pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southwest Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0036595**
Facility Type	**Non-Municipal**	APS ID	**1064679**
Major / Minor	**Minor**	Authorization ID	**1398433**

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Applicant and Facility Information

Applicant Name	**Basalt Trap Rock LLC**	Facility Name	**Right Way Academy STP**
Applicant Address	PO Box 653	Facility Address	112 Academy Way
	Stevensville, MD 21666-0653		Waynesburg, PA 15370-7008
Applicant Contact	Darsh Patel	Facility Contact	Same as Applicant
Applicant Phone	(410) 604-2790	Facility Phone	Same as Applicant
Client ID	243577	Site ID	251983
Ch 94 Load Status	Not Overloaded	Municipality	Morgan Township
Connection Status	No Limitations	County	Greene
Date Application Received	June 2, 2022	EPA Waived?	Yes
Date Application Accepted	June 3, 2022	If No, Reason	

Purpose of Application: Renewal of NPDES Permit to authorize a discharge of a treated sewage effluent.

Summary of Review

The permittee has applied for a renewal of NPDES Permit No. PA0036595. NPDES Permit No. PA0036595 was previously issued by the PA Department of Environmental Protection (DEP) on June 7, 2017 and expired on June 30, 2022.

The renewal application was received by DEP on June 2, 2022 and considered late.

The existing treatment process consists of flow equalization, extended aeration, final clarification and chlorination.

The application stated that the facility was closed since 2012 and there were no changes to the facility conditions since then regarding discharge, receiving stream, or treatment technology. No changes are foreseen during the next five years.

DEP had a site visit to the abandoned facility on July 1st, 2022 conducted by the reviewer (Permit Engineer) and Richard Spear (Biologist) from DEP. No discharge was noticed and the point of discharge was not qualified as a receiving water (Appendix B). The new POFU is approximately 700 ft southeast from the original point of discharge; the new designated receiving water (Southfork Tenmile Creek) will be listed on this review (page 3) and on the permit. Based on the site visit, the property manager (Rodney Barna) from Basalt Trap Rock LLC informed the DEP visiting team that the Owner (Darsh Patel) wants to continue holding the permit and is actively looking after the property issues to maintain it in a good shape.

The Operations compliance report didn't include any open violations or enforcements for the last five years.

The Act – 14 PL 834 Municipal Notifications were provided by the May 5, 2022 letters and no comments were received.

Approve	Deny	Signatures	Date
X		Hazim Aldalli	
		Hazim Aldalli / Environmental Engineering Specialist	October 11, 2022
x		Mahbuba Iasmin	
		Mahbuba Iasmin, Ph.D., P.E. / Environmental Engineer Manager	October 12, 2022

Summary of Review

The permittee will be notified in the draft permit cover letter to contact Operations Section personnel if permittee decide to resume STP operation.

Sludge use and disposal description and location(s): None. Facility is closed since 2012.

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)	0.0620
Latitude	39º 55' 50"	Longitude	-80º 6' 50"
Quad Name	Mather	Quad Code	39080H1
Wastewater Description:	Sewage Effluent		
Receiving Waters	South Fork Tenmile Creek (WWF)	Stream Code	40293
NHD Com ID	99414998	RMI	12.15
Drainage Area	150	Yield (cfs/mi^2)	0.0267
Q_{7-10} Flow (cfs)	4.01	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	1221	Slope (ft/ft)	0.009
Watershed No.	19-B	Chapter 93 Class.	WWF
Existing Use		Existing Use Qualifier	
Exceptions to Use	None.	Exceptions to Criteria	None.
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment			
Source(s) of Impairment			
TMDL Status		Name	

Background/Ambient Data		Data Source
pH (SU)		
Temperature (°F)		
Hardness (mg/L)		
Other:		

Nearest Downstream Public Water Supply Intake		Tri-County Joint Municipal Authority	
PWS Waters	Monongahela River	Flow at Intake (cfs)	480
PWS RMI	64.74	Distance from Outfall (mi)	>9.0

Changes Since Last Permit Issuance: DEP updated its WQM 7.0 criteria for Ammonia Nitrogen NH_3 in 2019, limits and conditions of this permit need to be redeveloped to an adequate level to protect water quality.

Other Comments: Per application, point of discharge is Trib. 40405 To South Fork Tenmile Creek (WWF). After the stream assessment on July 1, 2022 (see Appendix B); the point of first use was found to be (540 ft) at southeast downstream of South Fork Tenmile Creek (WWF).

Treatment Facility Summary

Treatment Facility Name: Right Way Academy STP

WQM Permit No.	Issuance Date
3096401	4/25/1996
3096401-A2-T1	12/07/05

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary with Ammonia Reduction	Extended Aeration	Chlorine with Dichlorination	0.062

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.062	140.4	Not Overloaded	Aerobic Digestion	None/Facility Closed

Changes Since Last Permit Issuance: None.

Other Comments: None.

