

Southcentral Regional Office CLEAN WATER PROGRAM

Application Type	Renewal
Wastewater Type	Sewage
Facility Type	See Comments below

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Application No.	PA0031551
APS ID	35635
Authorization ID	1469160

	Applicant, Facilit	y and Project Informat	ion
Applicant Name	Chambersburg School District	Facility Name	Lurgan Township Elementary School
Applicant Address	435 Stanley Avenue	Facility Address	8888 Roxbury Road
	Chambersburg, PA 17201-3605		Lurgan, PA 17232-9702
Applicant Contact	Matthew Varner	Facility Contact	Matthew Varner
Applicant Phone	(717) 261-3406	Facility Phone	(717) 261-7781
Client ID	8156	Site ID	449511
SIC Code	8211	Municipality	Lurgan Township
SIC Description	Services - Elementary And Secondary Schools	County	Franklin
Date Application Red	eived June 28, 2022	WQM Required	Yes
Date Application Acc	epted July 13, 2022	WQM App. No.	
Project Description	NPDES Renewal / Amendmen	t	

Summary of Review

Chambersburg School District (CSD) has applied to the Pennsylvania Department of Environmental Protection (DEP) for reissuance of its NPDES permit. The permit was last reissued on December 21, 2017 and became effective on January 1, 2018. The permit expired on December 31, 2022 but the terms and conditions of the permit have been administratively extended. After CSD submitted a renewal application, CSD has also requested via submitting NPDES permit / WQM permit amendment applications to modify the current annual average design flow. These amendment applications indicate that the facility would be considered a small flow treatment system discharging less than 0.002 MGD rather than a minor sewage facility discharging less than 0.05 MGD. These applications along with the renewal application have been reviewed simultaneously.

Based on the review, it is recommended that the permit be drafted.

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
Х		ginsu Kim Jinsu Kim / Environmental Engineering Specialist	January 31, 2024
Х		Maria D. Bebenek for Daniel W. Martin, P.E. / Environmental Engineer Manager	February 1, 2024
Х		Maria D. Bebenek Maria D. Bebenek, P.E. / Program Manager	February 1, 2024

Discharge, Receiving Waters and Water Supply Information										
Outfall No. 001			Design Flow (MGD)	0.00338						
Latitude 40°	5' 53.05'		Longitude	77° 38' 20.80"						
Quad Name R	oxbury		Quad Code	1824						
Wastewater Descr	iption:	Treated Sewage								
Receiving Waters	UNT 1	o Conodoguinet Creek	Stream Code	10194 (secondary receiving stream, Conodoguinet cr)						
NHD Com ID	56409	9479 (for SC 10194)	RMI	<mark>0.15</mark>						
Drainage Area	0.05 r	ni ²	Yield (cfs/mi²)	0.167						
Q ₇₋₁₀ Flow (cfs)	0.008	35	Q ₇₋₁₀ Basis	Please see below						
Elevation (ft)	745.4	11	Slope (ft/ft)							
Watershed No.	7-B		Chapter 93 Class.	WWF, MF						
Existing Use	None		Existing Use Qualifier	None						
Exceptions to Use	None		Exceptions to Criteria	None						
Assessment Statu	s	Attaining Use(s)								
Cause(s) of Impair	ment	N/A								
Source(s) of Impai	rment	N/A								
TMDL Status		N/A	Name <u>N/A</u>							
Nearest Downstre	am Publi	c Water Supply Intake	Carlisle Borough Municipal Au	uthority Water System						
PWS Waters	Conodo	guinet Creek	Flow at Intake (cfs)							
PWS RMI	35.95		Distance from Outfall (mi)	47.66						

Drainage Area

A POFU survey was conducted by Regional Aquatic Biologist on June 25, 1987 which found the stream was very low flow and mostly shallow pool areas. The survey concluded that the POFU is at the DP. A drainage area upstream of the POFU is estimated to be 0.05 sq.mi. according to USGS StreamStats available at https://streamstats.usgs.gov/ss/

Streamflow

USGS gage 01570000 on Conodoguinet Creek near Hogestown, PA is located about 350' below the PA American Water Co. intake and is affected to some degree by the withdrawal. Recent stream flow retrievals resulted in a Q_{7-10} of 69.3 cfs at this gage for record period of 1971-2008. USGS split the record period to incorporate the PA American PWS intake. The average daily PWS withdrawal has been 6 MGD or 9.28 cfs according to Source Water Assessment Summary for Silver Spring Water Plant. This results in a total flow of 78.58 cfs at the gage after adjustment for the PWS intake.

