Pennsylvania Department of Environmental Protection

SOUTHCENTRAL REGIONAL OFFICE
CLEAN WATER PROGRAM

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

NPDES PERMIT FACT SHEET ADDENDUM

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
SIC Code	4952	Municipality	Manchester Township
SIC Description	Trans. & Utilities - Sewerage Systems	County	York
Date Published in PA Bulletin	February 8, 2025	EPA Waived?	No
Comment Period End Date	March 10, 2025	If No, Reason	Major Chesapeake Bay Discharger

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

Internal Review and Recommendations

The NPDES draft permit and supporting documents were emailed to the permitee on January 23, 2025. The permit was published in the PA Bulletin on February 8, 2025, for public comment; comments were received from the permitee. No comments were received from the EPA.

On February 24, 2025, DEP received the following comments from Jennifer Green with PA American Water:

1. The cover page incorrectly describes the location of the facility as York, City, York County discharging into an unnamed tributary of Codorus Creek. We request the location to be updated to Manchester Township, York County and that discharging location be updated to Codorus Creek only as both outfalls 001 and 002 discharge directly into the Codorus Creek.

   DEP Response: The requested corrections have been made.

2. The monitoring table includes weekly monitoring for Total Copper and Total Zinc and establishes effluent limitations for each parameter. The fact sheet states that based on the data submitted, the reasonable potential analysis indicated that discharge limits are necessary for Total Copper and Total Zinc. The Toxics Management Spreadsheet included in the fact sheet shows a maximum discharge concentration for Total Copper of 2.3 mg/L and Total Zinc of 30 mg/L. The data submitted with the application was reported in ug/L for both parameters. We request that the Toxic Management Spreadsheet be updated using the correct unit and the reasonable potential analysis be updated for Total Zinc and Total Copper.

Approve	Return	Deny	Signatures	Date
x			*Aaron Baar* Aaron Baar / Project Manager	March 20, 2025
x			*Daniel W. Martin* Daniel W. Martin, P.E. / Environmental Engineer Manager	April 22, 2025

Internal Review and Recommendations

DEP Response: The Department confirms a unit error for Total Copper and Total zinc was entered into the original Toxic Management Spreadsheet, which in turn was used to determine the needs for limits. The model was updated with the correct units, and a monitor and report requirement resulted instead of a numerical limit for both parameters (see attached below).

3. In addition, the acceptable quantitation limit (QL) indicated in the NPDES permit renewal application for Total Copper is 4.0 ug/L. The effluent sampling conducted for the renewal resulted in a maximum concentration of 2.3 ug/L. The rationale and justification for imposing effluent limitations less than the Department's published, QL t is unclear. We respectfully request the monitoring requirements for Total Copper be removed. If the Department elects to retain this effluent limitation, additional information detailing the justification for imposing limits less than the target QL should be included in the fact sheet.

   DEP Response: The stated a maximum concentration of 2.3 ug/L is incorrect – a maximum daily value of 4.1 ug/L was documented in the lab reports supplied in support of the application. Copper will still be adjusted to have a monitor and report requirement instead of a numerical limit as described in the previous comment response.

4. The fact sheet shows a maximum discharge concentration for alpha-Endosulfan of 0.096ug/L. A review of the lab results and application, show that the concentration for alpha-Endosulfan was incorrectly reported in the data tables in the application and the actual maximum concentration was <0.0096ug/L on 10/5/2021. A copy of the original lab results are included in the application. We request that the Toxic Management Spreadsheet be updated using the correct maximum concentration and the reasonable potential analysis be updated.

   DEP Response: The Toxic Management Spreadsheet was updated with the correct value. No further action was recommended for this parameter, so it has been removed completely from the draft permit (see attached below).

5. The fact sheet states that the reasonable potential analysis for Total Thallium and 2,6-Dinotrotolune indicates that effluent limitations are needed for both parameters in order to be protective of water quality. The effluent limitations set for both parameters are less than the minimum target QL's required in the NPDES permit renewal application. The target QL for Total Thallium is 2 ug/L and the maximum concentration observed in the plant effluent testing for the permit application was 0.27 ug/L. The target QL for 2,6-Dinotrotolune is 5 ug/L and the maximum concentration observed in the plant effluent testing for the permit renewal was 1.3 ug/L. We respectfully request the monitoring requirements for Total Thallium and 2,6-Dinotrotolune be removed. If the Department elects to retain this effluent limitation, additional information detailing the justification for imposing limits less than the target QL should be included in the fact sheet.

