Pennsylvania Department of Environmental Protection

Southeast Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0026450**
Facility Type	**Municipal**	APS ID	**1127054**
Major / Minor	**Major**	Authorization ID	**1508888**

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Applicant and Facility Information

Applicant Name	**Bristol Township**	Facility Name	**Bristol Township STP**
Applicant Address	2501 Bath Road	Facility Address	1800 River Road
	Bristol, PA 19007		Croydon, PA 19021-7900
Applicant Contact	Randee Mazur	Facility Contact	Nathan Laucks
Applicant Phone	(215) 785-0500	Facility Phone	(717) 626-2172
Client ID	63450	Site ID	449414
Ch 94 Load Status	Not Overloaded	Municipality	Bristol Township
Connection Status	No Limitations	County	Bucks
Date Application Received	November 13, 2024	EPA Waived?	No
Date Application Accepted		If No, Reason	Major POTW, TMDL Discharge

Purpose of Application: Permit Renewal.

Summary of Review

Applicant requests renewal of an NPDES permit to discharge 3.75 million gallons per day (mgd) of treated sewage from the sewage treatment plant serving Bristol Township into the Delaware River, Zone 2.

The sewage treatment plant (also known as Croydon WWTP) consists of a raw sewage wet well, bar screen, grit chamber, two (2) primary clarifiers, four trickling filters, three secondary clarifiers, and two chlorine contact tanks. Sludge holding is provided by primary digester and secondary digester. The sewage treatment plant expansion and upgrades were completed in April 2025. The upgrade consists of constructing an additional secondary clarifier, constructing two (2) additional chlorine contact tanks, and replacing the existing grit removal system. As a result of the upgrade, the STP's annual average design flow has increased from 2.25 mgd to 3.75 mgd, and the maximum monthly average design flow expanded from 3.0 mgd to 5.0 mgd. The upgrades also included replacing the effluent flow meter.

Public hearing for the DRBC Docket No. D-1990-098 CP-2 was held by DRBC on February 12, 2020. The DRBC Docket includes percent removal requirement and effluent limit for CBOD5 based on the ambient air temperature after the upgrade and expansion of the STP for the flow of 3.75 mgd. DRBC's water quality regulations (WQR) provide for reduced efficiency of certain treatment systems for the removal of BOD during cold weather and provides for increased CBOD allocation for the treatment systems during cold weather. The Bristol Township STP utilizes a trickling filter treatment system. The trickling treatment system has the potential to demonstrate reduced treatment efficiency during cold weather due to slower biological reaction rates. To account for the reduced CBOD removal efficiencies from the trickling filters during cold weather, the docket approves a cold weather increase to the docket holder's CBOD20 allocation, and a cold weather decrease to docket holder's CBOD percent removal requirement. The docket approves a cold weather CBOD20 allocation of 984 lbs/day for the Bristol Township STP, and cold weather CBOD20 removal requirement of 85%. Compliance with the 85% and 88.5% CBOD20

CBOD20 allocations of 590 lbs/day and 984 lbs/dy can be demonstrated by meeting CBOD5 effluent load limits of 357 lbs/day and 595 lbs/day respectively.

Approve	Deny	Signatures	Date
X		Ketan Thaker Ketan Thaker / Project Manager	10/21/2025
X		Pravin Patel Pravin C. Patel, P.E. / Environmental Engineer Manager	10/21/2025

Summary of Review

After the STP upgrade & expansion and the ambient air temperature gauge is installed, Bristol Township is required to meet:

1. CBOD5 effluent limit of 595 lbs/day and minimum CBOD5 removal requirement of 85% in months when the air temperature gauge indicates that the monthly average air temperature is less than 59˚F (15˚C) for Monitoring Point MP 301.
2. CBOD5 effluent limit of 357 lbs/day and minimum CBOD5 removal requirement of 88.5% when the air temperature gauge is greater than or equal to 59˚F (15˚C) for MP 201.

   We have created Monitoring Points MP 201 and MP 301 so that it will work with eDMR, ICIS and Operations can effectively monitor compliance. The sample shall be taken at Outfall 001 for these monitoring points MP 201 and MP 301.

