Pennsylvania Department of Environmental Protection

Southcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0026263**
Facility Type	**Municipal**	APS ID	**1063459**
Major / Minor	**Major**	Authorization ID	**1441373**

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Applicant and Facility Information

Applicant Name	**PA American Water Co.**	Facility Name	**PA American Water York City STP**
Applicant Address	1701 Black Bridge Road	Facility Address	1701 Black Bridge Road
	York, PA 17402-1911		York, PA 17402-1911
Applicant Contact	Jennifer Green	Facility Contact	David Boore
Applicant Phone	(610) 233-6553	Facility Phone	(717) 691-2106
Client ID	87712	Site ID	453212
Ch 94 Load Status	Not Overloaded	Municipality	York City
Connection Status		County	York
Date Application Received	December 23, 2021	EPA Waived?	No
Date Application Accepted	January 7, 2022	If No, Reason	Major Facility, Pretreatment, Significant CB Discharge
Purpose of Application	Renewal of existing NPDES permit		

Summary of Review

The City of York has applied to the Pennsylvania Department of Environmental Protection (DEP) for reissuance of a NPDES permit for the City of York STP. The permit was last reissued on August 3, 2017 with an effective date of September 1, 2017. The permit expired on August 31, 2022 but the terms and conditions of the permit have been administratively extended since that time. In the interim period between the submission of the renewal application and the drafting of the permit, the facility was acquired by Pennsylvania American Water. The renewed permit is being issued in the name of PA American Water in fulfillment of the permit transfer request dated May 10, 2022.

Based on the review outlined in this fact sheet, it is recommended that the permit be drafted, and a notice of the draft permit be published in the *Pennsylvania Bulletin* for public comments for 30 days. A file review of documents associated with the discharge or permittee may be available at the PA DEP southcentral regional office (SCRO), 909 Elmerton Avenue, Harrisburg, PA 17110. To make an appointment for file reviews, contact the SCRO file review coordinator at 717.705.4700.

Sludge use and disposal description and location(s): Synagro

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		*Aaron Baar* Aaron Baar / Project Manager	January 10, 2025
x		*Daniel W. Martin* Daniel W. Martin, P.E. / Environmental Engineer Manager	January 22, 2025

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	N/A (SW & emergency)
Latitude	39° 59' 08"	Longitude	-76° 43' 25"
Quad Name	York	Quad Code	1932
Wastewater Description:	Stormwater, Groundwater, and Treated Sewage (emergency)		

Outfall No.	002	Design Flow (MGD)	0
Latitude	39° 59' 17"	Longitude	-76° 43' 27"
Quad Name	York	Quad Code	1932
Wastewater Description:	Treated Sewage		

Receiving Waters	Codorus Creek (WWF)	Stream Code	08032
NHD Com ID	57467785	RMI	9.45 (Outfall 001) 9.43 (Outfall 002)
Drainage Area	256 (Outfall 001) 256 (Outfall 002)	Yield (cfs/mi^2)	0.1336
Q_{7-10} Flow (cfs)	34.2	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	339	Slope (ft/ft)	
Watershed No.	7-H	Chapter 93 Class.	WWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	FLOW REGIME MODIFICATION, FLOW REGIME MODIFICATION, HABITAT ALTERATIONS, SILTATION		
Source(s) of Impairment	CHANNELIZATION, CHANNELIZATION, URBAN RUNOFF/STORM SEWERS, URBAN RUNOFF/STORM SEWERS		
TMDL Status		Name	

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

Nearest Downstream Public Water Supply Intake	Wrightsville Municipal Authority		
PWS Waters	Susquehanna River	Flow at Intake (cfs)	over 3,000
PWS RMI	43.54	Distance from Outfall (mi)	16.83

Discharge Points

The discharge is to Codorus Creek at RMI 9.45 (Outfall 001) and 9.43 (Outfall 002). Outfall 002 is utilized as a main discharge point of the treatment facility. Outfall 001 is primarily designed for stormwater discharges but also has been permitted to be used as a discharge point for any emergency overflow of Train no. 2 effluent during peak flow conditions (see Treatment Facility Summary Section for more detailed information).

Drainage Area

The drainage area from Outfalls 001 and 002 are both 256 sq.mi. according to USGS PA StreamStats available at https://streamstats.usgs.gov/ss/.

Stream Flow

According to StreamStats, the watershed has a Q_{7-10} of 34.2cfs. This information was used to obtain a LFY, a chronic 30-day (Q_{30-10}) and acute (Q_{1-10}) exposure stream flows for the discharge point as follows (Guidance No. 391-2000-023).

Q_{7-10} = 34.2 cfs
Q_{30-10} = 1.36 * 34.2 cfs = 46.51 cfs
Q_{1-10} = 0.64 * 34.2 cfs = 21.88 cfs
LFY = 34.2 cfs/1.36 mi^2 = 0.1336 cfs/mi^2

Codorus Creek

25 Pa Code §93.9 classifies the receiving water, Codorus Creek, with a WWF Existing Use designation. Effluent limits for this discharge have been developed to ensure that existing in-stream water uses and the level of water quality necessary to protect the existing uses are maintained and protected. The discharge is in a stream segment listed as not attaining use; the cause of the impairments have been identified as siltation and pathogens (see *Local Watershed TMDL* below).

Local Watershed Total Maximum Daily Loads (TMDLs)

According to PA's 2024 integrated water quality monitoring and assessment report, Codorus Creek in the vicinity of the proposed point of discharge is impaired for aquatic life due to siltation from habitat alteration and flow regime modification due to channelization, siltation and flow regime modification due to urban runoff/storm sewers, and impaired for recreation due to an unknown source of pathogens. The aquatic life impairment due to channelization is listed as Category 4c, which means the waters are impaired for one or more uses, not needing a TMDL because the impairment is not caused by a pollutant. The aquatic life impairment due to urban runoff is listed as Category 5, which means the waters impaired for one or more uses by a pollutant that requires the development of a TMDL. The recreation impairment is listed as Category 5 in the 2024 integrated report, indicating that the water is impaired for one or more uses by a pollutant that requires the development of a TMDL.

Public Water Supply Intake

The nearest downstream public water supply intake is the Wrightsville Water Company, locate on the Susquehanna River approximately 16 miles from the point of discharge. Considering the nature of the discharge and distance, the discharge is not expected to impact the water supply.

Class A Wild Trout Streams

The receiving stream is not a Class A Wild Trout stream; therefore, no Class A Wild Trout Fishery is impacted by this discharge.

Treatment Facility Summary				
Treatment Facility Name: York City STP				
WQM Permit No.	**Issuance Date**			
6709402 T-1	January 27, 2023			
Waste Type	**Degree of Treatment**	**Process Type**	**Disinfection**	**Avg Annual Flow (MGD)**
Sewage	Tertiary	Activated Sludge Pure Oxygen W/Sol Remov	Chlorine (001) and Ultraviolet (002)	26
Hydraulic Capacity (MGD)	**Organic Capacity (lbs/day)**	**Load Status**	**Biosolids Treatment**	**Biosolids Use/Disposal**
32.5	62,884	Not Overloaded	Anaerobic Digester/Centrifuge	Land Applied

General Description

This facility currently serves the areas of City of York (35%), Manchester Township (10%), North York Borough (2%), Spring Garden Township (13), West Manchester Township (22%), West York Borough (6%), and York Township (12%). All sewers are 100% separated. Springettsbury Township was previously documented to send flows to the City of York STP; it is not clear why this municipality was omitted from the list of contributors.

The current treatment process, according to historical records and previous inspection reports, is as follows:

Bar Screens (2) → Grit Chambers (2) →Primary Clarifiers (8) → Treatment Trains (2) consisting of aeration tanks (40) and final clarifiers (6) → Sand Filters (5) → UV disinfection units (3) → Outfall 002 to Codorus Creek. Micro C 2000 is introduced to the treatment process as a soluble BOD supplement.

Digesters (3), thickeners (2) and centrifuges (2) are currently available for sludge handling process. Dewatered solids are land applied (Permit no. PAG-08-3501, issued on 8/8/2017). Univar 3022A is utilized for sludge thickening. Ferric chloride is also added for phosphorous controls.

Unidentified improvements to the STP are anticipated to be undertaken in the future at the facility pursuant to projects described in the Administrative Order for Compliance on Consent ("AOCC") issued by the U.S. Environmental Protection Agency.

Design Capacity

The original permitted capacity of the facility is 26 MGD. The facility consists of three (3) trains. Train no.1 was a pure-oxygen activated sludge system and is currently inactive since 1990. Train nos. 2 and 3 were anoxic/oxic (A/O) activate sludge system but were upgraded in 2009 to provide further nutrient removal to comply with DEP's Chesapeake Bay Tributary Strategy Implementation Plan. Despite the fact that Train no.1 is not operational, YCSA indicated via a letter dated September 22, 2016 as well as it was been confirmed by DEP during the 2009 BNR upgrade that the hydraulic and organic capacities of Train nos. 2 and 3 alone are sufficient to treat the design capacity of 26 MGD. The Water Quality Management (WQM) permit no. 67094702 issued in 2009 approved annual average flow and hydraulic capacity (for BNR process) of 18 MGD, along with requiring the facility to meet hydraulic and organic loadings at 26 MGD per the WQM permit condition.

In 2009, an upgrade of the facility was proposed with ideally having a two-phase compliance approach to meet Chesapeake Bay Requirements. The phase I project involved with a BNR upgrade of the plant to remove nutrients to the limits for 18 MGD in existing treatment Train nos. 2 and 3 while Train no. 1 remained to be out of service. The phase II project will then be considered based on Chapter 94 5-year flow projections exceeding 18 MGD. This phase II project will likely be involved with implementing any acceptable options such as purchasing nutrient credits or considering construction of additional treatment facilities/treatment technology available in the next 15 to 20 years. The most recent Chapter 94 Municipal Wasteload Management report documented that both actual and

projected flows are less than 15 MGD. Therefore, YCSA has not taken into consideration initiating the phase II project at this time.

All existing NPDES permit requirements, including Chesapeake Bay TMDL Nutrient Cap Loads, were established in the permit based on the original permitted capacity of 26 MGD to ultimately accommodate the loadings in case the facility ever receives flows up to 26 MGD. Accordingly, permit requirements for this permit renewal will also be established based on the "anticipated" discharge flow of 26 MGD.

There are currently two WQM amendments under consideration for the City of York STP – an application to modify the Train 2 screw pumps and an application to add a dechlorination system upstream of Outfall 001.

Outfall 001

Stormwater and potential groundwater drained from the southern part of the property can be collected in the former chlorine contact tank and discharged into Codorus Creek via Outfall 001. Also, Outfall 001 is used as a discharge point for any emergency overflow of Train no. 2 effluent during peak flow conditions. Additional requirements will be discussed later in this fact sheet. Effluent from Train no. 2 is mixed with stormwater prior to discharging into Codorus Creek. Sodium hypochlorite is added, if necessary, for emergency disinfection at Outfall 001. Under the normal operation condition, effluent from Train no. 2 final clarifiers is pumped into sand filters and then UV disinfection for tertiary treatment. However, during a heavy rain event, effluent from Train no. 2 final clarifiers is diverted at a maximum rate of 16 MGD to the stormwater collection system. Considering this circumstance, appropriate permit requirements will be developed and will be discussed later in this fact sheet.

Industrial User Contribution

According to the application, a significant number of industrial/commercial users currently contributing wastewater to the sewer system: A full list can be found in the application.

Stormwater Monitoring

In addition to Outfall 001, the following is a list of outfalls receiving only stormwater drained from the property:

Stormwater Outfalls	Coordinates	Receiving Water(s)
001	39°59'08", -76°43'25"	Codorus Creek
003	39°59'17", -76°43'37"	UNT to Codorus Creek
004	39°59'19", -76°43'38"	UNT to Codorus Creek
005	39°59'20", -76°43'36"	UNT to Codorus Creek
006	39°59'20", -76°43'32"	UNT to Codorus Creek
007	39°59'23", -76°43'32"	UNT to Codorus Creek
008	39°59'06", -76°43'24"	Codorus Creek

The application states that there are no stormwater-related BMPs present at the facility to minimize pollutants in stormwater runoff. No evidence of stormwater sampling was submitted with the application.

Compliance History	
Summary of DMRs:	DMR results for the past year are presented below.
Summary of Inspections:	Since the last renewal of the facility's NPDES permit, the following inspections have been logged: September 11, 2017: An incidence response inspection for electrical issues at the STP was conducted by Sheena Ripple. No violations were noted. May 29, 2019: A routine CEI was conducted by Austen Randecker and Erick Ammon. A violation was issued for failure to maintain permitted treatment units in operable condition. August 14-15, 2019: An incidence inspection was conducted by Austen Randecker following a report of foam in the discharge. Violations were issued for the foam and for failure to notify the Department. July 15, 2020: An administrative inspection was conducted by phone by Austen Randecker. No violations were noted. Inconsistencies were noted between the supplemental forms and the DMRs. July 15, 2020: A routine CEI was conducted by Austen Randecker. Violations were issued for failure to maintain permitted treatment units in operable condition and for violations of Part C permit conditions. February 4, 2021: An incidence response inspection by Heather Dock for an SSO on West Princess Street. A violation was issued for the unauthorized, unpermitted discharge of sewage to waters of the Commonwealth March 29, 2021: An incidence response inspection by Ashley Chong for an overflow anaerobic digester #2 was conducted. A violation was issued for the unauthorized, unpermitted discharge of sewage to waters of the Commonwealth. April 5, 2021: An incidence response inspection by Erick Ammon for gas alarms in the solids handling building was conducted. No violations are noted. April 29, 2021: An incidence response inspection by Erick Ammon for an overflow in the Train 3 clarifier scum pit was conducted. Violation status is listed as pending. May 19, 2021: A routine CEI was conducted by Erick Ammon. No violations or recommendations were noted. April 12, 2022: A routine CEI was conducted by Heather Dock. No violations were noted. There is a note that the outer wall of anaerobic digester #2 had collapsed and not been repaired. Recommendations were made to continue repairing equipment as soon as possible to maintain proper operation of the treatment plant, to determine which flowmeter controls the influent composite sampler, to label digester thermometers to report liquid and Synagro's dewatered sludge on DMRs, as appropriate, when the digesters were drained for service, to develop routine schedule for pump station inspections, to review Part C of NPDES permit and include stormwater-related requirements in Integrated Contingency Plan, -to update the Department's 24-hour Emergency Response phone number, and to complete annual employee spill response training and maintain documentation. September 19, 2024: A routine CEI was conducted by Shawn Lesitsky. No violations or recommendations were noted.