   DEP Response: In accordance with the Department's Standard Operating Procedure (SOP) for Clean Water Program - New and Reissuance Sewage Individual NPDES Permit Applications (SOP No. BCW-PMT-002), where a WQBEL is less than the Target Quantitation Limit (TQL)1) enter the TQL into WMS, 2) enter the WQBEL on the permit document, 3) enter "< TQL" on the DMRs, and 4) use the Part C condition for WQBELs Below Quantitation Limits (Part C 116). The following TQL values have been entered into WMS:

Param Code ↓	Parameter Name	Load 1	Load 2	Load Unit	Conc. 1	Conc. 2	Conc. 3	IMAX	Conc. Unit	Sampling Frequency	Sampling Type	External Comme
01059	Thallium, Total	0.43 Avg Mo	0.65 Daily Max	lbs/day		2.0 Avg Mo	3.0 Daily Max	4	µg/L	1/week	24-Hr Composite	View/E
34626	2,6-Dinitrotoluene	1.08 Avg Mo	1.62 Daily Max	lbs/day		5.0 Avg Mo	7.5 Daily Max	10	µg/L	1/week	24-Hr Composite	View/E

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Also, in accordance with the SOP, the WQBELS from the previous permit draft will remain in the permit as previous proposed. When the DMRs are drafted with the final permit, these parameters will be noted with a "< TQL" notation. The following language was also added to Part C:

VI. WQBELs BELOW QUANTITATION LIMITS

A. The parameter(s) listed below are subject to water quality-based effluent limits (WQBELs) in Part A of this permit that are necessary to comply with state water quality standards but may be less than quantitation limits (QLs), as defined in 25 Pa. Code § 252.1, that are generally achievable by conventional analytical technology. The permittee shall analyze the parameter(s) using methods that will achieve the QL(s) as listed below. For the purpose of compliance, a statistical value reported on the DMR that is less than the QL(s) (i.e., "non-detect") will be considered to be in compliance.

Parameter Name	Quantitation Limit
Total Thallium	2.0 µg/L
2,6-Dinitrotoluene	5.0 µg/L

B. The permittee shall, where determined to be feasible by the permittee, achieve a QL less than the QL identified above to improve the level of confidence that state water quality standards are being met in the receiving waters.

C. The permittee shall manage non-detect values and report statistical results to DEP in accordance with published DMR guidance (3800-BK-DEP3047). Where a mixed data set exists containing non-detect results and "detected" values (i.e., results greater than or equal to the QL), the QL shall be used for non-detect results to compute average statistical results.

6. The draft permit includes monitoring requirements for Total Antimony. The maximum concentration for Total Antimony in the sampling conducted for the permit renewal is 1 ug/L with a target QL of 2 ug/L. We respectfully request the monitoring requirements for Antimony be removed. If the Department elects to retain this monitoring requirement, additional information detailing the justification for imposing limits less than the target QL should be included in the fact sheet.

   DEP Response: Parameters with test results of non-detect get entered into the model with a value of less than the sensitivity of the test, not zero. The Department has determined that the proposed monitor and report requirement is correct. No change is proposed.

7. Outfall 001 includes monitoring requirements for E. coli however, Outfall 002 does not. We believe that as the primary outfall for discharge, E. coli monitoring was intended for outfall 002 rather than 001. If our understanding is correct, we request the monitoring location for E. coli be updated to Outfall 002.

   DEP Response: The requested correction has been made.

8. Monitoring for Total Phosphorus and Ammonia Nitrogen requires a 24-hour composite 1/ shift. It is unclear how this type of sampling is to occur and we request clarification on the process of collecting a 24-hour composite each shift.

   DEP Response: The original sampling interval was consistent with the Department's Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits (362-0400-001). The Department consulted its Central Office in this matter, and it was determined that the sampling frequency could be changed to 1/day. This change is reflected in the revised draft permit.

9. The monitoring requirements include a minimum frequency for pH and Dissolved Oxygen of 1/shift. We request that "shift" be defined as we may operate three 8-hour shifts or two 12-hour shifts.

   DEP Response: The original sampling interval was consistent with the Department's Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits (362-0400-001). The Department consulted its Central Office in this matter, and it was determined that the sampling frequency could be changed to 1/day. This change is reflected in the revised draft permit.

10. The existing permit requires monitoring frequencies for CBOD5, Total Suspended Solids, Fecal Coliform, Ammonia Nitrogen, Total Phosphorus of at least 5 days/week. In order to capture variability in the wastewater, samples are collected at a minimum of Sunday through Thursday and analyzed in house in our

Internal Review and Recommendations

accredited laboratory. We request the monitoring frequency remain at 5 days/week as the intent to capture varying wastewater composition is already being met with our current laboratory schedule.

