pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0083364**
Facility Type	**Industrial**	APS ID	**41411**
Major / Minor	**Minor**	Authorization ID	**1348230**

NPDES PERMIT FACT SHEET INDIVIDUAL INDUSTRIAL WASTE (IW) AND IW STORMWATER

Applicant and Facility Information

Applicant Name	**Borough of Chambersburg**	Facility Name	**Chambersburg Borough Water System**
Applicant Address	100 South 2nd Street	Facility Address	7659 Lincoln Way East
	Chambersburg, PA 17201-2515		Fayetteville, PA 17222-9582
Applicant Contact	Lance Anderson	Facility Contact	Scott Melego
Applicant Phone	717-251-2405	Facility Phone	717-352-7450
Client ID	53002	Site ID	248131
SIC Code	4941	Municipality	Greene Township
SIC Description	Trans. & Utilities - Water Supply	County	Franklin
Date Application Received	March 30, 2021	EPA Waived?	Yes
Date Application Accepted	April 13, 2021	If No, Reason	
Purpose of Application	NPDES Permit Renewal.		

Summary of Review

Borough of Chambersburg (Chambersburg) has applied to the Pennsylvania Department of Environmental Protection (DEP) for reissuance of its NPDES permit for the Chambersburg Borough Water System. The permit was last reissued on September 27, 2016 and became effective on October 1, /2016. The permit will expire on September 30, 2021.

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

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		*Jinsu Kim* Jinsu Kim / Environmental Engineering Specialist	August 10, 2021
X		Daniel W. Martin Daniel W. Martin, P.E. / Environmental Engineer Manager	August 23, 2021

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	.171
Latitude	39º 54' 26.28"	Longitude	-77º 30' 27.63"
Quad Name	Scotland	Quad Code	1925
Wastewater Description:	IW Process Effluent without ELG		
Receiving Waters	Conococheague Creek (CWF)	Stream Code	59346
NHD Com ID	49469606	RMI	48.98
Drainage Area	38.6 sq.mi.	Yield (cfs/mi^2)	
Q_{7-10} Flow (cfs)	4.61	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	860	Slope (ft/ft)	
Watershed No.	13-C	Chapter 93 Class.	CWF
Existing Use	None	Existing Use Qualifier	None
Exceptions to Use	None	Exceptions to Criteria	None
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment			
Source(s) of Impairment			
TMDL Status		Name	
Nearest Downstream Public Water Supply Intake	Hagerstown MD		
PWS Waters	Potomac River	Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	> 50

Drainage Area
The discharge is to Conococheague Creek at RM 48.98. A drainage area upstream of the discharge point is estimated to be 38.6 sq.mi., according to USGS StreamStats available at https://streamstats.usgs.gov/ss/.

Streamflow
USGS StreamStats produced a Q7-10 flow of 4.61 cfs at the discharge point.

Conococheague Creek
Under 25 Pa Code §93.9z, Conococheague Creek from source to LR 28017 (SR 4014) is designated as cold water fishes and supports migratory fishes. No special protection water is impacted by this discharge. Conococheague Creek nearby the discharge point is identified as a trout natural reproduction stream as well as trout stocked stream; however, it is not classified as a Class A Wild Trout stream. DEP's latest integrated water quality report finalized in 2020 indicates that Conococheague Creek at the discharge point is not impaired.

Public Water Supply Intake
The fact sheet developed for the last permit renewal indicates that the nearest downstream water supply intake is for the City of Hagerstown on the Potomac River, more than 50 miles downstream from the discharge point. Given the distance, the discharge is not expected to impact the water supply.

Treatment Facility Summary				
Treatment Facility Name: Chambersburg WTP				
Waste Type	**Degree of Treatment**	**Process Type**	**Disinfection**	**Avg Annual Flow (MGD)**
Industrial	Primary	Clarifier/Settling Lagoon	No Disinfection	0.171
Hydraulic Capacity (MGD)	**Organic Capacity (lbs/day)**	**Load Status**	**Biosolids Treatment**	**Biosolids Use/Disposal**
0.171	__N/A_	Not Overloaded	N/A	N/A

Chambersburg operates a water treatment plant providing potable water to the areas of the Borough of Chambersburg. According to the application, water from Conococheague Creek is withdrawn at a rate of 3.925 MGD, treated through clarifiers, filters and chemical applications including chlorine, sodium bicarbonate, fluoride, etc. During this process, water blowdown from clarifiers (0.013 MGD), backwash from filters (0.1 MGD) and other miscellaneous wastewater including sample sinks and analyzer drains (0.008 MGD) and basin drain from clarifiers (intermittent) are generated as industrial wastewater which is sent to a washwater/sludge holding basin and wastewater lagoon for wastewater treatment prior to stream discharges.

The last permit renewal was developed based on the flow of 0.171 MGD. The application states that the average flow during production is 0.116 MGD with the maximum flow of 0.509 MGD. Past 12-month DMR data reveals that the facility has not discharged more than 0.2 MGD in average monthly and no more than 0.3 MGD in daily maximum. Based on this, it is reasonable to maintain 0.171 MGD as the design flow for permit requirements.

Compliance History	
Summary of DMRs:	A summary of past 12-month DMR datasets is presented on the next page.
Summary of Inspections:	12/8/2017: Patrick Bowen, former DEP Water Quality Specialist, conducted a routine inspection and noted that effluent appeared clear and the receiving stream appeared clear and free of abnormal conditions upstream and downstream of Outfall 001. No violation was noted at the time of inspection.

Other Comments: DEP's database shows there are multiple open violations associated with this permittee identified by Storage Tanks Program for "Mem Park" facility (see below). A draft permit cover letter will indicate that the permit may not be finalized until all open violations are resolved and closed.

