

Southwest Regional Office CLEAN WATER PROGRAM

Application Type	Renewal
Facility Type	Municipal
Major / Minor	Major

## NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Application No.	PA0026026
APS ID	1082413
Authorization ID	1429339

#### **Applicant and Facility Information**

Applicant Name	New I Autho	Brighton Borough Sanitary prity Beaver County	Facility Name	New Brighton Borough Sanitary Authority	
Applicant Address	610 3	rd Avenue	Facility Address	2200 Concord Street	
	New E	Brighton, PA 15066-1851		New Brighton, PA 15066-2409	
Applicant Contact	Thom	as Albanese	Facility Contact	Keith McKeel	
Applicant Phone	(724)	846-1870	Facility Phone	724-846-1870	
Client ID	23994	ł	Site ID	443360	
Ch 94 Load Status	Not O	verloaded	Municipality	New Brighton Borough	
Connection Status	No Lir	nitations	County	Beaver	
Date Application Rece	eived	February 24, 2023	EPA Waived?	No	
Date Application Accepted March 6, 2023		If No, Reason	Major Facility		

#### Summary of Review

This application is for a renewal of NPDES Permit PA0026026. NPDES Permit PA0026026 was last issued on August 3<sup>rd</sup>, 2018 and authorized a discharge of 2.0 MGD from the New Brighton Sanitary Authority (NBSA) WWTP to the Beaver River. The Beaver River is classified as WWF at the point of discharge, and it's 1.65 miles away from the Ohio River mouth.

The renewal application was submitted to the Department on February 24, 2023, which was considered timely, the NPDES permit expired on August 31, 2023.

WQM No.0484408 approved the construction of this facility that consists of:

Bar screen/Grit chamber followed by primary settling (2 process tanks), an oxidation tower, secondary settling (three tanks in parallel), two parallel chlorine contact tanks.

The New Brighton sewer system is fully separated; no CSOs within the system.

An appropriate evidence of the Act – 14 PL 834 Municipal Notification was provided by 05/17/2022 letters, and no comments were received.

#### Anti-Backsliding

The applicant is not seeking to revise the previously permitted effluent limits.

Approve	Deny	Signatures	Date
х		Hain Pldalli	
		Hazim Aldalli / Environmental Engineering Specialist	March 05, 2024
х		MAHBUBA IASMIN	
		Mahbuba lasmin, Ph.D. P.E. / Environmental Engineering Manager	May 10, 2024

#### Summary of Review

#### Industrial User

The sewage treatment plant receives industrial sewage from one facility (Creekside Springs) a bottled water company. The application listed this user as a non-significant categorical user (NSCIU). This user has not been known or suspected source of upsets, pass through, or interference to the STP. This user is not implementing an approved pretreatment program per application and reviewed CH94 reports. This industry falls under SIC code of 2086, which is not a PFAS contributor or a suspected source per EPA's document "Addressing PFAS Discharges in NPDES Permits and Through the Pretreatment Program and Monitoring Programs, December 5, 2022".

#### Compliance Review

NPDES Permit Effluent Limits

Fecal Coliform limits violations were checked several times per the Operations compliance report (attached to this factsheet, see page 6), and per the reviewed eDMRs for 2019-2022. The facility justified these exceedances due to lowering the Chlorine dosage, later the facility stated that they rolled back their dosage to normal concentration.
 eDMRs for 2023 showed that the facility was in compliance for TRC and Fecal Coliform.

**NPDES Permit Special Conditions** 

- Peak flow management: Applicant submitted a peak flow management plan due to excessive wet weather and in situ flood hazards. The plan was reviewed and found to be adequate for the major facilities and in compliance per DEP's SOP-3800-PM-BCW0009a Rev. 8/2021. The facility is required to continue implementation of the plan.
- Bypass and Sewer Overflow: The bypass and sewer overflow events will need to be managed according to the requirements set forth in Part B.C.4.g of the renewed permit and have to be reported within the CH94 annual report. The applicant submitted a general Standard Operating Procedure (SOP) for such events.
- Stormwater Management: The applicant requested to authorize Outfall 010 to be permitted again as a stormwater outfall. Per the current permit under Part C.IV.B, the permittee submitted a Preparedness, Prevention and Contingency (PPC) Plan to the Department on August 24, 2018. The permit writer reviewed this plan and found that this plan is in compliance with the Department's regulations and SOPs related to stormwater management and the current permit requirements referenced. The facility is required to continue implementation of the plan.

Sludge use and disposal description and location(s): Raw sludge is directed to a two stages anerobic digestion system for stabilization. Sludge can be thickened between the digestion stages, but this is usually not the case. A screw press dewaters the stabilized sludge which is then landfilled by an approved contracted hauler. Last year total sewage sludge/biosolids production within the facility is 63.04 Dry Tons. Land application is a process permitted by DEP under PADEP Permit No. 100172. The permitted site called Arden Landfill is owned and operated by Waste Management in Washington, PA.

#### Public Participation

DEP will publish notice of the receipt of the NPDES permit application and a tentative decision to issue the individual NPDES permit in the *Pennsylvania Bulletin* in accordance with 25 Pa. Code § 92a.82. Upon publication in the *Pennsylvania Bulletin*, DEP will accept written comments from interested persons for a 30-day period (which may be extended for one additional 15-day period at DEP's discretion), which will be considered in making a final decision on the application. Any person may request or petition for a public hearing with respect to the application. A public hearing may be held if DEP determines that there is significant public interest in holding a hearing. If a hearing is held, notice of the hearing will be published in the *Pennsylvania Bulletin* at least 30 days prior to the hearing and in at least one newspaper of general circulation within the geographical area of the discharge.

Discharge, Receiving Water	s and Water Supply Informa	ition		
Outfall No. 001		Design Flow (MGD)	2.0	
Latitude 40° 43' 8.72"		Longitude	-80º 18' 19.38"	
Quad Name Beaver		Quad Code	40080F3	
Wastewater Description:	Treated Sewage Effluent			
Receiving Waters Beave	er River (WWF)	Stream Code	33953	
NHD Com ID 12391	18446	RMI	1.65	
Drainage Area 3130		Yield (cfs/mi <sup>2</sup> )	0.204	
			USACE records on Dec.1,	
Q <sub>7-10</sub> Flow (cfs) <u>640</u>		Q7-10 Basis	2017.	
Elevation (ft) <u>1127</u>		_ Slope (ft/ft)	0.00004	
Watershed No. 20-B		_ Chapter 93 Class.	WWF	
Existing Use		_ Existing Use Qualifier		
Exceptions to Use None		Exceptions to Criteria	None	
Assessment Status	Impaired; Fish consumption			
Cause(s) of Impairment	POLYCHLORINATED BIPH	ENYLS (PCBs), Chlordane, C	Organics	
Source(s) of Impairment	SOURCE UNKNOWN			
TMDL Status	Final	Name Beaver Rive	r	
Background/Ambient Data		Data Source		
pH (SU)				
Temperature (°F)				
Hardness (mg/L)				
Other:	<u> </u>			
Nearest Downstream Publi	c Water Supply Intake	Center Township Water Autho	prity.	
PWS Waters Ohio Riv	/er	Flow at Intake (cfs)	5880	
PWS RMI 13.0		Distance from Outfall (mi)3.75		

Changes Since Last Permit Issuance:

- Q7-10 flow, elevation, drainage area, and low flow yield were all updated to match USGS Stream Stats new data and USACE records (see Appendix A).
- DEP updated its WQM 7.0 criteria for Ammonia-Nitrogen (NH<sub>3</sub>-N) on 2019, limits and conditions of this permit need to be redeveloped to an adequate level to protect water quality.
- *E. Coli* monitoring requirements will be introduced to this renewal which is in compliance with DEP SOP No. BCW-PMT-033 revised February 5, 2024.

Other Comments: Per PA eMAP, the receiving stream attained its uses for potable water supply.

Discharge, Receiving Water	rs and Water Supply Inform	nation	
			<u>^</u>
		Design Flow (MGD)	
Latitude $40^{\circ} 43^{\circ} 4.86^{\circ}$	·		-80° 18' 16.57"
Quad Name <u>Beaver</u>		Quad Code	40080F3
wastewater Description:	Stormwater		
Receiving Waters Beave	er River (WWF)	Stream Code	33953
NHD Com ID 1239	18446	RMI	
Drainage Area		Yield (cfs/mi <sup>2</sup> )	
Q <sub>7-10</sub> Flow (cfs)		Q7-10 Basis	
Elevation (ft)		Slope (ft/ft)	
Watershed No. 20-B		Chapter 93 Class.	WWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	POLYCHLORINATED BIP	HENYLS (PCBs), Chlordane ar	nd Organics
Source(s) of Impairment	SOURCE UNKNOWN		
TMDL Status	Final	Name Beaver Rive	r
Background/Ambient Data pH (SU) Temperature (°E)		Data Source	
Hardness (mg/L)			
Other:			
Nearest Downstream Publi PWS Waters	c Water Supply Intake	Flow at Intake (cfs) Distance from Outfall (mi)	

Changes Since Last Permit Issuance: The permittee submitted a Preparedness, Prevention and Contingency (PPC) Plan to the Department on August 24, 2018. The PPC plan has been reviewed and appears sufficient.

Other Comments: This stormwater outfall is receiving stormwater flow generated from seven catch basins located near New Brighton STP, and other local stormwater that discharges to this outfall.

Treatment Facility Summary						
Treatment Facility Na	ame: New Brighton Borough	Sanitary Authority STP				
WQM Permit No.	Issuance Date					
0484408-A1	February 18, 2004					
	Degree of			Avg Annual		
Waste Type	Treatment	Process Type	Disinfection	Flow (MGD)		
Sewage	Secondary	Activated Sludge	Gas Chlorine	0.873		
Hydraulic Capacity	Organic Capacity			Biosolids		
(MGD)	(lbs/day)	Load Status	<b>Biosolids Treatment</b>	Use/Disposal		
2	4231	Not Overloaded	Anaerobic Digestion	Landfill		

Changes Since Last Permit Issuance: None.

Other Comments: None.

# **Operations Compliance Check Summary Report**

**Facility:** New Brighton Borough Sanitary Authority WWTP **NPDES Permit No.:** PA0026026 **Compliance Review Period:** 6/1/2018-6/21/2023

**Inspection Summary:** 

INSPECTED DATE	INSP TYPE	AGENCY	INSPECTION RESULT DESC
11/23/2022	Compliance Evaluation	PA Dept of Environmental Protection	Violation(s) Noted
11/29/2021	Compliance Evaluation	PA Dept of Environmental Protection	No Violations Noted
03/04/2020	Compliance Evaluation	PA Dept of Environmental Protection	No Violations Noted
07/09/2019	Compliance Evaluation	PA Dept of Environmental Protection	Violation(s) Noted
08/27/2018	Compliance Evaluation	PA Dept of Environmental Protection	Violation(s) Noted

#### **Violation Summary:**

VIOLATION DATE	VIOLATION TYPE	VIOLATION TYPE DESC
11/23/2022	92A.44	NPDES - Violation of effluent limits in Part A of permit
07/09/2019	92A.44	NPDES - Violation of effluent limits in Part A of permit
08/27/2018	92A.44	NPDES - Violation of effluent limits in Part A of permit

## **Open Violations by Client ID:**

No open violations for Client ID 23994

**Enforcement Summary:** 

ENF ID	ENF TYPE	ENF TYPE DESC	EXECUTED DATE	VIOLATIONS	ENF FINALSTATUS
410087	NOV	Notice of Violation	11/28/2022	92A.44	Comply/Closed
378253	NOV	Notice of Violation	08/16/2019	92A.44	Comply/Closed
368055	NOV	Notice of Violation	10/05/2018	92A.44	Administrative Close Out

## **Effluent Violation Summary:**

MON	PARAME	<u>SAM</u>	PER		STAT BASE CO	
<u>PD END</u>	<u>TER</u>	<u>PLE</u>	<u>MIT</u>	<u>UNIT</u>	DE	FACILITY COMMENTS
6/30/22	Fecal Coliform	5200	1000	No./10 0 ml	Instantaneous Maximum	With the increase of price and the supply issues of chlorine we attempted to lower the dose of chlorine yet still remain with a lower residual. We later saw that it was not working so we went back to normal dosing. With the increase of price and the supply issues of chlorine we attempted to lower the dose of chlorine
6/30/22	Fecal Coliform	740	200	No./10 0 ml	Geometric Mean	yet still remain with a lower residual. We later saw that it was not working so we went back to normal dosing.
5/31/19	Fecal Coliform	1560	1000	No./10 0 ml	Instantaneous Maximum	Flooding conditions at plant. We got 2.83 inches of rain in a short amount of time.

<u>Compliance Status:</u> Facility is currently in compliance with no open violations or pending enforcement. <u>Completed by:</u> Amanda Schmidt <u>Completed date:</u> 6/21/23

#### **Development of Effluent Limitations**

Outfall No.	001		Design Flow (MGD)	2.0
Latitude	40º 43' 8.72"		Longitude	-80º 18' 19.38"
Wastewater De	escription:	Treated Sewage Effluent		

#### **Technology-Based Limitations**

Discharge is to the Beaver River which is classified as a warm water fishery.

The NPDES permit application was evaluated based on applicable regulations, policies, procedures and guidelines.

The following technology-based limitations apply, subject to water quality analysis and BPJ where applicable:

Pollutant	Limit (mg/L)	SBC	Federal Regulation	State Regulation
	25	Average Monthly	133.102(a)(4)(i)	92a.47(a)(1)
CBOD5	40	Average Weekly	133.102(a)(4)(ii)	92a.47(a)(2)
Total Suspended	30	Average Monthly	133.102(b)(1)	92a.47(a)(1)
Solids	45	Average Weekly	133.102(b)(2)	92a.47(a)(2)
рН	6.0 – 9.0 S.U.	Min – Max	133.102(c)	95.2(1)
Fecal Coliform				
(5/1 – 9/30)	200 / 100 ml	Geo Mean	-	92a.47(a)(4)
Fecal Coliform				
(5/1 – 9/30)	400 / 100 ml	IMAX	-	92a.47(a)(4)
Fecal Coliform				
(10/1 – 4/30)	2,000 / 100 ml	Geo Mean	-	92a.47(a)(5)
Fecal Coliform				
(10/1 – 4/30)	10,000 / 100 ml	IMAX	-	92a.47(a)(5)
Total Residual Chlorine	0.5	Average Monthly	-	92a.48(b)(2)
D.O. (mg/L)	4.0	Min	-	BPJ
NH- N (mg/L)	25	Average Monthly		<b>PD</b> I
IN⊟3-IN (IIIg/∟)	50	IMAX	-	DFJ
Total N (mg/L)	Report	Average Monthly	-	92a.61
Total P (mg/L)	Report	Average Monthly	-	92a.61
<i>E. Coli</i> (No./100 ml)	Report	IMAX	-	92a.61

Comments: The existing discharge was evaluated for CBOD<sub>5</sub>, Ammonia-Nitrogen, and Dissolved Oxygen parameters using WQM 7.0, Version 1.1.

The Total Suspended Solids, pH, and Fecal Coliform parameters are not evaluated using WQM 7.0. The bases for the proposed technology-based limitations are listed in the above table.

#### Water Quality-Based Limitations

The following limitations were determined through water quality modeling (output files attached, see Appendices B, C, and D):

Parameter	Limit (mg/l)	SBC	Model
TRC	0.5	Average Monthly	DEP TRC
CBOD₅ (May1-Oct 31)	25	Average Monthly	WQM7.0
CBOD <sub>5</sub> (Nov 1- Apr 30)	25	Average Monthly	WQM7.0
NH <sub>3</sub> -N (May1-Oct 31)	25	Average Monthly	WQM7.0
NH <sub>3</sub> -N (Nov 1- Apr 30)	25	Average Monthly	WQM7.0
Dissolved Oxygen	4.0	Minimum	WQM7.0
3,3-Dichlorobenzidine	14.3	Average Monthly	DEP TMS

Based on the near vicinity of this discharge mixing zone to the Ohio River (1.65 miles), which developed an acute mixing zone and per ORSANCO "*Pollution Control Standards rev.* 2019" Section 3.2, in order to protect the aquatic life outside the mixing zone, the ORSANCO water quality criteria was considered while developing the permit effluent limits.

Using Beaver River section dimensions for the point of discharge (width and depth) as input values for the used model; DEP's Water Quality Model (WQM) 7.0, Version 1.1 generated a WQBELs for Dissolved Oxygen of 4.0 mg/L, which is less stringent than ORSANCO's Dissolved Oxygen water criteria of 5.0 mg/L; a minimum WQBEL of 5.0 mg/L should be maintained all the time.

Per DEP-SOP – *Establishing Effluent Limitations for Individual Sewage Permits* Revised, February 5, 2024, for existing discharges, if WQM modeling results for summer indicates that Ammonia-Nitrogen average monthly limit of 25 mg/L is acceptable, the application manager will generally establish a year-round monitoring requirement for Ammonia-Nitrogen, at a minimum. DEP WQM 7.0 ver. 1.1 suggests the newly imposed limit for Ammonia Nitrogen NH<sub>3</sub>-N of 25.0 mg/L year-round. Checking on the Application and eDMRs; the facility can meet the newly imposed Ammonia and DO limits. Therefore, no compliance schedule is necessary.

WQM 7.0 generated CBOD<sub>5</sub> WQBEL year around limits of AML 25.0 mg/L, Weekly Average of 37.0 mg/L, and Ins. Max of 50.0 mg/L, these limits are matching the previous permit limits for CBOD<sub>5</sub>.

#### **Reasonable Potential**

The Toxics Management Screening Analysis Spreadsheet (TMS rev. 1.4) was used to evaluate toxic parameters of concern for water quality modeling and to facilitate determinations of "reasonable potential" to cause an excursion above water quality standards with ORSANCO being considered. The maximum concentrations reported in the permit application for Groups 1-5 pollutants were evaluated (see Appendix D).

TMS model produced a total of one (1) WQBEL for 3,3-Dicholrobenzidine which was determined a potential parameter of concern. Permittee was asked to resample for 3,3-Dicholrobenzidine, four (4) additional samples were collected with one week apart. A follow-up analysis using TMS recommended no new limits or monitoring for 3,3-Dicholrobenzidine. Therefore, no monitoring or limits will be imposed for toxics during this renewal cycle.

#### Total Dissolved Solids (TDS) and its Major Constituents

Total Dissolved Solids (TDS) and its major constituents including sulfate, chloride, and bromide have emerged as pollutants of concern. The conservative nature of these solids allows them to accumulate in surface waters and they may remain a concern even if the immediate downstream public water supply is not directly impacted. Bromide has been linked to formation of disinfection byproducts at increased levels in public water systems.

Because of actions associated with Triennial Review 13, the Environmental Quality Board has directed DEP to collect additional data if the Bromide is greater than 1 mg/L (0.12 mg/L as of 2/24/2023) and the TDS is greater than 1000 mg/L (419 mg/L as of 2/24/2023) or the TDS exceeds 20,000 lbs/day (2724 lbs/day as of 2/24/2023).

Monitoring is not required for Bromide, Chloride, and Sulfate; Bromide is less than 1 mg/L.

#### Disinfection

The DEP TRC Calculation Sheet (see Appendix B) was used and generated a BAT average monthly limit of 0.5 mg/L. The current permit limits for TRC matches the calculated WQBEL; no compliance schedule is needed.

#### TN and TP Monitoring

Nutrient monitoring is required to establish the nutrient load from the wastewater treatment facility and the impacts that load may have on the quality of the receiving stream(s). Sewage discharges with design flows > 2,000 gpd require monitoring, at a minimum, for Total Nitrogen and Total Phosphorus in new and reissued permits.

No nutrient pollution indicated over Beaver River or through application, eDMRs, and PA eMAP's data; a frequency of 1/quarter is recommended for majors per Chapter 92.a.61.

#### Fecal Coliform and E. Coli

The 2019 ORSANCO's Final Standards made changes to Bacteria discharge requirements to include an *E. coli* bacteria limit of 130/100 ml as a 90-day geometric mean for the period April through October, and not to exceed 240/100 ml in more than 25% of the samples.

The following correlation analysis (Published on December 2006 by Ohio EPA/Division of Surface Water) was made to show that extending the warmer period Fecal Coliform limits to include the month of April will be adequate to meet the above *E. coli* limit. ORSANCO has not objected to the use of this analysis:

The equations below are taken from the Ohio Environmental Protection Agency:

Current Warmer Period Avg. Monthly limit for Fecal Coliform (FC) = 200/100 ml Using the equation for NE area of Ohio, *E. coli* =  $0.667 \times (FC)^{1.034} = 159.73/100$  ml Using the equation for the rest of Ohio, *E. Coli* =  $0.403 \times (FC)^{1.028} = 93.49/100$  ml Average of two values = (159.73 + 93.49)/2 = 126.61/100 ml < 130/100 ml

In summary, the discharge meets the ORSANCO *E. coli* effluent standard of 130/100 ml by maintaining an effluent Fecal Coliform Avg. Monthly limit of 200/100 ml from April through October, which becomes the new recreational season period. Using the same equations for a maximum Fecal Coliform count of 400/100 ml at 10% of the time exceedance is more preventive than the 25% exceedance at 240/100 ml *E. coli*.

The treatment plant can meet the new stringent limits for Fecal Coliform as it achieved lower values through the reviewed DMRs; no compliance schedule is necessary.

Monthly monitoring will be imposed for *E. coli* per State Regulation 92a.61 and DEP SOP – *Establishing Effluent Limitations for Individual Sewage Permits* Revised, February 5, 2024.

Part C 136 will be added to the permit.

#### <u>PFAS</u>

Pursuant to 25 Pa. code § 92a.61(b), annual monitoring for PFAS will be imposed at Outfall 001 to determine if PFAS will be a pollutant of concern, which is consistent with DEP SOP No. BCW-PMT-033 revised March 24, 2021 under Section G.3.

The permittee shall conduct monitoring at its treatment plant that, at a minimum, includes annual effluent analysis for the four (4) PFAS parameters detectable by EPA Method 1633. Monitoring data for any analytes listed in EPA Method 1633 shall be summarized and submitted as part of the Annual Report.

#### **Beaver River TMDL**

Beaver River has an approved final TMDL for PCBs and Chlordane. This TMDL was based on the human fish consumption uses and the related health issues. After excessive research work been done on Ohio river fishes, the findings were documented as impaired waters in the Clean Water Act Section 303(d) List of Impaired Waters for 1996. They were listed because long-term, and unrestricted consumption of fish could potentially lead to human health problems.

The TMDL document states that the production and use of PCBs were banned in the US in July 1979 and the use of chlordane in the US has been banned since April 1980. Therefore, there are no new point sources for either of these pollutants. As a fact, existing point sources of PCBs and/or chlordane have obtained NPDES permits with WQBELs for those pollutants. PCBs and chlordane in the Beaver River are expected to be present primarily in the sediments due to

historic use and improper disposal practices. PCBs and chlordane contamination in the Ohio River is expected to be reduced through natural attenuation over time. The TMDL is monitoring the concentrations of PCBs and Chlordane in fish tissues. New Brighton Borough STP was not assigned waste load allocations or monitoring for PCBs and Chlordane.