Other Comments: As of January 10, 2025, there are no open violations associated with this facility.

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	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
Total Residual Chlorine*	XXX	XXX	XXX	0.13	XXX	0.44	1/day	Grab
CBOD5 (5/1 to 10/31)	Report	Report	XXX	13	19	26	5/week	24-Hr Composite
CBOD5 (11/1 to 4/30)	Report	Report	XXX	20	30	40	5/week	24-Hr Composite
Total Suspended Solids	Report	Report	XXX	30	45	60	5/week	24-Hr Composite
Fecal Coliform (CFU/100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1,000	5/week	Grab
Fecal Coliform (CFU/100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2,000 Geo Mean	XXX	10,000	5/week	Grab
Ammonia-Nitrogen May 1 - Oct 31	Report	XXX	XXX	1.7	XXX	3.4	5/week	24-Hr Composite
Ammonia-Nitrogen Nov 1 - Apr 30	Report	XXX	XXX	2.1	XXX	4.2	5/week	24-Hr Composite
Total Phosphorus	Report	XXX	XXX	2.0	XXX	4.0	5/week	24-Hr Composite

Outfall 002

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day)		Concentrations (mg/L)				Minimum Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average	Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
Dissolved Oxygen	XXX	XXX	5.0	XXX	XXX	XXX	1/day	Grab
UV Transmittance (%)*	XXX	XXX	Report	XXX	XXX	XXX	1/day	Recorded
CBOD5 (5/1 to 10/31)	2819	4120	XXX	13	19	26	5/week	24-Hr Composite
CBOD5 (11/1 to 4/30)	4337	6505	XXX	20	30	40	5/week	24-Hr Composite
BOD5 Raw Sewage Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	5/week	24-Hr Composite
Total Suspended Solids	6505	9758	XXX	30	45	60	5/week	24-Hr Composite
Total Suspended Solids Raw Sewage Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	5/week	24-Hr Composite
Fecal Coliform (CFU/100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1,000	5/week	Grab
Fecal Coliform (CFU/100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2,000 Geo Mean	XXX	10,000	5/week	Grab
Ammonia-Nitrogen May 1 - Oct 31	369	XXX	XXX	1.7	XXX	3.4	5/week	24-Hr Composite
Ammonia-Nitrogen Nov 1 - Apr 30	455	XXX	XXX	2.1	XXX	4.2	5/week	24-Hr Composite
Total Phosphorus	434	XXX	XXX	2.0	XXX	4.0	5/week	24-Hr Composite

Proposed 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
	Monthly	Annual	Minimum	Monthly Average	Maximum		
Ammonia---N	Report	Report	XXX	Report	XXX	5/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	5/week	24-Hr Composite
Net Total Nitrogen	Report	Report	XXX	XXX	XXX	1/month	Calculation
Net Total Phosphorus	Report	Report	XXX	XXX	XXX	1/month	Calculation

Outfall 002

Parameter	Effluent Limitations					Monitoring Requirements	
	Mass Units (lbs/day)		Concentrations (mg/L)			Minimum Measurement Frequency	Required Sample Type
	Monthly	Annual	Minimum	Monthly Average	Maximum		
Ammonia---N	Report	Report	XXX	Report	XXX	5/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	5/week	24-Hr Composite
Net Total Nitrogen	Report	474,880	XXX	XXX	XXX	1/month	Calculation
Net Total Phosphorus	Report	63,317	XXX	XXX	XXX	1/month	Calculation

Compliance History

DMR Data for Outfall 002 (from December 1, 2023 to November 30, 2024)

Parameter	NOV-24	OCT-24	SEP-24	AUG-24	JUL-24	JUN-24	MAY-24	APR-24	MAR-24	FEB-24	JAN-24	DEC-23
Flow (MGD) Average Monthly	8.070	8.035	8.166	9.958	8.105	8.694	10.399	14.787	12.431	11.403	13.275	10.803
Flow (MGD) Daily Maximum	12.323	10.401	10.558	18.714	9.391	10.949	12.159	38.666	20.309	14.636	24.405	24.780
pH (S.U.) Minimum	7.5	7.6	7.5	7.4	7.5	7.5	7.4	7.2	7.4	7.4	7.4	7.3
pH (S.U.) Instantaneous Maximum	7.8	7.8	7.8	7.9	7.8	7.8	7.7	7.7	7.7	7.7	7.7	7.8
DO (mg/L) Minimum	8.0	8.0	7.6	7.0	7.0	7.1	8.2	6.7	9.0	9.2	9.3	8.9
CBOD5 (lbs/day) Average Monthly	131	141	177	197	270	218	249	825	252	208	258	278
CBOD5 (lbs/day) Weekly Average	139	165	247	256	508	234	336	2577	344	207	368	478
CBOD5 (mg/L) Average Monthly	2.1	2.1	2.6	2.3	4.0	3.0	2.9	4.5	2.3	2.2	2.3	2.7
CBOD5 (mg/L) Weekly Average	2.2	2.6	3.6	2.6	7.4	3.4	3.8	9.8	2.6	2.2	2.6	3.2
BOD5 (lbs/day) Raw Sewage Influent Average Monthly	24674	24874	23758	20690	19157	19892	19861	24478	24419	24693	24099	22341
BOD5 (lbs/day) Raw Sewage Influent Daily Maximum	28766	34933	30665	26061	22422	23513	22998	33403	31910	29912	45477	42147
BOD5 (mg/L) Raw Sewage Influent Average Monthly	309	309	286	233	302	307	252	191	224	228	208	260
TSS (lbs/day) Average Monthly	106	152	148	232	173	243	210	2472	294	157	216	135
TSS (lbs/day) Raw Sewage Influent Average Monthly	17895	18394	18292	16366	14492	17610	15594	19250	19293	18037	18579	14614

TSS (lbs/day) Raw Sewage Influent Daily Maximum	46311	24381	24184	24922	22732	30022	23814	38001	27710	24643	37904	26536
TSS (lbs/day) Weekly Average	130	206	172	328	274	392	334	9611	352	216	356	167
TSS (mg/L) Average Monthly	1.6	2.2	2.2	2.7	2.5	3.4	2.4	10.1	2.8	1.7	1.9	1.5
TSS (mg/L) Raw Sewage Influent Average Monthly	225	229	220	182	230	274	200	146	178	167	169	189
TSS (mg/L) Weekly Average	2.0	2.7	2.4	3.9	4.0	5.6	3.7	34.9	3.0	2.3	2.6	1.7
Fecal Coliform (No./100 ml) Geometric Mean	6	5	6	12	12	5	5	7	5	5	4	8
Fecal Coliform (No./100 ml) Instantaneous Maximum	10	32	26	171	7068	5	5	1628	5	5	21	61
UV Transmittance (%) Minimum	62.1	36.4	40.6	44.5	43.0	52.2	55.3	54.5	56.5	58.4	54.1	54.1
Nitrate-Nitrite (mg/L) Average Monthly	10.7	9.8	6.9	8.3	8.0	7.1	6.2	7.8	7.2	10.8	8.4	8.8
Nitrate-Nitrite (lbs) Total Monthly	23047.2	19613.1	14101.0	20362.7	16486.5	15274.2	16571.4	29491.2	24972.5	29563.9	30675.1	23823.1
Total Nitrogen (mg/L) Average Monthly	12.2	11.5	8.3	10	16.6	8.7	7.8	10.7	8.7	12.2	10.9	10.5
Total Nitrogen (lbs) Effluent Net Total Monthly	26224.6	23015	16951.9	24667.5	34031.7	18825.6	20883.3	44439.2	30743.0	33399.6	38453.7	28596.4
Total Nitrogen (lbs) Total Monthly	26224.6	23015	16951.9	24667.5	34031.7	18825.6	20883.3	44439.2	30743.0	33399.6	38453.7	28596.4
Total Nitrogen (lbs) Effluent Net Total Annual			331154									
Total Nitrogen (lbs) Total Annual			331154									
Ammonia (lbs/day) Average Monthly	29	29	12	69	366	28	48	201	44	17	103	59
Ammonia (mg/L) Average Monthly	0.4	0.4	0.2	0.8	5.4	0.4	0.5	1.1	0.4	0.2	1.2	0.7
Ammonia (lbs) Total Monthly	857	894.7	371.8	2131.4	11345.4	848.8	1499.0	6034.9	1351.3	495.7	3191.1	1818.5

Ammonia (lbs) Total Annual			< 33808									
TKN (mg/L) Average Monthly	1.5	1.7	1.4	1.7	8.6	1.6	1.6	3.0	1.5	1.4	2.5	1.7
TKN (lbs) Total Monthly	3177.4	3401.9	2850.9	4304.8	17545.2	3551.4	4311.9	14948.0	5770.5	3835.8	7778.6	4773.3
Total Phosphorus (lbs/day) Average Monthly	50	104	78	110	85	71	88	219	90	154	64	45
Total Phosphorus (mg/L) Average Monthly	0.7	1.5	1.1	1.3	1.3	1.0	1.0	1.5	0.9	1.6	0.6	0.4
Total Phosphorus (lbs) Effluent Net Total Monthly	1509.0	3228	2328.8	3416.7	2634.8	2119	2736.9	6578.4	2786.3	4468.2	1972.8	1387.5
Total Phosphorus (lbs) Total Monthly	1509.0	3228	2328.8	3416.7	2634.8	2119	2736.9	6578.4	2786.3	4468.2	1972.8	1387.5
Total Phosphorus (lbs) Effluent Net Total Annual			32782									
Total Phosphorus (lbs) Total Annual			32782									

Compliance History

Effluent Violations for Outfall 002, from: January 1, 2024 To: November 30, 2024

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
Fecal Coliform	07/31/24	IMAX	7068	No./100 ml	1000	No./100 ml
Fecal Coliform	07/31/24	IMAX	7068	No./100 ml	1000	No./100 ml
Ammonia	07/31/24	Avg Mo	5.4	mg/L	1.7	mg/L
Ammonia	07/31/24	Avg Mo	5.4	mg/L	1.7	mg/L

Development of Effluent Limitations

Outfall No.	001	**Design Flow (MGD)**	26
Latitude	39º 59' 18.81"	**Longitude**	-76º 43' 24.89"
Wastewater Description:	Emergency Overflow		

Outfall No.	002	**Design Flow (MGD)**	26
Latitude	39º 59' 17.00"	**Longitude**	-76º 43' 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: These standards apply, subject to water quality analysis and BPJ where applicable.

Water Quality-Based Limitations

CBOD5, NH3-N and Dissolved Oxygen (DO)

WQM 7.0 version 1.0b is a water quality model designed to assist DEP to determine appropriate permit requirements for CBOD5, NH3-N and DO. DEP's guidance no. 391-2000-007 provides the technical methods contained in WQM 7.0 for conducting wasteload allocation and for determining recommended NPDES effluent limits for point source discharges. The model was utilized using data derived by USGS StreamStats, the CBOD5 decay rate developed in the 2017 NPDES renewal of this permit (K_c = 0.58). The model output indicated that the existing effluent limits for NH3-N and DO are still protective of water quality; therefore, no changes are recommended for these parameters. The output, however, produced a more stringent average monthly WQBEL of 11 mg/L for CBOD5 to protect water quality standards as opposed to the existing limit of 13 mg/L. A review of the facility's DMRs indicates that the as-built facility is already capable of meeting the proposed higher CBOD5 limit. In general, winter limits are determined using a multiplier of 2 for CBOD5 as recommended by DEP's guidance no. 391-2000-003. However, since the existing winter WQBEL which was previously determined through the use of WQM modeling is more stringent (20 mg/L) than the multiplied limit (11 mg/L x 2 = 22 mg/L), the exiting winter WQBEL for CBOD5 will remain unchanged in the draft permit.

Toxics

A reasonable potential (RP) analysis was done for the priority pollutants using the sampling results provided with the application. The Department's Toxics Management Spreadsheet (Version 1.3) was used to perform the RP analysis for these parameters at a pH of 7.3 and a discharge hardness of 222.67 mg/L. The initial analysis indicated that limits for Total Copper, Total Thallium, Total Zinc, 2,6-Dinitrotoluene, and alpha-Endosulfan are needed to be

protective of water quality (as listed in the table below) and monitoring requirements were recommended for Total Antimony, Total Cadmium, Free Cyanide, and Isophorone.

Outfall No.	Pollutant	Average Monthly	Maximum Daily	IMAX
001 and 002	Total Antimony	Report (µg/L)	Report (µg/L)	Report (µg/L)
001 and 002	Total Cadmium	Report (µg/L)	Report (µg/L)	Report (µg/L)
001 and 002	Total Copper	0.027 mg/L	0.036 mg/L	0.036 mg/L
001 and 002	Free Cyanide	Report (µg/L)	Report (µg/L)	Report (µg/L)
001 and 002	Total Thallium	0.39 µg/L	0.61 µg/L	0.98 µg/L
001 and 002	Total Zinc	0.22 mg/L	0.29 mg/L	0.29 mg/L
001 and 002	2,6-Dinitrotoluene	0.21 µg/L	0.32 µg/L	0.52 µg/L
001 and 002	Isophorone	Report (µg/L)	Report (µg/L)	Report (µg/L)
001 and 002	Alpha-Endosulfan	0.092 µg/L	0.14 µg/L	0.23 µg/L

The sampling interval for the parameters above is proposed as weekly in conformity with DEP's Technical Guidance for the Development and Specification of Effluent Limitations (PA Doc. No. 362-0400-001), Table 6-3 (plant design flow > 25.0 mgd).

All model inputs and outputs are included at the end of this fact Sheet.

E. Coli Monitoring

In conformity with the Department's *Establishing Effluent Limitations for Individual Sewage Permits* (SOP No. BCW-PMT-033) and as authorized by § 92a.61 of the PA Code, monthly E. Coli monitoring has been proposed monthly in this permit. The collection method will be via grab sample.

Best Professional Judgment (BPJ) Limitations

Total Phosphorus & Total Nitrogen

DEP's SOP no. BPNPSM-PMT-033 (Establishing Effluent Limitations for Individual Sewage Permits) recommends monitoring requirements for Total Nitrogen for all sewage facilities. Therefore, routine monitoring for TKN, Nitrate-Nitrite, and TN are recommended to be continued in this permit. Sampling frequency for TKN, Nitrate-Nitrite, and TN, are currently required 2/week, which is consistent with Table 6.3 in Guidance Doc. 362-0400-001. No change is proposed. The proposed monitoring frequency for TP is discussed later in this report.

