pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southeast Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0020460**
Facility Type	**Municipal**	APS ID	**963486**
Major / Minor	**Major**	Authorization ID	**1220542**

Applicant and Facility Information

Applicant Name	**Pennridge Wastewater Treatment Authority**	Facility Name	**Pennridge WWTP**
Applicant Address	180 Maple Avenue P. O. Box 31	Facility Address	180 Maple Avenue P. O. Box 31
	Sellersville, PA 18960-0031		Sellersville, PA 18960-0031
Applicant Contact	Kevin Franks	Facility Contact	Kevin Franks
Applicant Phone	(215) 257-6355	Facility Phone	(215) 257-6355
Client ID	74734	Site ID	449655
Ch 94 Load Status	Projected Hydraulic Overload	Municipality	West Rockhill Township
Connection Status	Dept. Imposed Connection Prohibitions	County	Bucks
Date Application Received	February 28, 2018	EPA Waived?	No
Date Application Accepted		If No, Reason	Major Facility

Purpose of Application: Permit Renewal.

Summary of Review

The applicant requests renewal of NPDES permit to discharge 4.25 MGD (Annual Average) of treated sewage into East Branch Perkiomen Creek from Pennridge Wastewater Treatment Plant.

The treatment plant consists of a aerated grit removal chamber, 3 influent pumps, a Chemical addition unit, 2 flocculation tanks, 2 primary sedimentation tanks, 2 trickling filters, 3 aeration tanks, 3 secondary clarifiers and a Ultra-Violet disinfection unit. Sludge is gravity thickened, aerobically digested, dewatered by belt filter press, lime stabilized, and disposed off by private contractor by either land application or landfilling at Conestoga Landfill.

The treatment plant serves East Rockhill Township, Hilton Township, Perkasie Borough, Sellersville Borough, Silverdale Borough, and Telford Borough.

Effluent limits for conventional parameters will remain the same in this permit renewal. Monthly monitoring for Total Nitrogen has been added in in this permit renewal and is consistent with our SOP. Effluent limits for Free Cyanide, Zinc and Copper are included in this permit renewal Discharge is generally in compliance with existing permit limits.

This water quality protection report (WQPR) summarizes the evaluation of Pennridge Wastewater Treatment Authority's renewal of the Pennridge WWTP NPDES permit to discharge an annual average flow of 4.325-MGD and a maximum monthly flow of 5.41-MGD of treated sewage to the East Branch Perkiomen Creek.

The effluent limits developed and included in an NPDES permit may either be technology based, water quality based, applicable effluent standards from PA Code Title 25 regulations, applicable DRBC Water Quality Regulations, relevant planning aspects for this discharge, or a combination of any or all of the above.

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

Summary of Review

Following are the Effluent Limits:

PARAMETER	EFFLUENT LIMITS (AV. MO in Mg/l)	BASIS
CBOD5 (5/1 to 10/31)	15	WQM 7.0 Model
CBOD5 (11/1 to 4/30)	25	WQM 7.0 Model
Ammonia-Nitrogen (5/1 to 10/31)	3.0	WQM 7.0 Model
Ammonia-Nitrogen (11/1 to 4/30)	9.0	WQM 7.0 Model
Total Suspended Solids	20	25 Pa Code 92a.47
Dissolved Oxygen	5.0	WQM 7.0 Model
pH (S.U.)	6.0 to 9.0 SU	25 Pa Code 92a.47, 95.2
Fecal Coliform (#/100 ml)	200 (Geo Mean)	25 Pa Code 92a.47
Total Dissolved Solids	Report	25 Pa Code 95.10, and DRBC
UV Light Transmittance (%)	Report	25 Pa Code 92a.47-48
Total Phosphorus (5/1 to 10/31)	1.5	25 Pa Code 92a.61
Total Phosphorus (11/1 to 4/30)	2.0	25 Pa Code 92a.61
Total Hardness (as CaCO3)	Report	BPJ
Copper	0.024	PENTOXSD
Cyanide Free	0.012	PENTOXSD
Zinc	0.203	PENTOXSD
Chronic Toxicity (TUc)	2.56	1/TIWC
Total Nitrogen	Report	25 Pa Code 92a.61

Conventional Pollutants

The existing effluent limits derived for this permit were verified using DEP's WQM 7.0 for Windows computer model. The existing limits and design flows were input into the model and confirm that the limits are protective of dissolved oxygen and ammonia-nitrogen criteria.

