

SOUTHWEST REGIONAL OFFICE CLEAN WATER PROGRAM

Application Type	Renewal
Facility Type	Sewage
Major / Minor	Major

NPDES PERMIT FACT SHEET ADDENDUM

Application No.	PA0027430
APS ID	930459
Authorization ID	1164427

Applicant and Facility Information

Applicant Name	County	Facility Name	Jeannette STP
Applicant Address	PO Box 730	Facility Address	1000 S Railroad Street
	Greensburg, PA 15601-0730	_	Penn, PA 15675
Applicant Contact	Norman Stout	Facility Contact	Katelyn Warheit
Applicant Phone	(724) 755-5912	Facility Phone	724-454-0233
Client ID	64197	Site ID	738018
SIC Code	4952	Municipality	Penn Borough
SIC Description	Trans. & Utilities - Sewerage Systems	County	Westmoreland
Date Published in PA	Bulletin April 22, 2023	EPA Waived?	No
Comment Period End	Date May 22, 2023	If No, Reason	Major facility

Internal Review and Recommendations

The draft permit notification was published in the PA Bulletin on April 22, 2023.

The comment period ended on May 22, 2023. Comments were received from US EPA Region III and the Municipal Authority of Westmoreland County. This NPDES Permit will be drafted a third time in order to address the changes made as a result of comments received.

In an email dated May 1, 2023, the DEP received the following comments from US EPA Region III. The comments are reproduced below with DEP responses. The full correspondence can be found in Attachment A.

The revised draft permit incorporates the 85% capture by volume performance standard as the level of control presumed to meet water quality standards (WQS) whereas MAWC's 2018 Revised LTCP selected a numeric performance standard of 94% as the percent capture expected to be adequate to meet WQS. The CSO Policy percent capture performance standards based on the Presumption Approach is defined as: "the elimination or capture for treatment of no less than 85% by volume of the combined sewage collected in the CSS during precipitation events on a system-wide average basis." Although 85% capture is the minimum percent capture defined in the CSO Policy, a permittee's LTCP establishes the performance standard in the administrative record) of the performance standard imposed in the NPDES permit unless there is information to demonstrate that a different performance standard is reasonably expected to meet WQS and all other CWA requirements (e.g. greater percent capture may be required to eliminate flows from sensitive areas). The performance standard chosen and implemented by the approved LTCP should be consistent with the controls and performance-based limits in the NPDES permit. It is EPA's position that the permit should be revised to include the LTCP's 94% capture by volume performance standard currently proposed.

Approve	Deny	Signatures	Date
x		grace Polaboshi	
		Grace Polakoski, E.I.T. / Environmental Engineering Specialist	July 13, 2023
x		MAHBUGA IASMIN	
		Mahbuba lasmin, Ph.D., P.E. / Environmental Engineer Manager	July 26, 2023

Internal Review and Recommendations

DEP Response: The Performance Standard in Part C.II.C.2 of the NPDES Permit has been updated to 94% per the above comment.

As we discussed, our office needs some additional information and clarification regarding the compliance schedule in the current NPDES permit and how the 2018 revised LTCP may affect the scope of work including any new actions proposed by the permittee. As we discussed on 4/17/23, this information would impact the milestones and final actions that can be in the proposed CSO compliance schedule in the revised draft permit. Please provide us with this information as well as include this explanation in the fact sheet.

DEP Response: The PADEP references Attachment B for a comprehensive timeline of permitting activities related to Jeannette STP since 2010. Representatives from PADEP and US EPA Region III had a meeting over Microsoft Teams on July 12, 2023 to discuss how to move forward with Jeannette STP's updated compliance schedule during this permit cycle. The most recent (and active) permit for Jeannette STP was issued on June 26, 2012. Part C.III "Combined Sewer Overflows" of the 2012 Permit failed to include both a CSO performance standard and a final compliance date for LTCP Implementation. All LTCP milestones identified in the permit were interim milestones. When compliance dates for interim milestones are exceeded, extending the compliance schedule does not constitute backsliding. As such, updating the LTCP Implementation schedule in the third draft of this NPDES permit does not require an anti-backsliding analysis. Additionally, the inclusion of the CSO performance standard in Part C.II.C.2 and an LTCP implementation schedule in Part C.II.C.3 of the NPDES permit actually sets forth more stringent requirements than were found in the 2012 NPDES permit.

The permittee should note, however, that if an extension to the LTCP compliance schedule is proposed during this permit cycle, they must submit: an application for a Major NPDES Amendment, an extension request for the active Consent Order and Agreement with the DEP, and appropriate justification for their requests.

In a letter dated May 5, 2023, the DEP received the following comments from MAWC. The comments are reproduced below with DEP responses. The full correspondence can be found in Attachment C.

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The Fact Sheet states that Total Nitrogen and Total Phosphorus were changed to 24-hour composite samples, but they are still listed as grab samples in the Part A Effluent Limitations table.

DEP Response: This was a typo that has been corrected.

The highest resampling result for Total Arsenic was 1 μ g/L, but a value of 1.9 μ g/L was entered into the TMS. The WQBEL for Total Arsenic is 10.6 μ g/L, so 1 μ g/L is only 9.4%. Therefore, this monitoring requirement should not be imposed.

DEP Response: This error has been corrected. The updated TMS modeling can be found in Attachment D and monitoring is no longer required for Total Arsenic.

The first draft permit only required reporting for concentration for the new parameters, but the second draft permit requires reporting concentration and mass. Why did this change?

DEP Response: The addition of mass reporting was done to bring the permit reporting requirements more closely in line with the TMS recommendations. MAWC should note that reporting mass does not require taking additional samples, merely an additional calculation.

MAWC still believes that a sampling frequency of 1/week for Total Antimony, Total Copper, Free Cyanide, Total Zinc, Dichlorobromomethane, and Chloroform is excessive. MAWC proposes a sampling frequency of 1/quarter for these parameters. Since Jeannette WWTP is being required to implement a Pretreatment Program, quarterly sampling will be performed for that purpose, so using the same sampling frequency for these parameters will not create an unnecessary burden and will still provide 18 data points for use in calculations when the next permit renewal application is due.

DEP Response: Please see Attachment C for the references MAWC mentioned in support of their request.

Internal Review and Recommendations

In response to the citation of the Permit Writer's Manual, the DEP can evaluate financial considerations, provided that the permittee provides a cost analysis/report demonstrating the financial constraints of the proposed sampling.

In response to the citation of the Water Quality Toxics Management Strategy, the sentence "the permittee should be allowed an option to demonstrate compliance with the final effluent limit with less than the above minimum number of samples [4/month]" does not suggest that the effluent limitations in the permit be relaxed without supporting data. Rather, the permittee should be able to demonstrate compliance with the permit, as written, and use the data collected to support their request for less frequent monitoring after some time has passed and a statistically-significant dataset has been collected.

In response to the citation of the SOP for New and Reissuance Sewage Individual NPDES Permit Applications, for Total Copper, reasonable potential has already been established, therefore the monitoring frequency will remain at 1/week.

In response to the citation of MAWC's Darragh STP permit (PA0096211), Total Copper and Total Zinc were not assigned numeric effluent limitations – the permit requires monitoring of these pollutants only. Therefore, the justification used in the Darragh STP permit only applies to Total Antimony, Free Cyanide, Total Zinc, Dichlorobromomethane, and Chloroform – not to Total Copper.

DEP accepts MAWC's proposal to reduce the monitoring frequency of Total Antimony, Free Cyanide, Total Zinc, Dichlorobromomethane, and Chloroform to 1/quarter. The DEP does not accept MAWC's proposal to reduce the sampling frequency of Total Copper for the reasons listed above. The sampling frequency for Total Copper will remain at 1/week.

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The requirement to report "UV Functional" on the Daily Effluent Monitoring Form is still included even though a monitoring requirement for Ultraviolet light transmittance (%) was added to the Part A Effluent Limitations table. MAWC believes that this Part C requirement should be removed because it is redundant.

DEP Response: This is a standard permit condition for all facilities with UV systems and will remain in the permit.

ATTACHMENT A: EPA Correspondence (May 1, 2023)

Polakoski, Grace

From: Sent:	Fulton, Jennifer <fulton.jennifer@epa.gov> Monday, May 1, 2023 10:03 AM</fulton.jennifer@epa.gov>
To:	Polakoski, Grace
Cc:	lasmin, Mahbuba; Furjanic, Sean; Schumack, Maria; Martinsen, Jessica; Shuart, Ryan; Hales, Dana
Subject:	[External] Jeannette Municipal Authority (PA0027430)

ATTENTION: This email message is from an external sender. Do not open links or attachments from unknown senders. To report suspicious email, use the <u>Report Phishing button in Outlook.</u>

Grace,

According to our Memorandum of Agreement, the Environmental Protection Agency (EPA) Region III has received the revised draft National Pollutant Discharge Elimination System (NPDES) permit for:

Jeannette Municipal Authority Muncipal Authority of Westmoreland County (MAWC) NPDES Number: PA0027430 EPA Received Revised Draft: 4/6/2023 30-day response date: 5/6/2023 EPA Original Receipt: 12/1/2022

This is a major permit that discharges to Brush Creek and is affected by the Brush Creek (Westmoreland) and Turtle Creek Watershed TMDLs for Acid Mine Drainage Affected Segments. EPA has chosen to perform a limited review of the CSO requirements. EPA has completed its review and offers the following comments:

- 1. The revised draft permit incorporates the 85% capture by volume performance standard as the level of control presumed to meet water quality standards (WQS) whereas MAWC's 2018 Revised LTCP selected a numeric performance standard of 94% as the percent capture expected to be adequate to meet WQS. The CSO Policy percent capture performance standards based on the Presumption Approach is defined as; "the elimination or capture for treatment of no less than 85% by volume of the combined sewage collected in the CSS during precipitation events on a system-wide annual average basis". Although 85% capture is the minimum percent capture defined in the CSO policy, a permittee's LTCP establishes the performance standard that is presumed to meet WQS under the Presumption Approach. The LTCP becomes the basis (and is essential in the administrative record) of the performance standard imposed in the NPDES permit unless there is information to demonstrate that a different performance standard is reasonably expected to meet WQS and all other CWA requirements (e.g. greater percent capture may be required to eliminate flows from sensitive areas). The performance standard by the approved LTCP should be consistent with the controls and performance-based limits in the NPDES permit. It is EPA's position that the permit should be revised to include the LTCP's 94% capture by volume performance standard instead of the 85% standard currently proposed.
- 2. As we discussed, our office needs some additional information and clarification regarding the compliance schedule in the current NPDES permit and how the 2018 revised LTCP may affect the scope of work including any new actions proposed by the permittee. As we discussed on 4/17/23, this information would impact the milestones and final actions that can be in the proposed CSO compliance schedule in the revised draft permit. Please provide us with this information as well as include this explanation in the fact sheet.