CLIENT	FACILITY	INSP PROGRAM	VIOLATION ID	VIOLATION DATE	VIOLATION CODE	VIOLATION
CHAMBERSBURG BORO FRANKLIN CNTY	MEM PARK	Storage Tanks	891539	08/12/2020	245.438(A)	Failure to comply with UST system monthly operation and maintenance walkthrough inspections
CHAMBERSBURG BORO FRANKLIN CNTY	MEM PARK	Storage Tanks	891540	08/12/2020	245.435	Failure to comply with underground storage tank system reporting and record keeping requirements
CHAMBERSBURG BORO FRANKLIN CNTY	MEM PARK	Storage Tanks	891542	08/12/2020	245.436(E)	Failure to maintain documentation of designated operators
CHAMBERSBURG BORO FRANKLIN CNTY	MEM PARK	Storage Tanks	891543	08/12/2020	245.441	Failure to comply with underground storage tank system release detection requirements
CHAMBERSBURG BORO FRANKLIN CNTY	MEM PARK	Storage Tanks	915984	08/12/2020	245.438(A)	Failure to comply with UST system monthly operation and maintenance walkthrough inspections
CHAMBERSBURG BORO FRANKLIN CNTY	MEM PARK	Storage Tanks	915985	08/12/2020	245.435	Failure to comply with underground storage tank system reporting and record keeping requirements
CHAMBERSBURG BORO FRANKLIN CNTY	MEM PARK	Storage Tanks	915986	08/12/2020	245.436(E)	Failure to maintain documentation of designated operators
CHAMBERSBURG BORO FRANKLIN CNTY	MEM PARK	Storage Tanks	915987	08/12/2020	245.441	Failure to comply with underground storage tank system release detection requirements

Effluent Data

DMR Data for Outfall 001 (from July 1, 2020 to June 30, 2021)

Parameter	JUN-21	MAY-21	APR-21	MAR-21	FEB-21	JAN-21	DEC-20	NOV-20	OCT-20	SEP-20	AUG-20	JUL-20
Flow (MGD) Average Monthly	0.114	0.115	0.112	0.115	0.110	0.109	0.125	0.123	0.125	0.116	0.109	0.113
Flow (MGD) Daily Maximum	0.206	0.215	0.117	0.211	0.117	0.113	0.302	0.212	0.213	0.209	0.113	0.201
pH (S.U.) Minimum	7.2	7.1	6.6	6.5	6.9	6.7	7.5	7.3	7.3	7.3	7.4	7.8
pH (S.U.) Maximum	7.2	7.5	6.8	6.7	7.1	7.6	7.5	7.5	7.6	7.8	7.5	7.8
TSS (mg/L) Average Monthly	< 1.8	2.3	1.8	2.7	2.1	4.6	< 1.0	< 0.9	2.0	2.7	2.2	3.8
TSS (mg/L) Daily Maximum	2.0	3.0	2.8	4.0	2.8	< 8.0	1.2	1.0	2.4	3.0	2.4	6.0
Total Aluminum (mg/L) Average Monthly	0.27	0.275	0.23	0.26	0.20	< 0.12	0.17	0.25	0.26	0.75	0.396	0.78
Total Aluminum (mg/L) Daily Maximum	0.27	0.28	0.23	0.27	0.29	0.14	0.20	0.30	0.32	0.82	0.520	0.84
Total Iron (mg/L) Average Monthly	< 0.20	< 0.200	< 0.200	< 0.20	< 0.200	< 0.200	< 0.20	< 0.200	< 0.34	< 0.200	< 0.2	< 0.200
Total Iron (mg/L) Daily Maximum	< 0.20	< 0.200	< 0.200	< 0.20	< 0.200	< 0.200	< 0.20	< 0.200	0.47	< 0.200	< 0.2	< 0.200
Total Manganese (mg/L) Average Monthly	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.020	< 0.02	0.030
Total Manganese (mg/L) Daily Maximum	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.020	< 0.02	0.037

Existing Effluent Limits and Monitoring Requirements

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

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	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	1/week	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	9.0 Max	XXX	2/month	Grab
Total Suspended Solids	XXX	XXX	XXX	30.0	60.0	75	2/month	8-Hr Composite
Aluminum, Total	XXX	XXX	XXX	0.9	1.8	2.25	2/month	8-Hr Composite
Iron, Total	XXX	XXX	XXX	2.0	4.0	5	2/month	8-Hr Composite
Manganese, Total	XXX	XXX	XXX	1.0	2.0	2.5	2/month	8-Hr Composite

Development of Effluent Limitations and Monitoring Requirements

Outfall No. 001 **Design Flow (MGD)** 0.171
Latitude 39º 54' 26.29" **Longitude** -77º 30' 27.63"
Wastewater Description: IW Process Effluent without ELG

Technology-Based Limitations

DEP's technical guidance no. 362-2183-003 addresses technology-based control requirements along with the following recommended Best Practicable Control Technology Currently Available (BPT) effluent requirements for WTP sludge and filter backwash:

Parameter	Limit (mg/l)	SBC
Suspended Solids	30	Average Monthly
	60	Daily Maximum
Iron, Total	2.0	Average Monthly
	4.0	Daily Maximum
Aluminum, Total	4.0	Average Monthly
	8.0	Daily Maximum
Manganese, Total	1.0	Average Monthly
	2.0	Daily Maximum
Flow	Monitor	Average Monthly
pH	6.0	Minimum
	9.0	Maximum

These requirements apply, subject to water quality analysis and/or BPJ. 25 Pa Code §92a.48(b)(2) requires a TRC BAT effluent limitation of 0.5 mg/L (average monthly) if the facility or activities use chlorination. The application indicates that chlorine is added to raw water prior to filtration and also finished water is used to backwash the filters; therefore, a BAT effluent limit of 0.5 mg/L will be written in the permit.

Water Quality-Based Limitations

WQM 7.0
CBOD5 and NH3-N are not pollutants of concern for the water treatment waste as the discharge of these pollutants is not resulting from the water treatment process. Therefore, WQM 7.0 modeling is not necessary and permit requirements for these pollutants are not recommended.

Total Residual Chlorine
In general, when chlorine is added to raw water prior to filtration or when finished water is used to backwash the filters, effluent TRC should be monitored as effluent would likely contain detectable levels of TRC. The effluent sampling results provided in the application however indicate that TRC was not detected in all three (3) samples at 0.02 mg/L which is the current DEP's method detection level for TRC. No water quality analysis is needed as there is no reasonable potential for TRC to exceed the water quality standards. However, TRC_CALC worksheet is utilized to obtain an instantaneous maximum limit. The worksheet produced an IMAX limit of 1.6 mg/L.