The Beaver River TMDL designation is well-matched to the Ohio River TMDL, which ORSANCO water quality criteria recognized and considered under Section 5.5.B.2 of the 2019 Final Standards document.

#### Whole Effluent Toxicity (WET)

Per DEP-SOP Whole Effluent Toxicity (WET) SOP No. BPNPSM-PMT-031, revised May 13, 2014, the facility tests show that no reasonable potential exists, and no limits will be imposed for this renewal period. (See Appendix E).

The test frequency will be 1/year. Part C 114 will be included in the permit.

#### Mass Loadings

Mass loading limits are applicable for Publicly Owned Treatment Works (POTW). Current policy requires average monthly mass loading limits be established for CBOD<sub>5</sub>, TSS, and NH<sub>3</sub>-N and average weekly mass loading limits be established for CBOD<sub>5</sub> and TSS.

Average monthly mass loading limits (lbs/day) are based on the formula: design flow (MGD) x concentration limit (mg/L) x conversion factor (8.34).

#### Influent Monitoring

For POTWs with design flows greater than 2,000 GPD, influent BOD<sub>5</sub> and TSS monitoring must be established in the permit, and the monitoring should be consistent with the same frequency and sample type as is used for other effluent parameters.

#### **Monitoring Frequency Considerations**

For pH, Dissolved Oxygen (DO) and Total Residual Chlorine (TRC), a monitoring frequency of 1/day will be imposed. The daily monitoring frequencies are consistent with current policy and Table 6-3 of DEP's Technical Guidance for the Development and Specification of Effluent Limitations.

#### Whole Effluent Toxicity (WET)

For Outfall 001,  $\Box$  Acute  $\boxtimes$  Chronic WET Testing was completed:

- $\boxtimes$  For the permit renewal application (4 tests).
  - Quarterly throughout the permit term.
  - Quarterly throughout the permit term and a TIE/TRE was conducted.

Other:

The dilution series used for the tests was: 100%, 60%, 30%, 2%, and 1%. The Target Instream Waste Concentration (TIWC) to be used for analysis of the results is: 0.02 (see Appendix E).

#### Summary of Four Most Recent Test Results

#### TST Data Analysis

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

	Ceriodaphnia	Results (Pass/Fail)	Pimephales Re	sults (Pass/Fail)
Test Date	Survival	Reproduction	Survival	Growth
10/1/2019	Pass	Pass	Pass	Pass
8/31/2020	Pass	Pass	Pass	Pass
8/29/2021	Pass	Pass	Pass	Pass
8/31/2022	Pass	Pass	Pass	Pass

\* A "passing" result is that in which the replicate data for the TIWC is not statistically significant from the control condition. This is exhibited when the calculated t value ("T-Test Result") is greater than the critical t value. A "failing" result is exhibited when the calculated t value ("T-Test Result") is less than the critical t value.

Is there reasonable potential for an excursion above water quality standards based on the results of these tests? (*NOTE* – *In general, reasonable potential is determined anytime there is at least one test failure in the previous four tests*).

## 

**Comments:** The renewal application WET reports show no failure test for the last four years. Therefore, New Brighton BSA can be relieved of the requirement to progress to Phase II of the TRE process, the Compliance Schedule will be updated accordingly.

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

Acute Partial Mix Factor (PMFa): 0.0021 Chronic Partial Mix Factor (PMFc): 0.01

#### 1. Determine IWC – Acute (IWCa):

(Q<sub>d</sub> x 1.547) / ((Q<sub>7-10</sub> x PMFa) + (Q<sub>d</sub> x 1.547))

[(2.0 MGD x 1.547) / ((640 cfs x 0.0021) + (2.0 MGD x 1.547))] x 100 = 69.7%

Is IWCa < 1%? 🗌 YES 🔀 NO

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

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

(Q<sub>d</sub> x 1.547) / (Q<sub>7-10</sub> x PMFc) + (Q<sub>d</sub> x 1.547)

[(2.0 MGD x 1.547) / ((640 cfs x 0.01) + (2.0 MGD x 1.547))] x 100 = **32.5%** 

## 3. Determine Dilution Series

Dilution Series = 100%, 67%, 33%, 17%, and 8%. <u>TIWCc 33%</u>

#### WET Limits

Has reasonable potential been determined? YES 
NO

Will WET limits be established in the permit?  $\Box$  YES  $\boxtimes$  NO

#### **Proposed Effluent Limitations and Monitoring Requirements**

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (362-0400-001), SOPs and/or BPJ.

#### Outfall 001, Effective Period: Permit Effective Date through Permit Expiration Date.

			Effluent L	imitations.			Monitoring Re	quirements
Paramatar	Mass Units	; (lbs/day) <sup>(1)</sup>		Concentrat	ions (mg/L)		Minimum <sup>(2)</sup>	Required
Parameter	Average	Weekly		Average	Weekly	Instant.	Measurement	Sample
	Monthly	Average	Minimum	Monthly	Average	Maximum	Frequency	Туре
		Report						
Flow (MGD)	Report	Daily Max	XXX	XXX	XXX	XXX	Continuous	Recorded
			6.0		9.0			
pH (S.U.)	XXX	XXX	Inst Min	XXX	Inst Max	XXX	1/day	Grab
DO	xxx	xxx	5.0	xxx	XXX	XXX	1/day	Grab
								24-Hr
CBOD5	417	626	XXX	25	37.5	50	2/week	Composite
TRC	xxx	xxx	XXX	0.5	XXX	1.6	1/day	Grab
BOD5		Report						24-Hr
Raw Sewage Influent	Report	Daily Max	XXX	Report	XXX	XXX	2/week	Composite
								24-Hr
TSS	500	750	XXX	30	45	60	2/week	Composite
TSS		Report						24-Hr
Raw Sewage Influent	Report	Daily Max	XXX	Report	XXX	XXX	2/week	Composite
								24-Hr
Ammonia-Nitrogen	417	XXX	XXX	25	XXX	50	2/week	Composite
Fecal Coliform (CFU/100 ml)	VVV	VVV	VVV	2000	VVV	10000	0/week	Oreh
Food Coliform (CELI/100 ml)	^^^	~~~	~~~			10000	Z/week	Grab
	VVV	VVV	VVV	200 Goo Moon	~~~	400	2/wook	Grah
Way 1 - Sep 30	~~~~			Geo Mean		400	Z/WEEK	Grab
<i>E. Coli</i> (No./100 ml)	XXX	XXX	XXX	XXX	XXX	Report	1/month	Grab
				Report				24-Hr
Total Nitrogen	XXX	XXX	XXX	Daily Max	XXX	XXX	1/quarter	Composite
				Report				24-Hr
Total Phosphorus	XXX	XXX	XXX	Daily Max	XXX	XXX	1/quarter	Composite
				Report				
PFOA* (ng/L)	XXX	XXX	XXX	Daily Max	XXX	XXX	1/year	Grab

			Effluent L	imitations			Monitoring Requirements	
Parameter	Mass Units	(lbs/day) <sup>(1)</sup>		Concentrat	Minimum <sup>(2)</sup>	Required		
Falameter	Average Monthly	Weekly Average	Minimum	Average Monthly	Weekly Average	Instant. Maximum	Measurement Frequency	Sample Type
				Report				
PFOS* (ng/L)	XXX	XXX	XXX	Daily Max	XXX	XXX	1/year	Grab
				Report				
HFPO-DA* (ng/L)	XXX	XXX	XXX	Daily Max	XXX	XXX	1/year	Grab
				Report				
PFBS* (ng/L)	XXX	XXX	XXX	Daily Max	XXX	XXX	1/year	Grab

\* The permittee may discontinue monitoring for PFOA, PFOS, HFPO-DA, and PFBS if the results in 4 consecutive monitoring periods indicate non-detect results at or below Quantitation Limits of 4.0 ng/L for PFOA, 3.7 ng/L for PFOS, 3.5 ng/L for PFBS and 6.4 ng/L for HFPO-DA. When monitoring is discontinued, permittees must enter a No Discharge Indicator (NODI) Code of "GG" on DMRs.

Compliance Sampling Location: Outfall 001. Other Comments: None.

## Appendix -A- USGS Stream Stats

Reg Wor Clic Tim	jion ID: PA rkspace ID: PA20 sked Point (Latitude, ne: 2023-06-2214	230622200312386000 Longitude): 40.71899, -i ::03:35 •0400	80.30532			
	Sandusk O HIO	Loraiti Elyma Akror wooster ca	Ashtabul ad Young Allis a	Lowi		• Oil City
	Clark	and the state			Pitts	burgh
>	Basin Characterist	ics		Vietnu.	17 14	Collapse /
>	Basin Characterist Parameter Code	ics Parameter Description		<b>V</b>	Value	Collapse / Unit
>	Basin Characterist Parameter Code DRNAREA ELEV	ics Parameter Description Area that drains to a po Mean Basin Elevation	int on a str	eam	Value 3130 1127	Collapse / Unit square miles feet
>	Basin Characterist Parameter Code DRNAREA ELEV Low-Flow Statistic Low-Flow Statistic	ics Parameter Description Area that drains to a po Mean Basin Elevation S s Parameters [99.9 Percer Parameter Name	int on a str nt (3130 sq Value	eam uare miles) Low Units	Value 3130 1127 Flow Reg Min Lir	Collapse / Unit square miles feet gion 4]
>	Basin Characterist Parameter Code DRNAREA ELEV Low-Flow Statistic Low-Flow Statistic Parameter Code DRNAREA	lics Parameter Description Area that drains to a po Mean Basin Elevation Is s Parameters [99.9 Percer Parameter Name Drainage Area	int on a str nt (3130 sq Value 3130	eam uare miles) Low Units square miles	Value 3130 1127 Flow Reg Min Lir 2.26	Collapse / Unit square miles feet jion 4] nit Max Limit 1400

Low-Flow Statistics Disclaimers [99.9 Percent (3130 square miles) Low Flow Region 4]

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

Low-Flow Statistics Flow Report [99.9 Percent (3130 square miles) Low Flow Region 4]

Statistic	Value	Unit
7 Day 2 Year Low Flow	256	ft*3/s
30 Day 2 Year Low Flow	338	ft*3/s
7 Day 10 Year Low Flow	162	ft*3/s
30 Day 10 Year Low Flow	189	ft*3/s
90 Day 10 Year Low Flow	257	ft*3/s

Low-Flow Statistics Citations

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

USGS Data Disclaimer: Unless otherwise stated, all data, metadata and related materials are considered to satisfy the quality standards relative to the purpose for which the data were collected. Although these data and associated metadata have been reviewed for accuracy and completeness and approved for release by the U.S. Geological Survey (USGS), no warranty expressed or implied is made regarding the display or utility of the data for other purposes, nor on all computer systems, nor shall the act of distribution constitute any such warranty.

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Application Version: 4.15.0 StreamStats Services Version: 1.2.22 NSS Services Version: 2.2.1 Appendix -B- TRC Calculation

TRG EVAL	UATION				
Input appropria	ate values ir	n A3:A9 and D3:D9			
640	= Q strean	n (cfs)	0.5	= CV Daily	
2	= Q discha	arge (MGD)	0.5	= CV Hourly	
30	= no. samp	oles	1	= AFC_Partia	al Mix Factor
0.3	= Chlorine	Demand of Stream	1	= CFC_Partia	al Mix Factor
0	= Chlorine	<b>Demand of Discharge</b>	15	= AFC_Criter	ria Compliance Time (min)
0.5	= BAT/BPJ	Value	720	= CFC_Criter	ria Compliance Time (min)
0	= % Facto	r of Safety (FOS)		=Decay Coef	ficient (K)
Source	Reference	AFC Calculations		Reference	CFC Calculations
TRC	1.3.2.iii	WLA afc =	66.005	1.3.2.iii	WLA cfc = 64.342
PENTOXSD TRO	5.1a	LTAMULT afc =	0.373	5.1c	LTAMULT cfc = 0.581
PENTOXSD TRO	5.1b	LTA_afc=	24.595	5.1d	LTA_cfc = 37.405
Source		Effluer	nt Limit Calcu	lations	
PENTOXSD TRO	5.1f		AML MULT =	1.231	
PENTOXSD TRO	5.1g	AVG MON L	.IMIT (mg/l) =	0.500	BAT/BPJ
		INST MAX L	.IMIT (mg/l) =	1.635	
WI A afc	( 010/e(-k*		e* 010/0d*	of htAEC to)	
WLA alc	+ Xd + (/	AFC_Vc*Os*¥s/Od)]*(1-	5 .015/QU		
LTAMULT afc	EXP((0.5*1 N	(cvh^2+1))-2.326*LN(cvh^1	2+1)^0.5)		
	wla_afc*l TA	AMULT afc	, 0.0,		
	ma_are cri				
WLA cfc	(.011/e(-k*	CFC tc) + [(CFC_Yc*Qs	*.011/Qd*e	(-k*CFC tc))	
	+ Xd + ((	CFC Yc*Qs*Xs/Qd)]*(1-	FOS/100)		
LTAMULT_cfc	EXP((0.5*LN	 (cvd^2/no_samples+1))-2.3	326*LN(cvd^2	2/no_samples+1	1)^0.5)
LTA_cfc	wla_cfc*LTA	AMULT_cfc			
AML MULT	EXP(2.326*L	N((cvd^2/no_samples+1)^	0.5)-0.5*LN(c	vd^2/no_sampl	es+1))
AVG MON LIMIT	MIN(BAT_B	PJ,MIN(LTA_afc,LTA_cfc)*	AML_MULT)		
INST MAX LIMIT	1.5*((av_m	ion_limit/AML_MULT)/L7	FAMULT_af	c)	

Appendix -C- WQM 7.0 Modeling - Summer Conditions

### Input Data WQM 7.0

	SWP Basir	o Strea n Coo	am Je	Stre	am Name		RMI	Elevati (ft)	ion Drain Are (sq.	age S sa mi) (	Slope V (ft/ft)	PWS /ithdrawal (mgd)	Apply FC
	20B	33	953 BEAVE	ER RIVER	2		1.65	0 112	7.00 31	30.00 0	.00040	0.00	$\checkmark$
					Sti	ream Data	a						
Design Cond	LFY	Trib Flow	Stream Flow	Rch Trav Time	Rch Velocity	WD Ratio	Rch Width	Rch Depth	<u>Tribut</u> Temp	ary pH	<u>St</u> Temp	<u>ream</u> pH	
oona.	(cfsm)	(cfs)	(cfs)	(days)	(fps)		(ft)	(ft)	(°C)		(°C)		
Q7-10 Q1-10 Q30-10	0.204	0.00 0.00 0.00	0.00 0.00 0.00	0.000 0.000 0.000	0.000 0.000 0.000	0.0	400.00	15.00	25.00	7.00	0.0	0.00	
					Di	scharge D	)ata					_	
			Name	Per	mit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	d Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH		
		New	Brighton TF	PAG	0026026	2.0000	2.0000	2.000	0.000	20.0	00 7.	00	
					Pa	rameter E Dis Co	Jata sc Tr onc Co	rib Stre	eam Fat	e ef			

25.00

4.00

25.00

(mg/L) (mg/L) (mg/L) (1/days)

0.00

0.00

0.00

1.50

0.00

0.70

2.00

8.24

0.00

Parameter Name

CBOD5

NH3-N

Dissolved Oxygen

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					Inp	ut Data	a WQN	/ 7.0						
	SWP Basin	Strea Coo	am le	Stre	eam Name		RMI	Eleva (ft	ition	Drainage Area (sq mi)	Slope (ft/ft)	PW Withd (mg	/S irawal gd)	Appl FC
	20B	33	953 BEAV	ER RIVER	2		0.10	00 11	26.00	3160.00	0.0004	0	0.00	$\checkmark$
					St	ream Dat	a							
Design	LFY	Trib Flow	Stream Flow	Rch Trav Time	Rch Velocity	WD Ratio	Rch Width	Rch Depth	Tem	<u>Tributary</u> p pH	Те	<u>Strear</u> mp	n pH	
Cond.	(cfsm)	(cfs)	(cfs)	(days)	(fps)		(ft)	(ft)	(°C	)	(°	C)		
Q7-10 Q1-10 Q30-10	0.202	0.00 0.00 0.00	0.00 0.00 0.00	0.000 0.000 0.000	0.000 0.000 0.000	0.0	560.00	15.35	2	5.00 7.0	00	0.00	0.00	
					Di	ischarge l	Data						]	
			Name	Per	mit Numbe	Existing Disc r Flow (mgd)	Permitt Disc Flow (mgd)	ed Design Disc Flow (mgd)	Res Fa	Dis erve Ten ctor (°C	ю [ пр ;)	Disc pH		
		New	Brighton Ti	P PAG	0026026	0.000	0.000	0.000	00 (	0.000 20	0.00	7.00		
					Pa	arameter l	Data							
				D	News	Di	isc 1 onc C	Trib St Conc (	tream Conc	Fate Coef				
				raramete	r warne	(m	ig/L) (n	ng/L) (r	mg/L)	(1/days)				
	_		CBOD5			:	25.00	2.00	0.00	1.50		_		
			Dissolved	Oxygen			4.00	8.24	0.00	0.00				

25.00

0.00

0.00

0.70

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NH3-N

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	SW	P Basin	Strea	Stream Code			-	Stream	Name			
	1	20B	33953			BEAVER RIVER						
RMI	Stream Flow	PWS With	Net Stream Flow	Disc Analysis Flow	Reach Slope	Depth	Width	W/D Ratio	Velocity	Reach Trav Time	Analysis Temp	Analysis pH
	(cfs)	(cfs)	(cfs)	(cfs)	(ft/ft)	(ft)	(ft)		(fps)	(days)	(°C)	
Q7-10	) Flow											
1.650	638.52	0.00	638.52	3.094	0.00040	15	400	26.67	0.11	0.886	24.98	7.00
Q1-10	) Flow											
1.650	408.65	0.00	408.65	3.094	0.00040	NA	NA	NA	0.07	1.380	24.96	7.00
Q30-1	10 Flow											
1.650	868.39	0.00	868.39	3.094	0.00040	NA	NA	NA	0.15	0.652	24.98	7.00

## WQM 7.0 Hydrodynamic Outputs

## WQM 7.0 Modeling Specifications

Parameters	Both	Use Inputted Q1-10 and Q30-10 Flows	~
WLA Method	EMPR	Use Inputted W/D Ratio	V
Q1-10/Q7-10 Ratio	0.64	Use Inputted Reach Travel Times	
Q30-10/Q7-10 Ratio	1.36	Temperature Adjust Kr	~
D.O. Saturation	90.00%	Use Balanced Technology	V
D.O. Goal	5		

## WQM 7.0 D.O.Simulation

SWP Basin S	tream Code			Stream Nam	e	
20B	33953			BEAVER RIVE	R	
DMI	Total Discharge	Eleve (mad	() And	lucia Temperat	(90)	Analysis all
RIVII	Total Discharge	Flow (mga	<u>)</u> Ana	iysis remperat	ure (-C)	Analysis pH
1.650	2.00	0		24.976		7.000
Reach Width (ft)	Reach De	pth (ft)		Reach WDRa	itio	Reach Velocity (fps)
400.000	15.00	00		26.667		0.107
Reach CBOD5 (mg/L)	Reach Kc (	1/days)	<u>R</u>	each NH3-N (r	ng/L)	Reach Kn (1/days)
2.11	0.04	3		0.12		1.027
Reach DO (mg/L)	Reach Kr (	1/days)		Kr Equation	1	Reach DO Goal (mg/L)
8.223	0.08	2		O'Connor		5
Reach Travel Time (days)		Subreach	Results			
0.886	TravTime	CBOD5	NH3-N	D.O.		
	(days)	(mg/L)	(mg/L)	(mg/L)		
	0.089	2.10	0.11	7.54		
	0.177	2.09	0.10	7.54		
	0.266	2.08	0.09	7.54		
	0.354	2.07	0.08	7.54		
	0.443	2.06	0.08	7.54		
	0.531	2.05	0.07	7.54		
	0.620	2.04	0.06	7.54		
	0.709	2.03	0.06	7.54		
	0.797	2.02	0.05	7.54		
	0.886	2.01	0.05	7.54		

ļ	SWP Basin	Strea	am Code		S	tream Na	ame			
	20B	3	3953		BE	AVER R	IVER			
NH3-N /	Acute Alloc	ation	s							
RMI	Discharge	Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multi WL (mg	ple LA VL)	Critical Reach	Percent Reduction	1
1.65	50 New Brighton	n TP	6.78	50	6.78		50	0	0	-
	_							-	-	_
NH3-N ( RMI	Chronic All Discharge N	ocati ame	ons Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multipi WLA (mg/L	le (	Critical Reach	Percent Reduction	_
NH3-N ( RMI 1.65	Chronic All Discharge N	ocati ame n TP	ons Baseline Criterion (mg/L) 1.34	Baseline WLA (mg/L) 25	Multiple Criterion (mg/L)	Multipi WLA (mg/L	ie (-) 25	Critical Reach	Percent Reduction	-
NH3-N ( RMI 1.65 Dissolve	Chronic All Discharge N 50 New Brighton ed Oxygen	ocatio Iame n TP Alloc	ons Baseline Criterion (mg/L) 1.34 ations	Baseline WLA (mg/L) 25	Multiple Criterion (mg/L) 1.34	Multipk WLA (mg/L	le (-) 25	Critical Reach	Percent Reduction	-
NH3-N ( RMI 1.65 Dissolve	Chronic All Discharge N 50 New Brighton ed Oxygen	ocatio ame n TP Alloc	ons Baseline Criterion (mg/L) 1.34 ations	Baseline WLA (mg/L) 25 CBOD5	Multiple Criterion (mg/L) 1.34 <u>NH3-N</u>	Multipi WLA (mg/L	le .) 25 Dissolv	Critical Reach 0	Percent Reduction	- -
NH3-N ( RMI 1.65 Dissolve RMI	Chronic All Discharge N 50 New Brightor ed Oxygen a Discharg	ocatio Iame n TP Alloc ge Nan	ons Baseline Criterion (mg/L) 1.34 ations he Basel (mg/	Baseline WLA (mg/L) 25 <u>CBOD5</u> ine Muttple L) (mg/L)	Multiple Criterion (mg/L) 1.34 <u>NH3-N</u> Baseline Mi (mg/L) (n	Multipi WLA (mg/L utipie E ng/L)	ie .) 25 Dissolvi Baseline (mg/L)	Critical Reach 0 ed Oxygen e Multiple (mg/L)	Percent Reduction 0 Critical Reach	- Percent Reductior

## WQM 7.0 Effluent Limits

	SWP Basin	Stream Code		Stream Name	2		
	20B	33953		BEAVER RIVE	R		
RMI	Name	Permit Number	Disc Flow (mgd)	Parameter	Effl. Limit 30-day Ave. (mg/L)	Effl. Limit Maximum (mg/L)	Effl. Limit Minimum (mg/L)
1.650	New Brighton 1	TP PA0026026	2.000	CBOD5	25		
				NH3-N	25	50	
				Dissolved Oxygen			4