Please address the above and provide us with any changes to the draft permit and/or fact sheet. Should you have any questions, please feel free to reach out to Ryan Shuart, copied on this email. If there are any additional changes to the permit documents, please be sure to reach out to EPA as additional review may be necessary.

Thank you, Jen Fulton



Jennifer Fulton (she/her) Acting Chief, Clean Water Branch US EPA Mid-Atlantic Region Phone 304-234-0248 Email fulton.jennifer@epa.gov

ATTACHMENT B: Jeannette STP Timeline

	Permitting Milestones
2010	 12/9/10: DEP rejects 2007 revision to "small community" LTCP from 2001
2012	 5/15/12: DEP approves 2011 LTCP (Final Compliance Date: August 31, 2016)
	6/21/12: COA executed
	6/26/12: NPDES Permit PA0027430 issued; expiring 6/30/17
2013	 11/26/13: COJMA (City of Jeannette Municipal Authority) requests extensions to the
	Interim Milestones contained in Part C.III.G of the NPDES Permit due to site
	contamination that delayed the WWTP expansion project (a Temporary Discharge
0011	Authorization was issued)
2014	• 4/24/14: First Amendment to Consent Order and Agreement (COA) executed
	• 11/21/14: COJMA requests extensions to 2 of the 4 Interim Milestones contained in the
	permit as a result of construction delays resulting from the site contamination and permitting timelines
2015	
2015	 1/30/15: Second Amendment to COA executed 3/24/15: COJMA requests extensions to 2 of the 4 Interim Milestones contained in the
	 S/24/15. COSMA requests extensions to 2 of the 4 interm milestones contained in the permit as a result of construction delays resulting from weather
2016	 8/26/16: MAWC (Municipal Authority of Westmoreland County) requests extensions to
2010	deadlines in the COA and the submission date for the revised LTCP
	 9/9/16: NPDES Permit PA0027430 transferred from City of Jeannette to MAWC
	 10/14/16: MAWC proposes changes to flow monitoring scheme
	 12/29/16: NPDES Permit renewal application received
2017	EPA declares moratorium on PADEP issuing CSO Permits
	2/8/17: Third Amendment to COA executed
	6/30/17: NPDES Permit expired
2018	 2/1/18: MAWC submitted revised LTCP and Act 537 Plan
	• 5/23/18: MAWC requests revised dates in COA because the dates in the COA were set
	before the LTCP and Act 537 Plan were revised
2019	 1/4/19: MAWC requests extension because DEP approval was delayed
	 2/7/19: DEP approved the revised LTCP
	 4/8/19: MAWC submits COA quarterly progress report without updated LTCP dates
	• 12/12/19: WQM Permit 9084-S A-5 issued (permitted consolidation of CSOs 003 and
	008 and partial sewer separation of Basin 6)
2020	• 3/24/20: WQM Permit 651943 issued (permitted consolidation of CSOs 009 and 010,
	partial sewer separation of Basins 16 and 29, and increased conveyance of Chambers
2024	Avenue sewer system)
2021 2022	10/13/21: MAWC requests extension
2022	2/16/22: Fourth Amendment to COA executed
	 3/10/22: LTCP Schedule Update Approved 11/20/22: First draft of NRDES Parmit issued
2023	11/30/22: First draft of NPDES Permit issued
2023	 1/24/23: MAWC requests COA amendment due to delays in RUS funding due to "limited staffing"
	 4/5/23: Second draft of NPDES Permit issued

ATTACHMENT C: MAWC Correspondence (May 5, 2023)

An Equal Opportunity Employer 124 Park and Pool Road New Stanton, PA 15672 Phone: 724.755.5800 1,800.442.6829



Mailing Address P.O. Box 730 Greensburg, PA 15601

www.mawc.org mawc@mawc.org

May 5, 2023

Ms. Grace Polakoski PA DEP Clean Water Program 400 Waterfront Drive Pittsburgh, PA 15222

Re: Jeannette WWTP (PA0027430) Second Draft NPDES Permit Comments

Dear Ms. Polakoski:

MAWC has reviewed the second draft NDPES permit for Jeannette WWTP and would like to provide the following comments:

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- The Fact Sheet states that Total Nitrogen and Total Phosphorus were changed to 24-hour composite samples, but they are still listed as grab samples in the Part A Effluent Limitations table.
- The highest resampling result for Total Arsenic was 1 ug/L, but a value of 1.9 ug/L was entered into the TMS. The WQBEL for Total Arsenic is 10.6 ug/L, so 1 ug/L is only 9.4%. Therefore, this monitoring requirement should not be imposed.
- The first draft permit only required reporting concentration for the new parameters, but the second draft permit requires reporting concentration and mass. Why did this change?
- MAWC still believes that a sampling frequency of 1/week for Total Antimony, Total Copper, Free Cyanide, Total Zinc, Dichlorobromomethane, and Chloroform is excessive. MAWC proposes a sampling frequency of 1/quarter for these parameters. Since Jeannette WWTP is being required to implement a Pretreatment Program, quarterly sampling will be performed for that purpose, so using the same sampling frequency for these parameters will not create an unnecessary burden and will still provide 18 data points for use in calculations when the next permit renewal application is due. We offer the following references in support of this request:
 - Page 3 in Chapter 6 of the Permit Writer's Manual (362-0400-001) states: "The subject of monitoring expense, while not necessarily a major consideration, is worthy of some additional discussion due to the increasing appearance of limitations in permits for non-conventional and toxic pollutants. This increase can have a significant impact on the cost of a discharger's self-monitoring program due to the larger amount of sampling needed and the sophisticated techniques required to analyze the samples...Establishment of monitoring schedules should also reflect a form of cost-effectiveness analysis to balance the ability to assure that a limitation is being met with the expense of gathering the needed data."

- Page 22 of the Water Quality Toxics Management Strategy (361-0100-003) states: "The permittee should be allowed an option to demonstrate compliance with the final effluent limit with less than the above minimum number of samples [4/month]."
- Page 8 of the SOP for New and Reissuance Sewage Individual NPDES Permit Applications (BCW-PMT-002) states: "For new parameters introduced into renewed permits, in which the application manager desires for the permittee to collect data to verify reasonable potential for the subsequent permit application review, the application manager may select any reasonable monitoring frequency that is greater than or equal to once per year."
- The Darragh STP (PA0096211) fact sheet that was issued 3-14-23 included the following discussion on Total Copper and Total Zinc, which were added to the draft permit with a frequency of 1/quarter: "A quarterly monitoring requirement will provide sufficient effluent results for a Reasonable Potential analysis during next permit term."

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 The requirement to report "UV Functional" on the Daily Effluent Monitoring Form is still included even though a monitoring requirement for Ultraviolet light transmittance (%) was added to the Part A Effluent Limitations table. MAWC believes that this Part C requirement should be removed because it is redundant.

Sincerely,

Katelyn Washeit

Katelyn Warheit Environmental Compliance Superintendent Municipal Authority of Westmoreland County

cc: Dom Garofola, Gibson-Thomas Engineering

ATTACHMENT D: Revised TMS Modeling

3.3



Toxics Management Spreadsheet Version 1.3, March 2021

Discharge Information

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Instructions D	ischarge Stream								
Facility: Jeanette STP				NPDES Per	mit No.: PAO	027430	Outfall	No.: 001	
Evaluation Type: Major Sewage / Industrial Waste				Wastewater	Description:	sewage			
Discharge Characteristics									
Design Flow	Hardnose (mg/l)*		F	Partial Mix Fa	ctors (PMFs	s)	Complete Mix	x Times (min)	
(MGD)* Hardness (mg/l)* p	pH (SU)*	AFC	CFC	THH	CRL	Q ₇₋₁₀	Qh		

