pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

-Southeast Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0026964**
Facility Type	**Municipal**	APS ID	**1013671**
Major / Minor	**Major**	Authorization ID	**1309437**

Applicant and Facility Information

Applicant Name	**Lower Perkiomen Valley Region Sewer Authority**	Facility Name	**Oaks WWTP**
Applicant Address	PO Box 297, 101 Station Avenue	Facility Address	101 Station Avenue
	Oaks, PA 19456-0297		Oaks, PA 19456
Applicant Contact	Michael Mcgann	Facility Contact	Michael Mcgann
Applicant Phone	(610) 676-9040	Facility Phone	(610) 676-9040
Client ID	204815	Site ID	446153
Ch 94 Load Status	Not Overloaded	Municipality	Upper Providence Township
Connection Status	No Limitations	County	Montgomery
Date Application Received	March 2, 2020	EPA Waived?	No
Date Application Accepted		If No, Reason	Major Facility, Pretreatment

Purpose of Application: Permit Renewal.

Summary of Review

Applicant requests renewal of NPDES permit to discharge 14.25 MGD annual average flow of treated sewage effluent from the Oaks WWTP to the Schuylkill River. The maximum monthly flow, used to prepare the annual Municipal Wasteload Management Report to help determine whether a “hydraulic overload” situation exists, as defined in Title 25 Pa. Code Chapter 94, is 26 MGD. The organic design capacity is 26,000 lbs/day of BOD5. Tributary municipalities to the system are Borough of Collegeville, Borough of Trappe, Lower Providence Township, Upper Providence Township, Perkiomen Township, and Skippack Township.

Treatment is comprised of two mechanical bar screens, two primary grit separators, six primary settling tanks, aeration, four final clarifiers, two chlorine contact tanks, dechlorination, and post aeration. Aeration processes include A/O Activated Sludge, Conventional Activated Sludge, Step Feed Activated Sludge, or Contact Stabilization (a modification of step feed activated sludge). Sodium hypochlorite is used for disinfection and sodium bisulfite is used for dechlorination. Effluent is discharged through Outfall 001 to the Schuylkill River, immediately above the confluence with Perkiomen Creek.

Sludges are blended, dewatered through belt filter presses, lime stabilized, and disposed primarily by land application with landfill disposal as an alternative. Non exceptional quality sludge is produced.

Based on the DMRs review and the comments from operations section, the facility is in compliance with the permit requirements. There are no significant changes in the flow, stream designation, influent characteristics and effluent quality. Mostly the existing limits are recommended for the new permit. The only new limit is for Total Copper.

The existing influent monitoring for the BOD5, CBOD5, and TSS are continued to be in the new permit based on the Chapter 94 requirement and to check compliance with the 85% removal requirement.

Approve	Deny	Signatures	Date
X		*Sara Abraham* Sara Reji Abraham, E.I.T. / Project Manager	06-09-2020
X		Pravin Patel Pravin C. Patel, P.E. / Environmental Engineer Manager	06/09/2020

Summary of Review

Site stormwater is discharged through Outfalls 002 and 003. Outfall 002 drains the influent pump station, grit handling, primary settling, and sludge handling areas, and flows to a drainage swale to the Schuylkill River. Outfall 003 drains the aeration tanks, final clarifiers, and chlorine contact tank areas and flows to a drainage swale to Perkiomen Creek.

The Schuylkill River is listed as impaired for PCBs. In April 2007, EPA established the "PCB Total Maximum Daily Load for the Schuylkill River" to address the impairment. The TMDL was established using a water quality criterion of 0.044 ng/l for PCBs. The wasteload allocation assigned to this facility is 2.37×10^{-3} grams/day. Facility submitted a PCB PMP on August 18, 2016 and was approved on March 17, 2017. Based on the past sampling results the requirement to continue implementation of the PMP and annual PCB monitoring similar to the existing permit is included in the new permit.

