pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

NORTHCENTRAL REGIONAL OFFICE
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0027049**
Facility Type	**Sewage**	APS ID	**1062405**
Major / Minor	**Major**	Authorization ID	**1394705**

NPDES PERMIT FACT SHEET ADDENDUM No. 1

Applicant and Facility Information

Applicant Name	**Williamsport Sanitary Authority**	Facility Name	**WSA West Plant**
Applicant Address	253 W 4th Street	Facility Address	26 Arch Street
	Williamsport, PA 17701-6113		Williamsport, PA 17701-7828
Applicant Contact	Michael Miller	Facility Contact	Brittany Laninger
Applicant Phone	(570) 323-6140	Facility Phone	(570) 323-5894
Client ID	70278	Site ID	261608
SIC Code	4952	Municipality	City of Williamsport
SIC Description	Trans. & Utilities - Sewerage Systems	County	Lycoming
Date Published in PA Bulletin	February 25, 2023	EPA Waived?	No
Comment Period End Date	March 26, 2023	If No, Reason	Major Facility, Significant CB Discharge
Purpose of Application	Application for a renewal of an NPDES permit for discharge of treated sewage.		

Internal Review and Recommendations

Comments dated March 23, 2023 were received from Williamsport Sanitary Authority. The comments and DEP responses are as follows:

1. **Comment:** Sodium Hypochlorite - On page 4 of the Fact Sheet the disinfection type is listed as gas chlorine. The West Plant uses sodium hypochlorite.

   Response: DEP has made the necessary corrections to its internal database.

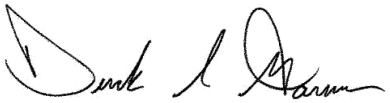
2. **Comment:** River Mile Index - Page 2 of the Fact Sheet and page 2 of the draft permit list the River Mile Index (RMI) as 41.58. The existing permit lists the RMI as 41.3. Please verify the correct RMI.

   Response: DEP will use 41.3 to mirror the most recent renewal.

3. **Comment:** Outfall 002, Page 4 - The Arch Street CSO Outfall is identified as Outfall 003 on page 4 of the draft permit and page 2 of the Fact Sheet. In all prior permits and wet weather related documents this outfall has been referred to as Outfall 002.

   Response: The Arch Street CSO has been corrected to Outfall 002.

4. **Comment:** Osmotic Pressure - Osmotic Pressure is listed as a parameter on page 2 of the draft permit and page 3 of the Fact Sheet to be monitored once a week.

Approve	Return	Deny	Signatures	Date
X			 Derek S. Garner / Project Manager	September 18, 2023
X			 Nicholas W. Hartranft, P.E. / Environmental Engineer Manager	September 22, 2023

Internal Review and Recommendations

The downstream USGS Site Number 1551500 (Market Street W. Branch Susquehanna River) had an average of 2.16 mOs/Kg between 2010 and 2019 which is far below the Water Quality Standard of 50 mOs/Kg.

Osmotic Pressure is not a typical test run on treated wastewater effluent samples. This is evident because there is no method for this parameter listed in 40 CFR Part 136. There is an interim method, however there is no PaDEP target quantitation limit established for osmotic pressure. In addition, there is also no recognized proficiency test for osmotic pressure which ensures accredited laboratories are providing accurate testing results for that parameter. For the past several years, there have only been a few PaDEP accredited laboratories that maintain accreditation for osmotic pressure and they all reference the same procedure. This procedure is an uncontrolled document from the Bureau of Laboratories which contract laboratories routinely modify for their testing purposes. Upon reviewing the draft permit which includes the addition of osmotic pressure with limitations and a monitoring frequency of weekly, the WSA reached out directly to several PaDEP accredited laboratories that analyze this parameter, including the largest laboratory in Pennsylvania, ALS Global laboratory in Middletown, Pennsylvania. The responses received from the laboratories were consistent and concerning to the WSA. All the laboratories contacted indicated that osmotic pressure is a problematic test to run and very few requests are received to run it on wastewater effluent. In fact, most requests for that parameter are from gas drilling companies for brine samples or on acid mine drainage creek samples. The Technical Director of ALS Global, further indicated that their osmotic pressure testing is currently not available due to instrument issues. This particular laboratory is currently subcontracting this parameter to another laboratory which is creating issues with holding time. After speaking with this laboratory, the WSA reached out to the second largest laboratory in the country, Pace Analytical Services, and spoke with their management about osmotic pressure testing. This laboratory indicated that they do not offer osmotic pressure testing and that they have no interest in adding it due to the instrumentation costs and the lack of customer requests.

The WSA reviewed PaDEP's Guidance Document (391-2000-008) titled: Interim Method for the Sampling and Analysis of Osmotic Pressure on Streams, Brines, and Industrial Discharges. This is the method that all Pennsylvania accredited laboratories currently use to analyze wastewater effluent samples because there is no approved method in 40 CFR Part 136. This Guidance Document represents PaDEP's initial development work in the field of osmotic pressure and is intended to be updated and revised as new problems or concerns arise. The purpose of the Guidance Document is to provide guidance to regional investigators, to clarify the use and applicability of osmotic pressure in writing permits and to document the osmotic pressure research performed in the Bureau of Laboratories. This document states that osmotic pressure is directly related to the Total Dissolved Solids content in the sample. Specifically, page 10 of the document says: "The osmotic pressure of a compound in solution depends on its ionization, or degree to which the compound dissolves, since it is the dissolved ions which exert the osmotic pressure."

Based on the positive correlation between osmotic pressure and total dissolved solids that is indicated in the PaDEP's guidance document, the WSA believes that total dissolved solids (TDS) analysis would be an acceptable surrogate for osmotic pressure analysis. Total dissolved solids would be a more reliable and accurate test to perform on treated wastewater effluent samples for compliance monitoring because TDS is approved in 40 CFR Part 136 and has a recognized PaDEP target quantitation limit. Increasing the frequency of total dissolved solids monitoring at the WSA West Plant from monthly to weekly and removing osmotic pressure monitoring would provide the PaDEP with much more reliable and higher quality data. In addition, the WSA laboratory already has the ability to analyze and is accredited for total dissolved solids analysis and routinely passes proficiency test samples for this parameter.

Based on conversations with contract laboratory representatives regarding osmotic pressure testing and learning of their concerns with poor reliability of instrumentation, and downtime, the WSA would certainly face continuous monitoring violations which would be based on laboratory issues and not necessarily water quality issues.

The WSA requests that osmotic pressure be removed from the draft permit and total dissolved solids monitoring be increased to weekly. If osmotic pressure remains on the draft permit, please provide the PaDEP target quantitation limit.

Response: After internal discussion, DEP believes that an effluent limit for osmotic pressure is not warranted for this discharge based on WSA's findings above. DEP agrees that retaining TDS requirements will provide ample characterization of the wastewater in lieu of sampling for osmotic pressure.

5. **Comment:** Copper - The total copper monitoring frequency on page 3 of the draft permit is increased from once per month in the current permit to once per week. A review of the previous permit renewal application package for the

Internal Review and Recommendations

West Plant revealed the daily maximum for copper to be 11 ug/L and the long term average reported in the recent permit renewal package was 9.3 ug/L. Because there is not an apparent increase, and the reported values on the permit renewal application are less than 25% of the WQBEL, the WSA requests that PaDEP use its permitting discretion to reduce the monitoring frequency in the draft permit from one per week to one per month which is consistent with the current permit since it is a monitor only parameter.

Response: The monitoring frequency for total copper now matches existing requirements of 1/month.

6. **Comment:** Free Cyanide - Free cyanide on page 3 of the draft permit has a monitoring frequency of once per week and no limitation. The WSA submitted three results in the permit renewal application all of which were less than 50% of the WQBEL. The WSA requests that PaDEP use its permitting discretion to reduce the monitoring frequency from once per week to once per month since it is a monitor only parameter.

   Response: The monitoring frequency for free cyanide has been changed from 1/week to 1/month to match existing reporting requirements for other pollutants.

7. **Comment:** Mercury - Mercury on Page 3 of the draft permit has a monitoring frequency of once per month and no limitation. The WSA requests that DEP use its permitting discretion to reduce the monitoring frequency from one per month to one per quarter since it is a monitor only parameter and only two of the twenty-three effluent samples submitted with the permit application had detectable results. Additionally, of the two, only one was greater than 10% of the Governing WQBEL.

   Response: DEP believes a monitoring frequency of 1/month is appropriate for mercury. A monthly monitoring frequency will provide DEP with further data points to characterize the wastewater and is in line with other monthly reporting requirements in the permit.

