pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southeast Regional Office

CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0021172**
Facility Type	**Municipal**	APS ID	**996621**
Major / Minor	**Major**	Authorization ID	**1279056**

Applicant and Facility Information

Applicant Name	**Bucks County Water & Sewer Authority**	Facility Name	**Harvey Ave WWTP**
Applicant Address	1275 Almshouse Road	Facility Address	300 Harvey Avenue
	Warrington, PA 18976-1209		Doylestown, PA 18901-3601
Applicant Contact	John Butler	Facility Contact	Len Hughes
Applicant Phone	(215) 343-2538	Facility Phone	(215) 348-7645
Client ID	93895	Site ID	451565
Ch 94 Load Status	Not Overloaded	Municipality	Doylestown Borough
Connection Status	No Limitations	County	Bucks
Date Application Received	June 21, 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 a renewal application for their NPDES permit to discharge the treated sewage through Outfall 001 and stormwater runoffs through 4 (four) outfalls (002, 003, 004, 005) to Cooks Run – WWF, MF.

The facility servs following townships:
Doylestown Borough
Doylestown TWP
Plumsted TWP
New Britain TWP
Buckingham TWP
Bedminster TWP

The facility consists of Preliminary treatment: grit and screening removal following by activated sludge and final sedimentation. Disinfection is provided by UV system. Waste sludge from secondary clarifiers is aerobically digested. The digested sludge is dewatered by centrifuges and hauled to a municipal solids waste landfill.
Plant has an oxidation ditch process and an A20 process to remove nitrogen and phosphorous biologically. Phosphorous is also removed chemically.

There is one (1) industrial User is connected to Harvey Ave WWTP: PH Tool, LLC – 40 CFR; 413 with 388 GPD flow.

The facility is excepting hauled-in municipal wastes. Facility receives sludges from Kings Plaza WWTP and Green street WWTP.

Approve	Deny	Signatures	Date
X		Begay Omuralieva Begay Omuralieva / Environmental Engineering Specialist	2/4/2022
X		Pravin Patel Pravin C. Patel, P.E. / Environmental Engineer Manager	2/4/2022

Summary of Review

Based on Chapter 94 Municipal waste load management annual reports, facility is not overloaded hydraulically nor organically.

Outfall 001:

Development of Effluent Limitations and monitoring requirements are stated on pps. 9-11 of this factsheet.
Proposed Effluent Limitations and Monitoring Requirements are listed on pps. 12-15.

Outfall 002 monitored as representative for Outfall 003, 004 and 005. Monitoring requirements and limits are remaining the same as were established in previous permit.

Sludge use and disposal description and location(s): All digested and dewatered sludge is hauled to Fairless Municipal Landfill.

Act 14 Notification:
Doylestown Borough and Bucks County Office of Commissioners were notified about NPDES permit renewal application on April 8, 2019

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)	1.6
Latitude	40º 18' 54.64"	Longitude	-75º 8' 20.06"
Quad Name	Doylestown	Quad Code	1644
Wastewater Description:	Sewage Effluent from Harvey Avenue STP		
Receiving Waters	Cooks Run (WWF, MF)	Stream Code	02776
NHD Com ID	25478844	RMI	3.09
Drainage Area	1.1	Yield (cfs/mi^2)	0.07
Q_{7-10} Flow (cfs)	0.07*	Q_{7-10} Basis	2009 WQPR
Elevation (ft)	327.7	Slope (ft/ft)	
Watershed No.	2-F	Chapter 93 Class.	WWF, MF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	NUTRIENTS, NUTRIENTS, PATHOGENS, SILTATION		
Source(s) of Impairment	MUNICIPAL POINT SOURCE DISCHARGES, SOURCE UNKNOWN, URBAN RUNOFF/STORM SEWERS,		
TMDL Status	Withdrawn	Name	Neshaminy Creek
Nearest Downstream Public Water Supply Intake			
PWS Waters	Neshaminy Creek	Flow at Intake (cfs)	
PWS RMI	33 mi	Distance from Outfall (mi)	