The effluent limits for most of the parameters will remain the same in this permit renewal. After the completion of WWTP upgrade and expansion to 3.75 MGD the effluent limit for Ammonia-Nitrogen, Dissolved Oxygen and Total Residual Chlorine are based on additional flow. Effluent limit for Dissolved Oxygen is revised to 5.0 mg/l from 4.0 mg/l for higher flow and is based on critical water use. Based on the effluent data, it is expected that the STP can consistently meet the DO limit. The effluent limit for Ammonia-Nitrogen is revised to 22.0 mg/l from 35.0 mg/l for higher flow. Therefore, the effluent limit for Ammonia-Nitrogen comes to 22.0 mg/l for the total flow of 3.75 mgd after upgrade & expansion of the STP. Based on the effluent data, STP can meet this stringent limit of 22.0 mg/l. The Bristol Township STP collects effluent sample at a point before it reaches the Delaware River. The existing long discharge pipe is being used for chlorine contact time. The TRC limit to 0.5 mg/l will remain same in this permit renewal for flow of 3.75 mgd and sample for TRC shall be collected before Manhole H near the chlorine contact tank. As per DRBC requirements and our SOP, monitoring for Phosphorus, and Total Nitrogen will continue and effluent limit of 1000 mg/l for Total Dissolved Solids was included in last permit renewal. Monthly monitoring for Total Copper will continue in this permit renewal as it was reported at a slightly elevated level in the effluent. Quarterly monitoring for PFOA, PFOS, PFBS and HFPO-DA are included in this permit renewal as they were detected at slightly elevated levels in the effluent. We have included monthly monitoring for E. Coli for this permit renewal which is consistent with SOP. We have added monitoring requirements for Bis(2-Ethylhexyl) Phthalate for this permit renewal. For Bis(2-Ethylhexxyl) Phthalate, we have only three sample results, with one non-detect result. We do not have enough data to determine if there is reasonable potential to exceed WQ criteria. With quarterly reporting requirement for this permit renewal, will have enough data for next permit cycle to determine reasonable potential for this parameter. Based on the Discharge Monitoring Reports, there were few violations for Fecal Coliform, CBOD5, CBOD5 % removal.

Act-14 Notifications to Bristol Township and Bucks County Commissioners on November 11, 2024.

Pretreatment Program: Permittee is required to operate and implement EPA approved pretreatment program since there are Industrial Facilities contributing to their waste into the sewage treatment plant. There are two industrial users in the system. They are: (1) Unifirst Uniform Services., (2) Geon Performance Solutions

Biomonitoring: As per DRBC, the toxic wasteload allocation program for Delaware River Estuary Zone 2, Final WLA of 5.5 TUc has been allocated to Bristol Township. The permittee submitted four WET reports (Chronic) with renewal application and test results show no toxicity in the effluent. Annul monitoring requirements for Toxicity (Chronic) will continue in this permit renewal.

Stormwater Outfall: Stormwater from the treatment plant area is being sampled at monitoring point MP 101.

PCB Minimization Plan: On December 15, 2003, the U.S. EPA Regions 2 and 3 adopted a Total Maximum Daily Load (TMDL) for PCBs for Zones 2, 3, 4, and 5 of the tidal Delaware River. The TMDL requires that the facilities identified as discharging PCBs to the Delaware River prepare and implement a PCB Waste Minimization and Reduction Program also known as a Pollution Minimization Plan (PMP). This facility has been identified as a Group 2 discharger. The WLA for Total PCBs for Bristol Township is 121.37 ug/day. The total effluent loading for Total PCBs from 2003 and 2005 results is 45236.21 ug/day. The July 2014 data show PCBs effluent loading is 12,826 pg/L. Therefore, this facility is required to collect and analyze yearly two samples each for PCBs utilizing Method 1668A. Two samples shall be collected during a wet weather flow and the two samples shall be collected during a dry flow. The permittee is also required to submit a PMP annual report every year.

Sludge use and disposal description and location(s): Sludge is and will continue to be hauled off-site for disposal at Landfill.

Summary of Review
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 Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	3.75
Latitude	40Âº 4' 39.48"	Longitude	-74Âº 53' 14.89"
Quad Name	Beverly PA, NJ	Quad Code	8-24-3
Wastewater Description:	Sewage Effluent		

Receiving Waters	Delaware River (WWF, MF)	Stream Code	00002
NHD Com ID	25474466	RMI	115.9000
Drainage Area		Yield (cfs/mi^2)	
Q_{7-10} Flow (cfs)	2666	Q_{7-10} Basis	
Elevation (ft)		Slope (ft/ft)	
Watershed No.	2-E	Chapter 93 Class.	WWF, MF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	POLYCHLORINATED BIPHENYLS (PCBS)		
Source(s) of Impairment	SOURCE UNKNOWN		
TMDL Status	Final	Name	Delaware River Estuary PCB TMDLs

Background/Ambient Data		Data Source
pH (SU)		
Temperature (°F)		
Hardness (mg/L)		
Other:		

Nearest Downstream Public Water Supply Intake			
PWS Waters		Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	

Changes Since Last Permit Issuance: Treatment plant expansion and upgrades were completed in April 2025.