8. **Comment:** Bromoform - In 2016, the WSA received a draft permit which included bromoform. At that time, the WSA commented that "the 0.75 fate coefficient was not used in the PENTOXSD results as indicated in the Fact Sheet. The DEP response was:

   "Fate coefficients for bromoform, dichlorobromomethane, and chloroform were recalculated using the model run resulting from the revised RMIs. As outlined in Fact Sheet Addendum No. 1, the general estimation method recommended by DEP guidance Protocol for Estimating First Order Pollutant Fate Coefficients for Volatile Organic Substances (391-2000-020, 11/22/02) was used. A k_v/k_r ratio of 0.5 was used for bromoform and dichlorobromomethane and 0.57 for chloroform, resulting in fate coefficients of 2.65 and 3.02, respectively."

   The WSA requests that PaDEP rerun PENTOXSD using a fate coefficient of 2.65 for bromoform. This should result in bromoform being a monitor only parameter and the monitoring frequency be maintained as monthly as it is in the current permit.

   Response: Since the most recent renewal of the West Plant's NPDES permit, DEP has discontinued use of PENTOXSD and moved on to the Toxics Management Spreadsheet. As part of its data validation, the spreadsheet can only accept fate coefficients up to a maximum of one. Using the maximum permissible fate coefficient of one results in the following changes to the proposed bromoform limits:

Effluent Limitations					
	Mass Units (lbs/day)		Concentrations (ug/L)		
	Avg Mo	Daily Max	Avg Mo	Daily Max	IMAX
Previous	26	40	794	1222	1985
Proposed	42.8	65.9	1309	2015	3273

9. **Comment:** Bromide - Bromide is listed as a parameter on page 3 of the draft permit, however page 8 of the Fact Sheet indicates that reporting requirements for bromide are no longer required. Further, bromide is not a recommended monitoring requirement on page 16 of the Toxic Management Spreadsheet. The WSA requests that the parameter be removed from page 3 of the draft permit.

   Response: DEP has removed bromide from the permit per the fact sheet's justification.

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10. **Comment:** Thallium - The WSA requests that total thallium be removed from page 3 of the draft permit because the maximum discharge concentration reported on the permit renewal application is less than 10% of the Governing WQBEL as shown on page 17 of the Toxic Management Spreadsheet.

    Response: Total thallium has been removed from the permit per the Toxic Management Spreadsheet's recommendations.

11. **Comment:** Zinc - Total zinc was added to the draft permit on page 3 with a frequency of monthly. The 2016 permit renewal application for the West Plant reported a zinc maximum daily value of 63 ug/L and a long term average of 31 ug/L. The current renewal application reported a maximum daily value of 42 ug/L and a long term average of 28 ug/L, which are less than the value reported for the previous permit renewal application. The WSA requests that the frequency of zinc monitoring on page 3 of the draft permit be reduced from monthly to quarterly since the values reported on the permit renewal application are less than 25% of the WQBEL and it is a monitoring only parameter.

    Response: DEP generally establishes reporting requirements for conservative pollutants, such as total zinc, when the discharge concentration exceeds 10% of the water quality-based effluent limitation. There does not appear to be a justification to deviate from standard operating procedure in this scenario. Additionally, DEP believes a monthly monitoring frequency is appropriate to provide further data points to characterize the wastewater and is in line with other monthly reporting requirements in the permit.

12. **Comment:** N-Nitrosodi-N-Propylamine - Eight sample results for this parameter were included in the permit application. Of those eight, seven were reported as non-detected. Since submission of the permit application, five additional samples have been collected and analyzed. All of these additional samples were reported as non-detected, with results below the DEP required target quantitation limit. Only one of the thirteen samples for this parameter, just under 8% of the total number of samples analyzed and the first sample collected, had a detectible level of the pollutant. The WSA requests that the single detected sample be considered an outlier and not used in the Toxics Management Spreadsheet (TMS) model. If this one sample was excluded, the TMS program would not return a monitoring or limitation recommendation, resulting in removal of this parameter from the draft permit.

    Additionally, if it is not possible to exclude the outlier sample as requested above, the WSA requests that DEP reconsider the instantaneous maximum concentration limitation. The proposed instantaneous maximum concentration limitation in the draft permit is 1.42 µg/L, which is an order of magnitude below the DEP-required target quantitation limit of 5.0 µg/L as listed in DEP's Permit Application Instructions "Target Quantitation Limits (QLs) for Effluent Analysis of Pollutant Groups, 8/2021." While some laboratories report MDLs lower than this target, the MDL varies significantly from laboratory to laboratory and can be affected by method interferences, making it very difficult to consistently and accurately test against the proposed limit. To illustrate, seven of the eight non-detected sample results included in the permit application utilized a test method with an MDL that was 10% of the DEP-required target quantitation limit. Even so, the WSA would have been in violation of the proposed monthly average mass limitation for 100% of the reported results if these sample results would have been utilized for compliance reporting as proposed in the draft permit. Further, seven non-detected sample results included in the permit application and all five sample results after the application was submitted would have yielded violations of the average concentration limitations proposed in the draft permit if these samples would have been utilized for compliance reporting.

    The WSA requests that this parameter be removed from the draft permit. If not removed, the WSA requests that monitoring be reduced to quarterly with no limits imposed.

    Response: To allow WSA to demonstrate compliance with the proposed effluent limits for n-Nitrosodi-n-Propylamine DEP has proposed the following condition Part C of the permit:

    1. 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.

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Parameter Name	Quantitation Limit
N-Nitrosodi-N-Propylamine	5 µg/l

2. 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.

3. 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.

13. **Comment:** WET - Page 31 indicates that 4 is the facility-specific Target In-Stream Waste Concentration (TIWC). Prior permits have indicated that the TIWC is 4 percent. Please clarify that the TIWC value is 4 percent.

    Response: The TIWC is 4%.

14. **Comment:** BMP Inspections - Part VII.D, Routine Inspections, requires semi-annual inspections of areas contributing to a stormwater discharge associated with industrial activity. The WSA requests that these inspections be reduced to annual to be consistent with the MS4 permit requirements for BMP inspections.

    Response: To ensure the permit is at least as stringent as a general stormwater permit, DEP believes a semi-annual inspection requirement is appropriate.

15. **Comment:** Stormwater Drainage Area - Part VII.A. of the draft permit lists the stormwater drainage area as 6,449 square feet. The current permit lists the drainage area correctly as 4.5 acres which would be 196,020 square feet. The WSA requests that the correct drainage area be used in the draft permit.

    Response: DEP has corrected the drainage area to 196,020 sq. ft.

16. **Comment:** UPCM Plan - The WSA understands that the LTCP Implementation Schedule in Part III.C.3 requires a UPCM Plan that addresses E. coli monitoring to be submitted no later than May 1, 2025.

    Response: WSA's understanding is correct.

Comments from EPA were received via email dated March 20, 2023. The comments and DEP responses are as follows:

1. **Comment:** EPA does not have any comments regarding the Chesapeake Bay TMDL, WET, or Pretreatment.

2. **Comment:** We would like to note that EPA's review of the CSO portion of this permit reflects the recent understanding between the EPA Region III Water Director and PADEP Deputy Secretary for Water Programs regarding how to proceed with reissuance of permits with CSOs and LTCPs consistent with Section 402(q) of the CWA and EPA's 1994 CSO Policy. As you know, consistent with that understanding, PADEP has committed to making changes to its CSO program as noted in the its June 9, 2020 letter to EPA and its April 15, 2020 memo (see attached). PADEP's memo documents its commitment to initiate the regulatory revisions process for modifying its compliance schedule regulations at 25 Pa. Code § 92a.51(a), so that schedules for LTCP implementation can be placed in an NPDES permit. PADEP will draft CSO permits using the template language agreed upon by PADEP and EPA. EPA notes that once PADEP's compliance schedule regulations are revised and final, the template language will need to be modified to incorporate a CSO compliance schedule that meets the requirements of 40 CFR 122.47 and includes the final compliance date for LTCP implementation. EPA's Phase 2 e-Reporting rule requires electronic reporting of Sewer Overflow/Bypass Events, and PADEP will need to make modifications to this template that will be necessary to address the requirements of the e-Reporting rule that is effective at the time that the permit is issued.

   In addition, consistent with the understanding between EPA and PADEP, since PADEP's proposed seasonal E. coli water quality standard became effective in March 2021, PADEP will begin to incorporate E. coli monitoring in subsequently reissued NPDES permits and ensure it is included in CSO post-construction compliance monitoring (PCCM) plans to verify compliance with water quality standards and designated uses. Consistent with the CSO

Internal Review and Recommendations

Policy, EPA notes that there will also need to be a requirement added to implement a PCCM plan with an established schedule in NPDES permits once a facility begins to implement its approved plan.