Changes Since Last Permit Issuance: none

The Q_{7-10} flow of 0.07-cfs was taken from the 2009 Water Quality Protection Report. The drainage area was checked using the USGS StreamStat website and it was delineated at 1.17 mi^2. A reference linked on the USGS website (Stucky and Rowland, 2011) estimates a long term LFY of 0.06 cfs/mi^2 for the Neshaminy Creek watershed. Therefore, the Q_{7-10} flow of 0.077-cfs listed in the 2009 WQPR is determined to be reasonable.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	002		
Latitude	40º 18' 54.12"	Longitude	-75º 8' 21.14"
Quad Name	Doylestown	Quad Code	1644
Wastewater Description:	Stormwater		
Receiving Waters	Cooks Run (WWF, MF)	Stream Code	02776
NHD Com ID	25478844	RMI	3.09
Drainage Area	1.1	Yield (cfs/mi^2)	0.07
Q_{7-10} Flow (cfs)	0.07	Q_{7-10} Basis	2009 WQPR
Elevation (ft)	327.7	Slope (ft/ft)	
Watershed No.	2-F	Chapter 93 Class.	WWF, MF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	NUTRIENTS, NUTRIENTS, PATHOGENS, SILTATION		
Source(s) of Impairment	MUNICIPAL POINT SOURCE DISCHARGES, SOURCE UNKNOWN, URBAN RUNOFF/STORM SEWERS, URBAN RUNOFF/STORM SEWERS		
TMDL Status	Final	Name	Neshaminy Creek

Changes Since Last Permit Issuance: none

Treatment Facility Summary

Treatment Facility Name: Harvey Avenue STP

WQM Permit No.	Issuance Date
0909410	05/03/2010

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary with Ammonia Reduction	Oxidation Ditch	Ultraviolet	1.6

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
1.6	4073	Not Overloaded	Aerobic Digestion	Landfill

Changes Since Last Permit Issuance: none

Compliance History

DMR Data for Outfall 001 (from October 1, 2020 to September 30, 2021)

Parameter	SEP-21	AUG-21	JUL-21	JUN-21	MAY-21	APR-21	MAR-21	FEB-21	JAN-21	DEC-20	NOV-20	OCT-20
Flow (MGD) Average Monthly	1.024	0.879	0.889	0.949	0.909	0.9775	1.165	1.051	0.996	1.042	0.921	0.895
Flow (MGD) Daily Maximum	2.633	1.081	1.23	1.448	1.241	1.42	1.516	1.855	1.266	1.581	1.924	1.473
pH (S.U.) Minimum	6.48	6.94	7.08	7.09	6.93	6.65	6.69	6.35	6.16	6.64	6.71	6.81
pH (S.U.) Maximum	7.96	7.79	7.73	7.73	7.74	7.71	7.53	7.76	7.51	7.92	7.71	7.97
DO (mg/L) Minimum	5.3	7.02	6.85	6.92	7.01	7.22	8.1	8.98	8.58	8.7	7.09	7.28
CBOD5 (lbs/day) Average Monthly	< 15	< 15	< 15	< 15	< 15	< 15	< 24	< 18	< 17	< 18	< 18	< 15
CBOD5 (lbs/day) Raw Sewage Influent Average Monthly	1685	1726	62060	2134	2091	1765	< 1494	1568	1480	1633	1421	1618
CBOD5 (lbs/day) Raw Sewage Influent Weekly Average	2074	1931	2179	2670	2158	1838	2133	1880	1864	2129	1798	1854
CBOD5 (lbs/day) Weekly Average	< 16	< 16	< 16	< 17	< 10	< 18	47	< 24	< 20	< 26	< 17	< 16
CBOD5 (mg/L) Average Monthly	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
CBOD5 (mg/L) Raw Sewage Influent Average Monthly	219	272	268	280	272	201.3	< 165.2	173	175	193.3	171	222
CBOD5 (mg/L) Raw Sewage Influent Weekly Average	288	284	305	316	277	226.5	264	208	219	278.5	228	261
CBOD5 (mg/L) Weekly Average	< 2	< 2	< 2	< 2	< 2	< 2	4	< 2	< 2	< 2	< 2	< 2
BOD5 (lbs/day) Raw Sewage Influent Average Monthly	1949	2307	2311	2402	2307	2144	< 1912	2128	2792	2475	2385	2422