## Appendix -C- WQM 7.0 Modeling - Winter Conditions

	SWP Basir	o Strea n Coo	am ie	Stre	eam Name		RMI	Eleva (ft	ation :)	Drainage Area (sq mi)	Slope (ft/ft)	PV Withd (m)	VS irawal gd)	Appl FC
	20B	33	953 BEAVE	ER RIVER	ł		1.6	50 11	27.00	3130.00	0.0004	0	0.00	V
					St	ream Dat	a							
Design	LFY	Trib Flow	Stream Flow	Rch Trav Time	Rch Velocity	WD Ratio	Rch Width	Rch Depth	Ten	<u>Tributary</u> np pH	Те	<u>Strear</u> mp	n pH	
Cond.	(cfsm)	(cfs)	(cfs)	(days)	(fps)		(ft)	(ft)	(°C	)	(°	°C)		
27-10 21-10	0.408	0.00	0.00	0.000	0.000	0.0	400.00	15.00		5.00 7.	00	0.00	0.00	
230-10		0.00	0.00	0.000	0.000									
					Di	scharge	Data						1	
			Name	Per	mit Number	Existing Disc r Flow (mgd)	Permitt Disc Flow (mgd	ed Desigr Disc Flow ) (mgd)	n Res Fa	Dis serve Ten actor (°C	sc I np C)	Disc pH		
		New	Brighton TF	P PA	0026026	2.000	0 2.000	0 2.00	00	0.000 1	15.00	7.00		
					Pa	arameter	Data							
					News	D	isc · onc (	Trib Si Conc (	tream Conc	Fate Coef				
				aramete	rivame	(m	ng/L) (r	ng/L) (I	mg/L)	(1/days)				
			CBOD5				25.00	2.00	0.00	1.50		_		
			Dissolved	Oxygen			4.00	12.51	0.00	0.00				
			NH3-N				25.00	0.00	0.00	0.70				

#### Input Data WQM 7.0

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					Inp	ut Data	a WQN	N 7.0						
	SWP Basir	9 Strea n Coo	am Je	Stre	eam Name		RMI	Eleva (ft	ition )	Drainage Area (sq mi)	Slope (ft/ft)	PW Withdr (mg	S rawal Jd)	Apply FC
	20B	33	953 BEAVE	ER RIVER	2		0.1	00 11	26.00	3160.00	0.00040		0.00	¥
					St	tream Dat	a							
Design	LFY	Trib Flow	Stream Flow	Rch Trav Time	Rch Velocity	WD Ratio	Rch Width	Rch Depth	Temp	<u>Tributary</u> p pH	Tem	<u>Stream</u> Ip	PH	
Cond.	(cfsm)	(cfs)	(cfs)	(days)	(fps)		(ft)	(ft)	(°C)		(°C	)		
Q7-10 Q1-10 Q30-10	0.404	0.00 0.00 0.00	0.00 0.00 0.00	0.000 0.000 0.000	0.000 0.000 0.000	0.0	560.00	15.35	5	i.00 7.0	0 (	0.00	0.00	
					D	ischarge	Data							
			Name	Per	rmit Numbe	Existing Disc r Flow (mgd)	Permitt Disc Flow (mgd)	ed Design Disc Flow ) (mgd)	Rese Fac	Dis erve Tem tor (°C	c Di IP P )	sc H		
		New	Brighton TR	P PA	0026026	0.000	0.000	00 0.000	0 00	.000 1	5.00	7.00		
					Pa	arameter	Data							
			F	Paramete	r Name	Di C	isc isc onc C	Trib St Conc (	ream Conc	Fate Coef				
	-					(m	ig/L) (r	ng/L) (r	ng/L)	(1/days)				
			CBOD5				25.00	2.00	0.00	1.50				
			Dissolved	Oxygen			4.00	12.51	0.00	0.00				
			NH3-N				25.00	0.00	0.00	0.70				

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			WQI	17.0	Hydr	odyn	amic	Out	outs			
	SW	P Basin	Strea	m Code				Stream	Name			
		20B	3	3953			B	EAVER	RIVER			
RMI	Stream Flow	PWS With	Net Stream	Disc Analysis Flow	Reach Slope	Depth	Width	W/D Ratio	Velocity	Reach Trav Time	Analysis Temp	Analysis pH
	(cfs)	(cfs)	(cfs)	(cfs)	(ft/ft)	(ft)	(ft)		(fps)	(days)	(°C)	
Q7-1	0 Flow											
1.650	1277.04	0.00	1277.04	3.094	0.00040	15	400	26.67	0.21	0.444	5.02	7.00
Q1-1	0 Flow											
1.650	817.31	0.00	817.31	3.094	0.00040	NA	NA	NA	0.14	0.693	5.04	7.00
Q30-	10 Flow	1										
1.650	1736.77	0.00	1736.77	3.094	0.00040	NA	NA	NA	0.29	0.327	5.02	7.00

# WQM 7.0 Modeling Specifications

Parameters	Both	Use Inputted Q1-10 and Q30-10 Flows	V
WLA Method	EMPR	Use Inputted W/D Ratio	$\checkmark$
Q1-10/Q7-10 Ratio	0.64	Use Inputted Reach Travel Times	
Q30-10/Q7-10 Ratio	1.36	Temperature Adjust Kr	~
D.O. Saturation	90.00%	Use Balanced Technology	V
D.O. Goal	5		

## WQM 7.0 D.O.Simulation

SWP Basin	Stream Code			Stream Nam	<u>ie</u>	
20B	33953			BEAVER RIV	ER	
RMI	Total Discharge	Flow (mgd	) Ana	lysis Tempera	ture (°C)	Analysis pH
1.650	2.00	0		5.024		7.000
Reach Width (ft)	Reach De	pth (ft)		Reach WDR	atio_	Reach Velocity (fps)
400.000	15.00	00		26.667		0.213
Reach CBOD5 (mg/L)	Reach Kc	(1/days)	<u>R</u>	each NH3-N (	mg/L)	Reach Kn (1/days)
2.06	0.03	8		0.06		0.221
Reach DO (mg/L)	Reach Kr (	1/days)		Kr Equatio	<u>n</u>	Reach DO Goal (mg/L)
12.489	0.07	2		O'Connor		5
Reach Travel Time (days	<u>s)</u>	Subreach	Results			
0.444	TravTime	CBOD5	NH3-N	D.O.		
	(days)	(mg/L)	(mg/L)	(mg/L)		
	0.044	2.05	0.06	11.45		
	0.089	2.05	0.06	11.45		
	0.133	2.05	0.06	11.45		
	0.178	2.05	0.06	11.45		
	0.222	2.05	0.06	11.45		
	0.266	2.05	0.06	11.45		
	0.311	2.04	0.06	11.45		
	0.355	2.04	0.06	11.45		
	0.400	2.04	0.06	11.45		
	0.444	2.04	0.05	11.45		

\_

	SWP Basin 20B	<u>Strea</u> 3	am Code 3953		<u>st</u> BE	ream Name AVER RIVER	ł	
IH3-N	Acute Alloc	ation	s					
RMI	Discharge I	Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
1.65	0 New Brighton	1 TP	20.59	5	0 20.59	50	0	0
H3-N	Chronic Alle	ocati	ons					
RMI	Discharge N	ame	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
1.65	0 New Brighton	TP	4.08	2	5 4.08	25	. 0	0

#### WQM 7.0 Wasteload Allocations

**Dissolved Oxygen Allocations** 

		CBC	005	NH	3-N	Dissolved	d Oxygen	Ortheal	Demont
RMI	Discharge Name	Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)	Reach	Reduction
1.65 N	ew Brighton TP	25	25	25	25	4	4	0	0

## WQM 7.0 Effluent Limits

	SWP Basin Stre	am Code		Stream Name	9		
	20B 3	33953		BEAVER RIVE	R		
RMI	Name	Permit Number	Disc Flow (mgd)	Parameter	Effl. Limit 30-day Ave. (mg/L)	Effl. Limit Maximum (mg/L)	Effl. Limit Minimum (mg/L)
1.650	New Brighton TP	PA0026026	2.000	CBOD5	25		
				NH3-N	25	50	
				Dissolved Oxygen			4

## Appendix D – Toxics Management Spreadsheet (TMS) Analysis –

## Application Analysis

	PROTEC	MENT OF ENVIRONMENTA	L										Version 1.4	, way zuz
Di	ischarg	e Informati	on											
nst	tructions D	ischarge Stream												
ac	lity: Nev	v Brighton Borough	Sanitar	y Au	thority STF	NP	DES Per	mit No.:	PA0026	026		Outfall	No.: 001	
		· ·			- 1	-							_	
Va	luation Type	Major Sewage /	Industr	tal V	/aste	Wa	stewater	Descrip	tion: Tre	ated Sa	nitary Se	wage		
					Disch	arne Cha	racteria	tics						
De	asian Flow				Diodi	Parti	al Mix Fa	actors (F	PMFs)		Com	olete Mi	x Times	(min)
	(MGD)*	Hardness (mg/l)*	* pH (SU)* AFC		C	CFC	THH	1	CRL	Q,	-10	6	1 <u>1</u> 1	
	2	189	7.76											
						01116	ft blank	0.5 17 16	st blank	(	0 if left blan	k	176	blank
Discharge Pollutant Total Dissolved Solids (PWS)			Units	Ma	x Discharge Cono	Trib Cono	Stream Cone	Dally CV	Hourly CV	Strea m CV	Fate Coeff	FOS	Criteri a Mod	Chem Trans
	Total Dissolve	mg/L		419										
ł	Chloride (PW	8)	mg/L		95.87		<u> </u>							
	Sulfate (PWS	)	mg/L		83.23		-							
1	Fluoride (PW	luifate (PWS) luoride (PWS)												
	Total Aluminu	otal Aluminum			30									
	Total Antimor	1y	µg/L	<	2		<u> </u>							
	Total Barlum		ug/L		34.73		-		<u> </u>				<u> </u>	
	Total Beryllur	m	µg/L	<	0.8									
	Total Boron		µg/L		570.33									
	Total Cadmiu Total Chromiu	m (III)	µg/L	<	0.15		<u> </u>						<u> </u>	
	Hexavalent C	hromium	µg/L	<	0.25		-						<u> </u>	
	Total Cobalt		µg/L	<	0.8									
	Total Copper		mg/L		0.01683									
ĥ	Total Cyanide	•	ug/L		13.67									
5	Dissolved Iron	1	µg/L		69									
	Total Iron		µg/L		145.67									
	Total Lead		µg/L	<	17.17		-							
	Total Margan	ese	µg/L	<	0.2		<u> </u>						<u> </u>	
	Total Nickel		µg/L		2.65									
	Total Phenois	(Phenolics) (PWS)	µg/L	<	2.62									
	Total Scientu Total Science	m	µg/L	<	2.01									
	Total Thailun	1	ug/L	<	0.22									
	Total Zinc		mg/L		0.0511									
	Total Molybde	num	µg/L		2.77									
	Acrolein		µg/L	<	2									
	Acrylamide		μg/L	< <	2									
	Benzene		µg/L	<	0.5									
	Second form					_	_						-	

	Chiorobenzene	und.		0.5						
	Chlorodihmmomethase	ugit.	-	0.5						
	Chloroethage	ug/L	-	0.5						
	2-Chlomethyl Vinyl Ether	ug/L	<	0.5						
	Chloroform	Hour .	-	2.0						
	Dichlorohomomethase	ug/L		0.0						
	1.1.Dichlome Trace	UQ1L	-	0.9						
	1.2-Dichlomethane	UQ/L	<	0.5						
3	1.1.Dichlemathulane	pg/L	•	0.5						
a.	1,1-Dichlordediyiene	pg/L	•	0.5	<u> </u>		<u> </u>	<u> </u>		
5	1,2-Dichioropropane	µg/L	<	0.5	<u> </u>		<u> </u>	<u> </u>	<u> </u>	
-	1,3-Dichioropropylene	µg/L	<	0.5	<u> </u>					
	1,4-Dioxane	µg/L	<	5	<u> </u>		<u> </u>			
	Ethylbenzene	µg/L	<	0.5	<u> </u>		<u> </u>	<u> </u>	<u> </u>	
	Methyl Bromide	µg/L	<	0.5	<u> </u>		<u> </u>	<u> </u>	<u> </u>	
	Methyl Chloride	µg/L	<	0.5	<u> </u>					
	Methylene Chloride	µg/L	<	0.5						
	1,1,2,2-Tetrachloroethane	µg/L	<	0.5						
	Tetrachioroethylene	µg/L	<	0.5						
	Toluene	µg/L	<	0.5						
	1,2-trans-Dichloroethylene	µg/L	<	0.5						
	1,1,1-Trichloroethane	µg/L	<	0.5						
	1,1,2-Trichloroethane	µg/L	<	0.5						
	Trichioroethylene	µg/L	<	0.5						
	Vinyi Chloride	µg/L	<	0.5						
	2-Chiorophenol	µg/L	<	10						
	2,4-Dichlorophenol	µg/L	<	10						
	2,4-Dimethylphenol	µg/L	<	10						
_	4,6-Dinitro-o-Cresol	µg/L	<	10						
4	2,4-Dinitrophenol	µg/L	<	10						
lin o	2-Nitrophenol	µg/L	<	10						
δ	4-Nitrophenol	µg/L	<	10						
	p-Chloro-m-Cresol	µg/L	<	10						
	Pentachiorophenol	µg/L	<	10						
	Phenol	µg/L	<	10						
	2,4,6-Trichlorophenol	µg/L	<	10						
_	Acenaphthene	µg/L	<	2.5						
	Acenaphthylene	µg/L	<	2.5						
	Anthracene	µg/L	<	2.5						
	Benzidine	µg/L	<	50						
	Benzo(a)Anthracene	µg/L	<	2.5						
	Benzo(a)Pyrene	ug/L	<	2.5						
	3.4-Benzofluoranthene	ug/L	<	2.5						
	Benzo(ghl)Perviene	uo/L	<	5						
	Benzo(k)Fluoranthene	µg/L	<	2.5						
	Bis(2-Chioroethoxy)Methane	ug/L	<	5						
	Bis(2-Chioroethyl)Ether	uo/L	<	5						
	Bis(2-Chioroisoprovi)Ether	Un/L		5						
	Bis(2-Ethylhexyl)Phthalate	UO/L	<	5						
	4-Bromophenyl Phenyl Ether	un/L	<	5						
	Butyl Benzyl Phthalate	und		6						
	2-Chiomnanhthaisne	upt	-	5						
	4-Chlomobenvi Phenvi Ether	ug/L	-	5						
	Chrysene	Hole Hole	-	26						
	Dibanzo(a b)énibrancen	Port.	-	2.5						
	A 2. Disblassbasses	pg/L	<	2.5						
	1,2-Dichlorobenzeñe	pg/L	<	0.5						
	1,3-Dichlorobenzene	pg/L	<	0.5						
9	1,4-Dichlorobenzeñe	Pg/L	<	0.5						
Ľ,	3,3-Dichlorobenzidine	µg/L	<	10						
	Diethyl Phthalate	µg/L	<	5						
ð	Dimethyl Phthalate	µg/L	<	5						
ĕ	Real Property and the second sec			5						
ĕ	Di-n-Butyl Phthalate	µg/L	~	-		 <u> </u>	<u> </u>	 <u> </u>		

	2,6-Dinitrotoiuene	hðyr.	<	5						
	Di-n-Octyl Phthalate	µg/L	<	5						
	1,2-Diphenyihydrazine	µg/L	<	5						
	Fluoranthene	µg/L	<	2.5						
	Fluorene	µg/L	٠	2.5						
	Hexachlorobenzene	µg/L	٠	5						
	Hexachlorobutadiene	µg/L	<	0.5						
	Hexachlorocyclopentadlene	µg/L	<	5						
	Hexachioroethane	µg/L	<	5						
	Indeno(1,2,3-cd)Pyrene	µg/L	<	2.5						
	Isophorone	µg/L	<	5						
	Naphthalene	µg/L	<	0.5						
	Nitrobenzene	ug/L	<	5						
	n-Nitrosodimethylamine	µg/L	<	5						
	n-Nitrosodi-n-Propylamine	ug/L	<	5						
	n-Nitrosodiphenviamine	ug/L	<	5						
	Phenanthrene	unit	<	2.5						
	Pyrene	uo/L	<	2.5						
	1.2.4-Trichlomhenzene	unit		0.5		<u> </u>		<u> </u>		
	Aldrin	und.	-	0.0						
	alpha-BHC	up/L	-							
	hets-DUC	up/L	-							
	anna-BHC	Here a	-				 			
	gamina-BHC	HUL	<							
	deita BHG	häve	<							
	Gniordane	hðyr.	<							
	4,4-DDT	µg/L	<							
	4,4-DDE	µg/L	<							
	4,4-DDD	µg/L	<							
	Dieldrin	µg/L	<							
	alpha-Endosulfan	µg/L	<							
	beta-Endosulfan	µg/L	<							
8	Endosulfan Sulfate	µg/L	۰							
2	Endrin	µg/L	۷							
š	Endrin Aldehyde	µg/L	<							
-	Heptachlor	ug/L	<							
	Heptachlor Epoxide	µg/L	<							
	PCB-1016	ug/L	<							
	PCB-1221	unit	<							
	PCB-1232	unit	~							
	PCB-1242	unit	<							
	PCB-1242	unit	-				<u> </u>			
	000-1240	und.	-							
	00120	Pprc .	-							
	POD-1260	HOVE.	<							
	Torochana	HQ/L	<							
	noxaphene	htt	<							
	2,5,7,8-1000	ng/L	<							
	Gross Alpha	pCI/L								
5	Total Beta	pCI/L	<							
Ş.	Radium 226/228	pCI/L	<							
E.	Total Strontium	µg/L	<							
	Total Uranium	µg/L	<							
	Osmotic Pressure	mOs/kg								
							_		_	

nstructions Discl	vater Name: B	am Beaver Rive	)r				No. Rea	aches to M	odel:	1	⊖ stat	ewide Criter	a		
-	_				_		-				Gre	at Lakes Crit	eria		
Location	Stream Code	e" RMI"	(ft)	DA (mi	²)• S	lope (ft/ft)	PWS (	Willindrawa MGD)	Criter	la"	OR OR	SANCO CITE	and		
Point of Discharge	033953	1.65	112	3130	)				Yes	5					
End of Reach 1	033953	0.1	1126	5 3160	)				Yes	i					
7-10		LEV	-	(		1011-010	Death	Malaati	naver			0 ha a		1 motor	1-
Location	RMI	(cfs/ml <sup>2</sup> )*	Stream	(CIS) Tributary	Ratio	o (ft)	(ft)	velocit v (fps)	Time	Hardness	ny DH	Strea Hardness'	m pH*	Analys Hardness	ns DH
Point of Discharge	1.65	0.2	640			400	15	1 (194)	(days)			143	7		
End of Reach 1	0.1	0.202	640			653	15					143	7		
).						-									
		LFY	Flow	(cfs)	W/D	Width	Depth	Velocit	naver	Tributa	iry	Strea	m	Analys	is
Location	RMI	(cfs/ml <sup>2</sup> )	Stream	Tributary	Ratio	(ff)	(ft)	y (fps)	(days)	Hardness	рН	Hardness	pН	Hardness	рН
Point of Discharge	1.65														
End of Reach 1	0.1														

DEP PRO	ENDER THE ARTMENT OF E	Vania NVIRONMENTA	L										Toxics Managem Versio	ent Spreadsheet on 1.4, May 2023
odel	Result	s					New Bright	on Bo	rough Sani	itary Authori	ty STP, NPDE	5 Permit No.	. PA0026026,	Outfall 001
ructions	Results		RETUR	N TO INPUT	<b>s</b> ) (	SAVE AS	PDF		PRINT	) 🖲 AI	) Inputs	O Results	CLImits	
Hydrod	ynamics													
RMI	Stream Flow (cfs)	PWS With	drawal	Net Stream	Discha	rge Analy ow (cfs)	<sup>/SIS</sup> Slope	(ft/ft)	Depth (ft)	Width (ft)	W/D Ratio	Velocity (fps)	Time	Complete Mix Time
1.65	640	(010)		640		3.094	0.00	112	15.	400	26.667	0.107	(days) 0.884	338.224
0.1	640			640	-									
			•								•			
RMI	Stream Flow (cfs)	PWS With (cfs)	drawal	Net Stream Flow (cfs)	1 Discha Fi	rge Analy ow (cfs)	<sup>/SIS</sup> Slope	(ft/ft)	Depth (ft)	Width (ft)	W/D Ratio	Velocity (fps)	Time	Complete Mix Time (min)
.65	2106.64			2106.64		3.094	0.00	012	25.299	400.	15.811	0.208	0.454	155.45
Wasteld	oad Allocatio C	ons CC1	r (min): 🗌	15	PMF:	0.211	An	alysis	Hardness (	(mg/l): 14	4.03	Analysis pH	: 7.01	]
	Pollutants		Conc	Stream	Trib Conc (ug/L)	Fate	WQC (ug/L)	W		'LA (µg/L)		(	Comments	
Total Dis	solved Solid	s (PWS)	0	0		0	N/A		N/A	N/A				
С	hioride (PWS	5)	0	0		0	N/A		N/A	N/A				
5	Sulfate (PWS	)	0	0		0	N/A		N/A	N/A				
T	otal Aluminui otal Antimon	n v	0			0	1 100	1	100	33,421				
	Total Arsenic	1	ō	ŏ		0	340		340	15,151		Chem Tra	inslator of 1 a	pplied
	Total Barlum		0	0		0	21,000	2	1,000 9	935,792				
	Total Boron		0	0		0	8,100	8	,100 3	360,948				
Tet	otal Cadmiur	n	0	0		0	2.871		3.09	138		Chem Trans	slator of 0.929	applied
Hexa	a Chromium Walent Chron	(III) nium	0			0	16	2	(431 1	726		Chem Trans	stator of 0.982	2 applied
	Total Cobalt		0	0		0	95	-	95.0	4,233				
	Total Copper		0	0		0	18.953	1	19.7	880		Chem Tran	slator of 0.96	applied