EPA offers the following CSO comments based on the draft permit, LTCP and supporting documents:

A. Regarding the Permit: The permit describes the design conditions as being "developed using National Oceanic and Atmospheric Administration (NOAA)'s Climatography of the United States No. 81, Monthly Station Normals of Temperature, Precipitation and Heating and Cooling Degree Days data as outlined in the LTCP", Part C.III.C.2. Although the permit does include the statement referenced above, it is hard to determine the average conditions (such as the typical year rainfall) upon which the CSO controls were based. We would recommend the permit more clearly define what the design conditions actually are in the LTCP.

Response: DEP believes the existing language at Part C.III.C.2 is appropriate since is it taken directly from the approved LTCP.

An internal review of the draft permit did not yield any comments.

Based on the above responses, it is recommended that the permit is redrafted and published in the PA Bulletin for an additional thirty day commenting period.

Discharge Information

Instructions | Discharge | Stream

Facility: **Williamsport Sanitary Authority West Plant** NPDES Permit No.: **PA0027049** Outfall No.: **001**

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

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
3.92	136	7						

					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		3105.01721			0.2787						
	Chloride (PWS)	mg/L		1790.75231			0.3386						
	Bromide	mg/L		33.7779967			0.6764						
	Sulfate (PWS)	mg/L		204.814996			0.2683						
	Fluoride (PWS)	µg/L		320									
Group 2	Total Aluminum	µg/L		28									
	Total Antimony	µg/L		1.7									
	Total Arsenic	µg/L		2.5									
	Total Barium	µg/L		56									
	Total Beryllium	µg/L	<	0.1									
	Total Boron	µg/L		170									
	Total Cadmium	µg/L	<	0.16									
	Total Chromium (III)	µg/L		1.1									
	Hexavalent Chromium	µg/L		0.065									
	Total Cobalt	µg/L	<	0.83									
	Total Copper	µg/L		13.2289			0.4506						
	Free Cyanide	µg/L		27									
	Total Cyanide	µg/L		30									
	Dissolved Iron	µg/L		100									
	Total Iron	µg/L		140									
	Total Lead	µg/L		1.6									
	Total Manganese	µg/L		68									
	Total Mercury	µg/L		0.23									
	Total Nickel	µg/L		5.2									
	Total Phenols (Phenolics) (PWS)	µg/L		4									
	Total Selenium	µg/L		3.4									
	Total Silver	µg/L	<	0.33									
	Total Thallium	µg/L		0.49									
	Total Zinc	µg/L		42									
	Total Molybdenum	µg/L		12									
	Acrolein	µg/L	<	1.3									
	Acrylamide	µg/L	<										
	Acrylonitrile	µg/L	<	2									
	Benzene	µg/L	<	0.6									
	Bromoform	µg/L	<	1112.6641			3.111			1			

Group 3	Carbon Tetrachloride	µg/L	<	1.2									
	Chlorobenzene	µg/L		1.3									
	Chlorodibromomethane	µg/L		20.5976			0.8758						
	Chloroethane	µg/L	<	2.4									
	2-Chloroethyl Vinyl Ether	µg/L	<	15.7									
	Chloroform	µg/L	<	1.3									
	Dichlorobromomethane	µg/L		2.6082			0.9488						
	1,1-Dichloroethane	µg/L	<	0.25									
	1,2-Dichloroethane	µg/L	<	0.6									
	1,1-Dichloroethylene	µg/L	<	0.65									
	1,2-Dichloropropane	µg/L	<	1.3									
	1,3-Dichloropropylene	µg/L	<	1.1									
	1,4-Dioxane	µg/L	<	42.1									
	Ethylbenzene	µg/L	<	1									
	Methyl Bromide	µg/L	<	24.4									
	Methyl Chloride	µg/L	<	1.7									
	Methylene Chloride	µg/L	<	2.5									
	1,1,2,2-Tetrachloroethane	µg/L	<	1.9									
	Tetrachloroethylene	µg/L	<	1.4									
	Toluene	µg/L	<	1.2									
	1,2-trans-Dichloroethylene	µg/L	<	0.4									
	1,1,1-Trichloroethane	µg/L	<	0.6									
	1,1,2-Trichloroethane	µg/L	<	0.65									
	Trichloroethylene	µg/L	<	1.5									
	Vinyl Chloride	µg/L	<	0.33									
Group 4	2-Chlorophenol	µg/L	<	0.38									
	2,4-Dichlorophenol	µg/L	<	0.43									
	2,4-Dimethylphenol	µg/L	<	0.46									
	4,6-Dinitro-o-Cresol	µg/L		1.3									
	2,4-Dinitrophenol	µg/L	<	2.8									
	2-Nitrophenol	µg/L	<	0.38									
	4-Nitrophenol	µg/L	<	1.3									
	p-Chloro-m-Cresol	µg/L	<	0.38									
	Pentachlorophenol	µg/L	<	1.7									
	Phenol	µg/L	<	0.25									
	2,4,6-Trichlorophenol	µg/L	<	0.46									
Group 5	Acenaphthene	µg/L	<	0.39									
	Acenaphthylene	µg/L	<	0.38									
	Anthracene	µg/L	<	0.39									
	Benzidine	µg/L	<	2.4									
	Benzo(a)Anthracene	µg/L	<	0.4									
	Benzo(a)Pyrene	µg/L	<	0.35									
	3,4-Benzofluoranthene	µg/L	<	0.39									
	Benzo(ghi)Perylene	µg/L	<	0.41									
	Benzo(k)Fluoranthene	µg/L	<	0.38									
	Bis(2-Chloroethoxy)Methane	µg/L	<	0.43									
	Bis(2-Chloroethyl)Ether	µg/L	<	0.37									
	Bis(2-Chloroisopropyl)Ether	µg/L	<	0.43									
	Bis(2-Ethylhexyl)Phthalate	µg/L	<	0.79									
	4-Bromophenyl Phenyl Ether	µg/L	<	0.44									
	Butyl Benzyl Phthalate	µg/L	<	0.57									
	2-Chloronaphthalene	µg/L	<	0.39									
	4-Chlorophenyl Phenyl Ether	µg/L	<	0.39									
	Chrysene	µg/L	<	0.41									
	Dibenzo(a,h)Anthrancene	µg/L	<	0.42									
	1,2-Dichlorobenzene	µg/L	<	1.9									
	1,3-Dichlorobenzene	µg/L	<	2.2									
	1,4-Dichlorobenzene	µg/L	<	2.2									
	3,3-Dichlorobenzidine	µg/L	<	1									
	Diethyl Phthalate	µg/L	<	0.55									
	Dimethyl Phthalate	µg/L	<	0.41									
	Di-n-Butyl Phthalate	µg/L		0.63									
	2,4-Dinitrotoluene	µg/L	<	0.44									

	2,6-Dinitrotoluene	µg/L		0.82									
	Di-n-Octyl Phthalate	µg/L	<	0.86									
	1,2-Diphenylhydrazine	µg/L	<	0.37									
	Fluoranthene	µg/L	<	0.42									
	Fluorene	µg/L	<	0.37									
	Hexachlorobenzene	µg/L	<	0.42									
	Hexachlorobutadiene	µg/L	<	0.48									
	Hexachlorocyclopentadiene	µg/L	<	0.72									
	Hexachloroethane	µg/L	<	0.36									
	Indeno(1,2,3-cd)Pyrene	µg/L	<	0.39									
	Isophorone	µg/L	<	0.42									
	Naphthalene	µg/L	<	0.39									
	Nitrobenzene	µg/L	<	0.51									
	n-Nitrosodimethylamine	µg/L	<	1.1									
	n-Nitrosodi-n-Propylamine	µg/L		0.8									
	n-Nitrosodiphenylamine	µg/L	<	0.48									
	Phenanthrene	µg/L	<	0.38									
	Pyrene	µg/L	<	0.41									
	1,2,4-Trichlorobenzene	µg/L	<	0.41									
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	<	0.034									
	4,4-DDE	µg/L	<	0.019									
	4,4-DDD	µg/L	<	0.019									
	Dieldrin	µg/L	<	0.011									
	alpha-Endosulfan	µg/L	<	0.01									
	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		9.65									
	Total Beta	pCi/L		22.6									
	Radium 226/228	pCi/L		0.876									
	Total Strontium	µg/L		230									
	Total Uranium	µg/L		1.71									
	Osmotic Pressure	mOs/kg											