The facility currently implements an EPA approved Pretreatment Program. Industrial users include:

(i) Viant Collegeville, LLC
(ii) ADS/Transicoil
(iii) Glaxo SmithKline Beecham Research Company
(iv) Dow Chemical Company
(v) Branch Medical Group, LLC
(vi) S.S. Industries
(vii) Allen-Bradley Company, LLC
(viii) PA DOC SCI-Pheonix Greaterford Prison
(ix) Graphic Packaging Internation, Inc.

DRBC docket no. D-2001-042 CP-5 was approved on December 14, 2016 and currently docket renewal (D-2001-042-CP-6) is under review by DRBC.

Act 14 Notifications:

Upper Providence Township - February 20, 2020
Montgomery County - February 20, 2020

Permit Conditions:

A. No Stormwater to Sanitary sewers
B. Acquire Necessary Property Rights
C. Proper Sludge Disposal
D. Chlorine Optimization
E. Notification of Responsible Operator
F. Fecal Coliform Reporting
G. Operations and Maintenance Plan
H. Pretreatment Program Implementation
I. Solids Management
J. WET Requirement
K. Stormwater Requirements
L. PCB PMP and Monitoring

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)	14.25
Latitude	40º 7' 13.54"	Longitude	-75º 27' 43.02"
Quad Name	Valley Forge	Quad Code	1842
Wastewater Description:	Sewage Effluent		

Receiving Waters	Schuylkill River (WWF, MF)	Stream Code	00833
NHD Com ID	26003364	RMI	32.4
Drainage Area	1689.9 mi2*	Yield (cfs/mi^2)	0.203
Q_{7-10} Flow (cfs)	343 *	Q_{7-10} Basis	PA Stream Stats (previous fact sheet)
Elevation (ft)	70.1	Slope (ft/ft)	0.0004
Watershed No.	3-D	Chapter 93 Class.	WWF, MF
Assessment Status	Impaired		
Cause(s) of Impairment	POLYCHLORINATED BIPHENYLS (PCBS)		
Source(s) of Impairment	SOURCE UNKNOWN		
TMDL Status	Final, 04/07/2007	Name	Schuylkill River PCB TMDL

Nearest Downstream Public Water Supply Intake	PA American- Norristown Intake		
PWS Waters	Schuylkill River	Flow at Intake (cfs)	350 cfs
PWS RMI	27.5	Distance from Outfall (mi)	4.85

* Outfall 001 is located on Schuylkill River on the upstream side of the confluence with Perkiomen Creek. Since flow from Perkiomen Creek mixes immediately below the outfall, the DA and Q7-10 include Perkiomen Creek.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	002	Design Flow (MGD)	0
Latitude	40º 7' 14.12"	Longitude	-75º 27' 42.73"
Wastewater Description:	Stormwater		

Receiving Waters	Schuylkill River (WWF, MF)	Stream Code	00833
NHD Com ID	26003364	RMI	32.5700
Watershed No.	3-D	Chapter 93 Class.	WWF, MF
Assessment Status	Impaired		
Cause(s) of Impairment	POLYCHLORINATED BIPHENYLS (PCBS)		
Source(s) of Impairment	SOURCE UNKNOWN		
TMDL Status	Final,04/07/2007	Name	Schuylkill River PCB TMDL

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	003	Design Flow (MGD)	0
Latitude	40º 7' 9.17"	Longitude	-75º 27' 28.35"
Wastewater Description:	Stormwater		
Receiving Waters	Perkiomen Creek (WWF, MF)	Stream Code	01017
NHD Com ID	26003370	RMI	0.0400
Watershed No.	3-E	Chapter 93 Class.	WWF, MF
Assessment Status	Attaining Use(s)		

Treatment Facility Summary

Treatment Facility Name: Oaks WWTP

WQM Permit No.	Issuance Date
4698412 A3	09/01/2016
4698412 A2	08/21/2015
4698412 A1	03/04/2005
4698412	07/07/1998

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Activated Sludge	Sodium Hypochlorite	14.25

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
26	26000	Not Overloaded	Dewatering	Landfill

Compliance History

DMR Data for Outfall 001 (from March 1, 2019 to February 29, 2020)