The Q7-10 flow used in the WQM model was 10.0-cfs and the dischege flow was 4.325-MGD. The Q7-10 flow represents the minimum flow required to be augmented from the Bradshaw Reservoir / Point Pleasant Pump Station diversion under the docket issued to EXELON by the Delaware River Basin Commission (DRBC). Should the augmented stream flow cease, the Q7-10 at Pennridge WWTP reverts to 0.5-cfs and the modeled effluent limits are no longer valid. In such a situation, the permit would need to be amended to reflect limits based on 0.5-cfs.

Toxic Pollutants: Effluent limits for Copper, Zinc and Free Cyanide were calculated using PENTOXSD Model with same stream data used in the WQM 7.0 Model.


WQM

WQM 7.0 Model


PENTOXSD

PENTOXSD Model

Copper/Water Effects Ratio

The applicant currently has the benefit of a group Water Effects Ratio (WER) for copper. The EPA approved a dissolved Cu WER of 3.9 for the Pennridge WWTP. The Department's statewide criteria for copper can be multiplied by the site specific WER to obtain a site-specific copper criteria for this facility. The value [H] in the equation represents the hardness, which by default is 100 mg/l. Based on a WER of 3.9, and a hardness of 100 mg/l, the site-specific chronic copper criteria is 35.1 ug/l, and the acute copper criteria is 50.7 ug/l. The site-specific criteria for copper is depicted by the following equations:

CCC = 3.9 x 0.960 x exp (0.8545 x ln[H]-1.702)
CMC = 3.9 x 0.960 x exp (0.9422 x ln[H]-1.700)

Summary of Review

Because the study was performed and EPA had approved a dissolved Cu WER of 3.9 for the Pennridge WWTP over 10 years ago and because current stream and discharge conditions may yield different results, the permittee should revisit the study to confirm its continuing validity. The permittee shall conduct a study supporting a site-specific water quality criterion for copper in accordance with 25 Pa. Code § 93.8d, using a WER and/or a Biotic Ligand Model (BLM), within 36 months of the effective date of this permit. The study results will be used to recalculate the copper limit during next permit renewal. The BLM, as described in EPA's Aquatic Life Ambient Freshwater Quality Criteria (EPA-822-R-07-001), is recommended for site–specific criteria development. If the permittee chooses not to proceed with the procedures required to develop a site-specific water quality criterion for copper, the permittee may be required to meet calculated Water Quality Based Effluent Limitations for cooper without the benefit of a site-specific water quality criterion for cooper upon issuance of the next permit renewal**.** We have included this language as other requirements in this permit renewal.

Stormwater Monitoring

In accordance with EPA Phase II regulations, stormwater requirements are included in the permit. Since the permittee has not designated any stormwater outfalls in their permit application, the lowest paved surface elevation of the property has been designated as Outfall 002. This point is located near the southwest corner of the property, and is located in the vicinity of Outfall 001.

Phosphorus, total

The permit renewal will continue with total phosphorus limit of 1.5 mg/l (May – October) and 2.0 mg/l (November – April). Note that prior to the Point Pleasant Pump Station water diversion, the total phosphorus limit was 0.5 mg/l. Therefore, the total phosphorus limit is contingent on the continued augmentation to East Branch Perkiomen Creek of a minimum stream flow of 10-cfs. Otherwise, the Q7-10 design flow is 0.5-cfs, and the total phosphorus limit reverts to 0.5 mg/l

Whole Effluent Toxicity (WET) Testing

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

☐ For the permit renewal application (4 tests).
☒ Annual throughout the permit term.
☐ Quarterly throughout the permit term and a TIE/TRE was conducted.
☐ Other: DRBC recommended separate testing for Acute and Chronic Testing

The dilution series used for the tests was: 100%, 70%, 39%, 20%, and 10%. The Target Instream Waste Concentration (TIWC) to be used for analysis of the results is: 39.

Summary of Four Most Recent Test Results

(NOTE – Enter results into one table, depending on which data analysis method was used).

NOEC/LC50 Data Analysis

	***Ceriodaphnia* Results (% Effluent)**			***Pimephales* Results (% Effluent)**			
Test Date	**NOEC Survival**	**NOEC Reproduction**	**LC50**	**NOEC Survival**	**NOEC Growth**	**LC50**	**Pass? ***
11/10/2015	100 %	100 %		100 %	100 %		Pass
8/30/2016	100 %	39 %		100 %	100 %		Pass
6/26/2017	39 %	<10 %					Fail
7/26/2017	100 %	<0 %					Fail

***** *A "passing" result is that which is greater than or equal to the TIWC value.*

Summary of Review

Evaluation of Test Type, IWC and Dilution Series for Renewed Permit

Acute Partial Mix Factor (PMFa): **1** Chronic Partial Mix Factor (PMFc): **1**

1. **Determine IWC – Acute (IWCa)**:

   $(Q_d \times 1.547) / ((Q_{7\text{-}10} \times PMFa) + (Q_d \times 1.547))$

   [(4.325 MGD x 1.547) / ((10.5 cfs x 1) + (4.325 MGD x 1.547))] x 100 = **39%**

   Is IWCa < 1%? ☐ **YES** ☒ **NO**

2. **Determine Target IWCc (If Chronic Tests Required)**

   $(Q_d \times 1.547) / (Q_{7\text{-}10} \times PMFc) + (Q_d \times 1.547)$

   [(4.325 MGD x 1.547) / ((10.5 cfs x 1) + (4.325 MGD x 1.547))] x 100 = **39%**

3. **Determine Dilution Series**

   (NOTE – check Attachment C of WET SOP for dilution series based on TIWCa or TIWCc, whichever applies).

   Dilution Series = 100%, 70%, 39%, 20%, and 10%.

WET Limits

Has reasonable potential been determined? ☒ YES ☐ NO

Will WET limits be established in the permit? ☒ YES ☐ NO

TUc = 1/TWIC = 1/0.39 = 2.546 Quarterly WET Testing for Permit Renewal

Pretreatment Program

Pennridge WWTP receives wastewater from several significant industrial users including metal finishing, pharmaceuticals, and medical facilities. The facility has an EPA approved pretreatment program and a Part C condition is included in the permit related to the implementation of a pretreatment program.

Act -14 Notifications to West Rockhill township and Bucks County Board of Commissioners on January 24, 2018 by certified mail.

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)	4.325
Latitude	40Âº 21' 14.52"	Longitude	-75Âº 18' 47.85"
Quad Name	Telford	Quad Code	
Wastewater Description:	Sewage Effluent		
Receiving Waters	East Branch Perkiomen Creek (TSF, MF)	Stream Code	01168
NHD Com ID	25999662	RMI	15.6
Drainage Area	29.5	Yield (cfs/mi^2)	0.017
Q_{7-10} Flow (cfs)	10.5	Q_{7-10} Basis	
Elevation (ft)		Slope (ft/ft)	
Watershed No.	3-E	Chapter 93 Class.	TSF, MF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment			
Source(s) of Impairment			
TMDL Status		Name	

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)	

Discharge, Receiving Waters and Water Supply Information

Outfall No.	002	Design Flow (MGD)	0
Latitude	40Âº 21' 14.56"	Longitude	-75Âº 18' 47.67"
Quad Name		Quad Code	
Wastewater Description:	Stormwater		
Receiving Waters	East Branch Perkiomen Creek (TSF, MF)	Stream Code	
NHD Com ID	25999662	RMI	16.0400
Drainage Area		Yield (cfs/mi^2)	
Q_{7-10} Flow (cfs)		Q_{7-10} Basis	
Elevation (ft)		Slope (ft/ft)	
Watershed No.	3-E	Chapter 93 Class.	TSF, MF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment			
Source(s) of Impairment			
TMDL Status		Name	

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: Pennridge WWTP				
Waste Type	**Degree of Treatment**	**Process Type**	**Disinfection**	**Avg Annual Flow (MGD)**
Sewage	Secondary With Ammonia And Phosphorus	Trickling Filter With Settling	Ultraviolet	4.325
Hydraulic Capacity (MGD)	**Organic Capacity (lbs/day)**	**Load Status**	**Biosolids Treatment**	**Biosolids Use/Disposal**
5.41	6670	Projected Hydraulic Overload		

Compliance History

DMR Data for Outfall 001 (from June 1, 2018 to May 31, 2019)

Parameter	MAY-19	APR-19	MAR-19	FEB-19	JAN-19	DEC-18	NOV-18	OCT-18	SEP-18	AUG-18	JUL-18	JUN-18
Flow (MGD) Average Monthly	4.919	3.376	4.872	4.562	4.426	4.591	6.042	3.092	4.627	3.815	2.947	2.685
Flow (MGD) Daily Maximum	10.702	6.759	11.985	8.18	12.434	10.656	10.203	6.421	10.776	9.713	6.951	5.895
pH (S.U.) Minimum	6.3	6.3	6.2	6.2	6.3	6.4	6.6	6.6	6.6	6.6	6.5	6.5
pH (S.U.) Maximum	6.8	6.7	6.7	6.9	6.92	7.1	7.1	7.0	6.9	7.1	6.9	6.8
DO (mg/L) Minimum	6.4	8.7	7.9	8.7	7.9	7.5	8.0	7.5	7.4	7.0	7.2	6.8
CBOD5 (lbs/day) Average Monthly	< 118	< 73	89	< 79	< 69	< 67	108	62	91	84	120	96
CBOD5 (lbs/day) Raw Sewage Influent Average Monthly	3798	4043	4009	3802	3368	3780	3395	4278	3472	3550	3032	3239
CBOD5 (lbs/day) Weekly Average	169	128	107	< 93	1.6	83	133	104	151	161	213	157
CBOD5 (mg/L) Average Monthly	< 3	< 3	3.0	< 2.0	< 2	< 2	2.0	3	3	2	6	5
CBOD5 (mg/L) Raw Sewage Influent Average Monthly	106	163	118	112	108	134	72	184	123	133	146	148
CBOD5 (mg/L) Weekly Average	4	3	3.0	< 3.0	< 2	3	3.0	4	4	4	13	9
BOD5 (lbs/day) Raw Sewage Influent Average Monthly	4769	5127	4879	4627	4160	4589	4030	4895	4385	4105	4005	4066
BOD5 (mg/L) Raw Sewage Influent Average Monthly	129	202	144	136	135	162	85	210	161	157	194	187
TSS (lbs/day) Average Monthly	< 141	93	< 69	< 105	< 57	< 131	124	98	78	249	206	84

TSS (lbs/day) Raw Sewage Influent Average Monthly	3915	3616	3324	3567	3727	3906	3111	4787	4556	3731	3961	4485
TSS (lbs/day) Weekly Average	366	186	98	181	101	292	164	133	119	389	453	94
TSS (mg/L) Average Monthly	< 3	3	< 2.0	< 3.0	< 2	< 4	3.0	4	3	7	11	4
TSS (mg/L) Raw Sewage Influent Average Monthly	116	150	100	104	124	133	66	197	167	138	185	199
TSS (mg/L) Weekly Average	6	7	< 3.0	4.0	3	8	4.0	6	5	10	27	5
Total Dissolved Solids (mg/L) Average Monthly			712			679			609			712
Fecal Coliform (CFU/100 ml) Geometric Mean	62	67	25	< 29	14	13	17	11	12	54	18	13
Fecal Coliform (CFU/100 ml) Instantaneous Maximum	250	280	42	70	66	23	41	33	28	290	56	52
UV Transmittance (%) Minimum	50	50	50	50	50	50	50	50	50	50	50	50
Ammonia (lbs/day) Average Monthly	< 15	41	24	< 12	< 4	< 4	5.0	< 2	4	5	3	2
Ammonia (mg/L) Average Monthly	< 0.3	1.3	0.6	< 0.3	< 0.1	< 0.1	0.1	< 0.1	0.1	0.1	0.1	0.1
Total Phosphorus (lbs/day) Average Monthly	19	16	11.0	13.0	12	9	16	10	17	26	19	17
Total Phosphorus (mg/L) Average Monthly	0.4	0.6	0.3	0.4	0.4	0.3	0.3	0.4	0.5	0.8	0.9	0.7
Total Copper (mg/L) Average Monthly			0.007			0.008			0.01			0.011
Total Hardness (mg/L) Average Monthly			197			212			185			200
Chronic WET - Ceriodaphnia Survival (TUc) Daily Maximum						5.0						

Chronic WET - Ceriodaphnia Reproduction (TUc) Daily Maximum						5.0						
Chronic WET - Pimephales Survival (TUc) Daily Maximum						1.0						
Chronic WET - Pimephales Growth (TUc) Daily Maximum						1.0						