Stream / Surface Water Information

Williamsport Sanitary Authority West Plant, NPDES Permit No. PA0027049, Outfall 001

Instructions | Discharge | *Stream*

Receiving Surface Water Name: **West Branch Susquehanna River**

No. Reaches to Model: **1**

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

Location	Stream Code*	RMI*	Elevation (ft)*	DA (mi²)*	Slope (ft/ft)	PWS Withdrawal (MGD)	Apply Fish Criteria*
Point of Discharge	018668	41.58	499	5380			Yes
End of Reach 1	018668	41.1	498	5670			Yes

Q *7-10*

Location	RMI	LFY (cfs/mi²)*	Flow (cfs)		W/D Ratio	Width (ft)	Depth (ft)	Velocity (fps)	Travel Time (days)	Tributary		Stream		Analysis	
			Stream	Tributary						Hardness	pH	Hardness*	pH*	Hardness	pH
Point of Discharge	41.58	0.104										76	7		
End of Reach 1	41.1	0.104										76	7		

Q *h*

Location	RMI	LFY (cfs/mi²)	Flow (cfs)		W/D Ratio	Width (ft)	Depth (ft)	Velocity (fps)	Travel Time (days)	Tributary		Stream		Analysis	
			Stream	Tributary						Hardness	pH	Hardness	pH	Hardness	pH
Point of Discharge	41.58														
End of Reach 1	41.1														

Model Results

Williamsport Sanitary Authority West Plant, NPDES Permit No. PA0027049, Outfall 001

Instructions | *Results* | RETURN TO INPUTS | SAVE AS PDF | PRINT | (●) All ( ) Inputs ( ) Results ( ) Limits

☑ ***Hydrodynamics***

Q_{7-10}

RMI	Stream Flow (cfs)	PWS Withdrawal (cfs)	Net Stream Flow (cfs)	Discharge Analysis Flow (cfs)	Slope (ft/ft)	Depth (ft)	Width (ft)	W/D Ratio	Velocity (fps)	Travel Time (days)	Complete Mix Time (min)
41.58	559.52		559.52	6.064	0.00039	1.188	475.945	400.77	1.001	0.029	11820.137
41.1	589.68		589.68								

Q_h

RMI	Stream Flow (cfs)	PWS Withdrawal (cfs)	Net Stream Flow (cfs)	Discharge Analysis Flow (cfs)	Slope (ft/ft)	Depth (ft)	Width (ft)	W/D Ratio	Velocity (fps)	Travel Time (days)	Complete Mix Time (min)
41.58	1873.18		1873.18	6.064	0.00039	2.014	475.945	236.288	1.96	0.015	5432.474
41.1	1961.135		1961.14								

☑ ***Wasteload Allocations***

☑ ***AFC*** CCT (min): 15 PMF: 0.036 Analysis Hardness (mg/l): 89.996 Analysis pH: 7.00

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	N/A	N/A	N/A	
Chloride (PWS)	0	0		0	N/A	N/A	N/A	
Sulfate (PWS)	0	0		0	N/A	N/A	N/A	
Fluoride (PWS)	0	0		0	N/A	N/A	N/A	
Total Aluminum	0	0		0	750	750	3,215	
Total Antimony	0	0		0	1,100	1,100	4,715	
Total Arsenic	0	0		0	340	340	1,458	Chem Translator of 1 applied
Total Barium	0	0		0	21,000	21,000	90,023	
Total Boron	0	0		0	8,100	8,100	34,723	
Total Cadmium	0	0		0	1.818	1.92	8.22	Chem Translator of 0.948 applied
Total Chromium (III)	0	0		0	522.643	1,654	7,090	Chem Translator of 0.316 applied
Hexavalent Chromium	0	0		0	16	16.3	69.8	Chem Translator of 0.982 applied
Total Cobalt	0	0		0	95	95.0	407	
Total Copper	0	0		0	12.169	12.7	54.3	Chem Translator of 0.96 applied

Free Cyanide	0	0		0	22	22.0	94.3	
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	57.569	71.4	306	Chem Translator of 0.806 applied
Total Manganese	0	0		0	N/A	N/A	N/A	
Total Mercury	0	0		0	1.400	1.65	7.06	Chem Translator of 0.85 applied
Total Nickel	0	0		0	428.291	429	1,840	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	2.683	3.16	13.5	Chem Translator of 0.85 applied
Total Thallium	0	0		0	65	65.0	279	
Total Zinc	0	0		0	107.169	110	470	Chem Translator of 0.978 applied
Acrolein	0	0		0	3	3.0	12.9	
Acrylonitrile	0	0		0	650	650	2,786	
Benzene	0	0		0	640	640	2,744	
Bromoform	0	0		1	1,800	1,800	7,797	
Carbon Tetrachloride	0	0		0	2,800	2,800	12,003	
Chlorobenzene	0	0		0	1,200	1,200	5,144	
Chlorodibromomethane	0	0		0	N/A	N/A	N/A	
2-Chloroethyl Vinyl Ether	0	0		0	18,000	18,000	77,162	
Chloroform	0	0		0	1,900	1,900	8,145	
Dichlorobromomethane	0	0		0	N/A	N/A	N/A	
1,2-Dichloroethane	0	0		0	15,000	15,000	64,302	
1,1-Dichloroethylene	0	0		0	7,500	7,500	32,151	
1,2-Dichloropropane	0	0		0	11,000	11,000	47,155	
1,3-Dichloropropylene	0	0		0	310	310	1,329	
Ethylbenzene	0	0		0	2,900	2,900	12,432	
Methyl Bromide	0	0		0	550	550	2,358	
Methyl Chloride	0	0		0	28,000	28,000	120,030	
Methylene Chloride	0	0		0	12,000	12,000	51,442	
1,1,2,2-Tetrachloroethane	0	0		0	1,000	1,000	4,287	
Tetrachloroethylene	0	0		0	700	700	3,001	
Toluene	0	0		0	1,700	1,700	7,288	
1,2-trans-Dichloroethylene	0	0		0	6,800	6,800	29,150	
1,1,1-Trichloroethane	0	0		0	3,000	3,000	12,860	
1,1,2-Trichloroethane	0	0		0	3,400	3,400	14,575	
Trichloroethylene	0	0		0	2,300	2,300	9,860	
Vinyl Chloride	0	0		0	N/A	N/A	N/A	
2-Chlorophenol	0	0		0	560	560	2,401	
2,4-Dichlorophenol	0	0		0	1,700	1,700	7,288	
2,4-Dimethylphenol	0	0		0	660	660	2,829	
4,6-Dinitro-o-Cresol	0	0		0	80	80.0	343	
2,4-Dinitrophenol	0	0		0	660	660	2,829	
2-Nitrophenol	0	0		0	8,000	8,000	34,294	
4-Nitrophenol	0	0		0	2,300	2,300	9,860	
p-Chloro-m-Cresol	0	0		0	160	160	686	
Pentachlorophenol	0	0		0	8.723	8.72	37.4	
Phenol	0	0		0	N/A	N/A	N/A	