Historically, an average monthly Total Phosphorus limit of 2.0 mg/L was recommended in NPDES permits, per DEP phosphorus guidance 391-2000-018, to control phosphorus effluent levels for any facilities that are expected to contribute 0.25% or more of the total phosphorus loading of the entire basin. DEP has previously determined that this facility meets the criteria, and as a result, the limit has been continuously imposed in the permit. It is therefore recommended to maintain this limit in the draft permit.

Total Residual Chlorine (TRC)

Chlorine is used to disinfect Outfall 001. Accordingly, effluent levels of Total Residual Chlorine must be regulated. 25 Pa. Code § 92a.47(a)(8) which references §92a.48(b) requires any facilities where the EPA has not promulgated a National ELG for TRC must meet a Best Available Technology (BAT) limit of 0.5 mg/L. DEP's TRC water quality modeling worksheet, TRC_CALC was utilized to determine if this BAT limit is appropriate for YCSA's discharge. The output shows that the average monthly water quality-based limit of 0.13 mg/L and instantaneous maximum of 0.44 mg/L are still protective of water quality.

Ultraviolet Disinfection

The existing UV system upstream of Outfall 002 is equipped with a transmittance sensor; therefore, UV transmittance is proposed to be continued as the monitoring parameter for the UV system.

PFAS-Related Compounds

In conformity with the Department's Standard Operating Procedure for Establishing Effluent Limitations for Individual Sewage Permits (SOP No. BCW-PMT-033, Final November 9, 2012, Revised February 5, 2024, Version 2.0) monitoring for some PFAS compounds are proposed in this permit. Per the SOP and guidance from DEP's Central Office, major sewage facilities that receive wastewater from IWs engaged in metal finishing activities that have submitted their application before February 5, 2024, but have not been drafted yet, requires that quarterly monitoring of PFOA, PFOS, HFPO-DA and PFBS should be imposed. AMZ Corp; Gamlet, Inc.; IWM International, LLC; and Surtech Industriees, Inc., all IW contributors tributary to the City of York STP, are classified as industries engaged in metal finishing, per the application. A footnote is included in the draft permit that states, "The permittee may discontinue monitoring for PFOA, PFOS, HFPO-DA, and PFBS if the results in 4 consecutive monitoring periods indicate non-detect results 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 must enter a No Discharge Indicator (NODI) Code of "GG" on DMRs."

TDS / Sulfate / Chloride / Bromide / 1,4-Dioxane:

Total Dissolved Solids (TDS) and its major constituents including sulfate, chloride, and bromide have emerged as pollutants of concern in several major watersheds in the Commonwealth. The conservative nature of these solids allows them to accumulate in surface waters and they may remain a concern even if the immediate downstream public water supply is not directly impacted. Under the authority of § 92a.61, statewide guidance distributed by the Department's Central Office on January 23, 2014 stated the following:

For point source discharges and upon issuance or reissuance of an individual NPDES permit:

- *Where the concentration of TDS in the discharge exceeds 1,000 mg/L, or the net TDS load from a discharge exceeds 20,000 lbs/day, and the discharge flow exceeds 0.1 MGD, Part A of the permit should include monitor and report for TDS, sulfate, chloride, and bromide. Discharges of 0.1 MGD or less should monitor and report for TDS, sulfate, chloride, and bromide if the concentration of TDS in the discharge exceeds 5,000 mg/L.*

- *Where the concentration of bromide in a discharge exceeds 1 mg/L and the discharge flow exceeds 0.1 MGD, Part A of the permit should include monitor and report for bromide. Discharges of 0.1 MGD or less should monitor and report for bromide if the concentration of bromide in the discharge exceeds 10 mg/L.*

- *Where the concentration of 1,4-dioxane (CAS 123-91-1) in a discharge exceeds 10 µg/L and the discharge flow exceeds 0.1 MGD, Part A of the permit should include monitor and report for 1,4-dioxane. Discharges of 0.1 MGD or less should monitor and report for 1,4-dioxane if the concentration of 1,4-dioxane in the discharge exceeds 100 µg/L.*

The table below compares the above thresholds for monitoring requirements with the concentrations documented in the current application:

Department Monitoring Thresholds and Expected Discharge Concentrations for TDS and Related Parameters

Parameter	Threshold for Discharges >0.1 MGD	Threshold for Discharges ≤0.1 MGD	Max. Concentration in Application
TDS	1,000 mg/L or 20,000 lbs/day	5,000 mg/L	548 mg/L / 56758.8 lbs/day
Sulfate	NA	NA	39.4 mg/L / 4080.83 lbs/day
Chloride	NA	NA	127 mg/L / 13153.96 lbs/day
Bromide	1 mg/L	10 mg/L	<0.2 mg/L
1,4-Dioxane	10 µg/L	100 µg/L	< 0.08 µg/L

Based on the sampling results in the application, no monitoring will be required for the above parameters of concern.

Additional Considerations

Flow Monitoring

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

Chesapeake Bay TMDL

The Department formulated a strategy in April 2007, to comply with the EPA's and Chesapeake Bay Foundation's requirements to reduce point source loadings of Total Nitrogen (TN) and Total Phosphorus (TP) to the Bay. In the Strategy, sewage dischargers have been prioritized by Central Office based on their delivered TN loadings to the Bay. The highest priority (Phases 1, 2, and 3) dischargers received annual loading caps based on their design flow on August 29, 2005 and concentrations of 6 mg/l TN and 0.8 mg/l TP. Phase 4 (0.2 -0.4mgd) and Phase 5 (below 0.2mdg) facilities were required to monitor and report TN and TP during permit renewal at a monitoring frequency following Table 6-3 of DEP's Technical Guidance for Development and Specification of effluent Limitations (No. 362-0400-001).

EPA published the Chesapeake Bay Total Maximum Daily Load (TMDL) in December of 2010. Despite extensive restoration efforts during the past 25 years, the TMDL was prompted by insufficient progress and continued poor water quality in the Chesapeake Bay and its tidal tributaries.

In order to address the TMDL, Pennsylvania developed, in addition to the Bay Strategy, a Chesapeake Watershed Implementation Plan (WIP) Phase 1 in January 2011, Phase 2 in March 2012 and Phase 3 in December 2019. In accordance with the Phase 3 WIP, re-issuing permits for significant dischargers follow the same phased approach formulated in the original Bay strategy, whilst Phase 4 and Phase 5 will be required to monitor and report TN and TP during permit renewal.

The Phase 3 WIP categorizes this facility as a Phase 1 sewage facility with the following cap loads:

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
PA0026263	1	York City	8/3/2017	8/31/2022	10/1/2011	474,880	-	63,317	0.961	0.436

Monitoring Frequency and Sample Type

The testing frequency of pH and Dissolved Oxygen (DO) are proposed to be increased from daily to 1/shift for both Outfall 001 and 002in accordance with Table 6-3 of DEP's Technical Guidance for Development and Specification of effluent Limitations (No. 362-0400-001).

The testing frequency of CBOD5, TSS, and Fecal Coliforms are proposed to be increased from 5x/week to 1/day for both Outfall 001 and 002in accordance with Table 6-3 of DEP's Technical Guidance for Development and Specification of effluent Limitations (No. 362-0400-001).

The testing frequency of Ammonia and Total Phosphorus are proposed to be increased from 5/week to 1/shift for both Outfall 001 and 002in accordance with Table 6-3 of DEP's Technical Guidance for Development and Specification of effluent Limitations (No. 362-0400-001).

Unless discussed otherwise above, the permit's monitoring frequency and sample type for all parameters will remain unchanged from the last permit renewal.

Antidegradation Requirements

All effluent limitations and monitoring requirements 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.

Stormwater

Pursuant to the definition set forth in 40 CFR §122.26(b)(14)(ix), YSCA is required to regulate non-polluting stormwater discharged from its site. Although sampling has never been performed at all existing stormwater outfalls, the draft permit will not require sampling at these stormwater outfalls since most of these outfalls do not discharge stormwater directly to waters of the Commonwealth. However, appropriate DEP's best management practices as well as several control measures should be placed in the permit in accordance with 40 CFR §122.44(k)((2). In general, requirements addressed in the NPDES PAG-03 Stormwater General Permit apply to

individual permits. Accordingly, these requirements as well as DEP's standard stormwater conditions will be included in the draft permit.

Anti-backsliding Requirement

All effluent limits proposed in this fact sheet are as stringent as effluent limits specified in the existing permit renewal unless noted otherwise above. This approach is in accordance with 40 CFR §122.44(l(1).

Annual Fees

An annual fee clause is continued in the permit in accordance with 25 Pa. Code § 92a.62. The facility covered by the permit is classified in the Major Sewage Facility >=5 MGD fee category, which has an annual fee of $5,000.

Mass Loading Limitations

Unless stated otherwise in this fact sheet, mass loading effluent limits are calculated based on the formula: design flow (average annual) (MGD) x concentration limit (mg/L) at design flow x conversion factor (8.34).

Whole Effluent Toxicity (WET)

For Outfall 002, ☐ **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%, 77%, 54%, 27%, and 14%. The Target Instream Waste Concentration (TIWC) to be used for analysis of the results is: 54%.

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
See attached DEP WET Analysis Spreadsheet				

***** *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: PMFa and PMFc from Toxic Management Spreadsheet results.

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).

Pimephales promelas (survival and reproduction). Proposed TUc is 1.9

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	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/shift	Grab
DO	XXX	XXX	5.0 Inst Min	XXX	XXX	XXX	1/shift	Grab
TRC	XXX	XXX	XXX	0.13	XXX	0.44	1/day	Grab
CBOD5 Nov 1 - Apr 30	Report	Report Wkly Avg	XXX	20.0	30.0 Wkly Avg	40	1/day	24-Hr Composite
CBOD5 May 1 - Oct 31	Report	Report Wkly Avg	XXX	11.0	16.0 Wkly Avg	22	1/day	24-Hr Composite
TSS	Report	Report Wkly Avg	XXX	30.0	45.0 Wkly Avg	60	1/day	24-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	1/day	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	1/day	Grab
E. Coli (No./100 ml)	XXX	XXX	XXX	Report	Report	XXX	1/month	Grab
Nitrate-Nitrite	XXX	XXX	XXX	Report	XXX	XXX	2/week	24-Hr Composite
Nitrate-Nitrite (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Total Nitrogen	XXX	XXX	XXX	Report	XXX	XXX	1/month	Calculation

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	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Total Nitrogen (lbs) Effluent Net	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Total Nitrogen (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Ammonia Nov 1 - Apr 30	Report	XXX	XXX	2.1	XXX	4.2	1/shift	24-Hr Composite
Ammonia May 1 - Oct 31	Report	XXX	XXX	1.7	XXX	3.4	1/shift	24-Hr Composite
Ammonia (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
TKN	XXX	XXX	XXX	Report	XXX	XXX	2/week	24-Hr Composite
TKN (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Total Phosphorus	Report	XXX	XXX	2.0	XXX	4	1/shift	24-Hr Composite
Total Phosphorus (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Total Phosphorus (lbs) Effluent Net	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Total Antimony (ug/L)	Report	Report	XXX	Report	Report	XXX	1/week	24-Hr Composite
Total Cadmium (ug/L)	Report	Report	XXX	Report	Report	XXX	1/week	24-Hr Composite
Total Copper	5.82	7.74	XXX	0.027	0.036	0.036	1/week	24-Hr Composite
Free Cyanide (ug/L)	Report	Report	XXX	Report	Report	XXX	1/week	24-Hr Composite
Total Thallium (ug/L)	0.085	0.13	XXX	0.39	0.61	0.98	1/week	24-Hr Composite
Total Zinc	47.9	61.9	XXX	0.22	0.29	0.29	1/week	24-Hr Composite
2,6-Dinitrotoluene (ug/L)	0.045	0.07	XXX	0.21	0.32	0.52	1/week	24-Hr Composite
alpha-Endosulfan (ug/L)	0.02	0.031	XXX	0.092	0.14	0.23	1/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	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Isophorone (ug/L)	Report	Report	XXX	Report	Report	XXX	1/week	24-Hr Composite
PFOA (ng/L)	XXX	XXX	XXX	XXX	XXX	Report	1/quarter	Grab
PFOS (ng/L)	XXX	XXX	XXX	XXX	XXX	Report	1/quarter	Grab
PFBS (ng/L)	XXX	XXX	XXX	XXX	XXX	Report	1/quarter	Grab
HFPO-DA (ng/L)	XXX	XXX	XXX	XXX	XXX	Report	1/quarter	Grab

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 002, 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	Daily Maximum	Instantaneous Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/shift	Grab
DO	XXX	XXX	5.0	XXX	XXX	XXX	1/shift	Grab
CBOD5 Nov 1 - Apr 30	4337	6505 Wkly Avg	XXX	20.0	30.0 Wkly Avg	40	1/day	24-Hr Composite

Outfall 002 , Continued (from Permit Effective Date through Permit Expiration Date)

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2)	Required
	Average Monthly	Daily Maximum	Instantaneous Minimum	Average Monthly	Daily Maximum	Instant. Maximum	Measurement Frequency	Sample Type
CBOD5 May 1 - Oct 31	2385	3469 Wkly Avg	XXX	11.0	16.0 Wkly Avg	22	1/day	24-Hr Composite
BOD5 Raw Sewage Influent	Report	Report	XXX	Report	XXX	XXX	5/week	24-Hr Composite
TSS Raw Sewage Influent	Report	Report	XXX	Report	XXX	XXX	5/week	24-Hr Composite
TSS	6505	9758 Wkly Avg	XXX	30.0	45.0 Wkly Avg	60	1/day	24-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	1/day	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	1/day	Grab
UV Transmittance (%)	XXX	XXX	Report	XXX	XXX	XXX	1/day	Recorded
Nitrate-Nitrite	XXX	XXX	XXX	Report	XXX	XXX	2/week	24-Hr Composite
Nitrate-Nitrite (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Total Nitrogen	XXX	XXX	XXX	Report	XXX	XXX	1/month	Calculation
Total Nitrogen (lbs) Effluent Net	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Total Nitrogen (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Ammonia Nov 1 - Apr 30	455	XXX	XXX	2.1	XXX	4.2	1/shift	24-Hr Composite
Ammonia May 1 - Oct 31	369	XXX	XXX	1.7	XXX	3.4	1/shift	24-Hr Composite
Ammonia (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
TKN	XXX	XXX	XXX	Report	XXX	XXX	2/week	24-Hr Composite
TKN (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Total Phosphorus	434	XXX	XXX	2.0	XXX	4	1/shift	24-Hr Composite