7.2

					0 if lef	t blank	0.5 if le	ft blank	0) if left blan	k	1 if lef	t blank
	Discharge Pollutant	Units	Ma	x Discharge Conc	Trib Conc	Stream Conc	Daily CV	Hourly CV	Strea m CV	Fate Coeff	FOS	Criteri a Mod	Chem Transl
	Total Dissolved Solids (PWS)	mg/L		587									
5	Chloride (PWS)	mg/L		217									
Group	Bromide	mg/L		0.41									
ē	Sulfate (PWS)	mg/L		45									
	Fluoride (PWS)	mg/L											
	Total Aluminum	µg/L		3									
	Total Antimony	µg/L		0.8									
	Total Arsenic	µg/L		1									
	Total Barium	µg/L		35									
	Total Beryllium	µg/L	<	0.3									
	Total Boron	µg/L		133									
	Total Cadmium	µg/L	<	0.1									
	Total Chromium (III)	µg/L	<	1									
	Hexavalent Chromium	µg/L	<	0.1									
	Total Cobalt	µg/L		0.7									
	Total Copper	µg/L		8									
2	Free Cyanide	µg/L		2									
Group	Total Cyanide	µg/L	<	6									
ě	Dissolved Iron	µg/L		20									
-	Total Iron	µg/L		52									
	Total Lead	µg/L	<	1									
	Total Manganese	µg/L		14									
	Total Mercury	µg/L	<	0.1									
	Total Nickel	µg/L		6									
	Total Phenols (Phenolics) (PWS)	µg/L		125									
	Total Selenium	µg/L	<	3.3									
	Total Silver	µg/L	<	0.66									
	Total Thallium	µg/L	<	0.33									
	Total Zinc	µg/L		20									
	Total Molybdenum	µg/L		16									
	Acrolein	µg/L	<	0.9									
	Acrylamide	µg/L	<										
	Acrylonitrile	µg/L	<	2.7									
	Benzene	µg/L	<	0.04									
	Bromoform	µg/L	<	2									

1	Carbon Tetrachloride	µg/L	<	0.1					
1	Chlorobenzene	µg/L	<	0.95					
1	Chlorodibromomethane	µg/L	<	0.3					
1	Chloroethane	µg/L	<	1.7					
1	2-Chloroethyl Vinyl Ether	µg/L	<	1.9					
1	Chloroform	µg/L		2.8					
1	Dichlorobromomethane	µg/L		0.5					
1	1,1-Dichloroethane	µg/L	۷	1.4					
	1,2-Dichloroethane	µg/L	٨	1.6					
	1,1-Dichloroethylene	µg/L	<	1.5					
Group	1,2-Dichloropropane	µg/L	<	0.1					
ø	1,3-Dichloropropylene	µg/L	<	0.06					
1	1,4-Dioxane	µg/L	<	0.77					
	Ethylbenzene	µg/L	<	1.7					
	Methyl Bromide	µg/L	<	2.4					
	Methyl Chloride	µg/L	<	8.4		 			
	Methylene Chloride		<	0.4					
		µg/L		0.1					
	1,1,2,2-Tetrachloroethane	µg/L	<						
1	Tetrachloroethylene	µg/L	<	1.8					
1	Toluene	µg/L	<	1.2					
	1,2-trans-Dichloroethylene	µg/L	<	1.3					
1	1,1,1-Trichloroethane	µg/L	<	1.1					
1	1,1,2-Trichloroethane	µg/L	<	0.08					
	Trichloroethylene	µg/L	<	0.1					
	Vinyl Chloride	µg/L	۷	0.1					
	2-Chlorophenol	µg/L	٨	0.37					
	2,4-Dichlorophenol	µg/L	۷	0.36					
	2,4-Dimethylphenol	µg/L	<	0.23					
	4,6-Dinitro-o-Cresol	µg/L	<	0.37					
4	2,4-Dinitrophenol	µg/L	<	2					
Group	2-Nitrophenol	µg/L	<	0.5					
8	4-Nitrophenol	µg/L	<	1.2					
ľ	p-Chloro-m-Cresol	µg/L	<	0.21					
	Pentachlorophenol	µg/L	<	1.2					
	Phenol	µg/L	_	0.4					
	2,4,6-Trichlorophenol		<	0.63					
\vdash		µg/L		0.65		 			
	Acenaphthene	µg/L	<						
	Acenaphthylene	µg/L	<	0.21					
	Anthracene	µg/L	<	0.17					
	Benzidine	µg/L	<	3.4					
1	Benzo(a)Anthracene	µg/L	<	0.14					
1	Benzo(a)Pyrene	µg/L	۷	0.24					
1	3,4-Benzofluoranthene	µg/L	۷	0.12					
1	Benzo(ghi)Perylene	µg/L	۷	0.24					
1	Benzo(k)Fluoranthene	µg/L	<	0.21					
1	Bis(2-Chloroethoxy)Methane	µg/L	<	0.23					
1	Bis(2-Chloroethyl)Ether	µg/L	<	0.19					
1	Bis(2-Chloroisopropyl)Ether	µg/L	<	0.31					
1	Bis(2-Ethylhexyl)Phthalate	µg/L	<	4.76					
1	4-Bromophenyl Phenyl Ether	µg/L	<	0.19					
1	Butyl Benzyl Phthalate	µg/L	<	0.0635					
1	2-Chloronaphthalene	µg/L	<	0.2					
1	4-Chlorophenyl Phenyl Ether	µg/L	<	0.16					
1	Chrysene	µg/L	<	0.13					
1	Dibenzo(a,h)Anthrancene		 	0.13					
1		µg/L							
1	1,2-Dichlorobenzene	µg/L	<	1.9					
1	1,3-Dichlorobenzene	µg/L	<	1.3		 			
2	1,4-Dichlorobenzene	µg/L	<	1.4					
Group	3,3-Dichlorobenzidine	µg/L	<	0.53					
Sec.	Diethyl Phthalate	µg/L	<	0.2					
ľ	Dimethyl Phthalate	µg/L	<	0.16					
1	Di-n-Butyl Phthalate	µg/L		0.16					
	2,4-Dinitrotoluene	µg/L	<	0.13					

1	2.6 Disiteteluese	1100	-	0.00					
	2,6-Dinitrotoluene	µg/L	<	0.23					
	Di-n-Octyl Phthalate	µg/L	<	0.11					
	1,2-Diphenylhydrazine	µg/L	<	0.29					
	Fluoranthene	µg/L	<	0.19					
	Fluorene	µg/L	<	0.22					
	Hexachlorobenzene	µg/L	<	0.26					
	Hexachlorobutadiene	µg/L	<	0.21					
	Hexachlorocyclopentadiene	µg/L	<	0.19					
	Hexachloroethane	µg/L	۷	0.33					
	Indeno(1,2,3-cd)Pyrene	µg/L	۷	0.11					
	Isophorone	µg/L	٨	0.17					
	Naphthalene	µg/L	<	0.13					
	Nitrobenzene	µg/L	<	0.31					
	n-Nitrosodimethylamine	µg/L	<	0.71					
	n-Nitrosodi-n-Propylamine	µg/L	<	0.27					
	n-Nitrosodiphenylamine	µg/L	<	0.27					
	Phenanthrene	µg/L	<	0.14					
			<	0.14					
	Pyrene	µg/L							
_	1,2,4-Trichlorobenzene	µg/L	<	0.14					
	Aldrin	µg/L	<	0.0052					
	alpha-BHC	µg/L	<	0.004					
	beta-BHC	µg/L	<	0.0082					
	gamma-BHC	µg/L	<	0.0031					
	delta BHC	µg/L	<	0.0031					
	Chlordane	µg/L	<	0.036					
	4,4-DDT	µg/L	۷	0.0062					
	4,4-DDE	µg/L	٨	0.0072					
	4,4-DDD	µg/L	۷	0.0072					
	Dieldrin	µg/L	<	0.0031					
	alpha-Endosulfan	µg/L	<	0.0031					
	beta-Endosulfan	µg/L	<	0.0062					
9	Endosulfan Sulfate	µg/L	<	0.0041					
Group	Endrin	µg/L	<	0.0082					
2	Endrin Aldehyde	µg/L	<	0.0002					
9	Heptachlor	µg/L	<	0.0031					
	Heptachlor Epoxide		<	0.0041					
		µg/L		0.0041					
	PCB-1016	µg/L	<						
	PCB-1221	µg/L	<						
	PCB-1232	µg/L	<						
	PCB-1242	µg/L	<						
	PCB-1248	µg/L	<						
	PCB-1254	µg/L	۷						
	PCB-1260	µg/L	۷						
	PCBs, Total	µg/L	۷						
	Toxaphene	µg/L	<	0.2					
	2,3,7,8-TCDD	ng/L	<						
	Gross Alpha	pCi/L							
	Total Beta	pCi/L	<						
	Radium 226/228	pCi/L	<						
Group	Total Strontium	µg/L	<						
5	Total Uranium	µg/L	<						
	Osmotic Pressure	mOs/kg							
		moang							



Stream / Surface Water Information

Jeanette STP, NPDES Permit No. PA0027430, Outfall 001

Toxics Management Spreadsheet Version 1.3, March 2021

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Receiving Surface Water Name: Brush Creek

No.	Reaches	to	Model:	
				-

1

Location	Stream Code*	RMI*	Elevation (ft)*	DA (mi ²)*	Slope (ft/ft)	PWS Withdrawal (MGD)	Apply Fish Criteria*
Point of Discharge	037246	14.33	955	18.7			Yes
End of Reach 1	037246	12.06	926	20.9			Yes

Statewide Criteria
 Great Lakes Criteria

ORSANCO Criteria

0	_	_
-	7-1	0
_		_

Location	RMI	LFY	Flow	(cfs)	W/D	Width	Depth	Velocit	Time	Tributa	iry	Stream	n	Analys	sis
Location	EVIAII	(cfs/mi ²)*	Stream	Tributary	Ratio	(ft)	(ft)	y (fps)	Time (dave)	Hardness	pН	Hardness*	pH*	Hardness	pН
Point of Discharge	14.33	0.016										100	7		
End of Reach 1	12.06	0.017													

Q_h

Location	RMI	LFY	Flow	(cfs)	W/D	Width	Depth	Velocit	Time	Tributary		Stream		Analysis	
Location	TSIVII	(cfs/mi ²)	Stream	Tributary	Ratio	(ft)	(ft)	y (fps)	(dave)	Hardness	pН	Hardness	pН	Hardness	pH
Point of Discharge	14.33														
End of Reach 1	12.06														

NPDES Permit No. PA0027430

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Toxics Management Spreadsheet Version 1.3, March 2021