BOD5 (lbs/day) Raw Sewage Influent Weekly Average	2424	2611	2444	3095	2307	2327	2602	2339	3276	2738	2879	2487
BOD5 (mg/L) Raw Sewage Influent Average Monthly	253	318	308	315	302	255	< 209	240	335	284	289	332
BOD5 (mg/L) Raw Sewage Influent Weekly Average	336	348	336	366	329	286	321	291	425	330	368	366
TSS (lbs/day) Average Monthly	< 23	19	< 19	< 18	14	27	< 24	< 24	< 17	74	66	< 22
TSS (lbs/day) Raw Sewage Influent Average Monthly	1666	1550	1702	1851	< 14	1363	1119	1172	2317	1884	2009	2226
TSS (lbs/day) Raw Sewage Influent Weekly Average	2031	2137	2467	2501	21	1382	1904	1620	2793	2437	2602	2872
TSS (lbs/day) Weekly Average	< 35	24	29	< 40	21	59	39	56	< 33	219	68	46
TSS (mg/L) Average Monthly	< 3	3	< 3	< 2	2	3	< 3	2	< 2	9	6	< 3
TSS (mg/L) Raw Sewage Influent Average Monthly	217	212	234	243	< 2	165	124	136	281	220	234	302
TSS (mg/L) Raw Sewage Influent Weekly Average	260	285	346	300	3	177	235	201	368	297	330	293
TSS (mg/L) Weekly Average	6	4	4	< 5	3	8	5	4	< 4	16	8	7
Total Dissolved Solids (mg/L) Average Monthly	501			704			810			361		
Total Dissolved Solids (mg/L) Daily Maximum	501			704			810			361		
Fecal Coliform (CFU/100 ml) Geometric Mean	< 4	< 4	< 4	< 3	< 5	< 4	< 3	< 3	< 4	< 2	< 3	< 4
Fecal Coliform (CFU/100 ml) Instantaneous Maximum	13	34	8	7	21	27	16	7	13	3	7	10
UV Intensity (mW/cm^2) Daily Minimum	3.33	4.92	4.95	2.59	2.6	2.64	2.68	2.71	2.73	2.67	2.79	2.33

Nitrate-Nitrite (lbs/day) Average Monthly	< 60	< 58	< 51	< 58	< 57	< 69	< 75	< 105	< 92	< 102	< 93	< 68
Nitrate-Nitrite (mg/L) Average Monthly	< 8	< 8	< 7	< 7.65	< 7.54	< 8.1	< 8.16	< 11.5	< 10.87	< 11.71	< 10.66	< 9
Ammonia (lbs/day) Average Monthly	< 0.8	< 0.7	< 9.0	< 0.8	< 0.8	< 0.9	< 1.8	< 3.2	< 2.9	< 2.6	< 2.6	< 0.7
Ammonia (mg/L) Average Monthly	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.4	< 0.3	< 0.3	< 0.20	< 0.1
TKN (lbs/day) Average Monthly	< 4	< 4	4	4	7	7	16	16	9	9	8	6
TKN (mg/L) Average Monthly	< 0.5	< 0.57	0.53	0.5	1.02	0.82	1.49	1.85	0.90	1	1.08	0.87
Total Phosphorus (lbs/day) Average Monthly	0.8	0.9	1.1	0.9	0.9	< 0.8	1.4	< 1.4	1.4	3.1	3.7	< 1.5
Total Phosphorus (mg/L) Average Monthly	0.1	0.1	0.1	0.1	0.1	< 0.1	0.20	< 0.20	0.20	0.40	0.30	< 0.2
Total Aluminum (mg/L) Average Monthly	0.15	0.21	0.37	0.21	0.26	0.22	0.23	0.23	0.25	0.72	0.70	0.23
Total Copper (mg/L) Average Monthly	0.028	0.026	0.02	0.016	0.014	0.016	0.014	0.015	0.012	0.014	0.028	0.02
Dissolved Iron (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 Iron (mg/L) Average Monthly	< 0.02	< 0.03	0.03	0.03	0.03	0.02	0.03	0.03	0.02	< 0.03	0.07	< 0.02
Total Hardness (mg/L) Average Monthly	206	242	199	205	209	208	213	212	182	175	203	221
Chronic WET - Ceriodaphnia Survival (TUc) Daily Maximum	1.03			1.03			1.03			1.03		
Chronic WET - Ceriodaphnia Reproduction (TUc) Daily Maximum	1.03			1.03			1.03			1.03		
Chronic WET - Pimephales Survival (TUc) Daily Maximum	1.03			1.03			1.03			1.03		
Chronic WET - Pimephales Growth (TUc) Daily Maximum	1.03			1.03			1.03			1.03		