Toxics
DEP's Toxics Management Spreadsheet is utilized for toxics pollutants. This spreadsheet indicates no reasonable potential has been determined for toxic pollutants based on effluent concentrations.

Additional Considerations

Flow Monitoring
Flow monitoring will remain in the permit and is required by 40 CFR § 122.44(i)(1)(ii).

Chesapeake Bay TMDL
DEP's Supplement to Phase II Watershed Implementation Plan (WIP) indicates that monitoring and reporting of TN and TP are necessary for non-significant IW facilities throughout the permit term anytime the facility has the potential to introduce

a net TN or TP increase to the load contained within the intake water used in processing. In general, the discharge from a water treatment plant does not contain nutrients and even if it does contain nutrients, it is most likely coming from the source (reservoir water). No nutrient monitoring is therefore recommended.

Sample Types & Monitoring Frequencies.
All sample types and monitoring frequencies specified in the current permit will remain unchanged for the upcoming permit renewal.

For new TRC permit requirements, a weekly sampling is recommended although a daily sampling requirement is a typical approach. Given that TRC has been consistently not detected, it is reasonable to assign a weekly requirement. This monitoring frequency is subject to change based on ample data expected to be collected following this permit renewal.

Sampling Protocol
The application as well as the recent email from a consultant indicates that the existing outfall receives not only treated industrial wastewater but also receives stormwater drained from the site. Samples would not be therefore representative of the monitored activity unless these samples do not contain stormwater. As a result, the following condition is recommended in Part A footnote: “Samples shall be collected at times when commingling with stormwater discharges is not occurring or at locations prior to the commingling of stormwater discharges.”

Anti-Backsliding Requirements
All permit requirements proposed in this fact sheet are at least as stringent as existing permit requirements.

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	Average Weekly	Instant. Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	1/week	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	2/month	Grab
Total Residual Chlorine	XXX	XXX	XXX	0.5	XXX	1.6	1/week	Grab
TSS	XXX	XXX	XXX	30.0	60.0	75	2/month	8-Hr Composite
Total Aluminum	XXX	XXX	XXX	0.9	1.8	2.25	2/month	8-Hr Composite
Total Iron	XXX	XXX	XXX	2.0	4.0	5	2/month	8-Hr Composite
Total Manganese	XXX	XXX	XXX	1.0	2.0	2.5	2/month	8-Hr Composite

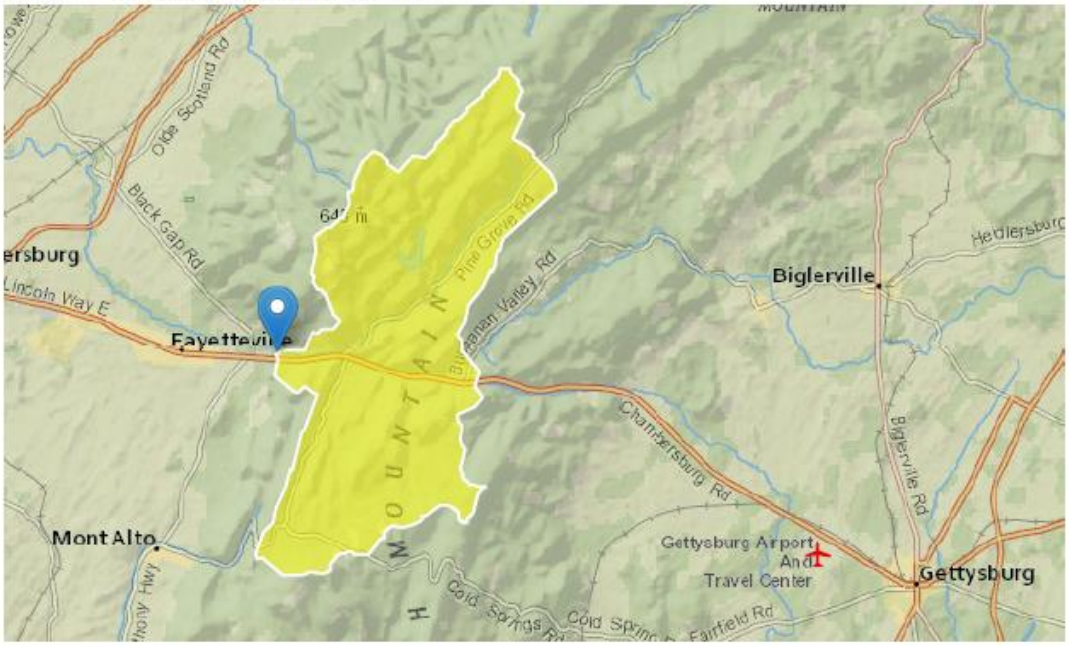
Attachments

1. StreamStats

8/3/2021 StreamStats

StreamStats Report

Region ID: PA
Workspace ID: PA20210803113315852000
Clicked Point (Latitude, Longitude): 39.90791, -77.50764
Time: 2021-08-03 07:33:31 -0400



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	38.6	square miles
PRECIP	Mean Annual Precipitation	45	inches
STRDEN	Stream Density -- total length of streams divided by drainage area	1.79	miles per square mile
ROCKDEP	Depth to rock	5	feet
CARBON	Percentage of area of carbonate rock	1.84	percent

https://streamstats.usgs.gov/ss/ 1/3

Low-Flow Statistics Parameters [100.0 Percent (38.6 square miles) Low Flow Region 2]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	38.6	square miles	4.93	1280
PRECIP	Mean Annual Precipitation	45	inches	35	50.4
STRDEN	Stream Density	1.79	miles per square mile	0.51	3.1
ROCKDEP	Depth to Rock	5	feet	3.32	5.65
CARBON	Percent Carbonate	1.84	percent	0	99

Low-Flow Statistics Flow Report [100.0 Percent (38.6 square miles) Low Flow Region 2]

PII: Prediction Interval-Lower, PIu: Prediction Interval-Upper, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

