pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southwest Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0025003**
Facility Type	**Non-Municipal**	APS ID	**1103398**
Major / Minor	**Minor**	Authorization ID	**1466558**

Applicant and Facility Information

Applicant Name	**Laurel Highlands Outdoor Center**	Facility Name	**Tub Run Recreation Area**
Applicant Address	PO Box 107	Facility Address	497 Flanigan Road
	Ohiopyle, PA 15470-0107		Confluence, PA 15424-1932
Applicant Contact	Mark McCarty	Facility Contact	Mike Layton
Applicant Phone	(724) 329-0913	Facility Phone	(814) 442-8872
Client ID	318395	Site ID	259229
Ch 94 Load Status	Not Overloaded	Municipality	Henry Clay Township
Connection Status		County	Fayette
Date Application Received	December 28, 2023	EPA Waived?	Yes
Date Application Accepted	December 28, 2023	If No, Reason	

Purpose of Application: Renewal of existing NPDES permit to discharge treated sewage effluent from a nonmunicipal STP.

Summary of Review

Laurel Highlands Outdoor Center has applied for renewal of NPDES Permit No. PA0025003. This facility operates seasonally.

Treatment at this facility consists of:

- Extended aeration
- Final Clarification
- Chlorination
- Dechlorination

Sludge use and disposal description and location(s): Sewage sludge is periodically pumped from the facility, with sludge hauling records provided to DEP as required.

This facility discharges to the Youghiogheny River Lake at the area of the lake coincident with the historical path of Tub Run, therefore the Water Quality Model was modeled at the confluence of Tub Run and the Youghiogheny River.

No changes to permit limitations are proposed. The limits in the proposed NPDES permit were determined based on the following:

- An updated model in WQM 7.0 was performed.
- An updated model in the Lake Spreadsheet was performed.
- An updated model in TRC_Calc was performed.
- SOP for Establishing Effluent Limitations for Individual Sewage Permits. (BCW-PMT-033, Revised February 5, 2024)
- The Permit Writer's Manual (386-0400-001, Revised June 28, 2023)

Approve	Deny	Signatures	Date
X		John Price Jack Price / Environmental Engineering Specialist	March 13, 2024
X		Mahbuba Iasmin Mahbuba Iasmin, Ph.D., P.E., / Environmental Engineer Manager	May 2, 2024

Summary of Review

Act 14 Notification was provided to Henry Clay Township and Fayette county via the letters dated December 8, 2023.

Issuance of the draft permit is recommended.

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)	0.025
Latitude	39º 46' 6.0"	Longitude	-79º 23' 54.0"
Quad Name	39079G4	Quad Code	Ohiopyle
Wastewater Description:	Sewage Effluent		

Receiving Waters	Youghiogheny River (WWF)	Stream Code	37456
NHD Com ID	69923033	RMI	80.24
Drainage Area	434	Yield (cfs/mi^2)	0.90
Q_{7-10} Flow (cfs)	390	Q_{7-10} Basis	Army Corps. of Engineers
Elevation (ft)	1419.52	Slope (ft/ft)	
Watershed No.	19-E	Chapter 93 Class.	WWF
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)	8.45	Water Quality Portal
Temperature (°F)	10.15	Water Quality Portal
Hardness (mg/L)	30.417	Water Quality Portal
Other: Total Phosphorus (mg/L)	0.015	Water Quality Portal

Nearest Downstream Public Water Supply Intake		Indian Creek Valley Water Auth 5260011 (0.259 MGD)	
PWS Waters	Youghiogheny River	Flow at Intake (cfs)	390
PWS RMI	62.68	Distance from Outfall (mi)	8.61 Linear Miles 17.56 River Miles

Changes Since Last Permit Issuance: No changes are proposed based on the following justification. A new analysis was performed in WQM 7.0, TRC_Calc, and the Lake Model. The results of these models support the existing limits. The existing limits were reviewed to ensure conformance to Department policy. The existing limits are reimposed.

Other Comments: N/A

Treatment Facility Summary

Treatment Facility Name: Tub Run Recreation Area STP

WQM Permit No.	Issuance Date
2671404	11/12/1971
2671404 T-1	11/10/2015

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Extended Aeration	Chlorine with Dechlorination	0.025

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.025	50.0	Not Overloaded	Dewatering	Other WWTP

Changes Since Last Permit Issuance: No changes to the facilities have been made since the previous permit.

Other Comments: None.