2,4,6-Trichlorophenol	0	0		0	460	460	1,972	
Acenaphthene	0	0		0	83	83.0	356	
Anthracene	0	0		0	N/A	N/A	N/A	
Benzidine	0	0		0	300	300	1,286	
Benzo(a)Anthracene	0	0		0	0.5	0.5	2.14	
Benzo(a)Pyrene	0	0		0	N/A	N/A	N/A	
3,4-Benzofluoranthene	0	0		0	N/A	N/A	N/A	
Benzo(k)Fluoranthene	0	0		0	N/A	N/A	N/A	
Bis(2-Chloroethyl)Ether	0	0		0	30,000	30,000	128,604	
Bis(2-Chloroisopropyl)Ether	0	0		0	N/A	N/A	N/A	
Bis(2-Ethylhexyl)Phthalate	0	0		0	4,500	4,500	19,291	
4-Bromophenyl Phenyl Ether	0	0		0	270	270	1,157	
Butyl Benzyl Phthalate	0	0		0	140	140	600	
2-Chloronaphthalene	0	0		0	N/A	N/A	N/A	
Chrysene	0	0		0	N/A	N/A	N/A	
Dibenzo(a,h)Anthrancene	0	0		0	N/A	N/A	N/A	
1,2-Dichlorobenzene	0	0		0	820	820	3,515	
1,3-Dichlorobenzene	0	0		0	350	350	1,500	
1,4-Dichlorobenzene	0	0		0	730	730	3,129	
3,3-Dichlorobenzidine	0	0		0	N/A	N/A	N/A	
Diethyl Phthalate	0	0		0	4,000	4,000	17,147	
Dimethyl Phthalate	0	0		0	2,500	2,500	10,717	
Di-n-Butyl Phthalate	0	0		0	110	110	472	
2,4-Dinitrotoluene	0	0		0	1,600	1,600	6,859	
2,6-Dinitrotoluene	0	0		0	990	990	4,244	
1,2-Diphenylhydrazine	0	0		0	15	15.0	64.3	
Fluoranthene	0	0		0	200	200	857	
Fluorene	0	0		0	N/A	N/A	N/A	
Hexachlorobenzene	0	0		0	N/A	N/A	N/A	
Hexachlorobutadiene	0	0		0	10	10.0	42.9	
Hexachlorocyclopentadiene	0	0		0	5	5.0	21.4	
Hexachloroethane	0	0		0	60	60.0	257	
Indeno(1,2,3-cd)Pyrene	0	0		0	N/A	N/A	N/A	
Isophorone	0	0		0	10,000	10,000	42,868	
Naphthalene	0	0		0	140	140	600	
Nitrobenzene	0	0		0	4,000	4,000	17,147	
n-Nitrosodimethylamine	0	0		0	17,000	17,000	72,876	
n-Nitrosodi-n-Propylamine	0	0		0	N/A	N/A	N/A	
n-Nitrosodiphenylamine	0	0		0	300	300	1,286	
Phenanthrene	0	0		0	5	5.0	21.4	
Pyrene	0	0		0	N/A	N/A	N/A	
1,2,4-Trichlorobenzene	0	0		0	130	130	557	
Aldrin	0	0		0	3	3.0	12.9	
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	4.07	
Chlordane	0	0		0	2.4	2.4	10.3	
4,4-DDT	0	0		0	1.1	1.1	4.72	

4,4-DDE	0	0		0	1.1	1.1	4.72	
4,4-DDD	0	0		0	1.1	1.1	4.72	
Dieldrin	0	0		0	0.24	0.24	1.03	
alpha-Endosulfan	0	0		0	0.22	0.22	0.94	
beta-Endosulfan	0	0		0	0.22	0.22	0.94	
Endosulfan Sulfate	0	0		0	N/A	N/A	N/A	
Endrin	0	0		0	0.086	0.086	0.37	
Endrin Aldehyde	0	0		0	N/A	N/A	N/A	
Heptachlor	0	0		0	0.52	0.52	2.23	
Heptachlor Epoxide	0	0		0	0.5	0.5	2.14	
Toxaphene	0	0		0	0.73	0.73	3.13	
Total Strontium	0	0		0	N/A	N/A	N/A	

☑ ***CFC*** CCT (min): 720 PMF: 0.247 Analysis Hardness (mg/l): 78.524 Analysis pH: 7.00

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	N/A	N/A	N/A	
Chloride (PWS)	0	0		0	N/A	N/A	N/A	
Sulfate (PWS)	0	0		0	N/A	N/A	N/A	
Fluoride (PWS)	0	0		0	N/A	N/A	N/A	
Total Aluminum	0	0		0	N/A	N/A	N/A	
Total Antimony	0	0		0	220	220	5,230	
Total Arsenic	0	0		0	150	150	3,566	Chem Translator of 1 applied
Total Barium	0	0		0	4,100	4,100	97,464	
Total Boron	0	0		0	1,600	1,600	38,035	
Total Cadmium	0	0		0	0.208	0.23	5.38	Chem Translator of 0.919 applied
Total Chromium (III)	0	0		0	60.801	70.7	1,681	Chem Translator of 0.86 applied
Hexavalent Chromium	0	0		0	10	10.4	247	Chem Translator of 0.962 applied
Total Cobalt	0	0		0	19	19.0	452	
Total Copper	0	0		0	7.284	7.59	180	Chem Translator of 0.96 applied
Free Cyanide	0	0		0	5.2	5.2	124	
Dissolved Iron	0	0		0	N/A	N/A	N/A	
Total Iron	0	0		0	1,500	1,500	139,898	WQC = 30 day average; PMF = 1
Total Lead	0	0		0	1.932	2.34	55.6	Chem Translator of 0.826 applied
Total Manganese	0	0		0	N/A	N/A	N/A	
Total Mercury	0	0		0	0.770	0.91	21.5	Chem Translator of 0.85 applied
Total Nickel	0	0		0	42.387	42.5	1,011	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	119	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	309	
Total Zinc	0	0		0	96.256	97.6	2,321	Chem Translator of 0.986 applied
Acrolein	0	0		0	3	3.0	71.3	
Acrylonitrile	0	0		0	130	130	3,090	
Benzene	0	0		0	130	130	3,090	

Bromoform	0	0		1	370	370	14,501	
Carbon Tetrachloride	0	0		0	560	560	13,312	
Chlorobenzene	0	0		0	240	240	5,705	
Chlorodibromomethane	0	0		0	N/A	N/A	N/A	
2-Chloroethyl Vinyl Ether	0	0		0	3,500	3,500	83,201	
Chloroform	0	0		0	390	390	9,271	
Dichlorobromomethane	0	0		0	N/A	N/A	N/A	
1,2-Dichloroethane	0	0		0	3,100	3,100	73,692	
1,1-Dichloroethylene	0	0		0	1,500	1,500	35,657	
1,2-Dichloropropane	0	0		0	2,200	2,200	52,298	
1,3-Dichloropropylene	0	0		0	61	61.0	1,450	
Ethylbenzene	0	0		0	580	580	13,788	
Methyl Bromide	0	0		0	110	110	2,615	
Methyl Chloride	0	0		0	5,500	5,500	130,744	
Methylene Chloride	0	0		0	2,400	2,400	57,052	
1,1,2,2-Tetrachloroethane	0	0		0	210	210	4,992	
Tetrachloroethylene	0	0		0	140	140	3,328	
Toluene	0	0		0	330	330	7,845	
1,2-trans-Dichloroethylene	0	0		0	1,400	1,400	33,280	
1,1,1-Trichloroethane	0	0		0	610	610	14,501	
1,1,2-Trichloroethane	0	0		0	680	680	16,165	
Trichloroethylene	0	0		0	450	450	10,697	
Vinyl Chloride	0	0		0	N/A	N/A	N/A	
2-Chlorophenol	0	0		0	110	110	2,615	
2,4-Dichlorophenol	0	0		0	340	340	8,082	
2,4-Dimethylphenol	0	0		0	130	130	3,090	
4,6-Dinitro-o-Cresol	0	0		0	16	16.0	380	
2,4-Dinitrophenol	0	0		0	130	130	3,090	
2-Nitrophenol	0	0		0	1,600	1,600	38,035	
4-Nitrophenol	0	0		0	470	470	11,173	
p-Chloro-m-Cresol	0	0		0	500	500	11,886	
Pentachlorophenol	0	0		0	6.693	6.69	159	
Phenol	0	0		0	N/A	N/A	N/A	
2,4,6-Trichlorophenol	0	0		0	91	91.0	2,163	
Acenaphthene	0	0		0	17	17.0	404	
Anthracene	0	0		0	N/A	N/A	N/A	
Benzidine	0	0		0	59	59.0	1,403	
Benzo(a)Anthracene	0	0		0	0.1	0.1	2.38	
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	142,630	
Bis(2-Chloroisopropyl)Ether	0	0		0	N/A	N/A	N/A	
Bis(2-Ethylhexyl)Phthalate	0	0		0	910	910	21,632	
4-Bromophenyl Phenyl Ether	0	0		0	54	54.0	1,284	

