

Application Type Renewal  
Facility Type Municipal  
Major / Minor Major

**NPDES PERMIT FACT SHEET  
INDIVIDUAL SEWAGE**

Application No. PA0026310  
APS ID 781029  
Authorization ID 927225

**Applicant and Facility Information**

Applicant Name	<u>Clearfield Municipal Authority (CMA)</u>	Facility Name	<u>Clearfield Municipal STP</u>
Applicant Address	<u>107 E Market Street</u> <u>Clearfield, PA 16830-2405</u>	Facility Address	<u>Leonard Street Extension</u> <u>Clearfield, PA 16830</u>
Applicant Contact	<u>John Williams</u>	Facility Contact	<u>John Williams</u>
Applicant Phone	<u>(814) 765-9609</u>	Facility Phone	<u>(814) 765-9609</u>
Client ID	<u>87622</u>	Site ID	<u>458719</u>
Ch 94 Load Status	<u>Not Overloaded</u>	Municipality	<u>Lawrence Township</u>
Connection Status	<u>No Limitations</u>	County	<u>Clearfield</u>
Date Application Received	<u>April 30, 2012</u>	EPA Waived?	<u>No</u>
Date Application Accepted	<u>May 22, 2012</u>	If No, Reason	<u>Major Facility, Significant CB Discharge</u>
Purpose of Application	<u>Renewal of existing NPDES Permit</u>		

**Summary of Review**

Clearfield Municipal Authority (CMA) has submitted a renewal application for the above NPDES permit for a 4.5 MGD discharge (001) from their existing sewage treatment plant (STP) which serves Clearfield Borough and Lawrence Township. There are no significant industrial users reported within the system. In addition to outfall 001, the facility has 2 combined sewer overflows (CSOs) that discharge during high rain events. The facility also has 4 stormwater outfalls at the STP. All outfalls will be described in detail within this review.

Unless otherwise noted, the Department's Standard Operating Procedure (SOP) for reissuance of NPDES permits was followed along with the SOP for establishing effluent limitations for sewage dischargers.

Sludge use and disposal description and location(s): The permittee has a General Permit (PAG084817) for the Beneficial Use of Non-Exceptional Quality Sewage Sludge by Land Application. If conditions do not allow for land application, sludge is disposed at Fox Municipality Landfill in Elk County, PA.

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
X		<i>Chad A. Fabian</i> Chad A. Fabian / Project Manager	July 1, 2022
X		<i>Nicholas W. Hartranft, P.E.</i> Nicholas W. Hartranft, P.E. / Environmental Engineer Manager	August 1, 2022

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	001	Design Flow (MGD)	4.5
Latitude	41° 1' 32.49"	Longitude	-78° 24' 0.36"
Quad Name	Clearfield	Quad Code	1018
Wastewater Description: Sewage Effluent			
Receiving Waters	West Branch Susquehanna River (WWF)	Stream Code	18668
NHD Com ID	61830323	RMI	174
Drainage Area	501	Yield (cfs/mi <sup>2</sup> )	0.1
Q7-10 Flow (cfs)	62	Q7-10 Basis	USGS Stream Gage 01541303
Elevation (ft)	1717	Slope (ft/ft)	n/a
Watershed No.	8-C	Chapter 93 Class.	WWF
Existing Use	WWF	Existing Use Qualifier	n/a
Exceptions to Use	none	Exceptions to Criteria	none
Assessment Status	Impaired		
Cause(s) of Impairment	Siltation, Pathogens, Nutrients		
Source(s) of Impairment	Upstream Impoundment, Source Unknown, Road Runoff		
TMDL Status	Final	Name	West Branch Susquehanna
Nearest Downstream Public Water Supply Intake Approximately 160 miles downstream near Milton, PA			

Changes since last permit issuance: No changes to the above discharge details have occurred since the last permit issuance. However, many changes/improvements have taken place at the facility and within the collection system since the last permit issuance. Some of these changes will be detailed within this report and within the attachments (LTCP, etc). It should be noted that none of the above impairments are attributable to the existing outfall 001. Per the approved TMDL, the Clearfield WWTP and/or collection system is not a source of the impairment of the receiving stream.

Treatment Facility Summary				
<b>Treatment Facility Name:</b> Clearfield Municipal Sewage Treatment Plant (STP)				
WQM Permit No.	Issuance Date	Summary		
1712402	2/4/2013	New STP		
1703403	8/14/2020	Lift Station #4 Upgrades		
Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary with Nutrient Reduction	Sequencing Batch Reactor	Ultraviolet	4.5
Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
4.5	13345	Not Overloaded	Aerobic Digestors	Land application and/or landfill

Since the last NPDES permit issuance, a new STP has been built in accordance with WQM Permit No. 1712402. The new STP went into operation in November of 2016. The new STP was built to comply with the Chesapeake Bay nutrient limitations within NPDES permit PA0026310, eliminate the combined sewer overflow (CSO, Outfall 039) at the

plant, and to replace the existing aging infrastructure. The new STP is a 5 stage Bardenpho BNR process that is capable of treating high peak influent flows. The STP has 3 treatment trains operating in parallel.

The new STP consists of: an influent pump station, a headworks/pretreatment building, vortex grit separators (2), mechanically cleaned fine screens (2) with ¼” openings, an influent distribution box, reactor tanks (3), aeration blowers, final clarifier influent distribution box, final/secondary clarifiers (3), a UV system, effluent channel and flow meter, a return activated sludge (RAS) distribution box and pumps, maintenance buildings, chemical feed systems (methanol, sodium hypochlorite, alum, polymer, and caustic soda), sludge processing (2 aerobic digesters, a new sludge thickener centrifuge, equalization tank and a storage tank) facilities, flow conveyance channels/pipes and pumps, a Supervisory Control and Data Acquisition (SCADA) system, a new outfall, and all other related facilities as described in Water Quality Management Application 1712402. The new treatment plant is capable of handling maximum daily flows of 25 MGD (compared to 5.25 MGD previously), thus allowing for the elimination of CSO outfall 039, which was previously located at the STP.

Portions of the CSS is owned by Clearfield Borough and Lawrence Township. However, in the very near future, CMA will take full ownership and control of the entire CSS.

**Stormwater**

The existing facility has 4 stormwater outfalls permitted under PAR904802 (DEP General Permit for Stormwater Associated with Industrial Activities). However, these outfalls will now be covered under NPDES PA0026310. Upon final issuance of the renewed NPDES PA0026310, PAR904802 will be terminated. The following is a summary of the existing stormwater outfalls at the facility:

<b>Stormwater Outfalls</b>				
<b>Outfall No.</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Stormwater Description</b>	<b>Receiving Stream</b>
991 (aka SW 001)	40° 11' 32"	-78° 23' 32"	SE portion of facility, sludge tank area	West Branch Susquehanna River
992 (aka SW 002)	40° 11' 32"	-78° 23' 36"	E portion of facility, sludge digester area	West Branch Susquehanna River
993 (aka SW 003)	40° 11' 32"	-78° 23' 38"	NE portion of facility, influent pump station area	West Branch Susquehanna River
994 (aka SW 004)	40° 11' 25"	-78° 23' 32"	Main STP area, includes stormwater detention basin	Clearfield Creek

\*It is recommended that stormwater outfall 994 be considered the representative sampling point for stormwater at the facility.

The above outfalls have been renumbered to avoid redundancy with the existing 001 (WWTP outfall) and 002 (CSO) outfalls.

**Combined Sewer Overflows**

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	<u>002 (CSO)</u>	Design Flow (MGD)	<u>0</u>
Latitude	<u>41° 1' 50.58"</u>	Longitude	<u>78° 26' 9.51"</u>
Quad Name	<u>Clearfield</u>	Quad Code	<u>1018</u>
Wastewater Description: <u>Combined Sewer Overflow (Lift Station #4)</u>			
Receiving Waters	<u>West Branch Susquehanna River (WWF)</u>	Stream Code	<u>18668</u>
NHD Com ID	<u>61830315</u>	RMI	<u>n/a</u>
Watershed No.	<u>8-B</u>	Chapter 93 Class.	<u>WWF</u>
Existing Use	<u>WWF</u>	Existing Use Qualifier	<u>n/a</u>
Exceptions to Use	<u>None</u>	Exceptions to Criteria	<u>None</u>
Assessment Status	<u>Impaired</u>		
Cause(s) of Impairment	<u>Siltation, Pathogens, Nutrients</u>		
Source(s) of Impairment	<u>Upstream Impoundment, Source Unknown, Road Runoff</u>		
TMDL Status	<u>Final, 7/0/2009</u>	Name	<u>West Branch Susquehanna River</u>
Nearest Downstream Public Water Supply Intake	Approximately 70 miles downstream, on West Branch Susquehanna River near Milton, PA.		

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	<u>038</u>	Design Flow (MGD)	<u>0</u>
Latitude	<u>41° 0' 11.31"</u>	Longitude	<u>-78° 27' 34.84"</u>
Wastewater Description: <u>Combined Sewer Overflow (CSO)</u>			
Receiving Waters	<u>Montgomery Creek (CWF)</u>	Stream Code	<u>n/a</u>
NHD Com ID	<u>61830699</u>	RMI	<u></u>
Watershed No.	<u>8-B</u>	Chapter 93 Class.	<u>CWF</u>
Existing Use	<u>CWF</u>	Existing Use Qualifier	<u>None</u>
Exceptions to Use	<u>None</u>	Exceptions to Criteria	<u>None</u>
Assessment Status	<u>Impaired</u>		
Cause(s) of Impairment	<u>Metals and pH</u>		
Source(s) of Impairment	<u>Acid Mine Drainage</u>		
TMDL Status	<u>Final</u>	Name	<u>Montgomery Creek</u>

Changes to CSOs from last permit issuance:

Several CSOs have been eliminated over the years. The most recent CSOs to be eliminated after operation of the new STP commenced in 2016 are outfalls 039 (at the old STP) and 036 (Moose Creek). CSO outfalls 014, 020, and 040 have also been eliminated since the last permit issuance. Outfall 038, when previously under the ownership of Lawrence Township, was believed to be a Sanitary Sewer Overflow (SSO). However, after numerous studies performed by Clearfield Municipal Authority, it was found to be a CSO. A letter from Clearfield Borough dated March 2, 2022 (see attached) clarifies that outfall 038 is a CSO.

**Combined Sewer Overflows**

Combined Sewer Systems (CSSs) are wastewater collection systems designed to convey sanitary sewage and stormwater in a single pipe to a STP. During dry weather, the CSSs convey domestic, commercial and industrial wastewaters. In periods of rainfall or snowmelt, the total wastewater flow can exceed the design capacity of the CSS and/or treatment systems. When this occurs, the Combined Sewer Overflows (CSOs) are used to reduce the hydraulic impact to the CSS and STP. Because of varied contaminants and the volume of flows, CSOs can cause a variety of adverse impacts on the physical characteristics of surface water, impair the viability of aquatic habitats and pose a potential threat to drinking water supplies.

Since Clearfield operates a combined sewer system, additional requirements must be met through NPDES Permitting. Clearfield is subject to both state and federal Combined Sewer Overflow (CSO) strategies. Dischargers with combined sewer systems must characterize those systems, demonstrate implementation of the Nine Minimum Controls (NMCs) and develop a Long-Term Control Plan (LTCP).

A goal of the EPA CSO Control Policy is to ensure that if CSOs occur, they are only as a result of wet weather. Another goal of EPA is to bring all wet weather CSO discharge points into compliance with the technology-based and water quality-based requirements of the Clean Water Act (CWA) to minimize their impacts on water quality, aquatic biota and human health.

Since the Department is responsible for administering the federal NPDES permit program, the Department developed the PA CSO Policy to define how it will meet the requirements of the federal CSO policy. The goals of the state policy are to control and eliminate CSO discharges, as practicable, and to ultimately bring all remaining CSO discharges into compliance with state water quality standards through the NPDES permitting program.

The facility currently operates 2 CSO outfalls (038 and 002), both of which are within the CSS upstream of the STP. The CSO outfalls discharge when water within the collection system exceeds the carrying capacity of the sewer lines. The CSOs are detailed in the above tables.

**Long Term Control Plan**

The Long Term Control Plan (LTCP) is a document by which the permittee evaluates the existing CSS infrastructure and the hydraulic relationship between the CSS, wet weather, overflows and treatment capacity. Cost effective alternatives for reducing or eliminating overflows are evaluated and a plan forward to eventually meet water quality standards is selected. An implementation schedule is then developed to achieve that goal. The three LTCP options are demonstrative, presumptive and total separation. The demonstrative approach shows that the current plan is adequate to meet the water quality-based requirements of the CWA based on data, while the presumptive approach will implement a minimum level of treatment that is presumed to meet the water quality-based requirements of the CWA.

CMA's LTCP (attached) implementation schedule was updated via letter on September 30, 2020 and again on March 2, 2022 (see attached). The LTCP includes the required Nine Minimum Controls (NMCs). The LTCP defines a precipitation event as 0.25" of precipitation or more during a 24-hour period. However, the LTCP will need to be revised to include a Post Construction Compliance Monitoring (PCCM) plan in accordance with EPA's PCCM Guidance. The LTCP will also need to be updated to only include the 2 remaining CSOs (002 and 038). The LTCP will also need to clearly define how the 85% capture and treatment rate of the CSS will during rain events will be calculated in order to show that the presumptive approach is being met. A compliance schedule will be included in the draft permit that provides 3 years to complete the PCCM plan and update the LTCP.

**Annual CSO Status Report Summary (Chapter 94)**

Year	Number of Events	
	Outfall 038	Outfall 002
2021	6	21
2020	1	21
2019	9	25
2018	Unable to locate the Chapter 94 Report	
2017	4	12

CSO discharges typically occur at approximately 4.5 MGD. The limiting factor is the 48" gravity sewer line leading to the plant. Each of the CSOs outfalls are manually activated. CMA is evaluating upgrading the STP influent sewer line to utilize more treatment capacity within the STP.

The Chapter 94 Reports have not provided the CSS capture rates. This will need to be included in future Chapter 94 Reports as documented in the an updated LTCP, noted above.

Compliance History	
<b>Summary of DMRs:</b>	The facility utilizes the Department's eDMR system. No violations have been reported in the previous 12 months.
<b>Summary of Inspections:</b>	The most recent inspection of the STP was performed on 1/26/2022. No violations were found during the inspection. The most recent CSO inspection (see attached) was performed on 10/27/2021. No violations were found during the CSO inspection.

Other Comments: The CSO inspection report indicates that the CSOs (038 and 002) are CSO related bypasses. This is incorrect. The respective CSO outfalls are within the CSS upstream of the headworks of the STP.

**Development of Effluent Limitations**

<b>Outfall No.</b>	001	<b>Design Flow (MGD)</b>	4.5
<b>Latitude</b>	41° 1' 31.62"	<b>Longitude</b>	-78° 24' 0.71"
<b>Wastewater Description:</b> Sewage from Clearfield Borough and Lawrence Township.			

**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 <sub>5</sub>	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)

Comments: The facility uses ultraviolet (UV) disinfection, so TRC limitations do not apply.

**Water Quality-Based Limitations**

The Department's WQM7.0 model allows the Department to evaluate point source discharges of dissolved oxygen (DO), carbonaceous BOD (CBOD<sub>5</sub>), and ammonia-nitrogen (NH<sub>3</sub>-N) into free-flowing streams and rivers. To accomplish this, the model simulates two basic processes: the mixing and degradation of NH<sub>3</sub>-N in the stream and the mixing and consumption of DO in the stream due to the degradation of CBOD<sub>5</sub> and NH<sub>3</sub>-N. WQM7.0 modeling was performed (see attached) for the discharge. The results of this modeling are attached. The modeling shows that seasonal ammonia limitations (24mg/l

average monthly) need to be established for the summer months. No winter ammonia limitations are applicable since they would be significantly above 25 mg/l, the typical threshold used to establish ammonia limitations. However, monitoring will be established. All other existing limitations are protective of the water quality standards.

CMA performed effluent testing on Pollutant Groups 1 and 2 in the renewal application, as required at the time of submittal. To evaluate these toxic parameters the Department's Toxic Management Spreadsheet (TMS, version 1.3) was used. The TMS evaluates each parameter by performing a "Reasonable Potential Analysis" (RPA) and PENTOXSD modeling on the maximum value reported within the application or the DMRs. The PENTOXSD model is a single discharge mass-balance water quality analysis model that includes consideration for mixing and other factors to determine recommended water quality-based effluent limits. The model incorporates the water quality criteria in 25 PA Code §93. The modeling results are provided in the TMS (see attached).

The results of the respective TMS show that monitoring will be required for the following parameters: total aluminum, total copper, total mercury, and total zinc. The results also show no new effluent limitations will need to be established.

Monitor and report will be established for dissolved oxygen since the receiving stream is classified as a warm water fishes (WWF) according to the Department's Chapter 93 regulations. The outfall is a cascade outfall, therefore no limitations for dissolved oxygen are proposed since acceptable levels of dissolved oxygen will be present at the outfall. Monitoring for E. Coli will be required per the Department's SOP for "Establishing Effluent Limitations for Individual Sewage Permits," dated March 24, 2021.

All stormwater requirements will be the same as Appendix J of the Department's general permit for industrial stormwater.

#### **Total Dissolved Solids (Emerging Pollutants)**

As a consequence of actions associated with Triennial Review 13, the Environmental Quality Board has directed the Department to collect additional data related to sulfate, chloride, and 1,4-dioxane. Additionally, in an August 2013 letter from Jon Capacasa of the Region III Water Protection Program to DEP, EPA has expressed concern related to bromide and the importance of monitoring all point sources for bromide when it may be present. Based on these concerns and under the authority of § 92a.61, DEP has determined it should implement increased monitoring in NPDES permits for these parameters: TDS, sulfate, chloride, bromide, and 1,4-dioxane.

A Department directive recommends the following thresholds for establishing monitoring requirements and effluent limitations:

- Where the concentration of TDS in the discharge exceeds 1,000 mg/L, or the net TDS load from a discharge exceeds 20,000 lbs/day, and the discharge flow exceeds 0.1 MGD, Part A of the permit should include monitor and report for TDS, sulfate, chloride, and bromide.
- Where the concentration of bromide in a discharge exceeds 1 mg/L and the discharge flow exceeds 0.1 MGD, Part A of the permit should include monitor and report for bromide.
- Where the concentration of 1,4-dioxane (CAS 123-91-1) in a discharge exceeds 10 µg/L and the discharge flow exceeds 0.1 MGD, Part A of the permit should include monitor and report for 1,4-dioxane.

The maximum concentration of TDS reported in the application is 260 mg/l. This does not meet the threshold for TDS identified above. Sampling for sulfate, 1,4 dioxane, bromide or chlorides was not performed since it was not required by the application at the time the application was submitted. Since bromide and chlorides are a component of TDS, it is reasonable to estimate that they are also below the above thresholds. Additionally, since there are no significant industrial users identified, it is reasonable to assume that sulfates and 1,4 dioxane are also below the threshold. Therefore, no monitoring or effluent limitations for the aforementioned parameters will be required.

Testing for all the above parameters will be required during the next permit renewal process.

#### **Chesapeake Bay Requirements**

The limitations and monitoring requirements specified below comply with Pennsylvania's Chesapeake Bay Phase 3 Watershed Implementation Plan (Phase 3 WIP). Per the Phase 3 WIP, the monitoring frequencies for the nitrogen series and total phosphorus have been increased from 1/week to 2/week. Additionally, the Chesapeake Bay language at Part C.I of the permit will be revised to reflect the revised Phase 3 WIP.

**Best Professional Judgment (BPJ) Limitations**

The Department recommends 1/quarter monitoring of total aluminum, total copper, total mercury, and total zinc throughout the next permit cycle. This will provide the Department with a minimum of 20 samples of each parameter to analyze during the next NDPEs renewal process. As noted earlier, no significant industrial users were identified in the application.

**Anti-Backsliding**

No relaxation of any effluent limitations is proposed in this draft permit.

**Whole Effluent Toxicity (WET)**

No WET testing was required to be performed at the time of the application was submitted since the Department previously considered the segment of the West Branch of the Susquehanna River (WBSR) to meet the water quality exception criteria of 25 PA Code §95.5 due to lack of support for fish or aquatic life. The Department no longer considers this section of WBSR to meet the criteria of 25 PA Code §95.5. Therefore, WET testing will now be required. The draft permit will propose 1/quarter WET testing in the first year of the permit to determine if any reasonable potential exists.

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

Acute Partial Mix Factor (PMFa): **0.198**

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

**1. Determine IWC – Acute (IWCa):**

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

$$[(4.5 \text{ MGD} \times 1.547) / ((62 \text{ cfs} \times 0.198) + (4.5 \text{ MGD} \times 1.547))] \times 100 = \mathbf{36.2\%}$$

Is IWCa < 1%?  YES  NO (YES - Acute Tests Required OR NO - Chronic Tests Required)

**Type of Test for Permit Renewal: Chronic**

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

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

$$[(4.5 \text{ MGD} \times 1.547) / ((62 \text{ cfs} \times 1) + (4.5 \text{ MGD} \times 1.547))] \times 100 = \mathbf{10.09\%}$$

**3. Determine Dilution Series (from Attachment C of the Department's WET SOP)**

Dilution Series = 100%, 60%, 30%, 10%, and 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.**

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Flow (MGD)	Report	XXX	XXX	XXX	XXX	XXX	1/day	Metered
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
CBOD5	XXX	XXX	XXX	25	40	50	2/week	24-Hr Composite
BOD5 Raw Sewage Influent	Report	Report	XXX	Report	XXX	XXX	2/week	24-Hr Composite
TSS Raw Sewage Influent	Report	Report	XXX	Report	XXX	XXX	2/week	24-Hr Composite
TSS	XXX	XXX	XXX	30	45	60	2/week	24-Hr Composite
Fecal Coliform Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	2/week	Grab
Fecal Coliform 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/day	Grab
Dissolved Oxygen	XXX	XXX	Report	XXX	XXX	XXX	1/day	Grab
UV Transmittance (%)	XXX	XXX	XXX	Report	XXX	XXX	1/day	Metered
Nitrate-Nitrite as N	XXX	XXX	XXX	Report	XXX	XXX	2/week	24-Hr Composite
Nitrate-Nitrite (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation

Outfall 001 , Continued (from Permit Effective Date through Permit Expiration Date )

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Total Nitrogen	XXX	XXX	XXX	Report	XXX	XXX	1/month	Calculation
Total Nitrogen (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Ammonia (NH <sub>3</sub> -N) <sup>(1)</sup> (May-September)	162	271	XXX	24.0	36.0	48.0	2/week	24-Hr Composite
Ammonia (NH <sub>3</sub> -N) (October-April)	Report	Report	XXX	Report	Report	XXX	2/week	24-Hr Composite
Ammonia (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
TKN	XXX	XXX	XXX	Report	XXX	XXX	2/week	24-Hr Composite
TKN (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Total Phosphorus	XXX	XXX	XXX	Report	XXX	XXX	2/week	24-Hr Composite
Total Phosphorus (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Total Nitrogen (lbs) Effluent Net	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Total Phosphorus (lbs) Effluent Net	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Total Aluminum	XXX	XXX	XXX	Report Daily Max	XXX	XXX	1/quarter	24-Hr Composite
Total Copper	XXX	XXX	XXX	Report Daily Max	XXX	XXX	1/quarter	24-Hr Composite
Total Mercury	XXX	XXX	XXX	Report Daily Max	XXX	XXX	1/quarter	24-Hr Composite
Total Zinc	XXX	XXX	XXX	Report Daily Max	XXX	XXX	1/quarter	24-Hr Composite

Other Comments: All of the above effluent limitations are the same as the existing permit except for the addition of total aluminum, total copper, total mercury, total zinc, E. coli, and dissolved oxygen as explained within this report. All of the proposed monitoring frequencies above are the same except for the total phosphorus and total nitrogen components (TKN, nitrate-nitrite, and ammonia) have been increased from 1/week to 2/week as per the Phase 3 WIP.

**Proposed Effluent Limitations and Monitoring Requirements**

The limitations and monitoring requirements specified below are proposed for the draft permit, to comply with Pennsylvania's Chesapeake Bay Tributary Strategy.

**Outfall 001, Effective Period: Permit Effective Date through Permit Expiration Date.**

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Monthly	Annual	Monthly	Monthly Average	Maximum	Instant. Maximum		
Total Nitrogen (lbs)	XXX	Report Total Annual	XXX	XXX	XXX	XXX	1/year	Calculation
Total Nitrogen (lbs) Effluent Net	XXX	82191 Total Annual	XXX	XXX	XXX	XXX	1/year	Calculation
Ammonia (lbs)	XXX	Report Total Annual	XXX	XXX	XXX	XXX	1/year	Calculation
Total Phosphorus (lbs) Effluent Net	XXX	10959 Total Annual	XXX	XXX	XXX	XXX	1/year	Calculation
Total Phosphorus (lbs)	XXX	Report Total Annual	XXX	XXX	XXX	XXX	1/year	Calculation

Compliance Sampling Location: 001

Other Comments: None