Outfall 002, Continued (from Permit Effective Date through Permit Expiration Date)

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2)	Required
	Average Monthly	Daily Maximum	Instantaneous Minimum	Average Monthly	Daily Maximum	Instant. Maximum	Measurement Frequency	Sample Type
Total Phosphorus (lbs) Effluent Net	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Total Phosphorus (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Total Antimony (ug/L)	Report	Report	XXX	Report	Report	XXX	1/week	24-Hr Composite
Total Cadmium (ug/L)	Report	Report	XXX	Report	Report	XXX	1/week	24-Hr Composite
Total Copper	5.82	7.74	XXX	0.027	0.036	0.036	1/week	24-Hr Composite
Free Cyanide (ug/L)	Report	Report	XXX	Report	Report	XXX	1/week	24-Hr Composite
Total Thallium (ug/L)	0.085	0.13	XXX	0.39	0.61	0.98	1/week	24-Hr Composite
Total Zinc	47.9	61.9	XXX	0.22	0.29	0.29	1/week	24-Hr Composite
2,6-Dinitrotoluene (ug/L)	0.045	0.07	XXX	0.21	0.32	0.52	1/week	24-Hr Composite
alpha-Endosulfan (ug/L)	0.02	0.031	XXX	0.092	0.14	0.23	1/week	24-Hr Composite
Isophorone (ug/L)	Report	Report	XXX	Report	Report	XXX	1/week	24-Hr Composite
PFOA (ng/L)	XXX	XXX	XXX	XXX	XXX	Report	1/quarter	Grab
PFOS (ng/L)	XXX	XXX	XXX	XXX	XXX	Report	1/quarter	Grab
PFBS (ng/L)	XXX	XXX	XXX	XXX	XXX	Report	1/quarter	Grab
HFPO-DA (ng/L)	XXX	XXX	XXX	XXX	XXX	Report	1/quarter	Grab
Chronic WET - Pimephales Survival (TUc)	XXX	XXX	XXX	XXX	1.9	XXX	See Permit	24-Hr Composite
Chronic WET - Pimephales Growth (TUc)	XXX	XXX	XXX	XXX	1.9	XXX	See Permit	24-Hr Composite

Compliance Sampling Location: Outfall 002

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)		Concentrations (mg/L)			Minimum Measurement Frequency	Required Sample Type
	Monthly	Annual	Minimum	Monthly Average	Maximum		
Ammonia---N	Report	Report	XXX	Report	XXX	5/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	5/week	24-Hr Composite
Net Total Nitrogen	Report	Report	XXX	XXX	XXX	1/month	Calculation
Net Total Phosphorus	Report	Report	XXX	XXX	XXX	1/month	Calculation

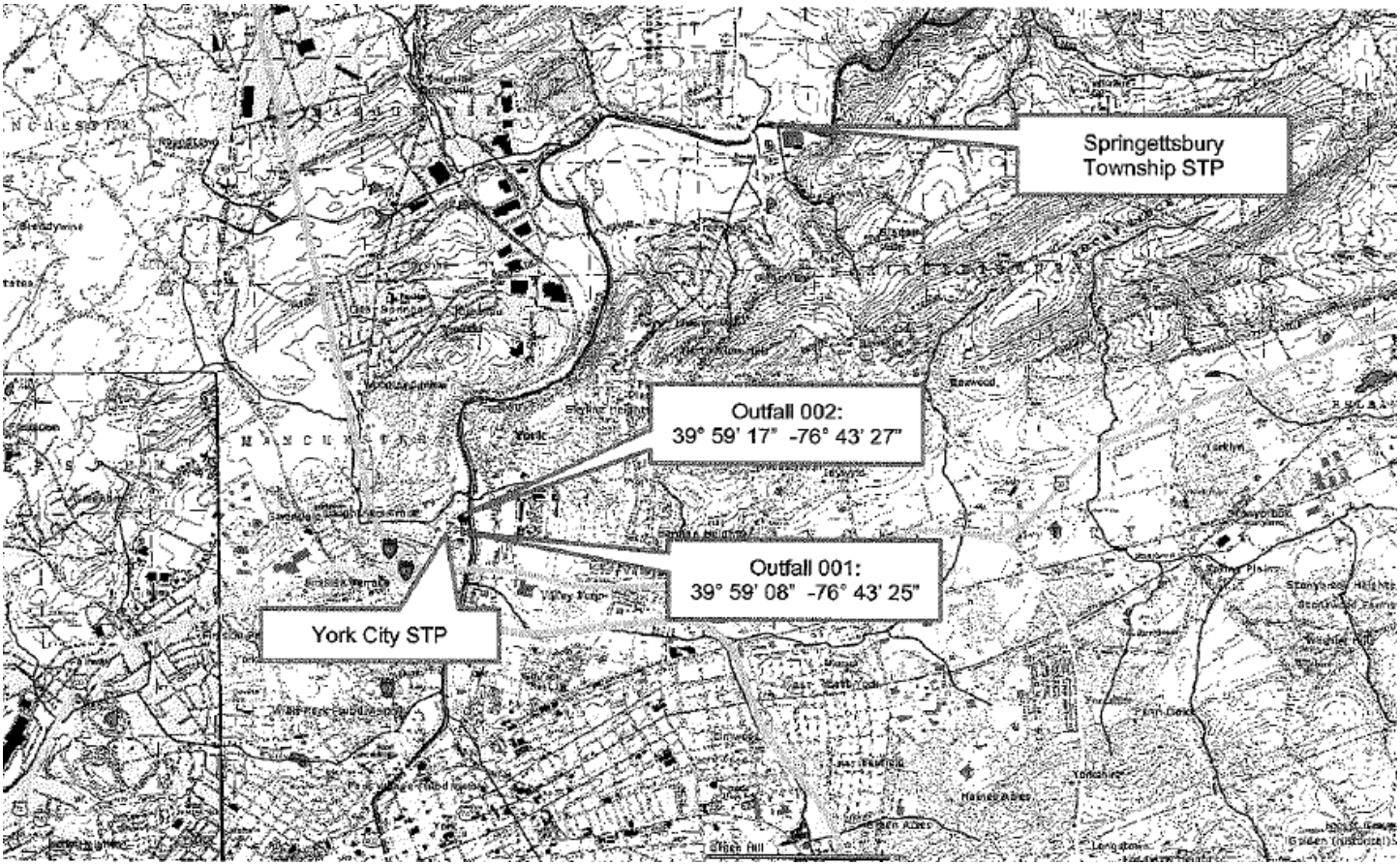
Compliance Sampling Location: Outfall 001

Outfall 002, Effective Period: Permit Effective Date through Permit Expiration Date

Parameter	Effluent Limitations					Monitoring Requirements	
	Mass Units (lbs/day)		Concentrations (mg/L)			Minimum Measurement Frequency	Required Sample Type
	Monthly	Annual	Minimum	Monthly Average	Maximum		
Ammonia---N	Report	Report	XXX	Report	XXX	5/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	5/week	24-Hr Composite
Net Total Nitrogen	Report	474,880	XXX	XXX	XXX	1/month	Calculation
Net Total Phosphorus	Report	63,317	XXX	XXX	XXX	1/month	Calculation

Compliance Sampling Location: Outfall 002

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


Springettsbury Township STP
Outfall 002:
39° 59' 17" -76° 43' 27"
Outfall 001:
39° 59' 08" -76° 43' 25"
York City STP

DEP Whole Effluent Toxicity (WET) Analysis Spreadsheet

Type of Test	Chronic
Species Tested	Ceriodaphnia
Endpoint	Survival
TIWC (decimal)	0.54
No. Per Replicate	1
TST b value	0.75
TST alpha value	0.2

Facility Name: City of York STP

Permit No.: PA0026263

Test Completion Date: 11/9/2017

Replicate No.	Control	TIWC
1	1	1
2	1	1
3	1	0
4	1	1
5	1	1
6	1	1
7	1	1
8	1	1
9	1	1
10	1	0
11		
12		
13		
14		
15		
Mean	1.000	0.800
Std Dev.	0.000	0.422
# Replicates	10	10
T-Test Result		
Deg. of Freedom		
Critical T Value		
Pass or Fail	PASS	

Test Completion Date: 8/27/2018

Replicate No.	Control	TIWC
1	0	1
2	1	1
3	1	1
4	1	1
5	0	1
6	1	1
7	1	1
8	1	1
9	1	1
10	1	1
11		
12		
13		
14		
15		
Mean	0.800	1.000
Std Dev.	0.422	0.000
# Replicates	10	10
T-Test Result		
Deg. of Freedom		
Critical T Value		
Pass or Fail	PASS	

Test Completion Date: 12/13/2018

Replicate No.	Control	TIWC
1	1	1
2	1	1
3	1	1
4	1	1
5	1	1
6	1	1
7	1	1
8	1	1
9	1	1
10	1	1
11		
12		
13		
14		
15		
Mean	1.000	1.000
Std Dev.	0.000	0.000
# Replicates	10	10
T-Test Result		
Deg. of Freedom		
Critical T Value		
Pass or Fail	PASS	

Test Completion Date: 9/19/2019

Replicate No.	Control	TIWC
1	1	1
2	1	1
3	1	1
4	1	1
5	1	1
6	1	1
7	1	1
8	1	1
9	1	1
10	1	1
11		
12		
13		
14		
15		
Mean	1.000	1.000
Std Dev.	0.000	0.000
# Replicates	10	10
T-Test Result		
Deg. of Freedom		
Critical T Value		
Pass or Fail	PASS	

NPDES Permit No. PA0026263
York City STP

DEP Whole Effluent Toxicity (WET) Analysis Spreadsheet

Type of Test	Chronic
Species Tested	Ceriodaphnia
Endpoint	Reproduction
TIWC (decimal)	0.54
No. Per Replicate	1
TST b value	0.75
TST alpha value	0.2

Facility Name
City of York STP

Permit No.
PA0026263

Replicate No.	Test Completion Date 11/9/2017 Control	TIWC
1	23	26
2	24	26
3	17	15
4	33	29
5	25	30
6	27	33
7	20	26
8	26	28
9	26	23
10	27	14
11		
12		
13		
14		
15		
Mean	24.800	25.000
Std Dev.	4.315	6.164
# Replicates	10	10

T-Test Result	2.9068
Deg. of Freedom	15
Critical T Value	0.8662
Pass or Fail	**PASS**

Replicate No.	Test Completion Date 8/27/2018 Control	TIWC
1	13	33
2	28	30
3	28	28
4	27	35
5	2	33
6	36	30
7	28	27
8	28	29
9	30	33
10	19	31
11		
12		
13		
14		
15		
Mean	23.900	30.900
Std Dev.	9.905	2.558
# Replicates	10	10

T-Test Result	5.2225
Deg. of Freedom	15
Critical T Value	0.8662
Pass or Fail	**PASS**

Replicate No.	Test Completion Date 12/13/2018 Control	TIWC
1	40	39
2	35	43
3	35	44
4	39	47
5	41	39
6	38	45
7	43	42
8	40	40
9	34	37
10	34	31
11		
12		
13		
14		
15		
Mean	37.900	40.700
Std Dev.	3.213	4.596
# Replicates	10	10

T-Test Result	7.4802
Deg. of Freedom	15
Critical T Value	0.8662
Pass or Fail	**PASS**

Replicate No.	Test Completion Date 9/19/2019 Control	TIWC
1	24	25
2	25	24
3	28	28
4	29	31
5	31	32
6	22	30
7	28	32
8	34	26
9	32	35
10	29	28
11		
12		
13		
14		
15		
Mean	28.200	29.100
Std Dev.	3.706	3.510
# Replicates	10	10

T-Test Result	5.6149
Deg. of Freedom	16
Critical T Value	0.8647
Pass or Fail	**PASS**

DEP Whole Effluent Toxicity (WET) Analysis Spreadsheet

Type of Test	Chronic
Species Tested	Pimephales
Endpoint	Survival
TIWC (decimal)	0.54
No. Per Replicate	10
TST b value	0.75
TST alpha value	0.25

Facility Name
City of York STP

Permit No.
PA0026263

Test Completion Date 11/9/2017

Replicate No.	Control	TIWC
1	1	1
2	1	0.9
3	1	0.7
4	1	0.7
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
Mean	1.000	0.825
Std Dev.	0.000	0.150
# Replicates	4	4

T-Test Result 3.6223
Deg. of Freedom 3
Critical T Value 0.7649
Pass or Fail **PASS**

Test Completion Date 8/28/2018

Replicate No.	Control	TIWC
1	1	0.1
2	0.9	0.8
3	1	0.7
4	1	0.3
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
Mean	0.975	0.475
Std Dev.	0.050	0.330
# Replicates	4	4

T-Test Result -0.7114
Deg. of Freedom 3
Critical T Value 0.7649
Pass or Fail **FAIL**

Test Completion Date 12/13/2018

Replicate No.	Control	TIWC
1	0.9	1
2	1	0.5
3	1	0.7
4	0.9	1
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
Mean	0.950	0.800
Std Dev.	0.058	0.245
# Replicates	4	4

T-Test Result 2.0858
Deg. of Freedom 3
Critical T Value 0.7649
Pass or Fail **PASS**

Test Completion Date 9/19/2019

Replicate No.	Control	TIWC
1	0.9	0.3
2	1	0.4
3	1	0.3
4	1	0.7
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
Mean	0.975	0.425
Std Dev.	0.050	0.189
# Replicates	4	4

T-Test Result -1.5131
Deg. of Freedom 3
Critical T Value 0.7649
Pass or Fail **FAIL**

NPDES Permit Fact Sheet

NPDES Permit No. PA0026263
York City STP

DEP Whole Effluent Toxicity (WET) Analysis Spreadsheet

Type of Test	Chronic
Species Tested	Pimephales
Endpoint	Growth
TIWC (decimal)	0.54
No. Per Replicate	10
TST b value	0.75
TST alpha value	0.25

Facility Name
City of York STP

Permit No.
PA0026263

Test Completion Date: 11/9/2017

Replicate No.	Control	TIWC
1	0.487	0.586
2	0.485	0.529
3	0.469	0.398
4	0.417	0.375
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
Mean	0.465	0.472
Std Dev.	0.033	0.102
# Replicates	4	4

T-Test Result	2.3599
Deg. of Freedom	4
Critical T Value	0.7407
Pass or Fail	**PASS**

