Pennsylvania Department of Environmental Protection

Northeast Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0061310**
Facility Type	**Non-Municipal**	APS ID	**628882**
Major / Minor	**Minor**	Authorization ID	**1479209**

Applicant and Facility Information

Applicant Name	**Marian High School**	Facility Name	**Marian High School STP**
Applicant Address	166 Marian Avenue	Facility Address	166 Marian Avenue
	Tamaqua, PA 18252-9789		Tamaqua, PA 18252-4755
Applicant Contact	Robert Finlan, Principal	Facility Contact	James Barron, Operations Manager
Applicant Phone	(570) 668-2225	Facility Phone	(570) 668-2225
Client ID	44637	Site ID	2618
Ch 94 Load Status	Not Overloaded	Municipality	Rush Township
Connection Status	-	County	Schuylkill
Date Application Received	April 3, 2024	EPA Waived?	Yes
Date Application Accepted	April 8, 2024	If No, Reason	-

Purpose of Application: Renewal of NPDES permit for discharge of treated sewage.

Summary of Review

The applicant is requesting the renewal of an NPDES permit to discharge up to 0.035 MGD of treated sewage into the Little Schuylkill River, a Cold-Water Fishery, Migratory Fish (CWF, MF) receiving stream in State Water Plan Basin 3-A (Harveys Lake). As per the Department's current existing use list, the receiving stream does not have an existing use classification that is more protective than its designated use. This stream segment is designated as a naturally reproducing trout stream as per PA Fish & Boat Commission. This discharge is not expected to affect public water supplies.

Limitations for pH, $CBOD_5$, Total Suspended Solids (TSS), Fecal Coliform, and Ammonia-Nitrogen are technology-based and carried over from the previous permit.

A standard BPJ-based limitation of 5.0 mg/L for Dissolved Oxygen (DO) has been added to the permit. This is an increase from the existing 3.0 mg/l DO limitation. eDMR Data from September 2023 to August 2024 confirms the facility is already meeting this limitation; therefore, the new limitation will come into effect at the permit effective date.

WQM 7.0 modeling did not recommend stricter limits.

The 1.2 mg/L monthly average and 2.8 mg/L IMAX limitations for Total Residual Chlorine (TRC) in the previously issued permit were technology-based limitations. As per PA Code 92a.47(a)(8) (which refers to PA Code 92a.48(b)(2)), a monthly average TRC facility-specific BAT effluent limit of 0.5 mg/L and an IMAX limit of 1.6 mg/L has been applied to this permit renewal. The TRC Calculation Spreadsheet did not recommend more stringent water quality-based limitations. The permittee will be required to meet the new technology-based limits for TRC starting three years after the effective date of the permit.

Approve	Deny	Signatures	Date
X		Allison Seyfried Zukosky / Project Manager	December 16, 2025
X		Edward Dudick, P.E. / Environmental Engineer Manager	December 16, 2025

Summary of Review

The annual monitoring and reporting for Total Nitrogen, Total Phosphorous, Total Kjeldahl Nitrogen, and Nitrate-Nitrite as N has been maintained in this permit.

Sewage discharges now require monitoring and reporting for E. Coli. A monitoring frequency of 1/month for design flows >= 1 MGD, 1/quarter for design flows >= 0.05 and < 1 MGD, 1/year for design flows of 0.002 – 0.05 MGD will be utilized.

A final Total Maximum Daily Load (TMDL) exists for the Little Schuylkill River Watershed. The TMDL addresses metals (iron, manganese, and aluminum) associated with acid mine drainage (AMD). The TMDL also addresses siltation. There are no approved Waste Load Allocation (WLA) for this facility. Since this is a sewage discharge with no industrial contributors, no appreciable quantities of these metals are expected to be present in the effluent. The annual monitoring/reporting for Total Iron, Total Manganese, Total Aluminum, and Total Dissolved Solids has been maintained in this permit.

For this permit renewal, all monitoring frequencies for parameters with limitations are consistent with the Department's *Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits* (document no. 362-0400-001).