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	95.854	130	5,789	Chem Translator of 0.738 applied
Total Manganese	0	0		0	N/A	N/A	N/A	
Total Mercury	0	0		0	1.400	1.65	73.4	Chem Translator of 0.85 applied
Total Nickel	0	0		0	637.561	639	28,468	Chem Translator of 0.998 applied
otal Phenois (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	6.025	7.09	316	Chem Translator of 0.85 applied
Total Thailium	0	0		0	65	65.0	2,896	
Total Zinc	0	0		0	159.631	163	7,273	Chem Translator of 0.978 applied
Acrolein	0	0		0	3	3.0	134	
Acrylonitrile	0	0		0	650	650	28,965	
Benzene	0	0		0	640	640	28,519	
Bromoform	0	0		0	1,800	1,800	80,211	
Carbon Tetrachioride	0	0		0	2,800	2,800	124,772	
Chlorobenzene	0	0		0	1,200	1.200	53,474	
Chlorodibromomethane	0	0		0	N/A	N/A	N/A	
2-Chloroethyl Vinyl Ether	0	0		0	18.000	18.000	802.107	
Chloroform	0	0		0	1,900	1,900	84,667	
Dichlorobromomethane	0	0		0	N/A	N/A	N/A	
1.2-Dichloroethane	0	0		0	15,000	15.000	668.423	
1.1-Dichloroethviene	ō	ō		ō	7.500	7.500	334.211	
1.2-Dichloropropane	0	0		0	11.000	11.000	490,177	
1.3-Dichloropropylene	0	0		0	310	310	13.814	
Ethylbenzene	ŏ	ŏ		ŏ	2 900	2 900	129 228	
Methyl Bromide	0	0		0	550	550	24,509	
Methyl Chloride	- <u> </u>	ŏ			28,000	28,000	1 247 723	
Methylene Chioride	<u> </u>	ŏ		ŏ	12,000	12,000	534 738	
1.1.2.2-Tetrachloroethane	0	0		0	1,000	1,000	44 562	
Tetrachiomethylene	- <u> </u>	ŏ		-	700	700	31 103	
Toluene	- <u> </u>	ŏ		ŏ	1 700	1 700	75 755	
1.2-trans-Dichlornethylene	- <u> </u>	ŏ	<u> </u>	-	6.800	6,800	303.018	
1 1 1-Trichlomethane		0			3,000	3,000	133,685	
1.1.2-Trichloroethane	<u> </u>	0		ŏ	3,400	3,400	151,509	
Trichloroethylene		0		0	2,300	2,300	102.491	
Vinvi Chloride		0			N/A	N/A	N/A	
2-Chlorophenol	<u> </u>	- <del>.</del>	<u> </u>	-	560	560	24.954	
2.4.Dichlorophenol	<u> </u>				1 700	1 700	75 755	
2,4-Dictionophenol	<u> </u>			-	1,700	1,700	20,411	
4.6-Dipitro-o-Crosol	<u> </u>				90	80.0	29,411	
2 4 Distrophonol		0		0	660	660	20,411	
2,4-Difficiphenol					8,000	000	29,411	
2-Nitrophenol	0	0		0	0,000	2,200	300,492	
4-Muophenoi		0			2,300	2,000	7,420	
p-Gnioro-m-Gresol	0	0		0	160	160	7,130	
Pentachiorophenoi	0	0		0	8.795	8.79	392	
Phenoi	0	0		0	N/A	N/A	N/A	
2,4,6-Trichlorophenol	0	0		0	460	460	20,498	

11/14/2023

Acenaphthene	0	0		0	83	83.0	3,699	
Anthracene	0	0		0	N/A	N/A	N/A	
Benzidine	0	0		0	300	300	13,368	
Benzo(a)Anthracene	0	0		0	0.5	0.5	22.3	
Benzo(a)Pyrene	0	0		0	N/A	N/A	N/A	
3,4-Benzofiuoranthene	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	1.336.846	
Bis(2-Chloroisopropyl)Ether	0	0		0	N/A	N/A	N/A	
Bis(2-Ethvihexvi)Phthalate	0	0		0	4,500	4,500	200.527	
4-Bromophenyl Phenyl Ether	0	0		0	270	270	12.032	
Butyl Benzyl Phthalate	0	0		0	140	140	6,239	
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	36,540	
1.3-Dichlorobenzene	0	0		0	350	350	15,597	
1.4-Dichlorobenzene	Ō	Ō		0	730	730	32,530	
3.3-Dichlorobenzidine	0	0		0	N/A	N/A	N/A	
Diethyl Phthalate	ō	0		0	4,000	4,000	178,246	
Dimethyl Phthalate	0	0		0	2.500	2,500	111,404	
DI-n-Butyl Phthalate	0	0		0	110	110	4,902	
2.4-Dinitrotoluene	ō	ō		ō	1.600	1,600	71,298	
2.6-Dinitrotoluene	0	0		0	990	990	44,116	
1.2-Diphenvihvdrazine	0	0		0	15	15.0	668	
Fluoranthene	ō	ō		ō	200	200	8,912	
Fluorene	0	0		0	N/A	N/A	N/A	
Hexachiorobenzene	0	0		0	N/A	N/A	N/A	
Hexachlorobutadiene	ŏ	õ		ō	10	10.0	446	
Hexachlorocyclopentadiene	0	0		0	5	5.0	223	
Hexachioroethane	0	0		0	60	60.0	2 674	
Indeno(1,2,3-cd)Pyrene	ŏ	õ		ō	N/A	N/A	N/A	
Isophorone	0	0		0	10.000	10.000	445.615	
Naphthalene	0	0		0	140	140	6.239	
Nitrobenzene	ŏ	õ		ō	4.000	4.000	178.246	
n-Nitrosodimethylamine	0	0		Ō	17.000	17.000	757,546	
n-Nitrosodi-n-Propylamine	0	0		0	N/A	N/A	N/A	
n-Nitrosodiphenvlamine	ō	ō		Ő	300	300	13.368	
Phenanthrene	0	0		0	5	5.0	223	
Pyrene	0	0		0	N/A	N/A	N/A	
1.2.4-Trichlorobenzene	ō	ō		Ő	130	130	5,793	
CFC CC	T (min): ###		PMF:	1	Ana	ilysis Hardne	ess (mg/l):	143.22 Analysis pH: 7.00
Dollufante	Gene	Stream	Trib Conc	Fate	WQC	WQ Obj	WILL A JUNE	Commonte
Polutants	(upil )	CV	(µg/L)	Coef	(µg/L)	(µg/L)	WER (pg/E)	Comments
Total Dissolved Solids (PWS)	0	0		0	N/A	N/A	N/A	
								•
Results					11/1/	4/2023		

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	45,727	
Total Arsenic	0	0	0	150	150	31,178	Chem Translator of 1 applied
Total Barlum	0	0	0	4,100	4,100	852,193	
Total Boron	0	0	0	1,600	1,600	332,563	
Total Cadmlum	0	0	0	0.316	0.35	73.4	Chem Translator of 0.894 applied
Total Chromium (III)	0	0	0	99.466	116	24,040	Chem Translator of 0.86 applied
Hexavalent Chromlum	0	0	0	10	10.4	2,161	Chem Translator of 0.962 applied
Total Cobalt	0	0	0	19	19.0	3,949	
Total Copper	0	0	0	12.173	12.7	2,636	Chem Translator of 0.96 applied
Free Cyanide	0	0	0	5.2	5.2	1,081	
Dissolved iron	0	0	0	N/A	N/A	N/A	
Total Iron	0	0	0	1,500	1,500	311,778	WQC = 30 day average; PMF = 1
Total Lead	0	0	0	3.713	5.03	1,045	Chem Translator of 0.739 applied
Total Manganese	0	0	0	N/A	N/A	N/A	
Total Mercury	0	0	0	0.770	0.91	188	Chem Translator of 0.85 applied
Total Nickel	0	0	0	70.476	70.7	14,693	Chem Translator of 0.997 applied
Total Phenois (Phenolics) (PWS)	0	0	0	N/A	N/A	N/A	
Total Selenium	0	0	0	4.600	4.99	1,037	Chem Translator of 0.922 applied
Total Silver	0	0	0	N/A	N/A	N/A	Chem Translator of 1 applied
Total Thaillum	0	0	0	13	13.0	2,702	
Total Zinc	0	0	0	160.169	162	33,764	Chem Translator of 0.986 applied
Acrolein	0	0	0	3	3.0	624	
Acrylonitrile	0	0	0	130	130	27,021	
Benzene	0	0	0	130	130	27,021	
Bromoform	0	0	0	370	370	76,905	
Carbon Tetrachioride	0	0	0	560	560	116,397	
Chlorobenzene	0	0	0	240	240	49,884	
Chlorodibromomethane	0	0	0	N/A	N/A	N/A	
2-Chloroethyl Vinyl Ether	0	0	0	3,500	3,500	727,482	
Chloroform	0	0	0	390	390	81,062	
Dichlorobromomethane	0	0	0	N/A	N/A	N/A	
1,2-Dichloroethane	0	0	0	3,100	3,100	644,341	
1,1-Dichloroethylene	0	0	0	1,500	1,500	311,778	
1,2-Dichloropropane	0	0	0	2,200	2,200	457,274	
1,3-Dichloropropylene	0	0	0	61	61.0	12,679	
Ethylbenzene	0	0	0	580	580	120,554	
Methyl Bromide	0	0	0	110	110	22,864	
Methyl Chloride	0	0	0	5,500	5,500	1,143,186	
Methylene Chloride	0	0	0	2,400	2,400	498,845	
1,1,2,2-Tetrachloroethane	0	0	0	210	210	43,649	
Tetrachloroethylene	0	0	0	140	140	29,099	
Toluene	0	0	0	330	330	68,591	

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1,2-trans-Dichloroethylene	0	0	0	1,400	1,400	290,993	
1,1,1-Trichloroethane	0	0	0	610	610	126,790	
1,1,2-Trichloroethane	0	0	0	680	680	141,339	
Trichloroethylene	0	0	0	450	450	93,533	
Vinyl Chloride	0	0	0	N/A	N/A	N/A	
2-Chlorophenol	0	0	0	110	110	22,864	
2,4-Dichlorophenol	0	0	0	340	340	70,670	
2,4-Dimethylphenol	0	0	0	130	130	27,021	
4,6-Dinitro-o-Cresol	0	0	0	16	16.0	3,326	
2,4-Dinitrophenol	0	0	0	130	130	27,021	
2-Nitrophenol	0	0	0	1,600	1,600	332,563	
4-Nitrophenol	0	0	0	470	470	97,690	
p-Chloro-m-Cresol	0	0	0	500	500	103,926	
Pentachiorophenol	0	0	0	6.747	6.75	1,402	
Phenol	0	0	0	N/A	N/A	N/A	
2,4,6-Trichlorophenol	0	0	0	91	91.0	18,915	
Acenaphthene	0	0	0	17	17.0	3,533	
Anthracene	0	0	0	N/A	N/A	N/A	
Benzidine	0	0	0	59	59.0	12,263	
Benzo(a)Anthracene	0	0	0	0.1	0.1	20.8	
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-Chloroethyi)Ether	0	0	0	6,000	6,000	1,247,112	
Bis(2-Chioroisopropyi)Ether	0	0	0	N/A	N/A	N/A	
Bis(2-Ethylhexyl)Phthalate	0	0	0	910	910	189,145	
I-Bromophenyl Phenyl Ether	0	0	0	54	54.0	11,224	
Butyl Benzyl Phthalate	0	0	0	35	35.0	7,275	
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	33,256	
1,3-Dichlorobenzene	0	0	0	69	69.0	14,342	
1,4-Dichlorobenzene	0	0	0	150	150	31,178	
3,3-Dichlorobenzidine	0	0	0	N/A	N/A	N/A	
Diethyl Phthalate	0	0	0	800	800	166,282	
Dimethyl Phthalate	0	0	0	500	500	103,926	
DI-n-Butyl Phthalate	0	0	0	21	21.0	4,365	
2,4-Dinitrotoluene	0	0	0	320	320	66,513	
2,6-Dinitrotoluene	0	0	0	200	200	41,570	
1,2-Diphenyihydrazine	0	0	0	3	3.0	624	
Fluoranthene	0	0	0	40	40.0	8,314	
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	416	

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Hexachiorocyciopentadiene	0	0		0	1	1.0	208	
Hexachloroethane	0	0		0	12	12.0	2,494	
Indeno(1,2,3-cd)Pyrene	0	0		0	N/A	N/A	N/A	
Isophorone	0	0		0	2,100	2,100	436,489	
Naphthalene	0	0		0	43	43.0	8,938	
Nitrobenzene	0	0		0	810	810	168,360	
n-Nitrosodimethylamine	0	0		0	3,400	3,400	706,697	
n-Nitrosodi-n-Propylamine	0	0		0	N/A	N/A	N/A	
n-Nitrosodiphenylamine	0	0		0	59	59.0	12,263	
Phenanthrene	0	0		0	1	1.0	208	
Pyrene	0	0		0	N/A	N/A	N/A	
1,2,4-Trichiorobenzene	0	0		0	26	26.0	5,404	
☑ THH CCT	r (min): ###		PMF:	1	Ana	alysis Hardne	266 (mg/l):	N/A Analysis pH: N/A
Pollutants	Conc (unit )	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	1,164	
Total Arsenic	0	0		0	10	10.0	2,079	
Total Barlum	0	0		0	1,000	1,000	207,852	
Total Boron	0	0		0	3,100	3,100	644,341	
Total Cadmium	0	0		0	N/A	N/A	N/A	
Total Chromium (III)	0	0		0	N/A	N/A	N/A	
Hexavalent Chromlum	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	1,300	1,300	270,208	
Free Cyanide	0	0		0	4	4.0	831	
Dissolved Iron	0	0		0	300	300	62,356	
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	207,852	
Total Mercury	0	0		0	0.012	0.012	2.49	
Total Nickel	0	0		0	610	610	126,790	
Total Phenois (Phenolics) (PWS)	0	0		0	5	5.0	N/A	
	0	0		0	N/A	N/A	N/A	
Total Selenium				0	N/A	N/A	N/A	
Total Selenium Total Silver	0	0					40.0	
Total Selenium Total Silver Total Thailium	0	0		0	0.24	0.24	49.9	
Total Selenium Total Silver Total Thailium Total Zinc	0 0 0	0		0	0.24 7,400	0.24 7,400	1,538,105	
Total Selenium Total Silver Total Thailium Total Zinc Acrolein	0 0 0	0 0 0 0 0		0 0 0	0.24 7,400 3	0.24 7,400 3.0	49.9 1,538,105 624	
Totai Selenium Totai Silver Totai Thailium Totai Zinc Acroiein Acroiein	0 0 0 0	0 0 0 0		0 0 0 0	0.24 7,400 3 N/A	0.24 7,400 3.0 N/A	49.9 1,538,105 624 N/A	

Bromoform	0	0	0	N/A	N/A	N/A	
Carbon Tetrachioride	0	0	0	N/A	N/A	N/A	
Chlorobenzene	0	0	0	100	100.0	20,785	
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	1,185	
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	6,859	
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	14,134	
Methyl Bromide	0	0	0	47	47.0	9,769	
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	
Tetrachloroethviene	0	0	0	N/A	N/A	N/A	
Toluene	0	0	0	57	57.0	11.848	
1.2-trans-Dichloroethviene	0	0	0	100	100.0	20,785	
1,1,1-Trichloroethane	0	0	0	10,000	10,000	2,078,520	
1,1,2-Trichloroethane	0	0	0	N/A	N/A	N/A	
Trichloroethylene	0	0	0	N/A	N/A	N/A	
Vinvi Chloride	0	0	0	N/A	N/A	N/A	
2-Chlorophenol	0	0	0	30	30.0	6.236	
2.4-Dichlorophenol	0	0	0	10	10.0	2,079	
2.4-Dimethylphenol	0	0	0	100	100.0	20,785	
4.6-Dinitro-o-Cresol	0	0	0	2	2.0	416	
2.4-Dinitrophenol	0	0	0	10	10.0	2.079	
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	
Pentachiorophenol	0	0	0	N/A	N/A	N/A	
Phenol	0	0	0	4.000	4.000	831,408	
2.4.6-Trichlorophenol	0	0	0	N/A	N/A	N/A	
Acenaphthene	0	0	0	70	70.0	14,550	
Anthracene	0	ō	ō	300	300	62,356	
Benzidine	0	0	6	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)Eluoranthene	0	0	1 ŏ	N/A	N/A	N/A	
Bis/2-Chioroethyl)Ether	0	0	6	N/A	N/A	N/A	
Bis/2-Chloroisopropyl)Ether	0	0	6	200	200	41,570	
Bis/2-Ethylberyl/Dhthalate	0	0	-	N/A	N/A	N/A	
4-Bromonhenyl Phenyl Ether	0	0	1 iii	N/A	N/A	N/A	
woronophenyi energi culer	• •	•		DUC	1000	100	

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Butyl Benzyl Phthalate	0	0		0	0.1	0.1	20.8	
2-Chioronaphthalene	0	0		0	800	800	166,282	
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	420	420	87,298	
1,3-Dichlorobenzene	0	0		0	7	7.0	1,455	
1,4-Dichlorobenzene	0	0		0	63	63.0	13,095	
3,3-Dichlorobenzidine	0	0		0	N/A	N/A	N/A	
Diethyl Phthalate	0	0		0	600	600	124,711	
Dimethyl Phthalate	0	0		0	2,000	2,000	415,704	
DI-n-Butyl Phthalate	0	0		0	20	20.0	4,157	
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-Diphenvihydrazine	0	0		0	N/A	N/A	N/A	
Fluoranthene	0	0		0	20	20.0	4,157	
Fluorene	0	0		0	50	50.0	10.393	
Hexachlorobenzene	0	0		0	N/A	N/A	N/A	
Hexachlorobutadiene	0	0		ő	N/A	N/A	N/A	
Hexachiorocyclopentadiene	0	0		0	4	4.0	831	
Hexachioroethane	0	0		0	N/A	N/A	N/A	
Indeno(1.2.3-cd)Pyrene	0	0		0	N/A	N/A	N/A	
Isonhorone	0	0		0	34	34.0	7.067	
Nanhthalene	0	0		ŏ	N/A	N/A	N/A	
Nitrobenzene	-	0		ŏ	10	10.0	2.079	
n-Nitrosodimethylamine	0	0		ŏ	N/A	N/A	N/A	
n Nitrosodi n Oronulamino	-	0			N/A	NUA	NUA	
n Nitrocodinhonu(amino					NUA	N/A	NA	
n-Nillosodiphenylamine Dhospothropo		0			N/A	N/A	N/A	
Prienanurierie		0			20	20.0	4 157	
1.2.4.Tdeblorebenzene		0			20	20.0	4,157	
1,2,4-Thomorobenzene	v	v		v	0.07	0.07	14.0	
CRL CC	ſ (min): ###		PMF:	1	Ana	alysis Hardne	ess (mg/l):	N/A Analysis pH: N/A
Pollutants	Conc (unit )	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ ОЫ (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	N/A	N/A	N/A	
Chloride (PWS)	0	0		0	N/A	N/A	N/A	
Sulfate (PWS)	0	0		0	N/A	N/A	N/A	
Total Aluminum	0	0		0	N/A	N/A	N/A	
Total Antimony	0	0		0	N/A	N/A	N/A	
Total Arsenic	0	0		0	N/A	N/A	N/A	
Total Barlum	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	
								•
Results					11/1/	4/2023		

Hexavalent Chromlum	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 Phenois (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	50	50.0	34,094	
Total Thailium	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	0.051	0.051	34.8	
Benzene	0	0	0	0.58	0.58	395	
Bromoform	0	0	0	4.3	4.3	2,932	
Carbon Tetrachioride	0	0	0	0.4	0.4	273	
Chlorobenzene	0	0	0	N/A	N/A	N/A	
Chlorodibromomethane	0	0	0	0.4	0.4	273	
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	0.55	0.55	375	
1,2-Dichloroethane	0	0	0	0.38	0.38	259	
1,1-Dichloroethylene	0	0	0	N/A	N/A	N/A	
1,2-Dichioropropane	0	0	0	0.5	0.5	341	
1,3-Dichloropropylene	0	0	0	0.27	0.27	184	
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	4.6	4.6	3,137	
1,1,2,2-Tetrachloroethane	0	0	0	0.17	0.17	116	
Tetrachloroethylene	0	0	0	0.69	0.69	470	
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-Trichioroethane	0	0	0	N/A	N/A	N/A	
1,1,2-Trichloroethane	0	0	0	0.55	0.55	375	
Trichloroethylene	0	0	0	0.6	0.6	409	
Vinyl Chloride	0	0	0	0.02	0.02	13.6	
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	

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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	
Pentachiorophenol	0	0	0	0.030	0.03	20.5	
Phenol	0	0	0	N/A	N/A	N/A	
2,4,6-Trichlorophenol	0	0	0	1.4	1.4	955	
Acenaphthene	0	0	0	N/A	N/A	N/A	
Anthracene	0	0	0	N/A	N/A	N/A	
Benzidine	0	0	0	0.000086	0.00009	0.059	
Benzo(a)Anthracene	0	0	0	0.001	0.001	0.68	
Benzo(a)Pyrene	0	0	0	0.0001	0.0001	0.068	
3,4-Benzofluoranthene	0	0	0	0.001	0.001	0.68	
Benzo(k)Fluoranthene	0	0	0	0.0038	0.004	2.59	
Bis(2-Chioroethyl)Ether	0	0	0	0.03	0.03	20.5	
Bis(2-Chloroisopropyi)Ether	0	0	0	N/A	N/A	N/A	
Bis(2-Ethylhexyl)Phthalate	0	0	0	0.32	0.32	218	
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	0.0038	0.004	2.59	
Dibenzo(a,h)Anthrancene	0	0	0	0.0001	0.0001	0.068	
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	0.021	0.021	14.3	
Diethyl Phthalate	0	0	0	N/A	N/A	N/A	
Dimethyl Phthalate	0	0	ō	N/A	N/A	N/A	
Di-n-Butyl Phthalate	0	0	0	N/A	N/A	N/A	
2 4-Dinitrotojuene	0	0	0	0.05	0.05	34.1	
2.6-Dinitrotoluene	0	0	0	0.05	0.05	34.1	
1 2-Diphenvihvdrazine	0	ő	ŏ	0.03	0.03	20.5	
Fluoranthene	0	0	ő	N/A	N/A	N/A	
Fluorene	0	0	0	N/A	N/A	N/A	
Hexachlorobenzene	0	0	0	0.00008	0.00008	0.055	
Hexachlorobutadiene	0	0	0	0.01	0.01	6.82	
Hexachiorocyclopentadiene	0	0	ő	N/A	N/A	N/A	
Hexachioroethane	0	0	ő	01	0.1	68.2	
Indeno(1.2.3-cd)Pyrene	0	0	0	0.001	0.001	0.68	
Isophorone	0	0	0	N/A	N/A	N/A	
Nanhthalene	0	0	0	N/A	N/A	N/A	
Nitrobenzene	0	0	0	N/A	N/A	N/A	
n-Nitrosodimethylamine	0	0	0	0.00069	0.0007	0.47	
a Mitracadi a Desculamina	0	0	0	0.00009	0.0007	2.44	

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Phenanthrene         0         0         0         N/A         N/A           Pyrene         0         0         0         N/A         N/A         N/A				
Pyrene 0 0 0 N/A N/A N/A	Phenanthrene	0 0	Phenanthrene 0 0 0 N/A N/A N/A	
	Pyrene	0 0	Pyrene 0 0 0 N/A N/A N/A	
1,2,4-Trichlorobenzene 0 0 0 N/A N/A N/A	1,2,4-Trichlorobenzene	0 0	I-Trichlorobenzene 0 0 0 N/A N/A N/A	