Parameter	FEB-20	JAN-20	DEC-19	NOV-19	OCT-19	SEP-19	AUG-19	JUL-19	JUN-19	MAY-19	APR-19	MAR-19
Flow (MGD) Average Monthly	9.397	9.114	9.987	7.719	6.865	6.055	6.828	8.326	8.802	9.653	8.226	11.912
Flow (MGD) Daily Maximum	15.489	24.474	20.015	14.036	13.315	7.616	9.578	17.177	20.076	18.146	11.442	24.76
pH (S.U.) Instantaneous Minimum	6.7	6.7	6.8	6.8	6.9	6.9	6.9	6.8	6.8	6.5	6.7	6.7
pH (S.U.) Instantaneous Maximum	7.1	7.1	7.2	7.2	7.2	7.2	7.1	7.2	7.2	7.4	7.1	7.3
DO (mg/L) Instantaneous Minimum	11.2	11.0	10.5	7.4	6.1	8.6	9.2	7.3	9.7	6.8	9.4	9.3
DO (mg/L) Average Monthly	11.8	11.8	11.4	9.9	9.4	9.4	9.4	9.3	10	9.8	10.9	11.1
TRC (mg/L) Average Monthly	< 0.03	< 0.02	< 0.03	< 0.03	0.03	< 0.03	< 0.03	< 0.04	< 0.05	< 0.04	< 0.03	< 0.03
TRC (mg/L) Instantaneous Maximum	0.06	0.06	0.13	0.06	0.07	0.05	0.05	0.08	0.42	0.22	0.08	0.19
CBOD5 (lbs/day) Average Monthly	371	468	318	195	155	121	123	184	247	448	200	607
CBOD5 (lbs/day) Weekly Average	594	1044	483	222	299	133	154	375	393	755	224	931
CBOD5 (mg/L) Average Monthly	4.6	5.4	3.6	2.9	3.0	2	2.0	2	3.0	5	2.9	5.4
CBOD5 (mg/L) Raw Sewage Influent Average Monthly	143	146	134	160	165	188	149	145	140	138	147	108
CBOD5 (mg/L) Weekly Average	6.0	8.0	4.0	3.0	3.0	3	3.0	4	4.0	6	3.0	7.0
BOD5 (lbs/day) Raw Sewage Influent Average Monthly	12977	12515	13322	12505	12017	12762	11515	12278	11972	13135	13177	11879

BOD5 (mg/L) Raw Sewage Influent Average Monthly	175	183	153	215	220	252	215	189	177	171	200	132
TSS (lbs/day) Average Monthly	546	785	629	380	333	268	265	272	345	532	323	886
TSS (lbs/day) Weekly Average	764	1256	999	519	514	325	292	419	453	807	387	1086
TSS (mg/L) Average Monthly	7.0	10.0	7.0	6.0	6.0	5	5.0	4	5.0	6	5.0	8.0
TSS (mg/L) Raw Sewage Influent Average Monthly	172	184	169	209	234	263	236	218	212	189	215	153
TSS (mg/L) Weekly Average	8.0	19.0	9.0	7.0	8.0	6	5.0	5	5.0	7	6.0	10.0
Total Dissolved Solids (mg/L) Average Monthly	529	538	466	605	640	670	680	577	486	459	464	523
Total Dissolved Solids (mg/L) Daily Maximum	574	730	560	665	732	724	716	622	522	526	560	586
Fecal Coliform (No./100 ml) Geometric Mean	< 3	< 5	< 8	< 6	< 6	< 12	12	< 6	< 5	< 7	< 2	< 10
Fecal Coliform (No./100 ml) Instantaneous Maximum	70	440	402	112	60	370	114	178	510	380	92	119
Total Nitrogen (mg/L) Average Monthly	18.64	< 19.07	< 14.27	< 20.64	26.1	25.0	25.0	20.4	16.77	18.6	19.1	16.6
Ammonia (lbs/day) Average Monthly	< 120	< 149	< 106	< 121	196	83	< 61	118	89	459	120	326
Ammonia (mg/L) Average Monthly	< 1.38	< 1.52	< 1.01	< 1.96	3.51	1.69	< 1.06	< 1.63	0.98	3.34	1.73	2.92
Total Phosphorus (mg/L) Average Monthly	2.95	2.73	1.76	1.77	3.22	3.656	3.55	2.91	2.31	2.39	2.7	2.05
Total Arsenic (mg/L) Average Monthly	< 0.001	< 0.001	< 0.001	< 0.001	0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.001	< 0.001
Total Copper (mg/L) Average Monthly	0.018	0.018	0.011	0.02	0.017	0.019	0.015	0.013	0.014	0.017	0.019	0.017
Free Cyanide (mg/L) Average Monthly	< 0.004	< 0.004	< 0.004	< 0.004	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005