Treatment Facility Summary

Treatment Facility Name: Bristol Township STP

WQM Permit No.	Issuance Date
0920403	7/16/2020

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Trickling Filter with Settling	Gas Chlorine	3.75

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
4.25	6589	Not Overloaded	Anaerobic Digestion	

Changes Since Last Permit Issuance: Treatment plant expansion and upgrades were completed in April 2025.

Compliance History

DMR Data for Outfall 001 (from August 1, 2024 to July 31, 2025)

Parameter	JUL-25	JUN-25	MAY-25	APR-25	MAR-25	FEB-25	JAN-25	DEC-24	NOV-24	OCT-24	SEP-24	AUG-24
Flow (MGD) Average Monthly	3.10	2.87	2.79	2.59	2.19	1.68	1.74	1.77	1.70	1.88	2.18	2.62
Flow (MGD) Daily Maximum	3.63	3.36	3.94	3.35	2.60	2.29	1.92	2.10	2.41	2.05	2.39	3.51
pH (S.U.) Instantaneous Minimum	6.9	7.0	6.6	6.9	6.8	6.9	6.7	6.5	6.7	6.7	6.7	6.8
pH (S.U.) Instantaneous Maximum	7.2	7.3	7.3	7.1	7.4	7.5	7.5	7.2	7.2	7.2	7.1	7.3
DO (mg/L) Instantaneous Minimum	7.3	7.2	8.1	8.3	7.6	7.9	7.8	7.8	8.1	8.1	7.6	7.5
TRC (mg/L) Average Monthly	0.1	0.2	0.2	0.1	0.01	0.01	0.01	0.01	0.1	0.01	0.1	0.1
TRC (mg/L) Instantaneous Maximum	0.7	0.6	0.6	0.4	0.1	0.5	0.1	0.20	0.4	0.3	0.4	0.7
CBOD5 (lbs/day) Average Monthly			306.7	205.1	317.3	190.4	247.2	232.4	191.5	176.2	252.9	383.3
CBOD5 (lbs/day) Raw Sewage Influent Average Monthly	4081.8	4154.3	3307.9	2192.3	2064.2	1779.6	2351.0	2765.7	2243.4	1958.4	2111.9	3398.0
CBOD5 (lbs/day) Weekly Average			349.7	323.8	523.0	245.9	326.4	269.4	221.3	204.4	341.5	465.6
CBOD5 (mg/L) Average Monthly			13.8	9.6	16.7	13.6	16.3	15.4	13.2	11.1	13.5	17.3
CBOD5 (mg/L) Raw Sewage Influent Average Monthly	163.2	178.6	146.7	96.9	117.9	121.1	163.1	191.4	164.0	127.2	118.2	158.1
CBOD5 (mg/L) Weekly Average			15.9	16.5	24.5	15.9	21.1	18.6	15.1	13.0	17.3	22.4

BOD5 (lbs/day) Raw Sewage Influent Average Monthly	5000.9	4871.4	3520.3	2089.9	1943.6	2305.9	2303.7	3003.5	2530.2	2164.0	2510.0	3640.8
BOD5 (mg/L) Raw Sewage Influent Average Monthly	200.9	210.7	156.7	92.6	108.1	157.6	160.0	207.8	184.8	140.4	140.3	169.6
CBOD5 % Removal (%) Minimum Monthly Average			90.60	90.09	85.80	88.81	89.99	91.97	91.94	91.28	88.57	89.06
TSS (lbs/day) Average Monthly	141.2	243.5	235.4	329.3	407.4	243.8	179.1	106.4	94.6	138.0	196.3	202.9
TSS (lbs/day) Raw Sewage Influent Average Monthly	4402.0	3586.5	2558.8	2021.4	2360.5	1770.7	1081.3	1725.3	1941.5	1599.2	2088.9	4738.4
TSS (lbs/day) Weekly Average	162.5	338.4	279.3	482.5	410.5	299.1	248.3	162.5	119.2	155.5	316.0	234.0
TSS (mg/L) Average Monthly	5.4	9.7	10.7	14.8	22.0	17.5	12.0	7.0	6.6	8.7	10.6	9.3
TSS (mg/L) Raw Sewage Influent Average Monthly	176.0	156.0	115.8	89.6	134.8	118.4	75.0	119.1	141.9	104.0	116.3	228.9
TSS (mg/L) Weekly Average	6.5	13.0	13.5	22.0	26.0	19.0	17.5	11.5	8.5	9.5	16.5	11.0
Total Dissolved Solids (mg/L) Average Quarterly		338.0			398.0			364.0			337.0	
Total Dissolved Solids (mg/L) Daily Maximum		338.0			398.0			364.0			337.0	
Fecal Coliform (No./100 ml) Geometric Mean	50.6	113.4	31.4	7.9	25.6	25.1	34.9	6.4	15.8	13.2	46.7	91.9
Fecal Coliform (No./100 ml) Instantaneous Maximum	340.0	420.0	112.0	22.0	345.0	142.0	1900.0	30.0	28.0	30.0	280.0	2700.0
Total Nitrogen (mg/L) Average Monthly	16.06	23.36	20.44	20.04	24.98	27.2	25.69	25.05	23.72	20.36	19.4	19.93