Recommended WQBELs & Monitoring Requirements

No. Samples/Month: 4

	Mass	Limits		Concentra	ation Limits				
Pollutants	AML (lbs/day)	MDL (lbs/day)	AML	MDL	IMAX	Units	Governing WQBEL	WQBEL Basis	Comments
3,3-Dichlorobenzidine	0.24	0.37	14.3	22.3	35.8	µg/L	14.3	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 oriteria 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	21,422	µg/L	Discharge Conc ≤ 10% WQBEL
Total Antimony	N/A	N/A	Discharge Conc < TQL
Total Arsenic	2,079	µg/L	Discharge Conc ≤ 10% WQBEL
Total Barlum	207,852	µg/L	Discharge Conc ≤ 10% WQBEL
Total Beryllum	N/A	N/A	No WQS
Total Boron	231,353	µg/L	Discharge Conc ≤ 10% WQBEL
Total Cadmium	73.4	µg/L	Discharge Conc < TQL
Total Chromium (III)	24,040	µg/L	Discharge Conc < TQL
Hexavalent Chromlum	465	µg/L	Discharge Conc < TQL
Total Cobalt	2,713	µg/L	Discharge Conc < TQL
Total Copper	0.56	mg/L	Discharge Conc ≤ 10% WQBEL
Free Cyanide	628	µg/L	Discharge Conc ≤ 25% WQBEL
Total Cyanide	N/A	N/A	No WQS
Dissolved Iron	62,356	µg/L	Discharge Conc ≤ 10% WQBEL
Total Iron	311,778	µg/L	Discharge Conc ≤ 10% WQBEL
Total Lead	1,045	µg/L	Discharge Conc ≤ 10% WQBEL
Total Manganese	207,852	µg/L	Discharge Conc ≤ 10% WQBEL
Total Mercury	0.012	µg/L	Discharge Conc < TQL
Total Nickel	14,693	µg/L	Discharge Conc ≤ 10% WQBEL
Total Phenois (Phenolics) (PWS)		µg/L	Discharge Conc < TQL

#### Model Results

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Total Selenium	1,037	µg/L	Discharge Conc < TQL
Total Silver	202	µg/L	Discharge Conc < TQL
Total Thailium	49.9	µg/L	Discharge Conc < TQL
Total Zinc	4.66	mg/L	Discharge Conc ≤ 10% WQBE
Total Molybdenum	N/A	N/A	No WQS
Acrolein	85.7	µg/L	Discharge Conc < TQL
Acrylonitrile	34.8	µg/L	Discharge Conc < TQL
Benzene	395	µg/L	Discharge Conc < TQL
Bromoform	2,932	µg/L	Discharge Conc < TQL
Carbon Tetrachloride	273	µg/L	Discharge Conc < TQL
Chlorobenzene	20,785	µg/L	Discharge Conc < TQL
Chlorodibromomethane	273	µg/L	Discharge Conc < TQL
Chloroethane	N/A	N/A	No WQS
2-Chioroethyl Vinyl Ether	514,118	µg/L	Discharge Conc < TQL
Chloroform	1,185	µg/L	Discharge Conc ≤ 25% WQBE
Dichlorobromomethane	375	µg/L	Discharge Conc ≤ 25% WQBE
1,1-Dichloroethane	N/A	N/A	No WQS
1,2-Dichloroethane	259	µg/L	Discharge Conc < TQL
1,1-Dichloroethylene	6,859	µg/L	Discharge Conc < TQL
1,2-Dichloropropane	341	µg/L	Discharge Conc < TQL
1,3-Dichloropropylene	184	µg/L	Discharge Conc < TQL
1,4-Dioxane	N/A	N/A	No WQS
Ethylbenzene	14,134	µg/L	Discharge Conc < TQL
Methyl Bromide	9,769	µg/L	Discharge Conc < TQL
Methyl Chloride	799,740	µg/L	Discharge Conc < TQL
Methylene Chloride	3,137	µg/L	Discharge Conc < TQL
1,1,2,2-Tetrachloroethane	116	µg/L	Discharge Conc < TQL
Tetrachioroethylene	470	µg/L	Discharge Conc < TQL
Toluene	11,848	µg/L	Discharge Conc < TQL
1,2-trans-Dichloroethylene	20,785	µg/L	Discharge Conc < TQL
1,1,1-Trichloroethane	85,686	µg/L	Discharge Conc < TQL
1,1,2-Trichloroethane	375	µg/L	Discharge Conc < TQL
Trichloroethylene	409	µg/L	Discharge Conc < TQL
Vinyl Chloride	13.6	µg/L	Discharge Conc < TQL
2-Chlorophenol	6,236	µg/L	Discharge Conc < TQL
2,4-Dichlorophenol	2,079	µg/L	Discharge Conc < TQL
2,4-Dimethylphenol	18,851	µg/L	Discharge Conc < TQL
4,6-Dinitro-o-Cresol	416	µg/L	Discharge Conc < TQL
2,4-Dinitrophenol	2,079	µg/L	Discharge Conc < TQL
2-Nitrophenol	228,497	µg/L	Discharge Conc < TQL
4-Nitrophenol	65,693	µg/L	Discharge Conc < TQL
p-Chloro-m-Cresol	4,570	µg/L	Discharge Conc < TQL
Pentachiorophenol	20.5	µg/L	Discharge Conc < TQL
Phenol	831,408	µg/L	Discharge Conc < TQL
2.4.5 Trichlerenhanol	055		Discharge Cone - TOI

11/14/2023

Acenaphthene	2,371	µg/L	Discharge Conc < TQL
Acenaphthylene	N/A	N/A	No WQS
Anthracene	62,356	µg/L	Discharge Conc < TQL
Benzidine	0.059	µg/L	Discharge Conc < TQL
Benzo(a)Anthracene	0.68	µg/L	Discharge Conc < TQL
Benzo(a)Pyrene	0.068	µg/L	Discharge Conc < TQL
3,4-Benzofluoranthene	0.68	µg/L	Discharge Conc < TQL
Benzo(ghl)Perylene	N/A	N/A	No WQS
Benzo(k)Fluoranthene	2.59	µg/L	Discharge Conc < TQL
Bis(2-Chloroethoxy)Methane	N/A	N/A	No WQS
Bis(2-Chloroethyl)Ether	20.5	µg/L	Discharge Conc < TQL
Bis(2-Chloroisopropyl)Ether	41,570	ua/L	Discharge Conc < TQL
Bis(2-Ethylhexyl)Phthalate	218	ua/L	Discharge Conc < TQL
4-Bromophenyl Phenyl Ether	7,712	ua/L	Discharge Conc < TQL
Butyl Benzyl Phthalate	20.8	µg/L	Discharge Conc < TQL
2-Chloronaphthalene	166,282	µg/L	Discharge Conc < TQL
4-Chlorophenyl Phenyl Ether	N/A	N/A	No WQS
Chrysene	2.59	ua/L	Discharge Conc < TQL
Dibenzo(a,h)Anthrancene	0.068	ua/L	Discharge Conc < TQL
1.2-Dichlorobenzene	23,421	ua/L	Discharge Conc < TQL
1.3-Dichlorobenzene	1,455	µg/L	Discharge Conc < TQL
1.4-Dichlorobenzene	13.095	ua/L	Discharge Conc < TQL
Diethyl Phthalate	114,249	ug/L	Discharge Conc < TQL
Dimethyl Phthalate	71,405	µg/L	Discharge Conc < TQL
DI-n-Butyl Phthalate	3,142	µq/L	Discharge Conc < TQL
2.4-Dinitrotoiuene	34.1	ug/L	Discharge Conc < TQL
2,6-Dinitrotoluene	34.1	µq/L	Discharge Conc < TQL
DI-n-Octyl Phthalate	N/A	N/A	No WQS
1,2-Diphenylhydrazine	20.5	µq/L	Discharge Conc < TQL
Fluoranthene	4,157	µg/L	Discharge Conc < TQL
Fluorene	10,393	µg/L	Discharge Conc < TQL
Hexachlorobenzene	0.00008	µg/L	Discharge Conc < TQL
Hexachiorobutadiene	0.01	µg/L	Discharge Conc < TQL
Hexachiorocyclopentadiene	143	µg/L	Discharge Conc < TQL
Hexachioroethane	68.2	µg/L	Discharge Conc < TQL
Indeno(1,2,3-cd)Pyrene	0.68	µg/L	Discharge Conc < TQL
Isophorone	7,067	µg/L	Discharge Conc < TQL
Naphthalene	3,999	µg/L	Discharge Conc < TQL
Nitrobenzene	2,079	µg/L	Discharge Conc < TQL
n-Nitrosodimethylamine	0.47	µg/L	Discharge Conc < TQL
n-Nitrosodi-n-Propylamine	3.41	µg/L	Discharge Conc < TQL
n-Nitrosodiphenylamine	2,250	µg/L	Discharge Conc < TQL
Phenanthrene	143	µg/L	Discharge Conc < TQL
Pyrene	4,157	µg/L	Discharge Conc < TQL
A D A Tricklass have a	44.5		Discharge Greek TOI

11/14/2023

Appendix D – Toxics Management Spreadsheet (TMS) Analysis –

## **Resampling Analysis**

Å	DEPART	NSYLVANIA MENT OF ENVIRONMENTA TION	L									Tasia Ma	nagement S Version 1.4	preadsheet , May 2025
Di	ischarg	e Informati	on											
ac	llity: Nev	v Brighton Borough	Sanitar	y Au	thority STP	NP	DES Per	mit No.:	PA0026	6026		Outfall	NO.: 001	
Va	luation Type:	Major Sewage /	Industr	tal V	/aste	Wa	astewater	Descrip	tion: Tre	ated Sa	nitary Se	ewage		
					Discha	rge Ch	aracteris	lics						
De	sian Flow								PMF8)		Com	plete MI	x Times	(min)
_	(MGD)*	Hardness (mg/l)* pH (SU)*				1	CFC	THE	1	CRL	0		6	2
_	2 190		7	76					-			10	<u> </u>	-11
_	-	105	1.	20										
														a de la contra
						0 f k	n blank	0.5 Mk	st blank	- (	o ir iet blan	ĸ	1116	r blank
	Discharge Pollutant		Units Max		x Discharge Cono	Trib Cone	Stream Cone	Dally CV	Hourly CV	Strea m CV	Fate Coeff	FOS	Criteri a Mod	Chem Transl
_	Total Dissolut	d Solida (BWS)	mail		419									
-	Chloride (PWS)		mol		95.87									
5	Chloride (PWS)		mol		0.12									
2	Sulfate (PWS	)	mg/L		83.23									
0	Sulfate (PWS) Fluoride (PWS)		mg/L											
	Total Aluminu	m	µg/L		30									
	Total Antimor	y .	µg/L	<	2									
	Total Arsenic	-	µg/L		5.03									
	Total Barlum		µg/L		34.73									
	Total Beryllur	n	µg/L	<	0.8									
	Total Boron		µg/L		570.33									
	Total Cadmlu	m	µg/L	<	0.15									
	Total Chromiu	um (III)	µg/L	<	4									
	Hexavalent C	nromium	µg/L	<	0.25									
	Total Cobat		µg/L	<	0.8									
2	Free Cyanide		up/L		13.67									
đ	Total Cyanide		un/L		11									
8	Dissolved Iron	1	uo/L		69									
-	Total Iron		µg/L		145.67									
	Total Lead		µg/L	<	17.17									
	Total Mangan	ese	µg/L		10.63									
	Total Mercury		µg/L	<	0.2									
	Total Nickel		µg/L		2.65									
	Total Phenois	(Phenolics) (PWS)	µg/L	<	2.62									
	Total Seleniur	m	µg/L	<	2.01									
	Total Silver		µg/L	<	0.22									
	Total Thailur Total Thailur	1	µg/L	<	0.8									
	Total Maluk de	-	mg/L		0.0511									
	Acrolein	anwift	Here a	-	2.11									
	Acrulamide		ug/L	-	-									
	Acrologibile		up/L	-										
	In CLYION DITE		hour.	<	4		_							
	Decrease		1100		0.5									

**Discharge Information** 

1/27/2024

	Carbon Tetrachloride	µg/L	<	0.5							
	Chlorobenzene	µg/L	<	0.5							
	Chlorodibromomethane	µg/L	<	0.5							
	Chloroethane	ug/L	<	0.5							
	2-Chloroethyl Vinyl Ether	µg/L	<	5							
	Chloroform	ug/L	<u> </u>	3.8							
	Dichlorobromomethane	ug/L	<u> </u>	0.9							
	1.1-Dichlomethane	un/l	<	0.5	<u> </u>						
	1.2-Dichloroethane	ug/L	<	0.5	<u> </u>		<u> </u>				
2	1.1-Dichlomethylene	unit		0.5	<u> </u>		<u> </u>		<u> </u>		
3	1.2-Dichlorocongane	und	-	0.5	<u> </u>		<u> </u>				
δ	1.2. Dichlemennulana	Pgrc.		0.5	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>		
	1,5-Dichloropropylene	pg/L		0.5	<u> </u>		<u> </u>				
	1,4-Dioxane	HQ/L	~	5	 <u> </u>		<u> </u>				
	Eulyidenzene	pg/L		0.5	<u> </u>		<u> </u>				
	Methyl Bromide	µg/L	<	0.5	<u> </u>		<u> </u>		<u> </u>		
	Methyl Chloride	µg/L	<	0.5	<u> </u>		<u> </u>				
	Methylene Chloride	µg/L	<	0.5	<u> </u>		<u> </u>				
	1,1,2,2-Tetrachioroethane	µg/L	<	0.5	<u> </u>		<u> </u>				
	Tetrachloroethylene	µg/L	<	0.5	<u> </u>		<u> </u>				
	Toluene	µg/L	<	0.5							
	1,2-trans-Dichloroethylene	µg/L	<	0.5							
	1,1,1-Trichloroethane	µg/L	<	0.5							
	1,1,2-Trichloroethane	µg/L	<	0.5							
	Trichloroethylene	µg/L	<	0.5							
	Vinyi Chioride	µg/L	<	0.5							
	2-Chlorophenol	µg/L	<	10							
	2,4-Dichlorophenol	µg/L	۲	10							
	2,4-Dimethylphenol	µg/L	<	10							
	4,6-Dinitro-o-Cresol	µg/L	<	10							
4	2,4-Dinitrophenol	µg/L	<	10							
١	2-Nitrophenol	µg/L	<	10							
δ	4-Nitrophenol	µg/L	<	10							
-	p-Chloro-m-Cresol	µg/L	<	10							
	Pentachiorophenol	ug/L	<	10							
	Phenol	ug/L	<	10							
	2.4.6-Trichlorophenol	ug/L	<	10	<u> </u>						
-	Acenaphthene	ug/L	<	2.5	<u> </u>		<u> </u>				
	Acenaphthylene	unil	<	2.5	<u> </u>						
	Anthracene	und	-	2.5	<u> </u>		<u> </u>				
	Benzidine	ugit	-	50	<u> </u>		<u> </u>			<u> </u>	
	Denzo(a) è ofbracene	undi	-	26	<u> </u>		<u> </u>		<u> </u>		
	Denzo(a)/Violadcene	pyrc.		2.5	<u> </u>		<u> </u>				
	Benzo(a)Pyrene	HB/L	-	2.5	<u> </u>		<u> </u>				
	s,+-senzonuoranmene	HO/L	<	2.5							
	Benzol(ghi)Perylenê	HQ/L	<	5							
	oenzu(k) Huoranmene	hhir	<	2.5							
	BIS(2-Chloroethoxy)Methane	hðyr.	<	5							
	Bis(2-Chloroethyl)Ether	µg/L	<	5							
	Bis(2-Chiorolsopropyl)Ether	µg/L	<	5							
	BIS(2-Ethylhexyl)Phthalate	µg/L	<	5							
	4-Bromophenyl Phenyl Ether	µg/L	<	5							
	Butyl Benzyl Phthalate	µg/L	<	5							
	2-Chioronaphthalene	µg/L	<	5							
	4-Chiorophenyl Phenyl Ether	µg/L	<	5							
	Chrysene	µg/L	<	2.5							
	Dibenzo(a,h)Anthrancene	µg/L	<	2.5							
	1,2-Dichiorobenzene	µg/L	<	0.5							
	1,3-Dichlorobenzene	µg/L	<	0.5							
<u>ہ</u>	1,4-Dichlorobenzene	µg/L	<	0.5							
율	3,3-Dichlorobenzidine	µg/L	<	5							
# 1	Diethyl Phthalate	µg/L	<	5							
21	Dimethyl Phthalate	up/L	<	5							
Š			_	-							
5	Di-n-Butyl Phthalate	µp/L	<	5							
20	Di-n-Butyl Phthalate 2,4-Dinitrotoluene	µg/L µg/L	< <	5							

2 E-Distinate luese	1100	-	5									
2,6-Dimitrocoldene	ppr	-			<u> </u>		<u> </u>					
Di-n-Octyl Phthalate	µg/L	<	5									
1,2-Diphenyihydrazine	µg/L	<	5									
Fluoranthene	µg/L	<	2.5									
Fluorene	µg/L	<	2.5									
Hexachiorobenzene	µg/L	۷	5									
Hexachlorobutadiene	ug/L	۷.	0.5									
Hexachiorocyclopentadiene	ug/L	<	5									
Hexachiomethane	uo/L	<	5				<u> </u>					
Indepo/4 2 2.cd/Durane	100	-	26		<u> </u>		<u> </u>					
indeno(1,2,3-cd)Fyrene	hour.	~	2.5		<u> </u>	<u> </u>	<u> </u>					
Isophorone	µg/L	<	5									
Naphthalene	µg/L	<	0.5									
Nitrobenzene	µg/L	<	5									
n-Nitrosodimethylamine	µg/L	<	5									
n-Nitrosodi-n-Propylamine	ug/L	<	5									
- Mircas dishaquia mina							<u> </u>					
rentrosociprienyiamine	ppr.	-					<u> </u>					
Phenanthrene	µg/L	<	2.5									
Pyrene	µg/L	<	2.5									
1,2,4-Trichlorobenzene	µg/L	<	0.5									
Aldrin	µg/L	۷										
alpha-BHC	UQ/L	<										
beta-BHC	uo/L	<										
camma-BHC	ued	-										
yannia ono	hörr	~										
delta BHC	µg/L	<										
Chlordane	µg/L	<										
4,4-DDT	µg/L	۷.										
4.4-DDE	ug/L	<										
4.4-000	unit											
4,4-000	Ppre-	-					<u> </u>					
Dieldrin	µg/L	<										
alpha-Endosulfan	µg/L	<										
beta-Endosulfan	µg/L	<										
Endosulfan Sulfate	µg/L	۲										
Endrin	ug/L	<										
Endrin Aldehude	1000	-					<u> </u>					
Endrin Materiyae	Pprc.	-					<u> </u>					
Heptachior	µg/L	<										
Heptachlor Epoxide	µg/L	<										
PCB-1016	µg/L	<										
PCB-1221	µg/L	<										
PCB-1232	ug/L	۷.										
PCB-1242	ug/L	<										
PCB-4249	und.	-					<u> </u>					
100 1240	Part	-			<u> </u>	<u> </u>	<u> </u>			<u> </u>		
P-08-1254	pg/L	<										
PCB-1260	µg/L	<										
PCBs, Total	µg/L	<										
Toxaphene	µg/L	<										
2.3.7.8-TCDD	no/L	<										
Gross Alpha	DC1/I											
Tatal Data	POIL POIL											
Total Beta	POVL	<										
Kadium 226/228	PCI/L	<										
Total Strontium	µg/L	<										
Total Uranium	µg/L	<										
Osmotic Pressure	mOs/kg											
	Di-n-Octyl Phthalate 1,2-Diphenylhydrazine Fluoranthene Fluoranthene Fluoranthene Hexachlorobutadiene Hexachlorocyclopentadiene Hexachlorocyclopentadiene Hexachlorocyclopentadiene Hexachlorocyclopentadiene Hexachlorocyclopentadiene Hexachlorocyclopentadiene Naphthalene Nitrobodi-n-Propylamine n-Nitrosodi-n-Propylamine n-Nitrosodi-n-Propylamine n-Nitrosodi-n-Propylamine Phenanthrene Pyrene 1,2,4-Trichlorobenzene Aldrin alpha-BHC beta-BHC gamma-BHC delta BHC Chlordane 4,4-DDT 4,4-DDE 4,4-DDE 4,4-DDE 1,24-Trichlorobenzene Aldrin alpha-Endosulfan beta-Endosulfan Endosulfan Sulfate Endrin Aldehyde Heptachlor Hepta	Di-n-Octyl Phthalate µg/L 1,2-Diphenylhydrazine µg/L Fluoranthene µg/L Fluoranthene µg/L Fluoranthene µg/L Hexachlorobutadiene µg/L Hexachlorobutadiene µg/L Hexachlorocyclopentadiene µg/L Hexachlorocyclopentadiene µg/L Hexachlorocyclopentadiene µg/L Isophorone µg/L Naphthalene µg/L n-Nitrosodimethylamine µg/L n-Nitrosodimethylamine µg/L n-Nitrosodimethylamine µg/L n-Nitrosodiphenylamine µg/L 1,2,4-Trichlorobenzene µg/L 1,2,4-Trichlorobenzene µg/L Aldrin µg/L alpha-BHC µg/L beta-BHC µg/L Chlordane µg/L dita BHC µg/L diaba-BHC µg/L chlordane µg/L 4,4-DDT µg/L 4,4-DDT µg/L 1,4,4-DDT µg/L ispha-Endosulfan µg/L Endosulfan Sulfate µg/L Endosulfan Sulfate µg/L Heptachlor Epoxide µg/L Heptachlor Epoxide µg/L PCB-1232 µg/L PCB-1242 µg/L PCB-1248 µg/L PCB-1254 µg/L PCB-1254 µg/L PCB-1254 µg/L PCB-1254 µg/L Radium 226/228 µg/L Radium 226/228 µg/L Radium 226/228 µg/L Colsmolic Pressure mg/L Signature poxikg Mg/L Name poxikg Mg/L Nam	Di-n-Octyl Phthalate         µg/L         <           1,2-Diphenyihydrazine         µg/L         <	DiOctyl Phthalate         µp/L         <         S           1,2-Diphenylhydrazine         µp/L         <	Dir-Octyl Phthalate         µgiL         <         S           1_2-Olphenyihydrazine         µgiL         <	Din-Octyl Phthalate         upl.          5           1_2-Olphenylhydrazne         upl.         5            Fluorene         upl.         2.5            Fluorene         upl.         5            Hexachlorobutaliene         upl.         5            Hexachlorocyclopentadiene         upl.         5            Hexachlorocyclopentadiene         upl.         5            Ideno(1,2,3-cd)Pyrene         upl.         5            Ideno(1,2,3-cd)Pyrene         upl.         5            Indeno(1,2,3-cd)Pyrene         upl.         5            Naphthalene         upl.         4         5            Prene         upl.         4         2.5            Pyrene         upl.         4         0.5 <t< td=""><td>Dir+Octyl Phthalate         upl.         s         s           1_2-Olphetrylhydrazine         upl.         4         5           Fluoranthene         upl.         2.5            Fluoranthene         upl.         2.5            Hexachiorobutadiene         upl.         6         5            Hexachiorobutadiene         upl.         5             Hexachiorobutadiene         upl.         5             Hexachiorobutadiene         upl.         6         5             Hexachiorobutadiene         upl.         6         5              Mathiatene         upl.         6         5               Nitrobenzene         upl.         6         5   &lt;</td><td>Dim-Octyl Phthalate         µµL         ≤         S         Image: Constraint of the second secon</td><td>Dim-Octyl Phthalate         upL          S             1.2-Dipherylhydrane         upL          S             Fluorente         upL          2.5             Fluorente         upL          2.5             Herschlorobutatiene         upL         S              Herschlorobutatiene         upL         S              Herschlorobutatiene         upL         S              Usphonne         upL         S               Naphthalten         upL         S               Naphthalten         upL         S               Naphthalten         upL         S                Naphthalten         upL         S</td><td>Den-OUTP Phenale         upil.          S         N         N         N         N           1.2-Diphenythydrazine         upil.          2.5</td><td>Dn-Grup Primaale         up1,         s</td><td>Dn-GC(1) PhtNaise         Up(1)         S         Up(1)         S         Up(1)         S         Up(1)         S         Up(1)         S         Up(1)         Up(1)<!--</td--></td></t<>	Dir+Octyl Phthalate         upl.         s         s           1_2-Olphetrylhydrazine         upl.         4         5           Fluoranthene         upl.         2.5            Fluoranthene         upl.         2.5            Hexachiorobutadiene         upl.         6         5            Hexachiorobutadiene         upl.         5             Hexachiorobutadiene         upl.         5             Hexachiorobutadiene         upl.         6         5             Hexachiorobutadiene         upl.         6         5              Mathiatene         upl.         6         5               Nitrobenzene         upl.         6         5   <	Dim-Octyl Phthalate         µµL         ≤         S         Image: Constraint of the second secon	Dim-Octyl Phthalate         upL          S             1.2-Dipherylhydrane         upL          S             Fluorente         upL          2.5             Fluorente         upL          2.5             Herschlorobutatiene         upL         S              Herschlorobutatiene         upL         S              Herschlorobutatiene         upL         S              Usphonne         upL         S               Naphthalten         upL         S               Naphthalten         upL         S               Naphthalten         upL         S                Naphthalten         upL         S	Den-OUTP Phenale         upil.          S         N         N         N         N           1.2-Diphenythydrazine         upil.          2.5	Dn-Grup Primaale         up1,         s	Dn-GC(1) PhtNaise         Up(1)         S         Up(1)         S         Up(1)         S         Up(1)         S         Up(1)         S         Up(1)         Up(1) </td