Model Results

Jeanette STP, NPDES Permit No. PA0027430, Outfall 001

1	Instructions	Results	RETURN TO INPUTS	SAVE AS PDF	PRINT	All	⊖ Inputs	O Results	O Limits	

✓ Hydrodynamics

Q 7-10 Discharge Analysis Flow (cfs) Complete Mix Time Stream Flow (cfs) PWS Withdrawal Net Stream Velocity пач Width (ft) W/D Ratio RMI Slope (ft/ft) Depth (ft) Time Flow (cfs) (cfs) (fps) (min) 14.33 0.30 0.30 5.105 0.002 0.664 30.487 45.949 0.267 0.519 0.147 0.337 12.06 0.34

 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)	Time (dave)	Complete Mix Time (min)
14.33	2.59		2.59	5.105	0.002	0.775	30.487	39.336	0.326	0.426	4.296
12.06	2.869		2.87								

✓ Wasteload Allocations

J AFC	CCT (min): 0.	147	PMF:	1	Ana	lysis Hardne	ss (mg/l):	141.56 Analysis pH: 7.19
Pollutants	Conc	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	794	
Total Antimony	0	0		0	1,100	1,100	1,164	
Total Arsenic	0	0		0	340	340	360	Chem Translator of 1 applied
Total Barium	0	0		0	21,000	21,000	22,231	
Total Boron	0	0		0	8,100	8,100	8,575	
Total Cadmium	0	0		0	2.823	3.04	3.22	Chem Translator of 0.929 applied
Total Chromium (III)	0	0		0	757.399	2,397	2,537	Chem Translator of 0.316 applied
Hexavalent Chromium	0	0		0	16	16.3	17.2	Chem Translator of 0.982 applied
Total Cobalt	0	0		0	95	95.0	101	
Total Copper	0	0		0	18.647	19.4	20.6	Chem Translator of 0.96 applied
Free Cyanide	0	0		0	22	22.0	23.3	

NPDES Permit No. PA0027430

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	94.088	127	135	Chem Translator of 0.74 applied
Total Manganese	0	0	0	N/A	N/A	N/A	
Total Mercury	0	0	0	1.400	1.65	1.74	Chem Translator of 0.85 applied
Total Nickel	0	0	0	628.305	630	666	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	5.849	6.88	7.28	Chem Translator of 0.85 applied
Total Thallium	0	0	0	65	65.0	68.8	
Total Zinc	0	0	0	157.310	161	170	Chem Translator of 0.978 applied
Acrolein	0	0	0	3	3.0	3.18	
Acrylonitrile	0	0	0	650	650	688	
Benzene	0	0	0	640	640	678	
Bromoform	0	0	0	1,800	1.800	1,905	
Carbon Tetrachloride	Ő	Ő	0	2.800	2.800	2,964	
Chlorobenzene	Ő	Ő	Ő	1,200	1,200	1,270	
Chlorodibromomethane	0	0	0	N/A	N/A	N/A	
2-Chloroethyl Vinyl Ether	0	0	0	18,000	18,000	19.055	
Chloroform	0	0	0	1,900	1,900	2.011	
Dichlorobromomethane	0	0	0	N/A	N/A	N/A	
1.2-Dichloroethane	0	0	0	15,000	15,000	15.879	
1,1-Dichloroethylene	0	0	0	7,500	7,500	7,940	
1,2-Dichloropropane	0	0	0	11.000	11.000	11.645	
1,3-Dichloropropylene	0	0	0	310	310	328	
Ethylbenzene	0	0	0	2,900	2.900	3,070	
Methyl Bromide	0	0	0	550	550	582	
Methyl Chloride	0	0	0	28,000	28,000	29.641	
Methylene Chloride	0	0	0	12,000	12,000	12,703	
1,1,2,2-Tetrachloroethane	0	0	0	1,000	1.000	1.059	
Tetrachloroethylene	0	0	0	700	700	741	
Toluene	0	0	0	1,700	1,700	1.800	
1,2-trans-Dichloroethylene	0	Ő	Ő	6,800	6.800	7,199	
1.1.1-Trichloroethane	0	0	0	3,000	3.000	3,176	
1,1,2-Trichloroethane	0	0	0	3,400	3,400	3,599	
Trichloroethylene	0	0	0	2,300	2,300	2,435	
Vinyl Chloride	0	0	0	N/A	N/A	N/A	
2-Chlorophenol	0	0	0	560	560	593	
2.4-Dichlorophenol	0	Ő	0	1,700	1,700	1,800	
2,4-Dimethylphenol	0	0	0	660	660	699	
4,6-Dinitro-o-Cresol	0	0	0	80	80.0	84.7	
2.4-Dinitrophenol	0	Ő	0	660	660	699	
2-Nitrophenol	0	0	0	8.000	8.000	8,469	
4-Nitrophenol	ő	ŏ	Ő	2,300	2.300	2,435	
p-Chloro-m-Cresol	Ő	Ő	0	160	160	169	
Pentachlorophenol	Ő	Ő	0	10.518	10.5	11.1	
Phenol	Ő	Ő	0	N/A	N/A	N/A	
2,4,6-Trichlorophenol	Ő	Ő	0	460	460	487	

Acenaphthene	0	0	0	83	83.0	87.9	
Anthracene	0	ŏ	 0	N/A	N/A	N/A	
Benzidine	0	0	0	300	300	318	
Benzo(a)Anthracene	0	0	0	0.5	0.5	0.53	
	-	-					
Benzo(a)Pyrene	0	0	 0	N/A N/A	N/A N/A	N/A N/A	
3,4-Benzofluoranthene		-	 -				
Benzo(k)Fluoranthene	0	0	 0	N/A	N/A	N/A	
Bis(2-Chloroethyl)Ether	0	0	 0	30,000	30,000	31,758	
Bis(2-Chloroisopropyl)Ether	0	0	 0	N/A	N/A	N/A	
Bis(2-Ethylhexyl)Phthalate	0	0	 0	4,500	4,500	4,764	
4-Bromophenyl Phenyl Ether	0	0	 0	270	270	286	
Butyl Benzyl Phthalate	0	0	 0	140	140	148	
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	868	
1,3-Dichlorobenzene	0	0	0	350	350	371	
1,4-Dichlorobenzene	0	0	0	730	730	773	
3,3-Dichlorobenzidine	0	0	0	N/A	N/A	N/A	
Diethyl Phthalate	0	0	0	4,000	4,000	4,234	
Dimethyl Phthalate	0	0	0	2,500	2,500	2,647	
Di-n-Butyl Phthalate	0	0	0	110	110	116	
2,4-Dinitrotoluene	0	0	0	1,600	1,600	1,694	
2,6-Dinitrotoluene	0	0	0	990	990	1,048	
1,2-Diphenylhydrazine	0	0	0	15	15.0	15.9	
Fluoranthene	0	0	0	200	200	212	
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	10.6	
Hexachlorocyclopentadiene	0	0	0	5	5.0	5.29	
Hexachloroethane	0	0	0	60	60.0	63.5	
Indeno(1,2,3-cd)Pyrene	0	0	0	N/A	N/A	N/A	
Isophorone	0	0	0	10.000	10.000	10,586	
Naphthalene	0	0	0	140	140	148	
Nitrobenzene	0	0	0	4.000	4.000	4,234	
n-Nitrosodimethylamine	0	0	0	17,000	17,000	17,996	
n-Nitrosodi-n-Propylamine	0	ŏ	Ő	N/A	N/A	N/A	
n-Nitrosodiphenylamine	0	ŏ	ŏ	300	300	318	
Phenanthrene	0	0	0	5	5.0	5.29	
Pyrene	0	0	0	N/A	N/A	N/A	
1.2.4-Trichlorobenzene	0	ŏ	0	130	130	138	
Aldrin	0	0	 0	3	3.0	3.18	
alpha-BHC	0	0	 0	N/A	3.0 N/A	3.16 N/A	
beta-BHC	0	0	0	N/A N/A	N/A N/A	N/A N/A	
gamma-BHC	0	0	0	0.95	0.95	1.01	
Chlordane	0	0	0	2.4	2.4	2.54	
-	-	-	 -				
4,4-DDT	0	0	 0	1.1	1.1	1.16	
4,4-DDE	0	0	0	1.1	1.1	1.16	

