



**Northcentral Regional Office
CLEAN WATER PROGRAM**

Application Type Renewal
 Facility Type Municipal
 Major / Minor Minor

**NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE**

Application No. PA0209678
 APS ID 987270
 Authorization ID 1262993

Applicant and Facility Information

Applicant Name	<u>Cooper Township Municipal Authority</u>	Facility Name	<u>Grassflat Wastewater Treatment Plant</u>
Applicant Address	<u>PO Box 446</u> <u>Winburne, PA 16879-0446</u>	Facility Address	<u>99 Peale Road</u> <u>Grassflat, PA 16839</u>
Applicant Contact	<u>Larry Allen</u>	Facility Contact	<u>Gregory Kyler</u>
Applicant Phone	<u>(814) 345-5673</u>	Facility Phone	<u>(814) 345-1785</u>
Client ID	<u>66571</u>	Site ID	<u>487974</u>
Ch 94 Load Status	<u>Not Overloaded</u>	Municipality	<u>Cooper Township</u>
Connection Status	<u>No Limitations</u>	County	<u>Clearfield</u>
Date Application Received	<u>February 22, 2019</u>	EPA Waived?	<u>Yes</u>
Date Application Accepted	<u>March 11, 2019</u>	If No, Reason	<u></u>
Purpose of Application	<u>Renewal of an existing NPDES permit for the discharge of treated sewage.</u>		

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.

Approve	Deny	Signatures	Date
		Derek S. Garner / Project Manager	
		Nicholas W. Hartranft, P.E. / Environmental Engineer Manager	

Discharge, Receiving Waters and Water Supply Information

Outfall No.	<u>001</u>	Design Flow (MGD)	<u>0.12</u>
Latitude	<u>41° 0' 16.74"</u>	Longitude	<u>-78° 5' 55.42"</u>
Quad Name	<u>Karthus</u>	Quad Code	<u>1021</u>
Wastewater Description: <u>Sewage Effluent</u>			
Receiving Waters	<u>UNT of Moshannon Creek</u>	Stream Code	<u>25760</u>
NHD Com ID	<u>61830053</u>	RMI	<u>1.53</u>
Drainage Area	<u>1.30 sq. mi.</u>	Yield (cfs/mi ²)	<u>0.132</u>
Q ₇₋₁₀ Flow (cfs)	<u>0.17</u>	Q ₇₋₁₀ Basis	<u>Gage No. 01542000</u>
Elevation (ft)	<u>1384</u>	Slope (ft/ft)	<u>0.018</u>
Watershed No.	<u>8-D</u>	Chapter 93 Class.	<u>CWF</u>
Existing Use	<u>n/a</u>	Existing Use Qualifier	<u>n/a</u>
Exceptions to Use	<u>n/a</u>	Exceptions to Criteria	<u>n/a</u>
Assessment Status	<u>Impaired</u>		
Cause(s) of Impairment	<u>Metals, Siltation</u>		
Source(s) of Impairment	<u>Abandoned Mine Drainage</u>		
TMDL Status	<u>Final, 6/9/2009</u>	Name	<u>Moshannon Creek Watershed</u>
Nearest Downstream Public Water Supply Intake	<u>PA American Water Company</u>		
PWS Waters	<u>West Branch Susquehanna River</u>	Flow at Intake (cfs)	<u>679.73</u>
PWS RMI	<u>10.6</u>	Distance from Outfall (mi)	<u>138</u>

Treatment Facility Summary

The Grassflat Wastewater Treatment Plant serves 319 EDUs in the Cooper Township villages of Grassflat and Drifting. The treatment plant construction and continued operation is covered under WQM Permit No. 1798409, issued December 8, 1999. The facility is permitted for an annual average flow of 0.60 MGD, hydraulic design capacity of 0.120 MGD, and an organic design capacity of 250 lbs/day. Treatment consists of the following:

- One (1) HyCor spiral screen
- One (1) distribution box
- Two (2) Stahlermatic biotanks (hybrid fixed film/activated sludge process)
- Two (2) secondary clarifiers
- Two (2) chlorine contact tanks (gas chlorine disinfection)
- One (1) aerobic sludge digester
- One (1) aerated sludge holding tank

Disinfected effluent is discharged via Outfall 001 to an unnamed tributary of Moshannon Creek.

Two treatment trains are available; however, typical plant operation only requires one train to be online.

Biosolids are typically land applied in accordance with beneficial reuse permit no. PAG084834. If land application is not feasible, sludge is hauled to the Muddy Run Regional Authority Wastewater Treatment Plant, NPDES Permit No. PA0228842.

There are no anticipated changes/modifications to the treatment plant within the next five years.

Compliance History

The facility was last inspected on April 23, 2019 by Clarissa Alcorn, Water Quality Specialist. The inspection report noted numerous effluent limit exceedances in 2018.

A review of the discharge monitoring reports (DMRs) resulted in the following effluent violations:

Monitoring Period Begin Date	Monitoring Period End Date	Parameter	Sample Value	Violation Condition	Permit Value	Units	SBC
9/1/2017	9/30/2017	Fecal Coliform	1203.3	>	1000	CFU/100 ml	IMAX
4/1/2018	4/30/2018	CBOD5	32	>	25	mg/L	Average Monthly
4/1/2018	4/30/2018	CBOD5	77	>	40	mg/L	Weekly Average
4/1/2018	4/30/2018	TSS	64	>	45	mg/L	Weekly Average
5/1/2018	5/31/2018	TSS	70	>	45	mg/L	Weekly Average
5/1/2018	5/31/2018	Fecal Coliform	2419	>	1000	CFU/100 ml	IMAX
5/1/2018	5/31/2018	CBOD5	47	>	25	mg/L	Average Monthly
5/1/2018	5/31/2018	TSS	53	>	30	mg/L	Average Monthly
5/1/2018	5/31/2018	CBOD5	62	>	40	mg/L	Weekly Average
7/1/2018	7/31/2018	pH	5.46	<	6	S.U.	Minimum
8/1/2018	8/31/2018	Fecal Coliform	2419.6	>	1000	CFU/100 ml	IMAX
9/1/2018	9/30/2018	Fecal Coliform	2419.6	>	1000	CFU/100 ml	IMAX

There have been no violations within the last 12 months. Outside of the 2018 exceedances, the facility appears to consistently achieve the permitted effluent limits. Accordingly, the above violations should not impact the renewal of the permit.

Development of Effluent Limitations

Outfall No.	001	Design Flow (MGD)	0.12
Latitude	41° 0' 14.70"	Longitude	-78° 5' 59.30"
Wastewater Description: 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)
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 ⁽¹⁾	0.5	Average Monthly	-	92a.48(b)(2)

⁽¹⁾ Previous renewals of the permit carried over an average monthly total residual chlorine (TRC) limit of 1.0 mg/L and instantaneous maximum limit of 3.3 mg/l. As identified in the table above, 25 PA Code § 92a.48(b)(2) establishes a best available technology (BAT) limit of 0.5 mg/L. Past DMR data was reviewed to see if the permittee will require a schedule to comply with the new limit of 0.5 mg/l. The results are as follows:

TRC Sample Results								
Monitoring Start Date	Monitoring End Date	Conc. Units	Conc. 2 Value	Conc. 2 Limit	Conc. 2 SBC	Conc. 3 Value	Conc. 3 Limit	Conc. 3 SBC
9/1/2017	9/30/2017	mg/L	0.8	1	Avg Mo	1.16	3.3	IMAX
10/1/2017	10/31/2017	mg/L	0.8	1	Avg Mo	1.19	3.3	IMAX
11/1/2017	11/30/2017	mg/L	0.7	1	Avg Mo	1.2	3.3	IMAX
12/1/2017	12/31/2017	mg/L	0.9	1	Avg Mo	1.29	3.3	IMAX
1/1/2018	1/31/2018	mg/L	0.8	1	Avg Mo	1.28	3.3	IMAX
2/1/2018	2/28/2018	mg/L	0.6	1	Avg Mo	1.18	3.3	IMAX
3/1/2018	3/31/2018	mg/L	0.7	1	Avg Mo	1.84	3.3	IMAX
4/1/2018	4/30/2018	mg/L	0.5	1	Avg Mo	1.22	3.3	IMAX
5/1/2018	5/31/2018	mg/L	0.5	1	Avg Mo	1.2	3.3	IMAX
6/1/2018	6/30/2018	mg/L	0.7	1	Avg Mo	1.1	3.3	IMAX
7/1/2018	7/31/2018	mg/L	0.8	1	Avg Mo	2.2	3.3	IMAX
8/1/2018	8/31/2018	mg/L	0.9	1	Avg Mo	1.92	3.3	IMAX
9/1/2018	9/30/2018	mg/L	0.7	1	Avg Mo	1.51	3.3	IMAX
10/1/2018	10/31/2018	mg/L	0.6	1	Avg Mo	1.55	3.3	IMAX
11/1/2018	11/30/2018	mg/L	0.7	1	Avg Mo	1.38	3.3	IMAX
12/1/2018	12/31/2018	mg/L	0.8	1	Avg Mo	1.32	3.3	IMAX
1/1/2019	1/31/2019	mg/L	0.67	1	Avg Mo	1.29	3.3	IMAX
1/1/2019	1/31/2019	mg/L	0.67	1	Avg Mo	1.29	3.3	IMAX
2/1/2019	2/28/2019	mg/L	0.81	1	Avg Mo	1.32	3.3	IMAX
3/1/2019	3/31/2019	mg/L	0.93	1	Avg Mo	1.1	3.3	IMAX
4/1/2019	4/30/2019	mg/L	0.71	1	Avg Mo	1.32	3.3	IMAX
5/1/2019	5/31/2019	mg/L	0.68	1	Avg Mo	1.28	3.3	IMAX
6/1/2019	6/30/2019	mg/L	0.65	1	Avg Mo	1.19	3.3	IMAX
7/1/2019	7/31/2019	mg/L	0.715	1	Avg Mo	1.28	3.3	IMAX
AVERAGE		mg/L	0.72		Avg Mo	1.36		IMAX

As shown in the table above, the permittee generally does not achieve the proposed average monthly limits. Accordingly, DEP will establish a two-year compliance schedule to allow for one year of design and one year of construction of additional treatment units, if necessary.

Water Quality-Based Limitations

The previous permit established ammonia-n and dissolved oxygen monitoring requirements with the intention of better characterizing the wastewater so that a decision could be made during the next permit renewal as to whether water quality-based effluent limits were necessary. Below is a summary of the sample results:

Ammonia-N Sample Results								
Monitoring Start Date	Monitoring End Date	Load Units	Load Value	Load SBC	Conc. Units	Conc. Value	Conc SBC	Sample Frequency
9/1/2017	9/30/2017	lbs/day	6	Avg Mo	mg/L	31.8	Avg Mo	1/month
10/1/2017	10/31/2017	lbs/day	5	Avg Mo	mg/L	32.8	Avg Mo	1/month
11/1/2017	11/30/2017	lbs/day	5	Avg Mo	mg/L	28.4	Avg Mo	1/month
12/1/2017	12/31/2017	lbs/day	6	Avg Mo	mg/L	35	Avg Mo	1/month
1/1/2018	1/31/2018	lbs/day	6	Avg Mo	mg/L	36.8	Avg Mo	1/month
2/1/2018	2/28/2018	lbs/day	7	Avg Mo	mg/L	37.4	Avg Mo	1/month
3/1/2018	3/31/2018	lbs/day	8	Avg Mo	mg/L	45.6	Avg Mo	1/month
4/1/2018	4/30/2018	lbs/day	6	Avg Mo	mg/L	44.8	Avg Mo	1/month
5/1/2018	5/31/2018	lbs/day	4	Avg Mo	mg/L	40	Avg Mo	1/month
6/1/2018	6/30/2018	lbs/day	9	Avg Mo	mg/L	44.2	Avg Mo	1/month
7/1/2018	7/31/2018	lbs/day	2	Avg Mo	mg/L	13.5	Avg Mo	1/month
8/1/2018	8/31/2018	lbs/day	1	Avg Mo	mg/L	6	Avg Mo	1/month
9/1/2018	9/30/2018	lbs/day	6	Avg Mo	mg/L	29.8	Avg Mo	1/month

10/1/2018	10/31/2018	lbs/day	20	Avg Mo	mg/L	37.2	Avg Mo	1/month
11/1/2018	11/30/2018	lbs/day	2	Avg Mo	mg/L	12.2	Avg Mo	1/month
12/1/2018	12/31/2018	lbs/day	2	Avg Mo	mg/L	10.2	Avg Mo	1/month
1/1/2019	1/31/2019	lbs/day	2.34	Avg Mo	mg/L	11.8	Avg Mo	1/month
1/1/2019	1/31/2019	lbs/day	3	Avg Mo	mg/L	11.8	Avg Mo	1/month
2/1/2019	2/28/2019	lbs/day	3	Avg Mo	mg/L	12.4	Avg Mo	1/month
3/1/2019	3/31/2019	lbs/day	2	Avg Mo	mg/L	19.7	Avg Mo	1/month
4/1/2019	4/30/2019	lbs/day	4	Avg Mo	mg/L	31.6	Avg Mo	1/month
5/1/2019	5/31/2019	lbs/day	6	Avg Mo	mg/L	40	Avg Mo	1/month
6/1/2019	6/30/2019	lbs/day	2	Avg Mo	mg/L	9.2	Avg Mo	1/month
7/1/2019	7/31/2019	lbs/day	6	Avg Mo	mg/L	34.6	Avg Mo	1/month
AVERAGE		lbs/day	5.14	Avg Mo	mg/L	27.37	Avg Mo	1/month

Dissolved Oxygen Sample Results					
Monitoring State Date	Monitoring End Date	Conc. Units	Conc. Value	Conc. SBC	Sample Frequency
9/1/2017	9/30/2017	mg/L	0.8	Minimum	1/day
10/1/2017	10/31/2017	mg/L	1.1	Minimum	1/day
11/1/2017	11/30/2017	mg/L	1.5	Minimum	1/day
12/1/2017	12/31/2017	mg/L	2	Minimum	1/day
1/1/2018	1/31/2018	mg/L	1.9	Minimum	1/day
2/1/2018	2/28/2018	mg/L	2.8	Minimum	1/day
3/1/2018	3/31/2018	mg/L	1.1	Minimum	1/day
4/1/2018	4/30/2018	mg/L	1	Minimum	1/day
5/1/2018	5/31/2018	mg/L	0.1	Minimum	1/day
6/1/2018	6/30/2018	mg/L	0.1	Minimum	1/day
7/1/2018	7/31/2018	mg/L	0.1	Minimum	1/day
8/1/2018	8/31/2018	mg/L	0.1	Minimum	1/day
9/1/2018	9/30/2018	mg/L	0.2	Minimum	1/day
10/1/2018	10/31/2018	mg/L	0.2	Minimum	1/day
11/1/2018	11/30/2018	mg/L	0.8	Minimum	1/day
12/1/2018	12/31/2018	mg/L	0.3	Minimum	1/day
1/1/2019	1/31/2019	mg/L	1.7	Minimum	1/day
1/1/2019	1/31/2019	mg/L	1.7	Minimum	1/day
2/1/2019	2/28/2019	mg/L	1.7	Minimum	1/day
3/1/2019	3/31/2019	mg/L	1.8	Minimum	1/day
4/1/2019	4/30/2019	mg/L	1.5	Minimum	1/day
5/1/2019	5/31/2019	mg/L	1.4	Minimum	1/day
6/1/2019	6/30/2019	mg/L	1	Minimum	1/day
7/1/2019	7/31/2019	mg/L	0.4	Minimum	1/day
AVERAGE		mg/L	1.1	Minimum	1/day

The average discharge concentrations were used as the input concentrations in the Reasonable Potential Analysis (attached) completed in WQM 7.0 v1.0b. Potential water quality-based effluent limits for CBOD5 were also evaluated in the analysis. The analysis' results are as follows:

Parameter	Input (mg/l)	Minimum Eff. Limit (mg/l)	Avg Monthly Eff. Limit (mg/l)	Maximum Eff. Limit (mg/l)
CBOD5	25 ⁽¹⁾	--	25	--
Ammonia-N	27.37 ⁽²⁾	--	3.79	7.58
Dissolved Oxygen	1.1 ⁽³⁾	4	--	--

- (1) The existing CBOD5 technology-based effluent limit.
- (2) The existing permit requires weekly monitoring. The most recent three years of sample results were averaged together for the input concentration.
- (3) The existing permit requires daily monitoring. The most recent three years of sample results were averaged together for the input concentration.

The results above indicate that water quality-based effluent limits for ammonia-n and dissolved oxygen would typically be appropriate. However, the receiving unnamed tributary is impaired by abandoned mine drainage. When a discharge is to a water polluted by abandoned mine drainage, DEP generally evaluates if 25 Pa. §95.5 is applicable. Treatment requirements at §95.5 state that if the receiving water is so polluted by abandoned mine drainage that applicable water quality criteria are not being met and designated water uses are not being achieved to the extent that aquatic communities are essentially excluded, and where the pollution cannot be remedied by controlling known, active discharges, that secondary treatment standards should be applied. Accordingly, DEP performed an aquatic survey (attached) on the unnamed tributary at the location of the discharge. The survey concludes that the unnamed tributary is severely impacted by abandoned mine drainage, essentially excluding aquatic life within the stream. Based on this conclusion DEP will not apply the abovementioned water quality-based effluent limits and will only apply the technology-based secondary treatment standards. A significant increase in water quality to the unnamed tributary at the point of the discharge is not anticipated in the near future; however, should future remediation improve water quality, then the above limits should be established.

An evaluation of water quality-based limits for TRC was not performed due to the §95.5 determination.

Best Professional Judgment (BPJ) Limitations

Based on the abovementioned §95.5 determination, DEP is recommending that ammonia-n and dissolved oxygen monitoring is removed from the permit.

TMDL

The unnamed tributary is located within the Moshannon Creek Watershed TMDL, established to address metals and pH associated with abandoned mine drainage. The previous renewal of the permit established annual monitoring requirements for these metals to help demonstrate whether the discharge is contributing to the impairment. The results of the annual sampling are as follows:

Monitoring Period	Parameter	Load Units	Load Value	Load SBC	Conc. Units	Conc. Value	Conc SBC	Sample Frequency
2015	Aluminum, Total	lbs/day	0.03	Annual Avg	mg/L	0.02	Annual Avg	1/year
2016	Aluminum, Total	lbs/day	0.03	Annual Avg	mg/L	0.02	Annual Avg	1/year
2017	Aluminum, Total	lbs/day	0.07	Annual Avg	mg/L	0.07	Annual Avg	1/year
2018	Aluminum, Total	lbs/day	0.03	Annual Avg	mg/L	0.13	Annual Avg	1/year
AVG	Aluminum, Total	lbs/day	0.04	Annual Avg	mg/L	0.06	Annual Avg	1/year

Monitoring Period	Parameter	Load Units	Load Value	Load SBC	Conc. Units	Conc. Value	Conc SBC	Sample Frequency
2015	Iron, Total	lbs/day	0.02	Annual Avg	mg/L	0.1	Annual Avg	1/year
2016	Iron, Total	lbs/day	0.02	Annual Avg	mg/L	0.1	Annual Avg	1/year
2017	Iron, Total	lbs/day	0.26	Annual Avg	mg/L	0.26	Annual Avg	1/year
2018	Iron, Total	lbs/day	0.04	Annual Avg	mg/L	0.18	Annual Avg	1/year
AVG	Iron, Total	lbs/day	0.09	Annual Avg	mg/L	0.16	Annual Avg	1/year

Monitoring Period	Parameter	Load Units	Load Value	Load SBC	Conc. Units	Conc. Value	Conc SBC	Sample Frequency
2015	Manganese, Total	lbs/day	0.01	Annual Avg	mg/L	0.05	Annual Avg	1/year
2016	Manganese, Total	lbs/day	0.01	Annual Avg	mg/L	0.05	Annual Avg	1/year
2017	Manganese, Total	lbs/day	0.04	Annual Avg	mg/L	0.04	Annual Avg	1/year
2018	Manganese, Total	lbs/day	0.008	Annual Avg	mg/L	0.04	Annual Avg	1/year
AVG	Manganese, Total	lbs/day	0.02	Annual Avg	mg/L	0.05	Annual Avg	1/year

As demonstrated by the summarized sampling charts above, none of the metals are being discharged above Chapter 93 criterion. Since a discharge concentration below criteria does not demonstrate reasonable potential to contribute to an impairment, DEP has proposed to remove the sampling requirements for total aluminum, iron, and manganese.

Chesapeake Bay

A summary of annual sampling for total nitrogen and phosphorus, established in the previous renewal, is as follows:

Monitoring Period	Parameter	Load Units	Load Value	Load SBC	Conc. Units	Conc. Value	Conc. SBC	Sample Frequency
2015	Total Nitrogen	lbs/day	5	Annual Avg	mg/L	36	Annual Avg	1/year
2016	Total Nitrogen	lbs/day	6	Annual Avg	mg/L	37	Annual Avg	1/year
2017	Total Nitrogen	lbs/day	43.3	Annual Avg	mg/L	43.3	Annual Avg	1/year
2018	Total Nitrogen	lbs/day	7	Annual Avg	mg/L	34.7	Annual Avg	1/year
AVG	Total Nitrogen	lbs/day	15.33	Annual Avg	mg/L	37.75	Annual Avg	1/year

Monitoring Period	Parameter	Load Units	Load Value	Load SBC	Conc. Units	Conc. Value	Conc. SBC	Sample Frequency
2015	Total Phosphorus	lbs/day	0.5	Annual Avg	mg/L	4	Annual Avg	1/year
2016	Total Phosphorus	lbs/day	0.6	Annual Avg	mg/L	4	Annual Avg	1/year
2017	Total Phosphorus	lbs/day	3.95	Annual Avg	mg/L	3.95	Annual Avg	1/year
2018	Total Phosphorus	lbs/day	1	Annual Avg	mg/L	4.94	Annual Avg	1/year
AVG	Total Phosphorus	lbs/day	1.51	Annual Avg	mg/L	4.22	Annual Avg	1/year

Since the permittee has completed five years of sampling, in accordance with requirements for Phase V facilities in Phase 2 of Pennsylvania’s Chesapeake Bay Watershed Implementation Plan, reporting for total nitrogen and phosphorus has been removed from the permit.

Additional Considerations

Influent monitoring for BOD5 and TSS are proposed to remain in the permit to help with Chapter 94 reporting requirements.

Anti-Backsliding

Monitoring requirements for ammonia-n, dissolved oxygen, Chesapeake Bay nutrients, and AMD-related metals have been removed from the permit per anti-backsliding regulations at 40 CFR § 122.44(l)(2)(i)(B)(1), which allows for parameters to be removed from the permit based on information (sample results, aquatic suvery) that was not available at the time of previous permit issuance.

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 December 31, 2021

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day)		Concentrations (mg/L)				Minimum Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average	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
TRC	XXX	XXX	XXX	1.0	XXX	3.3	1/day	Grab
CBOD5	25	40	XXX	25.0	40.0	50	1/week	24-Hr Composite
BOD5 Raw Sewage Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	1/week	24-Hr Composite
TSS Raw Sewage Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	1/week	24-Hr Composite
TSS	30	45	XXX	30.0	45.0	60	1/week	24-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	1/week	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	1/week	Grab

Compliance Sampling Location: Outfall 001

Outfall 001, Effective Period: January 1, 2022 through Permit Expiration Date

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day)		Concentrations (mg/L)				Minimum Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average	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
TRC	XXX	XXX	XXX	0.5	XXX	1.6	1/day	Grab
CBOD5	25	40	XXX	25.0	40.0	50	1/week	24-Hr Composite
BOD5 Raw Sewage Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	1/week	24-Hr Composite
TSS Raw Sewage Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	1/week	24-Hr Composite
TSS	30	45	XXX	30.0	45.0	60	1/week	24-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	1/week	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	1/week	Grab

Compliance Sampling Location: Outfall 001