pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0082643 & WQM 0188413 T-1**
Wastewater Type	**Sewage**	APS ID	**1076371**
Facility Type	**SFTF**	Authorization ID	**1418794 & 1418841 WQM**

NPDES/WQM PERMITS FACT SHEET INDIVIDUAL SFTF/SRSTP

Applicant, Facility and Project Information

Applicant Name	**Flatbush Athletics, LLC**	Facility Name	**Flatbush Golf Course**
Applicant Address	5000 Hanover Road	Facility Address	940 Littlestown Road
	Hanover, PA 17331-9077		Littlestown, PA 17340-9441
Applicant Contact	Kevin Repasky	Facility Contact	Michael Klunk
Applicant Phone	(800) 426-4242	Facility Phone	(717) 359-7125
Client ID	373860	Site ID	250880
SIC Code	7992	Municipality	Union Township
SIC Description	Services - Public Golf Courses	County	Adams
Date Application Received	November 21, 2022	WQM Required	
Date Application Accepted	November 30, 2022	WQM App. No.	0188413 T-1

Project Description: NPDES renewal & ownership transfer applications.

Summary of Review

The PA Department of Environmental Protection (DEP or Department) has received an NPDES permit renewal application from Flatbush Golf Course Inc. (permittee) for permittee's Flatbush Golf Course STP, located in Union Township, Adams County on May 26, 2022.

The hydraulic design capacity is 7,500 GPD & annual average design flow is 2,000 GPD. The receiving stream is UNT to South Branch Conewago Creek in watershed 7-F and classified as Warm Water Fishes -Migratory Fishes (WWF & MF). The existing permit was issued on January 05, 2018 which will expire on January 31, 2023.

On November 21, 2022, Department of Environmental Protection (DEP) received a permit transfer application from Anna M. Noel, requesting the permit be amended to reflect a change in ownership from Flatbush Golf Course, Inc. to Flatbush Athletics, LLC (Kevin & Christy Repasky).

The WQM Part II permit No. 0188413 A-1 was amendment issued on September 14, 2018 to install and operate a dechlorination system to meet more stringent TRC limit. It will be transferred in conjunction with issuance of the final NPDES permit.

Sludge use and disposal description and location(s): N/A

Changes from the previous permit: The E. Coli. monitoring and report requirements will add to the proposed permit.

Based on the review outlined in this fact sheet, it is recommended that the permit be drafted. A public notice of the draft permit will be published in the *Pennsylvania Bulletin* for public comments for 30 days.

Approve	Deny	Signatures	Date
X		*Hilaryle* Hilary H. Le / Environmental Engineering Specialist	December 16, 2022
X		*Maria D. Bebenek for Daniel W. Martin* Daniel W. Martin, P.E. / Environmental Engineer Manager	January 23, 2023

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	001	Design Flow (MGD)	0.002
Latitude	39º 47' 7.18"	Longitude	-77º 4' 56.46"
Quad Name	McSherrystown	Quad Code	2029
Wastewater Description:	Sewage Effluent		
Receiving Waters	Unnamed Tributary to South Branch Conewago Creek (WWF, MF)	Stream Code	08859
NHD Com ID	57475877	RMI	0.7900
Drainage Area	0.16 mi.^{2}	Yield (cfs/mi^2)	0.0051
Q_{7-10} Flow (cfs)	0.000817	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	597	Slope (ft/ft)	
Watershed No.	7-F	Chapter 93 Class.	WWF, MF
Existing Use	**None**	Existing Use Qualifier	
Exceptions to Use	None	Exceptions to Criteria	
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment			
Source(s) of Impairment			
TMDL Status		Name	
Nearest Downstream Public Water Supply Intake	New Oxford Muni Auth Water Sys Adams County		
PWS Waters	South Branch Conewago Creek	Flow at Intake (cfs)	
PWS RMI	4.8 miles	Distance from Outfall (mi)	Approximate 6.0 miles

Changes Since Last Permit Issuance: none

Drainage Area
The discharge is to Unnamed Tributary to South Branch Conewago Creek at RMI 3.32 miles. A drainage area upstream of the discharge is estimated to be 0.16 mi.^{2}, according to USGS StreamStats available at https://streamstats.usgs.gov/ss/.

Stream Flow
According to StreamStats, the point of first use has a Q_{7-10} of 0.000817 cfs and a drainage area of 0.16 mi.^{2}, which results in a Q_{7-10} low flow yield of 0.0051 cfs/mi.^{2}. This information is used to obtain a chronic or 30-day (Q_{30-10}), and an acute or 1-day (Q_{1-10}) exposure stream flow for the discharge point as follows (Guidance No. 391-2000-023):

Q_{7-10} = 0.000817 cfs
Low Flow Yield = 0.000817 cfs / 0.16 mi.^{2} = 0.0051 cfs/mi.^{2}
Q_{30-10} = 1.36 * 0.000817 cfs = 0.0011 cfs
Q_{1-10} = 0.64 * 0.000817 cfs = 0.00052 cfs

Unnamed Tributary to South Branch Conewago Creek
25 Pa. Code § 93.9o classifies Unnamed Tributary to South Branch Conewago Creek as Warm Water & Migratory Fishes (WWF & MF) surface water. Based on the 2022 Integrated Report, Unnamed Tributary to South Branch Conewago Creek, assessment unit IDs 4861 & 18831, is not impaired. A TMDL currently does not exist for this stream segment, therefore, no TMDL has been taken into consideration during this review.

Public Water Supply
The nearest downstream public water supply intake is the New Oxford Municipal Authority Water System in Adams County, approximately 6.0 miles downstream of this discharge. Given the nature and dilution, the discharge is not expected to significantly impact the water supply.

Compliance History	
Summary of DMRs:	The DMR data reports from November 2021 to November 2022 were summarized in the Table below.
Summary of Inspections:	9/14/2021, Mr. Bettinger, DEP's WQS, conducted compliance evaluation inspection. There were no violations identified during inspection. The outfall was clear and field test results were within the permit limits. Recommendation was ensured that the facility's offline blowers are diagnosed and necessary repairs which are made in order to restore them to normal operating conditions. 6/3/2020, Mr. Bettinger, DEP's WQT, conducted an admin inspection. There were no violations noted. The facility was operating under normal hours.
Other Comments:	There are no open violations against the facility or the permittee.

Other Comments:

DMR reported from November 2021 to November 2022

Parameter	Month												
	Nov 21	Dec 21	Jan 22	Feb 22	Mar 22	Apr 22	May 22	Jun 22	Jul 22	Aug 22	Sep 22	Oct 22	Nov 22
Flow (MGD)	0.0004	0.000239	0.00015	0.000115	0.0002	0.00027	0.00054	0.00045	0.00039	0.0005	0.00079	0.00036	0.00016
TRC	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02
$CBOD_5$	< 2.4	< 2.4	< 2.4	< 2.4	< 2.4	< 2.4	< 2.4	< 2.4	< 2.4	< 2.4	< 2.4	< 2.4	< 2.4
TSS	9.0	1.0	1.0	1.0	1.0	1.0	3.0	1.0	3.0	1.0	7.0	8.0	2.0
Fecal Coliform	186	2.0	<1.0	< 1.0	< 1.0	<1.0	< 1.0	< 1.0	1.0	< 19.0	< 1.0	< 1.0	23.0

Treatment Facility Summary

This Small Flow Treatment Facility (SFTF) is at Union Township, Adams County. This facility is owned by Flatbush Athletics, LLC. The permitted Annual Average Design Flow and Hydraulic Design Capacity are 0.002 MGD and 0.0075 MGD, respectively.

Per the most recent site inspection on September 14, 2021, the facility consists of the following treatment units:

1. One comminutor
2. One bar screen
3. One equalization Tank
4. Two aeration tanks
5. One clarifier
6. One chlorine contact tank
7. One post aeration chamber
8. One sludge holding tank

The treated effluent is discharged to UNT to South Branch Conewago Creek through outfall 001.

Development of Effluent Limitations and Monitoring Requirements

The proposed effluent limitations and monitoring requirements are derived from DEP's Standard Operating Procedure (SOP) for New and Reissuance Small Flow Treatment Facility Individual NPDES Permit Applications (SOP No. BPNPSM-PMT-003) revised on May 17, 2019.

pH is no longer a parameter of concern for SFTFs, so the pH monitoring requirement in the previous permit has been eliminated. The reviewer has determined that no other changes to the proposed limits and/or sampling frequencies are necessary at this time.

The reviewer notes that the existing BOD_5, and TSS monitoring frequencies and limits are inconsistent with the monitoring frequencies and limits recommended in DEP SOP no. BPNPSM-PMT-003 for SFTFs revised on May 17, 2019. A review of the facility's AMR and a review of the technology on site both verify that the existing facility cannot meet the more stringent limits in the SOP without upgrading the existing facility. Therefore, the monitoring frequencies and limits from the previous permit will remain the same. Also, because the SOP, PAG-04, and pre-printed AMR form all specify BOD_5 instead of the parameter $CBOD_5$, then the BOD_5 has replaced the parameter $CBOD_5$.

Biochemical Oxygen Demand (BOD_5): Only the minimum treatment requirements of secondary treatment will be necessary to protect water quality. The limits of 10.0 mg/L average monthly and 20.0 mg/L instantaneous will remain in the proposed permit.

Total Suspended Solids (TSS): The existing limits of 10.0 mg/L average monthly and 20.0 mg/L instantaneous maximum will remain in the proposed permit based on the minimum level of effluent quality attainable by secondary treatment based on 25 Pa. Code § 92a.47.

Fecal Coliform: The recent coliform guidance in 25 Pa. Code § 92a.47(a)(4) requires a summer technology limit of 200/100 ml as a geometric mean (average monthly) and not greater than 1,000/100 ml (IMAX) and 25 Pa. Code § 92a.47(a)(5) requires a winter limit of 2,000/100 ml as a geometric mean (average monthly) and not greater than 10,000/100 ml (IMAX), respectively.

Total Residual Chlorine (TRC): Based on the attached TRC Excel Spreadsheet calculator, which uses the equations and calculations from the Department's May 1, 2003 Implementation Guidance for Total Residual Chlorine (ID No. 391-2000-015), and 0.000817 cfs of Q_{7-10} at discharge indicated monthly average limit of 0.047 mg/L and an instantaneous maximum limit of 0.155 mg/L which are more stringent and will remain in the proposed permit. Based on the DMRs from the past year, the facility has been consistently achieving these limits.

E. Coli: As recommended by DEP's SOP No. BPNPSM-PMT-033, a routine monitoring for E. Coli will be included in the proposed permit under 25 Pa. Code § 92a.61. This requirement applies to all sewage dischargers greater than 0.002 MGD in their new and reissued permits. A monitoring frequency of 1/year will be included in the permit to be consistent with the recommendation from this SOP.

Toxic: This is a minor sewage facility receiving domestic wastewater only and the current application does not require sampling of toxic pollutants (or heavy metals) for those facilities with design flows less than 0.1 MGD. Therefore, no reasonable potential analysis for toxic pollutants has been performed for this permit renewal.

Chesapeake Bay Requirements

Facilities that are designed based on a flow of less than 2,000 GPD or considered as SFTFs are exempt from the Bay requirements. Accordingly, it is not necessary for the permittee to perform nutrient monitoring.

Total Maximum Daily Load (TMDL)