4.4-DDD	0	0		0	1.1	1.1	1.16	
Dieldrin	0	0		0	0.24	0.24	0.25	
alpha-Endosulfan	0	0		0	0.24	0.24	0.23	
beta-Endosulfan	0	0		0	0.22	0.22	0.23	
Endosulfan Sulfate	0	0		0	N/A	N/A	N/A	
Endrin	0	0		0	0.086	0.086	0.091	
Endrin Aldehyde	0	0		0	N/A	N/A	N/A	
Heptachlor	0	0		0	0.52	0.52	0.55	
Heptachlor Epoxide	0	0		0	0.5	0.5	0.53	
Toxaphene	Ő	0		0	0.73	0.73	0.77	
Toxaphene		Ŭ		Ŭ	0.10	0.10	0.11	
♂ CFC C	CT (min): 0.	147	PMF:	1	Ana	alysis Hardne	ess (mg/l):	141.56 Analysis pH: 7.19
Pollutants	Conc	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	233	
Total Arsenic	0	0		0	150	150	159	Chem Translator of 1 applied
Total Barium	0	0		0	4,100	4,100	4,340	
Total Boron	0	0		0	1,600	1,600	1,694	
Total Cadmium	0	0		0	0.313	0.35	0.37	Chem Translator of 0.894 applied
Total Chromium (III)	0	0		0	98.522	115	121	Chem Translator of 0.86 applied
Hexavalent Chromium	0	0		0	10	10.4	11.0	Chem Translator of 0.962 applied
Total Cobalt	0	0		0	19	19.0	20.1	
Total Copper	0	0		0	12.053	12.6	13.3	Chem Translator of 0.96 applied
Free Cyanide	0	0		0	5.2	5.2	5.5	
Dissolved Iron	0	0		0	N/A	N/A	N/A	
Total Iron	0	0		0	1,500	1,500	1,588	WQC = 30 day average; PMF = 1
Total Lead	0	0		0	3.666	4.95	5.24	Chem Translator of 0.74 applied
Total Manganese	0	0		0	N/A	N/A	N/A	ener manadar er er rappred
Total Mercury	0	0		0	0.770	0.91	0.96	Chem Translator of 0.85 applied
Total Nickel	0	0		0	69.785	70.0	74.1	Chem Translator of 0.997 applied
Total Phenols (Phenolics) (PWS)	0	0		0	N/A	N/A	N/A	Grieffi Translator or 0.557 appreu
Total Selenium	0	0		0	4.600	4.99	5.28	Chem Translator of 0.922 applied
Total Silver	0	0		0	4.600 N/A	4.99 N/A	5.26 N/A	Chem Translator of 0.922 applied
Total Thallium	0	0		0	13	13.0	13.8	
Total Zinc	0	0		0	158.597	13.0	13.8	Chem Translator of 0.986 applied
Acrolein	0	0		0	108.097	3.0	3,18	Chem mansiator or 0.900 applied
	0	0		0	3 130	3.0	3.18	
Acrylonitrile	-	-						
Benzene Bromoform	0	0		0	130	130 370	138 392	
	0			0	370			
Carbon Tetrachloride	0	0		0	560	560	593	

Chlorobenzene	0	0	0	240	240	254	
Chlorodibromomethane	0	0	0	N/A	N/A	N/A	
2-Chloroethyl Vinyl Ether	0	0	0	3,500	3,500	3,705	
Chloroform	0	0	0	390	390	413	
Dichlorobromomethane	0	0	0	N/A	N/A	N/A	
1,2-Dichloroethane	0	0	0	3,100	3,100	3,282	
1,1-Dichloroethylene	0	0	0	1,500	1,500	1,588	
1,2-Dichloropropane	0	0	0	2,200	2,200	2,329	
1,3-Dichloropropylene	0	0	0	61	61.0	64.6	
Ethylbenzene	0	0	0	580	580	614	
Methyl Bromide	0	0	0	110	110	116	
Methyl Chloride	0	0	0	5,500	5,500	5,822	
Methylene Chloride	0	0	0	2,400	2,400	2,541	
1,1,2,2-Tetrachloroethane	0	0	0	210	210	222	
Tetrachloroethylene	0	0	0	140	140	148	
Toluene	0	0	0	330	330	349	
1,2-trans-Dichloroethylene	0	0	0	1,400	1,400	1,482	
1,1,1-Trichloroethane	0	0	0	610	610	646	
1,1,2-Trichloroethane	0	0	0	680	680	720	
Trichloroethylene	0	0	0	450	450	476	
Vinyl Chloride	0	0	0	N/A	N/A	N/A	
2-Chlorophenol	0	0	0	110	110	116	
2,4-Dichlorophenol	0	0	0	340	340	360	
2,4-Dimethylphenol	0	0	0	130	130	138	
4,6-Dinitro-o-Cresol	0	0	0	16	16.0	16.9	
2,4-Dinitrophenol	0	0	0	130	130	138	
2-Nitrophenol	0	0	0	1,600	1,600	1,694	
4-Nitrophenol	0	0	0	470	470	498	
p-Chloro-m-Cresol	0	0	0	500	500	529	
Pentachlorophenol	0	0	0	8.069	8.07	8.54	
Phenol	0	0	0	N/A	N/A	N/A	
2,4,6-Trichlorophenol	0	0	0	91	91.0	96.3	
Acenaphthene	0	0	0	17	17.0	18.0	
Anthracene	0	0	0	N/A	N/A	N/A	
Benzidine	0	0	0	59	59.0	62.5	
Benzo(a)Anthracene	0	0	0	0.1	0.1	0.11	
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	6,352	
Bis(2-Chloroisopropyl)Ether	0	0	0	N/A	N/A	N/A	
Bis(2-Ethylhexyl)Phthalate	0	0	0	910	910	963	
4-Bromophenyl Phenyl Ether	0	0	0	54	54.0	57.2	
Butyl Benzyl Phthalate	0	0	0	35	35.0	37.1	
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	169	
1,3-Dichlorobenzene	0	0	0	69	69.0	73.0	
1,4-Dichlorobenzene	0	0	0	150	150	159	
3,3-Dichlorobenzidine	0	0	 0	N/A	N/A	N/A	
Diethyl Phthalate	0	0	0	800	800	847	
Dimethyl Phthalate	0	0	0	500	500	529	
Di-n-Butyl Phthalate	0	0	0	21	21.0	22.2	
2,4-Dinitrotoluene	0	0	0	320	320	339	
2,6-Dinitrotoluene	0	0	0	200	200	212	
1,2-Diphenylhydrazine	0	0	0	3	3.0	3.18	
Fluoranthene	0	0	0	40	40.0	42.3	
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	2.12	
Hexachlorocyclopentadiene	0	0	0	1	1.0	1.06	
Hexachloroethane	0	0	0	12	12.0	12.7	
Indeno(1,2,3-cd)Pyrene	0	0	0	N/A	N/A	N/A	
Isophorone	0	0	0	2,100	2,100	2,223	
Naphthalene	0	0	0	43	43.0	45.5	
Nitrobenzene	0	0	0	810	810	857	
n-Nitrosodimethylamine	0	0	0	3,400	3,400	3,599	
n-Nitrosodi-n-Propylamine	0	0	0	N/A	N/A	N/A	
n-Nitrosodiphenylamine	0	0	0	59	59.0	62.5	
Phenanthrene	0	0	0	1	1.0	1.06	
Pyrene	0	0	0	N/A	N/A	N/A	
1,2,4-Trichlorobenzene	0	0	0	26	26.0	27.5	
Aldrin	0	0	0	0.1	0.1	0.11	
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	0.005	
4,4-DDT	0	0	0	0.001	0.001	0.001	
4,4-DDE	0	0	0	0.001	0.001	0.001	
4,4-DDD	0	0	0	0.001	0.001	0.001	
Dieldrin	0	0	0	0.056	0.056	0.059	
alpha-Endosulfan	0	0	0	0.056	0.056	0.059	
beta-Endosulfan	0	0	0	0.056	0.056	0.059	
Endosulfan Sulfate	0	0	0	N/A	N/A	N/A	
Endrin	0	0	0	0.036	0.036	0.038	
Endrin Aldehyde	0	0	0	N/A	N/A	N/A	
Heptachlor	0	0	0	0.0038	0.004	0.004	
Heptachlor Epoxide	0	0	0	0.0038	0.004	0.004	
Toxaphene	0	0	0	0.0002	0.0002	0.0002	

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<i>☑ ТНН ССС</i>	T (min): 0.	147	PMF:	1	Ana	alysis Hardne	ess (mg/l):	N/A Analysis pH: N/A
Pollutants	Conc	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	5.93	
Total Arsenic	0	0		0	10	10.0	10.6	
Total Barium	0	0		0	2,400	2,400	2,541	
Total Boron	0	0		0	3,100	3,100	3,282	
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	4.23	
Dissolved Iron	0	0		0	300	300	318	
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	1,059	
Total Mercury	0	0		0	0.050	0.05	0.053	
Total Nickel	0	0		0	610	610	646	
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	0.25	
Total Zinc	0	0		0	N/A	N/A	N/A	
Acrolein	0	0		0	3	3.0	3.18	
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	106	
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	6.03	
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	34.9	
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	72.0	
Methyl Bromide	0	0	0	100	100.0	106	
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	60.3	
1,2-trans-Dichloroethylene	0	0	0	100	100.0	106	
1,1,1-Trichloroethane	0	0	0	10,000	10,000	10,586	
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	31.8	
2,4-Dichlorophenol	0	0	0	10	10.0	10.6	
2,4-Dimethylphenol	0	0	0	100	100.0	106	
4,6-Dinitro-o-Cresol	0	0	0	2	2.0	2.12	
2,4-Dinitrophenol	0	0	0	10	10.0	10.6	
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	4,234	
2,4,6-Trichlorophenol	0	0	0	N/A	N/A	N/A	
Acenaphthene	0	0	0	70	70.0	74.1	
Anthracene	0	0	0	300	300	318	
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	212	
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	0.11	
2-Chloronaphthalene	0	0	0	800	800	847	
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	1,059	
1,3-Dichlorobenzene	0	0	0	7	7.0	7.41	
1,4-Dichlorobenzene	0	0	0	300	300	318	
3,3-Dichlorobenzidine	0	0	0	N/A	N/A	N/A	
Diethyl Phthalate	0	0	0	600	600	635	
Dimethyl Phthalate	0	0	0	2,000	2,000	2,117	
Di-n-Butyl Phthalate	0	0	0	20	20.0	21.2	

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	21.2	
Fluorene	0	0		0	50	50.0	52.9	
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	4.23	
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	36.0	
Naphthalene	0	0		0	N/A	N/A	N/A	
Nitrobenzene	0	0		0	10	10.0	10.6	
n-Nitrosodimethylamine	0	0		0	N/A	N/A N/A	N/A N/A	
n-Nitrosodi-n-Propylamine	-	-		0	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	21.2	
1,2,4-Trichlorobenzene	0	0		0	0.07	0.07	0.074	
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	4.45	
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	21.2	
beta-Endosulfan	0	0		0	20	20.0	21.2	
Endosulfan Sulfate	0	0		0	20	20.0	21.2	
Endrin	0	0		0	0.03	0.03	0.032	
Endrin Aldehyde	0	0		0	1	1.0	1.06	
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 CC	CT (min): 4	.296	PMF:	1	Ana	alysis Hardne	ess (mg/l):	N/A Analysis pH: N/A
Dellutente	oucam	Stream	Trib Conc	Fate	WQC	WQ Obi		Commente