eceiving Surface V	Vater Name: B	eaver River	r			No. Rei	aches to Mo	jel: 1	1	⊖ sta	tewide Criter	a		
Location	Stream Code	RMI	Elevation	DA (ml <sup>2</sup> )*	Slope (ft/ft)	PWS	Withdrawai	Apply F	ish	⊖ Gre	at Lakes Crit SANCO Crite	eria eria		
oint of Discharge	033953	1.65	(ft)*	3130		(	(MGD)	Yes	a					
End of Reach 1	033953	0.1	1126	3160				Yes						
7-10		LEY	Flow (c	N (2	//D Width	Depth	Velocit	naver	Tributa		Strea	m	Analys	cis.
Location	RMI	(cfs/ml <sup>2</sup> )*	Stream T	ributary R	atio (ft)	(ft)	y (fps)	Time (down)	Hardness	рН	Hardness'	pH*	Hardness	рН
oint of Discharge	1.65	0.2	640		400	15					143	7		
End of Reach 1	0.1	0.202	640		653	15					143	7		
h														
Location	RMI	LFY	Flow (cf	(S) W	//D Width	Depth	Velocit	Time	Tributa	iry	Strea	m	Analys	ls
aint of Disabarra	1.55	(cfs/mi*)	Stream T	ributary R	atio (ft)	(fi)	y (fps)	(davs)	Hardness	рН	Hardness	рН	Hardness	рН
End of Reach 1	0.1													

Def PR	PARTMENT OF E	Vania	ML .										Toxics Manager Versi	tent Spreadsheet on 1.4, May 2023
odel	Result	s					New Brighto	on Boroug	h Sanita	ry Authorit	y STP, NPDE	5 Permit No.	PA0026026	, Outfall 001
ructions	Results		RETURN	N TO INPU	्य	SAVE AS	PDF	PRI	NT	) 🖲 All	) Inputs	Results	O Limits	
Hydrod	lynamics													
RMI	Stream Flow (cfs)	PWS With (cfs)	drawal	Net Stream Flow (cfs)	n Discha	rge Analy ow (cfs)	Siope (	ft/ft) Dep	th (ft)	Width (ft)	W/D Ratio	Velocity (fps)	Time	Complete Mix Time (min)
1.65	640	(0.0)	,	640		3.094	0.000	12 1	5.	400.	26.667	0.107	(days) 0.884	338.224
0.1	640			640										
DMI	Stream	PWS With	drawal	Net Stream	n Discha	rge Analy	SIS Clope /	ione (fiff) Depth (fi) Mil		MARKE AND	W/D Potto	Velocity	Time	Complete Mix Time
NINI	Flow (cfs)	(cfs)	)	Flow (cfs)	) Fl	ow (cfs)	Supe (	ion) Dep	un (iu)	widui (it)	WID Ratio	(fps)	(days)	(min)
1.65	2106.64			2106.64		3.094	0.000	12 25	.299	400.	15.811	0.208	0.454	155.45
Wasteld	oad Allocatio C	ons CC	T (min):	15	PMF:	0.211	Ana	lysis Hard	ness (mj	g/l): 14	4.03	Analysis pH	7.01	]
	Pollutants		Conc	Stream	Trib Conc	Fate	WQC (ug/L)	WQ Ob	WLA	(µg/L)		c	omments	
Total Dis	ssolved Solid	s (PWS)	0	0	(P3'-/	0	N/A	N/A	1	N/A				
C	chioride (PWS	3)	0	0		0	N/A	N/A	1	N/A				
	Sulfate (PWS	)	0	0		0	N/A	N/A	1	N/A				
	otal Aluminur Total Antimon	m v	0				750	1 100	33	0,421				
	Total Arsenic	<u>,</u>	ō	ŏ		ŏ	340	340	15	5,151		Chem Tra	nslator of 1 a	oplied
	Total Barlum		0	0		0	21,000	21,000	93	5,792				
	Total Boron		0	0		0	8,100	8,100	36	0,948				
	otal Cadmiur	n	0	0		0	2.871	3.09	1	138		Chem Trans	lator of 0.929	applied
	ar Chromium avalent Chron	(III) nium	0	0 0 0 768.198 2,431		10	726	9 Chem Translator of 0.316 applied Chem Translator of 0.982 applied						
Tot	Total Cohalt		ŏ	ŏ		0	95	95.0	4	,233				P P
Tot Hexa	Total Cobalt		-			0	18 953	19.7		880		Chem Trans	slator of 0.96	applied
Tot Hexa	Total Copper		0	U		•	10.500			000				

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	95.854	130	5,789	Chem Translator of 0.738 applied
Total Manganese	0	0	0	N/A	N/A	N/A	
Total Mercury	0	0	0	1.400	1.65	73.4	Chem Translator of 0.85 applied
Total Nickel	0	0	0	637.561	639	28,468	Chem Translator of 0.998 applied
otal Phenois (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	6.025	7.09	316	Chem Translator of 0.85 applied
Total Thailium	0	0	0	65	65.0	2,896	
Total Zinc	0	0	0	159.631	163	7,273	Chem Translator of 0.978 applied
Acrolein	0	0	0	3	3.0	134	
Acrylonitrile	0	0	0	650	650	28,965	
Benzene	0	0	0	640	640	28,519	
Bromoform	0	0	0	1,800	1,800	80,211	
Carbon Tetrachioride	0	0	0	2,800	2,800	124,772	
Chlorobenzene	0	0	0	1,200	1,200	53,474	
Chlorodibromomethane	0	0	0	N/A	N/A	N/A	
2-Chioroethyl Vinyl Ether	0	0	0	18,000	18,000	802,107	
Chloroform	0	0	0	1,900	1,900	84,667	
Dichlorobromomethane	0	0	0	N/A	N/A	N/A	
1,2-Dichloroethane	0	0	0	15,000	15,000	668,423	
1,1-Dichloroethylene	0	0	0	7,500	7,500	334,211	
1.2-Dichloropropane	0	0	0	11,000	11,000	490,177	
1.3-Dichloropropylene	0	0	0	310	310	13.814	
Ethylbenzene	0	ō	ō	2,900	2,900	129,228	
Methyl Bromide	0	0	0	550	550	24.509	
Methyl Chloride	0	0	0	28,000	28 000	1.247.723	
Methylene Chloride	0	0	0	12,000	12,000	534,738	
1.1.2.2-Tetrachloroethane	0	0	0	1.000	1.000	44.562	
Tetrachioroethviene	0	0	0	700	700	31,193	
Toluene	ō	ō	ō	1,700	1,700	75,755	
1.2-trans-Dichloroethylene	0	0	0	6.800	6.800	303.018	
1.1.1-Trichloroethane	0	0	0	3,000	3,000	133,685	
1.1.2-Trichloroethane	ő	ŏ	ō	3,400	3,400	151,509	
Trichloroethylene	0	0	0	2,300	2,300	102.491	
Vinvi Chloride	0	0	0	N/A	N/A	N/A	
2-Chlorophenol	ő	ŏ	ő	560	560	24,954	
2.4-Dichlorophenol	0	0	0	1,700	1,700	75,755	
2 4-Dimethylphenol	0	0	0	660	660	29.411	
4.6-Dinitro-o-Cresol	0	0	ő	80	80.0	3,565	
2 4-Dintrophenol		0	0	660	660	29.411	
2-Nitrophenol		0	0	8,000	8,000	355,402	
4-Nitrophenol		0	0	2,300	2,300	102.491	
n-Chioro-m-Cresol		0	0	160	160	7 130	
Peotophiorophonol		0		9 705	9.70	7,130	
Penachiorophenol	0	0	0	0.790	0.79	392	
2.4.5 Trichlorophonol				460	450	20,408	
2,4,0-Thomorophenor	0		0	400	400	20,490	

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Acenanhthene	0	0		0	83	83.0	3,600	
Anthracene		0		0	N/A	N/A	N/A	
Benzidine		0		-	300	300	13 368	
Benzo/a)Anthraeene		0		-	0.6	0.5	10,000	
Denzo(a)Antinacene					0.0	0.5	22.0	
Denzo(a)Pyrene					NIA	N/A	N/A	
3,4-benzoliuoranutene					NIA	N/A	N/A	
Benzo(k) Fluorantiene					DUA DO	N/A	N/A	
Bis(2-Chlorolethyl)Ether	0	0		0	30,000	30,000	1,330,040	
Bis(2-Chlorobopropyr)Eurer					NIA	N/A	N/A	
Bis(2-Ethylnexyl)Phthalate	0	U		U	4,500	4,500	200,527	
4-Bromophenyl Phenyl Ether	0	0		0	270	270	12,032	
Butyl Benzyl Phthalate	0	0		U	140	140	6,239	
2-Chioronaphthaiene	0	0		0	N/A	N/A	N/A	
Chrysene	0	0		U	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	36,540	
1,3-Dichlorobenzene	0	0		0	350	350	15,597	
1,4-Dichlorobenzene	0	0		0	730	730	32,530	
3,3-Dichlorobenzidine	0	0		0	N/A	N/A	N/A	
Diethyl Phthalate	0	0		0	4,000	4,000	178,246	
Dimethyl Phthalate	0	0		0	2,500	2,500	111,404	
DI-n-Butyl Phthalate	0	0		0	110	110	4,902	
2,4-Dinitrotoluene	0	0		0	1,600	1,600	71,298	
2,6-Dinitrotoluene	0	0		0	990	990	44,116	
1,2-Diphenylhydrazine	0	0		0	15	15.0	668	
Fluoranthene	0	0		0	200	200	8,912	
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	446	
Hexachlorocyclopentadlene	0	0		0	5	5.0	223	
Hexachloroethane	0	0		0	60	60.0	2,674	
Indeno(1,2,3-cd)Pyrene	0	0		0	N/A	N/A	N/A	
Isophorone	0	0		0	10,000	10,000	445,615	
Naphthalene	0	0		0	140	140	6,239	
Nitrobenzene	0	0		0	4,000	4,000	178,246	
n-Nitrosodimethylamine	0	0		0	17,000	17,000	757,546	
n-Nitrosodi-n-Propylamine	0	0		0	N/A	N/A	N/A	
n-Nitrosodiphenylamine	0	0		0	300	300	13,368	
Phenanthrene	0	0		0	5	5.0	223	
Pyrene	0	0		0	N/A	N/A	N/A	
1,2,4-Trichlorobenzene	0	0		0	130	130	5,793	
CFC cct	(min): ###		PMF:	1	Ana	ilysis Hardne	ess (mg/l):	143.22 Analysis pH: 7.00
Pollutants	Conc (up/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	
Results					1/27	/2024		1

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	45,727	
Total Arsenic	0	0	0	150	150	31,178	Chem Translator of 1 applied
Total Barlum	0	0	0	4,100	4,100	852,193	
Total Boron	0	0	0	1,600	1,600	332,563	
Total Cadmium	0	0	0	0.316	0.35	73.4	Chem Translator of 0.894 applied
Total Chromium (III)	0	0	0	99.466	116	24,040	Chem Translator of 0.86 applied
Hexavalent Chromium	0	0	0	10	10.4	2,161	Chem Translator of 0.962 applied
Total Cobalt	0	0	0	19	19.0	3,949	
Total Copper	0	0	0	12.173	12.7	2,636	Chem Translator of 0.96 applied
Free Cyanide	0	0	0	5.2	5.2	1,081	
Dissolved Iron	0	0	0	N/A	N/A	N/A	
Total Iron	0	0	0	1,500	1,500	311,778	WQC = 30 day average; PMF = 1
Total Lead	0	0	0	3.713	5.03	1,045	Chem Translator of 0.739 applied
Total Manganese	0	0	0	N/A	N/A	N/A	
Total Mercury	0	0	0	0.770	0.91	188	Chem Translator of 0.85 applied
Total Nickel	0	0	0	70.476	70.7	14,693	Chem Translator of 0.997 applied
otal Phenois (Phenolics) (PWS)	0	0	0	N/A	N/A	N/A	
Total Selenium	0	0	0	4.600	4.99	1,037	Chem Translator of 0.922 applied
Total Silver	0	0	0	N/A	N/A	N/A	Chem Translator of 1 applied
Total Thaillum	0	0	0	13	13.0	2,702	
Total Zinc	0	0	0	160.169	162	33,764	Chem Translator of 0.986 applied
Acrolein	0	0	0	3	3.0	624	
Acryionitrile	0	0	0	130	130	27,021	
Benzene	0	0	0	130	130	27,021	
Bromoform	0	0	0	370	370	76,905	
Carbon Tetrachloride	0	0	0	560	560	116,397	
Chlorobenzene	0	0	0	240	240	49,884	
Chlorodibromomethane	0	0	0	N/A	N/A	N/A	
2-Chloroethyl Vinyl Ether	0	0	0	3,500	3,500	727,482	
Chloroform	0	0	0	390	390	81,062	
Dichlorobromomethane	0	0	0	N/A	N/A	N/A	
1,2-Dichloroethane	0	0	0	3,100	3,100	644,341	
1,1-Dichloroethylene	0	0	0	1,500	1,500	311,778	
1,2-Dichloropropane	0	0	0	2,200	2,200	457,274	
1,3-Dichloropropylene	0	0	0	61	61.0	12,679	
Ethylbenzene	0	0	0	580	580	120,554	
Methyl Bromide	0	0	0	110	110	22,864	
Methyl Chloride	0	0	0	5,500	5,500	1,143,186	
Methylene Chloride	0	0	0	2,400	2,400	498,845	
1,1,2,2-Tetrachloroethane	0	0	0	210	210	43,649	
Tetrachioroethylene	0	0	0	140	140	29,099	
Toluono	0			220	220	60.004	

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1,2-trans-Dichloroethylene	0	0	0	1,400	1,400	290,993	
1,1,1-Trichloroethane	0	0	0	610	610	126,790	
1,1,2-Trichloroethane	0	0	0	680	680	141,339	
Trichloroethylene	0	0	0	450	450	93,533	
Vinyl Chloride	0	0	0	N/A	N/A	N/A	
2-Chlorophenol	0	0	0	110	110	22,864	
2,4-Dichlorophenol	0	0	0	340	340	70,670	
2,4-Dimethylphenol	0	0	0	130	130	27,021	
4,6-Dinitro-o-Cresol	0	0	0	16	16.0	3,326	
2,4-Dinitrophenol	0	0	0	130	130	27,021	
2-Nitrophenol	0	0	0	1,600	1,600	332,563	
4-Nitrophenol	0	0	0	470	470	97,690	
p-Chloro-m-Cresol	0	0	0	500	500	103,926	
Pentachiorophenol	0	0	0	6.747	6.75	1,402	
Phenol	0	0	0	N/A	N/A	N/A	
2,4,6-Trichlorophenol	0	0	0	91	91.0	18,915	
Acenaphthene	0	0	0	17	17.0	3,533	
Anthracene	0	0	0	N/A	N/A	N/A	
Benzidine	0	0	0	59	59.0	12,263	
Benzo(a)Anthracene	0	0	0	0.1	0.1	20.8	
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	1,247,112	
Bis(2-Chloroisopropyl)Ether	0	0	0	N/A	N/A	N/A	
Bis(2-Ethylhexyl)Phthalate	0	0	0	910	910	189,145	
I-Bromophenyl Phenyl Ether	0	0	0	54	54.0	11,224	
Butyl Benzyl Phthalate	0	0	0	35	35.0	7,275	
2-Chioronaphthalene	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	33,256	
1,3-Dichlorobenzene	0	0	0	69	69.0	14,342	
1,4-Dichlorobenzene	0	0	0	150	150	31,178	
3,3-Dichlorobenzidine	0	0	0	N/A	N/A	N/A	
Diethyl Phthalate	0	0	0	800	800	166,282	
Dimethyl Phthalate	0	0	0	500	500	103,926	
DI-n-Butyl Phthalate	0	0	0	21	21.0	4,365	
2,4-Dinitrotoluene	0	0	0	320	320	66,513	
2,6-Dinitrotoluene	0	0	0	200	200	41,570	
1,2-Diphenylhydrazine	0	0	0	3	3.0	624	
Fluoranthene	0	0	0	40	40.0	8,314	
Fluorene	0	0	0	N/A	N/A	N/A	
Hexachlorobenzene	0	0	0	N/A	N/A	N/A	
Hevachlorobutadiene	0	0	0	2	2.0	416	

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Hexachiorocyclopentadiene	0	0		0	1	1.0	208	
Hexachloroethane	0	0		0	12	12.0	2,494	
Indeno(1,2,3-cd)Pyrene	0	0		0	N/A	N/A	N/A	
Isophorone	0	0		0	2,100	2,100	436,489	
Naphthalene	0	0		0	43	43.0	8,938	
Nitrobenzene	0	0		0	810	810	168,360	
n-Nitrosodimethylamine	0	0		0	3,400	3,400	706,697	
n-Nitrosodi-n-Propylamine	0	0		0	N/A	N/A	N/A	
n-Nitrosodiphenylamine	0	0		0	59	59.0	12,263	
Phenanthrene	0	0		0	1	1.0	208	
Pyrene	0	0		0	N/A	N/A	N/A	
1,2,4-Trichiorobenzene	0	0		0	26	26.0	5,404	
THH CC	r (min): ###	****	PMF:	1	Ana	alysis Hardne	266 (mg/l):	N/A Analysis pH: N/A
Pollutants	Conc (upl.)	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	1,164	
Total Arsenic	0	0		0	10	10.0	2,079	
Total Barlum	0	0		0	1,000	1,000	207,852	
Total Boron	0	0		0	3,100	3,100	644,341	
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	1,300	1,300	270,208	
Free Cyanide	0	0		0	4	4.0	831	
Dissolved Iron	0	0		0	300	300	62,356	
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	207,852	
Total Mercury	0	0		0	0.012	0.012	2.49	
Total Nickel	0	0		0	610	610	126,790	
otal Phenois (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	
	0	0		0	0.24	0.24	49.9	
Total Thailium	0	0		0	7,400	7,400	1,538,105	
Total Thaillum Total Zinc					3	3.0	624	
Total Thailium Total Zinc Acrolein	0	0		U	· ·			
Total Thailium Total Zinc Acroiein Acryionitrile	0	0		0	N/A	N/A	N/A	

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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	20,785	
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	1.185	
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	ŏ	ő	ő	33	33.0	6.859	
1.2-Dichloropropage	0	0	ő	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	14 134	
Methyl Bromide	ŏ	ŏ	ň	47	47.0	9,769	
Methyl Chloride			ň	N/A	N/A	N/A	
Methylene Chloride	0	0	ő	N/A	N/A	N/A	
1 1 2 2-Tetrachloroethane	0	0	ő	N/A	N/A	N/A	
Totrachiomethylana				N/A	N/A	N/A	
Toluono	0			57	57.0	11.848	
1.2-trans-Dichlomothylana			v o	100	100.0	20,785	
1.1.1.Trichlomethane		- North Contraction of the second sec	v o	10,000	10.000	20,703	
1.1.2.Trichlomethane	Ň		 - v	N/A	N/A	2,070,320	
Trablemethology			 - v	NIA	N/A	NUA	
Mand Objective			 	NIA	N/A	N/A	
2 Chiesenbagel				N/A	N/A	N/A	
2-Chlorophenol				30	30.0	0,230	
2,4-Dicalorophenol				10	10.0	2,079	
2,4-Dimethylphenol	0	0	0	100	100.0	20,785	
4,6-Dinitro-o-Cresol	0	0	 0	2	2.0	416	
2,4-Dinitrophenol	0	0	 0	10	10.0	2,079	
2-Nitrophenol	0	0	 0	NIA	N/A	N/A	
4-Nitrophenol	U	U	 0	NIA	N/A	N/A	
p-Chloro-m-Cresol	0	0	0	N/A	N/A	N/A	
Pentachiorophenol	0	0	0	N/A	N/A	N/A	
Phenol	0	0	0	4,000	4,000	831,408	
2,4,6-1 richlorophenol	U	0	0	N/A	N/A	N/A	
Acenaphthene	0	0	0	70	70.0	14,550	
Anthracene	0	0	0	300	300	62,356	
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	41,570	
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	