Butyl Benzyl Phthalate	0	0		0	35	35.0	832	
2-Chloronaphthalene	0	0		0	N/A	N/A	N/A	
Chrysene	0	0		0	N/A	N/A	N/A	
Dibenzo(a,h)Anthrancene	0	0		0	N/A	N/A	N/A	
1,2-Dichlorobenzene	0	0		0	160	160	3,803	
1,3-Dichlorobenzene	0	0		0	69	69.0	1,640	
1,4-Dichlorobenzene	0	0		0	150	150	3,566	
3,3-Dichlorobenzidine	0	0		0	N/A	N/A	N/A	
Diethyl Phthalate	0	0		0	800	800	19,017	
Dimethyl Phthalate	0	0		0	500	500	11,886	
Di-n-Butyl Phthalate	0	0		0	21	21.0	499	
2,4-Dinitrotoluene	0	0		0	320	320	7,607	
2,6-Dinitrotoluene	0	0		0	200	200	4,754	
1,2-Diphenylhydrazine	0	0		0	3	3.0	71.3	
Fluoranthene	0	0		0	40	40.0	951	
Fluorene	0	0		0	N/A	N/A	N/A	
Hexachlorobenzene	0	0		0	N/A	N/A	N/A	
Hexachlorobutadiene	0	0		0	2	2.0	47.5	
Hexachlorocyclopentadiene	0	0		0	1	1.0	23.8	
Hexachloroethane	0	0		0	12	12.0	285	
Indeno(1,2,3-cd)Pyrene	0	0		0	N/A	N/A	N/A	
Isophorone	0	0		0	2,100	2,100	49,920	
Naphthalene	0	0		0	43	43.0	1,022	
Nitrobenzene	0	0		0	810	810	19,255	
n-Nitrosodimethylamine	0	0		0	3,400	3,400	80,824	
n-Nitrosodi-n-Propylamine	0	0		0	N/A	N/A	N/A	
n-Nitrosodiphenylamine	0	0		0	59	59.0	1,403	
Phenanthrene	0	0		0	1	1.0	23.8	
Pyrene	0	0		0	N/A	N/A	N/A	
1,2,4-Trichlorobenzene	0	0		0	26	26.0	618	
Aldrin	0	0		0	0.1	0.1	2.38	
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	0.1	
4,4-DDT	0	0		0	0.001	0.001	0.024	
4,4-DDE	0	0		0	0.001	0.001	0.024	
4,4-DDD	0	0		0	0.001	0.001	0.024	
Dieldrin	0	0		0	0.056	0.056	1.33	
alpha-Endosulfan	0	0		0	0.056	0.056	1.33	
beta-Endosulfan	0	0		0	0.056	0.056	1.33	
Endosulfan Sulfate	0	0		0	N/A	N/A	N/A	
Endrin	0	0		0	0.036	0.036	0.86	
Endrin Aldehyde	0	0		0	N/A	N/A	N/A	
Heptachlor	0	0		0	0.0038	0.004	0.09	

Heptachlor Epoxide	0	0		0	0.0038	0.004	0.09	
Toxaphene	0	0		0	0.0002	0.0002	0.005	
Total Strontium	0	0		0	N/A	N/A	N/A	

☑ ***THH*** CCT (min): 720 PMF: 0.247 Analysis Hardness (mg/l): N/A Analysis pH: N/A

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	500,000	500,000	N/A	
Chloride (PWS)	0	0		0	250,000	250,000	N/A	
Sulfate (PWS)	0	0		0	250,000	250,000	N/A	
Fluoride (PWS)	0	0		0	2,000	2,000	N/A	
Total Aluminum	0	0		0	N/A	N/A	N/A	
Total Antimony	0	0		0	5.6	5.6	133	
Total Arsenic	0	0		0	10	10.0	238	
Total Barium	0	0		0	2,400	2,400	57,052	
Total Boron	0	0		0	3,100	3,100	73,692	
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	95.1	
Dissolved Iron	0	0		0	300	300	7,131	
Total Iron	0	0		0	N/A	N/A	N/A	
Total Lead	0	0		0	N/A	N/A	N/A	
Total Manganese	0	0		0	1,000	1,000	23,772	
Total Mercury	0	0		0	0.050	0.05	1.19	
Total Nickel	0	0		0	610	610	14,501	
Total Phenols (Phenolics) (PWS)	0	0		0	5	5.0	N/A	
Total Selenium	0	0		0	N/A	N/A	N/A	
Total Silver	0	0		0	N/A	N/A	N/A	
Total Thallium	0	0		0	0.24	0.24	5.71	
Total Zinc	0	0		0	N/A	N/A	N/A	
Acrolein	0	0		0	3	3.0	71.3	
Acrylonitrile	0	0		0	N/A	N/A	N/A	
Benzene	0	0		0	N/A	N/A	N/A	
Bromoform	0	0		1	N/A	N/A	N/A	
Carbon Tetrachloride	0	0		0	N/A	N/A	N/A	
Chlorobenzene	0	0		0	100	100.0	2,377	
Chlorodibromomethane	0	0		0	N/A	N/A	N/A	
2-Chloroethyl Vinyl Ether	0	0		0	N/A	N/A	N/A	
Chloroform	0	0		0	5.7	5.7	135	
Dichlorobromomethane	0	0		0	N/A	N/A	N/A	
1,2-Dichloroethane	0	0		0	N/A	N/A	N/A	

1,1-Dichloroethylene	0	0		0	33	33.0	784	
1,2-Dichloropropane	0	0		0	N/A	N/A	N/A	
1,3-Dichloropropylene	0	0		0	N/A	N/A	N/A	
Ethylbenzene	0	0		0	68	68.0	1,616	
Methyl Bromide	0	0		0	100	100.0	2,377	
Methyl Chloride	0	0		0	N/A	N/A	N/A	
Methylene Chloride	0	0		0	N/A	N/A	N/A	
1,1,2,2-Tetrachloroethane	0	0		0	N/A	N/A	N/A	
Tetrachloroethylene	0	0		0	N/A	N/A	N/A	
Toluene	0	0		0	57	57.0	1,355	
1,2-trans-Dichloroethylene	0	0		0	100	100.0	2,377	
1,1,1-Trichloroethane	0	0		0	10,000	10,000	237,716	
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	713	
2,4-Dichlorophenol	0	0		0	10	10.0	238	
2,4-Dimethylphenol	0	0		0	100	100.0	2,377	
4,6-Dinitro-o-Cresol	0	0		0	2	2.0	47.5	
2,4-Dinitrophenol	0	0		0	10	10.0	238	
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	95,087	
2,4,6-Trichlorophenol	0	0		0	N/A	N/A	N/A	
Acenaphthene	0	0		0	70	70.0	1,664	
Anthracene	0	0		0	300	300	7,131	
Benzidine	0	0		0	N/A	N/A	N/A	
Benzo(a)Anthracene	0	0		0	N/A	N/A	N/A	
Benzo(a)Pyrene	0	0		0	N/A	N/A	N/A	
3,4-Benzofluoranthene	0	0		0	N/A	N/A	N/A	
Benzo(k)Fluoranthene	0	0		0	N/A	N/A	N/A	
Bis(2-Chloroethyl)Ether	0	0		0	N/A	N/A	N/A	
Bis(2-Chloroisopropyl)Ether	0	0		0	200	200	4,754	
Bis(2-Ethylhexyl)Phthalate	0	0		0	N/A	N/A	N/A	
4-Bromophenyl Phenyl Ether	0	0		0	N/A	N/A	N/A	
Butyl Benzyl Phthalate	0	0		0	0.1	0.1	2.38	
2-Chloronaphthalene	0	0		0	800	800	19,017	
Chrysene	0	0		0	N/A	N/A	N/A	
Dibenzo(a,h)Anthrancene	0	0		0	N/A	N/A	N/A	
1,2-Dichlorobenzene	0	0		0	1,000	1,000	23,772	
1,3-Dichlorobenzene	0	0		0	7	7.0	166	
1,4-Dichlorobenzene	0	0		0	300	300	7,131	
3,3-Dichlorobenzidine	0	0		0	N/A	N/A	N/A	

Diethyl Phthalate	0	0		0	600	600	14,263	
Dimethyl Phthalate	0	0		0	2,000	2,000	47,543	
Di-n-Butyl Phthalate	0	0		0	20	20.0	475	
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	475	
Fluorene	0	0		0	50	50.0	1,189	
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	95.1	
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	808	
Naphthalene	0	0		0	N/A	N/A	N/A	
Nitrobenzene	0	0		0	10	10.0	238	
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	475	
1,2,4-Trichlorobenzene	0	0		0	0.07	0.07	1.66	
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	99.8	
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	475	
beta-Endosulfan	0	0		0	20	20.0	475	
Endosulfan Sulfate	0	0		0	20	20.0	475	
Endrin	0	0		0	0.03	0.03	0.71	
Endrin Aldehyde	0	0		0	1	1.0	23.8	
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	
Total Strontium	0	0		0	4,000	4,000	95,087	

☑ ***CRL*** CCT (min): 720 PMF: 0.364 Analysis Hardness (mg/l): N/A Analysis pH: N/A