Pollutants	Conc	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 N/A	N/A N/A	
Total Anumony Total Arsenic	0	0	0	N/A N/A	N/A 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	0.09	
Benzene	0	0	0	0.58	0.58	0.87	
Bromoform	0	0	0	7	7.0	10.5	
Carbon Tetrachloride	0	0	0	0.4	0.4	0.6	
Chlorobenzene	0	Ő	0	N/A	N/A	N/A	
Chlorodibromomethane	0	ŏ	0	0.8	0.8	1.21	
2-Chloroethyl Vinyl Ether	0	ŏ	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	1.43	
1,2-Dichloroethane	0	0	0	9,9	9.9	14.9	
1,1-Dichloroethylene	0	0	0	9.9 N/A	9.9 N/A	N/A	
	-	0	-	0.9	0.9	1.36	
1,2-Dichloropropane	0	0	0	0.9	0.9	0.41	
1,3-Dichloropropylene	-		-				
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	30.1	
1,1,2,2-Tetrachloroethane	0	0	0	0.2	0.2	0.3	
Tetrachloroethylene	0	0	0	10	10.0	15.1	
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	0.83	
Trichloroethylene	0	0	0	0.6	0.6	0.9	
Vinyl Chloride	0	0	0	0.02	0.02	0.03	
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	0.045	
Phenol	0	0	0	N/A	N/A	N/A	
2,4,6-Trichlorophenol	0	0	0	1.5	1.5	2.26	
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	0.0002	
Benzo(a)Anthracene	0	0	0	0.001	0.001	0.002	
Benzo(a)Pyrene	0	0	0	0.0001	0.0001	0.0002	
3.4-Benzofluoranthene	0	0	0	0.001	0.001	0.002	
Benzo(k)Fluoranthene	0	0	0	0.01	0.01	0.015	
Bis(2-Chloroethyl)Ether	0	0	0	0.03	0.03	0.045	
Bis(2-Chloroisopropyl)Ether	0	0	0	N/A	N/A	N/A	
Bis(2-Ethylhexyl)Phthalate	0	0	0	0.32	0.32	0.48	
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	0.18	
Dibenzo(a,h)Anthrancene	0	0	0	0.0001	0.0001	0.0002	
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	0.075	
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	0.075	
2,6-Dinitrotoluene	0	0	0	0.05	0.05	0.075	
1,2-Diphenylhydrazine	0	0	0	0.03	0.03	0.045	
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	0.0001	
Hexachlorobutadiene	0	0	0	0.01	0.01	0.015	
Hexachlorocyclopentadiene	0	0	0	N/A	N/A	N/A	
	0	Ő	0	0.1	0.1	0.15	

