pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southeast Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0026701**
Facility Type	**Municipal**	APS ID	**995466**
Major / Minor	**Major**	Authorization ID	**1277140**

Applicant and Facility Information

Applicant Name	**Municipal Authority of Borough of Morrisville**	Facility Name	**Morrisville Borough STP**
Applicant Address	35 Union Street	Facility Address	100 River Road
	Morrisville, PA 19067-6246		Morrisville, PA 19067
Applicant Contact	John Warenda	Facility Contact	Richard Dulay
Applicant Phone	(215) 295-8181	Facility Phone	(215) 736-0018
Client ID	64800	Site ID	449420
Ch 94 Load Status	Not Overloaded	Municipality	Morrisville Borough
Connection Status	No Limitations	County	Bucks
Date Application Received	June 5, 2019	EPA Waived?	No
Date Application Accepted		If No, Reason	Major Facility, Pretreatment

Purpose of Application: Permit Renewal

Summary of Review

The applicant has submitted renewal of an NPDES permit to discharge 7.1 MGD of annual average and 8.7 MGD of maximum monthly flow of treated sewage into Delaware River Estuary Zone 2. The Morrisville Borough STP serves Borough of Morrisville, Lower Makefield Township, and Yardley Borough. This permit renewal approves acceptance of 120,000 (GPD) gallons per day (GPD) of landfill leachate from GROWS, GROWS North, and Tullytown landfills conveyed to Morrisville Borough STP for treatment as approved in DRBC Docket No. D-1987-008 CP-4 dated December 12, 2018.

Municipal Authority of Borough of Morrisville was required under DRBC Docket No. D-1987-008 CP-2, dated July 2011 to construct a new outfall into deeper water within Delaware River to gain better dilution of its effluent in order to meet DRBC's in-stream water quality requirements. Once the new outfall (002) is constructed, the plant effluent would normally discharge via a new 30-inch effluent pipe with diffusers. However, at those times when the plant effluent flow exceeds the rate of 12.0 MGD (after days of heavy rainfall) or when the flows in the river are so high that they affect the elevation of the high tide, a diversion chamber will allow a portion of the effluent to overflow into existing 54-inch outfall (001) line via a weir in the diversion chamber. This overflow will occur because there will not be sufficient elevation difference between the elevation of effluent at the plant's chlorination tanks and the elevation in the river.

The treatment plant consists of an aerated grit chamber with a screening device, an influent pumping station, a splitter box, four primary settling tanks, four aeration tanks, ten final settling tanks, three rapid sand filters, six chlorine contact tanks, two sludge thickening tanks, and a mechanical sludge dewatering facility. The plant utilizes Unox system to provide pure oxygen to the treatment process for the purpose of enhancing the biological removal of organics. The wasted sludge will continue to be hauled off-site by a licensed hauler for disposal at landfill. Discharge is generally in compliance with existing NPDES permit limits.

The recent DRBC Docket No. D-1987-008 CP-4 was approved on December 12, 2018. This Docket approves acceptance of 120,000 (GPD) gallons per day (GPD) of landfill leachate. Previous Docket approved acceptance of 60,000 gpd of landfill

Approve	Deny	Signatures	Date
X		Ketan Thaker / Project Manager *Ketan Thaker*	7/17/2020
X		Pravin Patel Pravin C. Patel, P.E. / Environmental Engineer Manager	07/17/2020

Summary of Review

leachate for treatment at STP. The DRBC Docket includes the sliding scale that indicates the amount of leachate to be received at different inflows to the sewage treatment plant. This new Docket revises effluent limits for Total Dissolve Solids (1000 mg/l, av. mo. and 1500 mg/l, daily max) and True Color (100 Pt-Co, Av. Mo and 150 Pt-Co, I. Max). The Docket also replaces waste load allocation (1916 lbs/day) to the CBOD20 and 88.5 % of CBOD20 removal requirement and by applying it to CBO5. Compliance with the CBOD20 allocation can be demonstrated by meeting CBOD5 effluent load limit of 1302 lbs/day. Compliance with the 88.5% Zone 2 reduction requirement can be demonstrated by meeting the 88.5% CBOD5 requirement in the permit.

