pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northwest Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0032026**
Facility Type	**Non-Municipal**	APS ID	**1093467**
Major / Minor	**Minor**	Authorization ID	**1448469**

Applicant and Facility Information

Applicant Name	**Family Affair Campground LLC**	Facility Name	**Family Affair Campground**
Applicant Address	1135 Tamarack Road	Facility Address	9640 Findley Lake Road
	Waterford, PA 16441		North East, PA 16428-5330
Applicant Contact	Glenn Cessna	Facility Contact	
Applicant Phone	(814) 323-6989	Facility Phone	
Applicant Email	office@familyaffaircampground.com		
Client ID	367203	Site ID	450768
Ch 94 Load Status	Not Overloaded	Municipality	North East Township
Connection Status	No Limitations	County	Erie
Date Application Received	June 28, 2023	EPA Waived?	Yes
Date Application Accepted	November 8, 2023	If No, Reason	

Purpose of Application: Renewal of a NPDES Permit for an Existing Discharge of 0.025

Summary of Review

This is a renewal Sewage Individual NPDES Permit for an Existing Discharge of 0.025 MGD from a non-municipal minor sewage facility.

Treatment permitted under WQM Permit 2595408 consists of: An existing aerated flow equalization, extended aeration, clarification, alum feed for phosphorus removal, tablet chlorination, and a sludge holding tank.

The plant operates at little or no flow during the off-season (October – May).

This facility is currently submitting eDMR reports.

Act 14 – Proof of Notification was submitted and received.

SPECTIAL CONDITIONS: NONE

The EPA waiver is in effect.

There is ONE open violation in WMS for the subject Client ID (367203) as of November 9, 2023 associated with Safe Drinking Water section. *The Draft Permit cover letter will notify the applicant of the open violation and provide them an opportunity to address the violation prior to final permit issuance. 11/21/2023 CWY*

Approve	Deny	Signatures	Date
X		Aeshah Shameseldin Aeshah Shameseldin / Civil Engineer Trainee	November 9, 2023
X		Chad W. Yurisic Chad W. Yurisic, P.E. / Environmental Engineer Manager	11/21/2023

Summary of Review
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)	.025
Latitude	42º 10' 4.66"	Longitude	-79º 46' 28.79"
Quad Name	North East	Quad Code	42079B7
Wastewater Description:	Sewage Effluent		
Receiving Waters	Unnamed Tributary of Sixteenmile Creek (CWF, MF)	Stream Code	62288
NHD Com ID	123924595	RMI	0.3200
Drainage Area	0.15 (Dry), 1.89 (Perennial)	Yield (cfs/mi^2)	0.11
Q_{7-10} Flow (cfs)	0.016 (Dry), 0.20 (Perennial)	Q_{7-10} Basis	Dry Stream
Elevation (ft)	1372	Slope (ft/ft)	---
Watershed No.	15-A	Chapter 93 Class.	CWF, MF
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	---	Name	---

Background/Ambient Data		Data Source
pH (SU)	7.0	Default
Temperature (°F)	20	Default
Hardness (mg/L)	100	Default
Other:		

Nearest Downstream Public Water Supply Intake	PA – Canadian International Boundary in Lake Erie		
PWS Waters	Lake Erie	Flow at Intake (cfs)	---
PWS RMI	---	Distance from Outfall (mi)	---

Changes Since Last Permit Issuance: None.

Other Comments: None.

Treatment Facility Summary

Treatment Facility Name: Family Affair Campground

WQM Permit No.	Issuance Date
2595408 T-3	June 10, 2022

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary with Ammonia and Phosphorus	Extended Aeration	Hypochlorite	0.025

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.025	83	Not Overloaded	Aerobic Digestion	Other WWTP

Changes Since Last Permit Issuance: None.

Other Comments: None.

Compliance History

DMR Data for Outfall 001 (from October 1, 2022 to September 30, 2023)

Parameter	SEP-23	AUG-23	JUL-23	JUN-23	MAY-23	APR-23	MAR-23	FEB-23	JAN-23	DEC-22	NOV-22	OCT-22
Flow (MGD) Average Monthly	0.00144	0.00144	0.00144	0.00144								
pH (S.U.) Instantaneous Minimum	6.1	6.7	6.1	6.2								
pH (S.U.) Instantaneous Maximum	8.3	7.2	7.7	7.6								
DO (mg/L) Instantaneous Minimum	5.2	4.9	4.0	4.0								
TRC (mg/L) Average Monthly	< 0.34	0.23	0.17	< 0.24								
TRC (mg/L) Instantaneous Maximum	< 0.64	0.95	1.1	< 0.50								
CBOD5 (mg/L) Average Monthly	< 4.0	10.7	4.2	< 4.9								
CBOD5 (mg/L) Instantaneous Maximum	< 4.0	17.3	4.4	< 5.8								
TSS (mg/L) Average Monthly	< 5.3	10.3	8.0	< 16.8								
TSS (mg/L) Instantaneous Maximum	< 5.5	12.5	10.5	< 19.5								
Fecal Coliform (No./100 ml) Geometric Mean	< 1.0	6	< 1	< 1								
Fecal Coliform (No./100 ml) Instantaneous Maximum	< 1.0	12	< 1	< 1								
Total Nitrogen (mg/L) Average Quarterly	< 0.12			< 0.13								
Ammonia (mg/L) Average Monthly	< 0.31	0.30	0.41	< 6.1								
Ammonia (mg/L) Instantaneous Maximum	< 0.31	0.30	0.83	< 7.21								
Total Phosphorus (mg/L) Average Monthly	< 0.143	0.39	0.45	< 0.60								

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** .025
Latitude 42º 10' 4.66" **Longitude** -79º 46' 28.79"
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)
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

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

Parameter	Limit (mg/l)	SBC	Model
Dissolved Oxygen	4.0	Daily Min.	WQM 7.0
CBOD5	25	Avg. Monthly	WQM 7.0
	50	IMAX	
Ammonia Nitrogen (Nov 1 - Apr 30)	19.5	Average Monthly	WQM 7.0
	39	IMAX	
Ammonia Nitrogen (May 1 – Oct 31)	6.5	Average Monthly	WQM 7.0
	13.0	IMAX	

Comments: A two-step model was used. The first step was for a dry stream evaluation. The DO simulation end-of-reach data was then used to evaluate the second step perennial stream reach. The second step evaluated perennial stream conditions (See Attachment 1 and Attachment 2). *Average monthly summer time Ammonia Nitrogen limits calculated using WQM 7.0 are 9.9 mg/l and winter limits are 29.7 mg/l. However, because the existing limits are more restrictive and attainable, they will be retained. 11/21/2023 CWY*

The TRC spreadsheet calculated a more stringent WQBEL for TRC at perennial conditions using the plant design flow, but the limit was not deemed necessary because (1) The discharge is approximately a third of a mile away from perennial conditions traveling through a vegetated swale, (2) the actual monthly average discharge volume (= 0.00144 MGD) does not produce a more stringent WQBEL when placed in the TRC spreadsheet, and (3) the discharge is intermittent, primarily occurring through June to September.

Best Professional Judgment (BPJ) Limitations

Comments: Monitoring for total nitrogen, total phosphorus are placed in the permit in accordance with the Department's SOP entitled "Establishing Effluent Limitations for Individual Sewage Permits." *A Total Phosphorus limit of 1.0 mg/l will be retained for discharges to the Great Lakes basin. 11/21/2023 CWY*

Anti-Backsliding

No backsliding of limits is being proposed.

Proposed Effluent Limitations and Monitoring Requirements

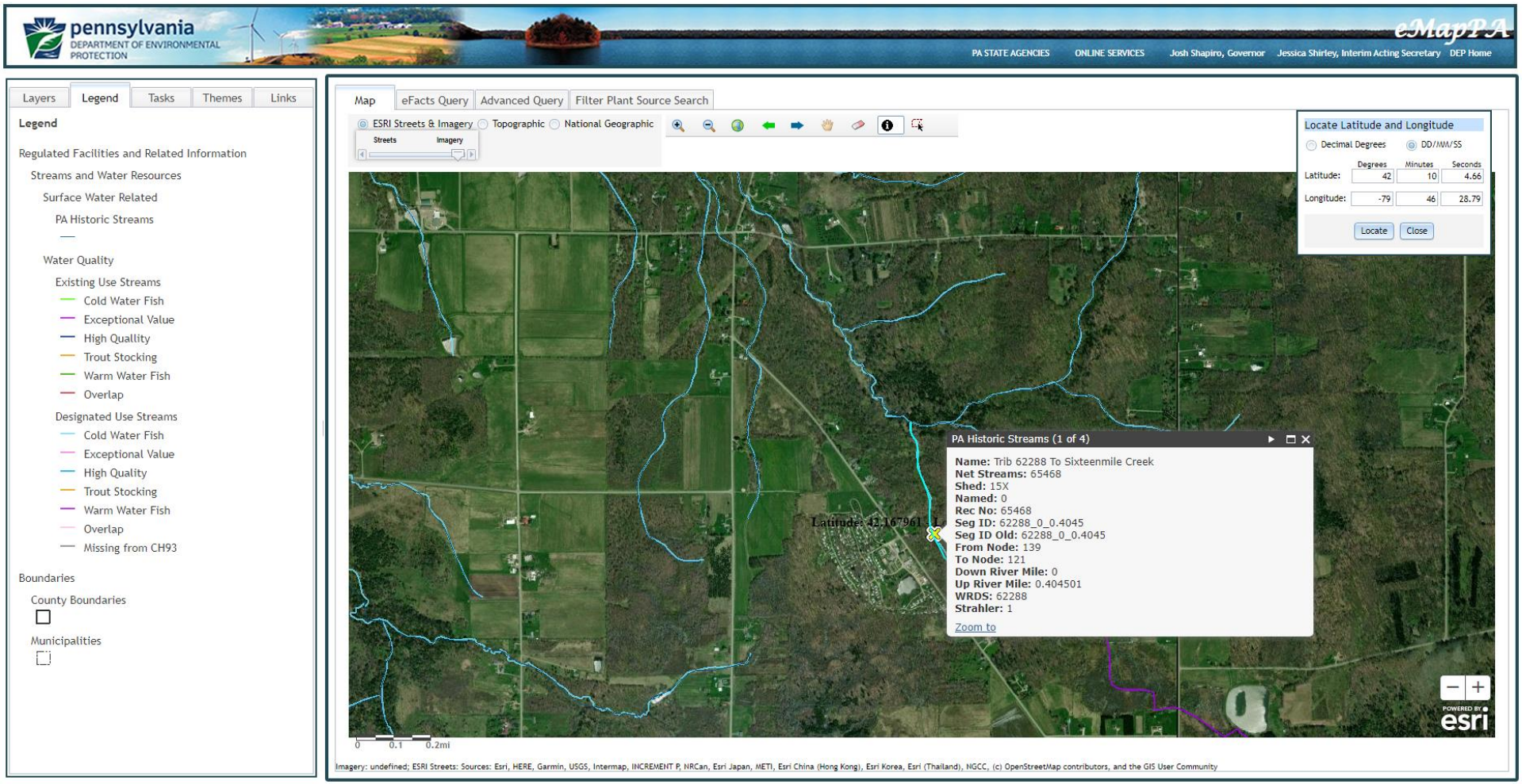
The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). 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	XXX	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 Inst Min	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.6	1/day	Grab
CBOD5	XXX	XXX	XXX	25	XXX	50	2/month	8-Hr Composite
TSS	XXX	XXX	XXX	30	XXX	60	2/month	8-Hr Composite
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 Avg Qrtly	XXX	XXX	1/quarter	8-Hr Composite
Ammonia-Nitrogen Nov 1 - Apr 30	XXX	XXX	XXX	19.5	XXX	39	2/month	8-Hr Composite
Ammonia-Nitrogen May 1 - Oct 31	XXX	XXX	XXX	6.5	XXX	13	2/month	8-Hr Composite
Total Phosphorus	XXX	XXX	XXX	1.0	XXX	XXX	2/month	8-Hr Composite

Compliance Sampling Location: Outfall 001, after disinfection.

Outfall Location - eMap with Aerial Imagery



Dry Reach - Drainage Area Location – StreamStats with Aerial Imagery

StreamStats Report

Region ID:	PA
Workspace ID:	PA20231108174719219000
Clicked Point (Latitude, Longitude):	42.16797, -79.77464
Time:	2023-11-08 12:47:40 -0500

Collapse All

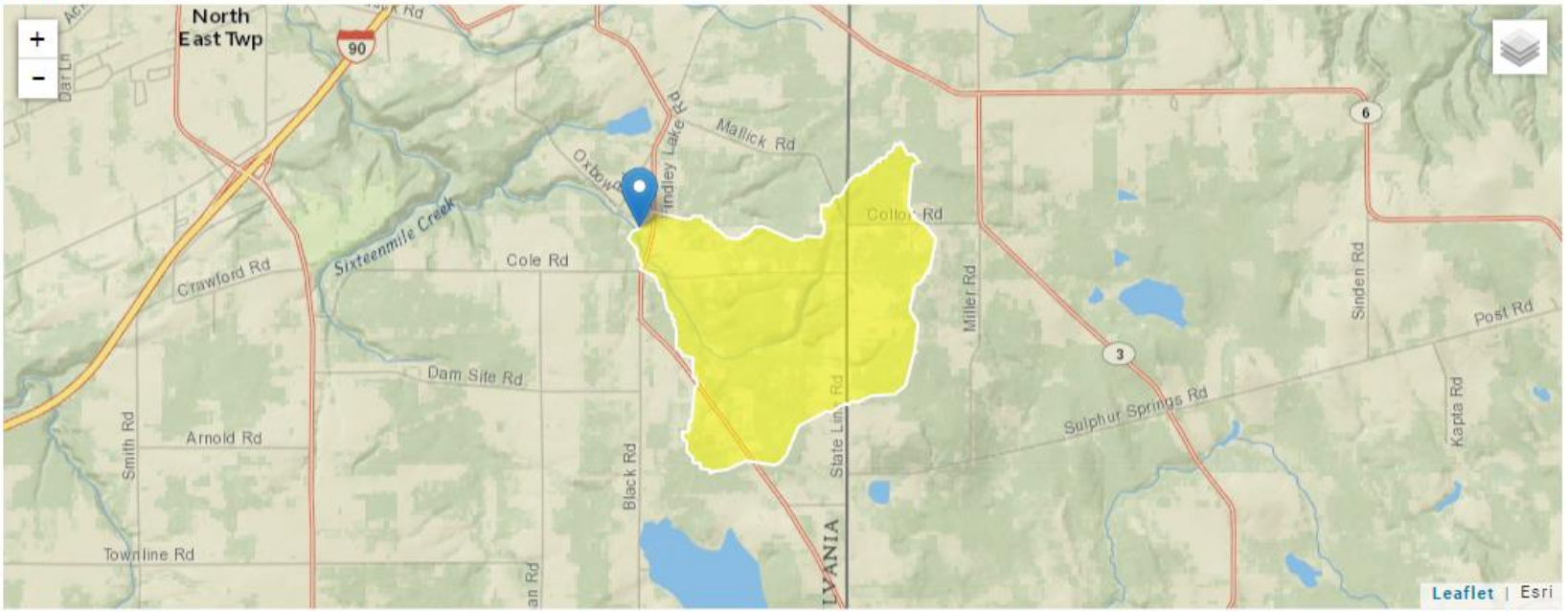
Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.15	square miles

Perennial Reach - Drainage Area Location – StreamStats with Aerial Imagery

StreamStats Report

Region ID:	PA
Workspace ID:	PA20231108175709514000
Clicked Point (Latitude, Longitude):	42.18338, -79.78546
Time:	2023-11-08 12:57:30 -0500



Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	1.89	square miles

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Attachment 1

Dry Reach Modeling

WQM 7.0 Effluent Limits

SWP Basin	Stream Code	Stream Name
15	62288	Trib 62288 to Sixteenmile 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)
1.290	Family Affair	PA0032026	0.025	CBOD5	25		
				NH3-N	25	50	
				Dissolved Oxygen			4

WQM 7.0 D.O.Simulation

SWP Basin	Stream Code	Stream Name
15	62288	Trib 62288 to Sixteenmile Creek

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
1.290	0.025	20.000	6.980
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
2.272	0.336	6.754	0.072
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
17.52	1.500	17.52	0.700
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
5.269	27.995	Owens	2
Reach Travel Time (days)			
0.271			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.027	16.83	17.19	5.55
0.054	16.16	16.87	5.73
0.081	15.51	16.55	5.87
0.108	14.90	16.24	5.97
0.135	14.30	15.94	6.07
0.163	13.73	15.64	6.16
0.190	13.19	15.35	6.24
0.217	12.66	15.06	6.32
0.244	12.16	14.77	6.39
0.271	11.67	14.50	6.47

WQM 7.0 Modeling Specifications

Parameters	D.O.	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	2		

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
15	62288	Trib 62288 to Sixteenmile Creek	**1.290**	1372.00	0.15	0.00000	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	0.110	0.00	0.00	0.000	0.000	0.0	0.00	0.00	20.00	6.98	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
Family Affair	PA0032026	0.0250	0.0000	0.0000	0.000	20.00	6.98

Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	25.00	0.00	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
15	62288	Trib 62288 to Sixteenmile Creek	**0.970**	1328.00	0.92	0.00000	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	0.110	0.00	0.00	0.000	0.000	0.0	0.00	0.00	20.00	6.98	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

WQM 7.0 Wasteload Allocations

SWP Basin	Stream Code	Stream Name
15	62288	Trib 62288 to Sixteenmile Creek

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)		
1.29	Family Affair	25	25	25	25	4	4	0	0

WQM 7.0 Hydrodynamic Outputs

SWP Basin	Stream Code	Stream Name
15	62288	Trib 62288 to Sixteenmile 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												
1.290	0.02	0.00	0.02	.0387	0.02604	.336	2.27	6.75	0.07	0.271	20.00	6.98
Q1-10 Flow												
1.290	0.01	0.00	0.00	.0387	0.02604	NA	NA	NA	0.00	0.000	0.00	0.00
Q30-10 Flow												
1.290	0.02	0.00	0.00	.0387	0.02604	NA	NA	NA	0.00	0.000	0.00	0.00

Attachment 2

Perennial Reach Modeling

For CBOD5 and DO, the resulting limits are the same as the inputs from the Dry Stream model therefore the Dry Stream limits for CBOD5 and DO are protective of the receiving stream. The Ammonia Nitrogen limit is less than the input indicating ammonia is still recovering. Therefore, for determining the initial protective ammonia limit:

$$C_T = C_o\, e^{-kt}$$
$$C_o = C_T e^{kt}$$
$$C_o = 8.26\, e^{0.7 \times 0.458} = 9.9 \text{ mg/L}$$

WQM 7.0 Effluent Limits

SWP Basin	Stream Code	Stream Name
15	62288	Trib 62288 to Sixteenmile 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)
0.970	Family Affair	PA0032026	0.025	CBOD5	11.67		
				NH3-N	8.26	16.52	
				Dissolved Oxygen			6.47

WQM 7.0 D.O.Simulation

SWP Basin	Stream Code	Stream Name
15	62288	Trib 62288 to Sixteenmile Creek

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
0.970	0.025	20.000	6.994
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
4.805	0.369	13.009	0.079
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
4.67	0.837	2.36	0.700
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
7.753	24.962	Owens	6
Reach Travel Time (days)			
0.751			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.075	4.39	2.24	8.24
0.150	4.12	2.12	8.24
0.225	3.87	2.01	8.24
0.301	3.63	1.91	8.24
0.376	3.41	1.81	8.24
0.451	3.20	1.72	8.24
0.526	3.01	1.63	8.24
0.601	2.83	1.55	8.24
0.676	2.65	1.47	8.24
0.751	2.49	1.39	8.24

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	6		

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
15	62288	Trib 62288 to Sixteenmile Creek	**0.970**	1328.00	0.92	0.00000	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	0.110	0.00	0.00	0.000	0.000	0.0	0.00	0.00	20.00	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
Family Affair	PA0032026	0.0250	0.0000	0.0000	0.000	20.00	6.98

Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	11.67	2.00	0.00	1.50
Dissolved Oxygen	6.47	8.24	0.00	0.00
NH3-N	14.50	0.10	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
15	62288	Trib 62288 to Sixteenmile Creek	**0.001**	1240.00	1.89	0.00000	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	0.110	0.00	0.00	0.000	0.000	0.0	0.00	0.00	20.00	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

WQM 7.0 Wasteload Allocations

SWP Basin	Stream Code	Stream Name
15	62288	Trib 62288 to Sixteenmile 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
0.970	Family Affair	16.87	29	16.87	29	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
0.970	Family Affair	1.89	8.26	1.89	8.26	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)		
0.97	Family Affair	11.67	11.67	8.26	8.26	6.47	6.47	0	0

WQM 7.0 Hydrodynamic Outputs

SWP Basin	Stream Code	Stream Name
15	62288	Trib 62288 to Sixteenmile 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												
0.970	0.10	0.00	0.10	.0387	0.01720	.369	4.81	13.01	0.08	0.751	20.00	6.99
Q1-10 Flow												
0.970	0.06	0.00	0.06	.0387	0.01720	NA	NA	NA	0.07	0.890	20.00	6.99
Q30-10 Flow												
0.970	0.14	0.00	0.14	.0387	0.01720	NA	NA	NA	0.09	0.660	20.00	7.00