Compliance History	
Summary of DMRs:	Our files show that this establishment has been closed since Fall, 2012. Monthly monitoring reports have been filed since then stating, 'No discharge-facility closed 2012'.
Summary of Inspections:	No violations were noted. The plant seems in good shape and well maintained, last inspection was on August 10, 2021

Other Comments: None.

Operations Compliance Check Summary Report

Facility: Right Way Academy STP
NPDES Permit No.: PA0036595
Compliance Review Period: 6/2017 – 6/2022
Inspection Summary:

INSP ID	INSPECTED DATE	INSP TYPE	AGENCY	INSPECTION RESULT DESC
3232119	08/10/2021	Compliance Evaluation	PA Dept of Environmental Protection	No Violations Noted
3232110	08/10/2021	Administrative/File Review	PA Dept of Environmental Protection	No Violations Noted
3057684	07/21/2020	Administrative/File Review	PA Dept of Environmental Protection	No Violations Noted

Violation Summary:
No violations
Open Violations by Client ID:
No open violations for client id 243577
Enforcement Summary:
No enforcements
DMR Violation Summary:
No DMR violations
Compliance Status:
Permittee in compliance.
Completed by: John Murphy
Completed date: 6/6/2022

Development of Effluent Limitations

Outfall No.	001	**Design Flow (MGD)**	0.0620
Latitude	39º 55' 50"	**Longitude**	-80º 6' 50"
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	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)
NH3-N (mg/L)	25	Average Monthly	-	BPJ
D.O. (mg/L)	4.0	Average Monthly	-	BPJ
Total N (mg/L)	Report	Average Monthly	-	92a.61
Total P (mg/L)	Report	Average Monthly	-	92a.61
E. Coli (No./100 ml)	Report	IMAX	-	92a.61

Comments: Since in the reviewed DMR (since 2012) and received application no effluent discharge was notified, the following effluent limitations, modeling, and special conditions justifications will be applied to the discharge condition whenever indicated on the submitted effluent monitoring reports and/or during inspection and other regulatory or compliance investigations.

Water Quality-Based Limitations

The following limitations were determined through water quality modeling (Appendix A):

Parameter	Limit (mg/l)	SBC	Model
TRC	0.5	Average Monthly	DEP TRC Cal.
$CBOD_5$ (May1-Oct 31)	25	Average Monthly	WQM7.0
$CBOD_5$ (Nov 1- Apr 30)	25	Average Monthly	WQM7.0
NH3-N (May1-Oct 31)	25	Average Monthly	WQM7.0
NH3-N (Nov 1- Apr 30)	25	Average Monthly	WQM7.0
Dissolved Oxygen	4.0	Minimum	WQM7.0

Comments: DEP policy allows new parameters introduced into renewed permits, in which the application manager desires for the permittee to collect data to verify reasonable potential for the subsequent permit application review to select any reasonable monitoring frequency that is greater than or equal to once per year, 1/month sampling should be sufficient to determine compliance.

Best Professional Judgment (BPJ) Limitations

A WQM 7.0 modeling was used to determine the newly imposed seasonal limits for Ammonia Nitrogen (NH_3-N) and also to redevelop $CBOD_5$ and DO limits. These values were obtained using the annual design flow, which was set for 0.062 MGD since this facility had been closed for the whole last permit cycle.

WQBELs of $CBOD_5$, DO, and NH_3-N generated by WQM 7.0 were less stringent than the current permit limits. Due to anti backsliding per Section 402(o) of the Clean Water Act (CWA), more stringent seasonal limits for $CBOD_5$ (10.0 mg/l AML, and 20.0 mg/l IMAX), DO (5.0 mg/l), and NH_3-N seasonal limits (9.0 mg/l AML and 18.0 mg/l IMAX during non-recreational season; 3.0 mg/l AML and 6.0 mg/l IMAX during recreational season) will be maintained for this renewal.

The nearest downstream potable water intake is Tri-County Joint Municipal Authority which is greater than 9.0 miles away from the effluent discharge location of the facility. Therefore, no significant effects are expected to the water intake as a result of this discharge.

TN and TP Monitoring

Per SOP (No. BCW-PMT-033: Establishing Effluent Limitations for Individual Sewage Permits):

- Nutrient monitoring is required, at a minimum, to establish the nutrient load from the wastewater treatment facility and the impacts that load may have on the quality of the receiving stream(s). Sewage discharges with design flows > 2,000 gpd require monitoring, at a minimum, for Total Nitrogen and Total Phosphorus in new and reissued permits.

The receiving stream is not impaired with nutrients. The proposed stringent Ammonia limitations will help in lowering TN. Annual monitoring is recommended.

Disinfection

Total Residual Chlorine (TRC) limits are updated based on the DEP preset values entered in the Department Calculation Sheet (Appendix E) for chlorine stream and discharge demands. The suggested WQBELs for TRC are the same as the minimum TBELs specified in State Regulation 92a.48(b)(2). An average monthly limit of 0.5 mg/l and IMAX of 1.6 mg/l will be imposed.

E. Coli

Pursuant to 25 Pa. code § 92a.61(b) quarterly monitoring for *E. Coli* will be imposed at Outfall (001) to determine if *E. Coli* will be a pollutant of concern, which is consistent with DEP SOP No. BCW-PMT-033 revised March 24, 2021.

