6-Trichlorophenol	0	0		0	1.5	1.5	21.0	
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	0.001	
Benzo(a)Anthracene	0	0		0	0.001	0.001	0.014	
Benzo(a)Pyrene	0	0		0	0.0001	0.0001	0.001	

3,4-Benzofluoranthene	0	0		0	0.001	0.001	0.014	
Benzo(k)Fluoranthene	0	0		0	0.01	0.01	0.14	
Bis(2-Chloroethyl)Ether	0	0		0	0.03	0.03	0.42	
Bis(2-Chloroisopropyl)Ether	0	0		0	N/A	N/A	N/A	
Bis(2-Ethylhexyl)Phthalate	0	0		0	0.32	0.32	4.49	
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	1.68	
Dibenzo(a,h)Anthrancene	0	0		0	0.0001	0.0001	0.001	
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	0.7	
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	0.7	
2,6-Dinitrotoluene	0	0		0	0.05	0.05	0.7	
1,2-Diphenylhydrazine	0	0		0	0.03	0.03	0.42	
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	0.001	
Hexachlorobutadiene	0	0		0	0.01	0.01	0.14	
Hexachlorocyclopentadiene	0	0		0	N/A	N/A	N/A	
Hexachloroethane	0	0		0	0.1	0.1	1.4	
Indeno(1,2,3-cd)Pyrene	0	0		0	0.001	0.001	0.014	
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	0.01	
n-Nitrosodi-n-Propylamine	0	0		0	0.005	0.005	0.07	
n-Nitrosodiphenylamine	0	0		0	3.3	3.3	46.3	
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 Aluminum	Report	Report	Report	Report	Report	µg/L	1,173	AFC	Discharge Conc > 10% WQBEL (no RP)

Total Zinc	Report	Report	Report	Report	Report	µg/L	384	AFC	Discharge Conc > 10% WQBEL (no 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 Antimony	17.6	µg/L	Discharge Conc ≤ 10% WQBEL
Total Arsenic	N/A	N/A	Discharge Conc < TQL
Total Barium	7,561	µg/L	Discharge Conc ≤ 10% WQBEL
Total Beryllium	N/A	N/A	No WQS
Total Boron	5,041	µg/L	Discharge Conc ≤ 10% WQBEL
Total Cadmium	1.62	µg/L	Discharge Conc < TQL
Total Chromium (III)	551	µg/L	Discharge Conc < TQL
Hexavalent Chromium	25.5	µg/L	Discharge Conc < TQL
Total Cobalt	59.9	µg/L	Discharge Conc < TQL
Total Copper	48.6	µg/L	Discharge Conc ≤ 10% WQBEL
Free Cyanide	12.6	µg/L	Discharge Conc < TQL
Total Cyanide	N/A	N/A	No WQS
Dissolved Iron	945	µg/L	Discharge Conc ≤ 10% WQBEL
Total Iron	4,726	µg/L	Discharge Conc ≤ 10% WQBEL
Total Lead	30.1	µg/L	Discharge Conc < TQL
Total Manganese	3,150	µg/L	Discharge Conc ≤ 10% WQBEL
Total Mercury	0.16	µg/L	Discharge Conc < TQL
Total Nickel	341	µg/L	Discharge Conc ≤ 10% WQBEL
Total Phenols (Phenolics) (PWS)		µg/L	PWS Not Applicable
Total Selenium	15.7	µg/L	Discharge Conc < TQL
Total Silver	25.4	µg/L	Discharge Conc < TQL
Total Thallium	0.76	µg/L	Discharge Conc < TQL
Total Molybdenum	N/A	N/A	No WQS
Acrolein	4.69	µg/L	Discharge Conc < TQL
Acrylonitrile	0.84	µg/L	Discharge Conc < TQL
Benzene	8.13	µg/L	Discharge Conc < TQL
Bromoform	98.1	µg/L	Discharge Conc < TQL
Carbon Tetrachloride	5.61	µg/L	Discharge Conc < TQL
Chlorobenzene	315	µg/L	Discharge Conc < TQL
Chlorodibromomethane	11.2	µg/L	Discharge Conc < TQL
Chloroethane	N/A	N/A	No WQS
2-Chloroethyl Vinyl Ether	11,027	µg/L	Discharge Conc < TQL