Data from the downstream stream gage 1469500 (Lehigh Schuylkill River at Tamaqua, PA) was used to model the discharge, resulting in a low flow yield (LFY) of 0.128 cfs/mi^2 and $Q_{7\text{-}10}$ of 2.56 cfs. RMI values were obtained using the Department's eMapPA, drainage areas were delineated using USGS's StreamStats interactive map, and elevations were obtained using the elevation profile tool on StreamStats. Strem Gage and USGS Data can be seen beginning on page 9 of this fact sheet.

The existing permit expired on September 30, 2024 and the application for renewal was received on time.

A Water Management System Inspection query indicated a Compliance Evaluation was performed on September 22, 2021.

There are currently no open violations for this client that warrant withholding issuance of this permit.

Sludge use and disposal description and location(s): As per the permittee's NPDES Renewal Application, sludge is hauled to the Greater Hazleton Wastewater Facility in Hazleton, PA by Ankiewicz Inc.

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.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.035
Latitude	40º 49' 26.70"	Longitude	-76º 0' 20.21"
Quad Name	Harveys Lake	Quad Code	0837
Wastewater Description:	Sewage Effluent		

Receiving Waters	Little Schuylkill River (CWF)	Stream Code	2202
NHD Com ID	25968766	RMI	27.26
Drainage Area	20.0	Yield (cfs/mi^2)	0.128
Q_{7-10} Flow (cfs)	2.56	Q_{7-10} Basis	USGS Stream Gage 01469500
Elevation (ft)	972.57	Slope (ft/ft)	-
Watershed No.	3-A	Chapter 93 Class.	CWF
Existing Use	-	Existing Use Qualifier	-
Exceptions to Use	-	Exceptions to Criteria	-
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment	-		
Source(s) of Impairment	-		
TMDL Status	Final	Name	Little Schuylkill River

Background/Ambient Data		Data Source
pH (SU)	5.6	5/29/2004 Monitor Point ID# 68830 Sample ID# 916552, located about 0.06 miles upstream of Outfall
Temperature (°F)	17	See above
Hardness (mg/L)	-	-
Aluminum (ug/l)	<500	5/29/2004 Monitor Point ID# 68830 Sample ID# 916552, located about 0.06 miles upstream of Outfall
Manganese (ug/l)	200.00	See above
Total Iron (ug/l)	622.00	See above
TSS (mg/l)	<3	See above
Sulfate (mg/l)	39.0	See above

Nearest Downstream Public Water Supply Intake	Pottstown Borough Water Authority		
PWS Waters	Schuylkill River	Flow at Intake (cfs)	-
PWS RMI	57.0	Distance from Outfall (mi)	~ 72.7

Treatment Facility Summary

Treatment Facility Name: Marian High School STP

WQM Permit No.	Issuance Date	Scope
663811	April 22, 1963	1963 WQM Permit (issued to Diocese of Allentown) indicates that the STP consists of a comminutor/bypass screen, two aeration tanks (combined capacity of 46,100 gallons), two settling tanks (combined capacity of 14,650 gallons), hypochlorinator plus two sludge holding tanks (combined capacity of 7,550 gallons). The discharge is routed through 2,500 linear feet of 4-inch pipe with nine manholes to the Little Schuylkill River. Application USGS excerpt).

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Extended Aeration	Chlorination	0.0041 (2021-2023)

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.035	50.4	Not Overloaded	N/A	Hauled

Compliance History

DMR Data for Outfall 001 (from November 1, 2024 to October 31, 2025)