DMR Data for Outfall 002 (from June 1, 2018 to May 31, 2019)

Parameter	MAY-19	APR-19	MAR-19	FEB-19	JAN-19	DEC-18	NOV-18	OCT-18	SEP-18	AUG-18	JUL-18	JUN-18
pH (S.U.) Daily Maximum						GG						
CBOD5 (mg/L) Daily Maximum						GG						
COD (mg/L) Daily Maximum						GG						
TSS (mg/L) Daily Maximum						GG						
Oil and Grease (mg/L) Daily Maximum						GG						
Fecal Coliform (CFU/100 ml) Daily Maximum						GG						
TKN (mg/L) Daily Maximum						GG						
Total Phosphorus (mg/L) Daily Maximum						GG						
Dissolved Iron (mg/L) Daily Maximum						GG						

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	Daily 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
CBOD5 Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	2/week	24-Hr Composite
CBOD5 Nov 1 - Apr 30	900	1440	XXX	25	40 Wkly Avg	50	2/week	24-Hr Composite
CBOD5 May 1 - Oct 31	541	830	XXX	15	23 Wkly Avg	30	2/week	24-Hr Composite
BOD5 Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	2/week	24-Hr Composite
TSS	721	1082	XXX	20	30 Wkly Avg	40	2/week	24-Hr Composite
TSS Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	2/week	24-Hr Composite
Total Dissolved Solids	XXX	XXX	XXX	1000 Avg Qrtly	2000	2500	1/quarter	24-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/week	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200.0 Geo Mean	XXX	1000	2/week	Grab
UV Transmittance (%)	XXX	XXX	Report	XXX	XXX	XXX	1/day	Recorded
Total Nitrogen	Report	XXX	XXX	Report	XXX	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	Weekly Average	Daily Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Ammonia Nov 1 - Apr 30	325	XXX	XXX	9.0	XXX	18	2/week	24-Hr Composite
Ammonia May 1 - Oct 31	108	XXX	XXX	3.0	XXX	6	2/week	24-Hr Composite
Total Phosphorus Nov 1 - Apr 30	72	XXX	XXX	2.0	XXX	4	2/week	24-Hr Composite
Total Phosphorus May 1 - Oct 31	54	XXX	XXX	1.5	XXX	3	2/week	24-Hr Composite
Free Cyanide	0.43	0.72 Daily Max	XXX	0.012	0.020	0.03	1/week	24-Hr Composite
Total Zinc	7.3	11.4 Daily Max	XXX	0.203	0.316	0.50	1/week	24-Hr Composite
Total Hardness	XXX	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	24-Hr Composite
Chronic WET - Ceriodaphnia Survival (TUc)	XXX	XXX	XXX	XXX	2.56	XXX	See Permit	24-Hr Composite
Chronic WET - Ceriodaphnia Reproduction (TUc)	XXX	XXX	XXX	XXX	2.56	XXX	See Permit	24-Hr Composite
Chronic WET - Pimephales Survival (TUc)	XXX	XXX	XXX	XXX	Report	XXX	See Permit	24-Hr Composite
Chronic WET - 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 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	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Total Copper	0.89	1.38 Daily Max	XXX	0.024	0.038 Daily Max	0.06	1/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	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Total Copper	XXX	XXX	XXX	Report Avg Qrtly	Report Daily Max	XXX	1/quarter	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	Daily Maximum	Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	XXX	Report	XXX	XXX	Upon Request	Grab
CBOD5	XXX	XXX	XXX	Report	XXX	XXX	Upon Request	Grab
COD	XXX	XXX	XXX	Report	XXX	XXX	Upon Request	Grab
TSS	XXX	XXX	XXX	Report	XXX	XXX	Upon Request	Grab
Oil and Grease	XXX	XXX	XXX	Report	XXX	XXX	Upon Request	Grab
Fecal Coliform (No./100 ml)	XXX	XXX	XXX	Report	XXX	XXX	Upon Request	Grab
TKN	XXX	XXX	XXX	Report	XXX	XXX	Upon Request	Grab
Total Phosphorus	XXX	XXX	XXX	Report	XXX	XXX	Upon Request	Grab
Dissolved Iron	XXX	XXX	XXX	Report	XXX	XXX	Upon Request	Grab