

Application Type Renewal
Facility Type Municipal
Major / Minor Major

**NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE**

Application No. PA0026018
APS ID 1064776
Authorization ID 1398611

Applicant and Facility Information

Applicant Name	<u>Borough of West Chester</u>	Facility Name	<u>West Chester Taylor Run STP</u>
Applicant Address	<u>795 Downingtown Pike</u> <u>West Chester, PA 19380</u>	Facility Address	<u>795 Downingtown Pike</u> <u>West Chester, PA 19380-1972</u>
Applicant Contact	<u>Michael Findley</u>	Facility Contact	<u>Michael Findley</u>
Applicant Phone	<u>(610) 436-1370</u>	Facility Phone	<u>(610) 436-1370</u>
Client ID	<u>35035</u>	Site ID	<u>248999</u>
Ch 94 Load Status	<u>Not Overloaded</u>	Municipality	<u>West Chester Borough</u>
Connection Status	<u>No Limitations</u>	County	<u>Chester</u>
Date Application Received	<u>June 1, 2022</u>	EPA Waived?	<u>No</u>
Date Application Accepted	<u></u>	If No, Reason	<u>Major Facility</u>
Purpose of Application	<u>Permit Renewal</u>		

Summary of Review

The applicant requests renewal of an NPDES permit to discharge 1.5 mgd of treated sewage from West Chester Taylor Run STP to Taylor Run a tributary to East Branch Brandywine Creek.

Municipalities served by the STP are West Chester Borough and East Bradford Township.

The plant consists of preliminary treatment (bar screen and grit chamber), primary sedimentation/clarifiers, biological treatment {attached growth, Rotating Biological Contactors (RBC)} for BOD5 and ammonia-nitrogen reduction, phosphorus removal (by chemical addition), secondary sedimentation/clarifiers, and disinfection (chlorination/dichlorination). A tertiary filtration system is under construction.

Wastewater chemical DeIPAC 1000 (poly-aluminum chloride) is used for TP & TSS removal.

The facility doesn't accept any hauled-in wastes. There are no industrial users connected to the system.

The Christina River Basin TMDL for Nutrients and Dissolved Oxygen for Low-Flow Conditions issued by EPA on January 19, 2001 and revised in October 2002 and April 2006 includes this discharge. DEP proposed an alternative reduction scenario for the TMDL, and it was approved by EPA on August 29, 2012.

Also, this discharge is listed in the High-Flow TMDL for Bacteria and Sediment and the High Flow TMDL for Nutrient and Low DO and the permit limits (existing and recommended) are consistent (or more stringent) with the WLAs assigned in the TMDLs.

Approve	Deny	Signatures	Date
X		<i>Sara Abraham</i> Sara Reji Abraham, E.I.T. / Project Manager	October 31, 2023
X		<i>Pravin Patel</i> Pravin C. Patel, P.E. / Environmental Engineer Manager	11/01/2023

Summary of Review

On June 30, 2022 an aquatic biology investigation was conducted on Taylor Run. The purpose of the survey was to investigate possible impacts to water quality in Taylor Run from Taylor Run STP through the collection and analysis of biological, physical, and chemical data. This survey also serves as a follow up to surveys performed in 2006, 2007 and 2013. Aquatic life uses are impaired due to urban runoff/storm sewers-siltation and habitat modification-other habitat alterations, based on a 2009 Instream Comprehensive Evaluation. The 2022 investigation report states that observations in the immediate vicinity of the outfall indicate improving conditions related to solids deposition and oxygen demand compared to the survey in 2013. While the macroinvertebrate community at the stations downstream of the discharge is impaired, it doesn't appear that the treatment plant discharge is further degrading Taylor Run.

The discharge is in compliance with the effluent limitations in the permit. No comments received from Operations section. No violations were noted in the 2022 inspection report.

The Borough had difficulty to meet the aluminum limits in the current permit and a compliance schedule was established in the permit. The Borough has been investigating and testing out different chemicals for effectively treating wastewater to meet the permit limits. Hopefully with the use of the tertiary filtration system and the appropriate chemical usage, the facility will be able to comply with the proposed limits in the draft permit.

Influent monitoring for CBOD5, TSS and BOD5 are recommended for the draft permit to check compliance with the 85% removal requirement and Chapter 94 requirement. These are consistent with the requirements of similar discharges in the area.

Sludge use and disposal description and locations: The solids generated at the facility are anaerobically digested. Digested solids are discharged to a sludge holding tank for thickening. Thickened solids are removed via truck and disposed off at DELCORA STP.

Pretreatment language from the existing permit is recommended to continue in the draft permit. It was recommended by EPA at the last permit renewal.

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.

Act 14 Notifications:

East Bradford Township	-	May 25, 2022
Chester County	-	May 25, 2022

Permit Conditions:

- A. No Stormwater
- B. Acquire Necessary Property Rights
- C. Proper Sludge Disposal
- D. Chlorine Optimization
- E. Discharge to Small Stream
- F. Operator Notification
- G. TMDL/WLA data
- H. Fecal Coliform Reporting
- I. Operations and Maintenance Plan
- J. Pretreatment Requirement
- K. Solids Management

Summary of Review

- L. WET Testing Requirement
- M. Requirements for Stormwater Outfalls
- N. WQBELs for Toxic Pollutants

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	001	Design Flow (MGD)	1.5
Latitude	39° 58' 3.19"	Longitude	-75° 37' 46.51"
Quad Name	Unionville	Quad Code	1940
Wastewater Description: Sewage Effluent			
Receiving Waters	Taylor Run (TSF, MF)	Stream Code	00236
NHD Com ID	26106482	RMI	2.33
Drainage Area	3.41 mi ²		
Q ₇₋₁₀ Flow (cfs)	0.856 cfs	Q ₇₋₁₀ Basis	USGS Streamstats
Elevation (ft)	247		
Watershed No.	3-H	Chapter 93 Class.	TSF, MF
Assessment Status	Impaired		
Cause(s) of Impairment	habitat alterations, siltation		
Source(s) of Impairment	habitat modification - other than hydromodification, urban runoff/storm sewers		
TMDL Status	Final	Name	Christina River Basin TMDLs (high flow and low flow)

There is no public water supply intake downstream in Pennsylvania. The one in Delaware is approximately 21.5 miles downstream.

Treatment Facility Summary				
Treatment Facility Name: West Chester Taylor Run STP				
WQM Permit No.	Issuance Date			
1598406	04/21/1998			
1520407	2/5/2021			
Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Rotating Biological Contactors	Chlorine with Dechlorination	1.5
Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
1.8	3753	Not Overloaded	Anaerobic digestion	Other WWTP

Compliance History

DMR Data for Outfall 001 (from May 1, 2021 to April 30, 2022)

Parameter	APR-22	MAR-22	FEB-22	JAN-22	DEC-21	NOV-21	OCT-21	SEP-21	AUG-21	JUL-21	JUN-21	MAY-21
Flow (MGD) Average Monthly	0.936	0.804	0.811	0.788	0.777	0.788	0.830	0.904	0.768	0.809	0.919	0.891
Flow (MGD) Daily Maximum	1.722	0.917	1.142	1.127	0.829	0.881	1.163	2.119	0.955	1.053	1.395	1.088
pH (S.U.) Instantaneous Minimum	6.6	6.5	6.6	6.5	6.6	6.6	6.6	6.7	6.6	6.6	6.5	6.5
pH (S.U.) Instantaneous Maximum	6.9	6.9	7.0	6.9	7.0	7.1	7.0	7.1	7.0	7.0	6.8	6.9
DO (mg/L) Instantaneous Minimum	8.6	8.1	9.2	8.3	8.4	7.7	7.0	7.1	6.3	6.9	7.4	7.8
TRC (mg/L) Average Monthly	0.02	0.01	0.01	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02
TRC (mg/L) Instantaneous Maximum	0.03	0.02	0.02	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.05	0.03
CBOD5 (lbs/day) Average Monthly	25.3	24.0	27.1	25.5	36.6	33.8	30.9	26.8	18.9	22.1	21.5	28.8
CBOD5 (lbs/day) Weekly Average	40.8	30.1	32.8	30.8	41.1	37.9	34.1	43.4	23.2	25.7	31.6	35.6
CBOD5 (mg/L) Average Monthly	2.9	3.6	4.0	4.0	5.7	5.2	4.6	3.4	3.0	3.2	2.6	4.0
CBOD5 (mg/L) Weekly Average	3.5	4.5	4.5	5.0	6.5	6.0	5.5	5.0	4.0	4.0	3.0	5.0
BOD5 (lbs/day) Raw Sewage Influent Average Monthly	1514.0	1450.1	1120.2	1316.0	1448.3	1319.3	1224.4	1254.1	1196.1	1094.1	1198.9	1251.7
BOD5 (mg/L) Raw Sewage Influent Average Monthly	183.8	217.5	191	204.4	224.1	204.7	182.3	168.2	188.0	159.1	150.1	174.1
TSS (lbs/day) Average Monthly	31.9	40.8	38.1	40.7	68.2	55.1	46.9	51.1	36.3	36.2	60.9	73.8