Indeno(1,2,3-cd)Pyrene 0 0 0.001 0.001 0.002 Isophorone 0 0 0 N/A N/A N/A N/A Naphthalene 0 0 0 N/A N/A N/A Nitrobenzene 0 0 0 0.0007 0.0001 0.001 n-Nitrosodimethylamine 0 0 0.0055 0.005 0.008 n-Nitrosodimethylamine 0 0 0 0.0055 0.008 n-Nitrosodiphenylamine 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 0.00004 0.0006 alpha-BHC 0 0 0 0.00004 0.0006 0.0006 gamma-BHC 0 0 0 0.0003 0.00005 0.4/4-DDE 0 0 0.00003 0.00005 4,4-DDT 0				_	-			
Naphthalene 0 0 N/A N/A N/A N/A Nitrobenzene 0 0 0 N/A N/A N/A n-Nitrosodimethylamine 0 0 0.0007 0.0007 0.001 n-Nitrosodiphenylamine 0 0 0.005 0.005 0.008 n-Nitrosodiphenylamine 0 0 0.014 N/A N/A Phenanthrene 0 0 0 N/A N/A N/A 1,2,4-Trichlorobenzene 0 0 N/A N/A N/A N/A Aldrin 0 0 0 0.0004 0.00001 0 0.0006 beta-BHC 0 0 0 0.0003 0.0003 0.0005 gamma-BHC 0 0 0 0.0003 0.0003 0.0005 4,4-DDT 0 0 0.00001 0.00002 0.00002 0.00002 Dieldrin 0 0 0.00001 0.00002 0	Indeno(1,2,3-cd)Pyrene	0	0	0	0.001	0.001	0.002	
Nitrobenzene 0 0 N/A N/A N/A N/A n-Nitrosodinehylamine 0 0 0.0007 0.0007 0.001 n-Nitrosodin-Propylamine 0 0 0 0.005 0.005 0.008 n-Nitrosodiphenylamine 0 0 0 3.3 3.3 4.97 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 0.0004 0.00001 0.00001 alpha-BHC 0 0 0 0.0003 0.0005 0.0012 gamma-BHC 0 0 0 0.0003 0.0005 0.0005 4,4-DDT 0 0 0 0.0002 0.00002 0.00002 Dieldrin 0 0 0.00001 0.00002	Isophorone	0	0	0	N/A	N/A	N/A	
n-Nitrosodimethylamine 0 0 0.0007 0.0007 0.001 n-Nitrosodiphenylamine 0 0 0.005 0.005 0.008 n-Nitrosodiphenylamine 0 0 0.3.3 3.3 4.97 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 0.00004 0.00004 0.0006 beta-BHC 0 0 0 0.0003 0.0005 0.012 gamma-BHC 0 0 0 0.0003 0.0003 0.0005 4,4-DDT 0 0 0 0.0001 0.0002 0.0002 4,4-DDD 0 0 0.0001 0.00002 0.0002 0.0002 Dieldrin 0 0 0 0.00001 0.00002 0.00002<	Naphthalene	0	0	0	N/A	N/A	N/A	
n-Nitrosodi-n-Propylamine 0 0 0.005 0.005 0.008 n-Nitrosodiphenylamine 0 0 3.3 3.3 4.97 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 0.0004 0.0004 0.0006 beta-BHC 0 0 0 0.0003 0.0005 0.0005 gamma-BHC 0 0 0 0.0003 0.00003 0.0005 4,4-DDT 0 0 0 0.0001 0.0002 0.0002 4,4-DDD 0 0 0 0.0001 0.0002 0.0002 deltrin 0 0 0.0001 0.0002 0.0002 0.0002 deltrin 0 0 0 0.00001 0.0002 0.000	Nitrobenzene	0	0	0	N/A	N/A	N/A	
n-Nitrosodiphenylamine 0 0 3.3 3.3 4.97 Phenanthrene 0 0 N/A N/A N/A Pyrene 0 0 0 N/A N/A 1,2,4-Trichlorobenzene 0 0 0 N/A N/A Aldrin 0 0 0 0.000008 8.00E-07 0.000001 alpha-BHC 0 0 0 0.0004 0.0004 0.0006 beta-BHC 0 0 0 0.0003 0.0003 0.0005 4,4-DDT 0 0 0 0.0001 0.0002 0.00003 4,4-DDE 0 0 0 0.0001 0.00002 0.00002 Dieldrin 0 0 0 0.00001 0.00002 0.00002 alpha-Endosulfan 0 0 0 0.00001 0.00002 0.00002 alpha 0 0 0 0.00001 0.000002 0.00002 <td< td=""><td>n-Nitrosodimethylamine</td><td>0</td><td>0</td><td>0</td><td>0.0007</td><td>0.0007</td><td>0.001</td><td></td></td<>	n-Nitrosodimethylamine	0	0	0	0.0007	0.0007	0.001	
Phenanthrene 0 0 N/A 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 0.000001 alpha-BHC 0 0 0.0004 0.0004 0.0006 beta-BHC 0 0 0 0.0003 0.0008 0.012 gamma-BHC 0 0 0 0.0003 0.0003 0.0005 4,4-DDT 0 0 0 0.0001 0.00002 0.0002 10ieldrin 0 0 0 0.00001 0.00002 0.00002 alpha-Endosulfan 0 0 0 0 0.00001 0.00002 alpha-Endosulfan 0 0 0 N/A N/A N/A Endrin 0 0 0 N/A N/A	n-Nitrosodi-n-Propylamine	0	0	0	0.005	0.005	0.008	
Pyrene 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 0.000008 8.00E-07 0.000001 alpha-BHC 0 0 0 0.0004 0.0004 0.0006 beta-BHC 0 0 0 0.0003 0.012 0.0005 gamma-BHC 0 0 0 0.0003 0.0003 0.0005 4,4-DDT 0 0 0 0.0001 0.00002 0.00003 0.0002 Dieldrin 0 0 0 0.0001 0.00002 0.0002 Dieldrin 0 0 0 0.0001 0.00002 0.00002 alpha-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 <td< td=""><td>n-Nitrosodiphenylamine</td><td>0</td><td>0</td><td>0</td><td>3.3</td><td>3.3</td><td>4.97</td><td></td></td<>	n-Nitrosodiphenylamine	0	0	0	3.3	3.3	4.97	
1,2,4-Trichlorobenzene 0 0 N/A N/A N/A Aldrin 0 0 0 0.000008 8.00E-07 0.000001 alpha-BHC 0 0 0 0.0004 0.0004 0.0006 beta-BHC 0 0 0 0.008 0.012 0.0006 gamma-BHC 0 0 0 0.003 0.0003 0.0005 4,4-DDT 0 0 0 0.0002 0.00003 0.00003 4,4-DDT 0 0 0 0.0001 0.0002 0.00003 4,4-DDD 0 0 0.0001 0.0002 0.00002 0.00002 bieldrin 0 0 0 0.00001 0.00002 0.00002 bieldrin 0 0 0 0.00001 0.00002 0.00002 alpha-Endosulfan 0 0 0 N/A N/A N/A Endrin Aldehyde 0 0 0 N/A <	Phenanthrene	0	0	0	N/A	N/A	N/A	
Aldrin 0 0 0 0.000008 8.0E-07 0.00001 alpha-BHC 0 0 0 0.0004 0.0006 0 0 0.0006 beta-BHC 0 0 0 0.008 0.008 0.012 gamma-BHC 0 0 0 0 N/A N/A N/A Chlordane 0 0 0 0.0003 0.0003 0.0005 4,4-DDT 0 0 0 0.0001 0.0003 0.0002 4,4-DDE 0 0 0 0.0001 0.0002 0.0002 4,4-DDD 0 0 0 0.0001 0.0002 0.0002 Dieldrin 0 0 0 0.00001 0.0002 0.00002 alpha-Endosulfan 0 0 0 N/A N/A N/A beta-Endosulfan 0 0 N/A N/A N/A Endrin 0 0 0 N	Pyrene	0	0	0	N/A	N/A	N/A	
alpha-BHC 0 0 0.0004 0.0004 0.0006 beta-BHC 0 0 0 0.008 0.012 gamma-BHC 0 0 0 N/A N/A N/A Chlordane 0 0 0 0.0003 0.0003 0.0005 4,4-DDT 0 0 0 0.0001 0.0002 0.0003 4,4-DDE 0 0 0 0.0001 0.0002 0.0003 4,4-DDD 0 0 0 0.0001 0.0002 0.0002 Bieldrin 0 0 0 0.0001 0.0002 0.0002 Dieldrin 0 0 0 0.00001 0.00002 0.00002 alpha-Endosulfan 0 0 0 N/A N/A N/A Endrin 0 0 0 N/A N/A N/A Endrin 0 0 0 N/A N/A N/A Heptachlo	1,2,4-Trichlorobenzene	0	0	0	N/A	N/A	N/A	
beta-BHC 0 0 0.008 0.008 0.012 gamma-BHC 0 0 0 N/A N/A N/A Chlordane 0 0 0 0.0003 0.0003 0.0005 4,4-DDT 0 0 0 0.0002 0.0003 0.0003 4,4-DDE 0 0 0 0.0001 0.0002 0.0003 4,4-DDD 0 0 0 0.0001 0.0002 0.0003 4,4-DDD 0 0 0 0.0001 0.0002 0.0003 bieldrin 0 0 0 0.0001 0.0002 0.00002 bieldrin 0 0 0 N/A N/A N/A beta-Endosulfan 0 0 0 N/A N/A N/A Endrin 0 0 0 N/A N/A N/A Endrin Aldehyde 0 0 0 0.00006 0.00009 Hept	Aldrin	0	0	0	0.0000008	8.00E-07	0.000001	
gamma-BHC 0 0 N/A N/A N/A Chlordane 0 0 0 0.0003 0.0003 0.0005 4,4-DDT 0 0 0 0.0003 0.0003 0.0005 4,4-DDE 0 0 0 0.0002 0.0003 0.0003 4,4-DDD 0 0 0 0.0001 0.0002 0.0003 4,4-DDD 0 0 0 0.0001 0.0002 0.0002 Dieldrin 0 0 0 0.0001 0.00001 0.0002 alpha-Endosulfan 0 0 0 N/A N/A N/A beta-Endosulfan 0 0 0 N/A N/A N/A Endrin 0 0 0 N/A N/A N/A Endrin Aldehyde 0 0 0 0.00006 0.00009 0.00009 Heptachlor 0 0 0 0.00003 0.00005 0.00005	alpha-BHC	0	0	0	0.0004	0.0004	0.0006	
Chlordane 0 0 0 0.0003 0.0003 0.0005 4,4-DDT 0 0 0 0.0003 0.0003 0.0005 4,4-DDE 0 0 0 0.0002 0.0003 0.0003 4,4-DDD 0 0 0 0.0001 0.0002 0.0003 4,4-DDD 0 0 0 0.0001 0.0002 0.0002 Dieldrin 0 0 0 0.0001 0.00001 0.0002 alpha-Endosulfan 0 0 0 N/A N/A N/A beta-Endosulfan 0 0 0 N/A N/A N/A Endrin 0 0 0 N/A N/A N/A Endrin 0 0 0 N/A N/A N/A Heptachlor 0 0 0 0.00006 0.00009 0.00009 Heptachlor Epoxide 0 0 0.00003 0.00003 0.00005	beta-BHC	0	0	0	0.008	0.008	0.012	
4,4-DDT 0 0 0 0.00003 0.00003 0.00005 4,4-DDE 0 0 0 0.0001 0.0002 0.0003 0.0003 4,4-DDD 0 0 0 0 0.0001 0.0002 0.0003 4,4-DDD 0 0 0 0 0.0001 0.0001 0.0002 Dieldrin 0 0 0 0 0.00001 0.00001 0.00002 alpha-Endosulfan 0 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 Heptachlor 0 0 0 0.00006 0.00006 0.00009 Heptachlor Epoxide 0 0 0.00003 0.00003 0.00005	gamma-BHC	0	0	0	N/A	N/A	N/A	
4,4-DDE 0 0 0 0.00002 0.00002 0.00003 4,4-DDD 0 0 0 0.0001 0.0001 0.0002 Dieldrin 0 0 0 0 0.00001 0.00001 0.00002 alpha-Endosulfan 0 0 0 0 N/A N/A N/A beta-Endosulfan 0 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 0 0 0 N/A N/A N/A Heptachlor 0 0 0 0.00006 0.00006 0.00009 Heptachlor Epoxide 0 0 0.00003 0.00003 0.00005	Chlordane	0	0	0	0.0003	0.0003	0.0005	
4,4-DDD 0 0 0 0.0001 0.0001 0.0002 Dieldrin 0 0 0 0 0.00001 0.00001 0.00002 alpha-Endosulfan 0 0 0 0 N/A N/A N/A beta-Endosulfan 0 0 0 0 N/A N/A N/A Endosulfan Sulfate 0 0 0 0 N/A N/A N/A Endrin 0 0 0 N/A N/A N/A N/A Endrin Aldehyde 0 0 0 N/A N/A N/A Heptachlor 0 0 0 0.00006 0.00006 0.00009 Heptachlor Epoxide 0 0 0.00003 0.00003 0.00005	4,4-DDT	0	0	0	0.00003	0.00003	0.00005	
Dieldrin 0 0 0 0.00001 0.000002 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 0.00006 0.00009 0.00009 Heptachlor Epoxide 0 0 0.00003 0.00003 0.00005 0.00005	4,4-DDE	0	0	0	0.00002	0.00002	0.00003	
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 0 0 0 N/A N/A N/A Heptachlor 0 0 0 N/A N/A N/A Heptachlor Epoxide 0 0 0 0.00003 0.00005 0.00005	4,4-DDD	0	0	0	0.0001	0.0001	0.0002	
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 0 0 0 N/A N/A N/A Heptachlor 0 0 0 0.00006 0.00009 Heptachlor Epoxide 0 0 0 0.00003 0.00005	Dieldrin	0	0	 0	0.000001	0.000001	0.000002	
Endosulfan Sulfate 0 0 0 N/A N/A N/A Endrin 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 0.00006 0.00009 0.00005 Heptachlor Epoxide 0 0 0 0.00003 0.00005 0.00005	alpha-Endosulfan	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 0.00006 0.000006 0.00009 Heptachlor Epoxide 0 0 0 0.00003 0.00003 0.00005	beta-Endosulfan	0	0	0	N/A	N/A	N/A	
Endrin Aldehyde 0 0 0 N/A N/A Heptachlor 0 0 0 0.000006 0.000009 Heptachlor Epoxide 0 0 0 0.00003 0.00003	Endosulfan Sulfate	0	0	0	N/A	N/A	N/A	
Heptachlor 0 0 0 0.00006 0.00006 0.00009 Heptachlor Epoxide 0 0 0 0.00003 0.00003 0.00005	Endrin	0	0	0	N/A	N/A	N/A	
Heptachlor Epoxide 0 0 0 0.00003 0.00003 0.00005	Endrin Aldehyde	0	0	0	N/A	N/A	N/A	
	Heptachlor	0	0	0	0.000006	0.000006	0.000009	
Toxaphene 0 0 0 0.0007 0.0007 0.001	Heptachlor Epoxide	0	0	0	0.00003	0.00003	0.00005	
	Toxaphene	0	0	0	0.0007	0.0007	0.001	

☑ Recommended WQBELs & Monitoring Requirements

No. Samples/Month: 4

	Mass	Limits		Concentra	tion 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	5.93	THH	Discharge Conc > 10% WQBEL (no RP)
Total Copper	0.37	0.57	13.3	20.6	20.6	µg/L	13.3	CFC	Discharge Conc ≥ 50% WQBEL (RP)
Free Cyanide	Report	Report	Report	Report	Report	μg/L	4.23	THH	Discharge Conc > 25% WQBEL (no RP)
Total Zinc	Report	Report	Report	Report	Report	µg/L	161	AFC	Discharge Conc > 10% WQBEL (no RP)
Chloroform	Report	Report	Report	Report	Report	µg/L	6.03	THH	Discharge Conc > 25% WQBEL (no RP)
Dichlorobromomethane	Report	Report	Report	Report	Report	μg/L	1.43	CRL	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	10.6	µg/L	Discharge Conc ≤ 10% WQBEL
Total Barium	2,541	µg/L	Discharge Conc ≤ 10% WQBEL
Total Beryllium	N/A	N/A	No WQS
Total Boron	1,694	µg/L	Discharge Conc ≤ 10% WQBEL
Total Cadmium	0.37	µg/L	Discharge Conc < TQL
Total Chromium (III)	121	µg/L	Discharge Conc < TQL
Hexavalent Chromium	11.0	µg/L	Discharge Conc < TQL
Total Cobalt	20.1	µg/L	Discharge Conc ≤ 10% WQBEL
Total Cyanide	N/A	N/A	No WQS
Dissolved Iron	318	µg/L	Discharge Conc ≤ 10% WQBEL
Total Iron	1,588	µg/L	Discharge Conc ≤ 10% WQBEL
Total Lead	5.24	µg/L	Discharge Conc < TQL
Total Manganese	1,059	µg/L	Discharge Conc ≤ 10% WQBEL
Total Mercury	0.053	µg/L	Discharge Conc < TQL
Total Nickel	74.1	µg/L	Discharge Conc ≤ 10% WQBEL
Total Phenols (Phenolics) (PWS)		µg/L	PWS Not Applicable
Total Selenium	5.28	µg/L	Discharge Conc < TQL
Total Silver	6.88	µg/L	Discharge Conc ≤ 10% WQBEL
Total Thallium	0.25	µg/L	Discharge Conc < TQL
Total Molybdenum	N/A	N/A	No WQS
Acrolein	3.0	µg/L	Discharge Conc < TQL
Acrylonitrile	0.09	µg/L	Discharge Conc < TQL
Benzene	0.87	µg/L	Discharge Conc < TQL
Bromoform	10.5	µg/L	Discharge Conc ≤ 25% WQBEL
Carbon Tetrachloride	0.6	µg/L	Discharge Conc < TQL
Chlorobenzene	106	µg/L	Discharge Conc ≤ 25% WQBEL
Chlorodibromomethane	1.21	µg/L	Discharge Conc < TQL
Chloroethane	N/A	N/A	No WQS
2-Chloroethyl Vinyl Ether	3,705	µg/L	Discharge Conc < TQL
1,1-Dichloroethane	N/A	N/A	No WQS
1,2-Dichloroethane	14.9	µg/L	Discharge Conc ≤ 25% WQBEL

1,1-Dichloroethylene	34.9	µg/L	Discharge Conc ≤ 25% WQBEL
1,2-Dichloropropane	1.36	µg/L	Discharge Conc < TQL
1,3-Dichloropropylene	0.41	µg/L	Discharge Conc < TQL
1,4-Dioxane	N/A	N/A	No WQS
Ethylbenzene	72.0	µg/L	Discharge Conc ≤ 25% WQBEL
Methyl Bromide	106	µg/L	Discharge Conc ≤ 25% WQBEL
Methyl Chloride	5,822	µg/L	Discharge Conc ≤ 25% WQBEL
Methylene Chloride	30.1	µg/L	Discharge Conc < TQL
1,1,2,2-Tetrachloroethane	0.3	µg/L	Discharge Conc < TQL
Tetrachloroethylene	15.1	µg/L	Discharge Conc ≤ 25% WQBEL
Toluene	60.3	µg/L	Discharge Conc ≤ 25% WQBEL
1,2-trans-Dichloroethylene	106	µg/L	Discharge Conc ≤ 25% WQBEL
1,1,1-Trichloroethane	646	µg/L	Discharge Conc ≤ 25% WQBEL
1,1,2-Trichloroethane	0.83	µg/L	Discharge Conc < TQL
Trichloroethylene	0.9	µg/L	Discharge Conc < TQL
Vinyl Chloride	0.03	µg/L	Discharge Conc < TQL
2-Chlorophenol	31.8	µg/L	Discharge Conc < TQL
2,4-Dichlorophenol	10.6	µg/L	Discharge Conc < TQL
2,4-Dimethylphenol	106	µg/L	Discharge Conc < TQL
4,6-Dinitro-o-Cresol	2.12	µg/L	Discharge Conc < TQL
2,4-Dinitrophenol	10.6	µg/L	Discharge Conc < TQL
2-Nitrophenol	1,694	µg/L	Discharge Conc < TQL
4-Nitrophenol	498	µg/L	Discharge Conc < TQL
p-Chloro-m-Cresol	160	µg/L	Discharge Conc < TQL
Pentachlorophenol	0.045	µg/L	Discharge Conc < TQL
Phenol	4,234	µg/L	Discharge Conc ≤ 25% WQBEL
2,4,6-Trichlorophenol	2.26	µg/L	Discharge Conc < TQL
Acenaphthene	18.0	µg/L	Discharge Conc < TQL
Acenaphthylene	N/A	N/A	No WQS
Anthracene	318	µg/L	Discharge Conc < TQL
Benzidine	0.0002	µg/L	Discharge Conc < TQL
Benzo(a)Anthracene	0.002	µg/L	Discharge Conc < TQL
Benzo(a)Pyrene	0.0002	µg/L	Discharge Conc < TQL
3,4-Benzofluoranthene	0.002	µg/L	Discharge Conc < TQL
Benzo(ghi)Perylene	N/A	N/A	No WQS
Benzo(k)Fluoranthene	0.015	µg/L	Discharge Conc < TQL
Bis(2-Chloroethoxy)Methane	N/A	N/A	No WQS
Bis(2-Chloroethyl)Ether	0.045	µg/L	Discharge Conc < TQL
Bis(2-Chloroisopropyl)Ether	212	µg/L	Discharge Conc < TQL
Bis(2-Ethylhexyl)Phthalate	0.48	µg/L	Discharge Conc < TQL
4-Bromophenyl Phenyl Ether	57.2	µg/L	Discharge Conc < TQL
Butyl Benzyl Phthalate	0.11	µg/L	Discharge Conc < TQL
2-Chloronaphthalene	847	µg/L	Discharge Conc < TQL
4-Chlorophenyl Phenyl Ether	N/A	N/A	No WQS
Chrysene	0.18	µg/L	Discharge Conc < TQL

Dibenzo(a,h)Anthrancene	0.0002	µg/L	Discharge Conc < TQL
1,2-Dichlorobenzene	169	µg/L	Discharge Conc ≤ 25% WQBEL
1,3-Dichlorobenzene	7.41	µg/L	Discharge Conc ≤ 25% WQBEL
1,4-Dichlorobenzene	159	µg/L	Discharge Conc ≤ 25% WQBEL
3,3-Dichlorobenzidine	0.075	µg/L	Discharge Conc < TQL
Diethyl Phthalate	635	µg/L	Discharge Conc < TQL
Dimethyl Phthalate	529	µg/L	Discharge Conc < TQL
Di-n-Butyl Phthalate	21.2	µg/L	Discharge Conc ≤ 25% WQBEL
2,4-Dinitrotoluene	0.075	µg/L	Discharge Conc < TQL
2,6-Dinitrotoluene	0.075	µg/L	Discharge Conc < TQL
Di-n-Octyl Phthalate	N/A	N/A	No WQS
1,2-Diphenylhydrazine	0.045	µg/L	Discharge Conc < TQL
Fluoranthene	21.2	µg/L	Discharge Conc < TQL
Fluorene	52.9	µg/L	Discharge Conc < TQL
Hexachlorobenzene	0.0001	µg/L	Discharge Conc < TQL
Hexachlorobutadiene	0.015	µg/L	Discharge Conc < TQL
Hexachlorocyclopentadiene	1.06	µg/L	Discharge Conc < TQL
Hexachloroethane	0.15	µg/L	Discharge Conc < TQL
Indeno(1,2,3-cd)Pyrene	0.002	µg/L	Discharge Conc < TQL
Isophorone	36.0	µg/L	Discharge Conc < TQL
Naphthalene	45.5	µg/L	Discharge Conc < TQL
Nitrobenzene	10.6	µg/L	Discharge Conc < TQL
n-Nitrosodimethylamine	0.001	µg/L	Discharge Conc < TQL
n-Nitrosodi-n-Propylamine	0.008	µg/L	Discharge Conc < TQL
n-Nitrosodiphenylamine	4.97	µg/L	Discharge Conc < TQL
Phenanthrene	1.06	µg/L	Discharge Conc < TQL
Pyrene	21.2	µg/L	Discharge Conc < TQL
1,2,4-Trichlorobenzene	0.074	µg/L	Discharge Conc < TQL
Aldrin	0.000001	µg/L	Discharge Conc < TQL
alpha-BHC	0.0006	µg/L	Discharge Conc < TQL
beta-BHC	0.012	µg/L	Discharge Conc < TQL
gamma-BHC	0.95	µg/L	Discharge Conc < TQL
delta BHC	N/A	N/A	No WQS
Chlordane	0.0005	µg/L	Discharge Conc < TQL
4,4-DDT	0.00005	µg/L	Discharge Conc < TQL
4,4-DDE	0.00003	µg/L	Discharge Conc < TQL
4,4-DDD	0.0002	µg/L	Discharge Conc < TQL
Dieldrin	0.000002	µg/L	Discharge Conc < TQL
alpha-Endosulfan	0.059	µg/L	Discharge Conc < TQL
beta-Endosulfan	0.059	µg/L	Discharge Conc < TQL
Endosulfan Sulfate	21.2	µg/L	Discharge Conc < TQL
Endrin	0.032	µg/L	Discharge Conc < TQL
Endrin Aldehyde	1.06	µg/L	Discharge Conc < TQL
Heptachlor	0.000009	µg/L	Discharge Conc < TQL
Heptachlor Epoxide	0.00005	µg/L	Discharge Conc < TQL

1odel Results

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7/13/2023

Toxaphene

0.0002 µg/L

Discharge Conc < TQL