DEP Response: The proposed sampling frequency, as proposed, is consistent with other major sewage plants in the region and consistent with the Department's Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits (362-0400-001). No change is proposed.

11. Section II: Other Requirements: The draft permit does not include language from the existing permit regarding TRC effluent limitations: *"When chlorine is used for outfall 002, the permittee shall achieve compliance with the TRC effluent limitations in Part A.1.A of this permit".* We request that the Department clarify how TRC limitations will be implemented when chlorine is used.

    DEP Response: The requested language has been added to the revised draft permit.

12. Section III: Industrial Pretreatment Program: The requirements for the annual report described in B.2 identifies four components which must be included, however the components are labeled 1, 2, 3, and 5. It is unclear if #4 was inadvertently deleted or if the numbering sequence is incorrect. We request clarification on the annual report requirements.

    DEP Response: The numbering error has been corrected.

13. Section V: Whole Effluent Toxicity: The testing frequency identified in B.1, requires quarterly sampling which is an increase in the annual frequency currently required. The York STP performed and passed WET tests in 2019, 2020, 2021, 2022, 2023 and 2024. There is no justification in the fact sheet to support increased monitoring for toxicity therefore, we respectfully request the monitoring frequency be maintained at annual as required in the current permit.

    DEP Response: Initial WETT modelling was based on older WETT results submitted with the application. The applicant provided up-to-date test results, and no limits are now proposed. See the attached Summary Sheet.

The relaxing of multiple limits represents a major amendment of the draft permit. As such, the permit has been redrafted for comments and publication in the PA Bulletin

As of March 20, 2025, there are no Clean Water open violations for this facility.

Issuance of this revised draft permit is recommended.

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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		0.0041									
	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		0.03									
	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	<	0.0096									
	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

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

Location	RMI	LFY (cfs/mi^2)*	Flow (cfs)		W/D Ratio	Width (ft)	Depth (ft)	Velocity (fps)	Travel Time (days)	Tributary		Stream		Analysis	
			Stream	Tributary						Hardness	pH	Hardness*	pH*	Hardness	pH
Point of Discharge	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	Report	Report	Report	Report	Report	mg/L	0.027	CFC	Discharge Conc > 10% WQBEL (no 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	Report	Report	Report	Report	Report	mg/L	0.22	AFC	Discharge Conc > 10% WQBEL (no 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)

☑ ***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

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: 9/27/2021

Replicate No.	Control	TIWC
1	1	1
2	1	1
3	1	1
4	1	
5	1	1
6	1	1
7	1	1
8	1	0
9	1	1
10	1	1
11		
12		
13		
14		
15		
Mean	1.000	0.889
Std Dev.	0.000	0.333
# Replicates	10	9
T-Test Result		
Deg. of Freedom		
Critical T Value		
Pass or Fail	**PASS**	

Test Completion Date: 9/20/2022

Replicate No.	Control	TIWC
1	1	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	0.900	1.000
Std Dev.	0.316	0.000
# Replicates	10	10
T-Test Result		
Deg. of Freedom		
Critical T Value		
Pass or Fail	**PASS**	

Test Completion Date: 11/21/2023

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: 10/29/2024

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**	

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

Test Completion Date: 9/27/2021

Replicate No.	Control	TIWC
1	34	29
2	29	33
3	39	31
4	27	
5	30	33
6	28	35
7	28	31
8	28	28
9	27	33
10	27	31
11		
12		
13		
14		
15		
Mean	29.700	31.556
Std Dev.	3.889	2.186
# Replicates	10	9

T-Test Result	7.8959
Deg. of Freedom	16
Critical T Value	0.8647
Pass or Fail	**PASS**

Test Completion Date: 9/20/2022

Replicate No.	Control	TIWC
1	30	24
2	19	27
3	27	21
4	21	27
5	0	31
6	17	19
7	25	26
8	21	21
9	22	24
10	24	22
11		
12		
13		
14		
15		
Mean	20.600	24.200
Std Dev.	8.181	3.615
# Replicates	10	10

T-Test Result	3.8854
Deg. of Freedom	17
Critical T Value	0.8633
Pass or Fail	**PASS**

Test Completion Date: 11/21/2023

Replicate No.	Control	TIWC
1	22	22
2	26	25
3	25	23
4	20	25
5	28	27
6	26	26
7	24	24
8	19	28
9	20	30
10	21	27
11		
12		
13		
14		
15		
Mean	23.100	25.700
Std Dev.	3.107	2.406
# Replicates	10	10

T-Test Result	7.9065
Deg. of Freedom	17
Critical T Value	0.8633
Pass or Fail	**PASS**