Compliance History

Facility: Tub Run Recreation Area STP
NPDES Permit No.: PA0025003
Compliance Review Period: 01/01/2019-01/01/2024

Inspection Summary:

INSP ID	INSPECTED DATE	INSPECTION RESULT DESC	INSPECTOR ID	# OF VIOLATIONS
3623841	09/27/2023	Violation(s) Noted	00377635	1
3623924	09/27/2023	No Violations Noted	00377635	0
2931630	09/10/2019	No Violations Noted	00377635	0

Violation Summary:

VIOLATION DATE	VIOLATION TYPE	VIOLATION TYPE DESC	RESOLVED DATE	INSP ID	VIOLATION COMMENT
10/27/2016	92A.44	NPDES - Violation of effluent limits in Part A of permit	10/31/2016	2532491	
09/27/2023	302.1202	Operator Certification - Owner failed to comply with the Act or Chapter 302 regulations	09/27/2023	3623841	Jared Hay is no longer the OIC.

Open Violations by Client ID:
None on record.

Enforcement Summary:
All violations on record were administratively closed out

Compliance Status:
TBD

Other Comments:

Other Comments: The Compliance Status of the facility will be determined prior to the issuance of the final permit. At that time a fact sheet addendum will be issued with the compliance status determination.

Compliance History

DMR Data for Outfall 001 (from December 1, 2022 to November 30, 2023)

Parameter	NOV-23	OCT-23	SEP-23	AUG-23	JUL-23	JUN-23	MAY-23	APR-23	MAR-23	FEB-23	JAN-23	DEC-22
Flow (MGD) Average Monthly		0.000075	0.001207	0.000275	0.000123	0.000687	0.00071	0.001888				
Flow (MGD) Daily Maximum		0.000252	0.002013	0.00375	0.00062	0.001757	0.00205	0.018921				
pH (S.U.) Instantaneous Minimum		6.77	6.36	6.01	5.8	6.0	6.33	6.78				
pH (S.U.) Instantaneous Maximum		7.52	7.63	6.83	6.96	6.95	8.04	8.06				
DO (mg/L) Instantaneous Minimum		6.39	4.46	4.96	5.05	5.71	6.11	8.08				
TRC (mg/L) Average Monthly		0.02	0.02	0.03	0.04	0.1	0.1	0.1				
TRC (mg/L) Instantaneous Maximum		0.04	0.04	0.11	0.16	0.19	0.3	0.31				
CBOD5 (mg/L) Average Monthly		< 2.0	< 2.0	< 2.0	< 4.0	< 2.0	< 2.0	< 3.0				
CBOD5 (mg/L) Instantaneous Maximum		< 2.0	< 2.0	< 2.0	6.39	< 2.0	< 2.0	4.07				
TSS (mg/L) Average Monthly		< 5.0	< 5.0	< 6.0	8.0	< 5.0	< 7.0	< 5.0				
TSS (mg/L) Instantaneous Maximum		< 5.0	< 5.0	6.0	11.0	< 5.0	8.0	< 5.0				
Fecal Coliform (No./100 ml) Geometric Mean		2.0	2	1.0	< 7.0	< 1.0	< 1.0	6.0				
Fecal Coliform (No./100 ml) Instantaneous Maximum		2.0	3.0	1.0	53.0	< 1.0	2.0	6.0				
Total Nitrogen (mg/L) Daily Maximum												16.1

Ammonia-Nitrogen (mg/L) Average Monthly		< 0.4	1.91	< 0.40	< 0.4	< 0.40	< 0.4	< 0.4				
Ammonia-Nitrogen (mg/L) Instantaneous Maximum		< 0.4	3.41	< 0.40	0.4	< 0.40	< 0.40	< 0.4				
Total Phosphorus (mg/L) Daily Maximum												2.3

Compliance History

Effluent Violations for Outfall 001, from: January 1, 2023 To: November 30, 2023

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
pH	07/31/23	Inst Min	5.8	S.U.	6.0	S.U.

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.025
Latitude 39º 46' 6.00" **Longitude** -79º 23' 54.00"
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	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)
Ammonia-Nitrogen	25	Average Monthly	-	-

Comments: The proposed discharge was evaluated using WQM 7.0 to evaluate $CBOD_5$, Ammonia Nitrogen, and Dissolved Oxygen Parameters; the discharge was also evaluated using TRC_Calc and the Lakes model for Total Residual Chlorine and Total Phosphorus respectively.

The WQM 7.0 model demonstrates that the TBELs for Ammonia-Nitrogen and CBOD5 are sufficient year-round. A printout of the WQM 7.0 Report for Summer and Winter conditions may be found in Attachment 5 and Attachment 6 respectively.

The TRC_Calc model was used to determine whether the TBEL provides sufficient water quality protection. The model demonstrates that TRC TBELs are appropriate for this facility. The TRC_Calc Report is included in Attachment 4.

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 (min)	Average Monthly	WQM 7.0 Version 1.1
Total Phosphorus	Report	Average Monthly	Lake Model

Comments: DMR Data shows that the facility will continue to comply with existing limitations.

WQBELs were determined using $Q_{7\text{-}10}$ flow. The Youghiogheny River is a controlled stream. The $Q_{7\text{-}10}$ flow was obtained from a table provided by the Army Corps of Engineers, available in Attachment 1.

This facility discharges into the Youghiogheny River Lake. The Youghiogheny River Lake has a residence time of larger than 14 days. Discharges into impoundments are reviewed using the Implementation Guidance for Section 95.6 Management of Point Source Phosphorus Discharges to Lakes, Ponds and Impoundments (DEP Document No. 386-2000-009, Revised June 28, 2023). The DEP Lake model was run to determine the impact of point discharges containing phosphorus.

The following facilities are the known direct dischargers to the Youghiogheny River Lake:

- Tub Run Recreation Area STP PA0025003
- Somerfield South Rec Area STP PA0094544

The water control manual from the Army Corps of Engineers was the basis for the hydrological lake inputs, and data from the USGS Water Quality Portal were used for the in-lake TP concentration. Monitoring data for the Somerfield South Recreation Area STP was obtained from DMR reports, and monitoring data for the Tub Run STP was included in the NPDES Application. The model was run using the summer Low Flow values.

An excerpt from the water control manual is included in Attachment 2. The Lake model results, with the supporting data for Total Phosphorus is included in Attachment 3. The Lake Model Report recommends a Report Only limitation for this facility.

Best Professional Judgment (BPJ) Limitations

Comments: N/A

Industrial Users

There are no industrial or commercial users that are connected to this facility.

Disinfection

Disinfection at this facility is provided by erosion feed chlorination equipment and a chlorine contact tank. Per the SOP for effluent limitations, a monthly limit of 0.5 mg/L is established with an IMAX of 1.6 mg/L.

(*Section I.A, Note 3, SOP for Clean Water Program, Establishing Effluent Limitations for Individual Sewage Permits, Final November 9, 2012, Revised March 24, 2021, Version 1.9* and *25 PA Code 92a.61(b)*.)

Anti-Backsliding

Existing limits will be reimposed for this permit. No backsliding is proposed.

Section 402(o) of the Clean Water Act (CWA), enacted in the Water Quality Act of 1987, establishes anti-backsliding rules governing two situations. The first situation occurs when a permittee seeks to revise a Technology-Based effluent limitation based on BPJ to reflect a subsequently promulgated effluent guideline which is less stringent. The second situation addressed by Section 402(o) arises when a permittee seeks relaxation of an effluent limitation which is based upon a State treatment standard of water quality standard.

Previous limits can be used pursuant to EPA's anti-backsliding regulation. Reissued permits. (1) Except as provided in paragraph (l)(2) of this section when a permit is renewed or reissued. Interim effluent limitations, standards or conditions must be at least as stringent as the final effluent limitations, standards, or conditions in the previous permit (unless the circumstances on which the previous permit was based have materially and substantially changed since the time the permit was issued and would constitute cause for permit modification or revocation and reissuance under §122.62). (2) In the case of effluent limitations established on the basis of Section 402(a)(1)(B) of the CWA, a permit may not be renewed, reissued, or modified on the basis of effluent guidelines promulgated under section 304(b) subsequent to the original issuance of such permit, to contain effluent limitations which are less stringent than the comparable effluent limitations in the previous permit.

(40 CFR 122.44 (l)(2) Establishing limitations, standards, and other permit conditions., 40 CFR Ch. I (7-1-21 Edition))

Additional Considerations

Nutrient monitoring is required by the SOP for Effluent Limitations for Individual Sewage Permits. Monitoring is included 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). Neither the Youghiogheny River nor the Youghiogheny River Lake are listed as impaired for nutrients, therefore at the discretion of the application manager, a monitoring frequency less than the equivalent of conventional pollutants in Table 6-3 of the Permit Writer's Manual is selected.

(*Section I.A, Note 7 & 8, SOP for Clean Water Program, Establishing Effluent Limitations for Individual Sewage Permits, Final November 9, 2012, Revised March 24, 2021, Version 1.9* and *25 PA Code 92a.61(b)*.)

Sewage discharges will include monitoring, at a minimum, for *E. Coli*, in new and reissued permits, with a monitoring frequency of 1/year for design flows between 0.002 and 0.05 MGD.

(*Note 12 SOP-Establishing Effluent Limitations for Individual Sewage Permits Final November 9, 2012, Revised March 24, 2021, Version 1.9.* and *25 PA Code 92a.61(b).)*

Monitoring frequency for the proposed effluent limits are based upon Table 6-3, Self-Monitoring Requirements for Sewage Dischargers.

Table 6-3 – Self-Monitoring Requirements for SEWAGE Discharges

Plant Design Flow (MGD)	Flow Monitoring	C-BOD_5 or BOD_5	Suspended Solids	pH	Fecal Coliform	Chlorine Residual	NH_3-N	Phosphorus	DO	Toxics
Single Residence *(Individual Permit)*	2/year by estimate	2/year*	2/year*	1/mont h*	2/year*	1/month*	2/year*	2/year*	2/year*	N/A
.0005 to .002	weekly, using average pump rate or weir (a)	1/month*	1/month*	daily*	1/month*	daily*	1/month*	1/month*	daily*	N/A
.002 to .01	weekly, using average pump rate or weir (a)	2/month*	2/month*	daily*	2/month*	daily*	2/month*	2/month*	daily*	N/A
0.01 to 0.1	weekly, using average pump rate or weir (a)	2/month*	2/month*	daily*	2/month*	daily*	2/month*	2/month*	Daily*	1/week*
0.1 to 1.0	meter	1/week**	1/week**	daily*	1/week*	daily*	1/week**	1/week**	daily*	1/week****
1.0 to 5.0	meter	2/week***	2/week***	daily*	2/week*	daily*	2/week***	2/week***	daily*	1/week****
5.0 to 25.0	meter	daily***	daily***	daily*	daily*	1/shift*	daily***	daily***	daily*	1/week****
over 25.0	meter	daily***	daily***	1/shift*	daily*	1/shift*	1/shift***	1/shift***	1/shift*	1/week****

* Grab sample-these should be most representative of the effluent and are to be taken at a time when the normal daily maximum flow would reach the sampling point.

** 8-hour composite sample.

*** 24-hour composite sample.

**** Same sample type as for Industrial Process Wastewater (See Table 6-4).

(Department Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits, Updated June 28, 2023 (Document No. 362-0400-001))

Section 2.C of the Permit Writers Manual contains the procedure for converting average monthly effluent limitations to average weekly, maximum daily, and instantaneous maximum effluent limitations. The multiplier for converting monthly average concentration to an average weekly or instantaneous maximum value is determined from the following chart:

Discharge Solution	Parameters	Average Weekly	Maximum Daily	Instantaneous Maximum Multiplier
Sewage	All	1.5		2.0
Industrial	All		2.0	2.5*

* The higher multiplier to be used for industrial dischargers is intended to reflect the greater degree of variability of both influent and effluent quality generally associated with those types of discharges. It will also avoid potential conflict with the use of a "daily maximum" multiplier of 2.0 for industrial discharges.

(Department Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits, Updated June 28, 2023 (Document No. 362-0400-001))

Rounding-Off Mathematical Values. Section 5 C.2. of the Permit Writers Manual contains general guidelines for rounding conventional and toxic pollutants, with instructions to round down to the nearest decimal place indicated.

General Magnitude	Conventional Pollutants	Toxic Pollutants
<0.01	to nearest 0.001	to nearest 0.001
0.01 - 0.1	to nearest 0.01	to nearest 0.01
0.1 - 1.0	to nearest 0.1	to nearest 0.01
1.0 - 10.0	to nearest 0.5	to nearest 0.01
10.0 - 60.0	to nearest 1.0	to nearest 0.01
60.0 or greater	to nearest 5.0	to nearest 0.10

(Department Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits, Updated June 28, 2023 (Document No. 362-0400-001))

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 Inst Min	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.6	1/day	Grab
CBOD5	XXX	XXX	XXX	25.0	XXX	50.0	2/month	Grab
TSS	XXX	XXX	XXX	30.0	XXX	60.0	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 Daily Max	XXX	XXX	1/year	Grab
Ammonia-Nitrogen	XXX	XXX	XXX	25.0	XXX	50.0	2/month	Grab
Total Phosphorus	XXX	XXX	XXX	Report Daily Max	XXX	XXX	1/year	Grab

Compliance Sampling Location: Outfall 001

Other Comments: None.

Attachment 1-Q_{7-10} Basis (Army Corps. of Engineers)

Q_{7-10} Flows of Major Rivers

Nicolas Lazzaro, P.E.
U.S. Army Corp of Engineers
Pittsburgh District Water Management
December 1, 2017

UPPER OHIO BASIN LOW FLOWS		
Location		Q7, 10 Flow (cfs)
Allegheny River		
Franklin downstream of French Creek (RMI 123.96)		1,450
L&D 9 at Templeton (RMI 62.2; Upper Pool El. 822.2)		2,070
L&D 8 at Templeton (RMI 52.6; Upper Pool El. 800.2)		2,070
L&D 7 at Kittanning (RMI 45.7; Upper Pool El. 782.4)	Crooked Creek enters at RMI 40.11	2,070
L&D 6 at Freeport (RMI 36.3; Upper Pool El. 769.4)		2,070
L&D 5 at Freeport (RMI 30.4; Upper Pool El. 757.0)	Kiskiminetas R. enters at RMI 30.2	2,070
L&D 4 at Natrona (RMI 24.2; Upper Pool El. 745.4)		2,390
C.W. Bill Young L&D at New Kensington (RMI 14.5; Upper Pool El. 734.5)		2,390
L&D 2 at Pittsburgh (RMI 6.7, Pool El. 721.0)		2,390
Monongahela River		
Point Marion L&D (RMI 90.8; Upper Pool El. 797.0)	Cheat River enters at RMI 89.68 Dunkard Creek enters at RMI 87.18	420
Grays Landing L&D (RMI 82.0; Upper Pool El. 778.0)	Tenmile Creek enters at RMI 65.62	530
Maxwell L&D (RMI 61.2; Upper Pool El. 763.0)	Redstone Creek enters at RMI 54.90	530
L&D 4 at Charleroi (RMI 41.5; Upper Pool El. 743.5)		550
L&D 3 at Elizabeth (RMI 23.8; Upper Pool El. 726.9)		550
McKeesport downstream of the Youghiogheny River (RMI 15.53)		1,060
Braddock L&D (RMI 11.2; Upper Pool El. 718.7)		1,230
Youghiogheny River		
Youghiogheny Dam at Confluence (RMI 74.8)		390
Dam at Connellsville (RMI 46.27)		460
Sutersville downstream of Sewickley Creek (~RMI 15.0)		510
Beaver River		
Beaver Falls		640
Ohio River		
Emsworth L&D (RMI 974.8; Pool El. 710.0)	Q7,10 is halved for each side of Neville Island	4,730
Dashields L&D (RMI 967.7; Upper Pool El. 692.0)		4,730
Montgomery L&D (RMI 949.3; Upper Pool El. 682.0)		5,880
New Cumberland L&D (RMI 926.7; Upper Pool El. 664.5)		5,880
Pike Island L&D (RMI 896.8; Upper Pool El. 664.0)		5,880
Hannibal L&D (RMI 854.6; Upper Pool El. 623.0)		5,880

Attachment 2-Youghiogheny River Lake Characteristics (Youghiogheny River Lake Water Control Manual)

YOUGHIOGHENY RIVER LAKE

PERTINENT DATA

Project Authorization

Flood Control Act, Public No. 761, 75th Congress, 3rd Session, dated 28 June 1938.

Location of Project

In Fayette and Somerset Counties, Pennsylvania, and Garrett County, Maryland, between Confluence, Pa. and Friendsville, Md. The dam is about 1.2 river miles above Confluence, Pa.

Drainage Area

434 Square Miles

Type of Project

Flood control, low-flow augmentation, and water quality control reservoir.

Purpose

Reduction of flood stages and low-flow control on the Youghiogheny, lower Monongahela, and upper Ohio Rivers.

Dam

Type: Rolled-fill with an impervious center

Elevation of Top of Dam: 1497 m.s.l.

Height above stream bed (1313 m.s.l.) = 184 feet.

Top Length: 1610 feet.

Top Width: 25 feet.

Maximum Base Width: 1,100 feet.

v

Freeboard: 7.0 feet.

Spillway

Type: Uncontrolled side channel.

Crest-elevation: 1468 m.s.l.

Width: 344.4 feet.

Design Flood:

Inflow-156,000 c.f.s.

Outflow-130,500 c.f.s.

Water surface elevation-1490 m.s.l.

Outlet Works

Tunnel - concrete lined, 18 feet in diameter and 1800 feet long, protected by a trash rack.

Gates - 3 service and 3 emergency vertical lift gates, 4 feet 3 inches wide and 20 feet high, invert elevation 1316.64.

Stilling Basin - Flared deflector type.

Bankfull Discharge - 10,000 c.f.s.

Reservoir

Pool	Elevation of Pool		Capacity (Ac-ft)	(Inches)	Area (Acres)	Backwater (Miles)
Minimum	1344.0		5,200	0.22	450	6.0
L. F. Regulation (Summer)	1439.0	(net)	140,300	6.45	2840	16.0
Flood Control (Winter) (Min.)		(net)	151,000	6.52		
Flood Control (Summer) (Min.)		(net)	99,500	4.30		
Total Storage	1470.0		254,000	10.97	3570	17.0

Taking Line: 1475 feet m.s.l.

Attachment 3-Lake Model Report and Supporting Documentation

Lake Model Report

MPLEMENTATION SPREADSHEET FOR § 96.5 MANAGEMENT OF POINT SOURCE PHOSPHORUS DISCHARGES TO LAKES, PONDS & IMPOUNDMENT!

Water Body Name:	oughiogheny River Reservoir
Chapter 93 Classification:	Non-Special Protection
No. Point Source Discharges:	2

Discharger Name	NPDES Permit No.	Existing Flow (MGD)	Design Flow (MGD)	Avg Monthly Effluent TP Conc (mg/L)	Direct or Tributary Discharge	Existing Annual Load (lbs/yr)	Design Annual Load (lbs/yr)
Tub Run STP	PA0025003	0.0025	0.0025	7.09	Direct	54.0	54.0
Somerfield South Rec Area STP	PA0094544	0.00135	0.00135	0.21	Direct	0.9	0.9

Lake Inputs	*Value*
In-Lake TP Concentration (mg/L):	0.0147
Mean Depth of Lake (m):	28.96
Mean Detention Time of Lake (days):	181.37
Surface Area of Lake (acres):	2840
Lake Type:	Oxic
Mean Depth / Detention Time (m/yr)	58.3

Water Body Results

Water Body Name: **Youghiogheny River Re**

Type: **Oxic** Status: **Non-Special Protection**

Parameter	*Existing Conditions*	*Design Conditions*	
		Additional PS Controls	*Recommended PS Controls*
In-Lake TP Concentration (mg/L):	0.0147	0.015	0.015
Total TP Loading Rate (lbs/ac/yr):	19.09	19.09	19.09
Point Source Loading Rate (lbs/ac/yr):	0.02	0.02	0.02
Trophic State Index (TSI):	42.9	42.9	42.9
NPS Loading Rate (lbs/ac/yr):	19.07	19.07	19.07
NPS TSI:	42.9	42.9	42.9

Lake Status, Existing Conditions: ***Water Body is Currently Mesotrophic***

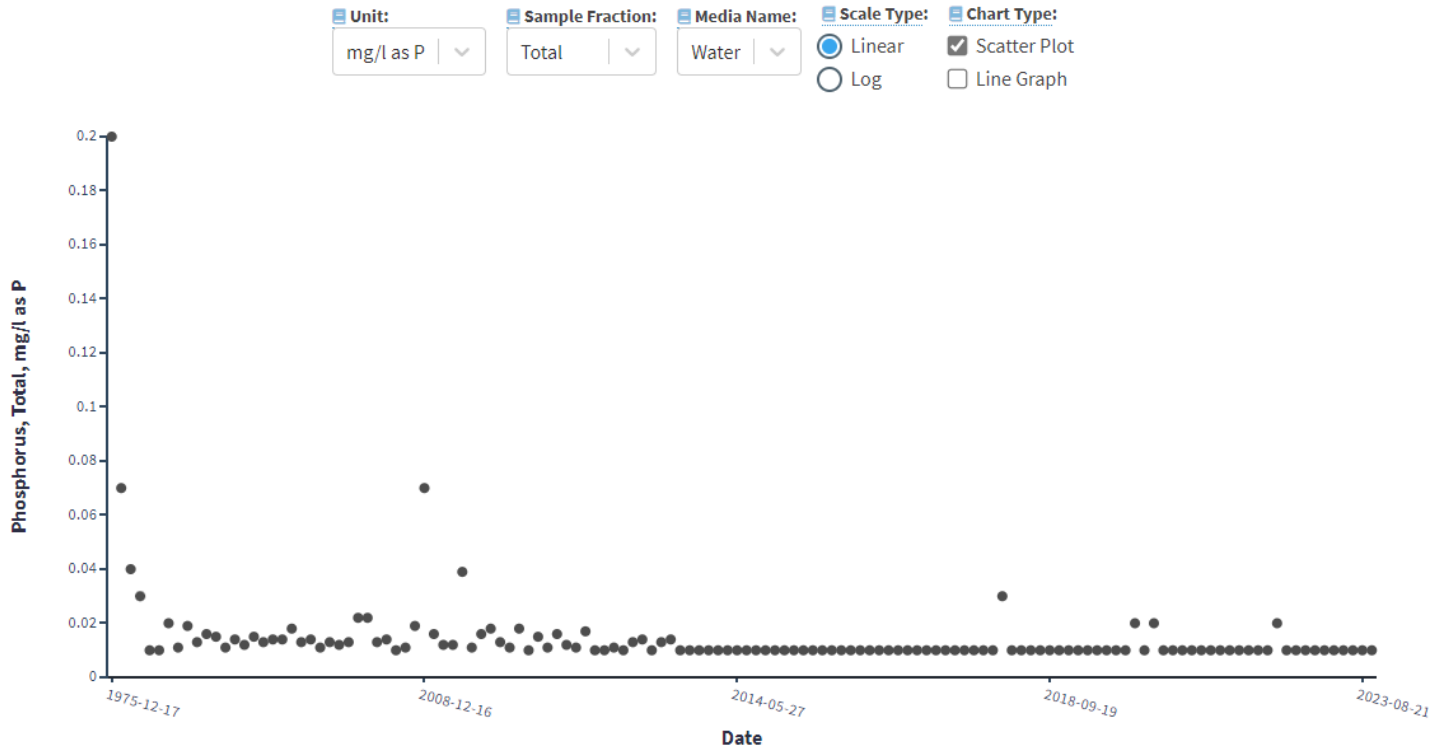
Discharge Results

Water Body Name: **Youghiogheny River Rese**
Status: **Non-Special Protection**

Based on the TSI at Design Conditions, No Additional Point Source Controls are Required at This Time

Discharger Name	NPDES Permit No.	Existing Flow (MGD)	Design Flow (MGD)	Avg Monthly Effluent TP Conc (mg/L)	Recommended TP AML (mg/L)	Additional Controls?	Design Annual Load (lbs/yr)
Tub Run STP	PA0025003	0.0025	0.0025	7.09	7.09	No	54.0
Somerfield South Rec Area STP	PA0094544	0.00135	0.00135	0.21	0.21	No	0.9

Total Phosphorus in Youghiogheny River Lake, measured at Confluence, PA



Measurement Statistics

Selected Date Range:	Dec 16, 1975 - Sep 25, 2023
Number of Measurements Shown:	134
Average of Values:	1.4739e-2 ± 1.8264e-2 mg/l as P
Median Value:	0.01 mg/l as P
Minimum Value:	0.01 mg/l as P
Maximum Value:	0.2 mg/l as P

Source: https://mywaterway.epa.gov/monitoring-report/NWIS/USGS-PA/USGS-03077500/
Youghiogheny River Lake Average Total Phosphorus: 0.0147 mg/L

Tub Run Phosphorus Monitoring Data

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

WATER MANAGEMENT SYSTEM
ELECTRONIC DISCHARGE MONITORING
REPORT - INTERNAL

Region: All
County: All
Municipality: All
Permit(s): PA0025003
PF Inspector: All

PERMIT	PF NAME	MONITORING END DATE	MONITORING LOCATION	PARAMETER	CONC UNITS	CONC 2 VALUE
PA0025003	TUB RUN REC AREA STP	12/31/2018	Final Effluent	Total Phosphorus	mg/L	4.79
PA0025003	TUB RUN REC AREA STP	12/31/2019	Final Effluent	Total Phosphorus	mg/L	16
PA0025003	TUB RUN REC AREA STP	12/31/2020	Final Effluent	Total Phosphorus	mg/L	3.1
PA0025003	TUB RUN REC AREA STP	12/31/2021	Final Effluent	Total Phosphorus	mg/L	8.4
PA0025003	TUB RUN REC AREA STP	12/31/2022	Final Effluent	Total Phosphorus	mg/L	2.3
PA0025003	TUB RUN REC AREA STP	12/31/2023	Final Effluent	Total Phosphorus	mg/L	9.9
				Renewal Sampling		6.1
				Average TP (mg/L)		7.09

Somerfield South Recreation Area STP

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

WATER MANAGEMENT SYSTEM
ELECTRONIC DISCHARGE MONITORING
REPORT - INTERNAL

Region: SWRO
County: All
Municipality: All
Permit(s): PA0094544
PF Inspector: All

PERMIT	PF NAME	MONITORING END DATE	MONITORING LOCATION	PARAMETER	CONC UNITS	CONC 2 VALUE
PA0094544	SOMERFIELD SOUTH REC AREA	12/31/2018	Final Effluent	Total Phosphorus	mg/L	0.27
PA0094544	SOMERFIELD SOUTH REC AREA	12/31/2019	Final Effluent	Total Phosphorus	mg/L	0.15
				Average TP (mg/L)		0.21

Attachment 4- TRC_CALC Model Report

TRC_CALC.xls

TRC EVALUATION

Input appropriate values in A3:A9 and D3:D9

390	= Q stream (cfs)	0.5	= CV Daily
0.025	= 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 = 3216.826	1.3.2.iii	WLA cfc = 3136.145
PENTOXSD TRG	5.1a	LTAMULT afc = 0.373	5.1c	LTAMULT cfc = 0.581
PENTOXSD TRG	5.1b	LTA_afc= 1198.666	5.1d	LTA_cfc = 1823.208

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)

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Attachment 5-Summer WQM Report

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
19D	37456	YOUGHIOGHENY RIVER	**80.240**	1419.52	434.00	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	0.900	0.00	0.00	0.000	0.000	0.0	900.00	54.30	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
Tub Run STP	PA0025003	0.0250	0.0000	0.0000	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
19D	37456	YOUGHIOGHENY RIVER	79.860	1419.52	434.01	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	0.900	0.00	0.00	0.000	0.000	0.0	900.00	54.30	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	0.00	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 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 Hydrodynamic Outputs

SWP Basin	Stream Code	Stream Name
19D	37456	YOUGHIOGHENY RIVER

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												
80.240	390.60	0.00	390.60	.0387	0.00000	54.3	900	16.57	0.01	2.905	25.00	7.00
Q1-10 Flow												
80.240	249.98	0.00	249.98	.0387	0.00000	NA	NA	NA	0.01	4.539	25.00	7.00
Q30-10 Flow												
80.240	531.22	0.00	531.22	.0387	0.00000	NA	NA	NA	0.01	2.136	25.00	7.00

WQM 7.0 D.O.Simulation

SWP Basin	Stream Code	Stream Name
19D	37456	YOUGHIOGHENY RIVER

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
80.240	0.025	25.000	7.000
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
900.000	54.300	16.575	0.008
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
2.00	0.000	0.00	1.028
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
8.243	0.003	O'Connor	5
Reach Travel Time (days)			
2.905			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.291	2.00	0.00	7.54
0.581	2.00	0.00	7.54
0.872	2.00	0.00	7.54
1.162	2.00	0.00	7.54
1.453	2.00	0.00	7.54
1.743	2.00	0.00	7.54
2.034	2.00	0.00	7.54
2.324	2.00	0.00	7.54
2.615	2.00	0.00	7.54
2.905	2.00	0.00	7.54

WQM 7.0 Wasteload Allocations

SWP Basin	Stream Code	Stream Name
19D	37456	YOUGHIOGHENY RIVER

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
80.240	Tub Run STP	6.76	50	6.76	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
80.240	Tub Run STP	1.34	25	1.34	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)		
80.24	Tub Run STP	25	25	25	25	4	4	0	0

WQM 7.0 Effluent Limits

SWP Basin	Stream Code	Stream Name
19D	37456	YOUGHIOGHENY 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)
80.240	Tub Run STP	PA0025003	0.025	CBOD5	25		
				NH3-N	25	50	
				Dissolved Oxygen			4

Attachment 6-Winter WQM Report

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
19D	37456	YOUGHIOGHENY RIVER	**80.240**	1419.52	434.00	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	1.800	0.00	0.00	0.000	0.000	0.0	900.00	54.30	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
Tub Run STP	PA0025003	0.0250	0.0000	0.0000	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
19D	37456	YOUGHIOGHENY RIVER	79.860	1419.52	434.01	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	1.800	0.00	0.00	0.000	0.000	0.0	900.00	54.30	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
		0.0000	0.0000	0.0000	0.000	0.00	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 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 Hydrodynamic Outputs

SWP Basin	Stream Code	Stream Name
19D	37456	YOUGHIOGHENY RIVER

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												
80.240	781.20	0.00	781.20	.0387	0.00000	54.3	900	16.57	0.02	1.453	5.00	7.00
Q1-10 Flow												
80.240	499.97	0.00	499.97	.0387	0.00000	NA	NA	NA	0.01	2.270	5.00	7.00
Q30-10 Flow												
80.240	1062.43	0.00	1062.43	.0387	0.00000	NA	NA	NA	0.02	1.068	5.00	7.00

WQM 7.0 Wasteload Allocations

SWP Basin	Stream Code	Stream Name
19D	37456	YOUGHIOGHENY RIVER

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
80.240	Tub Run STP	20.59	50	20.59	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
80.240	Tub Run STP	4.08	25	4.08	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)		
80.24	Tub Run STP	25	25	25	25	4	4	0	0

WQM 7.0 D.O.Simulation

SWP Basin	Stream Code	Stream Name
19D	37456	YOUGHIOGHENY RIVER

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
80.240	0.025	5.000	7.000
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
900.000	54.300	16.575	0.016
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
2.00	0.001	0.00	0.221
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
12.510	0.003	O'Connor	5
Reach Travel Time (days)			
1.453			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.145	2.00	0.00	11.45
0.291	2.00	0.00	11.45
0.436	2.00	0.00	11.45
0.581	2.00	0.00	11.45
0.726	2.00	0.00	11.45
0.872	2.00	0.00	11.45
1.017	2.00	0.00	11.45
1.162	2.00	0.00	11.45
1.307	2.00	0.00	11.45
1.453	2.00	0.00	11.45

WQM 7.0 Effluent Limits

SWP Basin	Stream Code	Stream Name
19D	37456	YOUGHIOGHENY 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)
80.240	Tub Run STP	PA0025003	0.025	CBOD5	25		
				NH3-N	25	50	
				Dissolved Oxygen			4