pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southeast Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0026450**
Facility Type	**Municipal**	APS ID	**987729**
Major / Minor	**Major**	Authorization ID	**1263743**

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	Ms. Randee Elton	Facility Contact	Michael Woglemuth
Applicant Phone	(215) 785-0500	Facility Phone	(215) 788-0922
Client ID	63450	Site ID	449414
Ch 94 Load Status	Not Overloaded	Municipality	Bristol Township
Connection Status	No Limitations	County	Bucks
Date Application Received	February 19, 2019	EPA Waived?	No
Date Application Accepted		If No, Reason	Major Permit, DEP Discretion

Purpose of Application: Permit Renewal.

Summary of Review

Applicant requests renewal of an NPDES permit to discharge 2.25 million gallons per day (mgd) and 3.75 mgd (after expansion of STP) of treated sewage from the sewage treatment plant serving Bristol Township into the Delaware River, Zone 2.

The sewage treatment plant consists of a raw sewage wet well, bar screen, grit chamber, two (2) primary clarifiers, two (2) trickling filters, two (2) secondary clarifiers, and two (2) chlorine contact tanks. Sludge holding is provided by primary digester and secondary digester.

Bristol Township in the process of expanding and upgrading of the existing sewage treatment plant (also known as Croydon WWTP). 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 will be expanded from 2.25 mgd to 3.75 mgd, and the maximum monthly average design flow will be expanded from 3.0 mgd to 5.0 mgd. The proposed upgrade also includes 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) provides 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

Approve	Deny	Signatures	Date
X		Ketan Thaker / Project Manager /s/	3/10/2020
X		Pravin C. Patel, P.E. / Environmental Engineer Manager /s/	3/10/20 20

Summary of Review

removal requirements can be demonstrated by meeting 85% and 88.5% CBOD5 removal respectively. Compliance with the 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.

Prior to completion of upgrade and expansion of the STP, permittee is required to meet:

1. CBOD5 effluent limit of 595 lbs/day and minimum CBOD5 removal requirement of 85% from November 1 to April 30 of each year.
2. CBOD5 effluent limit of 357 lbs/day and 88.5% minimum CBOD5 removal requirement from May 1 to October 31 of each year.

After the STP upgrade and expansion goes into operation 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 for the existing flow of 2.25 MGD. After the completion of WWTP upgrade and expansion to 3.75 MGD the effluent limit for Ammonia-Nitrogen, Dissolved Oxygen and Total Residual Chlorine will change 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 TRC is revised to 0.5 mg/l from 0.6 mg/l for higher flow. The effluent limit for Ammonia-Nitrogen is revised to 22.0 mg/l from 35.0 mg/l for higher flow. We calculated this new Ammonia-Nitrogen limit by applying BAT of 3.0 mg/l to additional flow of 1.5 mgd and kept the same limit of 35.0 mg/l to existing flow of 2.25 mgd. 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 easily 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. Therefore, Bristol Township had asked for some relief for TRC limit (from 0.5 mg/l to 0.6 mg/l) during last permit renewal. So, the TRC limit to 0.6 mg/l will remain same in this permit renewal for existing flow of 2.25 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 is included in this 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. Bristol Township STP has been experiencing high flows and are projecting hydraulic overload in the future. Based on the Discharge Monitoring Reports, there were few violations for Fecal Coliform, TSS, BOD5 % removal and CBOD20.

Summary of Review

The following are effluent limits.

Parameter	Effluent Limits (av. mo. mg/l)	Basis
CBOD5	19.0 / 19.0 *	DRBC Docket No. D-1990-098 CP-2
Total Suspended Solids	30.0 / 30.0 *	25 Pa Code 92a.47
Ammonia-Nitrogen	35.0 / 22.0 *	DRBC Docket No. D-1990-098 CP-2
Total Dissolved Solids	1000 / 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	4.0 / 5.0 *	BPJ
Total Residual Chlorine	0.6 / 0.5 *	25 Pa Code 92a.47-48
Total Nitrogen	Report / Report *	25 Pa Code 92a.61
Total Phosphorus	Report / Report *	25 Pa Code 92a.61
Total Copper	Report / Report *	Data collection
Chronic Toxicity (TUc)	Report / Report *	WET Summery Report
PCBs	Report / Report *	DRBC Docket No. D-1990-098 CP-2
Fecal Coliform (#/100 ml) Geo Mean	200 / 200 *	25 Pa Code 92a.47

* Effluent limits for the flow of 3.75 mgd after expansion of the STP

Act-14 Notifications to Bristol Township and Bucks County Commissioners on December 12, 2018 by certified mail.

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 three industrial users in the system. They are: (1) Roscom., (2) Lower Bucks Hospital, and (3) Unifirst Uniform Services.

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.

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)	2.25
Latitude	40Âº 4' 39.48"	Longitude	-74Âº 53' 14.89"
Quad Name		Quad Code	
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)	

Treatment Facility Summary				
Treatment Facility Name: Bristol Township STP				
Waste Type	**Degree of Treatment**	**Process Type**	**Disinfection**	**Avg Annual Flow (MGD)**
Sewage	Secondary	Trickling Filter With Settling	Gas Chlorine	2.25
Hydraulic Capacity (MGD)	**Organic Capacity (lbs/day)**	**Load Status**	**Biosolids Treatment**	**Biosolids Use/Disposal**
3	3950	Not Overloaded	Anaerobic Digestion	

Compliance History

DMR Data for Outfall 001 (from January 1, 2019 to December 31, 2019)

Parameter	DEC-19	NOV-19	OCT-19	SEP-19	AUG-19	JUL-19	JUN-19	MAY-19	APR-19	MAR-19	FEB-19	JAN-19
Flow (MGD) Average Monthly	2.817	1.840	1.901	2.164	3.514	4.337	5.325	4.385	3.834	4.659	4.4	5.0
Flow (MGD) Daily Maximum	3.648	2.101	2.322	2.533	4.214	4.974	6.887	5.793	4.296	5.596	4.7	6.0
pH (S.U.) Instantaneous Minimum	6.8	6.7	6.9	7.0	6.9	6.9	7.0	7.0	6.8	6.9	6.6	6.4
pH (S.U.) Instantaneous Maximum	7.3	7.3	7.2	7.3	7.3	7.3	7.5	7.5	7.2	7.4	7.8	7.4
DO (mg/L) Instantaneous Minimum	8.4	6.9	7.8	7.4	8.1	8.2	9.3	8.8	9.1	10.2	10.1	10.1
TRC (mg/L) Average Monthly	0.2	0.2	0.04	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
TRC (mg/L) Instantaneous Maximum	0.6	1.2	0.46	1.2	0.6	0.8	0.6	0.8	0.5	0.4	1.6	1.0
CBOD5 (lbs/day) Average Monthly	275.2	167.0	146.4	162.1	221.8	268.3	325.3	308.0	322.6	413.6	382.0	428.1
CBOD5 (lbs/day) Influent Average Monthly	4158	3431	3328	3216.0	2452	2138.0	2327.0	2143.0	2247.0	2132.0	1902.0	2128.0
CBOD5 (lbs/day) Weekly Average	312.5	200.5	222.5	183.9	239.0	317.9	362.7	344.2	333.5	481.5	442.0	498.9
CBOD5 (mg/L) Average Monthly	12.0	10.5	9.1	8.7	7.6	7.5	7.7	8.2	9.8	10.0	10.4	9.9
CBOD5 (mg/L) Influent Average Monthly	124.4	123.6	120.9	106.7	69.1	58.1	57.3	59.1	71.3	52.8	54.2	50.8
CBOD5 (mg/L) Weekly Average	15.5	12.8	13.5	9.0	8.3	9.0	8.1	10.2	10.4	10.8	11.7	11.8
BOD5 (lbs/day) Influent Average Monthly	3735	3559	2823	2928.0	2145	2261.0	1698.0	2423.0	2907.0	1903.0	3076.0	2057.0

BOD5 (%) Percent Removal Minimum	89.4	93.0	90.0	92.0	86.9	84.6	72.4	84.4	84.8	75.1	79.9	73.9
BOD5 (mg/L) Influent Average Monthly	117.3	121.4	104.5	96.2	59.1	58.6	42.4	66.6	93.7	47.0	87.1	49.4
CBOD20 (lbs/day) Average Monthly	596.85	500.0	311.31	542.9	654.7	584.0	1350.0	786.0	906.0	800.0	937.0	974.0
TSS (lbs/day) Average Monthly	433.3	227.9	188.3	234.8	427.2	606.8	735.7	766.9	699.5	791.3	702.6	759.3
TSS (lbs/day) Influent Average Monthly	3909	3518	3773	3446.0	3793	3040.0	3108.0	2856.0	2761.0	2217.0	2567.0	2699.0
TSS (lbs/day) Weekly Average	549.6	243.2	214.1	252.8	475.8	693.4	907.5	863.2	715.6	983.2	735.4	858.5
TSS (mg/L) Average Monthly	18.3	14.3	11.9	12.7	14.6	16.8	17.4	20.5	21.3	19.1	19.2	17.5
TSS (mg/L) Influent Average Monthly	115.2	127.3	136.7	114.1	107.5	82.8	76.9	78.5	87.9	55.4	72.4	63.9
TSS (mg/L) Weekly Average	19.0	15.5	12.9	13.3	16.0	18.9	21.0	23.5	22.2	21.8	19.6	20.8
Total Dissolved Solids (lbs/day) Daily Maximum	5677.75			10460.1 1			3866.69			9524.33		
Total Dissolved Solids (mg/L) Daily Maximum	350.00			300.00			120.00			228.0		
Fecal Coliform (CFU/100 ml) Geometric Mean	63.3	8.0	71.3	68.4	36.7	94.0	49.0	40.0	12.0	14.0	13.0	43.0
Fecal Coliform (CFU/100 ml) Instantaneous Maximum		71.0	3900.0	100.0	100.0	164.0	91.0	96.0	41.0	47.0	108.0	124.0
Nitrate-Nitrite (lbs/day) Average Monthly	328.5	251.3	273.7	264.5	368.4	398.2	437.8	315.8	404.1	430.2	332.9	425.3
Nitrate-Nitrite (mg/L) Average Monthly	13.4	15.7	15.9	14.9	12.9	11.4	10.5	8.9	12.2	10.5	9.1	9.7
Ammonia (lbs/day) Average Monthly	37.75	18.79	10.63	12.32	8.53	4.59	6.00	5.91	3.68	4.65	4.91	11.37
Ammonia (mg/L) Average Monthly	1.6	< 1.2	0.6	0.7	< 0.3	< 0.1	< 0.1	< 0.2	< 0.1	< 0.1	< 0.1	< 0.3

TKN (lbs/day) Average Monthly	123.4	76.8	57.6	52.7	85.7	88.7	92.1	84.5	85.5	101.3	84.5	93.7
TKN (mg/L) Average Monthly	5.0	4.8	3.4	3.0	3.0	2.5	2.2	2.3	2.6	2.5	2.3	2.2
Total Phosphorus (lbs/day) Average Monthly	60.1	47.5	47.1	42.6	59.2	67.1	60.8	61.2	66.8	56.4	49.7	47.0
Total Phosphorus (mg/L) Average Monthly	2.5	3.0	2.7	2.4	2.1	1.9	1.5	1.7	2.0	1.4	1.3	1.1
Total Phosphorus (mg/L) Instantaneous Maximum	3.0	3.3	2.9	2.6	2.2	2.7	1.9	1.9	2.4	1.6	1.7	1.3
Total Copper (mg/L) Daily Maximum	0.03	0.01	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.03	0.02
PCBs (Dry Weather) (pg/L) Daily Maximum	4540						4040					
PCBs (Wet Weather) (pg/L) Daily Maximum	4760						5530					
Chronic WET - Ceriodaphnia Survival (TUc) Daily Maximum	1			1			1			1		
Chronic WET - Ceriodaphnia Reproduction (TUc) Daily Maximum	1			1			1			1		
Chronic WET - Pimephales Survival (TUc) Daily Maximum	1			1			1			1		
Chronic WET - Pimephales Growth (TUc) Daily Maximum	1			1			1			1		

Whole Effluent Toxicity (WET)

WET Summary and Evaluation

Facility Name	Bristol Township STP
Permit No.	PA0026450
Design Flow (MGD)	2.25
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**	4/29/19	4/24/18	2/6/18	8/28/18
Ceriodaphnia	Survival	Pass	Pass	Pass	Pass

		Test Results (Pass/Fail)			
		Test Date	Test Date	Test Date	Test Date
Species	**Endpoint**	4/29/19	4/24/18	2/16/18	8/28/18
Ceriodaphnia	Reproduction	Pass	Pass	Pass	Pass