Sulfate (mg/L) Average Monthly	39.0	34	40.0	39	55.5	48.2	51.0	42.2	37.4	37.9	37.9	33.2
Total Zinc (mg/L) Average Monthly	0.054	0.045	< 0.001	0.048	0.071	0.068	0.069	0.051	0.053	0.058	0.062	0.06
Chloride (mg/L) Average Monthly	210.0	152	154.0	174	228	220	229	187	175	198	206	328
Bromide (mg/L) Average Monthly	< 1.0	< 1.0	< 2.0	< 2.0	< 1.0	< 1	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Phenolics (mg/L) Average Monthly	< 0.01	0.018	0.011	0.012	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.06
PCBs (Dry Weather) (pg/L) Daily Maximum			555									
PCBs (Wet Weather) (pg/L) Daily Maximum			583									
Chronic WET - Ceriodaphnia Survival (TUc) Daily Maximum			12.5									
Chronic WET - Ceriodaphnia Reproduction (TUc) Daily Maximum			12.5									
Chronic WET - Pimephales Survival (TUc) Daily Maximum			12.5									
Chronic WET - Pimephales Growth (TUc) Daily Maximum			12.5									

DMR Data for Outfall 002 (from March 1, 2019 to February 29, 2020)

Parameter	FEB-20	JAN-20	DEC-19	NOV-19	OCT-19	SEP-19	AUG-19	JUL-19	JUN-19	MAY-19	APR-19	MAR-19
pH (S.U.) Daily Maximum			7.0									
CBOD5 (mg/L) Daily Maximum			< 2.0									
COD (mg/L) Daily Maximum			27.9									

TSS (mg/L) Daily Maximum			15									
Oil and Grease (mg/L) Daily Maximum			< 5.0									
Fecal Coliform (No./100 ml) Daily Maximum			940									
TKN (mg/L) Daily Maximum			0.75									
Total Phosphorus (mg/L) Daily Maximum			0.1									
Dissolved Iron (mg/L) Daily Maximum			0.164									

DMR Data for Outfall 003 (from March 1, 2019 to February 29, 2020)

Parameter	FEB-20	JAN-20	DEC-19	NOV-19	OCT-19	SEP-19	AUG-19	JUL-19	JUN-19	MAY-19	APR-19	MAR-19
pH (S.U.) Daily Maximum			7.0									
CBOD5 (mg/L) Daily Maximum			2.5									
COD (mg/L) Daily Maximum			34.3									
TSS (mg/L) Daily Maximum			8.0									
Oil and Grease (mg/L) Daily Maximum			< 5.2									
Fecal Coliform (No./100 ml) Daily Maximum			12									
TKN (mg/L) Daily Maximum			0.99									
Total Phosphorus (mg/L) Daily Maximum			0.1									
Dissolved Iron (mg/L) Daily Maximum			0.123									

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 14.25
Latitude 40º 7' 15.00" **Longitude** -75º 27' 30.00"
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)
	30	Average Monthly	133.102(b)(1)	92a.47(a)(1)
Total Suspended Solids	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