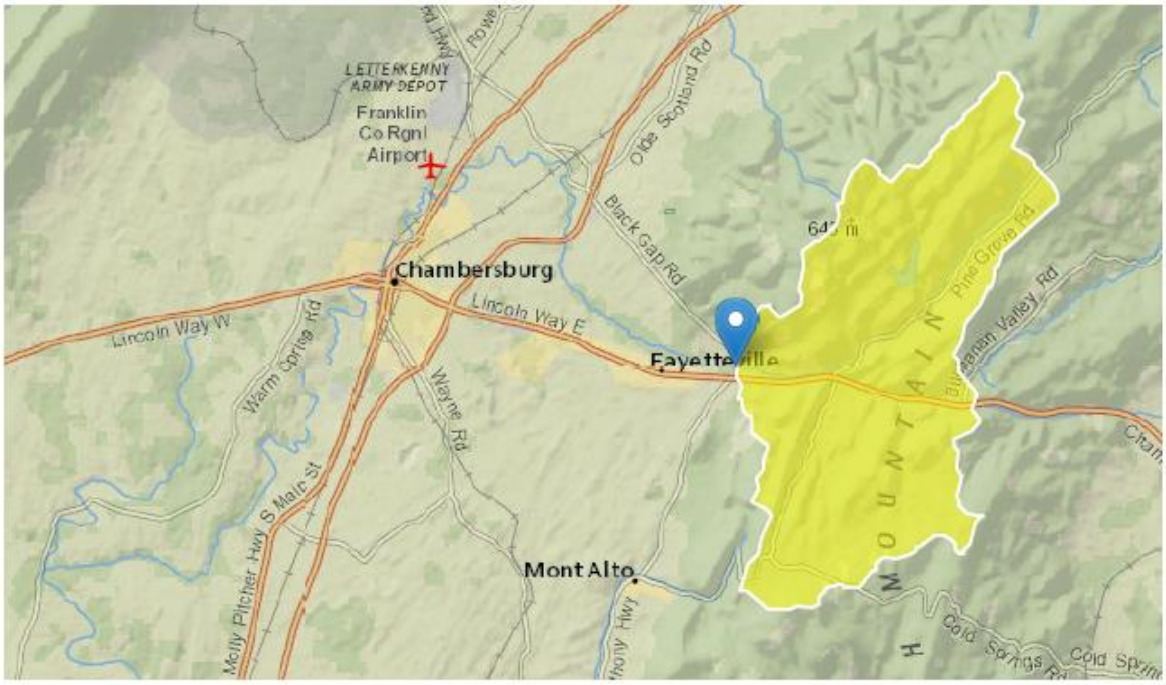
Statistic	Value	Unit	SE	ASEp
7 Day 2 Year Low Flow	7.97	ft^3/s	38	38
30 Day 2 Year Low Flow	9.98	ft^3/s	33	33
7 Day 10 Year Low Flow	4.61	ft^3/s	51	51
30 Day 10 Year Low Flow	5.59	ft^3/s	46	46
90 Day 10 Year Low Flow	7.57	ft^3/s	36	36

Low-Flow Statistics Citations

Stuckey, M.H.,2006, Low-flow, base-flow, and mean-flow regression equations for Pennsylvania streams: U.S. Geological Survey Scientific Investigations Report 2006-5130, 84 p. (http://pubs.usgs.gov/sir/2006/5130/)

StreamStats Report

Region ID: PA
Workspace ID: PA20210803140202831000
Clicked Point (Latitude, Longitude): 39.90990, -77.51876
Time: 2021-08-03 10:02:18 -0400



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	42.5	square miles
PRECIP	Mean Annual Precipitation	44	inches
STRDEN	Stream Density -- total length of streams divided by drainage area	1.74	miles per square mile
ROCKDEP	Depth to rock	5	feet
CARBON	Percentage of area of carbonate rock	4.18	percent

Low-Flow Statistics Parameters [100.0 Percent (42.5 square miles) Low Flow Region 2]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	42.5	square miles	4.93	1280
PRECIP	Mean Annual Precipitation	44	inches	35	50.4
STRDEN	Stream Density	1.74	miles per square mile	0.51	3.1
ROCKDEP	Depth to Rock	5	feet	3.32	5.65
CARBON	Percent Carbonate	4.18	percent	0	99

Low-Flow Statistics Flow Report [100.0 Percent (42.5 square miles) Low Flow Region 2]

PII: Prediction Interval-Lower, PIu: Prediction Interval-Upper, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	SE	ASEp
7 Day 2 Year Low Flow	8.64	ft^3/s	38	38
30 Day 2 Year Low Flow	10.8	ft^3/s	33	33
7 Day 10 Year Low Flow	5.05	ft^3/s	51	51
30 Day 10 Year Low Flow	6.12	ft^3/s	46	46
90 Day 10 Year Low Flow	8.27	ft^3/s	36	36

Low-Flow Statistics Citations

Stuckey, M.H.,2006, Low-flow, base-flow, and mean-flow regression equations for Pennsylvania streams: U.S. Geological Survey Scientific Investigations Report 2006-5130, 84 p. (http://pubs.usgs.gov/sir/2006/5130/)

2. Toxics Management Spreadsheet

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Toxics Management Spreadsheet
Version 1.3, March 2021

Discharge Information

Instructions | Discharge | Stream

Facility: Chambersburg Borough Water System NPDES Permit No.: PA0083364 Outfall No.: 001

Evaluation Type: Major Sewage / Industrial Waste Wastewater Description: Filter Backwash

Discharge Characteristics								
Design Flow (MGD)*	Hardness (mg/l)*	pH (SU)*	Partial Mix Factors (PMFs)				Complete Mix Times (min)	
			AFC	CFC	THH	CRL	Q_{7-10}	Q_h
0.171	8.19	7						