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TSS (lbs/day) Raw Sewage Influent Average Monthly	1446.5	1450.1	1523.7	1515.9	1572.8	1549.3	1658.7	1792.8	1570	1636.3	1913.3	1819.5
TSS (lbs/day) Weekly Average	40.4	68.4	62.2	58.6	85.3	88.4	76.2	97.6	44.7	52.7	119.6	91.5
TSS (mg/L) Average Monthly	4.0	6.1	5.9	6.4	10.6	8.6	6.9	6.3	5.7	5.2	7.2	10.4
TSS (mg/L) Raw Sewage Influent Average Monthly	175	217.2	224	239	243	240	247	236.2	248	239	237.3	253
TSS (mg/L) Weekly Average	5.5	10.0	10.0	9.5	13.5	14.0	10.0	10.0	6.5	6.0	12.0	13.0
Total Dissolved Solids (lbs/day) Average Quarterly		4058			1682.7			2977.4			3857.3	
Total Dissolved Solids (mg/L) Average Quarterly		600			260			510			500	
Fecal Coliform (No./100 ml) Geometric Mean	85	67	57	82	119	15	33	46	28	53	55	55
Fecal Coliform (No./100 ml) Instantaneous Maximum	248	232	168	224	208	28	169	225	142	145	162	121
Total Nitrogen (lbs/day) Average Monthly	151.5	158.3	182.6	172.6	192.2	142.4	137.7	134.7	110.9	104	171.5	146.6
Total Nitrogen (mg/L) Average Monthly	21.0	25.0	27.0	28.0	30.0	22.0	21.0	19.0	19.0	15.0	24.0	19.0
Ammonia (lbs/day) Average Monthly	10.4	7	9.1	12.2	12.7	12.5	13.4	13.4	6.7	7.0	7.6	8.6
Ammonia (mg/L) Average Monthly	1.15	1.01	1.26	1.80	1.97	1.88	1.99	1.69	1.0	1.0	1.00	1.21
Total Phosphorus (lbs/day) Average Monthly	2.0	1.7	1.5	2.6	3.2	2.5	2.1	2.8	1.8	1.6	1.7	3.4
Total Phosphorus (mg/L) Average Monthly	0.2	0.3	0.2	0.4	0.5	0.4	0.3	0.3	0.3	0.2	0.2	0.4

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Total Aluminum (lbs/day) Daily Maximum	4.2	4.0	6.76	5.9	6.3	5.6	7.21	4.47	2.16	3.05	4.2	12.3
Total Aluminum (mg/L) Daily Maximum	0.58	0.62	1.0	0.96	0.99	0.86	1.10	0.63	0.37	0.44	0.59	1.6
Total Copper (lbs/day) Average Quarterly		0.039			0.03			0.021			0.06	
Total Copper (mg/L) Average Quarterly		0.0058			0.0051			0.0036			0.0079	
Chronic WET - Ceriodaphnia Survival (TUc) Daily Maximum					1.37							
Chronic WET - Ceriodaphnia Reproduction (TUc) Daily Maximum					1.37							
Chronic WET - Pimephales Survival (TUc) Daily Maximum					1.37							
Chronic WET - Pimephales Growth (TUc) Daily Maximum					1.37							

DMR Data for Outfall 003 (from May 1, 2021 to April 30, 2022)

Parameter	APR-22	MAR-22	FEB-22	JAN-22	DEC-21	NOV-21	OCT-21	SEP-21	AUG-21	JUL-21	JUN-21	MAY-21
pH (S.U.) Daily Maximum					7.2							
CBOD5 (mg/L) Daily Maximum					5.9							
COD (mg/L) Daily Maximum					51							
TSS (mg/L) Daily Maximum					34							
Oil and Grease (mg/L) Daily Maximum					1.6							
TKN (mg/L) Daily Maximum					4.9							

Total Phosphorus (mg/L) Daily Maximum					0.46							
Dissolved Iron (mg/L) Daily Maximum					< 0.041							

Development of Effluent Limitations

Outfall No.	001	Design Flow (MGD)	1.5
Latitude	39° 58' 3.00"	Longitude	-75° 37' 42.00"
Wastewater Description: Treated Sewage Effluent			

Technology-Based Limitations

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

Pollutant	Limit (mg/l)	SBC	Federal Regulation	State Regulation
CBOD ₅	25	Average Monthly	133.102(a)(4)(i)	92a.47(a)(1)
	40	Average Weekly	133.102(a)(4)(ii)	92a.47(a)(2)
Total Suspended Solids	30	Average Monthly	133.102(b)(1)	92a.47(a)(1)
	45	Average Weekly	133.102(b)(2)	92a.47(a)(2)
pH	6.0 – 9.0 S.U.	Min – Max	133.102(c)	95.2(1)
Fecal Coliform (5/1 – 9/30)	200 / 100 ml	Geo Mean	-	92a.47(a)(4)
Fecal Coliform (5/1 – 9/30)	1,000 / 100 ml	IMAX	-	92a.47(a)(4)
Fecal Coliform (10/1 – 4/30)	2,000 / 100 ml	Geo Mean	-	92a.47(a)(5)
Fecal Coliform (10/1 – 4/30)	10,000 / 100 ml	IMAX	-	92a.47(a)(5)
Total Residual Chlorine	0.5	Average Monthly	-	92a.48(b)(2)

Water Quality-Based Limitations

The following limitations were determined

Parameter	Limit (mg/l)	SBC	Basis
CBOD ₅	25	Monthly Average	TMDL
Total Suspended Solids*	15	Monthly Average	Existing
NH ₃ -N (5-1 to 10-31)	2.5	Monthly Average	TMDL
NH ₃ -N (11-1 to 4-30)	7.5	Monthly Average	Seasonal limitation
Total N	30	Monthly Average	TMDL
Total P* (4-1 to 10-31)	1.6	Monthly Average	Existing
Total P (11-1 to 3-31)	2.0	Monthly Average	Existing
Dissolved Oxygen	5.0	Inst. Minimum	TMDL
TRC	0.05/0.15	Monthly Average /Inst. Max.	existing
Fecal Coliform	# 200/ #1000	Geo. Mean/Inst. Max.	Chapter 92.a & DRBC
pH	6.0 to 9.0 std. units all the times		Chapter 93
TDS	Report		DRBC
E. coli	Report		Chapter 92.a**

* The TSS and TP limits in the existing permit are more stringent than the allocations in the Christina River Basin TMDL report. Department had decided to include stringent limits in the permit in the past, based on the stream surveys of Taylor Run conducted in 2006 and 2007. The stream survey results showed that Taylor Run immediately downstream from STP outfall was severely impaired by organic pollution. The existing limits are continued in the draft permit.

** E. Coli monitoring is included in the draft permit according to the DEP SOP guidance (Chapter 92.a.61). This is a new requirement and is consistent with the requirements of other similar discharges in the area.

Christina River Basin High Flow TMDL includes allocation for TSS (30 mg/l) and Fecal Coliform (200 cfu/100 ml) for this discharge.

A "Reasonable Potential Analysis" determined the following parameters were candidates for limitations or monitoring requirements:

Parameter	Limit (ug/l)	SBC	Model
Total Aluminum*	750	Average Monthly	Toxic Management Spreadsheet (TMS)
Hexavalent Chromium	Report	Average Monthly	TMS
Total Copper	Report	Average Monthly	TMS
Free Cyanide**	5.48	Average Monthly	TMS
Dissolved Iron	Report	Average Monthly	TMS
Total Zinc	Report	Average Monthly	TMS
Acrolein***	3.0	Average Monthly	TMS
Chloroform	Report	Average Monthly	TMS
Bis(2-Ethylhexyl) Phthalate****	1.21	Average Monthly	TMS

** Only 3 sample results are available for Free Cyanide and 2 of them are reported as Non-Detect. There are no industrial dischargers in the STP's service area and facility does not use any chemicals that contain this parameter. Monitoring is recommended for draft permit, to collect more data and will be evaluated at the next permit renewal.

*** Only 3 sample results are available for Acrolein and all of them are reported as Non-Detect. There are no industrial dischargers in the STP's service area and facility does not use any chemicals that contain this parameter. Monitoring is recommended for draft permit, to collect more data and will be evaluated at the next permit renewal.

**** This is a new limit and a 2-year compliance time is provided in the draft permit to meet the permit effluent limit. The standard condition to conduct the site -specific data collection studies and toxic reduction evaluation is also included in Part C of the permit.

We suggest the facility to use the best available technology to achieve the DEP recommended Target QLs for effluent analyses in the future.