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Butyl Benzyl Phthalate	0	0		0	0.1	0.1	20.8	
2-Chioronaphthalene	0	0		0	800	800	166,282	
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	420	420	87,298	
1,3-Dichlorobenzene	0	0		0	7	7.0	1,455	
1,4-Dichlorobenzene	0	0		0	63	63.0	13,095	
3,3-Dichlorobenzidine	0	0		0	N/A	N/A	N/A	
Diethyl Phthalate	0	0		0	600	600	124,711	
Dimethyl Phthalate	0	0		0	2,000	2,000	415,704	
DI-n-Butyl Phthalate	0	0		0	20	20.0	4,157	
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	4,157	
Fluorene	0	0		0	50	50.0	10,393	
Hexachlorobenzene	0	0		0	N/A	N/A	N/A	
Hexachlorobutadiene	0	0		0	N/A	N/A	N/A	
Hexachiorocyclopentadiene	0	0		0	4	4.0	831	
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	7,067	
Naphthalene	0	0		0	N/A	N/A	N/A	
Nitrobenzene	0	0		0	10	10.0	2,079	
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-Nitrosodiphenvlamine	0	0		ō	N/A	N/A	N/A	
Phenanthrene	0	0		0	N/A	N/A	N/A	
Pyrene	0	0		0	20	20.0	4,157	
1.2.4-Trichlorobenzene	0	0		0	0.07	0.07	14.5	
CRL CC	T (min): ##	****	PMF:	1	Ana	i Alysis Hardne	ess (mg/l):	N/A Analysis pH: N/A
Pollutants	Conc	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	(µg/L)	WLA (µg/L)	Comments
otal 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	
	0	0		0	N/A	N/A	N/A	
Total Antimony	-			0	N/A	N/A	N/A	
Total Antimony Total Arsenic	0	0		-				
Total Antimony Total Arsenic Total Barlum	0	0		0	N/A	N/A	N/A	
Total Antimony Total Arsenic Total Barlum Total Boron	0	0 0 0		0	N/A N/A	N/A N/A	N/A N/A	
Total Antimony Total Arsenic Total Barlum Total Boron Total Cadmium	0 0 0 0 0	0 0 0 0 0		0	N/A N/A N/A	N/A N/A N/A	N/A N/A	
Total Antimony Total Arsenic Total Barlum Total Boron Total Cadmium Total Chromium (III)	0 0 0 0	0 0 0 0 0 0		0 0 0 0	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A	
Total Antimony Total Arsenic Total Barlum Total Boron Total Cadmium Total Chromium (III)	0 0 0 0	0 0 0 0		0 0 0 0	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A 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	
otal Phenois (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	50	50.0	34,094	
Total Thailium	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	0.051	0.051	34.8	
Benzene	0	0	0	0.58	0.58	395	
Bromoform	0	0	0	4.3	4.3	2,932	
Carbon Tetrachioride	0	0	0	0.4	0.4	273	
Chlorobenzene	0	0	0	N/A	N/A	N/A	
Chlorodibromomethane	0	0	0	0.4	0.4	273	
2-Chioroethyl 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	0.55	0.55	375	
1,2-Dichloroethane	0	0	0	0.38	0.38	259	
1,1-Dichloroethylene	0	0	0	N/A	N/A	N/A	
1,2-Dichloropropane	0	0	0	0.5	0.5	341	
1,3-Dichloropropylene	0	0	0	0.27	0.27	184	
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	4.6	4.6	3,137	
1,1,2,2-Tetrachioroethane	0	0	0	0.17	0.17	116	
Tetrachloroethylene	0	0	0	0.69	0.69	470	
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	375	
Trichioroethylene	0	0	0	0.6	0.6	409	
Vinyl Chioride	0	0	0	0.02	0.02	13.6	
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	NI/A	NI/A	NUA	

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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	
Pentachiorophenol	0	0	0	0.030	0.03	20.5	
Phenol	0	0	0	N/A	N/A	N/A	
2,4,6-Trichlorophenol	0	0	0	1.4	1.4	955	
Acenaphthene	0	0	0	N/A	N/A	N/A	
Anthracene	0	0	0	N/A	N/A	N/A	
Benzidine	0	0	0	0.000086	0.00009	0.059	
Benzo(a)Anthracene	0	0	0	0.001	0.001	0.68	
Benzo(a)Pyrene	0	0	0	0.0001	0.0001	0.068	
3,4-Benzofluoranthene	0	0	0	0.001	0.001	0.68	
Benzo(k)Fluoranthene	0	0	0	0.0038	0.004	2.59	
Bis(2-Chloroethyl)Ether	0	0	0	0.03	0.03	20.5	
Bis(2-Chloroisopropyl)Ether	0	0	0	N/A	N/A	N/A	
Bis(2-Ethylhexyl)Phthalate	0	0	 0	0.32	0.32	218	
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-Chioronaphthalene	0	0	0	N/A	N/A	N/A	
Chrysene	0	0	0	0.0038	0.004	2.59	
Dibenzo(a,h)Anthrancene	0	0	0	0.0001	0.0001	0.068	
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	0.021	0.021	14.3	
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	34.1	
2,6-Dinitrotoluene	0	0	0	0.05	0.05	34.1	
1,2-Diphenyihydrazine	0	0	0	0.03	0.03	20.5	
Fluoranthene	0	0	0	N/A	N/A	N/A	
Fluorene	0	0	0	N/A	N/A	N/A	
Hexachiorobenzene	0	0	0	0.00008	0.00008	0.055	
Hexachlorobutadiene	0	0	0	0.01	0.01	6.82	
Hexachiorocyclopentadiene	0	0	0	N/A	N/A	N/A	
Hexachloroethane	0	0	0	0.1	0.1	68.2	
Indeno(1,2,3-cd)Pyrene	0	0	0	0.001	0.001	0.68	
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	0.00069	0.0007	0.47	
n-Nitrosodi-n-Propylamine	0	0	0	0.005	0.005	3.41	
n-Nitrosodiphenylamine	0	0	0	3.3	3.3	2.250	

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The family for the	U	0	0	N/A	N/A	N/A			
Pyrene	0	0	0	N/A	N/A	N/A			
1,2,4-Trichlorobenzene	0	0	0	N/A	N/A	N/A			
Recommended WQBELs & Moi No. Samples/Month: 4	nitoring Req	uirements							
	Mass	Limits		Concentratio	on Limits				
Pollutants	AML (lbs/day)	MDL (lbs/day)	AML	MDL	IMAX	Units	Governing WQBEL	WQBEL Basis	Comments
The following pollutants do not req concentration was less than thresh Pollutants	uire effluent li olds for monit Governing	mits or monit toring, or the p Units	oring based on pollutant was n	water quality I ot detected an Comments	because rea Id a sufficien	sonable pote tly sensitive a	ential to exce analytical me	ed water qua thod was use	ilty oriteria was not determined and the disci ad (e.g., <= Target QL).
	WQBEL		-		-				
Total Dissolved Solids (PWS)	N/A	N/A	PWS	Not Applicab	ie Ie				
Chloride (PWS)	N/A	N/A	PWS	Not Applicab	)e				
Bromide	N/A	N/A		NOWQS	-				
Surate (PWS)	N/A	N/A	PWS	Not Applicab	Ne Nonci				
Total Auminum	21,422	µg/L	Discharge	Conc ≤ 10% I	WQBEL				
	DVA.	N/A	DISCIN						
Total Assesso	0.070		Discharge	arge conc < 1	UL NOREL				
Total Arsenic	2,079	µg/L	Discharge	Conc ≤ 10% \	WQBEL				
Total Arsenic Total Barlum	2,079 207,852	µg/L µg/L	Discharge Discharge	Conc ≤ 10% \ Conc ≤ 10% \ Conc ≤ 10% \	WQBEL WQBEL				
Total Arsenic Total Barlum Total Beryllum Total Beryllum	2,079 207,852 N/A 231,353	µg/L µg/L N/A	Discharge Discharge	Conc ≤ 10% \ Conc ≤ 10% \ No WQS Conc ≤ 10% \	WQBEL WQBEL				
Total Arsenic Total Barlum Total Beryllum Total Boron Total Cadmium	2,079 207,852 N/A 231,353 73.4	µg/L µg/L N/A µg/L µg/L	Discharge Discharge Discharge Discharge	Conc ≤ 10% \ Conc ≤ 10% \ No WQS Conc ≤ 10% \ arge Conc < T	WQBEL WQBEL WQBEL				
Total Arsenic Total Barlum Total Beryllum Total Boron Total Cadmium Total Chromium (III)	2,079 207,852 N/A 231,353 73.4 24,040	μg/L μg/L Ν/Α μg/L μg/L	Discharge Discharge Discharge Discharge	Conc ≤ 10% \ Conc ≤ 10% \ No WQS Conc ≤ 10% \ arge Conc < T arge Conc < T	WQBEL WQBEL WQBEL QL				
Total Arsenic Total Barlum Total Beryllum Total Boron Total Cadimum Total Chromlum (III) Hexavalent Chromlum	2,079 207,852 N/A 231,353 73.4 24,040 465	μg/L μg/L Ν/Α μg/L μg/L μg/L	Discharge Discharge Discharge Discharge Discharge Discharge	Conc ≤ 10% \ Conc ≤ 10% \ No WQS Conc ≤ 10% \ arge Conc < 10% \ arge Conc < T arge Conc < T	WQBEL WQBEL WQBEL WQBEL TQL TQL				
Total Arsenic Total Barlum Total Beryllum Total Boron Total Cadmium Total Chomium (III) Hexavalent Chromium Total Cobalt	2,079 207,852 N/A 231,353 73.4 24,040 465 2,713	μg/L μg/L Ν/Α μg/L μg/L μg/L μg/L μg/L	Discharge Discharge Discharge Discharge Discharge Discharge Discharge	Conc ≤ 10% \ Conc ≤ 10% \ No WQS Conc ≤ 10% \ arge Conc < T arge Conc < T arge Conc < T arge Conc < T	WQBEL WQBEL WQBEL GL GL GL GL				
Total Arsenic Total Barlum Total Beryllum Total Boron Total Cadmium Total Chromium (III) Hexavalent Chromium Total Cobalt Total Copper	2,079 207,852 N/A 231,353 73.4 24,040 465 2,713 0.56	μg/L μg/L N/A μg/L μg/L μg/L μg/L μg/L mg/L	Discharge Discharge Discharge Discharge Discharge Discharge Discharge	Conc ≤ 10% 1 Conc ≤ 10% 1 No WQS Conc ≤ 10% 1 arge Conc < T arge Conc < T arge Conc < T arge Conc < T Conc ≤ 10% 1	VQE WQBEL WQBEL QL QL QL QL QL QL QL QL QL QL QL				
Total Arsenic Total Barlum Total Beryllum Total Boron Total Cadmium Total Chromium (III) Hexavalent Chromium Total Cobalt Total Copper Free Cyanide	2,079 207,852 N/A 231,353 73.4 24,040 465 2,713 0.56 628	μg/L μg/L N/A μg/L μg/L μg/L μg/L μg/L μg/L μg/L	Discharge Discharge Discharge Discharge Discharge Discharge Discharge	Conc ≤ 10% \ Conc ≤ 10% \ No WQS Conc ≤ 10% \ arge Conc < T arge Conc < T arge Conc < T arge Conc < T Conc ≤ 10% \ Conc ≤ 25% \	VQE WQBEL WQBEL QL QL QL QL QL QL QL VQBEL WQBEL				
Total Arsenic Total Barlum Total Barlum Total Boron Total Cadmium Total Chromium (III) Hexavalent Chromium Total Cobait Total Copper Free Cyanide Total Cyanide	2,079 207,852 N/A 231,353 73.4 24,040 465 2,713 0.56 628 N/A	<u>µg/L</u> µg/L µg/L µg/L µg/L µg/L mg/L N/A	Discharge Discharge Discharge Disch Disch Disch Disch Discharge Discharge	arge conc ≤ 10% ()           Conc ≤ 10% ()           No WQS           Conc ≤ 10% ()           arge Conc < T	WQBEL WQBEL WQBEL TQL TQL TQL TQL TQL TQL WQBEL WQBEL				
Total Arsenic Total Barlum Total Beryllium Total Boron Total Cadmium Total Chromium (III) Hexavalent Chromium Total Cobalt Total Copper Free Cyanide Total Cyanide Dissolved Iron	2,079 207,852 N/A 231,353 73.4 24,040 465 2,713 0.56 628 N/A 62,356	<u>µg/L</u> µg/L µg/L µg/L µg/L µg/L µg/L µg/L N/A µa/L	Discharge Discharge Discharge Dischi Dischi Dischi Discharge Discharge Discharge	arge conc ≤ 10% ()           Conc ≤ 10% ()           No WQS           Conc ≤ 10% ()           arge Conc ≤ 10% ()           arge Conc < T	WQBEL WQBEL QL QL QL QL QL QL QL QL QL QL WQBEL WQBEL WQBEL				
Total Arsenic Total Barlum Total Beryllum Total Boron Total Cadmium Total Chromium (III) Hexavalent Chromium Total Cobalt Total Copper Free Cyanide Total Cyanide Dissolved iron Total Iron	2,079 207,852 N/A 231,353 73.4 24,040 465 2,713 0.56 628 N/A 62,356 311,778	μg/L μg/L N/A μg/L μg/L μg/L μg/L μg/L N/A μg/L μg/L μg/L	Discharge Discharge Discharge Dischi Dischi Dischi Discharge Discharge Discharge	age conc ≤ 10% 1 Conc ≤ 10% 1 No WQS Conc ≤ 10% 1 arge Conc < T arge Conc < T arge Conc < T arge Conc < T Conc ≤ 10% 1 Conc ≤ 25% 1 No WQS Conc ≤ 10% 1	WQBEL WQBEL QL QL QL QL QL QL QL QL QL QL WQBEL WQBEL WQBEL WQBEL				
Total Arsenic Total Barlum Total Beryllum Total Boron Total Cadmium Total Chromium (III) Hexavalent Chromium Total Cobalt Total Copper Free Cyanide Dissolved Iron Total Iron Total Iron Total Iron	2,079 207,852 N/A 231,353 73.4 24,040 465 2,713 0.56 628 N/A 62,356 311,778 1,045	μg/L μg/L N/A μg/L μg/L μg/L μg/L N/A μg/L μg/L μg/L μg/L	Discharge Discharge Discharge Discha Discha Discharge Discharge Discharge Discharge Discharge Discharge	age conc ≤ 10% 1 Conc ≤ 10% 1 No WQS Conc ≤ 10% 1 arge Conc < T arge Conc < T arge Conc < T arge Conc < T Conc ≤ 10% 1 Conc ≤ 25% 1 No WQS Conc ≤ 10% 1 Conc ≤ 10% 1 Conc ≤ 10% 1	WQBEL           WQBEL           GL           'QL           'QL           'QL           'QL           WQBEL           WQBEL           WQBEL           WQBEL           WQBEL           WQBEL           WQBEL           WQBEL           WQBEL				
Total Assenic Total Barlum Total Beryllum Total Boron Total Cadmium Total Chromium (III) Hexavalent Chromium Total Cobalt Total Copper Free Cyanide Total Copner Free Cyanide Dissolved Iron Total Iron Total Icad Total Manganese	2,079 207,852 N/A 231,353 73.4 24,040 465 2,713 0.56 628 N/A 62,356 311,778 1,045 207,852	μg/L μg/L Ν/Α μg/L μg/L μg/L μg/L ηg/L μg/L μg/L μg/L μg/L μg/L μg/L	Discharge Discharge Discharge Dischi Dischi Dischi Discharge Discharge Discharge Discharge Discharge	age conc ≤ 10% \ Conc ≤ 10% \ No WQS Conc ≤ 10% \ arge Conc < T arge Conc < T arge Conc < T arge Conc < T Conc ≤ 10% \ Conc ≤ 25% \ No WQS Conc ≤ 10% \ Conc ≤ 10% \ Conc ≤ 10% \ Conc ≤ 10% \	VUL WQBEL WQBEL VQL VQL VQL VQBEL WQBEL WQBEL WQBEL WQBEL WQBEL WQBEL				
Total Assenic Total Barlum Total Beryllum Total Boron Total Cadmium Total Chomium (III) Hexavalent Chromium Total Cobalt Total Copper Free Cyanide Dissolved Iron Total Iron Total Iron Total Iead Total Manganese Total Manganese	2,079 207,852 N/A 231,353 73,4 24,040 465 2,713 0.56 628 N/A 62,356 311,778 1,045 207,852 0.012	μg/L μg/L μg/L μg/L μg/L μg/L μg/L Ν/Α μg/L μg/L μg/L μg/L μg/L	Discharge Discharge Discharge Dischi Dischi Dischi Discharge Discharge Discharge Discharge Discharge Discharge	age conc ≤ 10% \ Conc ≤ 10% \ No WQS Conc ≤ 10% \ arge Conc < T arge Conc < T arge Conc < T arge Conc < T Conc ≤ 10% \ Conc ≤ 25% \ No WQS Conc ≤ 10% \ Conc ≤ 10% \ Conc ≤ 10% \ Conc ≤ 10% \ Conc ≤ 10% \ Arge Conc < T %	VUL WQBEL WQBEL 'QL 'QL 'QL 'QL 'QL WQBEL WQBEL WQBEL WQBEL WQBEL WQBEL WQBEL WQBEL				
Total Arsenic Total Barlum Total Beryllum Total Boron Total Cadmium Total Chromium (III) Hexavalent Chromium Total Cobait Total Copper Free Cyanide Total Cyanide Dissolved Iron Total Iron Total Iron Total Lead Total Manganese Total Mercury Total Nickel	2,079 207,852 N/A 231,353 73.4 24,040 465 2,713 0.56 628 N/A 62,356 311,778 1,045 207,852 0.012 14,693	μg/L μg/L μg/L μg/L μg/L μg/L μg/L μg/L	Discharge Discharge Discharge Dischi Dischi Dischi Discharge Discharge Discharge Discharge Discharge Discharge	age conc < 10%   Conc ≤ 10%   No WQS Conc ≤ 10%   arge Conc < T arge Conc < T arge Conc < T arge Conc < T Conc ≤ 10%   Conc < 10%	VUL WQBEL WQBEL VQL VQL VQL VQEL WQBEL WQBEL WQBEL WQBEL WQBEL WQBEL WQBEL WQBEL				
Total Arsenic Total Barlum Total Beryllium Total Boron Total Cadmium Total Chromium (III) Hexavalent Chromium Total Cobalt Total Copper Free Cyanide Total Copnide Dissolved Iron Total Iron Total Iron Total Iron Total Lead Total Manganese Total Mercury Total Nickel Total Phenois (Phenolics) (PWS)	2,079 207,852 N/A 231,353 73.4 24,040 465 2,713 0.56 628 N/A 62,356 311,778 1,045 207,852 0.012 14,693	<u>µg/L</u> µg/L µg/L µg/L µg/L µg/L µg/L µg/L µg/L	Discharge Discharge Discharge Dischi Dischi Discharge Discharge Discharge Discharge Discharge Discharge Discharge Discharge Discharge	age Conc < 10%   Conc < 10%   No WQS Conc < 10%   arge Conc < T arge Conc < T arge Conc < T arge Conc < T Conc < 10%   Conc < 25%   No WQS Conc < 10%   Conc < 10%	VUL WQBEL WQBEL GUL GUL GUL GUL GUL WQBEL WQBEL WQBEL WQBEL GUL WQBEL GUL				

Total Selenium	1,037	µg/L	Discharge Conc < TQL
Total Silver	202	µg/L	Discharge Conc < TQL
Total Thailium	49.9	µg/L	Discharge Conc < TQL
Total Zinc	4.66	mg/L	Discharge Conc ≤ 10% WQBE
Total Molybdenum	N/A	N/A	No WQS
Acrolein	85.7	µg/L	Discharge Conc < TQL
Acrylonitrile	34.8	µg/L	Discharge Conc < TQL
Benzene	395	µg/L	Discharge Conc < TQL
Bromoform	2,932	µg/L	Discharge Conc < TQL
Carbon Tetrachloride	273	µg/L	Discharge Conc < TQL
Chlorobenzene	20,785	µg/L	Discharge Conc < TQL
Chlorodibromomethane	273	µg/L	Discharge Conc < TQL
Chloroethane	N/A	N/A	No WQS
2-Chloroethyl Vinyl Ether	514,118	µg/L	Discharge Conc < TQL
Chloroform	1,185	µg/L	Discharge Conc ≤ 25% WQBE
Dichlorobromomethane	375	µg/L	Discharge Conc ≤ 25% WQBE
1,1-Dichloroethane	N/A	N/A	No WQS
1,2-Dichloroethane	259	µg/L	Discharge Conc < TQL
1,1-Dichloroethylene	6,859	µg/L	Discharge Conc < TQL
1,2-Dichloropropane	341	µg/L	Discharge Conc < TQL
1,3-Dichloropropylene	184	µg/L	Discharge Conc < TQL
1,4-Dioxane	N/A	N/A	No WQS
Ethylbenzene	14,134	µg/L	Discharge Conc < TQL
Methyl Bromide	9,769	µg/L	Discharge Conc < TQL
Methyl Chloride	799,740	µg/L	Discharge Conc < TQL
Methylene Chloride	3,137	µg/L	Discharge Conc < TQL
1,1,2,2-Tetrachloroethane	116	µg/L	Discharge Conc < TQL
Tetrachioroethylene	470	µg/L	Discharge Conc < TQL
Toluene	11,848	µg/L	Discharge Conc < TQL
1,2-trans-Dichloroethylene	20,785	µg/L	Discharge Conc < TQL
1,1,1-Trichloroethane	85,686	µg/L	Discharge Conc < TQL
1,1,2-Trichloroethane	375	µg/L	Discharge Conc < TQL
Trichloroethylene	409	µg/L	Discharge Conc < TQL
Vinyl Chloride	13.6	µg/L	Discharge Conc < TQL
2-Chlorophenol	6,236	µg/L	Discharge Conc < TQL
2,4-Dichlorophenol	2,079	µg/L	Discharge Conc < TQL
2,4-Dimethylphenol	18,851	µg/L	Discharge Conc < TQL
4,6-Dinitro-o-Cresol	416	µg/L	Discharge Conc < TQL
2,4-Dinitrophenol	2,079	µg/L	Discharge Conc < TQL
2-Nitrophenol	228,497	µg/L	Discharge Conc < TQL
4-Nitrophenol	65,693	µg/L	Discharge Conc < TQL
p-Chloro-m-Cresol	4,570	µg/L	Discharge Conc < TQL
Pentachiorophenol	20.5	µg/L	Discharge Conc < TQL
Phenol	831,408	µg/L	Discharge Conc < TQL