Test Completion Date: 8/28/2018

Replicate No.	Control	TIWC
1	0.265	0.03199
2	0.293	0.226
3	0.283	0.151
4	0.29	0.067
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
Mean	0.283	0.119
Std Dev.	0.013	0.087
# Replicates	4	4

T-Test Result	-2.1251
Deg. of Freedom	3
Critical T Value	0.7649
Pass or Fail	**FAIL**

Test Completion Date: 12/13/2018

Replicate No.	Control	TIWC
1	0.273	0.36
2	0.377	0.233
3	0.3867	0.26
4	0.307	0.385
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
Mean	0.336	0.310
Std Dev.	0.055	0.074
# Replicates	4	4

T-Test Result	1.3550
Deg. of Freedom	5
Critical T Value	0.7267
Pass or Fail	**PASS**

Test Completion Date: 9/19/2019

Replicate No.	Control	TIWC
1	0.378	0.251
2	0.426	0.231
3	0.47	0.175
4	0.421	0.458
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
Mean	0.424	0.279
Std Dev.	0.038	0.124
# Replicates	4	4

T-Test Result	-0.6155
Deg. of Freedom	3
Critical T Value	0.7649
Pass or Fail	**FAIL**

WET Summary and Evaluation

Facility Name	City of York STP
Permit No.	PA0026263
Design Flow (MGD)	26
Q_{7-10} Flow (cfs)	34.2
PMF_a	0.461
PMF_c	1

		Test Results (Pass/Fail)			
		Test Date	Test Date	Test Date	Test Date
Species	**Endpoint**	11/9/17	8/27/18	12/13/18	9/19/19
Ceriodaphnia	Survival	PASS	PASS	PASS	PASS

		Test Results (Pass/Fail)			
		Test Date	Test Date	Test Date	Test Date
Species	**Endpoint**	11/9/17	8/27/18	12/13/18	9/19/19
Ceriodaphnia	Reproduction	PASS	PASS	PASS	PASS

		Test Results (Pass/Fail)			
		Test Date	Test Date	Test Date	Test Date
Species	**Endpoint**	11/9/17	8/28/18	12/13/18	9/19/19
Pimephales	Survival	PASS	**FAIL**	PASS	**FAIL**

		Test Results (Pass/Fail)			
		Test Date	Test Date	Test Date	Test Date
Species	**Endpoint**	11/9/17	8/28/18	12/13/18	9/19/19
Pimephales	Growth	PASS	**FAIL**	PASS	**FAIL**

Reasonable Potential? YES

Permit Recommendations

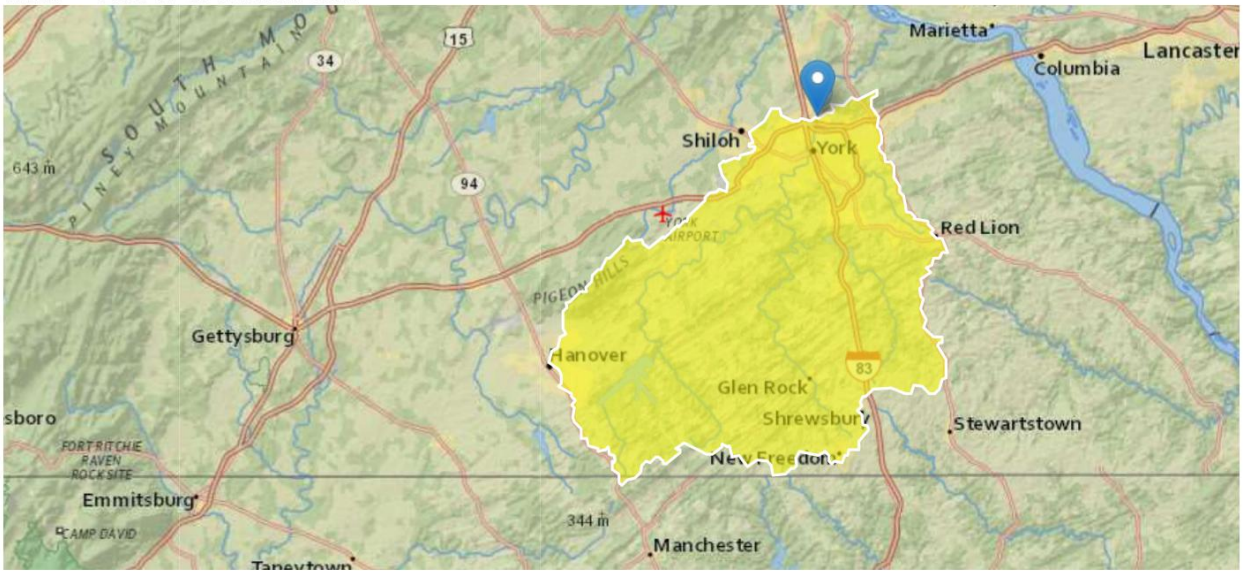
Test Type	**Chronic**
TIWC	**54** % Effluent
Dilution Series	**14, 27, 54, 77, 100** % Effluent
Permit Limit	**1.9** TUc
Permit Limit Species	**Pimephales promelas**

NPDES Permit Fact Sheet

NPDES Permit No. PA0026263
York City STP

StreamStats Report

Region ID: PA
Workspace ID: PA20250103141944094000
Clicked Point (Latitude, Longitude): 39.98863, -76.72341
Time: 2025-01-03 09:20:06 -0500



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Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
BSLOPD	Mean basin slope measured in degrees	5.7489	degrees
DRNAREA	Area that drains to a point on a stream	256	square miles
ROCKDEP	Depth to rock	4.4	feet
URBAN	Percentage of basin with urban development	10.8611	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	5.7489	degrees	1.7	6.4
DRNAREA	Drainage Area	256	square miles	4.78	1150
ROCKDEP	Depth to Rock	4.4	feet	4.13	5.21
URBAN	Percent Urban	10.8611	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)

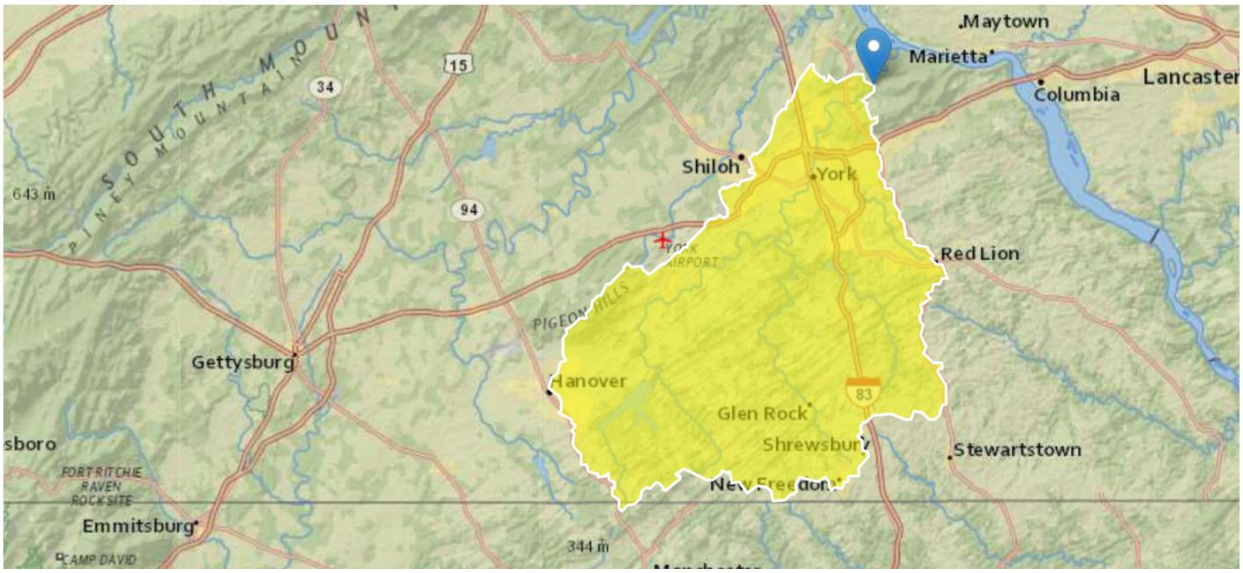
Statistic	Value	Unit	SE	ASEp
7 Day 2 Year Low Flow	60.1	ft^3/s	46	46
30 Day 2 Year Low Flow	75.7	ft^3/s	38	38
7 Day 10 Year Low Flow	34.2	ft^3/s	51	51
30 Day 10 Year Low Flow	42.9	ft^3/s	46	46
90 Day 10 Year Low Flow	59.1	ft^3/s	41	41

NPDES Permit Fact Sheet

NPDES Permit No. PA0026263
York City STP

StreamStats Report

Region ID: PA
Workspace ID: PA20250103144343974000
Clicked Point (Latitude, Longitude): 40.03208, -76.66846
Time: 2025-01-03 09:44:05 -0500



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Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
BSLOPD	Mean basin slope measured in degrees	5.7056	degrees
DRNAREA	Area that drains to a point on a stream	270	square miles
ROCKDEP	Depth to rock	4.4	feet
URBAN	Percentage of basin with urban development	11.1241	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	5.7056	degrees	1.7	6.4
DRNAREA	Drainage Area	270	square miles	4.78	1150
ROCKDEP	Depth to Rock	4.4	feet	4.13	5.21
URBAN	Percent Urban	11.1241	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	63.2	ft^3/s	46	46
30 Day 2 Year Low Flow	79.6	ft^3/s	38	38
7 Day 10 Year Low Flow	36	ft^3/s	51	51
30 Day 10 Year Low Flow	45.1	ft^3/s	46	46
90 Day 10 Year Low Flow	62.3	ft^3/s	41	41

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
07H	8032	CODORUS CREEK	**9.430**	339.00	256.00	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	0.100	0.00	34.20	0.000	0.000	10.0	0.00	0.00	23.30	8.01	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
York STP	PA0026263	26.0000	26.0000	26.0000	0.000	18.00	7.70

Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	15.00	2.00	0.00	0.58
Dissolved Oxygen	5.00	8.24	0.00	0.00
NH3-N	1.70	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
07H	8032	CODORUS CREEK	**4.950**	323.39	269.00	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	0.100	0.00	35.70	0.000	0.000	0.0	0.00	0.00	23.30	8.01	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
Springettsbury	PA0026808	25.0000	25.0000	25.0000	0.000	25.00	8.40

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	2.00	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
07H	8032	CODORUS CREEK	**3.030**	281.36	270.00	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	0.100	0.00	36.00	0.000	0.000	0.0	0.00	0.00	23.30	8.01	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	0.00	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 Wasteload Allocations

SWP Basin	Stream Code	Stream Name
07H	8032	CODORUS 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
9.430	York STP	5.84	3.4	5.84	3.4	0	0
4.950	Springettsbury	1.81	2.88	3.78	2.88	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
9.430	York STP	.92	1.7	.92	1.7	0	0
4.950	Springettsbury	.48	1.09	.73	1.09	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)		
9.43	York STP	11.26	11.26	1.7	1.7	5	5	0	0
4.95	Springettsbury	25	25	1.09	1.09	5	5	0	0

WQM 7.0 D.O.Simulation

SWP Basin	Stream Code	Stream Name
07H	8032	CODORUS CREEK

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
9.430	26.000	20.436	7.816
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
127.184	0.999	127.328	0.586
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
7.00	0.373	0.92	0.724
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
6.490	1.822	Tsivoglou	6
Reach Travel Time (days)			
0.467			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.047	6.88	0.89	6.39
0.093	6.76	0.86	6.31
0.140	6.64	0.83	6.24
0.187	6.52	0.80	6.18
0.234	6.41	0.78	6.14
0.280	6.29	0.75	6.10
0.327	6.18	0.73	6.08
0.374	6.07	0.70	6.06
0.421	5.97	0.68	6.05
0.467	5.86	0.66	6.05

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
4.950	51.000	22.013	7.943
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
133.255	1.001	133.183	0.860
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
12.27	1.123	0.79	0.817
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
5.723	17.435	Tsivoglou	6
Reach Travel Time (days)			
0.137			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.014	12.07	0.78	6.07
0.027	11.86	0.78	6.35
0.041	11.67	0.77	6.58
0.055	11.47	0.76	6.76
0.068	11.28	0.75	6.91
0.082	11.09	0.74	7.03
0.096	10.91	0.73	7.13
0.109	10.73	0.73	7.21
0.123	10.55	0.72	7.28
0.137	10.37	0.71	7.34

WQM 7.0 Hydrodynamic Outputs

SWP Basin	Stream Code	Stream Name
07H	8032	CODORUS 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												
9.430	34.20	0.00	34.20	40.222	0.00066	.999	127.18	127.33	0.59	0.467	20.44	7.82
4.950	35.70	0.00	35.70	78.897	0.00415	1.001	133.26	133.18	0.86	0.137	22.01	7.94
Q1-10 Flow												
9.430	21.89	0.00	21.89	40.222	0.00066	NA	NA	NA	0.53	0.517	19.87	7.79
4.950	22.85	0.00	22.85	78.897	0.00415	NA	NA	NA	0.80	0.146	21.85	7.94
Q30-10 Flow												
9.430	46.51	0.00	46.51	40.222	0.00066	NA	NA	NA	0.64	0.429	20.84	7.84
4.950	48.55	0.00	48.55	78.897	0.00415	NA	NA	NA	0.91	0.129	22.14	7.95

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	6		

WQM 7.0 Effluent Limits

SWP Basin	Stream Code	Stream Name
07H	8032	CODORUS 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)
9.430	York STP	PA0026263	26.000	CBOD5	11.26		
				NH3-N	1.7	3.4	
				Dissolved Oxygen			5

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)
4.950	Springettsbury	PA0026808	25.000	CBOD5	25		
				NH3-N	1.09	2.18	
				Dissolved Oxygen			5

TRC_CALC

1A	B	C	D	E	F	G
2	**TRC EVALUATION**					
3	Input appropriate values in B4:B8 and E4:E7					
4	34.2	= Q stream (cfs)		0.5	= CV Daily	
5	26	= Q discharge (MGD)		0.5	= CV Hourly	
6	30	= no. samples		1	= AFC_Partial Mix Factor	
7	0.3	= Chlorine Demand of Stream		1	= CFC_Partial Mix Factor	
8	0	= Chlorine Demand of Discharge		15	= AFC_Criteria Compliance Time (min)	
9	0.5	= BAT/BPJ Value		720	= CFC_Criteria Compliance Time (min)	
	0	= % Factor of Safety (FOS)			=Decay Coefficient (K)	
10	Source	Reference	AFC Calculations		Reference	CFC Calculations
11	TRC	1.3.2.iii	WLA afc = 0.290		1.3.2.iii	WLA cfc = 0.275
12	PENTOXSD TRG	5.1a	LTAMULT afc = 0.373		5.1c	LTAMULT cfc = 0.581
13	PENTOXSD TRG	5.1b	LTA_afc= 0.108		5.1d	LTA_cfc = 0.160
14						
15	Source		Effluent Limit Calculations			
16	PENTOXSD TRG	5.1f	AML MULT = 1.231			
17	PENTOXSD TRG	5.1g	AVG MON LIMIT (mg/l) = 0.133		AFC	
18			INST MAX LIMIT (mg/l) = 0.435			

WLA afc	(.019/e(-k*AFC_tc)) + [(AFC_Yc*Qs*.019/Qd*e(-k*AFC_tc))...
	...+ Xd + (AFC_Yc*Qs*Xs/Qd)]*(1-FOS/100)
LTAMULT afc	EXP((0.5*LN(cvh^2+1))-2.326*LN(cvh^2+1)^0.5)
LTA_afc	wla_afc*LTAMULT_afc
WLA_cfc	(.011/e(-k*CFC_tc) + [(CFC_Yc*Qs*.011/Qd*e(-k*CFC_tc))...
	...+ Xd + (CFC_Yc*Qs*Xs/Qd)]*(1-FOS/100)
LTAMULT_cfc	EXP((0.5*LN(cvd^2/no_samples+1))-2.326*LN(cvd^2/no_samples+1)^0.5)
LTA_cfc	wla_cfc*LTAMULT_cfc
AML MULT	EXP(2.326*LN((cvd^2/no_samples+1)^0.5)-0.5*LN(cvd^2/no_samples+1))
AVG MON LIMIT	MIN(BAT_BPJ,MIN(LTA_afc,LTA_cfc)*AML_MULT)
INST MAX LIMIT	1.5*((av_mon_limit/AML_MULT)/LTAMULT_afc)

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DEPARTMENT OF ENVIRONMENTAL PROTECTION

Toxics Management Spreadsheet
Version 1.4, May 2023

Discharge Information

Instructions | Discharge | Stream

Facility: **City of York STP** NPDES Permit No.: **PA0026263** Outfall No.: **002**

Evaluation Type: **Major Sewage / Industrial Waste** Wastewater Description: **Residential Sewage and IW**

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
26	222.67	7.3						

					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		550									
	Chloride (PWS)	mg/L		127									
	Bromide	mg/L		0.5									
	Sulfate (PWS)	mg/L		50.6									
	Fluoride (PWS)	mg/L											
Group 2	Total Aluminum	µg/L		11									
	Total Antimony	µg/L		1									
	Total Arsenic	µg/L		0.82									
	Total Barium	µg/L		24									
	Total Beryllium	µg/L		0.13									
	Total Boron	µg/L		160									
	Total Cadmium	µg/L		0.21									
	Total Chromium (III)	µg/L		0.61									
	Hexavalent Chromium	µg/L		0.098									
	Total Cobalt	µg/L	<	0.83									
	Total Copper	mg/L		2.3									
	Free Cyanide	µg/L		1.7									
	Total Cyanide	µg/L		3									
	Dissolved Iron	µg/L		40									
	Total Iron	µg/L		49									
	Total Lead	µg/L		0.52									
	Total Manganese	µg/L		11									
	Total Mercury	µg/L	<	0.2									
	Total Nickel	µg/L		1.9									
	Total Phenols (Phenolics) (PWS)	µg/L	<	2									
	Total Selenium	µg/L		0.8									
	Total Silver	µg/L	<	0.33									
	Total Thallium	µg/L		0.27									
	Total Zinc	mg/L		30									
	Total Molybdenum	µg/L		49									
	Acrolein	µg/L	<	1.3									
	Acrylamide	µg/L	<										
	Acrylonitrile	µg/L	<	2									
	Benzene	µg/L	<	0.12									
	Bromoform	µg/L	<	0.37									

Group 3	Carbon Tetrachloride	µg/L	<	0.23									
	Chlorobenzene	µg/L	<	0.25									
	Chlorodibromomethane	µg/L	<	0.25									
	Chloroethane	µg/L	<	0.47									
	2-Chloroethyl Vinyl Ether	µg/L	<	3.1									
	Chloroform	µg/L		0.23									
	Dichlorobromomethane	µg/L	<	0.18									
	1,1-Dichloroethane	µg/L	<	0.05									
	1,2-Dichloroethane	µg/L	<	0.12									
	1,1-Dichloroethylene	µg/L	<	0.13									
	1,2-Dichloropropane	µg/L	<	0.26									
	1,3-Dichloropropylene	µg/L	<	0.47									
	1,4-Dioxane	µg/L	<	0.09									
	Ethylbenzene	µg/L	<	0.2									
	Methyl Bromide	µg/L		1.3									
	Methyl Chloride	µg/L		1.7									
	Methylene Chloride	µg/L	<	0.14									
	1,1,2,2-Tetrachloroethane	µg/L	<	0.38									
	Tetrachloroethylene	µg/L	<	0.27									
	Toluene	µg/L	<	0.24									
	1,2-trans-Dichloroethylene	µg/L	<	0.8									
	1,1,1-Trichloroethane	µg/L	<	0.12									
	1,1,2-Trichloroethane	µg/L	<	0.13									
	Trichloroethylene	µg/L	<	0.29									
	Vinyl Chloride	µg/L	<	0.33									
Group 4	2-Chlorophenol	µg/L	<	0.1									
	2,4-Dichlorophenol	µg/L	<	0.11									
	2,4-Dimethylphenol	µg/L	<	0.12									
	4,6-Dinitro-o-Cresol	µg/L	<	0.31									
	2,4-Dinitrophenol	µg/L	<	0.71									
	2-Nitrophenol	µg/L	<	0.1									
	4-Nitrophenol	µg/L	<	0.34									
	p-Chloro-m-Cresol	µg/L	<	0.97									
	Pentachlorophenol	µg/L	<	0.44									
	Phenol	µg/L	<	0.06									
	2,4,6-Trichlorophenol	µg/L	<	0.12									
Group 5	Acenaphthene	µg/L	<	0.1									
	Acenaphthylene	µg/L	<	0.1									
	Anthracene	µg/L	<	0.1									
	Benzidine	µg/L	<	0.63									
	Benzo(a)Anthracene	µg/L	<	0.1									
	Benzo(a)Pyrene	µg/L	<	0.09									
	3,4-Benzofluoranthene	µg/L	<	0.1									
	Benzo(ghi)Perylene	µg/L	<	0.1									
	Benzo(k)Fluoranthene	µg/L	<	0.1									
	Bis(2-Chloroethoxy)Methane	µg/L	<	0.11									
	Bis(2-Chloroethyl)Ether	µg/L	<	0.09									
	Bis(2-Chloroisopropyl)Ether	µg/L	<	0.11									
	Bis(2-Ethylhexyl)Phthalate	µg/L	<	0.2									
	4-Bromophenyl Phenyl Ether	µg/L	<	0.11									
	Butyl Benzyl Phthalate	µg/L	<	0.15									
	2-Chloronaphthalene	µg/L	<	0.1									
	4-Chlorophenyl Phenyl Ether	µg/L	<	0.1									
	Chrysene	µg/L	<	0.1									
	Dibenzo(a,h)Anthrancene	µg/L	<	0.11									
	1,2-Dichlorobenzene	µg/L	<	0.37									
	1,3-Dichlorobenzene	µg/L	<	0.43									
	1,4-Dichlorobenzene	µg/L	<	0.43									
	3,3-Dichlorobenzidine	µg/L	<	0.26									
	Diethyl Phthalate	µg/L	<	0.14									
	Dimethyl Phthalate	µg/L	<	0.1									
	Di-n-Butyl Phthalate	µg/L	<	0.14									

	2,4-Dinitrotoluene	µg/L	<	0.11									
	2,6-Dinitrotoluene	µg/L		1.3									
	Di-n-Octyl Phthalate	µg/L	<	0.22									
	1,2-Diphenylhydrazine	µg/L	<	0.09									
	Fluoranthene	µg/L	<	0.11									
	Fluorene	µg/L	<	0.09									
	Hexachlorobenzene	µg/L	<	0.11									
	Hexachlorobutadiene	µg/L	<	0.12									
	Hexachlorocyclopentadiene	µg/L	<	0.18									
	Hexachloroethane	µg/L	<	0.09									
	Indeno(1,2,3-cd)Pyrene	µg/L	<	0.1									
	Isophorone	µg/L		26.2									
	Naphthalene	µg/L	<	0.1									
	Nitrobenzene	µg/L	<	0.13									
	n-Nitrosodimethylamine	µg/L	<	0.27									
	n-Nitrosodi-n-Propylamine	µg/L	<	0.1									
	n-Nitrosodiphenylamine	µg/L	<	0.12									
	Phenanthrene	µg/L	<	0.1									
	Pyrene	µg/L	<	0.1									
	1,2,4-Trichlorobenzene	µg/L	<	0.1									
Group 6	Aldrin	µg/L	<	0.007									
	alpha-BHC	µg/L	<	0.011									
	beta-BHC	µg/L	<	0.012									
	gamma-BHC	µg/L	<	0.012									
	delta BHC	µg/L	<	0.014									
	Chlordane	µg/L	<	0.07									
	4,4-DDT	µg/L	<	0.007									
	4,4-DDE	µg/L	<	0.019									
	4,4-DDD	µg/L	<	0.019									
	Dieldrin	µg/L	<	0.011									
	alpha-Endosulfan	µg/L	<	0.096									
	beta-Endosulfan	µg/L	<	0.011									
	Endosulfan Sulfate	µg/L	<	0.014									
	Endrin	µg/L	<	0.013									
	Endrin Aldehyde	µg/L	<	0.014									
	Heptachlor	µg/L	<	0.011									
	Heptachlor Epoxide	µg/L	<	0.01									
	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	<	0.2									
	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 2023

Stream / Surface Water Information

City of York STP, NPDES Permit No. PA0026263, Outfall 002

Instructions | Discharge | *Stream*

Receiving Surface Water Name: **Codorus Creek**

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	008032	9.43	338.52	256			Yes
End of Reach 1	008032	2.99	281.36	270			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	9.43	0.1										147.5	7		
End of Reach 1	2.99	0.1													

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	9.43														
End of Reach 1	2.99														

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Toxics Management Spreadsheet
Version 1.4, May 2023

Model Results

City of York STP, NPDES Permit No. PA0026263, Outfall 002

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

☐ ***Hydrodynamics***

☑ ***Wasteload Allocations***

☑ ***AFC*** CCT (min): 15 PMF: 0.461 Analysis Hardness (mg/l): 205.61 Analysis pH: 7.21

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	970	
Total Antimony	0	0		0	1,100	1,100	1,423	
Total Arsenic	0	0		0	340	340	440	Chem Translator of 1 applied
Total Barium	0	0		0	21,000	21,000	27,167	
Total Boron	0	0		0	8,100	8,100	10,479	
Total Cadmium	0	0		0	4.056	4.44	5.74	Chem Translator of 0.914 applied
Total Chromium (III)	0	0		0	1028.189	3,254	4,209	Chem Translator of 0.316 applied
Hexavalent Chromium	0	0		0	16	16.3	21.1	Chem Translator of 0.982 applied
Total Cobalt	0	0		0	95	95.0	123	
Total Copper	0	0		0	26.504	27.6	35.7	Chem Translator of 0.96 applied
Free Cyanide	0	0		0	22	22.0	28.5	
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	140.196	204	264	Chem Translator of 0.686 applied
Total Manganese	0	0		0	N/A	N/A	N/A	
Total Mercury	0	0		0	1.400	1.65	2.13	Chem Translator of 0.85 applied
Total Nickel	0	0		0	861.579	863	1,117	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	11.113	13.1	16.9	Chem Translator of 0.85 applied
Total Thallium	0	0		0	65	65.0	84.1	
Total Zinc	0	0		0	215.820	221	285	Chem Translator of 0.978 applied
Acrolein	0	0		0	3	3.0	3.88	
Acrylonitrile	0	0		0	650	650	841	

Benzene	0	0		0	640	640	828	
Bromoform	0	0		0	1,800	1,800	2,329	
Carbon Tetrachloride	0	0		0	2,800	2,800	3,622	
Chlorobenzene	0	0		0	1,200	1,200	1,552	
Chlorodibromomethane	0	0		0	N/A	N/A	N/A	
2-Chloroethyl Vinyl Ether	0	0		0	18,000	18,000	23,286	
Chloroform	0	0		0	1,900	1,900	2,458	
Dichlorobromomethane	0	0		0	N/A	N/A	N/A	
1,2-Dichloroethane	0	0		0	15,000	15,000	19,405	
1,1-Dichloroethylene	0	0		0	7,500	7,500	9,702	
1,2-Dichloropropane	0	0		0	11,000	11,000	14,230	
1,3-Dichloropropylene	0	0		0	310	310	401	
Ethylbenzene	0	0		0	2,900	2,900	3,752	
Methyl Bromide	0	0		0	550	550	712	
Methyl Chloride	0	0		0	28,000	28,000	36,222	
Methylene Chloride	0	0		0	12,000	12,000	15,524	
1,1,2,2-Tetrachloroethane	0	0		0	1,000	1,000	1,294	
Tetrachloroethylene	0	0		0	700	700	906	
Toluene	0	0		0	1,700	1,700	2,199	
1,2-trans-Dichloroethylene	0	0		0	6,800	6,800	8,797	
1,1,1-Trichloroethane	0	0		0	3,000	3,000	3,881	
1,1,2-Trichloroethane	0	0		0	3,400	3,400	4,398	
Trichloroethylene	0	0		0	2,300	2,300	2,975	
Vinyl Chloride	0	0		0	N/A	N/A	N/A	
2-Chlorophenol	0	0		0	560	560	724	
2,4-Dichlorophenol	0	0		0	1,700	1,700	2,199	
2,4-Dimethylphenol	0	0		0	660	660	854	
4,6-Dinitro-o-Cresol	0	0		0	80	80.0	103	
2,4-Dinitrophenol	0	0		0	660	660	854	
2-Nitrophenol	0	0		0	8,000	8,000	10,349	
4-Nitrophenol	0	0		0	2,300	2,300	2,975	
p-Chloro-m-Cresol	0	0		0	160	160	207	
Pentachlorophenol	0	0		0	10.790	10.8	14.0	
Phenol	0	0		0	N/A	N/A	N/A	
2,4,6-Trichlorophenol	0	0		0	460	460	595	
Acenaphthene	0	0		0	83	83.0	107	
Anthracene	0	0		0	N/A	N/A	N/A	
Benzidine	0	0		0	300	300	388	
Benzo(a)Anthracene	0	0		0	0.5	0.5	0.65	
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	38,809	
Bis(2-Chloroisopropyl)Ether	0	0		0	N/A	N/A	N/A	
Bis(2-Ethylhexyl)Phthalate	0	0		0	4,500	4,500	5,821	
4-Bromophenyl Phenyl Ether	0	0		0	270	270	349	
Butyl Benzyl Phthalate	0	0		0	140	140	181	
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	1,061	
1,3-Dichlorobenzene	0	0		0	350	350	453	
1,4-Dichlorobenzene	0	0		0	730	730	944	
3,3-Dichlorobenzidine	0	0		0	N/A	N/A	N/A	
Diethyl Phthalate	0	0		0	4,000	4,000	5,175	
Dimethyl Phthalate	0	0		0	2,500	2,500	3,234	
Di-n-Butyl Phthalate	0	0		0	110	110	142	
2,4-Dinitrotoluene	0	0		0	1,600	1,600	2,070	
2,6-Dinitrotoluene	0	0		0	990	990	1,281	
1,2-Diphenylhydrazine	0	0		0	15	15.0	19.4	
Fluoranthene	0	0		0	200	200	259	
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	12.9	
Hexachlorocyclopentadiene	0	0		0	5	5.0	6.47	
Hexachloroethane	0	0		0	60	60.0	77.6	
Indeno(1,2,3-cd)Pyrene	0	0		0	N/A	N/A	N/A	
Isophorone	0	0		0	10,000	10,000	12,936	
Naphthalene	0	0		0	140	140	181	
Nitrobenzene	0	0		0	4,000	4,000	5,175	
n-Nitrosodimethylamine	0	0		0	17,000	17,000	21,992	
n-Nitrosodi-n-Propylamine	0	0		0	N/A	N/A	N/A	
n-Nitrosodiphenylamine	0	0		0	300	300	388	
Phenanthrene	0	0		0	5	5.0	6.47	
Pyrene	0	0		0	N/A	N/A	N/A	
1,2,4-Trichlorobenzene	0	0		0	130	130	168	
Aldrin	0	0		0	3	3.0	3.88	
alpha-BHC	0	0		0	N/A	N/A	N/A	
beta-BHC	0	0		0	N/A	N/A	N/A	
gamma-BHC	0	0		0	0.95	0.95	1.23	
Chlordane	0	0		0	2.4	2.4	3.1	
4,4-DDT	0	0		0	1.1	1.1	1.42	
4,4-DDE	0	0		0	1.1	1.1	1.42	
4,4-DDD	0	0		0	1.1	1.1	1.42	
Dieldrin	0	0		0	0.24	0.24	0.31	
alpha-Endosulfan	0	0		0	0.22	0.22	0.28	
beta-Endosulfan	0	0		0	0.22	0.22	0.28	
Endosulfan Sulfate	0	0		0	N/A	N/A	N/A	
Endrin	0	0		0	0.086	0.086	0.11	
Endrin Aldehyde	0	0		0	N/A	N/A	N/A	
Heptachlor	0	0		0	0.52	0.52	0.67	
Heptachlor Epoxide	0	0		0	0.5	0.5	0.65	
Toxaphene	0	0		0	0.73	0.73	0.94	

☑ ***CFC*** CCT (min): 70.469 PMF: 1 Analysis Hardness (mg/l): 193.43 Analysis pH: 7.16

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	360	
Total Arsenic	0	0		0	150	150	245	Chem Translator of 1 applied
Total Barium	0	0		0	4,100	4,100	6,710	
Total Boron	0	0		0	1,600	1,600	2,618	
Total Cadmium	0	0		0	0.389	0.44	0.72	Chem Translator of 0.881 applied
Total Chromium (III)	0	0		0	127.226	148	242	Chem Translator of 0.86 applied
Hexavalent Chromium	0	0		0	10	10.4	17.0	Chem Translator of 0.962 applied
Total Cobalt	0	0		0	19	19.0	31.1	
Total Copper	0	0		0	15.738	16.4	26.8	Chem Translator of 0.96 applied
Free Cyanide	0	0		0	5.2	5.2	8.51	
Dissolved Iron	0	0		0	N/A	N/A	N/A	
Total Iron	0	0		0	1,500	1,500	2,455	WQC = 30 day average; PMF = 1
Total Lead	0	0		0	5.120	7.37	12.1	Chem Translator of 0.695 applied
Total Manganese	0	0		0	N/A	N/A	N/A	
Total Mercury	0	0		0	0.770	0.91	1.48	Chem Translator of 0.85 applied
Total Nickel	0	0		0	90.879	91.2	149	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	8.16	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	21.3	
Total Zinc	0	0		0	206.620	210	343	Chem Translator of 0.986 applied
Acrolein	0	0		0	3	3.0	4.91	
Acrylonitrile	0	0		0	130	130	213	
Benzene	0	0		0	130	130	213	
Bromoform	0	0		0	370	370	605	
Carbon Tetrachloride	0	0		0	560	560	916	
Chlorobenzene	0	0		0	240	240	393	
Chlorodibromomethane	0	0		0	N/A	N/A	N/A	
2-Chloroethyl Vinyl Ether	0	0		0	3,500	3,500	5,728	
Chloroform	0	0		0	390	390	638	
Dichlorobromomethane	0	0		0	N/A	N/A	N/A	
1,2-Dichloroethane	0	0		0	3,100	3,100	5,073	
1,1-Dichloroethylene	0	0		0	1,500	1,500	2,455	
1,2-Dichloropropane	0	0		0	2,200	2,200	3,600	
1,3-Dichloropropylene	0	0		0	61	61.0	99.8	
Ethylbenzene	0	0		0	580	580	949	
Methyl Bromide	0	0		0	110	110	180	
Methyl Chloride	0	0		0	5,500	5,500	9,001	
Methylene Chloride	0	0		0	2,400	2,400	3,928	
1,1,2,2-Tetrachloroethane	0	0		0	210	210	344	

Tetrachloroethylene	0	0		0	140	140	229	
Toluene	0	0		0	330	330	540	
1,2-trans-Dichloroethylene	0	0		0	1,400	1,400	2,291	
1,1,1-Trichloroethane	0	0		0	610	610	998	
1,1,2-Trichloroethane	0	0		0	680	680	1,113	
Trichloroethylene	0	0		0	450	450	736	
Vinyl Chloride	0	0		0	N/A	N/A	N/A	
2-Chlorophenol	0	0		0	110	110	180	
2,4-Dichlorophenol	0	0		0	340	340	556	
2,4-Dimethylphenol	0	0		0	130	130	213	
4,6-Dinitro-o-Cresol	0	0		0	16	16.0	26.2	
2,4-Dinitrophenol	0	0		0	130	130	213	
2-Nitrophenol	0	0		0	1,600	1,600	2,618	
4-Nitrophenol	0	0		0	470	470	769	
p-Chloro-m-Cresol	0	0		0	500	500	818	
Pentachlorophenol	0	0		0	8.278	8.28	13.5	
Phenol	0	0		0	N/A	N/A	N/A	
2,4,6-Trichlorophenol	0	0		0	91	91.0	149	
Acenaphthene	0	0		0	17	17.0	27.8	
Anthracene	0	0		0	N/A	N/A	N/A	
Benzidine	0	0		0	59	59.0	96.6	
Benzo(a)Anthracene	0	0		0	0.1	0.1	0.16	
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	9,819	
Bis(2-Chloroisopropyl)Ether	0	0		0	N/A	N/A	N/A	
Bis(2-Ethylhexyl)Phthalate	0	0		0	910	910	1,489	
4-Bromophenyl Phenyl Ether	0	0		0	54	54.0	88.4	
Butyl Benzyl Phthalate	0	0		0	35	35.0	57.3	
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	262	
1,3-Dichlorobenzene	0	0		0	69	69.0	113	
1,4-Dichlorobenzene	0	0		0	150	150	245	
3,3-Dichlorobenzidine	0	0		0	N/A	N/A	N/A	
Diethyl Phthalate	0	0		0	800	800	1,309	
Dimethyl Phthalate	0	0		0	500	500	818	
Di-n-Butyl Phthalate	0	0		0	21	21.0	34.4	
2,4-Dinitrotoluene	0	0		0	320	320	524	
2,6-Dinitrotoluene	0	0		0	200	200	327	
1,2-Diphenylhydrazine	0	0		0	3	3.0	4.91	
Fluoranthene	0	0		0	40	40.0	65.5	
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	3.27	
Hexachlorocyclopentadiene	0	0		0	1	1.0	1.64	
Hexachloroethane	0	0		0	12	12.0	19.6	
Indeno(1,2,3-cd)Pyrene	0	0		0	N/A	N/A	N/A	
Isophorone	0	0		0	2,100	2,100	3,437	
Naphthalene	0	0		0	43	43.0	70.4	
Nitrobenzene	0	0		0	810	810	1,326	
n-Nitrosodimethylamine	0	0		0	3,400	3,400	5,564	
n-Nitrosodi-n-Propylamine	0	0		0	N/A	N/A	N/A	
n-Nitrosodiphenylamine	0	0		0	59	59.0	96.6	
Phenanthrene	0	0		0	1	1.0	1.64	
Pyrene	0	0		0	N/A	N/A	N/A	
1,2,4-Trichlorobenzene	0	0		0	26	26.0	42.5	
Aldrin	0	0		0	0.1	0.1	0.16	
alpha-BHC	0	0		0	N/A	N/A	N/A	
beta-BHC	0	0		0	N/A	N/A	N/A	
gamma-BHC	0	0		0	N/A	N/A	N/A	
Chlordane	0	0		0	0.0043	0.004	0.007	
4,4-DDT	0	0		0	0.001	0.001	0.002	
4,4-DDE	0	0		0	0.001	0.001	0.002	
4,4-DDD	0	0		0	0.001	0.001	0.002	
Dieldrin	0	0		0	0.056	0.056	0.092	
alpha-Endosulfan	0	0		0	0.056	0.056	0.092	
beta-Endosulfan	0	0		0	0.056	0.056	0.092	
Endosulfan Sulfate	0	0		0	N/A	N/A	N/A	
Endrin	0	0		0	0.036	0.036	0.059	
Endrin Aldehyde	0	0		0	N/A	N/A	N/A	
Heptachlor	0	0		0	0.0038	0.004	0.006	
Heptachlor Epoxide	0	0		0	0.0038	0.004	0.006	
Toxaphene	0	0		0	0.0002	0.0002	0.0003	

☑ ***THH*** CCT (min): 70.469 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	9.16	
Total Arsenic	0	0		0	10	10.0	16.4	
Total Barium	0	0		0	2,400	2,400	3,928	
Total Boron	0	0		0	3,100	3,100	5,073	
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	6.55	
Dissolved Iron	0	0		0	300	300	491	
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	1,636	
Total Mercury	0	0		0	0.050	0.05	0.082	
Total Nickel	0	0		0	610	610	998	
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	0.39	
Total Zinc	0	0		0	N/A	N/A	N/A	
Acrolein	0	0		0	3	3.0	4.91	
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	164	
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	9.33	
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	54.0	
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	111	
Methyl Bromide	0	0		0	100	100.0	164	
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	93.3	
1,2-trans-Dichloroethylene	0	0		0	100	100.0	164	
1,1,1-Trichloroethane	0	0		0	10,000	10,000	16,365	
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	49.1	
2,4-Dichlorophenol	0	0		0	10	10.0	16.4	
2,4-Dimethylphenol	0	0		0	100	100.0	164	
4,6-Dinitro-o-Cresol	0	0		0	2	2.0	3.27	
2,4-Dinitrophenol	0	0		0	10	10.0	16.4	
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	6,546	
2,4,6-Trichlorophenol	0	0		0	N/A	N/A	N/A	
Acenaphthene	0	0		0	70	70.0	115	
Anthracene	0	0		0	300	300	491	
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	327	
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	0.16	
2-Chloronaphthalene	0	0		0	800	800	1,309	
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	1,636	
1,3-Dichlorobenzene	0	0		0	7	7.0	11.5	
1,4-Dichlorobenzene	0	0		0	300	300	491	
3,3-Dichlorobenzidine	0	0		0	N/A	N/A	N/A	
Diethyl Phthalate	0	0		0	600	600	982	
Dimethyl Phthalate	0	0		0	2,000	2,000	3,273	
Di-n-Butyl Phthalate	0	0		0	20	20.0	32.7	
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	32.7	
Fluorene	0	0		0	50	50.0	81.8	
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	6.55	
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	55.6	
Naphthalene	0	0		0	N/A	N/A	N/A	
Nitrobenzene	0	0		0	10	10.0	16.4	
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	32.7	
1,2,4-Trichlorobenzene	0	0		0	0.07	0.07	0.11	

Aldrin	0	0		0	N/A	N/A	N/A	
alpha-BHC	0	0		0	N/A	N/A	N/A	
beta-BHC	0	0		0	N/A	N/A	N/A	
gamma-BHC	0	0		0	4.2	4.2	6.87	
Chlordane	0	0		0	N/A	N/A	N/A	
4,4-DDT	0	0		0	N/A	N/A	N/A	
4,4-DDE	0	0		0	N/A	N/A	N/A	
4,4-DDD	0	0		0	N/A	N/A	N/A	
Dieldrin	0	0		0	N/A	N/A	N/A	
alpha-Endosulfan	0	0		0	20	20.0	32.7	
beta-Endosulfan	0	0		0	20	20.0	32.7	
Endosulfan Sulfate	0	0		0	20	20.0	32.7	
Endrin	0	0		0	0.03	0.03	0.049	
Endrin Aldehyde	0	0		0	1	1.0	1.64	
Heptachlor	0	0		0	N/A	N/A	N/A	
Heptachlor Epoxide	0	0		0	N/A	N/A	N/A	
Toxaphene	0	0		0	N/A	N/A	N/A	

☑ ***CRL*** CCT (min): ###### 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	0.25	
Benzene	0	0		0	0.58	0.58	2.4	
Bromoform	0	0		0	7	7.0	29.0	
Carbon Tetrachloride	0	0		0	0.4	0.4	1.66	
Chlorobenzene	0	0		0	N/A	N/A	N/A	
Chlorodibromomethane	0	0		0	0.8	0.8	3.31	
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	3.94	
1,2-Dichloroethane	0	0		0	9.9	9.9	41.0	
1,1-Dichloroethylene	0	0		0	N/A	N/A	N/A	
1,2-Dichloropropane	0	0		0	0.9	0.9	3.73	
1,3-Dichloropropylene	0	0		0	0.27	0.27	1.12	
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	82.9	
1,1,2,2-Tetrachloroethane	0	0		0	0.2	0.2	0.83	
Tetrachloroethylene	0	0		0	10	10.0	41.4	
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	2.28	
Trichloroethylene	0	0		0	0.6	0.6	2.49	
Vinyl Chloride	0	0		0	0.02	0.02	0.083	
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	0.12	
Phenol	0	0		0	N/A	N/A	N/A	
2,4,6-Trichlorophenol	0	0		0	1.5	1.5	6.21	
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	0.0004	
Benzo(a)Anthracene	0	0		0	0.001	0.001	0.004	
Benzo(a)Pyrene	0	0		0	0.0001	0.0001	0.0004	
3,4-Benzofluoranthene	0	0		0	0.001	0.001	0.004	
Benzo(k)Fluoranthene	0	0		0	0.01	0.01	0.041	
Bis(2-Chloroethyl)Ether	0	0		0	0.03	0.03	0.12	

Bis(2-Chloroisopropyl)Ether	0	0		0	N/A	N/A	N/A	
Bis(2-Ethylhexyl)Phthalate	0	0		0	0.32	0.32	1.33	
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	0.5	
Dibenzo(a,h)Anthrancene	0	0		0	0.0001	0.0001	0.0004	
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	0.21	
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	0.21	
2,6-Dinitrotoluene	0	0		0	0.05	0.05	0.21	
1,2-Diphenylhydrazine	0	0		0	0.03	0.03	0.12	
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	0.0003	
Hexachlorobutadiene	0	0		0	0.01	0.01	0.041	
Hexachlorocyclopentadiene	0	0		0	N/A	N/A	N/A	
Hexachloroethane	0	0		0	0.1	0.1	0.41	
Indeno(1,2,3-cd)Pyrene	0	0		0	0.001	0.001	0.004	
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	0.003	
n-Nitrosodi-n-Propylamine	0	0		0	0.005	0.005	0.021	
n-Nitrosodiphenylamine	0	0		0	3.3	3.3	13.7	
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	
Aldrin	0	0		0	0.0000008	8.00E-07	0.000003	
alpha-BHC	0	0		0	0.0004	0.0004	0.002	
beta-BHC	0	0		0	0.008	0.008	0.033	
gamma-BHC	0	0		0	N/A	N/A	N/A	
Chlordane	0	0		0	0.0003	0.0003	0.001	
4,4-DDT	0	0		0	0.00003	0.00003	0.0001	
4,4-DDE	0	0		0	0.00002	0.00002	0.00008	
4,4-DDD	0	0		0	0.0001	0.0001	0.0004	
Dieldrin	0	0		0	0.000001	0.000001	0.000004	
alpha-Endosulfan	0	0		0	N/A	N/A	N/A	
beta-Endosulfan	0	0		0	N/A	N/A	N/A	
Endosulfan Sulfate	0	0		0	N/A	N/A	N/A	
Endrin	0	0		0	N/A	N/A	N/A	

Endrin Aldehyde	0	0		0	N/A	N/A	N/A	
Heptachlor	0	0		0	0.000006	0.000006	0.00002	
Heptachlor Epoxide	0	0		0	0.00003	0.00003	0.0001	
Toxaphene	0	0		0	0.0007	0.0007	0.003	

☑ ***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 Antimony	Report	Report	Report	Report	Report	µg/L	9.16	THH	Discharge Conc > 10% WQBEL (no RP)
Total Cadmium	Report	Report	Report	Report	Report	µg/L	0.72	CFC	Discharge Conc > 10% WQBEL (no RP)
Total Copper	5.82	7.74	0.027	0.036	0.036	mg/L	0.027	CFC	Discharge Conc ≥ 50% WQBEL (RP)
Free Cyanide	Report	Report	Report	Report	Report	µg/L	6.55	THH	Discharge Conc > 25% WQBEL (no RP)
Total Thallium	0.085	0.13	0.39	0.61	0.98	µg/L	0.39	THH	Discharge Conc ≥ 50% WQBEL (RP)
Total Zinc	47.9	61.9	0.22	0.29	0.29	mg/L	0.22	AFC	Discharge Conc ≥ 50% WQBEL (RP)
2,6-Dinitrotoluene	0.045	0.07	0.21	0.32	0.52	µg/L	0.21	CRL	Discharge Conc ≥ 50% WQBEL (RP)
Isophorone	Report	Report	Report	Report	Report	µg/L	55.6	THH	Discharge Conc > 25% WQBEL (no RP)
alpha-Endosulfan	0.02	0.031	0.092	0.14	0.23	µg/L	0.092	CFC	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	750	µg/L	Discharge Conc ≤ 10% WQBEL
Total Arsenic	16.4	µg/L	Discharge Conc ≤ 10% WQBEL
Total Barium	3,928	µg/L	Discharge Conc ≤ 10% WQBEL
Total Beryllium	N/A	N/A	No WQS
Total Boron	2,618	µg/L	Discharge Conc ≤ 10% WQBEL
Total Chromium (III)	242	µg/L	Discharge Conc ≤ 10% WQBEL
Hexavalent Chromium	16.3	µg/L	Discharge Conc ≤ 10% WQBEL
Total Cobalt	31.1	µg/L	Discharge Conc < TQL
Total Cyanide	N/A	N/A	No WQS
Dissolved Iron	491	µg/L	Discharge Conc ≤ 10% WQBEL
Total Iron	2,455	µg/L	Discharge Conc ≤ 10% WQBEL
Total Lead	12.1	µg/L	Discharge Conc ≤ 10% WQBEL
Total Manganese	1,636	µg/L	Discharge Conc ≤ 10% WQBEL

Total Mercury	0.082	µg/L	Discharge Conc < TQL
Total Nickel	149	µg/L	Discharge Conc ≤ 10% WQBEL
Total Phenols (Phenolics) (PWS)		µg/L	Discharge Conc < TQL
Total Selenium	8.16	µg/L	Discharge Conc ≤ 10% WQBEL
Total Silver	13.1	µg/L	Discharge Conc < TQL
Total Molybdenum	N/A	N/A	No WQS
Acrolein	3.0	µg/L	Discharge Conc < TQL
Acrylonitrile	0.25	µg/L	Discharge Conc < TQL
Benzene	2.4	µg/L	Discharge Conc < TQL
Bromoform	29.0	µg/L	Discharge Conc < TQL
Carbon Tetrachloride	1.66	µg/L	Discharge Conc < TQL
Chlorobenzene	164	µg/L	Discharge Conc < TQL
Chlorodibromomethane	3.31	µg/L	Discharge Conc < TQL
Chloroethane	N/A	N/A	No WQS
2-Chloroethyl Vinyl Ether	5,728	µg/L	Discharge Conc < TQL
Chloroform	9.33	µg/L	Discharge Conc ≤ 25% WQBEL
Dichlorobromomethane	3.94	µg/L	Discharge Conc < TQL
1,1-Dichloroethane	N/A	N/A	No WQS
1,2-Dichloroethane	41.0	µg/L	Discharge Conc < TQL
1,1-Dichloroethylene	54.0	µg/L	Discharge Conc < TQL
1,2-Dichloropropane	3.73	µg/L	Discharge Conc < TQL
1,3-Dichloropropylene	1.12	µg/L	Discharge Conc < TQL
1,4-Dioxane	N/A	N/A	No WQS
Ethylbenzene	111	µg/L	Discharge Conc < TQL
Methyl Bromide	164	µg/L	Discharge Conc ≤ 25% WQBEL
Methyl Chloride	9,001	µg/L	Discharge Conc ≤ 25% WQBEL
Methylene Chloride	82.9	µg/L	Discharge Conc < TQL
1,1,2,2-Tetrachloroethane	0.83	µg/L	Discharge Conc < TQL
Tetrachloroethylene	41.4	µg/L	Discharge Conc < TQL
Toluene	93.3	µg/L	Discharge Conc < TQL
1,2-trans-Dichloroethylene	164	µg/L	Discharge Conc ≤ 25% WQBEL
1,1,1-Trichloroethane	998	µg/L	Discharge Conc < TQL
1,1,2-Trichloroethane	2.28	µg/L	Discharge Conc < TQL
Trichloroethylene	2.49	µg/L	Discharge Conc < TQL
Vinyl Chloride	0.083	µg/L	Discharge Conc < TQL
2-Chlorophenol	49.1	µg/L	Discharge Conc < TQL
2,4-Dichlorophenol	16.4	µg/L	Discharge Conc < TQL
2,4-Dimethylphenol	164	µg/L	Discharge Conc < TQL
4,6-Dinitro-o-Cresol	3.27	µg/L	Discharge Conc < TQL
2,4-Dinitrophenol	16.4	µg/L	Discharge Conc < TQL
2-Nitrophenol	2,618	µg/L	Discharge Conc < TQL
4-Nitrophenol	769	µg/L	Discharge Conc < TQL
p-Chloro-m-Cresol	160	µg/L	Discharge Conc < TQL
Pentachlorophenol	0.12	µg/L	Discharge Conc < TQL
Phenol	6,546	µg/L	Discharge Conc < TQL
2,4,6-Trichlorophenol	6.21	µg/L	Discharge Conc < TQL

Acenaphthene	27.8	µg/L	Discharge Conc < TQL
Acenaphthylene	N/A	N/A	No WQS
Anthracene	491	µg/L	Discharge Conc < TQL
Benzidine	0.0004	µg/L	Discharge Conc < TQL
Benzo(a)Anthracene	0.004	µg/L	Discharge Conc < TQL
Benzo(a)Pyrene	0.0004	µg/L	Discharge Conc < TQL
3,4-Benzofluoranthene	0.004	µg/L	Discharge Conc < TQL
Benzo(ghi)Perylene	N/A	N/A	No WQS
Benzo(k)Fluoranthene	0.041	µg/L	Discharge Conc < TQL
Bis(2-Chloroethoxy)Methane	N/A	N/A	No WQS
Bis(2-Chloroethyl)Ether	0.12	µg/L	Discharge Conc < TQL
Bis(2-Chloroisopropyl)Ether	327	µg/L	Discharge Conc < TQL
Bis(2-Ethylhexyl)Phthalate	1.33	µg/L	Discharge Conc < TQL
4-Bromophenyl Phenyl Ether	88.4	µg/L	Discharge Conc < TQL
Butyl Benzyl Phthalate	0.16	µg/L	Discharge Conc < TQL
2-Chloronaphthalene	1,309	µg/L	Discharge Conc < TQL
4-Chlorophenyl Phenyl Ether	N/A	N/A	No WQS
Chrysene	0.5	µg/L	Discharge Conc < TQL
Dibenzo(a,h)Anthrancene	0.0004	µg/L	Discharge Conc < TQL
1,2-Dichlorobenzene	262	µg/L	Discharge Conc < TQL
1,3-Dichlorobenzene	11.5	µg/L	Discharge Conc < TQL
1,4-Dichlorobenzene	245	µg/L	Discharge Conc < TQL
3,3-Dichlorobenzidine	0.21	µg/L	Discharge Conc < TQL
Diethyl Phthalate	982	µg/L	Discharge Conc < TQL
Dimethyl Phthalate	818	µg/L	Discharge Conc < TQL
Di-n-Butyl Phthalate	32.7	µg/L	Discharge Conc < TQL
2,4-Dinitrotoluene	0.21	µg/L	Discharge Conc < TQL
Di-n-Octyl Phthalate	N/A	N/A	No WQS
1,2-Diphenylhydrazine	0.12	µg/L	Discharge Conc < TQL
Fluoranthene	32.7	µg/L	Discharge Conc < TQL
Fluorene	81.8	µg/L	Discharge Conc < TQL
Hexachlorobenzene	0.0003	µg/L	Discharge Conc < TQL
Hexachlorobutadiene	0.041	µg/L	Discharge Conc < TQL
Hexachlorocyclopentadiene	1.64	µg/L	Discharge Conc < TQL
Hexachloroethane	0.41	µg/L	Discharge Conc < TQL
Indeno(1,2,3-cd)Pyrene	0.004	µg/L	Discharge Conc < TQL
Naphthalene	70.4	µg/L	Discharge Conc < TQL
Nitrobenzene	16.4	µg/L	Discharge Conc < TQL
n-Nitrosodimethylamine	0.003	µg/L	Discharge Conc < TQL
n-Nitrosodi-n-Propylamine	0.021	µg/L	Discharge Conc < TQL
n-Nitrosodiphenylamine	13.7	µg/L	Discharge Conc < TQL
Phenanthrene	1.64	µg/L	Discharge Conc < TQL
Pyrene	32.7	µg/L	Discharge Conc < TQL
1,2,4-Trichlorobenzene	0.11	µg/L	Discharge Conc < TQL
Aldrin	0.000003	µg/L	Discharge Conc < TQL
alpha-BHC	0.002	µg/L	Discharge Conc < TQL

beta-BHC	0.033	µg/L	Discharge Conc < TQL
gamma-BHC	0.95	µg/L	Discharge Conc < TQL
delta BHC	N/A	N/A	No WQS
Chlordane	0.001	µg/L	Discharge Conc < TQL
4,4-DDT	0.0001	µg/L	Discharge Conc < TQL
4,4-DDE	0.00008	µg/L	Discharge Conc < TQL
4,4-DDD	0.0004	µg/L	Discharge Conc < TQL
Dieldrin	0.000004	µg/L	Discharge Conc < TQL
beta-Endosulfan	0.092	µg/L	Discharge Conc < TQL
Endosulfan Sulfate	32.7	µg/L	Discharge Conc < TQL
Endrin	0.049	µg/L	Discharge Conc < TQL
Endrin Aldehyde	1.64	µg/L	Discharge Conc < TQL
Heptachlor	0.00002	µg/L	Discharge Conc < TQL
Heptachlor Epoxide	0.0001	µg/L	Discharge Conc < TQL
Toxaphene	0.0003	µg/L	Discharge Conc < TQL