Anti-Backsliding

* Existing permit has a Daily Maximum limit of 0.75 mg/l for Aluminum. However, based on the new sampling results and the reasonable potential analysis conducted by TMS, the recommended limits are 0.75 mg/l (average monthly) and 1.03 mg/l (daily maximum). New monitoring data constitutes new information and the anti-backsliding exception apply here.

See the below TMS Report:



Discharge Information

Instructions Discharge Stream

Facility: Taylor Run STP NPDES Permit No.: PA0026018 Outfall No.: 001
Evaluation Type: Major Sewage / Industrial Waste Wastewater Description: treated sewage

Discharge Characteristics								
Design Flow (MGD)*	Hardness (mg/l)*	pH (SU)*	Partial Mix Factors (PMFs)				Complete Mix Times (min)	
			AFC	CFC	THH	CRL	Q ₇₋₁₀	Q _h
1.5	177	6.8						

				0 if left blank		0.5 if left blank		0 if left blank			1 if left blank			
Discharge Pollutant				Units	Max Discharge Conc	Trib Conc	Stream Conc	Daily CV	Hourly CV	Stream CV	Fate Coeff	FOS	Criteria Mod	Chem Transl
Group 1	Total Dissolved Solids (PWS)	mg/L		570										
	Chloride (PWS)	mg/L		180										
	Bromide	mg/L	<	2.5										
	Sulfate (PWS)	mg/L		54										
	Fluoride (PWS)	mg/L												
Group 2	Total Aluminum	µg/L		930										
	Total Antimony	µg/L	<	1										
	Total Arsenic	µg/L	<	2										
	Total Barium	µg/L		61										
	Total Beryllium	µg/L	<	0.5										
	Total Boron	µg/L		180										
	Total Cadmium	µg/L	<	0.2										
	Total Chromium (III)	µg/L	<	5										
	Hexavalent Chromium	µg/L	<	5										
	Total Cobalt	µg/L		0.17										
	Total Copper	µg/L		7.9										
	Free Cyanide	µg/L		9										
	Total Cyanide	µg/L	<	10										
	Dissolved Iron	µg/L		49										
	Total Iron	µg/L	<	200										
	Total Lead	µg/L		0.43										
	Total Manganese	µg/L		14										
	Total Mercury	µg/L	<	0.2										
	Total Nickel	µg/L		2										
	Total Phenols (Phenolics) (PWS)	µg/L	<	20										
	Total Selenium	µg/L		0.33										
	Total Silver	µg/L	<	0.5										
	Total Thallium	µg/L	<	0.5										
	Total Zinc	µg/L		41										
	Total Molybdenum	µg/L		5.9										
	Acrolein	µg/L	<	3										
	Acrylamide	µg/L	<											
	Acrylonitrile	µg/L	<	1										
	Benzene	µg/L	<	0.5										
	Bromoform	µg/L	<	1										

Group 3	Carbon Tetrachloride	µg/L	<	0.5																		
	Chlorobenzene	µg/L	<	1																		
	Chlorodibromomethane	µg/L	<	0.5																		
	Chloroethane	µg/L	<	1																		
	2-Chloroethyl Vinyl Ether	µg/L	<	1																		
	Chloroform	µg/L		2.2																		
	Dichlorobromomethane	µg/L		0.27																		
	1,1-Dichloroethane	µg/L	<	1																		
	1,2-Dichloroethane	µg/L	<	1																		
	1,1-Dichloroethylene	µg/L	<	1																		
	1,2-Dichloropropane	µg/L	<	0.5																		
	1,3-Dichloropropylene	µg/L	<	0.5																		
	1,4-Dioxane	µg/L	<																			
	Ethylbenzene	µg/L	<	1																		
	Methyl Bromide	µg/L	<	0.555																		
	Methyl Chloride	µg/L	<	1																		
	Methylene Chloride	µg/L	<	1																		
	1,1,2,2-Tetrachloroethane	µg/L	<	0.5																		
	Tetrachloroethylene	µg/L	<	1																		
	Toluene	µg/L	<	1																		
	1,2-trans-Dichloroethylene	µg/L	<	1																		
	1,1,1-Trichloroethane	µg/L	<	1																		
	1,1,2-Trichloroethane	µg/L	<	0.5																		
	Trichloroethylene	µg/L	<	0.5																		
	Vinyl Chloride	µg/L	<	0.5																		
Group 4	2-Chlorophenol	µg/L	<	0.47																		
	2,4-Dichlorophenol	µg/L	<	0.57																		
	2,4-Dimethylphenol	µg/L	<	0.8																		
	4,6-Dinitro-o-Cresol	µg/L	<	0.64																		
	2,4-Dinitrophenol	µg/L	<	0.95																		
	2-Nitrophenol	µg/L	<	0.6																		
	4-Nitrophenol	µg/L	<	0.56																		
	p-Chloro-m-Cresol	µg/L	<	0.45																		
	Pentachlorophenol	µg/L	<	0.56																		
	Phenol	µg/L	<	0.94																		
	2,4,6-Trichlorophenol	µg/L	<	0.29																		
Group 5	Acenaphthene	µg/L	<	0.76																		
	Acenaphthylene	µg/L	<	0.64																		
	Anthracene	µg/L	<	0.68																		
	Benazidine	µg/L	<	9.36																		
	Benzo(a)Anthracene	µg/L	<	0.67																		
	Benzo(a)Pyrene	µg/L	<	0.56																		
	3,4-Benzofluoranthene	µg/L	<	0.85																		
	Benzo(ghi)Perylene	µg/L	<	0.49																		
	Benzo(k)Fluoranthene	µg/L	<	0.5																		
	Bis(2-Chloroethoxy)Methane	µg/L	<	0.76																		
	Bis(2-Chloroethyl)Ether	µg/L	<	0.66																		
	Bis(2-Chloroisopropyl)Ether	µg/L	<	0.76																		
	Bis(2-Ethylhexyl)Phthalate	µg/L		6.8																		
	4-Bromophenyl Phenyl Ether	µg/L	<	0.54																		
	Butyl Benzyl Phthalate	µg/L	<	0.59																		
	2-Chloronaphthalene	µg/L	<	0.66																		
	4-Chlorophenyl Phenyl Ether	µg/L	<	0.44																		
	Chrysene	µg/L	<	0.64																		
	Dibenzo(a,h)Anthracene	µg/L	<	2.25																		
	1,2-Dichlorobenzene	µg/L	<	0.22																		
	1,3-Dichlorobenzene	µg/L	<	0.29																		
	1,4-Dichlorobenzene	µg/L	<	0.33																		
	3,3-Dichlorobenzidine	µg/L	<	0.55																		
	Diethyl Phthalate	µg/L	<	0.69																		
	Dimethyl Phthalate	µg/L	<	1.3																		
	Di-n-Butyl Phthalate	µg/L	<	0.65																		
	2,4-Dinitrotoluene	µg/L	<	0.66																		

[illegible]



Stream / Surface Water Information

Taylor Run STP , NPDES Permit No. PA0026018, Outfall 001

Instructions Discharge **Stream**

Receiving Surface Water Name: Taylor Run

No. Reaches to Model: 1

- ☒ Statewide Criteria
☐ Great Lakes Criteria
☐ ORSANCO Criteria

Location	Stream Code*	RMI*	Elevation (ft)*	DA (mi ²)*	Slope (ft/ft)	PWS Withdrawal (MGD)	Apply Fish Criteria*
Point of Discharge	000236	2.33	247	3.41			Yes
End of Reach 1	000236	0	187	5.64			Yes

Q₇₋₁₀

Location	RMI	LFY (cfs/mi ²)*	Flow (cfs)		W/D Ratio	Width (ft)	Depth (ft)	Velocity (fps)	Travel Time (days)	Tributary		Stream		Analysis	
			Stream	Tributary						Hardness	pH	Hardness*	pH*	Hardness	pH
Point of Discharge	2.33	0.1	0.856									192	7		
End of Reach 1	0	0.1	1.25												

Q_h

Location	RMI	LFY (cfs/mi ²)*	Flow (cfs)		W/D Ratio	Width (ft)	Depth (ft)	Velocity (fps)	Travel Time (days)	Tributary		Stream		Analysis	
			Stream	Tributary						Hardness	pH	Hardness	pH	Hardness	pH
Point of Discharge	2.33														
End of Reach 1	0														