CONVENTIONAL PARAMETERS:

Effluent limits for most of the conventional parameters will remain the same in this permit renewal. The CBOD5 limit of 22 mg/l is based on waste load allocation for CBOD20 of 1916 lbs/day by DRBC for Morrisville Borough STP. Effluent limit of 1,000 mg/l for Total Dissolved Solids (TDS) 100 Pt-Co for True Color will continue as per DRBC Docket. Effluent limit for Dissolved Oxygen is revised to 5.0 mg/l which is consistent with Chapter 93 minimum criteria for WWF streams. Review of the monitoring results shows this limit is achievable and no noncompliance is expected. Effluent limit for Ammonia is revised to 20 mg/l in this permit renewal to maintain the current treatment quality while DRBC is working on an Ammonia criterion for Estuary. Review of the monitoring results shows that revised ammonia limit is achievable. Mass limits are calculated based on annual average flow of 7.1 MGD.

TOXIC PARAMETERS:

Effluent limits for Total Copper and Total Zinc are calculated by DRBC using WQ Criteria for these parameters in Delaware River Estuary Zone-2 and Acute Dilution Factor using COMIX Model. Effluent limits for these parameters will stay the same in this permit renewal. Monitoring for Total Phenolics, 1,4 Dioxane, will continue because the Morrisville Borough is accepting 120,000 GPD of pretreated leachate form GROWS landfill.

BIOMONITORING:

As per DRBC Toxic Waste Load Allocation program for Delaware River Estuary Zone 2, Final WLA of 4.0 TUc has been allocated to Morrisville Borough. The permittee is conducting quarterly Chronic Testing required by NPDES permit based on our SOP and also conducting quarterly Acute Testing required under DRBC Docket. Most of the test results show no toxicity in the effluent. Quarterly monitoring for Chronic Toxicity will continue in this permit renewal.

PRETREATMENT PROGRAM:

The permittee shall operate and implement a POTW pretreatment program in accordance with the federal Clean Water Act, the Pennsylvania Clean Streams Law, and the federal General Pretreatment Regulations at 40 CFR Part 403. There are four Industrial users contributing wastewater to Morrisville Borough STP. They are (1) Waste Management of PA with 120,000 gpd of pretreated leachate and up to 200,000 gpd of non- contact stormwater, (2) Bright Farms LLC with 10,000 gpd of process water, (3) CSC Sugar LLC with 50,000 gpd of process water, and (4) Heucotech Limited with 20,500 gpd of process water, 250 gpd of NCCW and 1500 gpd of sewage.

PCBs MONITORING & PMP PLAN:

On December 15, 2003, the U.S. Environmental Protection Agency (EPA), Regions 2 and 3, adopted a Total Maximum Daily Load (TMDL) for Polychlorinated Biphenyls (PCBs) for Zones 2, 3, 4, and 5 of the tidal Delaware River. The TMDLs require the facilities identified as discharging PCBs to these zones of the Delaware River or to the tidal portions of tributaries to these zones to conduct monitoring for 209 PCB congeners, and prepare and implement a PCB Pollutant Minimization Plan (PMP). Subsequent monitoring required by DRBC in 2005 confirmed the presence of PCBs, and indicates that this facility does contribute to 99 percent of the cumulative loadings from all point sources. This facility has been identified as a Group 2 dischargers with a rank within those facilities which contribute 99 percent cumulative loading to the Delaware River.

The permittee shall collect two 24-hour composite samples annually during a wet weather flow and two 24-hour composite samples annually during a dry weather flow. The samples shall be collected from Outfall(s) 001 and 002.

Summary of Review

WATER QUALITY BASED LIMITS:

See attached Spreadsheet

Morrisville STP DRBC Limits.xlsx

DRBC DOCKET D-1987-008 CP-4

PA0026701 DRBC Docket.pdf

Following are effluent limits:

PARAMETER	EFFLUENT LIMITS (av. mo. mg/l)	BASIS
CBOD5	22.0	DRBC Docket No. D-1987-008-CP-4
Total Suspended Solids	30.0	25 Pa Code 92a.47
Ammonia-Nitrogen	20.0	DRBC
Total Dissolved Solids	1000	DRBC Docket No. D-1987-008-CP-4
pH (S.U)	6.0 to 9.0 SU	25 Pa Code 92a.47, 95.2
Dissolved Oxygen	5.0	25 Pa Code 93.7
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
Fecal Coliform (#/100 ml)	200 Geo Mean	25 Pa Code 92a.47
Chronic Toxicity (TUc)	Report	DRBC Docket No. D-1987-008-CP-4
PCBs	Report	DRBC Docket No. D-1987-008-CP-4
Color (Pt-Co Units)	100	DRBC Docket No. D-1987-008-CP-4
Total Copper	0.067	DRBC Docket No. D-1987-008-CP-4
Total Zinc	0.59	DRBC Docket No. D-1987-008-CP-4
1, 4 Dioxane	Report	SOP
Total Phenolics	Report	SOP

Morrisville Borough and Bucks County received written notification by certified mail on April 30, 2019 regarding this application to PADEP

Summary of Review

WET Summary and Evaluation

Facility Name	Morrisville Borough STP
Permit No.	PA0026701
Design Flow (MGD)	7.1
Q_{7-10} Flow (cfs)	2516
PMF_a	0.024
PMF_c	0.785

		Test Results (Pass/Fail)			
		Test Date	Test Date	Test Date	Test Date
Species	**Endpoint**	5/20/19	11/11/19	3/3/20	6/8/20
Ceriodaphnia	Reproduction	Pass	Pass	Pass	Pass

		Test Results (Pass/Fail)			
		Test Date	Test Date	Test Date	Test Date
Species	**Endpoint**	5/20/19	11/11/19	3/3/20	6/8/20
Ceriodaphnia	Survival	Pass	Pass	Pass	Pass

		Test Results (Pass/Fail)			
		Test Date	Test Date	Test Date	Test Date
Species	**Endpoint**	5/21/19	9/17/19	3/3/20	6/9/20
Pimephales	Survival	Pass	Pass	Pass	Pass

		Test Results (Pass/Fail)			
		Test Date	Test Date	Test Date	Test Date
Species	**Endpoint**	5/21/19	9/17/19	3/3/20	6/9/20
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	

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)	7.1
Latitude	40Âº 12' 17.51"	Longitude	-74Âº 45' 50.29"
Quad Name		Quad Code	
Wastewater Description:	Sewage Effluent, WLA Assigned in EPA-Approved TMDL		

Receiving Waters	Delaware River	Stream Code	
NHD Com ID	25486800	RMI	
Drainage Area		Yield (cfs/mi^2)	
Q_{7-10} Flow (cfs)		Q_{7-10} Basis	
Elevation (ft)		Slope (ft/ft)	
Watershed No.	2-E	Chapter 93 Class.	
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	POLYCHLORINATED BIPHENYLS (PCBS), POLYCHLORINATED BIPHENYLS (PCBS), POLYCHLORINATED BIPHENYLS (PCBS), POLYCHLORINATED BIPHENYLS (PCBS), POLYCHLORINATED BIPHENYLS (PCBS), POLYCHLORINATED BIPHENYLS (PCBS)		
Source(s) of Impairment	SOURCE UNKNOWN, SOURCE UNKNOWN, SOURCE UNKNOWN, SOURCE UNKNOWN, SOURCE UNKNOWN, 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	LBCJMA		
PWS Waters		Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	11

Discharge, Receiving Waters and Water Supply Information

Outfall No.	002	Design Flow (MGD)	7.1
Latitude	40Âº 12' 17.13"	Longitude	-74Âº 45' 49.99"
Quad Name		Quad Code	
Wastewater Description:	Sewage Effluent		
Receiving Waters	Delaware River	Stream Code	
NHD Com ID	25486800	RMI	132.1600
Drainage Area		Yield (cfs/mi^2)	
Q_{7-10} Flow (cfs)		Q_{7-10} Basis	
Elevation (ft)		Slope (ft/ft)	
Watershed No.	2-E	Chapter 93 Class.	
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	POLYCHLORINATED BIPHENYLS (PCBS), POLYCHLORINATED BIPHENYLS (PCBS), POLYCHLORINATED BIPHENYLS (PCBS), POLYCHLORINATED BIPHENYLS (PCBS), POLYCHLORINATED BIPHENYLS (PCBS), POLYCHLORINATED BIPHENYLS (PCBS)		
Source(s) of Impairment	SOURCE UNKNOWN, SOURCE UNKNOWN, SOURCE UNKNOWN, SOURCE UNKNOWN, SOURCE UNKNOWN, 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	LBCJMA		
PWS Waters		Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	11