Monitoring Frequency Considerations

For pH, TRC, and Dissolved Oxygen (DO), a monitoring frequency of 1/day when discharging has been imposed.

In general, less frequent monitoring may be established only when the permittee demonstrates that there will be no discharge on days where monitoring is not required. The permittee may remain in compliance with the permit by using a No Discharge Indicator (NODI) code on the “Daily Effluent Monitoring” supplemental form to identify the lack of a discharge on a particular day.

The daily monitoring frequencies and other frequencies justified above are consistent with current policy and Table 6-3 of DEP’s Technical Guidance for the Development and Specification of Effluent Limitations.

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	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	XXX	XXX	XXX	XXX	XXX	1/week	Measured
pH (S.U.)	XXX	XXX	6.0 Ins. Min	XXX	9.0 Ins. Max	XXX	Daily when discharging	Grab
Dissolved Oxygen	XXX	XXX	5.0 Daily Min	XXX	XXX	XXX	Daily when discharging	Grab
Total Residual Chlorine (TRC)	XXX	XXX	XXX	0.5	XXX	1.6	Daily when discharging	Grab
Carbonaceous Biochemical Oxygen Demand (CBOD5)	XXX	XXX	XXX	10.0	XXX	20.0	2/month	Grab
Total Suspended Solids	XXX	XXX	XXX	10.0	XXX	20.0	2/month	Grab
Fecal Coliform (No/100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
Fecal Coliform (No/100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	2/month	Grab
Ammonia-Nitrogen Nov 1 - Apr 30	XXX	XXX	XXX	9.0	XXX	18.0	2/month	Grab
Ammonia-Nitrogen May 1 - Oct 31	XXX	XXX	XXX	3.0	XXX	6.0	2/month	Grab
E. Coli (No./100ml)	XXX	XXX	XXX	XXX	XXX	Report	1/quarter	Grab
Total Nitrogen	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/year	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/year	Grab

Compliance Sampling Location: Outfall 001.
Other Comments: None.

Appendix A – WQM 7.0 Modeling – Summer Conditions

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
19B	40293	SOUTH FORK TENMILE CREEK	**12.150**	1221.00	150.00	0.00900	0.00	☑

Stream Data

Design Cond.	LFY (cfsm)	Trib Flow (cfs)	Stream Flow (cfs)	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary Temp (°C)	Tributary pH	Stream Temp (°C)	Stream pH
Q7-10	0.027	4.01	0.00	0.000	0.000	0.0	0.00	0.00	25.00	7.00	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
Right Way STP	PA0036595	0.0620	0.0620	0.0620	0.000	20.00	7.00

Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	25.00	2.00	0.00	1.50
Dissolved Oxygen	4.00	8.24	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
19B	40293	SOUTH FORK TENMILE CREEK	**11.820**	1216.00	176.00	0.00900	0.00	☑

Stream Data

Design Cond.	LFY (cfsm)	Trib Flow (cfs)	Stream Flow (cfs)	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary Temp (°C)	Tributary pH	Stream Temp (°C)	Stream pH
Q7-10	0.028	4.87	0.00	0.000	0.000	0.0	0.00	0.00	25.00	7.00	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
Right Way STP	PA0036595	0.0620	0.0620	0.0620	0.000	20.00	7.00

Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	25.00	2.00	0.00	1.50
Dissolved Oxygen	4.00	8.24	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

WQM 7.0 Hydrodynamic Outputs

SWP Basin	Stream Code	Stream Name
19B	40293	SOUTH FORK TENMILE CREEK

RMI	Stream Flow (cfs)	PWS With (cfs)	Net Stream Flow (cfs)	Disc Analysis Flow (cfs)	Reach Slope (ft/ft)	Depth (ft)	Width (ft)	W/D Ratio	Velocity (fps)	Reach Trav Time (days)	Analysis Temp (°C)	Analysis pH
Q7-10 Flow												
12.150	4.01	0.00	4.01	.0959	0.00287	.723	38.64	53.44	0.15	0.137	24.88	7.00
Q1-10 Flow												
12.150	2.57	0.00	2.57	.0959	0.00287	NA	NA	NA	0.12	0.175	24.82	7.00
Q30-10 Flow												
12.150	5.45	0.00	5.45	.0959	0.00287	NA	NA	NA	0.17	0.116	24.91	7.00

WQM 7.0 Modeling Specifications

Parameters	Both	Use Inputted Q1-10 and Q30-10 Flows	☑
WLA Method	EMPR	Use Inputted W/D Ratio	☑
Q1-10/Q7-10 Ratio	0.64	Use Inputted Reach Travel Times	☑
Q30-10/Q7-10 Ratio	1.36	Temperature Adjust Kr	☐
D.O. Saturation	90.00%	Use Balanced Technology	☑
D.O. Goal	5		