Test Completion Date: 10/29/2024

Replicate No.	Control	TIWC
1	28	23
2	25	15
3	25	28
4	23	20
5	30	20
6	28	28
7	25	25
8	18	22
9	21	25
10	27	27
11		
12		
13		
14		
15		
Mean	25.000	23.300
Std Dev.	3.590	4.165
# Replicates	10	10

T-Test Result	2.9013
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: 9/28/2021

Replicate No.	Control	TIWC
1	0.8	0.3
2	0.8	0.5
3	0.7778	0.7
4	0.9	0.8889
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
Mean	0.819	0.597
Std Dev.	0.055	0.254
# Replicates	4	4

T-Test Result	0.8885
Deg. of Freedom	3
Critical T Value	0.7649
Pass or Fail	**PASS**

Test Completion Date: 9/13/2022

Replicate No.	Control	TIWC
1	0.9	1
2	1	1
3	1	1
4	1	1
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
Mean	0.975	1.000
Std Dev.	0.050	0.000
# Replicates	4	4

T-Test Result	26.1497
Deg. of Freedom	3
Critical T Value	0.7649
Pass or Fail	**PASS**

Test Completion Date: 11/21/2023

Replicate No.	Control	TIWC
1	1	1
2	0.8	1
3	1	1
4	1	0.9
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
Mean	0.950	0.975
Std Dev.	0.100	0.050
# Replicates	4	4

T-Test Result	10.5725
Deg. of Freedom	5
Critical T Value	0.7267
Pass or Fail	**PASS**

Test Completion Date: 10/29/2024

Replicate No.	Control	TIWC
1	1	0.8
2	1	1
3	1	1
4	1	0.9
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
Mean	1.000	0.925
Std Dev.	0.000	0.096
# Replicates	4	4

T-Test Result	8.0674
Deg. of Freedom	3
Critical T Value	0.7649
Pass or Fail	**PASS**

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: 9/28/2021

Replicate No.	Control	TIWC
1	0.274	0.206
2	0.281	0.252
3	0.2889	0.255
4	0.333	0.2989
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
Mean	0.294	0.253
Std Dev.	0.027	0.038
# Replicates	4	4

T-Test Result	1.5075
Deg. of Freedom	5
Critical T Value	0.7267
Pass or Fail	**PASS**

Test Completion Date: 9/20/2022

Replicate No.	Control	TIWC
1	0.344	0.428
2	0.352	0.421
3	0.293	0.356
4	0.311	0.355
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
Mean	0.325	0.390
Std Dev.	0.028	0.040
# Replicates	4	4

T-Test Result	6.4945
Deg. of Freedom	5
Critical T Value	0.7267
Pass or Fail	**PASS**

Test Completion Date: 11/21/2023

Replicate No.	Control	TIWC
1	0.233	0.286
2	0.227	0.245
3	0.275	0.309
4	0.316	0.33
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
Mean	0.263	0.293
Std Dev.	0.041	0.036
# Replicates	4	4

T-Test Result	3.9878
Deg. of Freedom	5
Critical T Value	0.7267
Pass or Fail	**PASS**

Test Completion Date: 10/29/2024

Replicate No.	Control	TIWC
1	0.265	0.153
2	0.233	0.3
3	0.256	0.272
4	0.265	0.287
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
Mean	0.255	0.253
Std Dev.	0.015	0.068
# Replicates	4	4

T-Test Result	1.8062
Deg. of Freedom	3
Critical T Value	0.7649
Pass or Fail	**PASS**

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**	9/27/21	9/20/22	11/21/23	10/29/24
Ceriodaphnia	Survival	PASS	PASS	PASS	PASS

		Test Results (Pass/Fail)			
		Test Date	Test Date	Test Date	Test Date
Species	**Endpoint**	9/27/21	9/20/22	11/21/23	10/29/24
Ceriodaphnia	Reproduction	PASS	PASS	PASS	PASS

		Test Results (Pass/Fail)			
		Test Date	Test Date	Test Date	Test Date
Species	**Endpoint**	9/28/21	9/13/22	11/21/23	10/29/24
Pimephales	Survival	PASS	PASS	PASS	PASS

		Test Results (Pass/Fail)			
		Test Date	Test Date	Test Date	Test Date
Species	**Endpoint**	9/28/21	9/20/22	11/21/23	10/29/24
Pimephales	Growth	PASS	PASS	PASS	PASS

Reasonable Potential? NO

Permit Recommendations

Test Type	**Chronic**
TIWC	**54** % Effluent
Dilution Series	**14, 27, 54, 77, 100** % Effluent
Permit Limit	**None**
Permit Limit Species	