Parameter	Limit (mg/l)	SBC	Basis
CBOD5	18	Average Monthly	WQM 7.0
NH3-N	7.2	Average Monthly	WQM 7.0
DO	5	IMIN	WQM 7.0
TSS	30	Average Monthly	DRBC
Fecal Coliform	200 col/100ml	Geo Mean	Ch. 92a.47(a)(4) and DRBC
	1,000 col/100ml	IMAX	
TRC	0.5 mg/l	Average Monthly	Current permit
Total Phosphorus	Report	Average Monthly	SOP/Data collection
Total Nitrogen	Report	Average Monthly	SOP/Data collection
Total Dissolved Solids	1,000	Average Monthly	DRBC
Bromide	Report	Average Monthly	Data collection
Chloride	Report	Average Monthly	Data collection
Sulfate	Report	Average Monthly	Data collection

All are existing permit requirements.

For the conventional parameters, CBOD5, NH3-N, and DO, limits are carried over from the current permit. In 2002, the Department conducted a Schuylkill River Reallocation Study for all POTWs between Black Rock and Norristown Dams. The proposed revised limits, taking into account future growth for Montgomery County Sewer Authority and a design annual average flow of 12.8 MGD, were CBOD5 = 20 mg/l (summer), NH3-N = 8 mg/l (summer), and DO min = 5 mg/l. The proposed revisions were submitted to EPA for approval 5/1/2002 and were public noticed in the PA Bulletin1/18/2003. For the earlier permit in 2009, the limits were reduced to CBOD5 = 18 mg/l (summer) and NH3-N = 7.2 (summer), reflecting a no-net increase in permitted load at an expanded flow of 14.25 MGD.
TRC is also carried over from the current permit.

A “Reasonable Potential Analysis” determined the following are parameters of concern:

Parameter	Maximum Concentration in Application (ug/l)	Most Stringent Criterion (ug/l)	WQBEL from Pentoxsd	Comments
Total Dissolved Solids	556000	500000	NA	Continue existing limit
Total Cadmium*	1	0.271	5.261	Monitor
Total Copper**	23	9.3	43.926	Establish limits
Phenolics	60	5	NA	Continue existing monitoring
Chlorodibromomethane	0.9	0.4	11.757	No monitoring
Dichlorobromomethane	1.8	0.55	16.165	No monitoring

*Cadmium is a new parameter in the permit.
**Facility is currently monitoring Copper and record shows the facility can meet the limits.

The currently monitoring parameters Total Arsenic, Free Available Cyanide, and Total Zinc, have no concerns, therefore eliminated from the permit.

Since TDS concentration is elevated, the major constituents of TDS; Chloride, Bromide, Sulfate are required to be monitored similar to the existing permit.

For the parameter Toxaphene, the applicant submitted two results < TQL (0.5 ug/l) and one result <0.53 (higher than TQL). The higher result is explained by an analytical inaccuracy due to the method used by the lab and the amount of water in the sample bottle, therefore eliminated from the parameters of concern.

See the attached Pentoxsd and WQM reports:

pentoxsd wqm

Acute mix factor 0.103 and chronic mix factor 0.711 are used in the Pentox SD analysis, based on the previous fact sheet. Site specific discharge hardness (206 mg/l) and stream hardness (189 mg/l) are used based on the application.

Anti-Backsliding

N/A

Outfall No. 002 **Design Flow (MGD)** 0
Latitude 40º 7' 14.00" **Longitude** -75º 27' 35.00"
Wastewater Description: Stormwater

Outfall No. 003 **Design Flow (MGD)** 0
Latitude 40º 7' 13.00" **Longitude** -75º 27' 28.00"
Wastewater Description: Stormwater

For stormwater discharges, the current monitoring requirements are continued to the new permit. The following parameters are monitored annually: pH , CBOD5, COD, TSS, Oil and Grease, Fecal Coliform, TKN, Total Phosphorus, and Dissolved Iron.

Whole Effluent Toxicity (WET)

For Outfall001, ☐ **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: annual

The dilution series used for the tests was: 100%, 60%, 30%, 8%, and 4%. The Target Instream Waste Concentration (TIWC) to be used for analysis of the results is: 8%.