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Acenaphthene	2,371	µg/L	Discharge Conc < TQL
Acenaphthylene	N/A	N/A	No WQS
Anthracene	62,356	µg/L	Discharge Conc < TQL
Benzidine	0.059	µg/L	Discharge Conc < TQL
Benzo(a)Anthracene	0.68	µg/L	Discharge Conc < TQL
Benzo(a)Pyrene	0.068	µg/L	Discharge Conc < TQL
3,4-Benzofluoranthene	0.68	µg/L	Discharge Conc < TQL
Benzo(ghl)Perylene	N/A	N/A	No WQS
Benzo(k)Fluoranthene	2.59	µg/L	Discharge Conc < TQL
Bis(2-Chloroethoxy)Methane	N/A	N/A	No WQS
Bis(2-Chloroethyl)Ether	20.5	µg/L	Discharge Conc < TQL
Bis(2-Chlorolsopropyl)Ether	41,570	µg/L	Discharge Conc < TQL
Bis(2-Ethylhexyl)Phthalate	218	µg/L	Discharge Conc < TQL
4-Bromophenyl Phenyl Ether	7,712	µg/L	Discharge Conc < TQL
Butyl Benzyl Phthalate	20.8	µg/L	Discharge Conc < TQL
2-Chioronaphthaiene	166,282	µg/L	Discharge Conc < TQL
4-Chlorophenyl Phenyl Ether	N/A	N/A	No WQS
Chrysene	2.59	µg/L	Discharge Conc < TQL
Dibenzo(a,h)Anthrancene	0.068	µg/L	Discharge Conc < TQL
1,2-Dichlorobenzene	23,421	µg/L	Discharge Conc < TQL
1,3-Dichlorobenzene	1,455	µg/L	Discharge Conc < TQL
1,4-Dichlorobenzene	13,095	µg/L	Discharge Conc < TQL
3,3-Dichlorobenzidine	14.3	µg/L	Discharge Conc < TQL
Diethyl Phthalate	114,249	µg/L	Discharge Conc < TQL
Dimethyl Phthalate	71,405	µg/L	Discharge Conc < TQL
DI-n-Butyl Phthalate	3,142	µg/L	Discharge Conc < TQL
2,4-Dinitrotoluene	34.1	µg/L	Discharge Conc < TQL
2,6-Dinitrotoluene	34.1	µg/L	Discharge Conc < TQL
DI-n-Octyl Phthalate	N/A	N/A	No WQS
1,2-Diphenyihydrazine	20.5	µg/L	Discharge Conc < TQL
Fluoranthene	4,157	µg/L	Discharge Conc < TQL
Fluorene	10,393	µg/L	Discharge Conc < TQL
Hexachlorobenzene	0.00008	µg/L	Discharge Conc < TQL
Hexachlorobutadiene	0.01	µg/L	Discharge Conc < TQL
Hexachlorocyclopentadlene	143	µg/L	Discharge Conc < TQL
Hexachloroethane	68.2	µg/L	Discharge Conc < TQL
Indeno(1,2,3-cd)Pyrene	0.68	µg/L	Discharge Conc < TQL
Isophorone	7,067	µg/L	Discharge Conc < TQL
Naphthalene	3,999	µg/L	Discharge Conc < TQL
Nitrobenzene	2,079	µg/L	Discharge Conc < TQL
n-Nitrosodimethylamine	0.47	µg/L	Discharge Conc < TQL
n-Nitrosodi-n-Propylamine	3.41	µg/L	Discharge Conc < TQL
n-Nitrosodiphenylamine	2,250	µg/L	Discharge Conc < TQL
Phenanthrene	143	µg/L	Discharge Conc < TQL
Distance	4.457	und l	Discharge Gene - TOI

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1,2,4-Trichlorobenzene

Model Results	1/27/2024	Page 18

Discharge Conc < TQL

14.5 µg/L

DEP Whole Effluent Toxicity (WET) Analysis Spreadsheet Type of Test Chronic Faoliity Name Ceriodaphnia Survival 0.02 Species Tested Endpoint New Brighton WWTP TIWC (deolmai) No. Per Replicate TST b value 1 0.75 Permit No. PA0026026 TST alpha value 0.2 Test Completion Date Test Completion Date 10/1/2019 Replicate Replicate 8/31/2020 ттюс TIWC Control Control No. No. 1 1 1 1 1 2 1 1 2 1 3 3 1 1 1 4 4 5 1 5 1 6 1 6 1 1 7 1 1 7 4 1 8 1 1 8 1 1 9 1 1 9 1 1 10 10 1 1 1 1 11 11 12 12 13 13 14 14 15 15 Mean 1.000 1.000 Mean 1.000 1.000 Std Dev. 0.000 0.000 Std Dev. 0.000 0.000 # Replicates 10 10 # Replicates 10 10 T-Test Result T-Test Result Deg. of Freedom Deg. of Freedom Critical T Value Critical T Value Pass or Fall PA88 Pass or Fall PA88 Test Completion Date Test Comp tion Date 8/29/2021 8/31/2022 Repli Replic TIWC Control TIWC No. Control No. 1 1 1 1 ٥ 2 1 2 1 1 1 з 1 1 з 1 1 4 0 4 1 1 1 5 0 ٥ 5 1 6 0 6 ٥ 1 1 7 7 1 1 8 8 1 1 1 9 1 1 9 1 1 10 1 10 1 1 1 11 11 12 12 13 13 14 14 15 15 Mean 1.000 0.900 Mean 0.800 0.700 Std Dev. 0.000 0.316 Std Dev. 0.483 0.422 # Replicates 10 10 # Replicates 10 10 T-Test Result T-Test Result Deg. of Freedom Deg. of Freedom Critical T Value Critical T Value PASS PASS Pass or Fall Pass or Fall

Appendix E – DEP WET Analysis Spreadsheet –





· ·	DEP Whole	Effluent Toxic	ity (WET) Analysis S	Spreadshee	t		
Type of Test Chronic Speoles Tested Pimephales		onic ephaies	FaoIIIty Name				
Endpoint	Gro	wth	N	ew Brighton V	nton WWTP		
TIWC (dealm	al) 0.02	2					
No. Per Repli TST b value	oate 10		Permit No. PA0026026				
TST alpha va	lue 0.25			11000000			
	Test Comp	pletion Date	-	Test Comp	letion Date		
Replicate	10/1/2019		Replicate	9/1/2020			
No.	Control	тис	No.	Control	TIWC		
1	0.279	0.26	1	0.299	0.348		
2	0.273	0.256	2	0.266	0.314		
3	0.324	0.272	3	0.258	0.271		
4	0.226	0.276	4	0.33	0.306		
5			5				
6			6				
7			7				
8			8				
9			9				
10			10				
11			11				
12			12				
13			13				
14			14				
15			15				
Mean	0.275	0.266	Mean	0.288	0.340		
Std Dev	0.040	0.010	Std Dev	0.033	0.032		
# Replicates	4	4	# Replicates	4	4		
- represes	-		- http://dita	-	-		
T-Test Result	3.7	654	T-Test Result	4.6	610		
Deg. of Freedom 5			1 I Cas I Castron				
-	om	5	Deg. of Freedo	im s	5		
Critical T Valu	om e 0.7	5 267	Deg. of Freedo Critical T Value	im 1	5 267		
Critical T Valu Pass or Fall	e 0.7 PA	5 267 488	Deg. of Freedo Critical T Value Pass or Fall	e 0.7. PA	5 267 88		
Critical T Valu Pass or Fall	om e 0.7 P/	5 267 488	Deg. of Freedo Critical T Value Pass or Fall	m 0.7	5 267 188		
Critical T Valu Pass or Fall	om e 0.7 PA Test Comp	5 267 A88 Dietion Date	Deg. of Freedo Critical T Value Pass or Fall	m 9.7 PA Test Comp	5 267 ISS Netion Date		
Critical T Valu Pass or Fall Replicate	om e 0.7 PA Test Comp 8/31	5 267 A88 Dietion Date /2021	Deg. of Freedo Critical T Value Pass or Fall Replicate	Test Comp	5 267 .88 Hetion Date (2022		
Critical T Valu Pass or Fall Replicate No.	om e 0.7 PA Test Comp 8/31 Control	5 (267 (388 ) (2021 TWC	Deg. of Freedo Ortical T Value Pass or Fall Replicate	Tect Comp 8/30 Control	5 267 (88 letion Date (2022 TIWC		
Critical T Valu Pass or Fall Replicate No. 1	om e 0.7 PA Test Comp 8/31 Control 0.29	5 267 A88 Jetion Date (2021 TIWC 0.284 0.284	Deg. of Freedo Critical T Value Pass or Fall Replicate No. 1	e 0.7 PA Tect Comp 8/30/ Control 0.32	5 267 (88 letion Date (2022 TIWC 0.333		
Critical T Valu Pass or Fall Replicate No. 1 2	om e 0.7 P2 Test Comp 8/31 Control 0.29 0.367	5 267 A88 Jetion Date /2021 TIWC 0.284 0.265 0.257	Deg. of Precide Critical T Value Pass or Fall Replicate No. 1 2	Tect Comp 8/30/ Control 0.32 0.325	5 267 88 1etion Date (2022 TIWC 0.333 0.313		
Critical T Valu Pass or Fail No. 1 2 3	om e 0.7 P# Test Comp 8/31 Control 0.29 0.367 0.317	5 267 388 2010 Date 2021 TWC 0.284 0.265 0.316 0.316	Deg. of Freedo Critical T Value Pass or Fall Replicate No. 1 2 3	Tect Comp 8/30/ Control 0.32 0.325 0.348	5 267 388 2022 TIWC 0.333 0.313 0.346		
Critical T Valu Pass or Fail Replicate No. 1 2 3 4	om e 0.7 PA Test Comp 8/31 Control 0.29 0.367 0.317 0.354	5 267 888 2021 TWC 0.284 0.265 0.316 0.315	Deg. of Freedo Critical T Value Pass or Fall Replicate No. 1 2 3 4	Tect Comp 8/30/ Control 0.32 0.325 0.348 0.312	5 267 .88 .etion Date 2022 TIWC 0.333 0.313 0.346 0.358		
Critical T Valu Pass or Fall No. 1 2 3 4 5	om e 0.7 PA Test Comp 8/31 Control 0.29 0.367 0.317 0.354	5 267 888 2021 TIWC 0.284 0.265 0.316 0.316	Deg. of Preedo Ortical T Value Pass or Fall Replicate No. 1 2 3 4 5	Tect Comp 8/30/ Control 0.32 0.325 0.348 0.312	5 267 .88 .etion Date 2022 TIWC 0.333 0.313 0.346 0.358		
Critical T Valu Pass or Fall No. 1 2 3 4 5 6	om e 0.7 P4 Test Comp 8/31 Control 0.29 0.367 0.317 0.354	5 267 188 2001 TWWC 0.265 0.316 0.316	Deg. of Freedo Ortical T Value Pass or Fall No. 1 2 3 4 5 5	Test Comp 8/30 Control 0.32 0.325 0.348 0.312	5 267 88 Vetion Date (2022 TIWC 0.333 0.313 0.346 0.358		
Critical T Valu Pass or Fall No. 1 2 3 4 5 6 7	om e 0.7 P/ Test Comp 8/31 Control 0.29 0.367 0.317 0.354	5 267 1888 2021 TIWC 0.284 0.265 0.316 0.316	Deg. of Freedo Critical T Value Pass or Fall Replicate No. 1 2 3 4 5 5 7	Tect Comp 8/30/ Control 0.32 0.325 0.348 0.312	5 267 388 Vetion Date (2022 TIWC 0.333 0.313 0.346 0.358		
Critical T Valu Pass or Fall No. 1 2 3 4 5 6 7 8	om e 0.7 P/ Tect Comp 8/31 Control 0.29 0.367 0.317 0.354	5 267 388 2001 2021 TTWC 0.284 0.265 0.316 0.316	Deg. of Freedo Critical T Value Pass or Fall Replicate No. 1 2 3 4 5 5 6 7 8	Tect Comp 8/30/ Control 0.32 0.325 0.348 0.312	5 267 .88 Vetion Date 2022 TIWC 0.333 0.313 0.313 0.358		
Critical T Valu Pass or Fall No. 1 2 3 4 5 6 7 8 9	om e 0.7 P2 Test Comp 8/31 Control 0.29 0.367 0.317 0.354	5 267 188 Jetion Date (2021 TWVC 0.284 0.265 0.316 0.316	Deg. of Preced Critical T Value Pass or Fall Replicate No. 1 2 3 4 5 6 7 8 9	m 9.2 m 9.4 Test Comp 8/30 Control 0.32 0.348 0.312	5 267 188 1etion Date (2022 TTWC 0.333 0.313 0.313 0.346 0.358		
Critical T Valu Pass or Fall No. 1 2 3 4 5 5 6 7 8 9 10	om e 0.7 P2 Test Comp 8/31 Control 0.29 0.367 0.317 0.354	5 267 188 2021 TTWC 0.284 0.265 0.316 0.316	Deg. of Freedo Critical T Value Pass or Fall Replicate No. 1 2 3 4 5 5 6 7 8 9 10	m 1 2 0.7 PA Test Comp 8/300 Control 0.32 0.325 0.348 0.312	5 267 388 Vietion Date (2022 TIWC 0.333 0.313 0.346 0.358		
Critical T Valu Pass or Fall No. 1 2 3 4 5 6 7 8 9 10 11	om e 0.7 P2 Test Comp 8/31 Control 0.29 0.367 0.317 0.354	5 267 888 2014 2021 TIWC 0.284 0.265 0.316 0.316	Deg. of Freedo Critical T Value Pass or Fall Replicate No. 1 2 3 4 5 6 7 8 9 10	m 1 0.7 PA Test Comp 8/30/ Control 0.32 0.325 0.348 0.312	5 267 .88 .4etion Date (2022 TIWC 0.333 0.313 0.346 0.358		
Critical T Valu Pass or Fall No. 1 2 3 4 5 6 7 8 9 10 11 12	om e 0.7 P# Test Comp 8/31 Control 0.29 0.367 0.317 0.354	5 267 267 288 2021 TTWC 0.284 0.265 0.316 0.316	Deg. of Precedo Critical T Value Pass or Fall Replicate No. 1 2 3 4 5 5 6 7 8 9 10 11 11	m 1 2 0.7 PA Test Comp 8/30 Control 0.32 0.32 0.348 0.312	5 267 .88 Vetion Date 2022 TIWC 0.333 0.313 0.313 0.358		
Critical T Valu Pass or Fall No. 1 2 3 4 5 6 7 8 9 10 11 12 13	om e 0.7 P2 Test Comp 8/31 Control 0.29 0.367 0.317 0.354	5 267 268 30etion Date 2021 TWVC 0.265 0.316 0.316 0.316	Deg. of Freedo Critical T Value Pass or Fall Replicate No. 1 2 3 4 5 5 5 7 8 9 10 11 12 13	m 1 2 0.7 PA Test Comp 8/30 Control 0.32 0.325 0.348 0.312	5 267 188 Vietion Date (2022 TIWC 0.333 0.313 0.313 0.346 0.358		
Critical T Valu Pass or Fall No. 1 2 3 4 5 6 7 8 9 10 11 12 13 14	om 0.7 P P2 Test Comp 8/31 Control 0.29 0.367 0.317 0.354	5 267 267 288 2021 TWC 0.284 0.265 0.316 0.31 0.316 0.	Deg. of Freedo Critical T Value Pass or Fall Replicate No. 1 2 3 4 5 5 6 7 8 9 9 10 11 12 13 14	m 1 PA Test Comp 8/30/ Control 0.32 0.325 0.348 0.312	5 267 388 2022 TIWC 0.333 0.313 0.346 0.358		
Critical T Valu Pass or Fall No. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	om 0.7 P/ Test Comp 8/31 Control 0.29 0.367 0.317 0.354	5 267 888 sietion Date (2021 TIWC 0.284 0.265 0.316 0.	Deg. of Freedo Critical T Value Pass or Fall Replicate No. 1 2 3 4 5 6 7 8 9 10 11 11 12 13 14 15	m 1 • 0.7 PA Test Comp 8'30/ Control 0.32 0.325 0.348 0.312	5 267 .88 .etion Date (2022 TIWC 0.333 0.313 0.346 0.358		
Critical T Valu Pass or Fall No. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	om 0.7 P# P# Test Comp 8/31 Control 0.29 0.367 0.317 0.354	5 267 267 268 2021 TWVC 0.265 0.316 0.316	Deg. of Freedo Critical T Value Pass or Fall Replicate No. 1 2 3 4 5 5 6 7 8 9 10 11 11 12 13 14 15	m 1: PA Test Comp 8'30 Control 0.32 0.325 0.348 0.312	5 267 188 1etion Date (2022 TIWC 0.333 0.313 0.313 0.346 0.358		
Critical T Valu Pass or Fall No. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Mean	om	5 267 267 288 2021 TWC 0.284 0.265 0.316 0.316 0.316 0.316 0.295	Deg. of Freedo Critical T Value Pass or Fall Replicate No. 1 2 3 4 5 5 6 7 8 9 10 11 12 13 14 15 Mean	0.326	5 267 388 4etion Date 2022 TIWC 0.333 0.313 0.346 0.358 0.358 0.358 0.338		
Critical T Valu Pass or Fall No. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Mean Std Dev.	om 0.7 P P2 Test Comp 8/31 Control 0.29 0.367 0.317 0.354 0.354 0.354	5 267 267 288 2021 TWC 0.284 0.265 0.316 0.316 0.316 0.316 0.295 0.295 0.025	Deg. of Freedo Critical T Value Pass or Fall Replicate No. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 14 15 Mean Std Dev.	m 1 0.7 PA Test Comp 8/30/ Control 0.32 0.348 0.312 0.312 0.325 0.348 0.312	5 267 388 267 388 2022 TIWC 0.333 0.313 0.346 0.358 0.358 0.358		
Critical T Valu Pass or Fall No. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Mean Std Dev. # Replicates	om 0.7 P/ Test Comp 8/31 Control 0.29 0.357 0.357 0.354 0.354	5 267 888 2021 TWC 0.284 0.265 0.316 0.316 0.316 0.316 0.316 0.316 0.316 0.316 0.316 0.316 0.316 0.316 0.316	Deg. of Freedo Critical T Value Pass or Fall Replicate No. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Mean Std Dev. # Replicates	0.325 0.325 0.325 0.348 0.312	5 267 388 Aletion Date (2022 TIWC 0.333 0.313 0.346 0.358 0.358 0.358		
Critical T Valu Pass or Fall No. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Mean Std Dev. # Replicates	0 0.7 P Test Comp 8/31 Control 0.29 0.367 0.317 0.354 0.354 0.354 0.354 0.354 0.354	5 267 488 2014 2021 TWC 0.284 0.265 0.316 0.316 0.316 0.316 0.295 0.025 4	Deg. of Freedo Critical T Value Pass or Fall Replicate No. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Mean Std Dev. # Replicates	m 1 0.7 PA Test Comp 8/30/ Control 0.32 0.325 0.348 0.312 0.312 0.312 0.312 0.312 0.312 0.312 0.312 0.312 0.312 0.312 0.315 4	5 267 188 Netion Date (2022 TIWC 0.333 0.346 0.358 0.358 0.358 0.358 0.358 0.358		
Critical T Valu Pass or Fall No. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Mean Std Dev. # Replicates T-Test Result	om 0.7 P# P# Test Comp 8/31 Control 0.29 0.367 0.317 0.354 0.354 0.354 0.354 0.354 0.354 0.354 0.354	5 267 188 2021 TWVC 0.284 0.265 0.316 0.316 0.316 0.316 0.295 0.025 4 387	Deg. of Freedo Critical T Value Pass or Fall Replicate No. 1 2 3 4 5 5 6 7 8 9 10 11 12 13 14 15 Mean Std Dev. # Replicates T-Test Result	m 1 2 0.7 PA Test Comp 8/30 Control 0.32 0.325 0.348 0.312 0.325 0.348 0.312 0.312 0.325 0.015 4 8.20	5 267 188 Netion Date (2022 TIWC 0.333 0.313 0.346 0.358 0.358 0.358 0.358 0.338 0.019 4 570		
Critical T Valu Pass or Fall No. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Mean Std Dev. # Replicates T-Test Result Deg. of Freed	om e 0.7 P2 Test Comp 8/31 Control 0.29 0.357 0.317 0.354 0.354 0.354 0.355 0.332 0.035 4	5 267 267 288 30etion Date 2021 TWVC 0.284 0.265 0.316 0.316 0.316 0.316 0.295 0.025 4 387 5	Deg. of Freedo Critical T Value Pass or Fall Replicate No. 1 2 3 4 5 5 6 7 8 9 10 11 12 13 14 15 Mean Std Dev. # Replicates T-Test Result Deg. of Freedo	0.326 0.015 4 0.326 0.327 0.328 0.348 0.312	5 267 188 Netion Date (2022 TIWC 0.333 0.313 0.3146 0.358 0.358 0.358 0.358 0.019 4 570 5		
Critical T Valu Pass or Fall No. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Mean Std Dev. # Replicates T-Test Result Deg. of Freed Critical T Valu	om 0.7 P 0.3 Test Comp 8/31 Control 0.29 0.357 0.317 0.354 0.354 0.354 0.355 4 0.332 0.035 4 2.5 om 2.5 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7	5 267 288 30etion Date (2021 TWC 0.284 0.265 0.316 0.316 0.316 0.316 0.295 0.025 4 387 5 267	Deg. of Freedo Critical T Value Pass or Fall Replicate No. 1 2 3 4 5 5 6 7 8 9 9 10 11 12 13 14 15 14 15 Mean Std Dev. # Replicates T-Test Result Deg. of Freedo Critical T Value	0.325 0.325 0.325 0.325 0.348 0.312	5 267 388 Netion Date 2022 TIWC 0.333 0.313 0.346 0.358 0.557 0.558		

	WET S	ummary and	Evaluation				
Facility Name	New Brighton	WWTP					
Permit No. PA0026026							
Design Flow (MGD)	2						
Q <sub>7-10</sub> Flow (cfs)	640						
PMFa	0.0021						
PMFe	0.01						
		Test Results (Pass/Fail)					
		Test Date	Test Date	Test Date	Test Date		
Species	Endpoint	10/1/19	8/31/20	8/29/21	8/31/22		
Ceriodaphnia	Survival	PASS	PASS	PASS	PASS		
	1		Tost Posult	r /Pacc/Eail\			
		Test Date	Test Date	Test Date	Test Date		
Species	Endpoint	10/1/19	8/31/20	8/29/21	8/31/22		
Ceriodaphnia	Reproduction	PASS	PASS	PASS	PASS		
		Test Results (Pass/Fail)					
		Test Date	Test Date	Test Date	Test Date		
Species	Endpoint	10/1/19	9/1/20	8/31/21	8/30/22		
Pimephales	Survival	PASS	PASS	PASS	PASS		
	I	Test Desults (Dess/Es:")					
		Test Date   Test D		Test Date			
Species	Endpoint	10/1/19	9/1/20	8/31/21	8/30/22		
Pimephales	Growth	PASS	PASS	PASS	PASS		
Reasonable Potentia <u>Permit Recommenda</u> Test Type TIWC Dilution Series Permit Limit Permit Limit Species	I? NO tions Chronic 33 8, 17, None	% Effluent 33, 67, 100	% Effluent				