					0 if left blank		0.5 if left blank		0 if left blank			1 if left blank	
	Discharge Pollutant	Units	Max Discharge Conc		Trib Conc	Stream Conc	Daily CV	Hourly CV	Stream CV	Fate Coeff	FOS	Criteria Mod	Chem Transl
Group 1	Total Dissolved Solids (PWS)	mg/L		132									
	Chloride (PWS)	mg/L		14.3									
	Bromide	mg/L	<	0.023									
	Sulfate (PWS)	mg/L		5.63									
	Fluoride (PWS)	mg/L		0.322									
Group 2	Total Aluminum	µg/L		840									
	Total Antimony	µg/L	<	0.695									
	Total Arsenic	µg/L	<	1.7									
	Total Barium	µg/L		25.6									
	Total Beryllium	µg/L	<	1.35									
	Total Boron	µg/L	<	56.5									
	Total Cadmium	µg/L	<	0.123									
	Total Chromium (III)	µg/L	<	1.99									
	Hexavalent Chromium	µg/L	<	0.25									
	Total Cobalt	µg/L	<	0.119									
	Total Copper	µg/L	<	2.21									
	Free Cyanide	µg/L											
	Total Cyanide	µg/L		7									
	Dissolved Iron	µg/L	<	60									
	Total Iron	µg/L		470									
	Total Lead	µg/L	<	0.172									
	Total Manganese	µg/L	<	200									
	Total Mercury	µg/L	<	0.104									
	Total Nickel	µg/L	<	1.44									
	Total Phenols (Phenolics) (PWS)	µg/L	<	5									
	Total Selenium	µg/L	<	2.2									
	Total Silver	µg/L	<	0.4									
	Total Thallium	µg/L	<	0.068									
	Total Zinc	µg/L		9.08									
	Total Molybdenum	µg/L		0.377									
	Acrolein	µg/L	<										
	Acrylamide	µg/L	<										
	Acrylonitrile	µg/L	<										
	Benzene	µg/L	<										
	Bromoform	µg/L	<										

Group 3	Carbon Tetrachloride	µg/L	<										
	Chlorobenzene	µg/L											
	Chlorodibromomethane	µg/L	<										
	Chloroethane	µg/L	<										
	2-Chloroethyl Vinyl Ether	µg/L	<										
	Chloroform	µg/L	<										
	Dichlorobromomethane	µg/L	<										
	1,1-Dichloroethane	µg/L	<										
	1,2-Dichloroethane	µg/L	<										
	1,1-Dichloroethylene	µg/L	<										
	1,2-Dichloropropane	µg/L	<										
	1,3-Dichloropropylene	µg/L	<										
	1,4-Dioxane	µg/L	<										
	Ethylbenzene	µg/L	<										
	Methyl Bromide	µg/L	<										
	Methyl Chloride	µg/L	<										
	Methylene Chloride	µg/L	<										
	1,1,2,2-Tetrachloroethane	µg/L	<										
	Tetrachloroethylene	µg/L	<										
	Toluene	µg/L	<										
	1,2-trans-Dichloroethylene	µg/L	<										
	1,1,1-Trichloroethane	µg/L	<										
	1,1,2-Trichloroethane	µg/L	<										
	Trichloroethylene	µg/L	<										
	Vinyl Chloride	µg/L	<										
Group 4	2-Chlorophenol	µg/L	<										
	2,4-Dichlorophenol	µg/L	<										
	2,4-Dimethylphenol	µg/L	<										
	4,6-Dinitro-o-Cresol	µg/L	<										
	2,4-Dinitrophenol	µg/L	<										
	2-Nitrophenol	µg/L	<										
	4-Nitrophenol	µg/L	<										
	p-Chloro-m-Cresol	µg/L	<										
	Pentachlorophenol	µg/L	<										
	Phenol	µg/L	<										
	2,4,6-Trichlorophenol	µg/L	<										
Group 5	Acenaphthene	µg/L	<										
	Acenaphthylene	µg/L	<										
	Anthracene	µg/L	<										
	Benzidine	µg/L	<										
	Benzo(a)Anthracene	µg/L	<										
	Benzo(a)Pyrene	µg/L	<										
	3,4-Benzofluoranthene	µg/L	<										
	Benzo(ghi)Perylene	µg/L	<										
	Benzo(k)Fluoranthene	µg/L	<										
	Bis(2-Chloroethoxy)Methane	µg/L	<										
	Bis(2-Chloroethyl)Ether	µg/L	<										
	Bis(2-Chloroisopropyl)Ether	µg/L	<										
	Bis(2-Ethylhexyl)Phthalate	µg/L	<										
	4-Bromophenyl Phenyl Ether	µg/L	<										
	Butyl Benzyl Phthalate	µg/L	<										
	2-Chloronaphthalene	µg/L	<										
	4-Chlorophenyl Phenyl Ether	µg/L	<										
	Chrysene	µg/L	<										
	Dibenzo(a,h)Anthrancene	µg/L	<										
	1,2-Dichlorobenzene	µg/L	<										
	1,3-Dichlorobenzene	µg/L	<										
	1,4-Dichlorobenzene	µg/L	<										
	3,3-Dichlorobenzidine	µg/L	<										
	Diethyl Phthalate	µg/L	<										
	Dimethyl Phthalate	µg/L	<										
	Di-n-Butyl Phthalate	µg/L	<										
	2,4-Dinitrotoluene	µg/L	<										

	2,6-Dinitrotoluene	µg/L	<											
	Di-n-Octyl Phthalate	µg/L	<											
	1,2-Diphenylhydrazine	µg/L	<											
	Fluoranthene	µg/L	<											
	Fluorene	µg/L	<											
	Hexachlorobenzene	µg/L	<											
	Hexachlorobutadiene	µg/L	<											
	Hexachlorocyclopentadiene	µg/L	<											
	Hexachloroethane	µg/L	<											
	Indeno(1,2,3-cd)Pyrene	µg/L	<											
	Isophorone	µg/L	<											
	Naphthalene	µg/L	<											
	Nitrobenzene	µg/L	<											
	n-Nitrosodimethylamine	µg/L	<											
	n-Nitrosodi-n-Propylamine	µg/L	<											
	n-Nitrosodiphenylamine	µg/L	<											
	Phenanthrene	µg/L	<											
	Pyrene	µg/L	<											
	1,2,4-Trichlorobenzene	µg/L	<											
Group 6	Aldrin	µg/L	<											
	alpha-BHC	µg/L	<											
	beta-BHC	µg/L	<											
	gamma-BHC	µg/L	<											
	delta BHC	µg/L	<											
	Chlordane	µg/L	<											
	4,4-DDT	µg/L	<											
	4,4-DDE	µg/L	<											
	4,4-DDD	µg/L	<											
	Dieldrin	µg/L	<											
	alpha-Endosulfan	µg/L	<											
	beta-Endosulfan	µg/L	<											
	Endosulfan Sulfate	µg/L	<											
	Endrin	µg/L	<											
	Endrin Aldehyde	µg/L	<											
	Heptachlor	µg/L	<											
	Heptachlor Epoxide	µg/L	<											
	PCB-1016	µg/L	<											
	PCB-1221	µg/L	<											
	PCB-1232	µg/L	<											
	PCB-1242	µg/L	<											
	PCB-1248	µg/L	<											
	PCB-1254	µg/L	<											
	PCB-1260	µg/L	<											
	PCBs, Total	µg/L	<											
	Toxaphene	µg/L	<											
	2,3,7,8-TCDD	ng/L	<											
Group 7	Gross Alpha	pCi/L												
	Total Beta	pCi/L	<											
	Radium 226/228	pCi/L	<											
	Total Strontium	µg/L	<											
	Total Uranium	µg/L	<											
	Osmotic Pressure	mOs/kg												