Toxics Management Spreadsheet
Version 1.3, March 2021

Model Results

Taylor Run STP, NPDES Permit No. PA0026018, Outfall 001

Instructions

Results

RETURN TO INPUTS

SAVE AS PDF

PRINT

☒ All

☐ Inputs

☐ Results

☐ Limits

☐ Hydrodynamics

☒ Wasteload Allocations

☒ AFC

CCT (min): 0.945

PMF: 1

Analysis Hardness (mg/l): 181.04

Analysis pH: 6.85

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	N/A	N/A	N/A	
Chloride (PWS)	0	0		0	N/A	N/A	N/A	
Sulfate (PWS)	0	0		0	N/A	N/A	N/A	
Total Aluminum	0	0		0	750	750	1,027	
Total Antimony	0	0		0	1,100	1,100	1,506	
Total Arsenic	0	0		0	340	340	465	Chem Translator of 1 applied
Total Barium	0	0		0	21,000	21,000	28,747	
Total Boron	0	0		0	8,100	8,100	11,088	
Total Cadmium	0	0		0	3.585	3.9	5.34	Chem Translator of 0.919 applied
Total Chromium (III)	0	0		0	926.438	2,932	4,013	Chem Translator of 0.316 applied
Hexavalent Chromium	0	0		0	16	16.3	22.3	Chem Translator of 0.982 applied
Total Cobalt	0	0		0	95	95.0	130	
Total Copper	0	0		0	23.510	24.5	33.5	Chem Translator of 0.96 applied
Free Cyanide	0	0		0	22	22.0	30.1	
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	122.454	174	238	Chem Translator of 0.705 applied
Total Manganese	0	0		0	N/A	N/A	N/A	
Total Mercury	0	0		0	1.400	1.65	2.25	Chem Translator of 0.85 applied
Total Nickel	0	0		0	773.653	775	1,061	Chem Translator of 0.998 applied
Total Phenols (Phenolics) (PWS)	0	0		0	N/A	N/A	N/A	
Total Selenium	0	0		0	N/A	N/A	N/A	Chem Translator of 0.922 applied
Total Silver	0	0		0	8.929	10.5	14.4	Chem Translator of 0.85 applied
Total Thallium	0	0		0	65	65.0	89.0	
Total Zinc	0	0		0	193.764	198	271	Chem Translator of 0.978 applied
Acrolein	0	0		0	3	3.0	4.11	

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Acrylonitrile	0	0		0	650	650	890
Benzene	0	0		0	640	640	876
Bromoform	0	0		0	1,800	1,800	2,464
Carbon Tetrachloride	0	0		0	2,800	2,800	3,833
Chlorobenzene	0	0		0	1,200	1,200	1,643
Chlorodibromomethane	0	0		0	N/A	N/A	N/A
2-Chloroethyl Vinyl Ether	0	0		0	18,000	18,000	24,640
Chloroform	0	0		0	1,900	1,900	2,601
Dichlorobromomethane	0	0		0	N/A	N/A	N/A
1,2-Dichloroethane	0	0		0	15,000	15,000	20,533
1,1-Dichloroethylene	0	0		0	7,500	7,500	10,267
1,2-Dichloropropane	0	0		0	11,000	11,000	15,058
1,3-Dichloropropylene	0	0		0	310	310	424
Ethylbenzene	0	0		0	2,900	2,900	3,970
Methyl Bromide	0	0		0	550	550	753
Methyl Chloride	0	0		0	28,000	28,000	38,329
Methylene Chloride	0	0		0	12,000	12,000	16,427
1,1,2,2-Tetrachloroethane	0	0		0	1,000	1,000	1,369
Tetrachloroethylene	0	0		0	700	700	958
Toluene	0	0		0	1,700	1,700	2,327
1,2-trans-Dichloroethylene	0	0		0	6,800	6,800	9,308
1,1,1-Trichloroethane	0	0		0	3,000	3,000	4,107
1,1,2-Trichloroethane	0	0		0	3,400	3,400	4,654
Trichloroethylene	0	0		0	2,300	2,300	3,148
Vinyl Chloride	0	0		0	N/A	N/A	N/A
2-Chlorophenol	0	0		0	560	560	767
2,4-Dichlorophenol	0	0		0	1,700	1,700	2,327
2,4-Dimethylphenol	0	0		0	660	660	903
4,6-Dinitro-o-Cresol	0	0		0	80	80.0	110
2,4-Dinitrophenol	0	0		0	660	660	903
2-Nitrophenol	0	0		0	8,000	8,000	10,951
4-Nitrophenol	0	0		0	2,300	2,300	3,148
p-Chloro-m-Cresol	0	0		0	160	160	219
Pentachlorophenol	0	0		0	7.469	7.47	10.2
Phenol	0	0		0	N/A	N/A	N/A
2,4,6-Trichlorophenol	0	0		0	460	460	630
Acenaphthene	0	0		0	83	83.0	114
Anthracene	0	0		0	N/A	N/A	N/A
Benzidine	0	0		0	300	300	411
Benzo(a)Anthracene	0	0		0	0.5	0.5	0.68
Benzo(a)Pyrene	0	0		0	N/A	N/A	N/A
3,4-Benzofluoranthene	0	0		0	N/A	N/A	N/A
Benzo(k)Fluoranthene	0	0		0	N/A	N/A	N/A
Bis(2-Chloroethyl)Ether	0	0		0	30,000	30,000	41,067
Bis(2-Chloroisopropyl)Ether	0	0		0	N/A	N/A	N/A
Bis(2-Ethylhexyl)Phthalate	0	0		0	4,500	4,500	6,160
4-Bromophenyl Phenyl Ether	0	0		0	270	270	370
Butyl Benzyl Phthalate	0	0		0	140	140	192

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2-Chloronaphthalene	0	0		0	N/A	N/A	N/A
Chrysene	0	0		0	N/A	N/A	N/A
Dibenzo(a,h)Anthracene	0	0		0	N/A	N/A	N/A
1,2-Dichlorobenzene	0	0		0	820	820	1,122
1,3-Dichlorobenzene	0	0		0	350	350	479
1,4-Dichlorobenzene	0	0		0	730	730	999
3,3-Dichlorobenzidine	0	0		0	N/A	N/A	N/A
Diethyl Phthalate	0	0		0	4,000	4,000	5,476
Dimethyl Phthalate	0	0		0	2,500	2,500	3,422
Di-n-Butyl Phthalate	0	0		0	110	110	151
2,4-Dinitrotoluene	0	0		0	1,600	1,600	2,190
2,6-Dinitrotoluene	0	0		0	990	990	1,355
1,2-Diphenylhydrazine	0	0		0	15	15.0	20.5
Fluoranthene	0	0		0	200	200	274
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	13.7
Hexachlorocyclopentadiene	0	0		0	5	5.0	6.84
Hexachloroethane	0	0		0	60	60.0	82.1
Indeno(1,2,3-cd)Pyrene	0	0		0	N/A	N/A	N/A
Isophorone	0	0		0	10,000	10,000	13,689
Naphthalene	0	0		0	140	140	192
Nitrobenzene	0	0		0	4,000	4,000	5,476
n-Nitrosodimethylamine	0	0		0	17,000	17,000	23,271
n-Nitrosodi-n-Propylamine	0	0		0	N/A	N/A	N/A
n-Nitrosodiphenylamine	0	0		0	300	300	411
Phenanthrene	0	0		0	5	5.0	6.84
Pyrene	0	0		0	N/A	N/A	N/A
1,2,4-Trichlorobenzene	0	0		0	130	130	178

☒ **CFC**

CCT (min): **0.945**

PMF: **1**

Analysis Hardness (mg/l): **181.04**

Analysis pH: **6.85**

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	N/A	N/A	N/A	
Chloride (PWS)	0	0		0	N/A	N/A	N/A	
Sulfate (PWS)	0	0		0	N/A	N/A	N/A	
Total Aluminum	0	0		0	N/A	N/A	N/A	
Total Antimony	0	0		0	220	220	301	
Total Arsenic	0	0		0	150	150	205	Chem Translator of 1 applied
Total Barium	0	0		0	4,100	4,100	5,612	
Total Boron	0	0		0	1,600	1,600	2,190	
Total Cadmium	0	0		0	0.371	0.42	0.58	Chem Translator of 0.884 applied
Total Chromium (III)	0	0		0	120.511	140	192	Chem Translator of 0.86 applied
Hexavalent Chromium	0	0		0	10	10.4	14.2	Chem Translator of 0.962 applied
Total Cobalt	0	0		0	19	19.0	26.0	
Total Copper	0	0		0	14.872	15.5	21.2	Chem Translator of 0.96 applied