Total Nitrogen (mg/L) Weekly Average	22.6	26.02	24.35	23.9	27.20	27.7	29.6	28.90	25.18	23.14	22.09	22.57
Ammonia (lbs/day) Average Monthly	68.4	197.3	108.8	80.0	160.0	175.5	193.0	80.8	43.8	34.5	32.9	51.8
Ammonia (mg/L) Average Monthly	2.6	8.0	4.8	3.7	8.2	12.8	12.9	5.4	3.0	2.2	1.7	2.3
Total Phosphorus (mg/L) Average Monthly	2.21	3.00	2.83	2.81	3.78	4.00	3.66	3.68	3.56	3.51	2.9	2.64
Total Phosphorus (mg/L) Weekly Average	2.91	3.63	3.70	3.5	4.30	4.3	4.3	4.07	3.86	3.76	3.91	2.94
Total Copper (mg/L) Average Monthly	0.012	0.030	0.026	0.028	0.049	0.029	0.034	0.035	0.034	0.023	0.026	0.032
Total Copper (mg/L) Daily Maximum	0.012	0.030	0.026	0.028	0.049	0.029	0.034	0.035	0.034	0.023	0.026	0.032
PCBs (Dry Weather) (pg/L) Daily Maximum		4940						2400.0				
PCBs (Wet Weather) (pg/L) Daily Maximum		5860						4340.0				
Chronic WET - Ceriodaphnia Survival (TUc) Daily Maximum		1			1			GG			GG	
Chronic WET - Ceriodaphnia Reproduction (TUc) Daily Maximum		1			1			GG			GG	
Chronic WET - Pimephales Survival (TUc) Daily Maximum		1			1			GG			GG	
Chronic WET - Pimephales Growth (TUc) Daily Maximum		1			1			GG			GG	

DMR Data for Outfall 101 (from August 1, 2024 to July 31, 2025)

Parameter	JUL-25	JUN-25	MAY-25	APR-25	MAR-25	FEB-25	JAN-25	DEC-24	NOV-24	OCT-24	SEP-24	AUG-24
pH (S.U.) Instantaneous Minimum								7.18				
pH (S.U.) Instantaneous Maximum								7.18				
CBOD5 (mg/L) Daily Maximum								15.1				
COD (mg/L) Daily Maximum								62.0				
TSS (mg/L) Daily Maximum								326.0				
Oil and Grease (mg/L) Daily Maximum								< 5.0				
TKN (mg/L) Daily Maximum								3.78				
Total Phosphorus (mg/L) Daily Maximum								1.76				
Dissolved Iron (mg/L) Daily Maximum								0.34				

DMR Data for Outfall 201 (from August 1, 2024 to July 31, 2025)

Parameter	JUL-25	JUN-25	MAY-25	APR-25	MAR-25	FEB-25	JAN-25	DEC-24	NOV-24	OCT-24	SEP-24	AUG-24
CBOD5 (lbs/day) Average Monthly	376.0	488.5										
CBOD5 (lbs/day) Weekly Average	471.3	607.9										
CBOD5 (mg/L) Average Monthly	14.5	19.5										
CBOD5 (mg/L) Weekly Average	19.8	23.4										
CBOD5 % Removal (%) Minimum Monthly Average	91.12	89.05										

DMR Data for Outfall 301 (from August 1, 2024 to July 31, 2025)