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments

Total Dissolved Solids (PWS)	0	0		0	N/A	N/A	N/A	
Chloride (PWS)	0	0		0	N/A	N/A	N/A	
Sulfate (PWS)	0	0		0	N/A	N/A	N/A	
Fluoride (PWS)	0	0		0	N/A	N/A	N/A	
Total Aluminum	0	0		0	N/A	N/A	N/A	
Total Antimony	0	0		0	N/A	N/A	N/A	
Total Arsenic	0	0		0	N/A	N/A	N/A	
Total Barium	0	0		0	N/A	N/A	N/A	
Total Boron	0	0		0	N/A	N/A	N/A	
Total Cadmium	0	0		0	N/A	N/A	N/A	
Total Chromium (III)	0	0		0	N/A	N/A	N/A	
Hexavalent Chromium	0	0		0	N/A	N/A	N/A	
Total Cobalt	0	0		0	N/A	N/A	N/A	
Total Copper	0	0		0	N/A	N/A	N/A	
Free Cyanide	0	0		0	N/A	N/A	N/A	
Dissolved Iron	0	0		0	N/A	N/A	N/A	
Total Iron	0	0		0	N/A	N/A	N/A	
Total Lead	0	0		0	N/A	N/A	N/A	
Total Manganese	0	0		0	N/A	N/A	N/A	
Total Mercury	0	0		0	N/A	N/A	N/A	
Total Nickel	0	0		0	N/A	N/A	N/A	
Total Phenols (Phenolics) (PWS)	0	0		0	N/A	N/A	N/A	
Total Selenium	0	0		0	N/A	N/A	N/A	
Total Silver	0	0		0	N/A	N/A	N/A	
Total Thallium	0	0		0	N/A	N/A	N/A	
Total Zinc	0	0		0	N/A	N/A	N/A	
Acrolein	0	0		0	N/A	N/A	N/A	
Acrylonitrile	0	0		0	0.06	0.06	6.81	
Benzene	0	0		0	0.58	0.58	65.8	
Bromoform	0	0		1	7	7.0	1,309	
Carbon Tetrachloride	0	0		0	0.4	0.4	45.4	
Chlorobenzene	0	0		0	N/A	N/A	N/A	
Chlorodibromomethane	0	0		0	0.8	0.8	90.8	
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	108	
1,2-Dichloroethane	0	0		0	9.9	9.9	1,123	
1,1-Dichloroethylene	0	0		0	N/A	N/A	N/A	
1,2-Dichloropropane	0	0		0	0.9	0.9	102	
1,3-Dichloropropylene	0	0		0	0.27	0.27	30.6	
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	2,269	
1,1,2,2-Tetrachloroethane	0	0		0	0.2	0.2	22.7	

Tetrachloroethylene	0	0		0	10	10.0	1,135	
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	62.4	
Trichloroethylene	0	0		0	0.6	0.6	68.1	
Vinyl Chloride	0	0		0	0.02	0.02	2.27	
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	3.4	
Phenol	0	0		0	N/A	N/A	N/A	
2,4,6-Trichlorophenol	0	0		0	1.5	1.5	170	
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	0.011	
Benzo(a)Anthracene	0	0		0	0.001	0.001	0.11	
Benzo(a)Pyrene	0	0		0	0.0001	0.0001	0.011	
3,4-Benzofluoranthene	0	0		0	0.001	0.001	0.11	
Benzo(k)Fluoranthene	0	0		0	0.01	0.01	1.13	
Bis(2-Chloroethyl)Ether	0	0		0	0.03	0.03	3.4	
Bis(2-Chloroisopropyl)Ether	0	0		0	N/A	N/A	N/A	
Bis(2-Ethylhexyl)Phthalate	0	0		0	0.32	0.32	36.3	
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	13.6	
Dibenzo(a,h)Anthrancene	0	0		0	0.0001	0.0001	0.011	
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	5.67	
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	5.67	
2,6-Dinitrotoluene	0	0		0	0.05	0.05	5.67	
1,2-Diphenylhydrazine	0	0		0	0.03	0.03	3.4	
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	0.009	
Hexachlorobutadiene	0	0		0	0.01	0.01	1.13	
Hexachlorocyclopentadiene	0	0		0	N/A	N/A	N/A	
Hexachloroethane	0	0		0	0.1	0.1	11.3	
Indeno(1,2,3-cd)Pyrene	0	0		0	0.001	0.001	0.11	
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	0.079	
n-Nitrosodi-n-Propylamine	0	0		0	0.005	0.005	0.57	
n-Nitrosodiphenylamine	0	0		0	3.3	3.3	374	
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	0.00009	
alpha-BHC	0	0		0	0.0004	0.0004	0.045	
beta-BHC	0	0		0	0.008	0.008	0.91	
gamma-BHC	0	0		0	N/A	N/A	N/A	
Chlordane	0	0		0	0.0003	0.0003	0.034	
4,4-DDT	0	0		0	0.00003	0.00003	0.003	
4,4-DDE	0	0		0	0.00002	0.00002	0.002	
4,4-DDD	0	0		0	0.0001	0.0001	0.011	
Dieldrin	0	0		0	0.000001	0.000001	0.0001	
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	0.0007	
Heptachlor Epoxide	0	0		0	0.00003	0.00003	0.003	
Toxaphene	0	0		0	0.0007	0.0007	0.079	
Total Strontium	0	0		0	N/A	N/A	N/A	

☑ ***Recommended WQBELs & Monitoring Requirements***

No. Samples/Month: 4

	Mass Limits		*Concentration Limits*						
Pollutants	AML (lbs/day)	MDL (lbs/day)	AML	MDL	IMAX	Units	Governing WQBEL	WQBEL Basis	Comments
Total Copper	Report	Report	Report	Report	Report	µg/L	33.1	AFC	Discharge Conc > 10% WQBEL (no RP)
Free Cyanide	Report	Report	Report	Report	Report	µg/L	60.4	AFC	Discharge Conc > 25% WQBEL (no RP)
Total Mercury	Report	Report	Report	Report	Report	µg/L	1.19	THH	Discharge Conc > 10% WQBEL (no RP)
Total Zinc	Report	Report	Report	Report	Report	µg/L	301	AFC	Discharge Conc > 10% WQBEL (no RP)
Bromoform	42.8	65.9	1,309	2,015	3,273	µg/L	1,309	CRL	Discharge Conc ≥ 50% WQBEL (RP)

n-Nitrosodi-n-Propylamine	0.019	0.029	0.57	0.89	1.42	µg/L	0.57	CRL	Discharge Conc ≥ 50% WQBEL (RP)

☑ ***Other Pollutants without Limits or Monitoring***

The following pollutants do not require effluent limits or monitoring based on water quality because reasonable potential to exceed water quality criteria was not determined and the discharge concentration was less than thresholds for monitoring, or the pollutant was not detected and a sufficiently sensitive analytical method was used (e.g., <= Target QL).

Pollutants	Governing WQBEL	Units	Comments
Total Dissolved Solids (PWS)	N/A	N/A	PWS Not Applicable
Chloride (PWS)	N/A	N/A	PWS Not Applicable
Bromide	N/A	N/A	No WQS
Sulfate (PWS)	N/A	N/A	PWS Not Applicable
Fluoride (PWS)	N/A	N/A	PWS Not Applicable
Total Aluminum	2,061	µg/L	Discharge Conc ≤ 10% WQBEL
Total Antimony	133	µg/L	Discharge Conc ≤ 10% WQBEL
Total Arsenic	238	µg/L	Discharge Conc ≤ 10% WQBEL
Total Barium	57,052	µg/L	Discharge Conc ≤ 10% WQBEL
Total Beryllium	N/A	N/A	No WQS
Total Boron	22,256	µg/L	Discharge Conc ≤ 10% WQBEL
Total Cadmium	5.27	µg/L	Discharge Conc < TQL
Total Chromium (III)	1,681	µg/L	Discharge Conc ≤ 10% WQBEL
Hexavalent Chromium	44.8	µg/L	Discharge Conc ≤ 10% WQBEL
Total Cobalt	261	µg/L	Discharge Conc < TQL
Total Cyanide	N/A	N/A	No WQS
Dissolved Iron	7,131	µg/L	Discharge Conc ≤ 10% WQBEL
Total Iron	139,898	µg/L	Discharge Conc ≤ 10% WQBEL
Total Lead	55.6	µg/L	Discharge Conc ≤ 10% WQBEL
Total Manganese	23,772	µg/L	Discharge Conc ≤ 10% WQBEL
Total Nickel	1,011	µg/L	Discharge Conc ≤ 10% WQBEL
Total Phenols (Phenolics) (PWS)		µg/L	PWS Not Applicable
Total Selenium	119	µg/L	Discharge Conc ≤ 10% WQBEL
Total Silver	8.67	µg/L	Discharge Conc < TQL
Total Thallium	5.71	µg/L	Discharge Conc ≤ 10% WQBEL
Total Molybdenum	N/A	N/A	No WQS
Acrolein	8.24	µg/L	Discharge Conc < TQL
Acrylonitrile	6.81	µg/L	Discharge Conc < TQL
Benzene	65.8	µg/L	Discharge Conc ≤ 25% WQBEL
Carbon Tetrachloride	45.4	µg/L	Discharge Conc ≤ 25% WQBEL
Chlorobenzene	2,377	µg/L	Discharge Conc ≤ 25% WQBEL
Chlorodibromomethane	90.8	µg/L	Discharge Conc ≤ 25% WQBEL
Chloroethane	N/A	N/A	No WQS
2-Chloroethyl Vinyl Ether	49,458	µg/L	Discharge Conc ≤ 25% WQBEL
Chloroform	135	µg/L	Discharge Conc ≤ 25% WQBEL
Dichlorobromomethane	108	µg/L	Discharge Conc ≤ 25% WQBEL
1,1-Dichloroethane	N/A	N/A	No WQS