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Free Cyanide	0	0		0	5.2	5.2	7.12	
Dissolved Iron	0	0		0	N/A	N/A	N/A	
Total Iron	0	0		0	1,500	1,500	2,053	WQC = 30 day average; PMF = 1
Total Lead	0	0		0	4.772	6.77	9.27	Chem Translator of 0.705 applied
Total Manganese	0	0		0	N/A	N/A	N/A	
Total Mercury	0	0		0	0.770	0.91	1.24	Chem Translator of 0.85 applied
Total Nickel	0	0		0	85.929	86.2	118	Chem Translator of 0.997 applied
Total Phenols (Phenolics) (PWS)	0	0		0	N/A	N/A	N/A	
Total Selenium	0	0		0	4.600	4.99	6.83	Chem Translator of 0.922 applied
Total Silver	0	0		0	N/A	N/A	N/A	Chem Translator of 1 applied
Total Thallium	0	0		0	13	13.0	17.8	
Total Zinc	0	0		0	195.348	198	271	Chem Translator of 0.986 applied
Acrolein	0	0		0	3	3.0	4.11	
Acrylonitrile	0	0		0	130	130	178	
Benzene	0	0		0	130	130	178	
Bromoform	0	0		0	370	370	506	
Carbon Tetrachloride	0	0		0	560	560	767	
Chlorobenzene	0	0		0	240	240	329	
Chlorodibromomethane	0	0		0	N/A	N/A	N/A	
2-Chloroethyl Vinyl Ether	0	0		0	3,500	3,500	4,791	
Chloroform	0	0		0	390	390	534	
Dichlorobromomethane	0	0		0	N/A	N/A	N/A	
1,2-Dichloroethane	0	0		0	3,100	3,100	4,244	
1,1-Dichloroethylene	0	0		0	1,500	1,500	2,053	
1,2-Dichloropropane	0	0		0	2,200	2,200	3,012	
1,3-Dichloropropylene	0	0		0	61	61.0	83.5	
Ethylbenzene	0	0		0	580	580	794	
Methyl Bromide	0	0		0	110	110	151	
Methyl Chloride	0	0		0	5,500	5,500	7,529	
Methylene Chloride	0	0		0	2,400	2,400	3,285	
1,1,2,2-Tetrachloroethane	0	0		0	210	210	287	
Tetrachloroethylene	0	0		0	140	140	192	
Toluene	0	0		0	330	330	452	
1,2-trans-Dichloroethylene	0	0		0	1,400	1,400	1,916	
1,1,1-Trichloroethane	0	0		0	610	610	835	
1,1,2-Trichloroethane	0	0		0	680	680	931	
Trichloroethylene	0	0		0	450	450	616	
Vinyl Chloride	0	0		0	N/A	N/A	N/A	
2-Chlorophenol	0	0		0	110	110	151	
2,4-Dichlorophenol	0	0		0	340	340	465	
2,4-Dimethylphenol	0	0		0	130	130	178	
4,6-Dinitro-o-Cresol	0	0		0	16	16.0	21.9	
2,4-Dinitrophenol	0	0		0	130	130	178	
2-Nitrophenol	0	0		0	1,600	1,600	2,190	
4-Nitrophenol	0	0		0	470	470	643	

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p-Chloro-m-Cresol	0	0		0	500	500	684
Pentachlorophenol	0	0		0	5,730	5.73	7.84
Phenol	0	0		0	N/A	N/A	N/A
2,4,6-Trichlorophenol	0	0		0	91	91.0	125
Acenaphthene	0	0		0	17	17.0	23.3
Anthracene	0	0		0	N/A	N/A	N/A
Benzidine	0	0		0	59	59.0	80.8
Benzo(a)Anthracene	0	0		0	0.1	0.1	0.14
Benzo(a)Pyrene	0	0		0	N/A	N/A	N/A
3,4-Benzofluoranthene	0	0		0	N/A	N/A	N/A
Benzo(k)Fluoranthene	0	0		0	N/A	N/A	N/A
Bis(2-Chloroethyl)Ether	0	0		0	6,000	6,000	8,213
Bis(2-Chloroisopropyl)Ether	0	0		0	N/A	N/A	N/A
Bis(2-Ethylhexyl)Phthalate	0	0		0	910	910	1,246
4-Bromophenyl Phenyl Ether	0	0		0	54	54.0	73.9
Butyl Benzyl Phthalate	0	0		0	35	35.0	47.9
2-Chloronaphthalene	0	0		0	N/A	N/A	N/A
Chrysene	0	0		0	N/A	N/A	N/A
Dibenzo(a,h)Anthracene	0	0		0	N/A	N/A	N/A
1,2-Dichlorobenzene	0	0		0	160	160	219
1,3-Dichlorobenzene	0	0		0	69	69.0	94.5
1,4-Dichlorobenzene	0	0		0	150	150	205
3,3-Dichlorobenzidine	0	0		0	N/A	N/A	N/A
Diethyl Phthalate	0	0		0	800	800	1,095
Dimethyl Phthalate	0	0		0	500	500	684
Di-n-Butyl Phthalate	0	0		0	21	21.0	28.7
2,4-Dinitrotoluene	0	0		0	320	320	438
2,6-Dinitrotoluene	0	0		0	200	200	274
1,2-Diphenylhydrazine	0	0		0	3	3.0	4.11
Fluoranthene	0	0		0	40	40.0	54.8
Fluorene	0	0		0	N/A	N/A	N/A
Hexachlorobenzene	0	0		0	N/A	N/A	N/A
Hexachlorobutadiene	0	0		0	2	2.0	2.74
Hexachlorocyclopentadiene	0	0		0	1	1.0	1.37
Hexachloroethane	0	0		0	12	12.0	16.4
Indeno(1,2,3-cd)Pyrene	0	0		0	N/A	N/A	N/A
Isophorone	0	0		0	2,100	2,100	2,875
Naphthalene	0	0		0	43	43.0	58.9
Nitrobenzene	0	0		0	810	810	1,109
n-Nitrosodimethylamine	0	0		0	3,400	3,400	4,654
n-Nitrosodi-n-Propylamine	0	0		0	N/A	N/A	N/A
n-Nitrosodiphenylamine	0	0		0	59	59.0	80.8
Phenanthrene	0	0		0	1	1.0	1.37
Pyrene	0	0		0	N/A	N/A	N/A
1,2,4-Trichlorobenzene	0	0		0	26	26.0	35.6

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☒ **THH**

CCT (min): **0.945**

PMF: **1**

Analysis Hardness (mg/l): **N/A**

Analysis pH: **N/A**

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	500,000	500,000	N/A	
Chloride (PWS)	0	0		0	250,000	250,000	N/A	
Sulfate (PWS)	0	0		0	250,000	250,000	N/A	
Total Aluminum	0	0		0	N/A	N/A	N/A	
Total Antimony	0	0		0	5.6	5.6	7.67	
Total Arsenic	0	0		0	10	10.0	13.7	
Total Barium	0	0		0	2,400	2,400	3,285	
Total Boron	0	0		0	3,100	3,100	4,244	
Total Cadmium	0	0		0	N/A	N/A	N/A	
Total Chromium (III)	0	0		0	N/A	N/A	N/A	
Hexavalent Chromium	0	0		0	N/A	N/A	N/A	
Total Cobalt	0	0		0	N/A	N/A	N/A	
Total Copper	0	0		0	N/A	N/A	N/A	
Free Cyanide	0	0		0	4	4.0	5.48	
Dissolved Iron	0	0		0	300	300	411	
Total Iron	0	0		0	N/A	N/A	N/A	
Total Lead	0	0		0	N/A	N/A	N/A	
Total Manganese	0	0		0	1,000	1,000	1,369	
Total Mercury	0	0		0	0.050	0.05	0.068	
Total Nickel	0	0		0	610	610	835	
Total Phenols (Phenolics) (PWS)	0	0		0	5	5.0	N/A	
Total Selenium	0	0		0	N/A	N/A	N/A	
Total Silver	0	0		0	N/A	N/A	N/A	
Total Thallium	0	0		0	0.24	0.24	0.33	
Total Zinc	0	0		0	N/A	N/A	N/A	
Acrolein	0	0		0	3	3.0	4.11	
Acrylonitrile	0	0		0	N/A	N/A	N/A	
Benzene	0	0		0	N/A	N/A	N/A	
Bromoform	0	0		0	N/A	N/A	N/A	
Carbon Tetrachloride	0	0		0	N/A	N/A	N/A	
Chlorobenzene	0	0		0	100	100.0	137	
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	7.8	
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	45.2	
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	93.1	