WET Summary and Evaluation

Facility Name	Oaks WWTP
Permit No.	PA0026964
Design Flow (MGD)	14.25
Q_{7-10} Flow (cfs)	343
PMF_a	0.103
PMF_c	0.711

		Test Results (Pass/Fail)			
		Test Date	Test Date	Test Date	Test Date
Species	**Endpoint**	6/11/19	6/26/18	6/13/17	6/14/16
Pimephales	Survival	pass	pass	pass	pass

		Test Results (Pass/Fail)			
		Test Date	Test Date	Test Date	Test Date
Species	**Endpoint**	6/11/19	6/26/18	6/13/17	6/14/16
Pimephales	Growth	pass	pass	pass	pass

		Test Results (Pass/Fail)			
		Test Date	Test Date	Test Date	Test Date
Species	**Endpoint**	6/10/19	6/26/18	8/21/17	6/15/16
Ceriodaphnia	Survival	pass	pass	pass	pass

		Test Results (Pass/Fail)			
		Test Date	Test Date	Test Date	Test Date
Species	**Endpoint**	6/10/19	6/26/18/	8/21/17	6/15/16
Ceriodaphnia	Reproduction	pass	pass	pass	pass

Reasonable Potential? NO

Permit Recommendations

Test Type	**Chronic**
TIWC	**8** % Effluent
Dilution Series	**4, 8, 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	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	Report	XXX	XXX	1/day	Grab
Total Residual Chlorine (TRC)	XXX	XXX	XXX	0.5	XXX	1.6	1/day	Grab
Carbonaceous Biochemical Oxygen Demand (CBOD5) Nov 1 - Apr 30	2668	4002	XXX	22.5	33.7 Wkly Avg	45	1/day	24-Hr Composite
Carbonaceous Biochemical Oxygen Demand (CBOD5) May 1 - Oct 31	2135	3202	XXX	18	27 Wkly Avg	36	1/day	24-Hr Composite
Carbonaceous Biochemical Oxygen Demand (CBOD5) Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	1/day	24-Hr Composite
Biochemical Oxygen Demand (BOD5) Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	1/week	24-Hr Composite
Total Suspended Solids	3565	5348	XXX	30	45 Wkly Avg	60	1/day	24-Hr Composite
Total Suspended Solids Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	1/day	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		
Total Dissolved Solids	XXX	XXX	XXX	1000	2000	2500	1/week	24-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	1/day	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	1/day	Grab
Total Nitrogen	XXX	XXX	XXX	Report	XXX	XXX	1/week	24-Hr Composite
Ammonia-Nitrogen Nov 1 - Apr 30	960	XXX	XXX	8.1	XXX	16.2	1/day	24-Hr Composite
Ammonia-Nitrogen May 1 - Oct 31	854	XXX	XXX	7.2	XXX	14.4	1/day	24-Hr Composite
Total Phosphorus	XXX	XXX	XXX	Report	XXX	XXX	1/week	24-Hr Composite
Cadmium, Total	XXX	XXX	XXX	Report	XXX	XXX	1/month	24-Hr Composite
Copper, Total	XXX	XXX	XXX	0.044	0.069	0.11	1/month	24-Hr Composite
Sulfate, Total	XXX	XXX	XXX	Report	XXX	XXX	1/month	24-Hr Composite
Chloride	XXX	XXX	XXX	Report	XXX	XXX	1/month	24-Hr Composite
Bromide	XXX	XXX	XXX	Report	XXX	XXX	1/month	24-Hr Composite
Phenolics, Total	XXX	XXX	XXX	Report	XXX	XXX	1/month	24-Hr Composite
PCBs Dry Weather Analysis (pg/L)	XXX	XXX	XXX	XXX	Report	XXX	1/year	24-Hr Composite
PCBs Wet Weather Analysis (pg/L)	XXX	XXX	XXX	XXX	Report	XXX	1/year	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

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		
Toxicity, Chronic - Pimephales Growth (TUc)	XXX	XXX	XXX	XXX	Report	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 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	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
Fecal Coliform (No./100 ml)	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

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
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
Fecal Coliform (No./100 ml)	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