Discharge, Receiving Waters and Water Supply Information

Outfall No.	003	Design Flow (MGD)	0
Latitude	40Âº 12' 19.35"	Longitude	-74Âº 45' 51.70"
Quad Name		Quad Code	
Wastewater Description:	Stormwater		
Receiving Waters	Delaware River	Stream Code	
NHD Com ID	25486800	RMI	1.2100
Drainage Area		Yield (cfs/mi^2)	
Q_{7-10} Flow (cfs)		Q_{7-10} Basis	
Elevation (ft)		Slope (ft/ft)	
Watershed No.	2-E	Chapter 93 Class.	
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	POLYCHLORINATED BIPHENYLS (PCBS), POLYCHLORINATED BIPHENYLS (PCBS), POLYCHLORINATED BIPHENYLS (PCBS), POLYCHLORINATED BIPHENYLS (PCBS), POLYCHLORINATED BIPHENYLS (PCBS), POLYCHLORINATED BIPHENYLS (PCBS)		
Source(s) of Impairment	SOURCE UNKNOWN, SOURCE UNKNOWN, SOURCE UNKNOWN, SOURCE UNKNOWN, SOURCE UNKNOWN, 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	LBCJMA		
PWS Waters		Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	11

Treatment Facility Summary				
Treatment Facility Name: Morrisville Borough STP				
Waste Type	**Degree of Treatment**	**Process Type**	**Disinfection**	**Avg Annual Flow (MGD)**
Sewage	Tertiary	Activated Sludge With Solids Removal	Gas Chlorine	7.1
Hydraulic Capacity (MGD)	**Organic Capacity (lbs/day)**	**Load Status**	**Biosolids Treatment**	**Biosolids Use/Disposal**
8.7	18410	Not Overloaded		Combination of methods

Compliance History

DMR Data for Outfall 002 (from May 1, 2019 to April 30, 2020)

Parameter	APR-20	MAR-20	FEB-20	JAN-20	DEC-19	NOV-19	OCT-19	SEP-19	AUG-19	JUL-19	JUN-19	MAY-19
Flow (MGD) Average Monthly	5.71	5.161	5.285	5.235	5.184	4.013	3.922	3.981	4.746	5.311	6.913	5.963
Flow (MGD) Daily Maximum	7.254	6.309	6.027	6.597	7.052	4.627	4.411	4.433	7.003	6.349	7.862	7.522

DMR Data for Outfall 201 (from May 1, 2019 to April 30, 2020)

Parameter	APR-20	MAR-20	FEB-20	JAN-20	DEC-19	NOV-19	OCT-19	SEP-19	AUG-19	JUL-19	JUN-19	MAY-19
Flow (MGD) Average Monthly	5.71	5.161	5.285	5.235	5.184	4.013	3.922	3.981	4.746	5.311	6.913	5.963
Flow (MGD) Daily Maximum	7.254	6.309	6.027	6.597	7.052	4.627	4.411	4.433	7.003	6.349	7.862	7.522
pH (S.U.) Instantaneous Minimum	6.45	6.39	6.4	6.33	6.3	6.33	6.39	6.27	6.1	6.18	6.21	6.29
pH (S.U.) Instantaneous Maximum	6.98	7.01	6.6	6.55	6.6	6.75	6.69	6.48	6.69	6.68	6.66	6.65
DO (mg/L) Minimum	9.1	7.5	10.6	8.1	9.2	7.1	7.3	6.7	6.8	6.7	7.2	9.9
TRC (mg/L) Average Monthly	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.03	< 0.1	< 0.02	< 0.02	< 0.03	< 0.03
TRC (mg/L) Instantaneous Maximum	0.04	0.03	0.06	0.03	0.03	0.13	0.24	1.56	< 0.02	0.11	0.27	0.3
Color (Pt-Co Units) Instantaneous Maximum	64	80	64	48	60	58	85	90	64	48	42	40
CBOD5 (lbs/day) Average Monthly	611	628	881	473	505	314	370	284	361	398	525	437
CBOD5 (lbs/day) Influent Average Monthly	7993	6780	7206	9656	13628	8113	6632	6735	6384	8213	8665	7542