Chloroform	18.0	µg/L	Discharge Conc < TQL
Dichlorobromomethane	13.3	µg/L	Discharge Conc < TQL
1,1-Dichloroethane	N/A	N/A	No WQS
1,2-Dichloroethane	139	µg/L	Discharge Conc < TQL
1,1-Dichloroethylene	104	µg/L	Discharge Conc < TQL
1,2-Dichloropropane	12.6	µg/L	Discharge Conc < TQL
1,3-Dichloropropylene	3.78	µg/L	Discharge Conc < TQL
1,4-Dioxane	N/A	N/A	No WQS
Ethylbenzene	214	µg/L	Discharge Conc < TQL
Methyl Bromide	315	µg/L	Discharge Conc ≤ 25% WQBEL
Methyl Chloride	17,328	µg/L	Discharge Conc < TQL
Methylene Chloride	280	µg/L	Discharge Conc < TQL
1,1,2,2-Tetrachloroethane	2.8	µg/L	Discharge Conc < TQL
Tetrachloroethylene	140	µg/L	Discharge Conc < TQL
Toluene	180	µg/L	Discharge Conc ≤ 25% WQBEL
1,2-trans-Dichloroethylene	315	µg/L	Discharge Conc ≤ 25% WQBEL
1,1,1-Trichloroethane	1,922	µg/L	Discharge Conc < TQL
1,1,2-Trichloroethane	7.71	µg/L	Discharge Conc < TQL
Trichloroethylene	8.41	µg/L	Discharge Conc < TQL
Vinyl Chloride	0.28	µg/L	Discharge Conc < TQL
2-Chlorophenol	94.5	µg/L	Discharge Conc < TQL
2,4-Dichlorophenol	31.5	µg/L	Discharge Conc < TQL
2,4-Dimethylphenol	315	µg/L	Discharge Conc < TQL
4,6-Dinitro-o-Cresol	6.3	µg/L	Discharge Conc < TQL
2,4-Dinitrophenol	31.5	µg/L	Discharge Conc < TQL
2-Nitrophenol	5,041	µg/L	Discharge Conc < TQL
4-Nitrophenol	1,481	µg/L	Discharge Conc < TQL
p-Chloro-m-Cresol	250	µg/L	Discharge Conc < TQL
Pentachlorophenol	0.42	µg/L	Discharge Conc < TQL
Phenol	12,602	µg/L	Discharge Conc < TQL
2,4,6-Trichlorophenol	21.0	µg/L	Discharge Conc ≤ 25% WQBEL
Acenaphthene	53.6	µg/L	Discharge Conc < TQL
Acenaphthylene	N/A	N/A	No WQS
Anthracene	945	µg/L	Discharge Conc < TQL
Benzidine	0.001	µg/L	Discharge Conc < TQL
Benzo(a)Anthracene	0.014	µg/L	Discharge Conc < TQL
Benzo(a)Pyrene	0.001	µg/L	Discharge Conc < TQL
3,4-Benzofluoranthene	0.014	µg/L	Discharge Conc < TQL
Benzo(ghi)Perylene	N/A	N/A	No WQS
Benzo(k)Fluoranthene	0.14	µg/L	Discharge Conc < TQL
Bis(2-Chloroethoxy)Methane	N/A	N/A	No WQS
Bis(2-Chloroethyl)Ether	0.42	µg/L	Discharge Conc < TQL
Bis(2-Chloroisopropyl)Ether	630	µg/L	Discharge Conc < TQL
Bis(2-Ethylhexyl)Phthalate	4.49	µg/L	Discharge Conc < TQL
4-Bromophenyl Phenyl Ether	170	µg/L	Discharge Conc < TQL

Butyl Benzyl Phthalate	0.32	µg/L	Discharge Conc < TQL
2-Chloronaphthalene	2,520	µg/L	Discharge Conc < TQL
4-Chlorophenyl Phenyl Ether	N/A	N/A	No WQS
Chrysene	1.68	µg/L	Discharge Conc < TQL
Dibenzo(a,h)Anthrancene	0.001	µg/L	Discharge Conc < TQL
1,2-Dichlorobenzene	504	µg/L	Discharge Conc < TQL
1,3-Dichlorobenzene	22.1	µg/L	Discharge Conc < TQL
1,4-Dichlorobenzene	473	µg/L	Discharge Conc < TQL
3,3-Dichlorobenzidine	0.7	µg/L	Discharge Conc < TQL
Diethyl Phthalate	1,890	µg/L	Discharge Conc < TQL
Dimethyl Phthalate	1,575	µg/L	Discharge Conc < TQL
Di-n-Butyl Phthalate	63.0	µg/L	Discharge Conc < TQL
2,4-Dinitrotoluene	0.7	µg/L	Discharge Conc < TQL
2,6-Dinitrotoluene	0.7	µg/L	Discharge Conc < TQL
Di-n-Octyl Phthalate	N/A	N/A	No WQS
1,2-Diphenylhydrazine	0.42	µg/L	Discharge Conc < TQL
Fluoranthene	63.0	µg/L	Discharge Conc < TQL
Fluorene	158	µg/L	Discharge Conc < TQL
Hexachlorobenzene	0.001	µg/L	Discharge Conc < TQL
Hexachlorobutadiene	0.14	µg/L	Discharge Conc < TQL
Hexachlorocyclopentadiene	3.15	µg/L	Discharge Conc < TQL
Hexachloroethane	1.4	µg/L	Discharge Conc < TQL
Indeno(1,2,3-cd)Pyrene	0.014	µg/L	Discharge Conc < TQL
Isophorone	107	µg/L	Discharge Conc < TQL
Naphthalene	135	µg/L	Discharge Conc < TQL
Nitrobenzene	31.5	µg/L	Discharge Conc < TQL
n-Nitrosodimethylamine	0.01	µg/L	Discharge Conc < TQL
n-Nitrosodi-n-Propylamine	0.07	µg/L	Discharge Conc < TQL
n-Nitrosodiphenylamine	46.3	µg/L	Discharge Conc < TQL
Phenanthrene	3.15	µg/L	Discharge Conc < TQL
Pyrene	63.0	µg/L	Discharge Conc < TQL
1,2,4-Trichlorobenzene	0.22	µg/L	Discharge Conc < TQL