Parameter	OCT-25	SEP-25	AUG-25	JUL-25	JUN-25	MAY-25	APR-25	MAR-25	FEB-25	JAN-25	DEC-24	NOV-24
Flow (MGD) Average Monthly	0.0035	0.0023	0.0017	0.0023	0.0025	0.0033	0.0033	0.0035	0.0031	0.0027	0.0023	0.0023
Flow (MGD) Daily Maximum	0.0096	0.0046	0.0055	0.0075	0.0057	0.0074	0.0066	0.0088	0.0064	0.0065	0.0073	0.004
pH (S.U.) Instantaneous Minimum	8.1	8.3	8.4	8.3	8.2	8.0	8.0	8.0	8.0	8.2	8.1	8.1
pH (S.U.) Instantaneous Maximum	8.6	8.7	8.7	8.7	8.7	8.6	8.7	8.7	8.6	8.6	8.5	8.7
DO (mg/L) Instantaneous Minimum	10.0	10.0	10.0	10.0	10.1	10.0	10.0	10.0	10.0	10.0	10.0	10.0
TRC (mg/L) Average Monthly	0.69	0.75	0.73	0.74	0.84	0.78	0.81	0.67	0.75	0.70	0.76	0.81
TRC (mg/L) Instantaneous Maximum	1.20	1.30	1.30	1.30	1.60	1.30	1.60	1.00	1.10	1.30	1.20	1.30
CBOD5 (lbs/day) Average Monthly	< 0.03	< 0.06	< 0.05	< 0.05	0.02	0.07	0.09	0.2	0.05	< 0.08	< 0.06	0.07
CBOD5 (mg/L) Average Monthly	< 4.0	< 3.0	< 3.0	< 2.5	2.0	2.5	3.0	5.0	3.0	< 4.0	< 3.0	3.0
CBOD5 (mg/L) Daily Maximum	5.0	< 3.0	< 3.0	3.0	2.0	3.0	3.0	5.0	4.0	5.0	3.0	3.0
TSS (lbs/day) Average Monthly	< 0.05	< 0.05	0.1	0.09	0.06	0.1	0.2	0.6	0.1	0.1	< 0.06	0.1
TSS (mg/L) Average Monthly	< 4.0	2.5	6.5	4.5	5.5	4.0	6.5	15.0	7.5	6.0	< 3.0	5.0
TSS (mg/L) Daily Maximum	5.0	< 3.0	7.0	6.0	7.0	5.0	9.0	18	8.0	7.0	< 3.0	6.0
Total Dissolved Solids (lbs/day) Annual Average											3.28	
Total Dissolved Solids (mg/L) Annual Average											197	
Total Dissolved Solids (mg/L) Daily Maximum											197	

Fecal Coliform (No./100 ml) Geometric Mean	5	4	1	< 1	< 1	6	11	3	< 1	< 1	1	< 1
Fecal Coliform (No./100 ml) Instantaneous Maximum	22	14	1	< 1	< 1	7	111	7	< 1	< 1	2	< 1
Nitrate-Nitrite (lbs/day) Annual Average											0.38	
Nitrate-Nitrite (mg/L) Annual Average											22.9	
Nitrate-Nitrite (mg/L) Daily Maximum											22.9	
Total Nitrogen (lbs/day) Annual Average											0.44	
Total Nitrogen (mg/L) Annual Average											26.44	
Total Nitrogen (mg/L) Daily Maximum											26.44	
Ammonia (lbs/day) Average Monthly	0.03	< 0.04	0.01	0.005	0.005	0.03	0.05	0.2	0.02	0.07	0.07	0.04
Ammonia (mg/L) Average Monthly	3.06	2.14	0.59	0.21	0.5	0.95	1.51	5.17	1.54	2.88	3.47	1.373
Ammonia (mg/L) Daily Maximum	3.63	3.39	0.72	0.30	0.6	0.97	2.33	5.37	2.58	5.26	4.58	2.72
TKN (lbs/day) Annual Average											0.05	
TKN (mg/L) Annual Average											3.54	
TKN (mg/L) Daily Maximum											3.54	
Total Phosphorus (lbs/day) Annual Average											0.04	
Total Phosphorus (mg/L) Annual Average											2.53	
Total Phosphorus (mg/L) Daily Maximum											2.53	
Total Aluminum (lbs/day) Annual Average											< 0.001	