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Methyl Bromide	0	0		0	100	100.0	137	
Methyl Chloride	0	0		0	N/A	N/A	N/A	
Methylene Chloride	0	0		0	N/A	N/A	N/A	
1,1,2,2-Tetrachloroethane	0	0		0	N/A	N/A	N/A	
Tetrachloroethylene	0	0		0	N/A	N/A	N/A	
Toluene	0	0		0	57	57.0	78.0	
1,2-trans-Dichloroethylene	0	0		0	100	100.0	137	
1,1,1-Trichloroethane	0	0		0	10,000	10,000	13,689	
1,1,2-Trichloroethane	0	0		0	N/A	N/A	N/A	
Trichloroethylene	0	0		0	N/A	N/A	N/A	
Vinyl Chloride	0	0		0	N/A	N/A	N/A	
2-Chlorophenol	0	0		0	30	30.0	41.1	
2,4-Dichlorophenol	0	0		0	10	10.0	13.7	
2,4-Dimethylphenol	0	0		0	100	100.0	137	
4,6-Dinitro-o-Cresol	0	0		0	2	2.0	2.74	
2,4-Dinitrophenol	0	0		0	10	10.0	13.7	
2-Nitrophenol	0	0		0	N/A	N/A	N/A	
4-Nitrophenol	0	0		0	N/A	N/A	N/A	
p-Chloro-m-Cresol	0	0		0	N/A	N/A	N/A	
Pentachlorophenol	0	0		0	N/A	N/A	N/A	
Phenol	0	0		0	4,000	4,000	5,476	
2,4,6-Trichlorophenol	0	0		0	N/A	N/A	N/A	
Acenaphthene	0	0		0	70	70.0	95.8	
Anthracene	0	0		0	300	300	411	
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	274	
Bis(2-Ethylhexyl)Phthalate	0	0		0	N/A	N/A	N/A	
4-Bromophenyl Phenyl Ether	0	0		0	N/A	N/A	N/A	
Butyl Benzyl Phthalate	0	0		0	0.1	0.1	0.14	
2-Chloronaphthalene	0	0		0	800	800	1,095	
Chrysene	0	0		0	N/A	N/A	N/A	
Dibenzo(a,h)Anthracene	0	0		0	N/A	N/A	N/A	
1,2-Dichlorobenzene	0	0		0	1,000	1,000	1,369	
1,3-Dichlorobenzene	0	0		0	7	7.0	9.58	
1,4-Dichlorobenzene	0	0		0	300	300	411	
3,3-Dichlorobenzidine	0	0		0	N/A	N/A	N/A	
Diethyl Phthalate	0	0		0	600	600	821	
Dimethyl Phthalate	0	0		0	2,000	2,000	2,738	
Di-n-Butyl Phthalate	0	0		0	20	20.0	27.4	
2,4-Dinitrotoluene	0	0		0	N/A	N/A	N/A	

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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	27.4
Fluorene	0	0		0	50	50.0	68.4
Hexachlorobenzene	0	0		0	N/A	N/A	N/A
Hexachlorobutadiene	0	0		0	N/A	N/A	N/A
Hexachlorocyclopentadiene	0	0		0	4	4.0	5.48
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	46.5
Naphthalene	0	0		0	N/A	N/A	N/A
Nitrobenzene	0	0		0	10	10.0	13.7
n-Nitrosodimethylamine	0	0		0	N/A	N/A	N/A
n-Nitrosodi-n-Propylamine	0	0		0	N/A	N/A	N/A
n-Nitrosodiphenylamine	0	0		0	N/A	N/A	N/A
Phenanthrene	0	0		0	N/A	N/A	N/A
Pyrene	0	0		0	20	20.0	27.4
1,2,4-Trichlorobenzene	0	0		0	0.07	0.07	0.096

☒ CRL

CCT (min): 3.602

PMF: 1

Analysis Hardness (mg/l): N/A

Analysis pH: N/A

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	N/A	N/A	N/A	
Chloride (PWS)	0	0		0	N/A	N/A	N/A	
Sulfate (PWS)	0	0		0	N/A	N/A	N/A	
Total Aluminum	0	0		0	N/A	N/A	N/A	
Total Antimony	0	0		0	N/A	N/A	N/A	
Total Arsenic	0	0		0	N/A	N/A	N/A	
Total Barium	0	0		0	N/A	N/A	N/A	
Total Boron	0	0		0	N/A	N/A	N/A	
Total Cadmium	0	0		0	N/A	N/A	N/A	
Total Chromium (III)	0	0		0	N/A	N/A	N/A	
Hexavalent Chromium	0	0		0	N/A	N/A	N/A	
Total Cobalt	0	0		0	N/A	N/A	N/A	
Total Copper	0	0		0	N/A	N/A	N/A	
Free Cyanide	0	0		0	N/A	N/A	N/A	
Dissolved Iron	0	0		0	N/A	N/A	N/A	
Total Iron	0	0		0	N/A	N/A	N/A	
Total Lead	0	0		0	N/A	N/A	N/A	
Total Manganese	0	0		0	N/A	N/A	N/A	
Total Mercury	0	0		0	N/A	N/A	N/A	
Total Nickel	0	0		0	N/A	N/A	N/A	
Total Phenols (Phenolics) (PWS)	0	0		0	N/A	N/A	N/A	
Total Selenium	0	0		0	N/A	N/A	N/A	

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Total Silver	0	0		0	N/A	N/A	N/A
Total Thallium	0	0		0	N/A	N/A	N/A
Total Zinc	0	0		0	N/A	N/A	N/A
Acrolein	0	0		0	N/A	N/A	N/A
Acrylonitrile	0	0		0	0.06	0.06	0.23
Benzene	0	0		0	0.58	0.58	2.2
Bromoform	0	0		0	7	7.0	26.6
Carbon Tetrachloride	0	0		0	0.4	0.4	1.52
Chlorobenzene	0	0		0	N/A	N/A	N/A
Chlorodibromomethane	0	0		0	0.8	0.8	3.04
2-Chloroethyl Vinyl Ether	0	0		0	N/A	N/A	N/A
Chloroform	0	0		0	N/A	N/A	N/A
Dichlorobromomethane	0	0		0	0.95	0.95	3.61
1,2-Dichloroethane	0	0		0	9.9	9.9	37.6
1,1-Dichloroethylene	0	0		0	N/A	N/A	N/A
1,2-Dichloropropane	0	0		0	0.9	0.9	3.42
1,3-Dichloropropylene	0	0		0	0.27	0.27	1.02
Ethylbenzene	0	0		0	N/A	N/A	N/A
Methyl Bromide	0	0		0	N/A	N/A	N/A
Methyl Chloride	0	0		0	N/A	N/A	N/A
Methylene Chloride	0	0		0	20	20.0	75.9
1,1,2,2-Tetrachloroethane	0	0		0	0.2	0.2	0.76
Tetrachloroethylene	0	0		0	10	10.0	38.0
Toluene	0	0		0	N/A	N/A	N/A
1,2-trans-Dichloroethylene	0	0		0	N/A	N/A	N/A
1,1,1-Trichloroethane	0	0		0	N/A	N/A	N/A
1,1,2-Trichloroethane	0	0		0	0.55	0.55	2.09
Trichloroethylene	0	0		0	0.6	0.6	2.28
Vinyl Chloride	0	0		0	0.02	0.02	0.076
2-Chlorophenol	0	0		0	N/A	N/A	N/A
2,4-Dichlorophenol	0	0		0	N/A	N/A	N/A
2,4-Dimethylphenol	0	0		0	N/A	N/A	N/A
4,6-Dinitro-o-Cresol	0	0		0	N/A	N/A	N/A
2,4-Dinitrophenol	0	0		0	N/A	N/A	N/A
2-Nitrophenol	0	0		0	N/A	N/A	N/A
4-Nitrophenol	0	0		0	N/A	N/A	N/A
p-Chloro-m-Cresol	0	0		0	N/A	N/A	N/A
Pentachlorophenol	0	0		0	0.030	0.03	0.11
Phenol	0	0		0	N/A	N/A	N/A
2,4,6-Trichlorophenol	0	0		0	1.5	1.5	5.69
Acenaphthene	0	0		0	N/A	N/A	N/A
Anthracene	0	0		0	N/A	N/A	N/A
Benzidine	0	0		0	0.0001	0.0001	0.0004
Benzo(a)Anthracene	0	0		0	0.001	0.001	0.004
Benzo(a)Pyrene	0	0		0	0.0001	0.0001	0.0004

3,4-Benzofluoranthene	0	0		0	0.001	0.001	0.004
Benzo(k)Fluoranthene	0	0		0	0.01	0.01	0.038
Bis(2-Chloroethyl)Ether	0	0		0	0.03	0.03	0.11
Bis(2-Chloroisopropyl)Ether	0	0		0	N/A	N/A	N/A
Bis(2-Ethylhexyl)Phthalate	0	0		0	0.32	0.32	1.21
4-Bromophenyl Phenyl Ether	0	0		0	N/A	N/A	N/A
Butyl Benzyl Phthalate	0	0		0	N/A	N/A	N/A
2-Chloronaphthalene	0	0		0	N/A	N/A	N/A
Chrysene	0	0		0	0.12	0.12	0.46
Dibenzo(a,h)Anthracene	0	0		0	0.0001	0.0001	0.0004
1,2-Dichlorobenzene	0	0		0	N/A	N/A	N/A
1,3-Dichlorobenzene	0	0		0	N/A	N/A	N/A
1,4-Dichlorobenzene	0	0		0	N/A	N/A	N/A
3,3-Dichlorobenzidine	0	0		0	0.05	0.05	0.19
Diethyl Phthalate	0	0		0	N/A	N/A	N/A
Dimethyl Phthalate	0	0		0	N/A	N/A	N/A
Di-n-Butyl Phthalate	0	0		0	N/A	N/A	N/A
2,4-Dinitrotoluene	0	0		0	0.05	0.05	0.19
2,6-Dinitrotoluene	0	0		0	0.05	0.05	0.19
1,2-Diphenylhydrazine	0	0		0	0.03	0.03	0.11
Fluoranthene	0	0		0	N/A	N/A	N/A
Fluorene	0	0		0	N/A	N/A	N/A
Hexachlorobenzene	0	0		0	0.00008	0.00008	0.0003
Hexachlorobutadiene	0	0		0	0.01	0.01	0.038
Hexachlorocyclopentadiene	0	0		0	N/A	N/A	N/A
Hexachloroethane	0	0		0	0.1	0.1	0.38
Indeno(1,2,3-cd)Pyrene	0	0		0	0.001	0.001	0.004
Isophorone	0	0		0	N/A	N/A	N/A
Naphthalene	0	0		0	N/A	N/A	N/A
Nitrobenzene	0	0		0	N/A	N/A	N/A
n-Nitrosodimethylamine	0	0		0	0.0007	0.0007	0.003
n-Nitrosodi-n-Propylamine	0	0		0	0.005	0.005	0.019
n-Nitrosodiphenylamine	0	0		0	3.3	3.3	12.5
Phenanthrene	0	0		0	N/A	N/A	N/A
Pyrene	0	0		0	N/A	N/A	N/A
1,2,4-Trichlorobenzene	0	0		0	N/A	N/A	N/A

☒ Recommended WQBELs & Monitoring Requirements

No. Samples/Month: 4

Pollutants	Mass Limits		Concentration Limits				Governing WQBEL	WQBEL Basis	Comments
	AML (lbs/day)	MDL (lbs/day)	AML	MDL	IMAX	Units			
Total Aluminum	9.38	12.8	750	1,027	1,027	µg/L	750	AFC	Discharge Conc ≥ 50% WQBEL (RP)

☒ **Other Pollutants without Limits or Monitoring**

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 Antimony	N/A	N/A	Discharge Conc < TQL
Total Arsenic	N/A	N/A	Discharge Conc < TQL
Total Barium	3,285	µg/L	Discharge Conc ≤ 10% WQBEL
Total Beryllium	N/A	N/A	No WQS
Total Boron	2,190	µg/L	Discharge Conc ≤ 10% WQBEL
Total Cadmium	0.58	µg/L	Discharge Conc < TQL
Total Chromium (III)	192	µg/L	Discharge Conc ≤ 10% WQBEL
Total Cobalt	26.0	µg/L	Discharge Conc ≤ 10% WQBEL
Total Cyanide	N/A	N/A	No WQS
Total Iron	2,053	µg/L	Discharge Conc ≤ 10% WQBEL
Total Lead	9.27	µg/L	Discharge Conc ≤ 10% WQBEL
Total Manganese	1,369	µg/L	Discharge Conc ≤ 10% WQBEL
Total Mercury	0.068	µa/L	Discharge Conc < TQL

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Total Nickel	118	µg/L	Discharge Conc ≤ 10% WQBEL
Total Phenols (Phenolics) (PWS)		µg/L	PWS Not Applicable
Total Selenium	6.83	µg/L	Discharge Conc ≤ 10% WQBEL
Total Silver	10.5	µg/L	Discharge Conc ≤ 10% WQBEL
Total Thallium	0.33	µg/L	Discharge Conc < TQL
Total Molybdenum	N/A	N/A	No WQS
Acrylonitrile	0.23	µg/L	Discharge Conc < TQL
Benzene	2.2	µg/L	Discharge Conc < TQL
Bromoform	26.6	µg/L	Discharge Conc ≤ 25% WQBEL
Carbon Tetrachloride	1.52	µg/L	Discharge Conc < TQL
Chlorobenzene	137	µg/L	Discharge Conc ≤ 25% WQBEL
Chlorodibromomethane	3.04	µg/L	Discharge Conc < TQL
Chloroethane	N/A	N/A	No WQS
2-Chloroethyl Vinyl Ether	4,791	µg/L	Discharge Conc < TQL
Dichlorobromomethane	3.61	µg/L	Discharge Conc ≤ 25% WQBEL
1,1-Dichloroethane	N/A	N/A	No WQS
1,2-Dichloroethane	37.6	µg/L	Discharge Conc ≤ 25% WQBEL
1,1-Dichloroethylene	45.2	µg/L	Discharge Conc ≤ 25% WQBEL
1,2-Dichloropropane	3.42	µg/L	Discharge Conc < TQL
1,3-Dichloropropylene	1.02	µg/L	Discharge Conc < TQL
Ethylbenzene	93.1	µg/L	Discharge Conc ≤ 25% WQBEL
Methyl Bromide	137	µg/L	Discharge Conc ≤ 25% WQBEL
Methyl Chloride	7,529	µg/L	Discharge Conc ≤ 25% WQBEL
Methylene Chloride	75.9	µg/L	Discharge Conc ≤ 25% WQBEL
1,1,2,2-Tetrachloroethane	0.76	µg/L	Discharge Conc < TQL
Tetrachloroethylene	38.0	µg/L	Discharge Conc ≤ 25% WQBEL
Toluene	78.0	µg/L	Discharge Conc ≤ 25% WQBEL
1,2-trans-Dichloroethylene	137	µg/L	Discharge Conc ≤ 25% WQBEL
1,1,1-Trichloroethane	835	µg/L	Discharge Conc ≤ 25% WQBEL
1,1,2-Trichloroethane	2.09	µg/L	Discharge Conc < TQL
Trichloroethylene	2.28	µg/L	Discharge Conc < TQL
Vinyl Chloride	0.076	µg/L	Discharge Conc < TQL
2-Chlorophenol	41.1	µg/L	Discharge Conc < TQL
2,4-Dichlorophenol	13.7	µg/L	Discharge Conc < TQL
2,4-Dimethylphenol	137	µg/L	Discharge Conc < TQL
4,6-Dinitro-o-Cresol	2.74	µg/L	Discharge Conc < TQL
2,4-Dinitrophenol	13.7	µg/L	Discharge Conc < TQL
2-Nitrophenol	2,190	µg/L	Discharge Conc < TQL
4-Nitrophenol	643	µg/L	Discharge Conc < TQL
p-Chloro-m-Cresol	160	µg/L	Discharge Conc < TQL
Pentachlorophenol	0.11	µg/L	Discharge Conc < TQL
Phenol	5,476	µg/L	Discharge Conc < TQL
2,4,6-Trichlorophenol	5.69	µg/L	Discharge Conc < TQL
Acenaphthene	23.3	µg/L	Discharge Conc < TQL
Acenaphthylene	N/A	N/A	No WQS

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Anthracene	411	µg/L	Discharge Conc < TQL
Benzidine	0.0004	µg/L	Discharge Conc < TQL
Benzo(a)Anthracene	0.004	µg/L	Discharge Conc < TQL
Benzo(a)Pyrene	0.0004	µg/L	Discharge Conc < TQL
3,4-Benzofluoranthene	0.004	µg/L	Discharge Conc < TQL
Benzo(ghi)Perylene	N/A	N/A	No WQS
Benzo(k)Fluoranthene	0.038	µg/L	Discharge Conc < TQL
Bis(2-Chloroethoxy)Methane	N/A	N/A	No WQS
Bis(2-Chloroethyl)Ether	0.11	µg/L	Discharge Conc < TQL
Bis(2-Chloroisopropyl)Ether	274	µg/L	Discharge Conc < TQL
4-Bromophenyl Phenyl Ether	73.9	µg/L	Discharge Conc < TQL
Butyl Benzyl Phthalate	0.14	µg/L	Discharge Conc < TQL
2-Chloronaphthalene	1,095	µg/L	Discharge Conc < TQL
4-Chlorophenyl Phenyl Ether	N/A	N/A	No WQS
Chrysene	0.46	µg/L	Discharge Conc < TQL
Dibenzo(a,h)Anthracene	0.0004	µg/L	Discharge Conc < TQL
1,2-Dichlorobenzene	219	µg/L	Discharge Conc < TQL
1,3-Dichlorobenzene	9.58	µg/L	Discharge Conc < TQL
1,4-Dichlorobenzene	205	µg/L	Discharge Conc < TQL
3,3-Dichlorobenzidine	0.19	µg/L	Discharge Conc < TQL
Diethyl Phthalate	821	µg/L	Discharge Conc < TQL
Dimethyl Phthalate	684	µg/L	Discharge Conc < TQL
Di-n-Butyl Phthalate	27.4	µg/L	Discharge Conc < TQL
2,4-Dinitrotoluene	0.19	µg/L	Discharge Conc < TQL
2,6-Dinitrotoluene	0.19	µg/L	Discharge Conc < TQL
Di-n-Octyl Phthalate	N/A	N/A	No WQS
1,2-Diphenylhydrazine	0.11	µg/L	Discharge Conc < TQL
Fluoranthene	27.4	µg/L	Discharge Conc < TQL
Fluorene	68.4	µg/L	Discharge Conc < TQL
Hexachlorobenzene	0.0003	µg/L	Discharge Conc < TQL
Hexachlorobutadiene	0.038	µg/L	Discharge Conc < TQL
Hexachlorocyclopentadiene	1.37	µg/L	Discharge Conc < TQL
Hexachloroethane	0.38	µg/L	Discharge Conc < TQL
Indeno(1,2,3-cd)Pyrene	0.004	µg/L	Discharge Conc < TQL
Isophorone	46.5	µg/L	Discharge Conc < TQL
Naphthalene	58.9	µg/L	Discharge Conc ≤ 25% WQBEL
Nitrobenzene	13.7	µg/L	Discharge Conc < TQL
n-Nitrosodimethylamine	0.003	µg/L	Discharge Conc < TQL
n-Nitrosodi-n-Propylamine	0.019	µg/L	Discharge Conc < TQL
n-Nitrosodiphenylamine	12.5	µg/L	Discharge Conc < TQL
Phenanthrene	1.37	µg/L	Discharge Conc < TQL
Pyrene	27.4	µg/L	Discharge Conc < TQL
1,2,4-Trichlorobenzene	0.096	µg/L	Discharge Conc < TQL

Development of Effluent Limitations			
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Outfall No.	<u>003</u>	Design Flow (MGD)	<u>0</u>
Latitude	<u>39° 58' 4.00"</u>	Longitude	<u>-75° 37' 45.00"</u>
Wastewater Description: <u>Stormwater</u>			

Recommend continuing the existing monitoring requirements for the following stormwater parameters: pH, COBD5, COD, TSS, Oil and Grease, TKN, TP and dissolved Iron.

Outfalls 002 and 004 are not required to monitor similar to the existing permit.

Whole Effluent Toxicity (WET)

For Outfall 001, ☐ **Acute** ☒ **Chronic** WET Testing was completed:

- ☐ For the permit renewal application (4 tests).
☐ Quarterly throughout the permit term.
☐ Quarterly throughout the permit term and a TIE/TRE was conducted.
☒ Other: annually throughout the permit term

The dilution series used for the tests was: 100%, 87%, 73%, 37%, and 18%. The Target Instream Waste Concentration (TIWC) to be used for analysis of the results is: 73%

WET Summary and Evaluation

Facility Name	West Chester Taylor Run
Permit No.	PA0026018
Design Flow (MGD)	1.5
Q ₇₋₁₀ Flow (cfs)	0.856
PMF _a	1
PMF _c	1

Species	Endpoint	Test Results (Pass/Fail)			
		Test Date	Test Date	Test Date	Test Date
<u>Pimephales</u>	Survival	1/4/19	8/22/19	7/21/20	10/5/21
		Pass	Pass	Pass	Pass

Species	Endpoint	Test Results (Pass/Fail)			
		Test Date	Test Date	Test Date	Test Date
<u>Pimephales</u>	Growth	1/4/19	8/22/19	7/21/20	10/5/21
		Pass	Pass	Pass	Pass

Species	Endpoint	Test Results (Pass/Fail)			
		Test Date	Test Date	Test Date	Test Date
<u>Ceriodaphnia</u>	Survival	1/4/19	8/22/19	7/20/20	10/5/21
		Pass	Pass	Pass	Pass

Species	Endpoint	Test Results (Pass/Fail)			
		Test Date	Test Date	Test Date	Test Date
<u>Ceriodaphnia</u>	Reproduction	1/4/19	8/22/19	7/20/20	10/5/21
		Pass	Pass	Pass	Pass

Reasonable Potential? NO

Permit Recommendations

Test Type Chronic
 TIWC 73 % Effluent
 Dilution Series 18, 37, 73, 87, 100 % Effluent
 Permit Limit None
 Permit Limit Species

Based on the review of the WET test reports, test of significant toxicity (TST) was performed using DEP's WET Analysis Spreadsheet. There is no reasonable potential, and no WET limits are recommended. The standard WET condition based on the DEP WET SOP is incorporated in Part C of the draft permit.

Proposed Effluent Limitations and Monitoring Requirements

Outfall 001, Effective Period: Permit Effective Date through Start of Final Period.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) ⁽¹⁾		Concentrations (mg/L)				Minimum ⁽²⁾ Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Bis(2-Ethylhexyl) Phthalate	Report	XXX	XXX	Report	XXX	XXX	1/month	24-Hr Composite

Proposed Effluent Limitations and Monitoring Requirements

Outfall 001, Effective Period: Start of Final Period through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) ⁽¹⁾		Concentrations (mg/L)				Minimum ⁽²⁾ Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Bis(2-Ethylhexyl) Phthalate	0.015	0.024	XXX	0.0012	0.0019	0.003	1/month	24-Hr Composite

Proposed Effluent Limitations and Monitoring Requirements

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

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) ⁽¹⁾		Concentrations (mg/L)				Minimum ⁽²⁾ Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Recorded
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
Dissolved Oxygen	XXX	XXX	5.0 Inst Min	XXX	XXX	XXX	1/day	Grab
Total Residual Chlorine (TRC)	XXX	XXX	XXX	0.05	XXX	0.15	1/day	Grab
Carbonaceous Biochemical Oxygen Demand (CBOD5) Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	2/week	24-Hr Composite
Carbonaceous Biochemical Oxygen Demand (CBOD5)	311.4	475	XXX	25.0	40.0 Wkly Avg	50	2/week	24-Hr Composite
Biochemical Oxygen Demand (BOD5) Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	2/week	24-Hr Composite
Total Suspended Solids	188	282	XXX	15.0	23.0 Wkly Avg	30	2/week	24-Hr Composite
Total Suspended Solids Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	2/week	24-Hr Composite
Total Dissolved Solids	Report Avg Qrtly	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	24-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/week	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/week	Grab
E. Coli (No./100 ml)	XXX	XXX	XXX	XXX	XXX	Report	1/month	Grab

Outfall001 , Continued (from Permit Effective Date through Permit Expiration Date)

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) ⁽¹⁾		Concentrations (mg/L)				Minimum ⁽²⁾ Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Total Nitrogen	375	XXX	XXX	30.0	XXX	60	1/month	24-Hr Composite
Ammonia-Nitrogen Nov 1 - Apr 30	94	XXX	XXX	7.5	XXX	15	2/week	24-Hr Composite
Ammonia-Nitrogen May 1 - Oct 31	31	XXX	XXX	2.5	XXX	5	2/week	24-Hr Composite
Total Phosphorus Nov 1 - Mar 31	25	XXX	XXX	2.0	XXX	4	2/week	24-Hr Composite
Total Phosphorus Apr 1 - Oct 31	20.0	XXX	XXX	1.6	XXX	3.2	2/week	24-Hr Composite
Aluminum, Total	9.38	12.8 Daily Max	XXX	0.75	1.03	1.03	1/month	24-Hr Composite
Chromium, Hexavalent	Report Avg Qrtly	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	24-Hr Composite
Copper, Total	Report Avg Qrtly	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	24-Hr Composite
Cyanide, Free	Report Avg Qrtly	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	Grab
Iron, Dissolved	Report Avg Qrtly	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	24-Hr Composite
Zinc, Total	Report Avg Qrtly	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	24-Hr Composite
Acrolein	Report Avg Qrtly	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	Grab
Chloroform	Report Avg Qrtly	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	24-Hr Composite
Toxicity, Chronic - Ceriodaphnia Survival (TUc)	XXX	XXX	XXX	XXX	Report	XXX	See Permit	24-Hr Composite
Toxicity, Chronic - Ceriodaphnia Reproduction (TUc)	XXX	XXX	XXX	XXX	Report	XXX	See Permit	24-Hr Composite
Toxicity, Chronic - Pimephales Survival (TUc)	XXX	XXX	XXX	XXX	Report	XXX	See Permit	24-Hr Composite
Toxicity, Chronic - Pimephales Growth (TUc)	XXX	XXX	XXX	XXX	Report	XXX	See Permit	24-Hr Composite

Proposed Effluent Limitations and Monitoring Requirements

Outfall 003, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) ⁽¹⁾		Concentrations (mg/L)				Minimum ⁽²⁾ Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	XXX	XXX	Report	XXX	1/year	Grab
Carbonaceous Biochemical Oxygen Demand (CBOD5)	XXX	XXX	XXX	XXX	Report	XXX	1/year	Grab
Chemical Oxygen Demand (COD)	XXX	XXX	XXX	XXX	Report	XXX	1/year	Grab
Total Suspended Solids	XXX	XXX	XXX	XXX	Report	XXX	1/year	Grab
Oil and Grease	XXX	XXX	XXX	XXX	Report	XXX	1/year	Grab
Total Kjeldahl Nitrogen	XXX	XXX	XXX	XXX	Report	XXX	1/year	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report	XXX	1/year	Grab
Iron, Dissolved	XXX	XXX	XXX	XXX	Report	XXX	1/year	Grab