CBOD5 (lbs/day) Weekly Average	776	665	1612	731	560	379	411	308	447	894	484	494
CBOD5 (mg/L) Average Monthly	13	15	20	11	12	9	11	9	9	9	10	9
CBOD5 (mg/L) Influent Average Monthly	169.4	157.7	164.7	220	316	241.5	202.7	202.5	162.8	185	163.8	153
CBOD5 (mg/L) Weekly Average	17	16	38	15	16	11	13	10	10	19	9	10
BOD5 (lbs/day) Influent Average Monthly	8246	7565	6443	11052	15348	9632	8340	7944	6099	10257	10031	7456
BOD5 (mg/L) Influent Average Monthly	170	174	148	253	366	286	261	236	158	230	189	153
CBOD20 (lbs/day) Average Monthly	1212	1075	1357	1044	729	837	588	506	609	1653	781	885
CBOD20 % Removal (%) Percent Removal Minimum	92.0	89.0	90.0	92.0	97.3	92.4	92.1	93.8	91.3	90.2	92.2	90.3
TSS (lbs/day) Average Monthly	635	574	568	605	461	323	472	388	419	345	555	483
TSS (lbs/day) Influent Average Monthly	6247	5540	5395	14164	16439	10964	8427	8045	7268	11432	11616	10466
TSS (lbs/day) Weekly Average	721	647	633	715	511	409	529	462	525	555	669	527
TSS (mg/L) Average Monthly	13	13	13	14	11	10	14	12	11	8	11	10
TSS (mg/L) Influent Average Monthly	131.5	128.8	123.1	319	385	328.8	258.3	242.8	184.7	257.6	219.3	213
TSS (mg/L) Weekly Average	16	14	13	18	12	12	16	15	12	12	11	11
Total Dissolved Solids (lbs/day) Daily Maximum	32342	32736	31164	34689	28047	24479	30645	31970	33291	31770	34304	33908
Total Dissolved Solids (mg/L) Daily Maximum	660	720	710	660	760	760	890	960	770	690	670	670
Fecal Coliform (No./100 ml) Geometric Mean	< 3	< 1	< 1	< 1	< 1	< 2	30	100	38	11	< 4	< 2

Fecal Coliform (No./100 ml) Instantaneous Maximum	1986	7.2	4.1	3	24	20.3	2419.6	1046.2	2419.6	201	148	14.4
Nitrate-Nitrite (lbs/day) Average Monthly	745	879	822	652	552	465	843	1496	481	241	660	534
Nitrate-Nitrite (mg/L) Average Monthly	15	20	18.9	15	12.8	13.8	26.5	44.5	12.5	5.48	12.5	11.2
Ammonia (lbs/day) Average Monthly	757	754	621	625	581	523	446	288	367	428	471	537
Ammonia (mg/L) Average Monthly	16	18	14	14	14	16	14	9	9	10	9	11
TKN (lbs/day) Average Monthly	844	870	735	655	727	521	592	403	467	683	674	562
TKN (mg/L) Average Monthly	17	19.8	16.8	15	17	15.5	18.5	12	12.1	15.4	12.7	11.5
Total Phosphorus (lbs/day) Average Monthly	138	124	108	106	94	92	120	103	112	120	82	79
Total Phosphorus (mg/L) Average Monthly	2.82	2.84	2.5	2.45	2.2	2.74	3.76	3.07	2.89	2.71	1.56	1.6
Total Copper (lbs/day) Average Monthly	< 0.5	0.6	< 0.6	< 0.4	< 0.9	< 0.3	0.7	0.6	0.6	0.6	< 0.7	< 0.5
Total Copper (lbs/day) Daily Maximum	0.6	0.8	0.8	0.5	1.9	0.4	0.8	0.8	0.8	1.0	0.8	0.6
Total Copper (mg/L) Average Monthly	< 0.010	0.010	< 0.010	< 0.010	< 0.020	< 0.010	0.020	0.020	0.020	< 0.010	< 0.010	< 0.010
Total Copper (mg/L) Daily Maximum	0.014	0.016	0.018	0.011	0.051	0.011	0.024	0.024	0.02	0.02	0.014	0.012
Total Zinc (lbs/day) Average Monthly	4	4	4	4	4	3	4	3	3	6	3	2
Total Zinc (lbs/day) Daily Maximum	4.4	4.9	5.4	5.3	4.6	3.2	4.6	4.0	3.3	21.0	3.5	2.6
Total Zinc (mg/L) Average Monthly	0.077	0.096	0.095	0.092	0.084	0.085	0.130	0.101	0.067	0.136	0.061	0.051
Total Zinc (mg/L) Daily Maximum	0.084	0.109	0.116	0.13	0.123	0.094	0.144	0.12	0.083	0.047	0.066	0.06
1,4-Dioxane (mg/L) Average Monthly	0.0051	0.0051	0.005	0.0051	0.0051	0.0051	0.005	0.005	0.005	0.0051	0.0051	< 0.002
Total Phenolics (lbs/day) Average Monthly	< 1	< 0.9	< 0.9	< 0.9	< 0.9	< 0.7	< 0.6	< 0.7	< 0.8	< 0.9	< 1	1.0

Total Phenolics (lbs/day) Daily Maximum	< 1	< 1.0	< 0.9	< 0.9	< 0.9	< 0.7	< 0.7	< 0.7	< 0.8	< 1	1	1.0
Total Phenolics (mg/L) Average Monthly	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.02
Total Phenolics (mg/L) Daily Maximum	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.02	0.02
PCBs (Dry Weather) (pg/L) Daily Maximum					5120						2500	
PCBs (Wet Weather) (pg/L) Daily Maximum					7470						1460	
Chronic WET - Ceriodaphnia Survival (TUc) Daily Maximum		1.0			100						100	
Chronic WET - Ceriodaphnia Reproduction (TUc) Daily Maximum		1.67			100						100	
Chronic WET - Pimephales Survival (TUc) Daily Maximum		1.0			100						100	
Chronic WET - Pimephales Growth (TUc) Daily Maximum		1.0			100						100	

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
	Total Monthly	Daily Maximum	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	Hourly when Discharging	Estimate
Duration of Discharge (minutes)	Report	Report	XXX	XXX	XXX	XXX	Daily when Discharging	Recorded

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 002, 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	Maximum	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Recorded

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 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
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

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 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	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
Color (Pt-Co Units)	XXX	XXX	XXX	100	XXX	150	1/week	Grab
CBOD5 Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	1/day	24-Hr Composite
CBOD5	1302	1954	XXX	22	33 Wkly Avg	44	1/day	24-Hr Composite
BOD5 Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	1/week	24-Hr Composite
CBOD5 % Removal (%) Percent Removal	XXX	XXX	XXX	88.50 Min Mo Avg	XXX	XXX	1/week	24-Hr Composite
TSS Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	1/day	24-Hr Composite
TSS	1775	2665	XXX	30	45 Wkly Avg	60	1/day	24-Hr Composite
Total Dissolved Solids	XXX	XXX	XXX	1000.0	1500.0	XXX	1/month	24-Hr Composite
Fecal Coliform (No./100 ml)	XXX	XXX	XXX	200 Geo Mean	XXX	1000	1/day	Grab

Outfall 201, 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	Report	XXX	XXX	Report	XXX	XXX	1/week	24-Hr Composite
Ammonia	1184	XXX	XXX	20	XXX	40	1/day	24-Hr Composite
Total Phosphorus	Report	XXX	XXX	Report	XXX	XXX	1/week	24-Hr Composite
Total Copper	4.0	5.9 Daily Max	XXX	0.067	0.10	0.135	1/month	24-Hr Composite
Total Zinc	35	52.7 Daily Max	XXX	0.594	0.89	1.18	1/month	24-Hr Composite
1,4-Dioxane	XXX	XXX	XXX	Report	XXX	XXX	1/month	24-Hr Composite
Total Phenolics	Report	Report Daily Max	XXX	Report	Report	XXX	1/month	24-Hr Composite
PCBs (Dry Weather) (pg/L)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	24-Hr Composite
PCBs (Wet Weather) (pg/L)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	24-Hr Composite
Chronic WET - Ceriodaphnia Survival (TUc)	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	24-Hr Composite
Chronic WET - Ceriodaphnia Reproduction (TUc)	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	24-Hr Composite
Chronic WET - Pimephales Survival (TUc)	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	24-Hr Composite
Chronic WET - Pimephales Growth (TUc)	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	24-Hr Composite