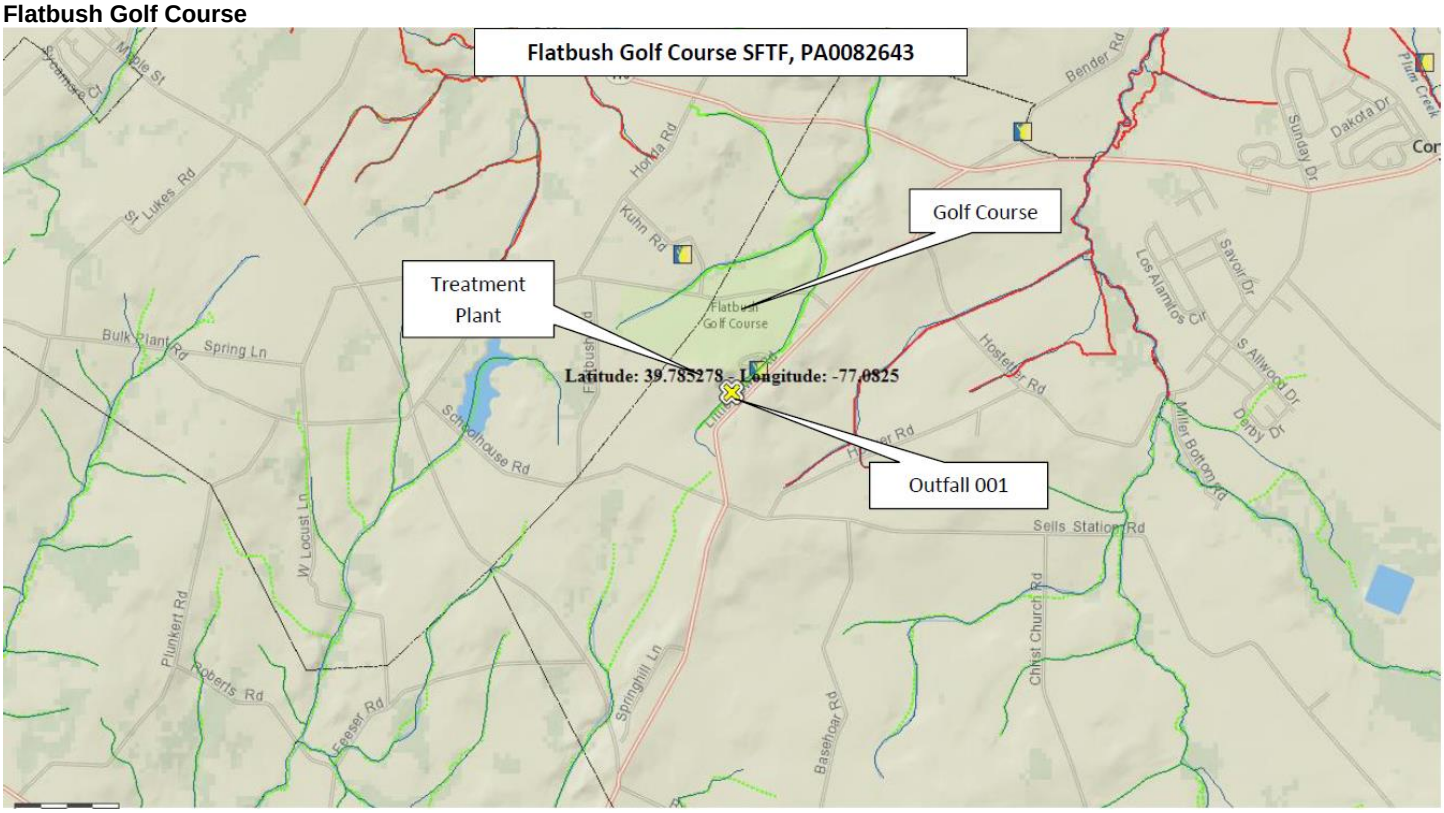
The discharge is located in a stream segment listed as attaining uses; therefore, no TMDL has been taken into consideration during this review.

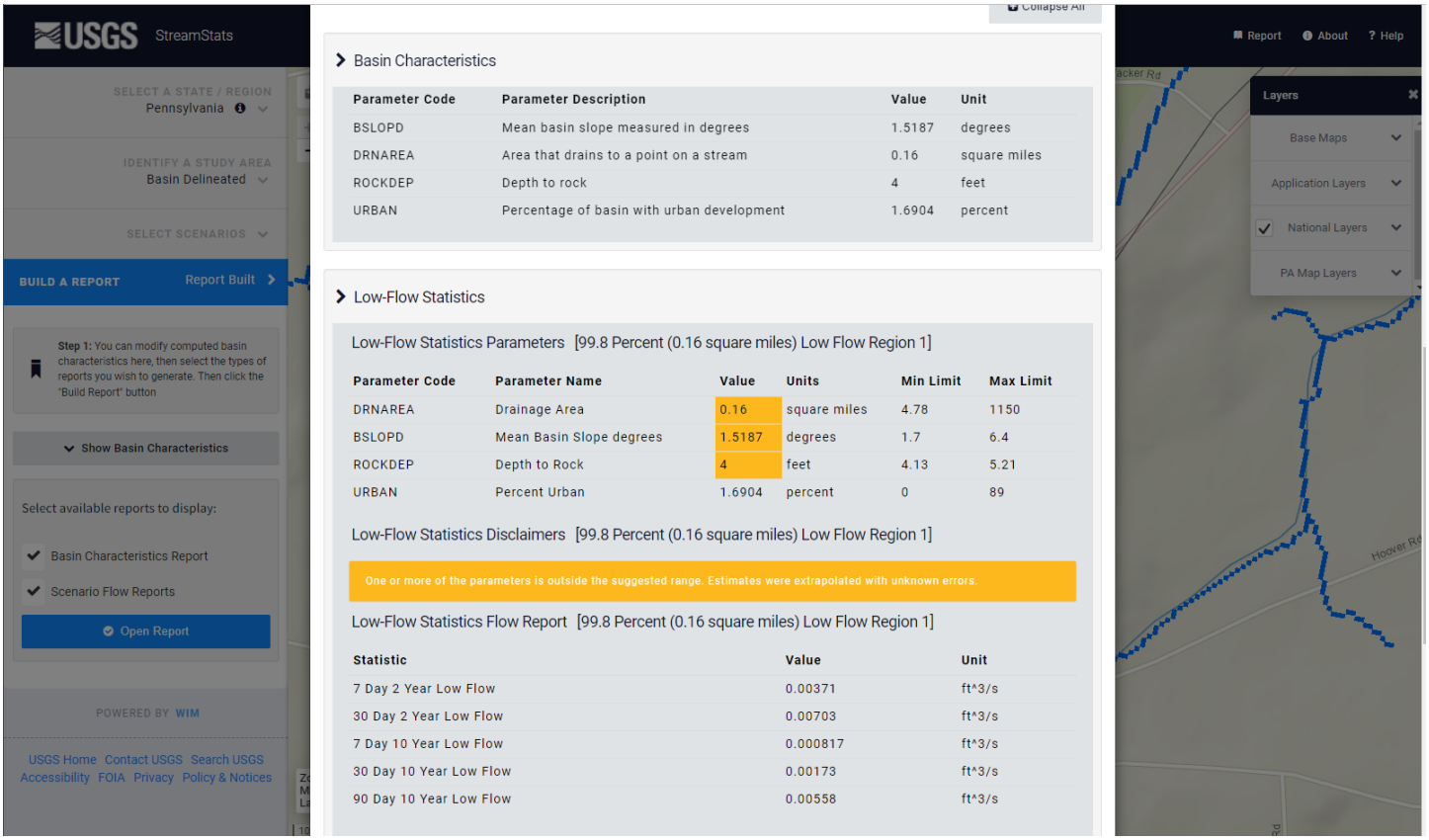
Anti-Degradation Requirements

The discharge is to non-special protection waters/watershed. No HQ/EV waters are impacted by this discharge. The effluent limits for this discharge have been developed to ensure that existing instream water uses and the level of water quality necessary to protect the existing uses are maintained and protected.

Class A Wild Trout Streams

No Class A Wild Trout Fishery will be impacted by this discharge.





USGS StreamStats

SELECT A STATE / REGION: Pennsylvania

IDENTIFY A STUDY AREA: Basin Delineated

SELECT SCENARIOS

BUILD A REPORT — Report Built

Step 1: You can modify computed basin characteristics here, then select the types of reports you wish to generate. Then click the "Build Report" button

Show Basin Characteristics

Select available reports to display:

- Basin Characteristics Report
- Scenario Flow Reports

Open Report

POWERED BY WIM

USGS Home Contact USGS Search USGS
Accessibility FOIA Privacy Policy & Notices

Collapse All

Report About Help

Layers

Base Maps
Application Layers
National Layers
PA Map Layers

Hoover Rd

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
BSLOPD	Mean basin slope measured in degrees	1.5187	degrees
DRNAREA	Area that drains to a point on a stream	0.16	square miles
ROCKDEP	Depth to rock	4	feet
URBAN	Percentage of basin with urban development	1.6904	percent

Low-Flow Statistics

Low-Flow Statistics Parameters [99.8 Percent (0.16 square miles) Low Flow Region 1]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.16	square miles	4.78	1150
BSLOPD	Mean Basin Slope degrees	1.5187	degrees	1.7	6.4
ROCKDEP	Depth to Rock	4	feet	4.13	5.21
URBAN	Percent Urban	1.6904	percent	0	89

Low-Flow Statistics Disclaimers [99.8 Percent (0.16 square miles) Low Flow Region 1]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors.

Low-Flow Statistics Flow Report [99.8 Percent (0.16 square miles) Low Flow Region 1]

Statistic	Value	Unit
7 Day 2 Year Low Flow	0.00371	ft^3/s
30 Day 2 Year Low Flow	0.00703	ft^3/s
7 Day 10 Year Low Flow	0.000817	ft^3/s
30 Day 10 Year Low Flow	0.00173	ft^3/s
90 Day 10 Year Low Flow	0.00558	ft^3/s

TRC EVALUATION

Input appropriate values in A3:A9 and D3:D9

0.000817	= Q stream (cfs)	0.5	= CV Daily
0.002	= Q discharge (MGD)	0.5	= CV Hourly
30	= no. samples	1	= AFC_Partial Mix Factor
0.3	= Chlorine Demand of Stream	1	= CFC_Partial Mix Factor
0	= Chlorine Demand of Discharge	15	= AFC_Criteria Compliance Time (min)
0.5	= BAT/BPJ Value	720	= CFC_Criteria Compliance Time (min)
0	= % Factor of Safety (FOS)		=Decay Coefficient (K)

Source	Reference	AFC Calculations	Reference	CFC Calculations
TRC	1.3.2.iii	WLA afc = 0.103	1.3.2.iii	WLA cfc = 0.093
PENTOXSD TRG	5.1a	LTAMULT afc = 0.373	5.1c	LTAMULT cfc = 0.581
PENTOXSD TRG	5.1b	LTA_afc= 0.038	5.1d	LTA_cfc = 0.054

Source		Effluent Limit Calculations	
PENTOXSD TRG	5.1f	AML MULT = 1.231	
PENTOXSD TRG	5.1g	AVG MON LIMIT (mg/l) = 0.047	AFC
		INST MAX LIMIT (mg/l) = 0.155	

WLA afc	**(.019/e(-k*AFC_tc)) + [(AFC_Yc*Qs*.019/Qd*e(-k*AFC_tc))...** **...+ Xd + (AFC_Yc*Qs*Xs/Qd)]*(1-FOS/100)**
LTAMULT afc	EXP((0.5*LN(cvh^2+1))-2.326*LN(cvh^2+1)^0.5)
LTA_afc	wla_afc*LTAMULT_afc
WLA_cfc	**(.011/e(-k*CFC_tc) + [(CFC_Yc*Qs*.011/Qd*e(-k*CFC_tc))...** **...+ Xd + (CFC_Yc*Qs*Xs/Qd)]*(1-FOS/100)**
LTAMULT_cfc	EXP((0.5*LN(cvd^2/no_samples+1))-2.326*LN(cvd^2/no_samples+1)^0.5)
LTA_cfc	wla_cfc*LTAMULT_cfc
AML MULT	EXP(2.326*LN((cvd^2/no_samples+1)^0.5)-0.5*LN(cvd^2/no_samples+1))
AVG MON LIMIT	MIN(BAT_BPJ,MIN(LTA_afc,LTA_cfc)*AML_MULT)
INST MAX LIMIT	**1.5*((av_mon_limit/AML_MULT)/LTAMULT_afc)**

Existing Effluent Limitations and Monitoring Requirements

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	1/month	Measured
TRC	XXX	XXX	XXX	0.05	XXX	0.16	1/month	Grab
BOD_5	XXX	XXX	XXX	10.0	XXX	20	1/month	8-Hr Composite
TSS	XXX	XXX	XXX	10.0	XXX	20	1/month	8-Hr Composite
Fecal Coliform (No./100 ml)	XXX	XXX	XXX	200 Geo Mean	XXX	1000	1/month	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 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	Daily Maximum	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	1/month	Measured
TRC	XXX	XXX	XXX	0.05	XXX	0.16	1/month	Grab
BOD_5	XXX	XXX	XXX	10.0	XXX	20.0	1/month	8-Hr Composite
TSS	XXX	XXX	XXX	10.0	XXX	20.0	1/month	8-Hr Composite
Fecal Coliform (No./100 ml)	XXX	XXX	XXX	200 Geo Mean	XXX	1000	1/month	Grab
E. Coli (No./100 ml)	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab

Compliance Sampling Location:

Other Comments: