

Application Type Renewal
Facility Type Non-Municipal
Major / Minor Minor

**NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE**

Application No. PA0272736
APS ID 1129993
Authorization ID 1514339

Applicant and Facility Information

Applicant Name	<u>Cochranton Vol Fire Department</u>	Facility Name	<u>Station 4 Firehouse Grille</u>
Applicant Address	<u>21800 Us Highway 322</u> <u>Meadville, PA 16335-5236</u>	Facility Address	<u>21800 Us Highway 322</u> <u>Meadville, PA 16335-5236</u>
Applicant Contact	<u>Brianna Collins</u>	Facility Contact	<u></u>
Applicant Phone	<u>(814) 795-6108</u>	Facility Phone	<u></u>
Applicant Email	<u>station4grille@gmail.com</u>		<u></u>
Client ID	<u>237139</u>	Site ID	<u>461893</u>
Ch 94 Load Status	<u>Not Overloaded</u>	Municipality	<u>East Fairfield Township</u>
Connection Status	<u>No Limitations</u>	County	<u>Crawford</u>
Date Application Received	<u>January 30, 2025</u>	EPA Waived?	<u>Yes</u>
Date Application Accepted	<u>February 5, 2025</u>	If No, Reason	<u></u>
Purpose of Application	<u>Renewal of a NPDES Permit for an Existing Discharge of 0.0083 MGD</u>		

Summary of Review

This is a renewal Sewage Individual NPDES Permit for an Existing Design Flow of 0.0083 MGD from a non-municipal minor sewage facility.

Act 14 – Proof of Notification was submitted and received.

This facility is currently using eDMR system.

SPECIAL CONDITIONS: NONE

The EPA waiver is in effect.

There are NO open violations in WMS for the subject Client ID (237139) as of February 21, 2025.

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		Aeshah Shameseldin Aeshah Shameseldin / Civil Engineer	February 21, 2025
X		Adam Olesnanik Adam Olesnanik, P.E. / Environmental Engineer Manager	April 18, 2025

Discharge, Receiving Waters and Water Supply Information

Outfall No.	<u>001</u>	Design Flow (MGD)	<u>.0083</u>
Latitude	<u>41° 33' 55"</u>	Longitude	<u>-80° 6' 40"</u>
Quad Name	<u>Cochrannton</u>	Quad Code	<u>41080E1</u>
Wastewater Description: <u>Sewage Effluent</u>			
Receiving Waters	<u>Unnamed Tributary to French Creek (WWF)</u>	Stream Code	<u>52393</u>
NHD Com ID	<u>127346283</u>	RMI	<u>0.4100</u>
Drainage Area	<u>0.4 square miles</u>	Yield (cfs/mi ²)	<u>0.07</u>
Q ₇₋₁₀ Flow (cfs)	<u>0.028</u>	Q ₇₋₁₀ Basis	<u>Stream gage #03023100 (French Creek @ Meadville)</u>
Elevation (ft)	<u>1081</u>	Slope (ft/ft)	<u>---</u>
Watershed No.	<u>16-D</u>	Chapter 93 Class.	<u>WWF</u>
Existing Use	<u>---</u>	Existing Use Qualifier	<u>---</u>
Exceptions to Use	<u>---</u>	Exceptions to Criteria	<u>---</u>
Assessment Status	<u>Attaining Use(s)</u>		
Cause(s) of Impairment	<u>---</u>		
Source(s) of Impairment	<u>---</u>		
TMDL Status	<u>---</u>	Name	<u>---</u>
Background/Ambient Data	Data Source		
pH (SU)	<u>7.0</u>	<u>Default</u>	
Temperature (°F)	<u>77</u>	<u>Default</u>	
Hardness (mg/L)	<u>100</u>	<u>Default</u>	
Other:	<u> </u>	<u> </u>	
Nearest Downstream Public Water Supply Intake	<u>Aqua Pennsylvania, Inc. - Emlenton</u>		
PWS Waters	<u>Allegheny River</u>	Flow at Intake (cfs)	<u>1,376</u>
PWS RMI	<u>90.57</u>	Distance from Outfall (mi)	<u>---</u>

Changes Since Last Permit Issuance: None.

Other Comments: The facility is permitted for a discharge of 0.0083 MGD however, a review of the Discharge Monitoring Reports for the past four years showed that the actual average discharge is 0.001 MGD.

Treatment Facility Summary				
Treatment Facility Name: Station 4 Firehouse Grille				
WQM Permit No.	Issuance Date			
2014402	December 17, 2014			
Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Tertiary	Activated sludge	Chlorine With Dechlorination	0.0083
Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.01	24	Not Overloaded	Holding	Off Site

Changes Since Last Permit Issuance: N/A

Other Comments: Treatment facilities consist of: Comminution with bypass bar screen, chemical addition, extended aeration, two cell flood dosed intermittent surface sand-filter with dosing tank and duplex pumps, chlorination, de-chlorination, and sludge holding. Treatment facilities specifications are for 0.01-MGD facility as permitted by the WQM permit.

No sludge hauled in the previous year as specified in the application.

An inspection of the facility was conducted on June 21, 2023. The inspection report did not cite any violations.

Compliance History

DMR Data for Outfall 001 (from January 1, 2024, to December 31, 2024)

Parameter	DEC-24	NOV-24	OCT-24	SEP-24	AUG-24	JUL-24	JUN-24	MAY-24	APR-24	MAR-24	FEB-24	JAN-24
Flow (MGD) Average Monthly	0.001	0.001	0.001	0.001	0.001	0.002	0.003	0.002	0.002	0.001	0.001	0.001
Flow (MGD) Daily Maximum	0.002	0.001	0.001	0.001	0.001	0.005	0.004	0.004	0.002	0.002	0.001	0.001
pH (S.U.) Instantaneous Minimum	6.8	7.4	7.7	8.0	7.7	7.3	7.6	7.4	7.8	8.0	8.1	8.2
pH (S.U.) Instantaneous Maximum	8.2	8.2	8.3	8.8	8.2	8.3	8.2	8.1	8.3	8.5	8.5	8.5
DO (mg/L) Daily Minimum	5.8	5.4	6.14	6.72	5.36	6.42	6.17	5.48	5.93	6.2	6.19	6.22
TRC (mg/L) Average Monthly	0.02	0.02	0.1	0.1	0.1	0.04	0.05	0.1	0.01	0.1	0.1	0.04
CBOD5 (mg/L) Average Monthly	< 2.4	< 2.4	< 2.0	< 2.0	< 2.0	4.0	< 2.0	< 3.0	< 9.0	< 2.0	6.0	< 3.0
TSS (mg/L) Average Monthly	< 7.5	< 6.0	< 5.0	< 5.0	< 5.0	7.0	< 5.0	< 6.0	< 5.0	< 5.0	9.0	< 5.0
Fecal Coliform (No./100 ml) Geometric Mean	11	< 1	< 1	12	< 5	17	< 1	8	< 1	< 1	< 1	< 7
Total Nitrogen (mg/L) Average Monthly	9.2	4.99	4.62	3.95	3.55	8.42	4.3	7.08	2.1	5.32	14	9.72
Ammonia (mg/L) Average Monthly	< 0.3	< 0.3	< 0.1	< 3.8	< 0.4	< 0.3	< 1.7	0.14	< 0.4	< 1.0	6.0	2.0
Total Phosphorus (mg/L) Average Monthly	4.45	5.29	4.8	9.84	4.5	1.47	2.59	2.68	2.19	0.77	0.96	1.3

Development of Effluent Limitations

Outfall No. 001
Latitude 41° 33' 55.00"
Wastewater Description: Sewage Effluent

Design Flow (MGD) .0083
Longitude -80° 6' 40.00"

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)
E. Coli	Report (No./100 ml)	IMAX	-	§ 92a.61

Comments: Monitoring for E. Coli is placed in the permit in accordance with the Department's SOP entitled "Establishing Effluent Limitations for Individual Sewage Permits."

Water Quality-Based Limitations

CBOD₅, Ammonia, and DO are evaluated using WQM 7.0 (See Attachment 1). TRC is evaluated using the department's TRC evaluation spreadsheet (See Attachment 2).

Parameter	Limit (mg/l)	SBC	Model
Dissolved Oxygen	4.0	Daily Min.	WQM 7.0
CBOD ₅	25	Average Monthly	WQM 7.0
	50	IMAX	
Ammonia Nitrogen (May 1 – Oct 31)	5.62	Average Monthly	WQM 7.0
	11.24	IMAX	
TRC	0.37	Average Monthly	TRC evaluation spreadsheet

Comments: WQM 7.0 didn't calculate more stringent average monthly limits for Ammonia-Nitrogen. The calculated limits are almost equal to the limits established in the previous permit (5.62 mg/L rounded down to 5.0 mg/L). The current limits are attainable and will be retained. A seasonal multiplier of 3 times the summertime average monthly limit will be established for the winter period.

The TRC spreadsheet calculated a more stringent Water Quality-Based Effluent Limit (WQBEL) for TRC at point of first use (RMI 0.24 @ stream code 52393) using the plant's design flow of 0.0083 MGD. Consequently, the new average monthly limit will be implemented in this renewal.

Best Professional Judgment (BPJ) Limitations

Comments: Monitoring for total nitrogen, total phosphorus and raw sewage influent monitoring for CBOD₅ and TSS are placed in the permit in accordance with the Department's SOP entitled "Establishing Effluent Limitations for Individual Sewage Permits."

The calculated average monthly CBOD₅ limit using WQM 7.0 is 25 mg/L, however, the limits established in previous permits are attainable and will be retained.

Anti-Backsliding

N/A

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" (386-0400-001), 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	Report Daily Max	XXX	XXX	XXX	XXX	1/week	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	4.0 Daily Min	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.37	XXX	1.2	1/day	Grab
CBOD5	XXX	XXX	XXX	10.0	XXX	20.0	2/month	Grab
TSS	XXX	XXX	XXX	10.0	XXX	20.0	2/month	Grab
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
E. Coli (No./100 ml)	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab
Total Nitrogen	XXX	XXX	XXX	Report	XXX	XXX	2/month	Grab
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	15.0	XXX	29.5	2/month	Grab
Ammonia May 1 - Oct 31	XXX	XXX	XXX	5.0	XXX	10.0	2/month	Grab
Total Phosphorus	XXX	XXX	XXX	Report	XXX	XXX	2/month	Grab

Compliance Sampling Location: Outfall 001, after disinfection.

Outfall Location & Receiving Stream - eMap with Aerial Imagery

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

eMapPA

PA STATE AGENCIES ONLINE SERVICES Josh Shapiro, Governor Jessica Shirley, Acting Secretary DEP Home

Layers Legend Tasks

Legend

Regulated Facilities and Related Information

Streams and Water Resources

Water Quality

Existing Use Streams

- Cold Water Fish
- Exceptional Value
- High Quality
- Trout Stocking
- Warm Water Fish
- Overlap

Designated Use Streams

- Cold Water Fish
- Exceptional Value
- High Quality
- Trout Stocking
- Warm Water Fish
- Overlap
- Missing from CH93

Boundaries

County Boundaries

Municipalities

Map eFacts Query Advanced Query Filter Plant Source Search

ESRI Streets & Imagery Topographic National Geographic

Streets Imagery

Latitude: 41.565278

Designated Use Streams (1 of 3)

Designated Use Gen ID: 60193
GNIS Name:
GNIS ID:
ReachCode: 05010004000513
COMID: 127346283
Length Miles: 0.444
Map Symbology: WWF
Length Miles: 0.444
Designated Use: 12
DES Use ID: 8
Use Description: WWF(WARM WATER FISHES)
Migratory_Fish: N
HUC: 05010004
Basin: N
Basin Narrative: Null
Segment Narrative: Null
Evaluation Date: Null
Last Edit Date: Null
[Zoom to](#)

Locate Latitude and Longitude

☐ Decimal Degrees ☒ DD/MM/SS

Latitude: Degrees 41 Minutes 33 Seconds

Longitude: -80 6 40

Locate Close

0 0.2 0.4mi

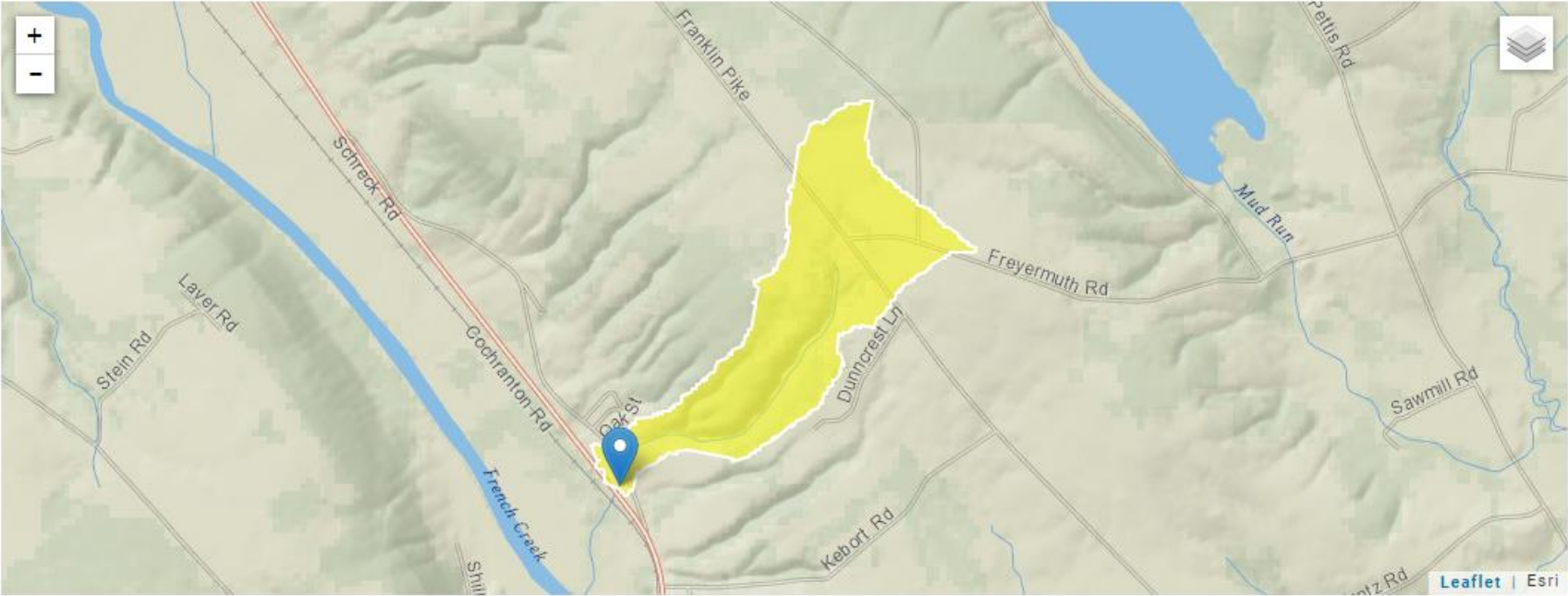
Imagery: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; ESRI Streets: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

POWERED BY esri

Drainage Area Location – StreamStats with Aerial Imagery

StreamStats Report

Region ID:PA
Workspace ID:PA20250205145041734000
Clicked Point (Latitude, Longitude):41.56547, -80.11130
Time:2025-02-05 09:51:06 -0500



Collapse All

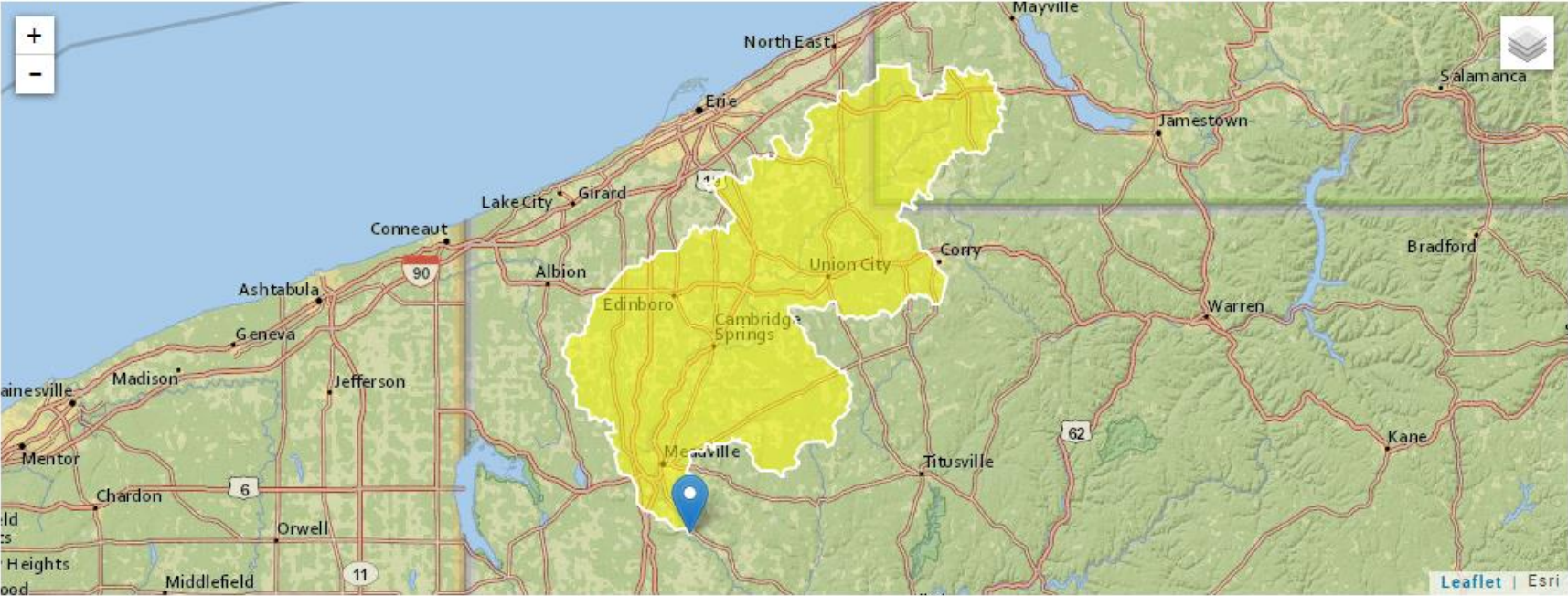
Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.4	square miles

Drainage Area Location at Perennial Conditions – StreamStats with Aerial Imagery

StreamStats Report

Region ID:PA
Workspace ID:PA20250205151813594000
Clicked Point (Latitude, Longitude):41.54355, -80.10341
Time:2025-02-05 10:18:39 -0500



+ Collapse All

> Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	824	square miles

Attachment 1

WQM 7.0 Effluent Limits

<u>SWP Basin</u>	<u>Stream Code</u>	<u>Stream Name</u>					
16D	52393	Trib 52393 to French 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)
24.700	Sta. 4 Firehous	PA0272736	0.008	CBOD5	25		
				NH3-N	5.62	11.24	
				Dissolved Oxygen			4

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

<u>SWP Basin</u>	<u>Stream Code</u>	<u>Stream Name</u>		
16D	52393	Trib 52393 to French Creek		
<u>RMI</u>	<u>Total Discharge Flow (mgd)</u>	<u>Analysis Temperature (°C)</u>	<u>Analysis pH</u>	
24.700	0.008	23.428	7.140	
<u>Reach Width (ft)</u>	<u>Reach Depth (ft)</u>	<u>Reach WDRatio</u>	<u>Reach Velocity (fps)</u>	
2.902	0.305	9.530	0.046	
<u>Reach CBOD5 (mg/L)</u>	<u>Reach Kc (1/days)</u>	<u>Reach NH3-N (mg/L)</u>	<u>Reach Kn (1/days)</u>	
9.23	1.169	1.77	0.911	
<u>Reach DO (mg/L)</u>	<u>Reach Kr (1/days)</u>	<u>Kr Equation</u>	<u>Reach DO Goal (mg/L)</u>	
6.427	27.057	Owens	5	
<u>Reach Travel Time (days)</u>	Subreach Results			
0.529	TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
	0.053	8.59	1.68	7.38
	0.106	7.99	1.60	7.54
	0.159	7.43	1.53	7.54
	0.212	6.91	1.46	7.54
	0.265	6.43	1.39	7.54
	0.317	5.98	1.32	7.54
	0.370	5.56	1.26	7.54
	0.423	5.17	1.20	7.54
	0.476	4.81	1.14	7.54
	0.529	4.48	1.09	7.54

<u>RMI</u>	<u>Total Discharge Flow (mgd)</u>	<u>Analysis Temperature (°C)</u>	<u>Analysis pH</u>	
24.300	0.008	24.999	7.000	
<u>Reach Width (ft)</u>	<u>Reach Depth (ft)</u>	<u>Reach WDRatio</u>	<u>Reach Velocity (fps)</u>	
143.277	1.112	128.828	0.361	
<u>Reach CBOD5 (mg/L)</u>	<u>Reach Kc (1/days)</u>	<u>Reach NH3-N (mg/L)</u>	<u>Reach Kn (1/days)</u>	
2.00	0.001	0.00	1.028	
<u>Reach DO (mg/L)</u>	<u>Reach Kr (1/days)</u>	<u>Kr Equation</u>	<u>Reach DO Goal (mg/L)</u>	
8.242	0.510	Tsivoglou	5	
<u>Reach Travel Time (days)</u>	Subreach Results			
0.239	TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
	0.024	2.00	0.00	7.54
	0.048	2.00	0.00	7.54
	0.072	2.00	0.00	7.54
	0.095	2.00	0.00	7.54
	0.119	2.00	0.00	7.54
	0.143	2.00	0.00	7.54
	0.167	2.00	0.00	7.54
	0.191	2.00	0.00	7.54
	0.215	2.00	0.00	7.54
	0.239	2.00	0.00	7.54

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
16D	52393	Trib 52393 to French Creek	24.700	1081.00	0.40	0.00000	0.00	☒

Stream Data

Design Cond.	LFY	Trib Flow	Stream Flow	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary Temp (°C)	pH	Stream Temp (°C)	pH
	(cfsm)	(cfs)	(cfs)									
Q7-10	0.070	0.00	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
Sta. 4 Firehous	PA0272736	0.0083	0.0000	0.0000	0.000	20.00	7.90

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	7.54	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
16D	52393	Trib 52393 to French Creek	24.300	1055.00	822.00	0.00000	0.00	☒

Stream Data

Design Cond.	LFY	Trib Flow	Stream Flow	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary		Stream	
	(cfsm)	(cfs)	(cfs)						Temp (°C)	pH	Temp (°C)	pH
Q7-10	0.070	0.00	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
		0.0000	0.0000	0.0000	0.000	25.00	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	3.00	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
16D	52393	Trib 52393 to French Creek	22.890	1053.00	824.00	0.00000	0.00	☒

Stream Data

Design Cond.	LFY	Trib Flow	Stream Flow	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary Temp (°C)	Stream Temp (°C)	pH
	(cfsm)	(cfs)	(cfs)								
Q7-10	0.070	0.00	0.00	0.000	0.000	0.0	0.00	0.00	25.00	7.00	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
		0.0000	0.0000	0.0000	0.000	25.00	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	3.00	8.24	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

WQM 7.0 Wasteload Allocations

<u>SWP Basin</u>	<u>Stream Code</u>	<u>Stream Name</u>
16D	52393	Trib 52393 to French 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
24.700	Sta. 4 Firehous	10.81	25.89	10.81	25.89	0	0
24.300		NA	NA	11.07	NA	NA	NA

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
24.700	Sta. 4 Firehous	1.42	5.62	1.42	5.62	0	0
24.300		NA	NA	1.37	NA	NA	NA

Dissolved Oxygen Allocations

RMI	Discharge Name	<u>CBOD5</u>		<u>NH3-N</u>		<u>Dissolved Oxygen</u>		Critical Reach	Percent Reduction
		Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)		
24.70	Sta. 4 Firehous	25	25	5.62	5.62	4	4	0	0
24.30		NA	NA	NA	NA	NA	NA	NA	NA

WQM 7.0 Hydrodynamic Outputs

<u>SWP Basin</u>		<u>Stream Code</u>		<u>Stream Name</u>								
16D		52393		Trib 52393 to French Creek								
RMI	Stream Flow	PWS With	Net Stream Flow	Disc Analysis Flow	Reach Slope	Depth	Width	W/D Ratio	Velocity	Reach Trav Time	Analysis Temp	Analysis pH
	(cfs)	(cfs)	(cfs)	(cfs)	(ft/ft)	(ft)	(ft)		(fps)	(days)	(°C)	
Q7-10 Flow												
24.700	0.03	0.00	0.03	.0128	0.01231	.305	2.9	9.53	0.05	0.529	23.43	7.14
24.300	57.54	0.00	57.54	.0128	0.00027	1.112	143.28	128.83	0.36	0.239	25.00	7.00
Q1-10 Flow												
24.700	0.02	0.00	0.02	.0128	0.01231	NA	NA	NA	0.04	0.620	22.91	7.20
24.300	36.83	0.00	36.83	.0128	0.00027	NA	NA	NA	0.28	0.306	25.00	7.00
Q30-10 Flow												
24.700	0.04	0.00	0.04	.0128	0.01231	NA	NA	NA	0.05	0.468	23.74	7.11
24.300	78.25	0.00	78.25	.0128	0.00027	NA	NA	NA	0.43	0.201	25.00	7.00

Attachment 2

TRC EVALUATION					
Input appropriate values in A3:A9 and D3:D9					
0.0322	= Q stream (cfs)	0.5	= CV Daily		
0.0083	= 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)	0	= Decay Coefficient (K)		

Source	Reference	AFC Calculations	Reference	CFC Calculations
TRC	1.3.2.iii	WLA afc = 0.819	1.3.2.iii	WLA cfc = 0.791
PENTOXSD TRG	5.1a	LTAMULT afc = 0.373	5.1c	LTAMULT cfc = 0.581
PENTOXSD TRG	5.1b	LTA_afc= 0.305	5.1d	LTA_cfc = 0.460

Source	Effluent Limit Calculations
PENTOXSD TRG	5.1f AML MULT = 1.231
PENTOXSD TRG	5.1g AVG MON LIMIT (mg/l) = 0.376 AFC
	INST MAX LIMIT (mg/l) = 1.228

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	$1.5*((av_mon_limit/AML_MULT)/LTAMULT_afc)$