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DEPARTMENT OF ENVIRONMENTAL PROTECTION

Toxics Management Spreadsheet
Version 1.3, March 2021

Stream / Surface Water Information

Chambersburg Borough Water System , NPDES Permit No. PA0083364, Outfall 001

Instructions | Discharge | Stream

Receiving Surface Water Name: **Conococheague Creek**

No. Reaches to Model: **1**

- (●) Statewide Criteria
- ( ) Great Lakes Criteria
- ( ) ORSANCO Criteria

Location	Stream Code*	RMI*	Elevation (ft)*	DA (mi^2)*	Slope (ft/ft)	PWS Withdrawal (MGD)	Apply Fish Criteria*
Point of Discharge	059346	48.98	860	38.6			Yes
End of Reach 1	059346	48.34	833	42.5			Yes

$Q_{7\text{-}10}$

Location	RMI	LFY (cfs/mi^2)*	Flow (cfs)		W/D Ratio	Width (ft)	Depth (ft)	Velocity (fps)	Travel Time (days)	Tributary		Stream		Analysis	
			Stream	Tributary						Hardness	pH	Hardness*	pH*	Hardness	pH
Point of Discharge	48.98	0.1	4.61									6.6	6.4		
End of Reach 1	48.34	0.1	5.05												

Q_h

Location	RMI	LFY (cfs/mi^2)	Flow (cfs)		W/D Ratio	Width (ft)	Depth (ft)	Velocity (fps)	Travel Time (days)	Tributary		Stream		Analysis	
			Stream	Tributary						Hardness	pH	Hardness	pH	Hardness	pH
Point of Discharge	48.98														
End of Reach 1	48.34														

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Toxics Management Spreadsheet
Version 1.3, March 2021

Model Results

Chambersburg Borough Water System , NPDES Permit No. PA0083364, Outfall 001

Instructions | Results | RETURN TO INPUTS | SAVE AS PDF | PRINT | ◉ All ○ Inputs ○ Results ○ Limits

☐ ***Hydrodynamics***

☑ ***Wasteload Allocations***

☑ *AFC* CCT (min): 15 PMF: 0.804 Analysis Hardness (mg/l): 6.706 Analysis pH: 6.42

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	N/A	N/A	N/A	
Chloride (PWS)	0	0		0	N/A	N/A	N/A	
Sulfate (PWS)	0	0		0	N/A	N/A	N/A	
Fluoride (PWS)	0	0		0	N/A	N/A	N/A	
Total Aluminum	0	0		0	750	750	11,255	
Total Antimony	0	0		0	1,100	1,100	16,507	
Total Arsenic	0	0		0	340	340	5,102	Chem Translator of 1 applied
Total Barium	0	0		0	21,000	21,000	315,133	
Total Boron	0	0		0	8,100	8,100	121,551	
Total Cadmium	0	0		0	0.145	0.14	2.05	Chem Translator of 1.057 applied
Total Chromium (III)	0	0		0	62.311	197	2,959	Chem Translator of 0.316 applied
Hexavalent Chromium	0	0		0	16	16.3	245	Chem Translator of 0.982 applied
Total Cobalt	0	0		0	95	95.0	1,426	
Total Copper	0	0		0	1.054	1.1	16.5	Chem Translator of 0.96 applied
Dissolved Iron	0	0		0	N/A	N/A	N/A	
Total Iron	0	0		0	N/A	N/A	N/A	
Total Lead	0	0		0	3.102	2.62	39.3	Chem Translator of 1.185 applied
Total Manganese	0	0		0	N/A	N/A	N/A	
Total Mercury	0	0		0	1.400	1.65	24.7	Chem Translator of 0.85 applied
Total Nickel	0	0		0	47.605	47.7	716	Chem Translator of 0.998 applied
Total Phenols (Phenolics) (PWS)	0	0		0	N/A	N/A	N/A	
Total Selenium	0	0		0	N/A	N/A	N/A	Chem Translator of 0.922 applied
Total Silver	0	0		0	0.031	0.036	0.54	Chem Translator of 0.85 applied
Total Thallium	0	0		0	65	65.0	975	
Total Zinc	0	0		0	11.872	12.1	182	Chem Translator of 0.978 applied

☑ *CFC* CCT (min): 23.220 PMF: 1 Analysis Hardness (mg/l): 6.6863 Analysis pH: 6.42