Parameter	JUL-25	JUN-25	MAY-25	APR-25	MAR-25	FEB-25	JAN-25	DEC-24	NOV-24	OCT-24	SEP-24	AUG-24
CBOD5 (lbs/day) Average Monthly	GG	GG										
CBOD5 (lbs/day) Weekly Average	GG	GG										
CBOD5 (mg/L) Average Monthly	GG	GG										
CBOD5 (mg/L) Weekly Average	GG	GG										
CBOD5 % Removal (%) Minimum Monthly Average	GG	GG										

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 3.75
Latitude 40º 5' 0.00" **Longitude** -74º 53' 30.00"
Wastewater Description: 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)

Following are the effluent limits:

Parameter	Effluent Limits (AV. MO in mg/l)	Basis
CBOD5	19.0	DRBC Docket No. D-1990-098 CP-2
Total Suspended Solids	30.0	25 Pa Code 92a.47
Ammonia-Nitrogen	22.0	DRBC Docket No. D-1990-098 CP-2
Total Dissolved Solids	1000	DRBC Docket No. D-1990-098 CP-2
pH (S.U)	6.0 to 9.0 SU	25 Pa Code 92a.47, 95.2
Dissolved Oxygen	5.0	BPJ
Total Residual Chlorine	0.5	25 Pa Code 92a.47-48
Total Nitrogen	Report	25 Pa Code 92a.61
Total Phosphorus	Report	25 Pa Code 92a.61
Total Copper	Report	SOP
Chronic Toxicity (TUc)	Report	WET Summery Report
PCBs	Report	DRBC Docket No. D-1990-098 CP-2
Fecal Coliform (#/100 ml) Geo Mean	200	25 Pa Code 92a.47
E. Coli	Report	25 Pa Code 92a.47
Bis(2-Ethylhexyl) Phthalate	Report	SOP
PFOA (ng/L)	Report	SOP for PFAS related compounds
PFOS (ng/L)	Report	SOP for PFAS related compounds
PFBS (ng/L)	Report	SOP for PFAS related compounds
HFPO-DA (ng/L)	Report	SOP for PFAS related compounds

A “reasonable potential analysis” determined the following are parameters of concern:

Effluent Parameter	Maximum Concentration in Application	Most Stringent Criterion (ug/l)	Max. Allowable Concentration using dilution factor (10.4)	Comments
Total Copper	30	9.0	9 X 10.4 = 93.6	Report
Total Zinc	66	116	116 X 10.4 = 1206.4	No Concern
Bis(2-Ethylhexxyl) Phthalate	7.5	0.32	0.32 X 10.4 = 3.328	Report *
Aluminum	110	750	750 X 10.4 = 7800	No Concern

All values are expressed as Micrograms per Liter (ppb). Dilution available in Delaware River Estuary
10.4 Dilution Factor Acute, 584 Dilution Factor Chronic (From CORMIX)

For Copper, reported concentration is between 10% to 50% of the maximum allowable concentration. Therefore, based on our SOP, Monitoring is recommended.

For Total Zinc, reported concentration is much less than the maximum allowable concentration, so there is no concern.

* For Bis(2-Ethylhexxyl) Phthalate, we have only three sample results, with one non-detect result. We do not have enough data to determine if there is reasonable potential to exceed WQ criteria. With quarterly reporting requirement for this permit renewal, will have enough data for next permit cycle to determine reasonable potential for this parameter.

For Aluminum, reported concentration is much less than the maximum allowable concentration, so there is no concern.

WET Summary and Evaluation

Facility Name	Bristol Township STP
Permit No.	PA0026450
Design Flow (MGD)	3.75
Q_{7-10} Flow (cfs)	2666
PMF_a	0.016
PMF_c	1

		Test Results (Pass/Fail)			
		Test Date	Test Date	Test Date	Test Date
Species	**Endpoint**	4/21/20	2/16/21	2/14/22	2/14/23
Ceriodaphnia	Survival	Pass	Pass	Pass	Pass

		Test Results (Pass/Fail)			
		Test Date	Test Date	Test Date	Test Date
Species	**Endpoint**	4/21/20	2/16/21	2/14/22	2/14/23
Ceriodphnia	Reproductior	Pass	Pass	Pass	Pass

		Test Results (Pass/Fail)			
		Test Date	Test Date	Test Date	Test Date
Species	**Endpoint**	4/21/20	2/16/21	2/15/22	3/14/23
Pimephales	Survival	Pass	Pass	Pass	Pass

		Test Results (Pass/Fail)			
		Test Date	Test Date	Test Date	Test Date
Species	**Endpoint**	4/21/20	2/16/21	2/15/22	3/14/23
Pimephales	Growth	Pass	Pass	Pass	Pass

Reasonable Potential? NO

Permit Recommendations

Test Type	**Chronic**
TIWC	**1** % Effluent
Dilution Series	**1, 2, 30, 60, ##** % Effluent
Permit Limit	**None**
Permit Limit Species	

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" (386-0400-001), SOPs and/or BPJ.

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
DO	XXX	XXX	5.0 Inst Min	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.2	1/day	Grab
CBOD5 Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	2/week	24-Hr Composite
BOD5 Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	2/week	24-Hr Composite
TSS Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	2/week	24-Hr Composite
TSS	938.0	1407.0	XXX	30.0	45.0 Wkly Avg	60	2/week	24-Hr Composite
Total Dissolved Solids	XXX	XXX	XXX	1000.0 Avg Qrtly	2000.0	2500	1/quarter	24-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000.0	2/week	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200.0 Geo Mean	XXX	1000.0	2/week	Grab
E. Coli (No./100 ml)	XXX	XXX	XXX	XXX	XXX	Report	1/month	Grab
Total Nitrogen	XXX	XXX	XXX	Report	Report Wkly Avg	XXX	1/week	24-Hr Composite

Outfall 001, 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		
Ammonia	688	XXX	XXX	22.0	XXX	44	2/week	24-Hr Composite
Total Phosphorus	XXX	XXX	XXX	Report	Report Wkly Avg	XXX	1/week	24-Hr Composite
Total Copper	XXX	XXX	XXX	Report	Report	XXX	1/month	24-Hr Composite
Bis(2-Ethyl-hexyl)Phthalate	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	24-Hr Composite
PCBs (Dry Weather) (pg/L)	XXX	XXX	XXX	Report Daily Max	XXX	XXX	1/6 months	24-Hr Composite
PCBs (Wet Weather) (pg/L)	XXX	XXX	XXX	Report Daily Max	XXX	XXX	1/6 months	24-Hr Composite
PFOA (ng/L)	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
PFOS (ng/L)	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
PFBS (ng/L)	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
HFPO-DA (ng/L)	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
Chronic WET - Ceriodaphnia Survival (TUc)	XXX	XXX	XXX	Report Daily Max	XXX	XXX	See Permit	24-Hr Composite
Chronic WET - Ceriodaphnia Reproduction (TUc)	XXX	XXX	XXX	Report Daily Max	XXX	XXX	See Permit	24-Hr Composite
Chronic WET - Pimephales Survival (TUc)	XXX	XXX	XXX	Report Daily Max	XXX	XXX	See Permit	24-Hr Composite
Chronic WET - Pimephales Growth (TUc)	XXX	XXX	XXX	Report Daily Max	XXX	XXX	See Permit	24-Hr Composite

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" (386-0400-001), SOPs and/or BPJ.

Outfall 101, 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	Report Inst Min	XXX	XXX	Report	1/year	Grab
CBOD5	XXX	XXX	XXX	XXX	Report	XXX	1/year	Grab
COD	XXX	XXX	XXX	XXX	Report	XXX	1/year	Grab
TSS	XXX	XXX	XXX	XXX	Report	XXX	1/year	Grab
Oil and Grease	XXX	XXX	XXX	XXX	Report	XXX	1/year	Grab
Total Nitrogen	XXX	XXX	XXX	XXX	Report	XXX	1/year	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report	XXX	1/year	Grab
Dissolved Iron	XXX	XXX	XXX	XXX	Report	XXX	1/year	Grab

Compliance Sampling Location: MP 101

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" (386-0400-001), SOPs and/or BPJ.

Outfall 201, 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	Weekly Average	Instant. Maximum		
CBOD5	357.0	536.0	XXX	19.0	29.0	38	2/week	24-Hr Composite
CBOD5 % Removal (%) Percent Removal	XXX	XXX	XXX	88.50 Min Mo Avg	XXX	XXX	2/week	Calculation

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" (386-0400-001), SOPs and/or BPJ.

Outfall 301, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2)	Required
	Average Monthly	Weekly Average	Minimum	Average Monthly	Weekly Average	Instant. Maximum	Measurement Frequency	Sample Type
CBOD5	595.0	907.0	XXX	19.0	29.0	38	2/week	24-Hr Composite
CBOD5 % Removal (%) Percent Removal	XXX	XXX	XXX	85.00 Min Mo Avg	XXX	XXX	2/week	Calculation