 Q_{7-10} runoff rate = (69.3 + 9.28)/470 = 0.167 cfs/sq.mi.

 $Q_{7-10} = 0.167*0.05 = 0.00835 \text{ cfs}$

Default Q₁₋₁₀: Q₇₋₁₀ of 0.64 and Q₃₀₋₁₀: Q₇₋₁₀ of 1.36 will be used per 391-2000-013, Nov 4, 1997 pp 6

Public Water Supply Intake

The nearest downstream PWS is Carlisle Borough Municipal Authority Water System on the Conodoguinet Creek in North Middleton Township at RMI 37.12 about 46.66 miles downstream of the discharge. The Q₇₋₁₀ at the intake is about 64.14 cfs. The discharge will not impact the intake because of the distance, dilution, and effluent limits.

Class A Wild Trout Streams

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

	Treatment Facility Summary											
Treatment Facility Name: Chambersburg School District - Lurgan Township Elementary School WWTP												
Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)								
Sewage	Tertiary	Septic tank sand filter	Hypochlorite	See comments below								
Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal								
0.00338		Not Overloaded										

The facility operated by CSD receives sanitary wastewater from Lurgan Township Elementary School. The original hydraulic design capacity is 0.00338 MGD. The details on the flow will be discussed later in this fact sheet. The facility consists of two (2) septic tanks, aerated dosing tank, two (2) sand bed media filters, chlorine contact tank, dechlorination, and outfall structure.

Compliance History								
Summary of DMRs:	A summary of 12-month DMR data is presented on the next page.							
Summary of Inspections:	03/02/2023: Cody Hoy, DEP Water Quality Specialist, conducted a routine inspection and noted that there are a number of non-compliance found during the inspection that are operation related. Several recommendations were made at the time of inspection. 10/25/2021: Fred Clark, DEP Water Quality Specialist, conducted a routine inspection and noted that no violations were identified at the time of inspection.							
Other Comments:	There are three (3) open violations associated with this facility or permittee that have been entered by DEP SCRO Clean Water Program. A draft permit cover letter will indicate that the permit may not be finalized until all open violations are resolved/closed. All previous violations displayed in DEP's database are presented on pages 6 and 7 of this fact sheet.							

Effluent Data

DMR Data for Outfall 001 (from December 1, 2022 to November 30, 2023)

Parameter	NOV-23	OCT-23	SEP-23	AUG-23	JUL-23	JUN-23	MAY-23	APR-23	MAR-23	FEB-23	JAN-23	DEC-22
Flow (MGD)						0.00034						
Average Monthly	0.001	0.001	0.0008			3	0.0014	0.0007	0.0012	0.0011	0.00007	0.0008
Flow (MGD)												
Daily Maximum	0.0013	0.0013	0.0017			0.0014	0.0021	0.0014	0.0015	0.0015	0.0015	0.0015
pH (S.U.)												
Minimum	6.7	6.4	6.6			6.3	6.3	6.5	6.6	6.8	7.0	7.0
pH (S.U.)												
Maximum	7.3	7.2	7.4			7.0	7.0	7.2	7.2	7.3	7.4	7.7
DO (mg/L)												
Minimum	8.3	6.7	5.3			6.9	6.7	7.6	7.0	6.7	7.0	7.1
TRC (mg/L)												
Average Monthly	< 0.01	< 0.01	< 0.02			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
TRC (mg/L)												
Instantaneous												
Maximum	0.02	0.04	0.07			0.01	0.03	0.01	0.03	0.05	0.02	0.01
CBOD5 (mg/L)												
Average Monthly	< 2.0	< 2.2	< 2.0			< 2.4	< 2.0	< 2.0	2.8	< 18.4	10.7	3.4
TSS (mg/L)												
Average Monthly	2.5	2.0	2.3			3.8	1.5	2.5	6.8	4.3	6.3	2.8
Fecal Coliform												
(No./100 ml)		_						_		,		4.0
Geometric Mean	< 8	< 7	< 15			149	38	< 1	< 1	< 1	< 1	< 18
Fecal Coliform												
(No./100 ml)												
Instantaneous Maximum	68	45	240			282	69	< 1	< 1	< 1	1	336
Nitrate-Nitrite (mg/L)	00	45	240			202	69	< 1	< 1	< 1	'	330
Average Monthly	48.38	< 27.66	32.86			52.89	79.34	77.29	41.9	49.8	< 36.07	29.4
Nitrate-Nitrite (lbs)	40.30	< 21.00	32.00			32.09	79.54	11.29	41.5	49.0	< 30.07	29.4
Total Monthly	14	< 7	10			3.0	25.0	25	11.0	14	< 10	0.58
Total Nitrogen (mg/L)	17		10			0.0	20.0	20	11.0	17	<u> </u>	0.00
Average Monthly	< 49.13	< 28.16	36.18			55.7	82.53	84.66	63.7	73.2	< 63.07	61.38
Total Nitrogen (lbs)	1 10110	120.10	00.10			55	02.00	0	55	7 0.2	1 00.01	01.00
Total Monthly	< 14	< 7	12			4.0	26.0	27	17.0	21	< 18	1.28
Total Nitrogen (lbs)			<u> </u>			1.0			11.0		1	
Total Annual			< 222									
Ammonia (mg/L)												
Average Monthly	< 2.0	< 0.5	1.4			1.2	1.5	5.1	13.3	18.8	20.1	29.4

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Parameter	NOV-23	OCT-23	SEP-23	AUG-23	JUL-23	JUN-23	MAY-23	APR-23	MAR-23	FEB-23	JAN-23	DEC-22
Ammonia (lbs)												
Total Monthly	< 0.6	< 0.1	0.4			0.07	0.5	2.0	4.0	5	6	0.61
Ammonia (lbs)												
Total Annual			50									
TKN (mg/L)												
Average Monthly	< 0.8	< 0.8	3.32			2.81	3.19	7.37	21.8	23.4	27	33.5
TKN (lbs)												
Total Monthly	< 0.2	< 0.2	1			0.2	1.0	2	6.0	7	8	0.69
Total Phosphorus												
(mg/L)												
Average Monthly	4.38	4.01	4.4			4.26	6.08	4.25	5.43	5.49	4.31	6.78
Total Phosphorus (lbs)												
Total Monthly	1	1	1			0.6	2.0	1	1.0	2	1	0.14
Total Phosphorus (lbs)												
Total Annual			18									

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Previous Permit Violations

Date Description	Parameter	Results	Limits	Units	SBC	Comments
Sep-16 Late DMR Submission						
Oct-16 Late DMR Submission						
Nov-16 Late DMR Submission						
Nov-16 Effluent Violations	TRC	1.4	1.3	mg/L	Instantaneous Maximum	Decrease pump stroke.
Dec-16 Late DMR Submission						
Jan-17 Late DMR Submission						
Jan-17 Effluent Violations	TRC	0.51	0.38	mg/L	Average Monthly	
Jan-17 Effluent Violations	TRC	2.2	1.3	mg/L	Instantaneous Maximum	
Feb-17 Late DMR Submission						
Feb-17 Effluent Violations	TRC	1.66	1.3	mg/L	Instantaneous Maximum	
Mar-17 Late DMR Submission						
Mar-17 Effluent Violations	TRC	0.51	0.38	mg/L	Average Monthly	
						New drum off chlorine & pump speed was bumped when moving
Mar-17 Effluent Violations	TRC	2.2	1.3	mg/L	Instantaneous Maximum	to new drum; set back to previous setting.
Apr-17 Late DMR Submission						
May-17 Late DMR Submission						
Jun-17 Late DMR Submission						
Jul-17 Late DMR Submission						
Aug-17 Late DMR Submission						
Aug-17 Effluent Violations	Fecal Coliform	710	200	CFU/100 ml	Geometric Mean	Increased Chlorine rate.
Sep-17 Late DMR Submission						
Oct-17 Late DMR Submission						
Nov-17 Late DMR Submission						
Dec-17 Late DMR Submission						
Oct-17 Late DMR Submission						
Jan-18 Late DMR Submission						
Feb-18 Late DMR Submission						
Mar-18 Late DMR Submission						
Apr-18 Late DMR Submission						
May-18 Late DMR Submission						
May-18 Effluent Violations	Fecal Coliform	215	200	No./100 ml	Geometric Mean	
Jun-18 Late DMR Submission						
Jul-18 Late DMR Submission						
Aug-18 Late DMR Submission						
Sep-18 Late DMR Submission						
Oct-18 Late DMR Submission						
Oct-18 Effluent Violations	Ammonia-Nitrogen	5.6	5.5	mg/L	Average Monthly	New samples in compliance.

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TRC	0.25	0.24	mg/L	Average Monthly	
TRC	1.5	0.79	mg/L	Instantaneous Maximum	Shook down Dechlor. tabs - next day was .05.
Flow					
Ammonia-Nitrogen	6	5.5	mg/L	Average Monthly	
Dissolved Oxygen	4.9	5	mg/L	Minimum	
					The normal daily operator was on vacation and the school district had several different employees do the daily testing. One of the them apparently did not shake down the de-chlorination tablets
TRC	1.1	0.79	mg/L	Instantaneous Maximum	in the feeder as they had been instructed to do.
Ammonia-Nitrogen	14.1	5.5	mg/L	Average Monthly	
Ammonia-Nitrogen	9.2	5.5	mg/L	Average Monthly	
Dissolved Oxygen	3.1	5	mg/L	Minimum	
Ammonia-Nitrogen	8.7	5.5	mg/L	Average Monthly	We had septic tanks pumped and cleaned at the end of the school term. The beds will be tilled before the next school term.
Ammonia-Nitrogen	22.1	5.5	mg/L	Average Monthly	
Fecal Coliform	333	200	No./100 ml	Geometric Mean	
Ammonia-Nitrogen	26.2	5.5	mg/L	Average Monthly	
Ammonia-Nitrogen	29.4	16.5	mg/L	Average Monthly	
Ammonia-Nitrogen	20.1	16.5	mg/L	Average Monthly	
	TRC Flow Ammonia-Nitrogen Dissolved Oxygen TRC Ammonia-Nitrogen Ammonia-Nitrogen Ammonia-Nitrogen Ammonia-Nitrogen Ammonia-Nitrogen Ammonia-Nitrogen Ammonia-Nitrogen Ammonia-Nitrogen Ammonia-Nitrogen	Flow Ammonia-Nitrogen 6 Dissolved Oxygen 4.9 TRC 1.1 Ammonia-Nitrogen 14.1 Ammonia-Nitrogen 9.2 Dissolved Oxygen 3.1 Ammonia-Nitrogen 8.7 Ammonia-Nitrogen 22.1 Fecal Coliform 333 Ammonia-Nitrogen 26.2 Ammonia-Nitrogen 29.4	TRC	TRC 1.5 0.79 mg/L	Flow Ammonia-Nitrogen 6 5.5 mg/L Average Monthly Dissolved Oxygen 4.9 5 mg/L Minimum TRC 1.1 0.79 mg/L Instantaneous Maximum Ammonia-Nitrogen 14.1 5.5 mg/L Average Monthly Ammonia-Nitrogen 9.2 5.5 mg/L Average Monthly Dissolved Oxygen 3.1 5 mg/L Minimum Ammonia-Nitrogen 8.7 5.5 mg/L Average Monthly Ammonia-Nitrogen 22.1 5.5 mg/L Average Monthly Fecal Coliform 333 200 No./100 ml Geometric Mean Ammonia-Nitrogen 26.2 5.5 mg/L Average Monthly Ammonia-Nitrogen 26.2 5.5 mg/L Average Monthly Ammonia-Nitrogen 26.2 5.5 mg/L Average Monthly Ammonia-Nitrogen 29.4 16.5 mg/L Average Monthly

Existing Effluent Limitations and Monitoring Requirements

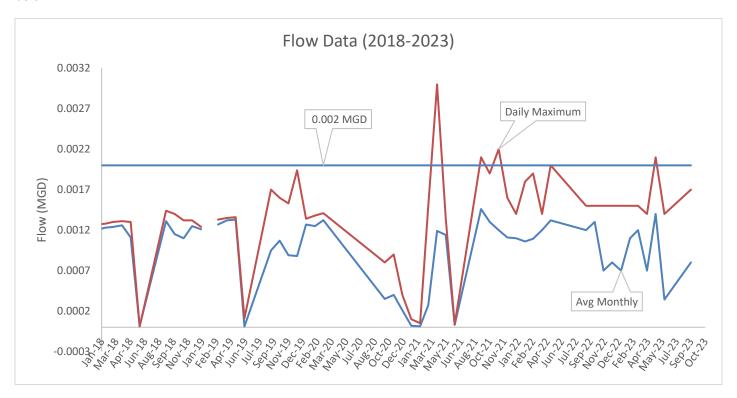
A table below summarizes effluent limits and monitoring requirements specified in the existing permit.

			Monitoring Re	quirements				
Parameter	Mass Units	(lbs/day) ⁽¹⁾		Concentrat	Minimum ⁽²⁾	Required		
raiametei	Parameter Average Monthly			Average Minimum Monthly		Instant. Maximum	Measurement Frequency	Sample Type
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	9.0	XXX	1/day	Grab
Dissolved Oxygen	XXX	XXX	5.0	XXX	XXX	XXX	1/day	Grab
Total Residual Chlorine (TRC)	XXX	XXX	XXX	0.24	XXX	0.79	1/day	Grab
Carbonaceous Biochemical Oxygen Demand (CBOD5)	XXX	XXX	XXX	25	XXX	50	2/month	8-Hr Composite
Total Suspended Solids	XXX	XXX	XXX	30	XXX	60	2/month	8-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
Ammonia-Nitrogen Nov 1 - Apr 30	XXX	XXX	XXX	16.5	XXX	33	2/month	8-Hr Composite
Ammonia-Nitrogen May 1 - Oct 31	XXX	XXX	XXX	5.5	XXX	11	2/month	8-Hr Composite

Development of Effluent Limitations						
Outfall No.	001	Design Flow (MGD)	0.002			
Latitude	40° 5' 53.05"	Longitude	77° 38' 20.80"			
Wastewater Description: Treated Sewage						

Flow Analysis

CSD requested the permit type be changed from a minor sewage facility less than 0.05 MGD to a small flow treatment facility less than 0.002 MGD. Flow data was provided as part of the application and has been reviewed by DEP as shown below:



As shown above, out of the past 5 years (almost 1200 data points), the facility has exceeded 0.002 MGD only four (4) times. CSD also indicates that no additional flow is expected in the future. The average flow has also been consistently around 1,500 GPD. This shows that the facility is considered a small flow treatment facility receiving flows less than 0,002 MGD. As a result, DEP has determined to develop effluent limits and monitoring requirements based on DEP's SOP no. BCW-PMT-003 (SOP) in which DEP has revisited the following existing permit requirements:

Flow

The existing monitoring requirement for the volume of effluent discharged from this facility will continued to be included the permit in accordance with 40 CFR 122.44(i)(1)(ii). However, given the type of discharge and quantity of discharge, a continuous monitoring requirement has changed to a monthly monitoring requirement. The flow will be estimated using the existing water usage meter. Although the SOP recommends a flow measurement for all small flow treatment facilities (SFTFs), the permittee has indicated that there is no place in the system to install a flow meter and DEP determined that flow estimate using a water meter would be best technology available to meet the flow monitoring requirement.

pH and Dissolved Oxygen

The existing pH and Dissolved Oxygen effluent limits will be removed from the permit. This approach is consistent with the SOP that the SOP does not require these effluent limits for SFTFs.

Total Residual Chlorine

Because the discharge volume has changed from 0.00338 MGD to 0.002 MGD, DEP's TRC_CALC spreadsheet was analyzed to determine for existing TRC effluent limits are still adequate. The spreadsheet shows that effluent limits of 0.40 MGD (average monthly) and 1.32 MGD (IMAX) are adequate. These limits are less stringent than existing limits. The

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relaxation of effluent limits is warranted as the facility discharge volume has changed in which the discharge volume is one of major factors in determining TRC effluent limits. The monitoring frequency has changed from 1/day to 1/month to be consistent with the SOP.

CBOD5 & Total Suspended Solids

The existing CBOD5 & TSS effluent limits will remain unchanged in the permit. While the SOP recommends 10 mg/L (average monthly) and 20 mg/L (IMAX) for both parameters, the facility has no compliance concerns associated with these parameters and may not able capable of meeting these limits with the current technology equipped at the facility. The SOP allows less stringent limits to be carried over if such case exists. The monitoring frequency has changed from 2/month to 1/month and the sample type has changed from composite sampling to grab sampling. This is consistent with the SOP.

Fecal Coliform:

The existing fecal coliform effluent limits will remain unchanged in the permit. The monitoring frequency has changed from 2/month to 1/month. This is consistent with the SOP.

Ammonia (NH₃-N):

The SOP does not requirement permit requirements for ammonia as the quantity of discharge and typical SFTFs do not utilize nitrification within the treatment process. However, there has been a number of events that this facility has not achieved compliance with the ammonia effluent limits that were developed from DEP water quality modeling. Based on this, it is recommended that existing limits be removed from the permit to be consistent with the SOP, but a routine monitoring requirement be included in the permit to obtain data for further review.

Chesapeake Bay Requirements

Given the type of discharge and quantity of discharge, the facility is exempt from the Chesapeake Bay TMDL requirements.

TRC_CALC

		D	Е	F	G			
TRC EVALU	JATION							
Input appropr	iate values in	B4:B8 and E4:E7						
0.0083	5 = Qstream (cfs)	0.5	=CV Daily				
0.002 = Q discharge (MGD)				=CV Hourly				
30 = no. samples				=AFC_Partial Mix Factor				
0.3 = Chlorine Demand of Stream				= CFC_Partial Mix Factor				
0 = Chlorine Demand of Discharge				= AFC_Criteria Compliance Time (min)				
0.5 = BAT/BPJ Value			720	=CFC_Criteria Compliance Time (min)				
		of Safety (FOS)		=Decay Coefficient (K)				
Source	Reference	AFC Calculations		Reference	CFC Calculations			
TRC	1.3.2.iii	WLA afc =		1.3.2.iii	WLA cfc = 0.850			
PENTOXSD TRO		LTAMULT afc =		5.1c	LTAMULT cfc = 0.581			
PENTOXSD TRO	3 5.1b	LTA_afc=	0.328	5.1d	LTA_cfc = 0.494			
Source		Effluent	Limit Calc	ulations				
PENTOXSD TRO		AM	L MULT =	1.231				
PENTOXSD TRO	3 5.1g	AVG MON LIMI	T (mg/l) =	0.404	AFC			
		INST MAX LIMI	T (mg/l) =	1.320				
WLA afc		FC_tc)) + [(AFC_Yc*Qc		'e(-k*AFC_tc))				
	+ Xd + (AF	C_Yc*Qs*Xs/Qd)]*(1-F	OS/100)					
LTAMULT afc	+ Xd + (AF EXP((0.5*LN	C_Yc*Qs*Xs/Qd)]*(1-Fe (cvh^2+1))-2.326*LN(c	OS/100)					
	+ Xd + (AF	C_Yc*Qs*Xs/Qd)]*(1-Fe (cvh^2+1))-2.326*LN(c	OS/100)					
LTAMULT afc	+ Xd + (AF EXP((0.5*LN wla_afc*LTA (.011/e(-k*C	C_Yc*Qs*Xs/Qd)]*(1-Fe (cvh^2+1))-2.326*LN(c	OS/100) cvh^2+1)^ *. 011/Qd *	0.5)				
LTAMULT afc LTA_afc	+ Xd + (AF EXP((0.5*LN wla_afc*LTA (.011/e(-k*C) + Xd + (CF)	C_Yc*Qs*Xs/Qd)]*(1-Ft (cvh^2+1)}-2.326*LN(c MULT_afc FC_tc)+[(CFC_Yc*Qs*	OS/100) :vh^2+1)^ *.011/Qd* OS/100)	0.5) e(-k*CFC_tc))				
LTAMULT afc LTA_afc WLA_cfc	+ Xd + (AF EXP((0.5*LN wla_afc*LTA (.011/e(-k*C) + Xd + (CF)	C_Yc*Qs*Xs/Qd)]*(1-Ft (cvh^2+1))-2.326*LN(c MULT_afc FC_tc)+[(CFC_Yc*Qs* C_Yc*Qs*Xs/Qd)]*(1-Ft (cvd^2/no_samples+1)	OS/100) :vh^2+1)^ *.011/Qd* OS/100)	0.5) e(-k*CFC_tc))				
LTAMULT afc LTA_afc WLA_cfc LTAMULT_cfc	+ Xd + (AF EXP((0.5*LN wla_afc*LTA (.011/e(-k*C) + Xd + (CF EXP((0.5*LN wla_cfc*LTA	C_Yc*Qs*Xs/Qd)]*(1-Ft (cvh^2+1))-2.326*LN(c MULT_afc FC_tc)+[(CFC_Yc*Qs* C_Yc*Qs*Xs/Qd)]*(1-Ft (cvd^2/no_samples+1)	OS/100) cvh^2+1)^ *.011/Qd* OS/100)))-2.326*L	0.5) e(-k*CFC_tc)) N(cvd^2/no_sam	ples+1)^0.5)			
LTAMULT afc LTA_afc WLA_cfc LTAMULT_cfc LTA_cfc	+ Xd + (AFE EXP((0.5*LN wla_afc*LTA (.011/e(-k*C)+ Xd + (CFE EXP((0.5*LN wla_cfc*LTA	C_Yc*Qs*Xs/Qd)]*(1-Fi (cvh^2+1))-2.326*LN(c MULT_afc FC_tc)+[(CFC_Yc*Qs* C_Yc*Qs*Xs/Qd)]*(1-Fi (cvd^2/no_samples+1) MULT_cfc	OS/100) cvh^2+1)^ *.011/Qd* OS/100)))-2.326*L +1)^0.5)-0	0.5) e(-k*CFC_tc)) N(cvd^2/no_sam .5*LN(cvd^2/no_	ples+1)^0.5)			

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.

	Effluent Limitations					Monitoring Requirements		
Parameter	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum ⁽²⁾	Required
Farameter	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum	Measurement Frequency	Sample Type
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	1/month	Measured
Total Residual Chlorine (TRC)	XXX	xxx	xxx	0.24	xxx	0.79	1/month	Grab
Carbonaceous Biochemical Oxygen Demand (CBOD5)	XXX	XXX	XXX	25	XXX	50	1/month	Grab
Total Suspended Solids	XXX	XXX	XXX	30	XXX	60	1/month	Grab
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	1/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	1/month	Grab
Ammonia-Nitrogen	XXX	XXX	XXX	Report	XXX	XXX	1/month	Grab