DMR Data for Outfall 002 (from October 1, 2020 to September 30, 2021)

Parameter	SEP-21	AUG-21	JUL-21	JUN-21	MAY-21	APR-21	MAR-21	FEB-21	JAN-21	DEC-20	NOV-20	OCT-20
pH (S.U.) Annual Average										6.3		
CBOD5 (mg/L) Annual Average										2.1		
COD (mg/L) Annual Average										56		
TSS (mg/L) Annual Average										24		
Oil and Grease (mg/L) Annual Average										< 5		
Fecal Coliform (CFU/100 ml) Annual Average										755		
TKN (mg/L) Annual Average										0.78		
Total Phosphorus (mg/L) Annual Average										0.30		
Dissolved Iron (mg/L) Annual Average										0.06		

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 1.6
Latitude 40º 18' 54.98" **Longitude** -75º 8' 20.23"
Wastewater Description: Sewage Effluent from

Technology-Based Limitations

The following technology-based limitations apply, subject to water quality analysis and BPJ where applicable:

Pollutant	Limit (mg/l)	SBC	Federal Regulation	State Regulation
$CBOD_5$	25	Average Monthly	133.102(a)(4)(i)	92a.47(a)(1)
	40	Average Weekly	133.102(a)(4)(ii)	92a.47(a)(2)
Total Suspended Solids	30	Average Monthly	133.102(b)(1)	92a.47(a)(1)
	45	Average Weekly	133.102(b)(2)	92a.47(a)(2)
pH	6.0 – 9.0 S.U.	Min – Max	133.102(c)	95.2(1)
Fecal Coliform (5/1 – 9/30)	200 / 100 ml	Geo Mean	-	92a.47(a)(4)
Fecal Coliform (5/1 – 9/30)	1,000 / 100 ml	IMAX	-	92a.47(a)(4)
Fecal Coliform (10/1 – 4/30)	2,000 / 100 ml	Geo Mean	-	92a.47(a)(5)
Fecal Coliform (10/1 – 4/30)	10,000 / 100 ml	IMAX	-	92a.47(a)(5)
Total Residual Chlorine	0.5	Average Monthly	-	92a.48(b)(2)

WATER QUALITY-BASED LIMITATIONS

Conventional Pollutants, Nutrients, and Nitrogen Compounds

$CBOD_5$

Neshaminy Creek, below the confluence of Cooks Run, is listed as impaired for nutrients, organic enrichment, and low dissolved oxygen. Municipal point sources have been identified as a possible source for the impairment. Therefore, advanced technology limits for $CBOD_5$ removal were recommended when the facility expanded to 1.6 MGD. A review of discharge (DMR) data at the 5 years period time showed that the facility consistently achieved <10 mg/l $CBOD_5$. Therefore, a technology-based limit of 10 mg/l $CBOD_5$ is continued in this renewal. The recommended $CBOD_5$ limits are: 10 mg/l (5/1 – 10/31) and 20 mg/l (11/1 – 4/30).

Dissolved Oxygen

The existing effluent limit for dissolved oxygen is 5.0 mg/l (minimum). Cooks Run is classified as warm water fishes, which has a minimum in-stream dissolved oxygen criteria of 5.0 mg/l. Neshaminy Creek, located approximately 3 miles downstream of the discharge, has a seasonal TSF minimum in-stream dissolved oxygen criteria of 6.0 mg/l (Feb. 15 to July 31). The recommended dissolved oxygen limits are: 5 mg/l – instantaneous minimum. It is also consistent with WQM7 model DO limit of 5.0 mg/l.

NH_3-N

Ammonia limits are based on temperature and pH criteria, and dissolved oxygen depletion using models such as the Department's WQM7 model. Harvey Avenue's existing monthly average limit for NH_3-N is 1.0 mg/l (5/1 – 10/31), and 2.0 mg/l (11/1 – 4/30). The WQM model supports a summer seasonal NH_3-N limit of 1.4 mg/l @ pH=7.0, or a limit of 1.0 mg/l @ pH=7.5. A multiplier of 2.0 will be applied to obtain the seasonal winter NH_3-N limit; a higher multiplier is not supported by the WQM model. The recommended NH_3-N effluent limits are: 1.0 mg/l (5/1 – 10/31) and 2.0 mg/l (11/1 – 4/30)

NO_2+NO_3 as N

All publicly owned sewage treatment plants (POTWs) that discharge to the Neshaminy Creek basin include numerical NO_2+NO_3 limits designed to protect the Aqua PA public water supply (PWS) intake located near Trevose, PA. The

NO_2+NO_3 limits are based on limiting the sum of the ammonia and NO_2+NO_3 limits to 11 mg/l, from July 1st thru October 31st. Harvey Avenue STP existing permit has a seasonal ammonia limit of 1.0 mg/l, and their NO_2+NO_3 limit is 10.0 mg/l. NO_2+NO_3 limits may be extended to additional months in future or amended permits; therefore, a reporting requirement is recommended for the remaining months of the year. The recommended NO_2+NO_3 effluent limits are: 10.0 mg/l (5/1 – 10/31) and "Report" (11/1 – 6/30).

Total Kjeldahl Nitrogen (TKN)

Total nitrogen limits may be included in future permits. The existing NO_2+NO_3 limit is based on the sum of total ammonia and NO_2+NO_3 and does not include organic nitrogen compounds. TKN measures the sum of organic nitrogen and ammonia. The sum of TKN and NO_2+NO_3 is a more conservative estimate of downstream NO_2+NO_3 concentrations. It is estimated that treated sewage effluent contains 1 to 2 mg/l of organic nitrogen. Organic nitrogen contributes to downstream concentrations of NO_2+NO_3 through the conversion of the organic nitrogen to ammonia, followed by the conversion of ammonia to NO_2+NO_3. A reporting requirement to collect data for TKN is recommended. The recommended TKN effluent limits are: "Report"

Phosphorous

Cooks Run and Neshaminy Creek are both listed as impaired for nutrients. A nutrient TMDL for the Neshaminy Creek basin was withdrawn in 2008. The EPA is responsible for developing a replacement nutrient TMDL which may include waste load allocations for total phosphorus (TP). Previously established TP limits are consistently achieved, therefore recommended TP limits are: 0.5 mg/l (5/1 – 10/31) and 1.0 mg/l (11/1 – 4/30).

Based on latest DEP guidance monitoring for Total Nitrogen and E.Coli will be included on monthly basis to collect data.

Total Dissolved Solids limits of 1000 mg/l for ave. mo., daily max of 2000 mg/l and IMax of 2500 mg/l were based on DRBC Water Quality Regulations and will remain in the draft permit.

Toxics Management Spreadsheet (TMS):

Based on the initial data submitted with the renewal application TMS were prepared and reasonable potential were calculated and shared with applicant. Applicant requested to do some more sampling on concern parameters to see TMS can be rerun and reasonable potential can be reevaluated. This draft permit is issued based data submitted with initial application and any additional available data will be reviewed and necessary revision (if any) will be made to final permit. The following TMS pollutant results were recalculated:

☑ ***Recommended WQBELs & Monitoring Requirements***

No. Samples/Month: 4

	Mass Limits		*Concentration Limits*						
Pollutants	AML (lbs/day)	MDL (lbs/day)	AML	MDL	IMAX	Units	Governing WQBEL	WQBEL Basis	Comments
Total Aluminum	10.0	10.1	750	756	756	µg/L	750	AFC	Discharge Conc ≥ 50% WQBEL (RP)
Total Barium	Report	Report	Report	Report	Report	µg/L	2,419	THH	Discharge Conc > 10% WQBEL (no RP)
Total Cobalt	Report	Report	Report	Report	Report	µg/L	19.2	CFC	Discharge Conc > 10% WQBEL (no RP)
Total Copper	0.23	0.36	17.1	26.7	42.7	µg/L	17.1	CFC	Discharge Conc ≥ 50% WQBEL (RP)
Free Cyanide	Report	Report	Report	Report	Report	µg/L	5.24	CFC	Discharge Conc > 25% WQBEL (no RP)
Total Iron	Report	Report	Report	Report	Report	µg/L	1,512	CFC	Discharge Conc > 10% WQBEL (no RP)
Total Zinc	Report	2.91	Report	218	218	µg/L	217	AFC	Discharge Conc > 10% WQBEL (no RP)
Chloroform	Report	Report	Report	Report	Report	µg/L	6.26	CRL	Discharge Conc > 25% WQBEL (no RP)

Monitoring for Total Cooper, Total Iron, Dissolved Iron will remain on monthly reporting schedule (loading and conc. limits for Aliminum of 10lbs/day and 0.75 mg/l is added respectively). Free Cyanide monitoring is not proposed due to the corrected data. And quarterly monitoring is proposed for Total Barium, Total Cobalt, Total Zinc and Chloroform.

Total Cooper

Since the Site-Specific study (WER) is 20 years old and the facility has expanded since then, a Part C permit requirement for updated site-specific copper study using BLM is included in this renewal

.Whole Effluent Toxicity (WET)

For Outfall 001, ☒ **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:

The dilution series used for the tests was: 100%, 97%, 74%, 49%, and 24%. The Target Instream Waste Concentration (TIWC) to be used for analysis of the results is: 97.

Summary of Four Most Recent Test Results

Based on the review of the most recent WET tests of the facility 's report following WET summary and evaluation Table is attached:

WET Summary and Evaluation

Facility Name	Harvey Ave WWTP
Permit No.	PA0021172
Design Flow (MGD)	1.6
Q_{7-10} Flow (cfs)	0.07
PMF_a	1
PMF_c	1

		Test Results (Pass/Fail)			
		Test Date	Test Date	Test Date	Test Date
Species	**Endpoint**	11/24/20	2/9/21	6/29/21	10/5/21
Pimephales	Survival	PASS	PASS	PASS	PASS

		Test Results (Pass/Fail)			
		Test Date	Test Date	Test Date	Test Date
Species	**Endpoint**	11/24/20	2/9/21	6/29/21	10/5/21
Pimephales	Growth	PASS	PASS	PASS	PASS

		Test Results (Pass/Fail)			
		Test Date	Test Date	Test Date	Test Date
Species	**Endpoint**	11/23/20	2/9/21	6/28/21	10/5/21
Ceriodaphnia	Survival	PASS	PASS	PASS	PASS

		Test Results (Pass/Fail)			
		Test Date	Test Date	Test Date	Test Date
Species	**Endpoint**	11/23/20	2/9/21	6/28/21	10/5/21
Ceriodaphnia	Reproduction	PASS	PASS	PASS	PASS

Reasonable Potential? NO

Permit Recommendations

Test Type	**Chronic**
TIWC	**97** % Effluent
Dilution Series	**24, 49, 73, 97, 100** % Effluent
Permit Limit	**None**
Permit Limit Species	

Since facility passed all four WET tests, an annual monitoring w/o limits is proposed in this renewal.

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	Weekly Average	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Metered
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 Nov 1 - Apr 30	267	400	XXX	20	30	40	2/week	24-Hr Composite
CBOD5 Raw Sewage Influent	Report	Report	XXX	Report	Report	XXX	2/week	24-Hr Composite
CBOD5 May 1 - Oct 31	133	200	XXX	10	15	20	2/week	24-Hr Composite
BOD5 Raw Sewage Influent	Report	Report	XXX	Report	Report	XXX	2/month	24-Hr Composite
TSS Raw Sewage Influent	Report	Report	XXX	Report	Report	XXX	2/week	24-Hr Composite
TSS	400	600	XXX	30	45	60	2/week	24-Hr Composite
Total Dissolved Solids	XXX	XXX	XXX	1000.0 Avg Qrtly	2000.0 Daily Max	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 Geo Mean	XXX	1000	2/week	Grab
E.Coli (No./100 ml)	XXX	XXX	XXX	Report	XXX	XXX	1/month	Grab

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	Weekly Average	Instant. Maximum		
UV Intensity (mW/cm²)	XXX	XXX	Report	XXX	XXX	XXX	1/day	Measured
Nitrate-Nitrite Nov 1 - Jun 30	Report	XXX	XXX	Report	XXX	XXX	1/month	24-Hr Composite
Nitrate-Nitrite Jul 1 - Oct 31	133	XXX	XXX	10	XXX	20	2/week	24-Hr Composite
Ammonia Nov 1 - Apr 30	26.7	XXX	XXX	2.0	XXX	4	2/week	24-Hr Composite
Ammonia May 1 - Oct 31	13.3	XXX	XXX	1.0	XXX	2	2/week	24-Hr Composite
Total Nitrogen	Report	XXX	XXX	Report	XXX	XXX	1/month	24-Hr Composite
TKN	Report	XXX	XXX	Report	XXX	XXX	1/month	24-Hr Composite
Total Phosphorus Nov 1 - Mar 31	13.3	XXX	XXX	1.00	XXX	2	2/week	24-Hr Composite
Total Phosphorus Apr 1 - Oct 31	6.7	XXX	XXX	0.5	XXX	1	2/week	24-Hr Composite
Total Aluminum	10	XXX	XXX	0.75	XXX	1.5	1/week	24-Hr Composite
Total Copper	XXX	XXX	XXX	Report	XXX	XXX	1/month	24-Hr Composite
Dissolved Iron	XXX	XXX	XXX	Report	XXX	XXX	1/month	24-Hr Composite
Total Iron	XXX	XXX	XXX	Report	XXX	XXX	1/month	24-Hr Composite
Total Hardness	XXX	XXX	XXX	Report	XXX	XXX	1/month	24-Hr Composite
Total Barium	XXX	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	24-Hr Composite
Total Cobalt	XXX	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	24-Hr Composite
Chloroform	XXX	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	24-Hr Composite
Total Zinc	XXX	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	24-Hr Composite

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	Weekly Average	Instant. Maximum		
Toxicity, Chronic - Ceriodaphnia Survival (TUc)	XXX	XXX	XXX	Report Daily Max	XXX	XXX	See permit	24-Hr Composite
Toxicity, Chronic - Ceriodaphnia Reproduction (TUc)	XXX	XXX	XXX	Report Daily Max	XXX	XXX	See permit	24-Hr Composite
Toxicity, Chronic - Pimephales Survival (TUc)	XXX	XXX	XXX	Report Daily Max	XXX	XXX	See permit	24-Hr Composite
Toxicity, Chronic - Pimephales Growth (TUc)	XXX	XXX	XXX	Report Daily Max	XXX	XXX	See permit	24-Hr Composite

Compliance Sampling Location: 001

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	Annual Average	Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	XXX	Report	XXX	XXX	1/year	Grab
CBOD5	XXX	XXX	XXX	Report	XXX	XXX	1/year	Grab
COD	XXX	XXX	XXX	Report	XXX	XXX	1/year	Grab
TSS	XXX	XXX	XXX	Report	XXX	XXX	1/year	Grab
Oil and Grease	XXX	XXX	XXX	Report	XXX	XXX	1/year	Grab
Fecal Coliform (No./100 ml)	XXX	XXX	XXX	Report	XXX	XXX	1/year	Grab
TKN	XXX	XXX	XXX	Report	XXX	XXX	1/year	Grab
Total Phosphorus	XXX	XXX	XXX	Report	XXX	XXX	1/year	Grab
Dissolved Iron	XXX	XXX	XXX	Report	XXX	XXX	1/year	Grab

Compliance Sampling Location: 002

Other Comments: None