		Test Results (Pass/Fail)			
		Test Date	Test Date	Test Date	Test Date
Species	**Endpoint**	4/30/19	4/24/18	2/16/18	8/28/18
Pimephales	Survival	Pass	Pass	Pass	Pass

		Test Results (Pass/Fail)			
		Test Date	Test Date	Test Date	Test Date
Species	**Endpoint**	4/30/19	4/24/18	2/6/18	8/28/18
Pimephales	Growth	Pass	Pass	Pass	Pass

Reasonable Potential? NO

Permit Recommendations

Test Type	**Chronic**
TIWC	**1** % Effluent
Dilution Series	**1, 2, 30, 60, 100** % 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" (362-0400-001), 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	Average Weekly	Minimum	Daily Maximum	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	4.0 Inst Min	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.6 Avg Mo	XXX	1.3	1/day	Grab
Color (Pt-Co Units)	XXX	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	Grab
CBOD5 Raw Sewage Influent	Report	XXX	XXX	Report Avg Mo	XXX	XXX	2/week	24-Hr Composite
BOD5 Raw Sewage Influent	Report	XXX	XXX	Report Avg Mo	XXX	XXX	2/week	24-Hr Composite
TSS Raw Sewage Influent	Report	XXX	XXX	Report Avg Mo	XXX	XXX	2/week	24-Hr Composite
Total Dissolved Solids	XXX	XXX	XXX	1000.0 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	1000.0	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
Total Nitrogen	XXX	XXX	XXX	Report Avg Mo	Report Wkly Avg	XXX	1/week	24-Hr Composite
Total Phosphorus	XXX	XXX	XXX	Report Avg Mo	Report Wkly Avg	XXX	1/week	24-Hr Composite
Total Copper	XXX	XXX	XXX	Report Avg Mo	Report Daily Max	XXX	1/month	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	Average Weekly	Minimum	Daily Maximum	Maximum	Instant. Maximum		
PCBs (Dry Weather) (pg/L)	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	24-Hr Composite
PCBs (Wet Weather) (pg/L)	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	24-Hr Composite
Chronic WET - Ceriodaphnia Survival (TUc)	XXX	XXX	XXX	Report	XXX	XXX	See Permit	24-Hr Composite
Chronic WET - Ceriodaphnia Reproduction (TUc)	XXX	XXX	XXX	Report	XXX	XXX	See Permit	24-Hr Composite
Chronic WET - Pimephales Survival (TUc)	XXX	XXX	XXX	Report	XXX	XXX	See Permit	24-Hr Composite
Chronic WET - Pimephales Growth (TUc)	XXX	XXX	XXX	Report	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" (362-0400-001), SOPs and/or BPJ.

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	Weekly Average	Minimum	Average Monthly	Weekly Average	Instant. Maximum		
CBOD5	357.0	XXX	XXX	Report	Report	XXX	2/week	24-Hr Composite
CBOD5 % Removal (%) Percent Removal	XXX	XXX	XXX	88.50 Min Mo Avg	XXX	XXX	2/week	Calculation
TSS	938.0	1407.0	XXX	30.0	45.0	60	2/week	24-Hr Composite
Ammonia	1094	XXX	XXX	35.0	XXX	70	2/week	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" (362-0400-001), SOPs and/or BPJ.

Outfall 001, Effective Period: Permit Effective Date through End of Interim Period 1.

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 Nov 1 - Apr 30	595.0	Report	XXX	19.0	29.0	38	2/week	24-Hr Composite
CBOD5 May 1 - Oct 31	357.0	544.0	XXX	19.0	29.0	38	2/week	24-Hr Composite
CBOD5 % Removal (%) Percent Removal Nov 1 - Apr 30	XXX	XXX	XXX	85.00 Min Mo Avg	XXX	XXX	2/week	Calculation
CBOD5 % Removal (%) Percent Removal May 1 - Oct 31	XXX	XXX	XXX	88.50 Min Mo Avg	XXX	XXX	2/week	Calculation
TSS	563.0	844 Avg Mo	XXX	30.0	45.0 Daily Max	60	2/week	24-Hr Composite
Ammonia	657.0	XXX	XXX	35.0	XXX	70	2/week	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" (362-0400-001), SOPs and/or BPJ.

Outfall MP 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
TKN	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