Total Aluminum (mg/L) Annual Average											< 0.10	
Total Aluminum (mg/L) Daily Maximum											< 0.10	
Total Iron (lbs/day) Annual Average											0.001	
Total Iron (mg/L) Annual Average											0.10	
Total Iron (mg/L) Daily Maximum											0.10	
Total Manganese (lbs/day) Annual Average											< 0.0003	
Total Manganese (mg/L) Annual Average											< 0.02	
Total Manganese (mg/L) Daily Maximum											< 0.02	

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.035
Latitude 40º 49' 27.00" **Longitude** -76º 0' 20.00"
Wastewater Description: Sewage Effluent

Technology-Based Limitations

The following technology-based limitations apply, subject to water quality analysis and BPJ where applicable:

Pollutant	Limit (mg/l)	SBC	Federal Regulation	State Regulation
$CBOD_5$	25.0	Average Monthly	133.102(a)(4)(i)	92a.47(a)(1)
	50.0	IMAX	133.102(a)(4)(ii)	92a.47(a)(2)
Total Suspended Solids	30.0	Average Monthly	133.102(b)(1)	92a.47(a)(1)
	60.0	IMAX	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)
	1.6	IMAX		
Dissolved Oxygen	5.0	Minimum	-	BPJ
E. Coli	Report	IMAX	-	92a.61
Ammonia-Nitrogen Nov 1 - Apr 30	Report	Average Monthly	-	BPJ
Ammonia-Nitrogen May 1 - Oct 31	25.0	Average Monthly	-	
	50.0	IMAX	-	

Water Quality-Based Limitations

The following limitations were determined through water quality modeling (output files attached):

Parameter	Limit (mg/l)	SBC	Model
Total Nitrogen	Report	Annual Average	Existing Annual Monitoring Requirement
Total Phosphorus	Report	Annual Average	
Total Kjeldahl Nitrogen	Report	Annual Average	
Nitrate-Nitrite as N	Report	Annual Average	
Total Aluminum	Report	Annual Average	Little Schuylkill River TMDL
Total Iron	Report	Annual Average	
Total Manganese	Report	Annual Average	
Total Dissolved Solids	Report	Annual Average	

Anti-Backsliding

No limitations were made less stringent.

Modeling Using USGS Stream Gage

Stream Gage: USGS Stream Gage 01469500 – Little Schuylkill River at Tamaqua, PA

Name	Value
USGS Station Number	01469500
Station Name	Little Schuylkill River at Tamaqua, Pa.
Station Type	Gaging Station, continuous record
Latitude	40.80703
Longitude	-75.97187
NWIS Latitude	40.8069505
NWIS Longitude	-75.97185458
Is regulated?	false
Agency	United States Geological Survey
NWIS Discharge Period of Record	10/01/1919 - 12/09/2025

Characteristic Name	Value	Units
Drainage Area	42.9	square miles

Statistic Name	Value	Units	Preferred?	Years of Record	Standard Error, percent	Citation	Comments
1 Day 10 Year Low Flow	4.8	cubic feet per second	✓	88		49	Statistic Date Range 4/1/1920 - 3/31/2008
7 Day 2 Year Low Flow	10.9	cubic feet per second	✓	88		49	Statistic Date Range 4/1/1920 - 3/31/2008
7 Day 10 Year Low Flow	5.5	cubic feet per second	✓	88		49	Statistic Date Range 4/1/1920 - 3/31/2008

$$\boldsymbol{LFY} = \frac{Q_{7-10}}{Stream\ Gage\ Drainage\ Area} \times \frac{5.5\ cfs}{42.9\ mi^2} = \mathbf{0.128}$$

$$\boldsymbol{Stream\ Flow\ at\ Outfall} = Outfall\ 001\ Drainage\ Area \times LFY = 20.0\ mi^2 \times 0.128 = \mathbf{2.56\ cfs}$$

USGS StreamStats Data:

USGS StreamStats at Outfall 001 on Little Schuylkill River:

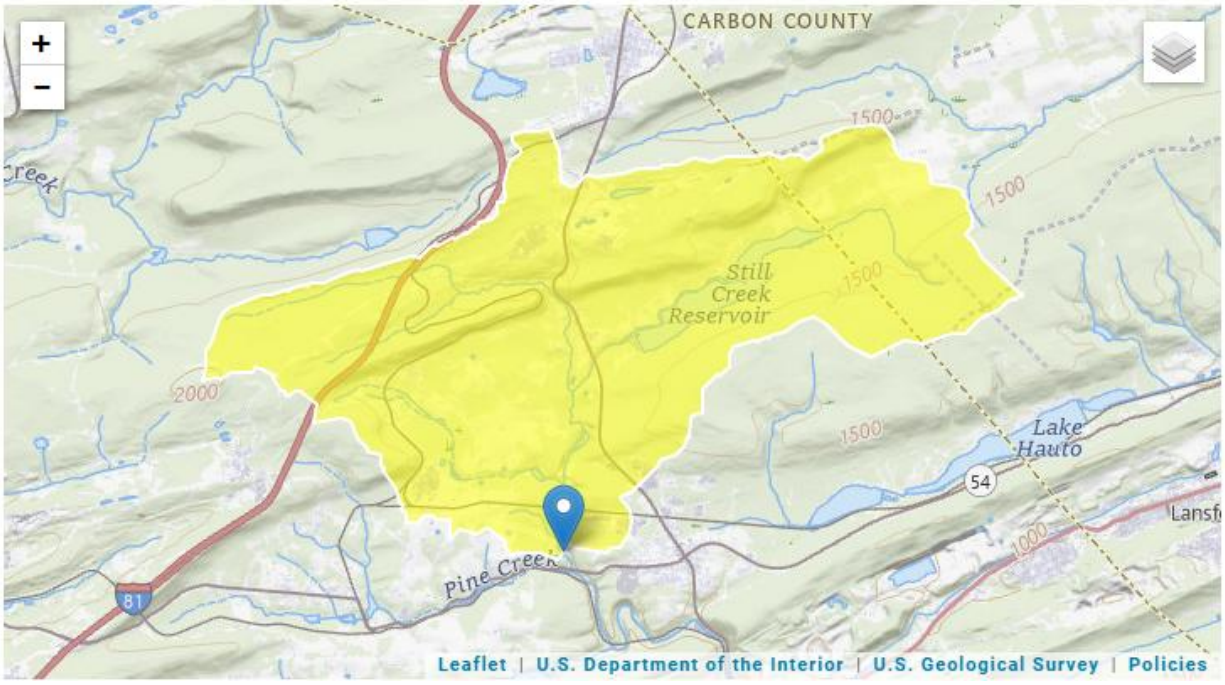
RMI	Elevation (ft)	Drainage Area (mi^2)	Q_{7-10} Flow (cfs)
27.26	972.57	20.0	2.9

$$Low\ Flow\ Yield\ using\ StreamStats = \frac{2.9\ ft^3/sec}{20.0\ mi^2} = \mathbf{0.145}\ \frac{\boldsymbol{ft^3/sec}}{\boldsymbol{mi^2}}$$

* StreamStats Q_{7-10} and LFY was not used for modeling.

StreamStats Report

Region ID: PA
Workspace ID: PA20251210154433833000
Clicked Point (Latitude, Longitude): 40.82412, -76.00563
Time: 2025-12-10 10:44:58 -0500



DRNAREA	Area that drains to a point on a stream	20	square miles

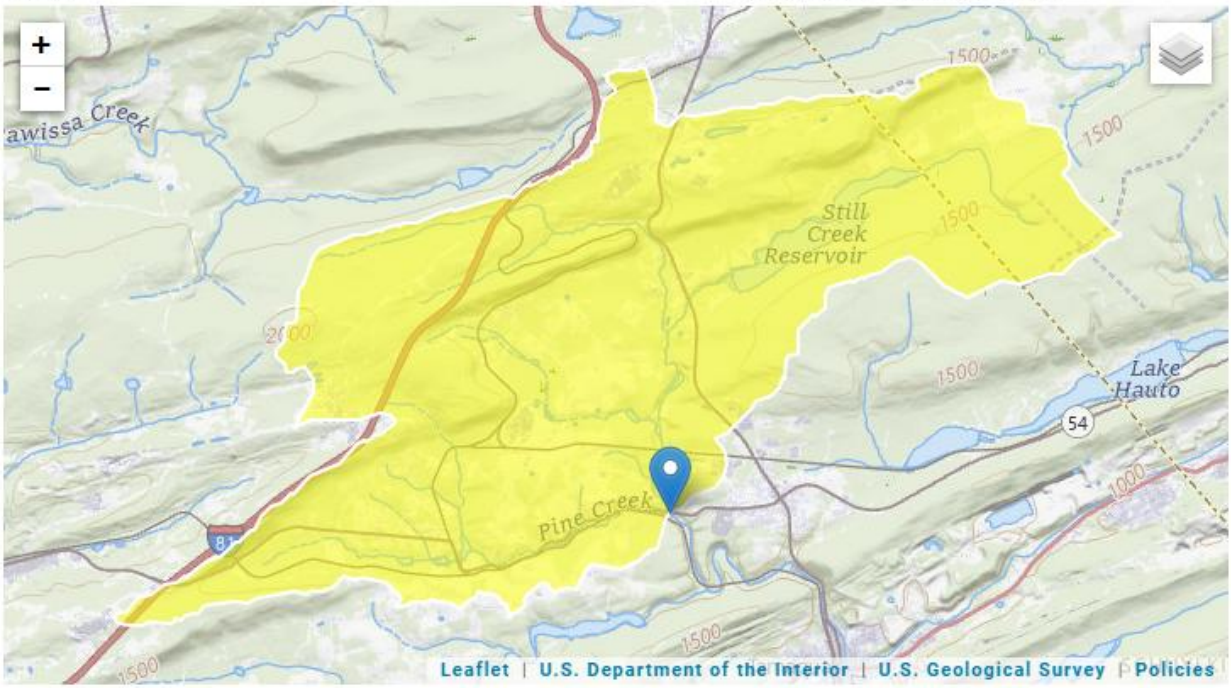
Statistic	Value	Unit	SE	ASEp
7 Day 2 Year Low Flow	5.54	ft^3/s	38	38
30 Day 2 Year Low Flow	7.03	ft^3/s	33	33
7 Day 10 Year Low Flow	2.9	ft^3/s	51	51

At confluence with Pine Creek (2269):

RMI	Elevation (ft)	Drainage Area (mi^2)
26.99	947.85	28

StreamStats Report

Region ID: PA
Workspace ID: PA20251210155245670000
Clicked Point (Latitude, Longitude): 40.82099, -76.00312
Time: 2025-12-10 10:53:10 -0500



DRNAREA	Area that drains to a point on a stream	28	square miles

WQM 7.0 Effluent Limits

SWP Basin	Stream Code	Stream Name
03A	2202	LITTLE SCHUYLKILL RIVER

RMI	Name	Permit Number	Disc Flow (mgd)	Parameter	Effl. Limit 30-day Ave. (mg/L)	Effl. Limit Maximum (mg/L)	Effl. Limit Minimum (mg/L)
27.260	Marian HS	PA0061310	0.035	CBOD5	25		
				NH3-N	25	50	
				Dissolved Oxygen			3

TRC EVALUATION

Input appropriate values in A3:A9 and D3:D9

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

Source	Reference	AFC Calculations	Reference	CFC Calculations
TRC	1.3.2.iii	WLA afc = 15.101	1.3.2.iii	WLA cfc = 14.715
PENTOXSD TRG	5.1a	LTAMULT afc = 0.373	5.1c	LTAMULT cfc = 0.581
PENTOXSD TRG	5.1b	LTA_afc= 5.627	5.1d	LTA_cfc = 8.555

Source		Effluent Limit Calculations	
PENTOXSD TRG	5.1f	AML MULT = 1.231	
PENTOXSD TRG	5.1g	AVG MON LIMIT (mg/l) = 0.500	BAT/BPJ
		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)

WQM 7.0.pdf