WQM 7.0 D.O.Simulation

SWP Basin	Stream Code	Stream Name
19B	40293	SOUTH FORK TENMILE CREEK

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
12.150	0.062	24.883	7.000
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
38.642	0.723	53.440	0.147
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
2.54	0.313	0.58	1.019
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
8.144	4.007	Tsivoglou	5
Reach Travel Time (days)			
0.137			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.014	2.52	0.58	7.55
0.027	2.51	0.57	7.55
0.041	2.50	0.56	7.55
0.055	2.48	0.55	7.55
0.069	2.47	0.54	7.55
0.082	2.46	0.54	7.55
0.096	2.44	0.53	7.55
0.110	2.43	0.52	7.55
0.124	2.42	0.51	7.55
0.137	2.40	0.51	7.55

WQM 7.0 Wasteload Allocations

SWP Basin	Stream Code	Stream Name
19B	40293	SOUTH FORK TENMILE CREEK

NH3-N Acute Allocations

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
12.150	Right Way STP	11.24	50	11.24	50	0	0

NH3-N Chronic Allocations

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
12.150	Right Way STP	1.37	25	1.37	25	0	0

Dissolved Oxygen Allocations

RMI	Discharge Name	CBOD5		NH3-N		Dissolved Oxygen		Critical Reach	Percent Reduction
		Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)		
12.15	Right Way STP	25	25	25	25	4	4	0	0

WQM 7.0 Effluent Limits

SWP Basin	Stream Code	Stream Name
19B	40293	SOUTH FORK TENMILE CREEK

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)
12.150	Right Way STP	PA0036595	0.062	CBOD5	25		
				NH3-N	25	50	
				Dissolved Oxygen			4

Appendix A – WQM 7.0 Modeling – Winter Conditions

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
19B	40293	SOUTH FORK TENMILE CREEK	**12.150**	1221.00	150.00	0.00900	0.00	☑

Stream Data

Design Cond.	LFY (cfsm)	Trib Flow (cfs)	Stream Flow (cfs)	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary Temp (°C)	Tributary pH	Stream Temp (°C)	Stream pH
Q7-10	0.053	4.01	0.00	0.000	0.000	0.0	0.00	0.00	5.00	7.00	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
Right Way STP	PA0036595	0.0620	0.0620	0.0620	0.000	15.00	7.00

Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	25.00	2.00	0.00	1.50
Dissolved Oxygen	4.00	12.51	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
19B	40293	SOUTH FORK TENMILE CREEK	**11.820**	1216.00	176.00	0.00900	0.00	☑

Stream Data

Design Cond.	LFY (cfsm)	Trib Flow (cfs)	Stream Flow (cfs)	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary Temp (°C)	Tributary pH	Stream Temp (°C)	Stream pH
Q7-10	0.055	4.87	0.00	0.000	0.000	0.0	0.00	0.00	5.00	7.00	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
Right Way STP	PA0036595	0.0620	0.0620	0.0620	0.000	15.00	7.00

Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	25.00	2.00	0.00	1.50
Dissolved Oxygen	4.00	12.51	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

WQM 7.0 Hydrodynamic Outputs

SWP Basin	Stream Code	Stream Name
19B	40293	SOUTH FORK TENMILE CREEK

RMI	Stream Flow (cfs)	PWS With (cfs)	Net Stream Flow (cfs)	Disc Analysis Flow (cfs)	Reach Slope (ft/ft)	Depth (ft)	Width (ft)	W/D Ratio	Velocity (fps)	Reach Trav Time (days)	Analysis Temp (°C)	Analysis pH
Q7-10 Flow												
12.150	4.01	0.00	4.01	.0959	0.00287	.723	38.64	53.44	0.15	0.137	5.23	7.00
Q1-10 Flow												
12.150	2.57	0.00	2.57	.0959	0.00287	NA	NA	NA	0.12	0.175	5.36	7.00
Q30-10 Flow												
12.150	5.45	0.00	5.45	.0959	0.00287	NA	NA	NA	0.17	0.116	5.17	7.00

WQM 7.0 D.O.Simulation

SWP Basin	Stream Code	Stream Name
19B	40293	SOUTH FORK TENMILE CREEK

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
12.150	0.062	5.234	7.000
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
38.642	0.723	53.440	0.147
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
2.54	0.332	0.58	0.225
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
12.311	4.007	Tsivoglou	5
Reach Travel Time (days)			
0.137			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.014	2.53	0.58	11.39
0.027	2.53	0.58	11.39
0.041	2.52	0.58	11.39
0.055	2.51	0.58	11.39
0.069	2.51	0.58	11.39
0.082	2.50	0.57	11.39
0.096	2.50	0.57	11.39
0.110	2.49	0.57	11.39
0.124	2.49	0.57	11.39
0.137	2.48	0.57	11.39

WQM 7.0 Wasteload Allocations

SWP Basin	Stream Code	Stream Name
19B	40293	SOUTH FORK TENMILE CREEK

NH3-N Acute Allocations

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
12.150	Right Way STP	24.1	50	24.1	50	0	0

NH3-N Chronic Allocations

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
12.150	Right Way STP	4.36	25	4.36	25	0	0

Dissolved Oxygen Allocations

RMI	Discharge Name	CBOD5		NH3-N		Dissolved Oxygen		Critical Reach	Percent Reduction
		Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)		
12.15	Right Way STP	25	25	25	25	4	4	0	0

WQM 7.0 Effluent Limits

SWP Basin	Stream Code	Stream Name
19B	40293	SOUTH FORK TENMILE CREEK

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)
12.150	Right Way STP	PA0036595	0.062	CBOD5	25		
				NH3-N	25	50	
				Dissolved Oxygen			4

Appendix B – Stream Assessment Paragraph –

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

MEMO

TO	Hazim Aldalli Sewage Palnning Specialist Clean Water Program
FROM	Richard Spear Aquatic Biologist Supervisor Clean Water Program
DATE	July 13, 2022
RE	Point of First Use Survey UNT 40405 to South Fork Tenmile Creek (WWF) State Water Plan: 19B Hydrologic Unit Code: 05020005 Stream Code: 40405 Morgan Township, Greene County, PA

INTRODUCTION

On June 6, 2022, at the request of Hazim Aldalli of the Clean Water Program, a Point of First Surface Water Use (POFU) Survey was attempted in the vicinity of an Unnamed Tributary 40405 to South Fork Tenmile Creek. This is a closed facility named Right Way Academy STP, permit number PA0036595, that is not currently discharging. The property's address is 112 Academy Lane, Waynesburg, PA 15370 in Morgan Township, Greene County (Figure 1). The sampling location was at latitude 39.915873 and the longitude was -80.112876 (Figure 2). I went with Hazim Aldalli of the Clean Water Program, and the caretaker Rodney accompanied us.

SAMPLING METHODOLOGY

The POFU is the location at which a body of water can support aquatic life as defined in 25 Pennsylvania Code §93. Guidance for determining the POFU is in the Department's guidance document #391-2000-014, Policy and Procedures for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers (revised April 12, 2008). Specifically, Appendix B of the guidance document provides additional guidance when making a POFU determination.
On June 6, 2022, we arrived on site and met the caretaker Rodney, and he gave us some history of the site at the Unnamed Tributary 40405 to South Fork Tenmile Creek. Unnamed Tributary 40405 to South Fork Tenmile Creek did not have any flowing water in it, just some pockets of standing water (Figure 3). At the time of our site visit, macroinvertebrates were not found, but if they were found then the protocol used would have been in accordance to the Department's Qualitative Benthic Macroinvertebrate Data Collection Protocol, found in the Water Quality Monitoring Protocols for Streams and Rivers 2021 (Monitoring Book), which can be found by accessing the following website:

Southwest Regional Office
400 Waterfront Drive | Pittsburgh, PA 16335 | 412.442.4000 | Fax 412.442.4194 | www.dep.pa.gov

https://files.dep.state.pa.us/Water/Drinking Water and Facility Regulation/WaterQualityPortalFiles/Technical Documentation/MONITORING_BOOK.pdf

RESULTS, DISCUSSION, AND CONCLUSIONS

The objective of this study was to examine aquatic life in Unnamed Tributary 40405 to South Fork Tenmile Creek to determine if and where the stream is capable of supporting an aquatic life use as defined in 25 Pennsylvania Code §93.9q, where water quality standards must be met. Unnamed Tributary 40405 to South Fork Tenmile Creek, had zero taxa found in it. Taxa were found in the South Fork of Tenmile Creek from a survey done on 08/02/2001, and that makes South Fork of Tenmile Creek the point of first use. The STP has not been operated in over 20 years, and I did not see a discharge pipe. If this STP is ever reclaimed and a discharge will be flowing then a hydrologist should be consulted to determine if there is any impact to groundwater.

cc: Stream File – Unnamed Tributary 40405 to South Fork Tenmile Creek
Thomas Flanagan – SWRO Sewage Planning Specialist Supervisor
Stacey Greenwald – SWRO, Environmental Group Manager
Christopher Kriley – SWRO, Environmental Program Manager
Mahbuba Iasmin – SWRO, Environmental Group Manager
Erika Arnold – CO, Acting Environmental Group Manager

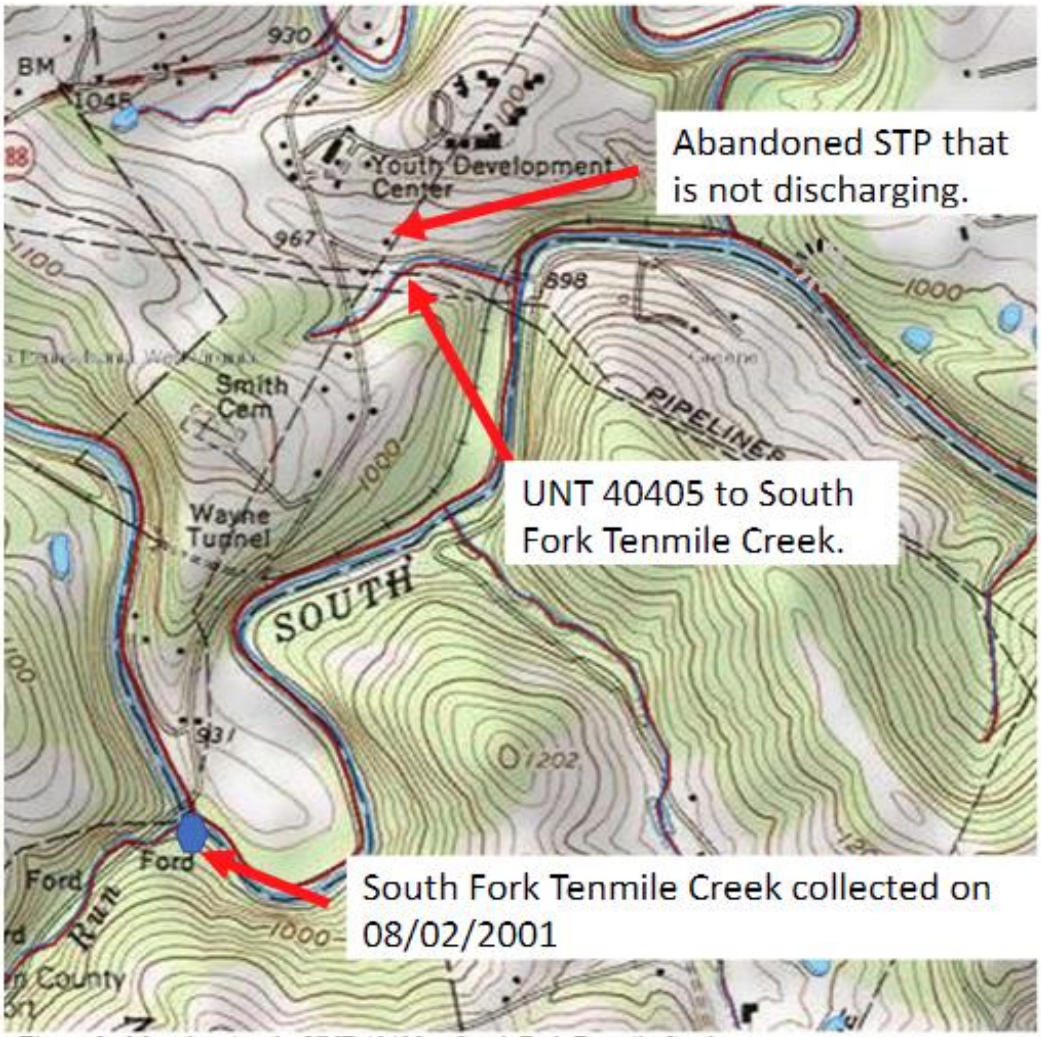


Figure 1. Map showing the UNT 40405 to South Fork Tenmile Creek

- 4 -

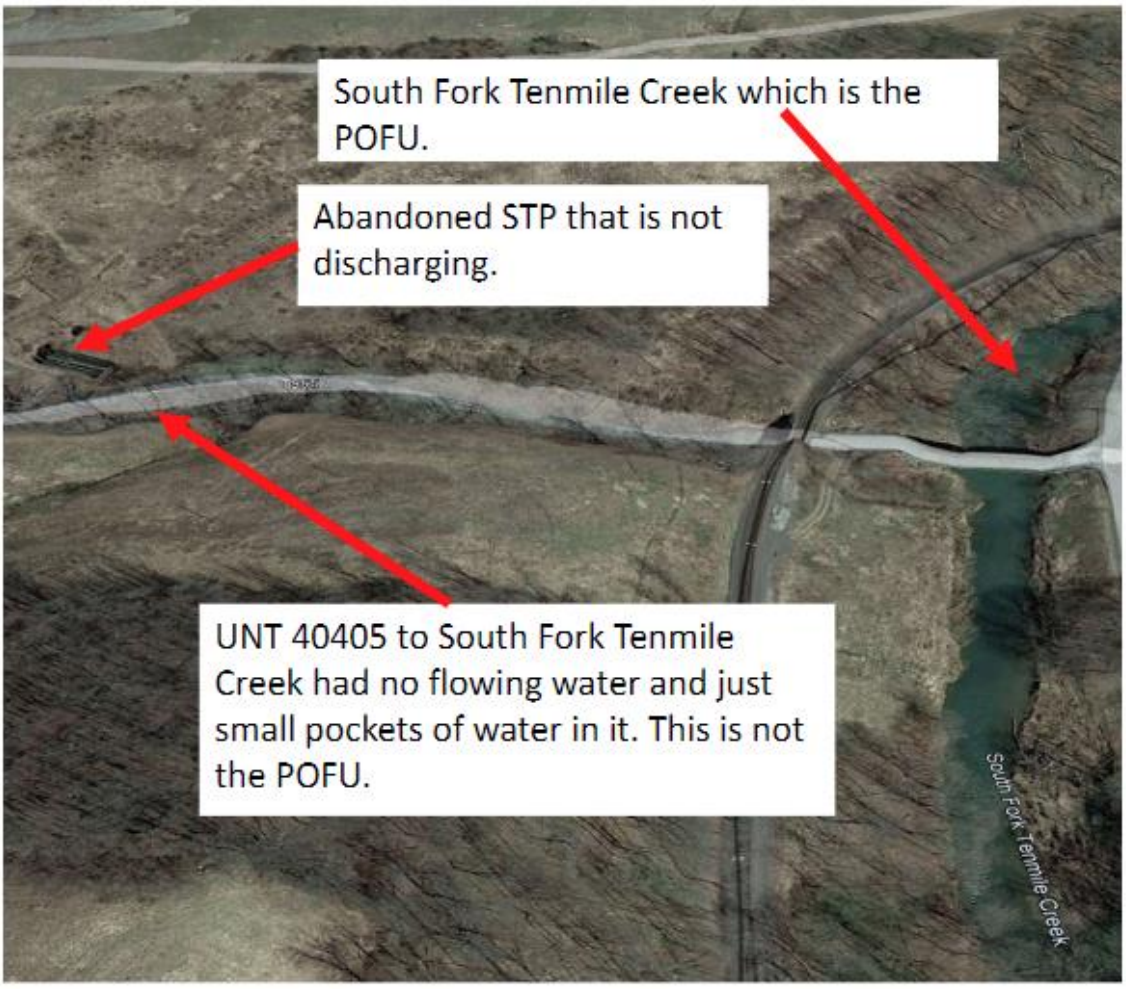


Figure 2. Google Earth Pro image showing the UNT 40405 to South Fork Tenmile Creek

Figure 3. Picture showing no flowing water in UNT 40405 to South Fork Tenmile Creek

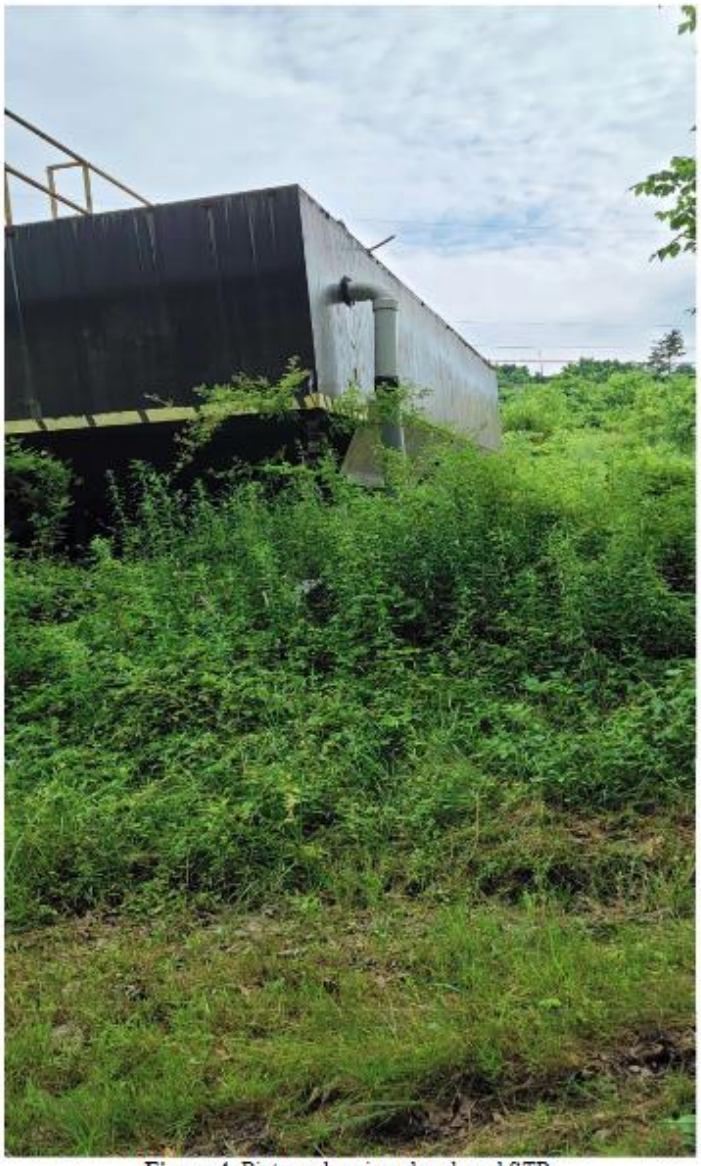


Figure 4. Picture showing abandoned STP.

Appendix C – Original Pollution Report –

Pollution Report

NPDES Renewal Permit PA0036595 Year 2015 Basalt Trap Rock, LLC,
Right Way Academy STP (formerly PA's Waynesburg State Correc. Inst. STP)

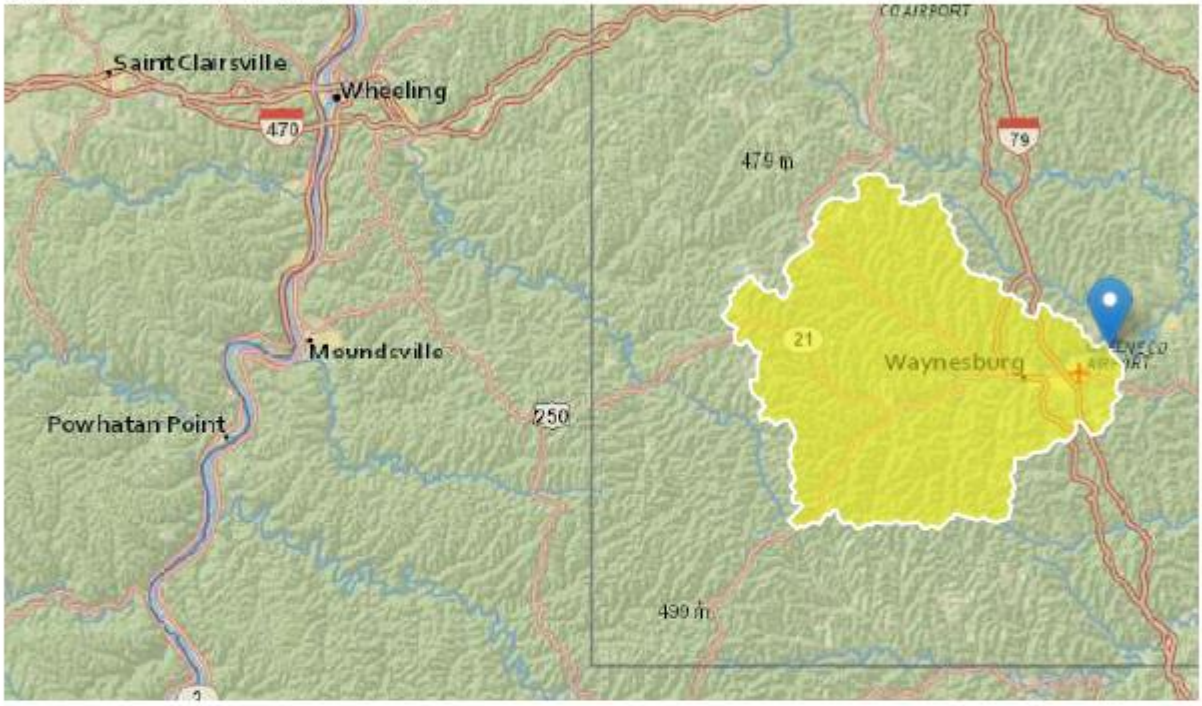
The STP's current and proposed expanded avg. design flows are 0.062 MGD and 0.15 MGD, respectively. The previous NPDES permits included limits for both of these flows, with the expanded flow and limits effective after the plant expansion is completed and operable. The plant has not yet been expanded, and the property and STP closed since October, 2012. The current renewal application requests just the current average design flow of 0.062 MGD. Therefore, due to uncertainty if the closed plant will be expanded to 0.15 MGD, the renewal permit will only reflect the limits for the existing average design flow of 0.062 MGD. Attachment 1 to this pollution report are excerpts from the previous pollution report for derivation of the limits for the existing design flow of 0.062 MGD. Attachment 2 of the pollution report are excerpts for derivation of the limits for the expanded flow of 0.15 MGD, included for information in case the applicant ever decides to expand the STP, and the NPDES permit needs to reflect limits for that.

Limitations at both the existing and proposed design flows were established to prevent nuisance conditions in the receiving tributary, which is considered dry with no use per past aquatic biologist inspection. These limits were based on our Drainage Swale Implementation Guidance.

Appendix D – StreamStats Report –

StreamStats Report

Region ID: PA
Workspace ID: PA20220715233630546000
Clicked Point (Latitude, Longitude): 39.91545, -80.11012
Time: 2022-07-15 19:36:50 -0400



Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	150	square miles
ELEV	Mean Basin Elevation	1221	feet

Low-Flow Statistics

Low-Flow Statistics Parameters [Low Flow Region 4]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	150	square miles	2.26	1400
ELEV	Mean Basin Elevation	1221	feet	1050	2580

Low-Flow Statistics Flow Report [Low Flow Region 4]

PII: Prediction Interval-Lower, Plu: 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	8.59	ft^3/s	43	43
30 Day 2 Year Low Flow	13.1	ft^3/s	38	38
7 Day 10 Year Low Flow	4.01	ft^3/s	66	66
30 Day 10 Year Low Flow	5.89	ft^3/s	54	54
90 Day 10 Year Low Flow	9.48	ft^3/s	41	41

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/)

Application Version: 4.10.0
StreamStats Services Version: 1.2.22
NSS Services Version: 2.2.1

Appendix E – Total Residual Chlorine Calculation –

TRC EVALUATION

Input appropriate values in A3:A9 and D3:D9

4.01	= Q stream (cfs)	0.5	= CV Daily
0.062	= 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 Discharg	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 =	13.356	1.3.2.iii	WLA cfc =	13.013
PENTOXSD TRG	5.1a	LTAMULT afc =	0.373	5.1c	LTAMULT cfc =	0.581
PENTOXSD TRG	5.1b	LTA_afc=	4.977	5.1d	LTA_cfc =	7.565

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)**