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	N/A	N/A	N/A	
Chloride (PWS)	0	0		0	N/A	N/A	N/A	
Sulfate (PWS)	0	0		0	N/A	N/A	N/A	
Fluoride (PWS)	0	0		0	N/A	N/A	N/A	
Total Aluminum	0	0		0	N/A	N/A	N/A	
Total Antimony	0	0		0	220	220	4,054	
Total Arsenic	0	0		0	150	150	2,764	Chem Translator of 1 applied
Total Barium	0	0		0	4,100	4,100	75,549	
Total Boron	0	0		0	1,600	1,600	29,483	
Total Cadmium	0	0		0	0.037	0.036	0.67	Chem Translator of 1.022 applied
Total Chromium (III)	0	0		0	8.086	9.4	173	Chem Translator of 0.86 applied
Hexavalent Chromium	0	0		0	10	10.4	192	Chem Translator of 0.962 applied
Total Cobalt	0	0		0	19	19.0	350	
Total Copper	0	0		0	0.888	0.92	17.0	Chem Translator of 0.96 applied
Dissolved Iron	0	0		0	N/A	N/A	N/A	
Total Iron	0	0		0	1,500	1,500	27,640	WQC = 30 day average; PMF = 1
Total Lead	0	0		0	0.120	0.1	1.87	Chem Translator of 1.185 applied
Total Manganese	0	0		0	N/A	N/A	N/A	
Total Mercury	0	0		0	0.770	0.91	16.7	Chem Translator of 0.85 applied
Total Nickel	0	0		0	5.274	5.29	97.5	Chem Translator of 0.997 applied
Total Phenols (Phenolics) (PWS)	0	0		0	N/A	N/A	N/A	
Total Selenium	0	0		0	4.600	4.99	91.9	Chem Translator of 0.922 applied
Total Silver	0	0		0	N/A	N/A	N/A	Chem Translator of 1 applied
Total Thallium	0	0		0	13	13.0	240	
Total Zinc	0	0		0	11.939	12.1	223	Chem Translator of 0.986 applied

☑ *THH* CCT (min): 23.220 PMF: 1 Analysis Hardness (mg/l): N/A Analysis pH: N/A

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	500,000	500,000	N/A	
Chloride (PWS)	0	0		0	250,000	250,000	N/A	
Sulfate (PWS)	0	0		0	250,000	250,000	N/A	
Fluoride (PWS)	0	0		0	2,000	2,000	N/A	
Total Aluminum	0	0		0	N/A	N/A	N/A	
Total Antimony	0	0		0	5.6	5.6	103	
Total Arsenic	0	0		0	10	10.0	184	
Total Barium	0	0		0	2,400	2,400	44,224	
Total Boron	0	0		0	3,100	3,100	57,123	
Total Cadmium	0	0		0	N/A	N/A	N/A	
Total Chromium (III)	0	0		0	N/A	N/A	N/A	

Hexavalent Chromium	0	0		0	N/A	N/A	N/A	
Total Cobalt	0	0		0	N/A	N/A	N/A	
Total Copper	0	0		0	N/A	N/A	N/A	
Dissolved Iron	0	0		0	300	300	5,528	
Total Iron	0	0		0	N/A	N/A	N/A	
Total Lead	0	0		0	N/A	N/A	N/A	
Total Manganese	0	0		0	1,000	1,000	18,427	
Total Mercury	0	0		0	0.050	0.05	0.92	
Total Nickel	0	0		0	610	610	11,240	
Total Phenols (Phenolics) (PWS)	0	0		0	5	5.0	N/A	
Total Selenium	0	0		0	N/A	N/A	N/A	
Total Silver	0	0		0	N/A	N/A	N/A	
Total Thallium	0	0		0	0.24	0.24	4.42	
Total Zinc	0	0		0	N/A	N/A	N/A	

☑ *CRL* CCT (min): 7.942 PMF: 1 Analysis Hardness (mg/l): N/A Analysis pH: N/A

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	N/A	N/A	N/A	
Chloride (PWS)	0	0		0	N/A	N/A	N/A	
Sulfate (PWS)	0	0		0	N/A	N/A	N/A	
Fluoride (PWS)	0	0		0	N/A	N/A	N/A	
Total Aluminum	0	0		0	N/A	N/A	N/A	
Total Antimony	0	0		0	N/A	N/A	N/A	
Total Arsenic	0	0		0	N/A	N/A	N/A	
Total Barium	0	0		0	N/A	N/A	N/A	
Total Boron	0	0		0	N/A	N/A	N/A	
Total Cadmium	0	0		0	N/A	N/A	N/A	
Total Chromium (III)	0	0		0	N/A	N/A	N/A	
Hexavalent Chromium	0	0		0	N/A	N/A	N/A	
Total Cobalt	0	0		0	N/A	N/A	N/A	
Total Copper	0	0		0	N/A	N/A	N/A	
Dissolved Iron	0	0		0	N/A	N/A	N/A	
Total Iron	0	0		0	N/A	N/A	N/A	
Total Lead	0	0		0	N/A	N/A	N/A	
Total Manganese	0	0		0	N/A	N/A	N/A	
Total Mercury	0	0		0	N/A	N/A	N/A	
Total Nickel	0	0		0	N/A	N/A	N/A	
Total Phenols (Phenolics) (PWS)	0	0		0	N/A	N/A	N/A	
Total Selenium	0	0		0	N/A	N/A	N/A	
Total Silver	0	0		0	N/A	N/A	N/A	
Total Thallium	0	0		0	N/A	N/A	N/A	
Total Zinc	0	0		0	N/A	N/A	N/A	

☑ ***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	Report	Report	Report	Report	Report	µg/L	7,214	AFC	Discharge Conc > 10% WQBEL (no RP)

☑ ***Other Pollutants without Limits or Monitoring***

The following pollutants do not require effluent limits or monitoring based on water quality because reasonable potential to exceed water quality criteria was not determined and the discharge concentration was less than thresholds for monitoring, or the pollutant was not detected and a sufficiently sensitive analytical method was used (e.g., <= Target QL).