1,2-Dichloroethane	1,123	µg/L	Discharge Conc ≤ 25% WQBEL
1,1-Dichloroethylene	784	µg/L	Discharge Conc ≤ 25% WQBEL
1,2-Dichloropropane	102	µg/L	Discharge Conc ≤ 25% WQBEL
1,3-Dichloropropylene	30.6	µg/L	Discharge Conc ≤ 25% WQBEL
1,4-Dioxane	N/A	N/A	No WQS
Ethylbenzene	1,616	µg/L	Discharge Conc ≤ 25% WQBEL
Methyl Bromide	1,511	µg/L	Discharge Conc ≤ 25% WQBEL
Methyl Chloride	76,935	µg/L	Discharge Conc ≤ 25% WQBEL
Methylene Chloride	2,269	µg/L	Discharge Conc ≤ 25% WQBEL
1,1,2,2-Tetrachloroethane	22.7	µg/L	Discharge Conc ≤ 25% WQBEL
Tetrachloroethylene	1,135	µg/L	Discharge Conc ≤ 25% WQBEL
Toluene	1,355	µg/L	Discharge Conc ≤ 25% WQBEL
1,2-trans-Dichloroethylene	2,377	µg/L	Discharge Conc < TQL
1,1,1-Trichloroethane	8,243	µg/L	Discharge Conc ≤ 25% WQBEL
1,1,2-Trichloroethane	62.4	µg/L	Discharge Conc ≤ 25% WQBEL
Trichloroethylene	68.1	µg/L	Discharge Conc ≤ 25% WQBEL
Vinyl Chloride	2.27	µg/L	Discharge Conc < TQL
2-Chlorophenol	713	µg/L	Discharge Conc < TQL
2,4-Dichlorophenol	238	µg/L	Discharge Conc < TQL
2,4-Dimethylphenol	1,813	µg/L	Discharge Conc < TQL
4,6-Dinitro-o-Cresol	47.5	µg/L	Discharge Conc ≤ 25% WQBEL
2,4-Dinitrophenol	238	µg/L	Discharge Conc < TQL
2-Nitrophenol	21,981	µg/L	Discharge Conc < TQL
4-Nitrophenol	6,320	µg/L	Discharge Conc < TQL
p-Chloro-m-Cresol	440	µg/L	Discharge Conc < TQL
Pentachlorophenol	3.4	µg/L	Discharge Conc < TQL
Phenol	95,087	µg/L	Discharge Conc < TQL
2,4,6-Trichlorophenol	170	µg/L	Discharge Conc < TQL
Acenaphthene	228	µg/L	Discharge Conc < TQL
Acenaphthylene	N/A	N/A	No WQS
Anthracene	7,131	µg/L	Discharge Conc < TQL
Benzidine	0.011	µg/L	Discharge Conc < TQL
Benzo(a)Anthracene	0.11	µg/L	Discharge Conc < TQL
Benzo(a)Pyrene	0.011	µg/L	Discharge Conc < TQL
3,4-Benzofluoranthene	0.11	µg/L	Discharge Conc < TQL
Benzo(ghi)Perylene	N/A	N/A	No WQS
Benzo(k)Fluoranthene	1.13	µg/L	Discharge Conc < TQL
Bis(2-Chloroethoxy)Methane	N/A	N/A	No WQS
Bis(2-Chloroethyl)Ether	3.4	µg/L	Discharge Conc < TQL
Bis(2-Chloroisopropyl)Ether	4,754	µg/L	Discharge Conc < TQL
Bis(2-Ethylhexyl)Phthalate	36.3	µg/L	Discharge Conc < TQL
4-Bromophenyl Phenyl Ether	742	µg/L	Discharge Conc < TQL
Butyl Benzyl Phthalate	2.38	µg/L	Discharge Conc < TQL
2-Chloronaphthalene	19,017	µg/L	Discharge Conc < TQL
4-Chlorophenyl Phenyl Ether	N/A	N/A	No WQS

Chrysene	13.6	µg/L	Discharge Conc < TQL
Dibenzo(a,h)Anthrancene	0.011	µg/L	Discharge Conc < TQL
1,2-Dichlorobenzene	2,253	µg/L	Discharge Conc ≤ 25% WQBEL
1,3-Dichlorobenzene	166	µg/L	Discharge Conc ≤ 25% WQBEL
1,4-Dichlorobenzene	2,006	µg/L	Discharge Conc ≤ 25% WQBEL
3,3-Dichlorobenzidine	5.67	µg/L	Discharge Conc < TQL
Diethyl Phthalate	10,991	µg/L	Discharge Conc < TQL
Dimethyl Phthalate	6,869	µg/L	Discharge Conc < TQL
Di-n-Butyl Phthalate	302	µg/L	Discharge Conc ≤ 25% WQBEL
2,4-Dinitrotoluene	5.67	µg/L	Discharge Conc < TQL
2,6-Dinitrotoluene	5.67	µg/L	Discharge Conc ≤ 25% WQBEL
Di-n-Octyl Phthalate	N/A	N/A	No WQS
1,2-Diphenylhydrazine	3.4	µg/L	Discharge Conc < TQL
Fluoranthene	475	µg/L	Discharge Conc < TQL
Fluorene	1,189	µg/L	Discharge Conc < TQL
Hexachlorobenzene	0.009	µg/L	Discharge Conc < TQL
Hexachlorobutadiene	1.13	µg/L	Discharge Conc < TQL
Hexachlorocyclopentadiene	13.7	µg/L	Discharge Conc < TQL
Hexachloroethane	11.3	µg/L	Discharge Conc < TQL
Indeno(1,2,3-cd)Pyrene	0.11	µg/L	Discharge Conc < TQL
Isophorone	808	µg/L	Discharge Conc < TQL
Naphthalene	385	µg/L	Discharge Conc < TQL
Nitrobenzene	238	µg/L	Discharge Conc < TQL
n-Nitrosodimethylamine	0.079	µg/L	Discharge Conc < TQL
n-Nitrosodiphenylamine	374	µg/L	Discharge Conc < TQL
Phenanthrene	13.7	µg/L	Discharge Conc < TQL
Pyrene	475	µg/L	Discharge Conc < TQL
1,2,4-Trichlorobenzene	1.66	µg/L	Discharge Conc < TQL
Aldrin	0.00009	µg/L	Discharge Conc < TQL
alpha-BHC	0.045	µg/L	Discharge Conc < TQL
beta-BHC	0.91	µg/L	Discharge Conc < TQL
gamma-BHC	2.61	µg/L	Discharge Conc < TQL
delta BHC	N/A	N/A	No WQS
Chlordane	0.034	µg/L	Discharge Conc < TQL
4,4-DDT	0.003	µg/L	Discharge Conc < TQL
4,4-DDE	0.002	µg/L	Discharge Conc < TQL
4,4-DDD	0.011	µg/L	Discharge Conc < TQL
Dieldrin	0.0001	µg/L	Discharge Conc < TQL
alpha-Endosulfan	0.6	µg/L	Discharge Conc < TQL
beta-Endosulfan	0.6	µg/L	Discharge Conc < TQL
Endosulfan Sulfate	475	µg/L	Discharge Conc < TQL
Endrin	0.24	µg/L	Discharge Conc < TQL
Endrin Aldehyde	23.8	µg/L	Discharge Conc < TQL
Heptachlor	0.0007	µg/L	Discharge Conc < TQL
Heptachlor Epoxide	0.003	µg/L	Discharge Conc < TQL

Toxaphene	0.005	µg/L	Discharge Conc < TQL
Gross Alpha	N/A	N/A	No WQS
Total Beta	N/A	N/A	No WQS
Radium 226/228	N/A	N/A	No WQS
Total Strontium	95,087	µg/L	Discharge Conc ≤ 10% WQBEL
Total Uranium	N/A	N/A	No WQS