Pollutants	Governing WQBEL	Units	Comments
Total Dissolved Solids (PWS)	N/A	N/A	PWS Not Applicable
Chloride (PWS)	N/A	N/A	PWS Not Applicable
Bromide	N/A	N/A	No WQS
Sulfate (PWS)	N/A	N/A	PWS Not Applicable
Fluoride (PWS)	N/A	N/A	PWS Not Applicable
Total Antimony	N/A	N/A	Discharge Conc < TQL
Total Arsenic	N/A	N/A	Discharge Conc < TQL
Total Barium	44,224	µg/L	Discharge Conc ≤ 10% WQBEL
Total Beryllium	N/A	N/A	No WQS
Total Boron	29,483	µg/L	Discharge Conc < TQL
Total Cadmium	0.67	µg/L	Discharge Conc < TQL
Total Chromium (III)	173	µg/L	Discharge Conc < TQL
Hexavalent Chromium	157	µg/L	Discharge Conc < TQL
Total Cobalt	350	µg/L	Discharge Conc < TQL
Total Copper	10.6	µg/L	Discharge Conc < TQL
Total Cyanide	N/A	N/A	No WQS
Dissolved Iron	5,528	µg/L	Discharge Conc ≤ 10% WQBEL
Total Iron	27,640	µg/L	Discharge Conc ≤ 10% WQBEL
Total Lead	1.87	µg/L	Discharge Conc < TQL
Total Manganese	18,427	µg/L	Discharge Conc ≤ 10% WQBEL
Total Mercury	0.92	µg/L	Discharge Conc < TQL
Total Nickel	97.5	µg/L	Discharge Conc < TQL
Total Phenols (Phenolics) (PWS)		µg/L	Discharge Conc < TQL
Total Selenium	91.9	µg/L	Discharge Conc < TQL
Total Silver	0.35	µg/L	Discharge Conc < TQL
Total Thallium	4.42	µg/L	Discharge Conc < TQL
Total Zinc	117	µg/L	Discharge Conc ≤ 10% WQBEL
Total Molybdenum	N/A	N/A	No WQS

3. TRC_CALC Worksheet

TRC_CALC

1A	B	C	D	E	F	G
2	**TRC EVALUATION**					
3	Input appropriate values in B4:B8 and E4:E7					
4	4.61	= Q stream (cfs)		0.5	= CV Daily	
5	0.171	= Q discharge (MGD)		0.5	= CV Hourly	
6	30	= no. samples		1	= AFC_Partial Mix Factor	
7	0.3	= Chlorine Demand of Stream		1	= CFC_Partial Mix Factor	
8	0	= Chlorine Demand of Discharge		15	= AFC_Criteria Compliance Time (min)	
9	0.5	= BAT/BPJ Value		720	= CFC_Criteria Compliance Time (min)	
	0	= % Factor of Safety (FOS)			=Decay Coefficient (K)	
10	Source	Reference	AFC Calculations	Reference	CFC Calculations	
11	TRC	1.3.2.iii	WLA afc = 5.578	1.3.2.iii	WLA cfc = 5.431	
12	PENTOXSD TRG	5.1a	LTAMULT afc = 0.373	5.1c	LTAMULT cfc = 0.581	
13	PENTOXSD TRG	5.1b	LTA_afc= 2.079	5.1d	LTA_cfc = 3.157	
14						
15	Source		Effluent Limit Calculations			
16	PENTOXSD TRG	5.1f	AML MULT = 1.231			
17	PENTOXSD TRG	5.1g	AVG MON LIMIT (mg/l) = 0.500		BAT/BPJ	
18			INST MAX LIMIT (mg/l) = 1.635			

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)

	Tools and References Used to Develop Permit
☐	WQM for Windows Model (see Attachment)
☐	Toxics Management Spreadsheet (see Attachment)
☐	TRC Model Spreadsheet (see Attachment)
☐	Temperature Model Spreadsheet (see Attachment)
☐	Water Quality Toxics Management Strategy, 361-0100-003, 4/06.
☐	Technical Guidance for the Development and Specification of Effluent Limitations, 362-0400-001, 10/97.
☐	Policy for Permitting Surface Water Diversions, 362-2000-003, 3/98.
☐	Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 362-2000-008, 11/96.
☐	Technology-Based Control Requirements for Water Treatment Plant Wastes, 362-2183-003, 10/97.
☐	Technical Guidance for Development of NPDES Permit Requirements Steam Electric Industry, 362-2183-004, 12/97.
☐	Pennsylvania CSO Policy, 385-2000-011, 9/08.
☐	Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03.
☐	Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 391-2000-002, 4/97.
☐	Determining Water Quality-Based Effluent Limits, 391-2000-003, 12/97.
☐	Implementation Guidance Design Conditions, 391-2000-006, 9/97.
☐	Technical Reference Guide (TRG) WQM 7.0 for Windows, Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen, Version 1.0, 391-2000-007, 6/2004.
☐	Interim Method for the Sampling and Analysis of Osmotic Pressure on Streams, Brines, and Industrial Discharges, 391-2000-008, 10/1997.
☐	Implementation Guidance for Section 95.6 Management of Point Source Phosphorus Discharges to Lakes, Ponds, and Impoundments, 391-2000-010, 3/99.
☐	Technical Reference Guide (TRG) PENTOXSD for Windows, PA Single Discharge Wasteload Allocation Program for Toxics, Version 2.0, 391-2000-011, 5/2004.
☐	Implementation Guidance for Section 93.7 Ammonia Criteria, 391-2000-013, 11/97.
☐	Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers, 391-2000-014, 4/2008.
☐	Implementation Guidance Total Residual Chlorine (TRC) Regulation, 391-2000-015, 11/1994.
☐	Implementation Guidance for Temperature Criteria, 391-2000-017, 4/09.
☐	Implementation Guidance for Section 95.9 Phosphorus Discharges to Free Flowing Streams, 391-2000-018, 10/97.
☐	Implementation Guidance for Application of Section 93.5(e) for Potable Water Supply Protection Total Dissolved Solids, Nitrite-Nitrate, Non-Priority Pollutant Phenolics and Fluorides, 391-2000-019, 10/97.
☐	Field Data Collection and Evaluation Protocol for Determining Stream and Point Source Discharge Design Hardness, 391-2000-021, 3/99.
☐	Implementation Guidance for the Determination and Use of Background/Ambient Water Quality in the Determination of Wasteload Allocations and NPDES Effluent Limitations for Toxic Substances, 391-2000-022, 3/1999.
☐	Design Stream Flows, 391-2000-023, 9/98.
☐	Field Data Collection and Evaluation Protocol for Deriving Daily and Hourly Discharge Coefficients of Variation (CV) and Other Discharge Characteristics, 391-2000-024, 10/98.
☐	Evaluations of Phosphorus Discharges to Lakes, Ponds and Impoundments, 391-3200-013, 6/97.
☐	Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, 4/07.
☐	SOP:
☐	Other: