pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northwest Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0103861**
Facility Type	**Non-Municipal**	APS ID	**1094052**
Major / Minor	**Minor**	Authorization ID	**1449527**

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Applicant and Facility Information

Applicant Name	**Steve Zoccoli**	Facility Name	**Zoccoli MHP**
Applicant Address	2575 Ben Franklin Highway	Facility Address	217 Stacie Lane
	Edinburg, PA 16116		Edinburg, PA 16116-9801
Applicant Contact	Steve Zoccoli	Facility Contact	Steve Zoccoli
Applicant Phone	(724) 656-2506	Facility Phone	(724) 656-2506
Client ID	36648	Site ID	269766
Ch 94 Load Status	Not Overloaded	Municipality	Mahoning Township
Connection Status	No Limitations	County	Lawrence
Date Application Received	July 3, 2023	EPA Waived?	Yes
Date Application Accepted	August 4, 2023	If No, Reason	-
Purpose of Application	Renewal of an existing NPDES Permit for an existing discharge of treated sanitary wastewater from a non-municipal STP		

Summary of Review

Act 14 - Proof of Notification was submitted and received.

A Part II Water Quality Management permit is not required at this time.

The applicant should be able to meet the limits of this permit, which will continue to protect the uses of the receiving stream.

I. OTHER REQUIREMENTS:

A. Stormwater into sewers
B. Right of way
C. Solids handling
D. Public Sewerage Availability
E. Effluent Chlorine Optimization and Minimization

SPECIAL CONDITIONS:

II. Solids Management

There are no open violations in efacts associated with the subject Client ID (36648) as of 5/30/2024.

Approve	Deny	Signatures	Date
X		Stephen A. McCauley Stephen A. McCauley, E.I.T. / Environmental Engineering Specialist	5/30/2024
X		Jason T. Roessing Jason T. Roessing, P.E. / Environmental Engineer Manager	6/3/2024

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.005
Latitude	41º 02' 41.37"	Longitude	-80º 25' 48.11"
Quad Name	-	Quad Code	-
Wastewater Description:	Sewage Effluent		
Receiving Waters	Unnamed Tributary to the Shenango River (WWF)	Stream Code	N/A
NHD Com ID	130025487	RMI	N/A
Drainage Area	2.12	Yield (cfs/mi^2)	0.053 (previous WQPR)
Q_{7-10} Flow (cfs)	0.11	Q_{7-10} Basis	calculated
Elevation (ft)	964	Slope (ft/ft)	0.01379
Watershed No.	20-A	Chapter 93 Class.	WWF
Existing Use	-	Existing Use Qualifier	-
Exceptions to Use	-	Exceptions to Criteria	-
Assessment Status	Impaired*		
Cause(s) of Impairment	Nutrients		
Source(s) of Impairment	Package plants or other permitted small flow discharges		
TMDL Status	-	Name	-

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

Nearest Downstream Public Water Supply Intake	PA American Water Company - New Castle		
PWS Waters	Shenango River	Flow at Intake (cfs)	16.2
PWS RMI	5.1	Distance from Outfall (mi)	5.0

* - The receiving stream is impaired by nutrients. Since Total Nitrogen and Total Phosphorus are already monitored, no further action will be taken with this renewal.

Sludge use and disposal description and location(s): Sludge is pumped and hauled to the Mahoning WWTP.

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.

Narrative: This Fact Sheet details the determination of draft NPDES permit limits for an existing discharge of 0.005 MGD of treated sewage from an existing non-municipal STP in Mahoning Township, Lawrence County.

Treatment permitted under WQM Permit no. 3705403 consists of the following: Two 3,590 gallon septic tanks in series, a dosing tank in the second septic tank, two 1,680 square foot (40' x 42') subsurface sand filters, and tablet chlorine disinfection with a 250 gallon contact tank.

1. Streamflow:

Unnamed Tributary to the Shenango River @ Outfall 001:

Drainage Area:	2.12	sq. mi.		(from previous WQPR)
Yieldrate:	0.053	cfsm		(from previous WQPR)
% of stream allocated:	100%		Basis:	no nearby discharges
Q_{7-10}:	0.11	cfs		(calculated)

2. Wasteflow:

Maximum discharge: 0.005 MGD = 0.0077 cfs

Runoff flow period: 16 hours Basis: Runoff flow for a MHP

24 hour flow: 0.005 MGD x 24/16 = 0.0075 MGD = 0.0116 cfs

The calculated stream flow (Q7-10) is greater than 3 times the permitted discharge flow. In accordance with the SOP, the treatment requirements in document number 391-2000-014, titled, "Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers", dated April 12, 2008, were not evaluated for this facility.

Flow will be required to be monitored as authorized under Chapter 92a.61, and as recommended in the SOP.

3. Parameters:

The following parameters were evaluated: pH, Total Suspended Solids, Fecal Coliform, Phosphorus, NH_3-N, $CBOD_5$, Dissolved Oxygen, and Disinfection.

a. pH

Between 6.0 and 9.0 at all times

Basis: Application of Chapter 93.7 technology-based limits.

The measurement frequency was previously set as 3/week at the request of the Permittee due to financial hardship. Based on eDMR data, this facility is achieving the limits so the monitoring frequency will not be changed with this renewal.

b. Total Suspended Solids

Limits are 30.0 mg/l as a monthly average and 60.0 as an instantaneous maximum.

Basis: Application of Chapter 92a47 technology-based limits

c. Fecal Coliform

05/01 - 09/30:	200 No./100ml	(monthly average)
	1,000 No./100ml	(instantaneous maximum)
10/01 - 04/30:	2,000 No./100ml	(monthly average)
	10,000 No./100ml	(instantaneous maximum)

Basis: Application of Chapter 92a47 technology-based limits

d. E. Coli

Monitoring was added for E. Coli at a frequency of 1/year.

Basis: Application of Chapter 92a.61 as recommended by the SOP for flows greater than 0.002 MGD and less than 0.05 MGD.

e. Total Phosphorus

Chapter 96.5 does not apply. Therefore, the previous monitoring for Total Phosphorus will be retained in accordance with the SOP, based on Chapter 92a.61.

f. Total Nitrogen

The previous monitoring for Total Nitrogen will be retained in accordance with the SOP, based on Chapter 92a.61.

g. Ammonia-Nitrogen (NH_3-N)

Median discharge pH to be used:	7.0	Standard Units (S.U.)
	Basis:	eDMR data from previous 12 months
Discharge temperature:	25°C	(Default value used for modeling purposes)
Median stream pH to be used:	8.0	Standard Units (S.U.)
	Basis:	Value used in previous modeling
Stream Temperature:	25˚C	(Default value used for WWF modeling purposes)
Background NH_3-N concentration:	0.0	mg/l
	Basis:	Default value used for modeling purposes
Calculated summer NH_3-N limits:	19.3	mg/l (monthly average)
	38.6	mg/l (instantaneous maximum)
Calculated winter NH_3-N limits:	25.0	mg/l (monthly average)
	50.0	mg/l (instantaneous maximum)

Result: WQ modeling resulted in the calculated summer limits above (see Attachment 2). Per the SOP, the winter limits were set as three times the summer limits, but were capped at the technology-based limits of 25.0 mg/l monthly average and 50.0 mg/l instantaneous maximum. The calculated summer

limits are less restrictive than the previous NPDES Permit. Since the previous, more restrictive summer limits of 9.0 mg/l monthly average and 18.0 mg/l instantaneous maximum are attainable, they will be retained.

h. $CBOD_5$

Median discharge pH to be used: 7.0 Standard Units (S.U.)

Basis: Average pH value from DMR summary

Discharge temperature: 25°C (Default value used for modeling purposes)

Median stream pH to be used: 8.0 Standard Units (S.U.)

Basis: Value used in previous modeling

Stream Temperature: 25°C (Default value used for WWF modeling purposes)

Background $CBOD_5$ concentration: 2.0 mg/l

Basis: Default value used for modeling purposes

Calculated $CBOD_5$ limits: 25.0 mg/l (monthly average)
50.0 mg/l (instantaneous maximum)

Result WQ modeling resulted in the technology-based limits above (see Attachment 2), which are the same as the previous NPDES Permit, and will be retained.

i. Dissolved Oxygen (DO)

The technology-based minimum of 4.0 mg/l will be retained with this renewal as recommended by the SOP based on Chapter 93.7, and by the WQ modeling (see Attachment 2), under the authority of Chapter 92a.61.

The measurement frequency was previously set as 3/week at the request of the Permittee due to financial hardship. Based on eDMR data, this facility is achieving the limits so the monitoring frequency will not be changed with this renewal.

j. Disinfection

☐ Ultraviolet (UV) light monitoring
☒ Total Residual Chlorine (TRC) limits: 0.5 mg/l (monthly average)
1.6 mg/l (instantaneous maximum)

Basis: The technology-based TRC limits above were calculated using the Department's TRC Calculation Spreadsheet (see Attachment 1). These limits are the same as the previous permit and will be retained with this renewal.

The measurement frequency was previously set as 3/week at the request of the Permittee due to financial hardship. Based on eDMR data, this facility is achieving the limits so the monitoring frequency will not be changed with this renewal.

4. Reasonable Potential Analysis for Receiving Stream:

A Reasonable Potential Analysis was not performed in accordance with State practices using the Department's Toxics Management Spreadsheet since no sampling other than sewage-related parameters was performed for this facility with the renewal application.

5. Reasonable Potential for Downstream Public Water Supply (PWS):

The Department's Toxics Management Spreadsheet does not calculate limits for parameters that are based on PWS criteria (TDS, Chloride, Bromide, and Sulfate). Since no relevant sampling was provided, mass-balance calculations were not performed.

Nearest Downstream potable water supply (PWS): Pennsylvania American Water Company - New Castle
Distance downstream from the point of discharge: 5.0 miles (approximate)

Result: No limits or monitoring are necessary as significant dilution is available.

6. Anti-Backsliding:

Since all the permit limits in this renewal are the same or more restrictive than the previous NPDES Permit, anti-backsliding is not applicable.

7. Attachment List:

Attachment 1 - TRC_Calc Spreadsheet

Attachment 2 - WQ Modeling Printouts

(The Attachments above can be found at the end of this document)

Compliance History

DMR Data for Outfall 001 (from April 1, 2023 to March 31, 2024)

Parameter	MAR-24	FEB-24	JAN-24	DEC-23	NOV-23	OCT-23	SEP-23	AUG-23	JUL-23	JUN-23	MAY-23	APR-23
Flow (MGD) Average Monthly	0.0004	0.0004	0.0028	0.0006	0.0002	0.00015	0.00006	0.0004	0.0006	0.0004	0.0007	0.0008
Flow (MGD) Daily Maximum	0.0005	0.0005	0.009	0.0011	0.0003	0.0003	0.00018	0.0006	0.0009	0.0007	0.0009	0.0015
pH (S.U.) Instantaneous Minimum	7.0	6.8	6.9	6.7	7.0	6.9	6.7	6.8	6.8	6.6	6.7	6.8
pH (S.U.) Instantaneous Maximum	7.6	7.3	7.3	7.3	8.0	7.3	7.1	7.1	7.6	7.1	7.3	7.2
DO (mg/L) Instantaneous Minimum	7.6	8.0	7.4	7.6	7.4	7.0	6.9	6.0	7.5	6.6	6.9	9.0
TRC (mg/L) Average Monthly	0.2	0.15	0.21	0.19	0.21	0.18	0.13	0.21	0.16	0.31	0.29	0.22
TRC (mg/L) Instantaneous Maximum	0.39	0.21	0.31	0.41	0.29	0.24	0.29	0.47	0.29	0.61	0.43	0.46
CBOD5 (mg/L) Average Monthly	< 4.8	< 4	13.1	< 4	< 4	< 4	< 4	< 3	< 4	< 4	< 4	< 4
TSS (mg/L) Average Monthly	< 17	29.3	117.9	< 7	< 5	< 5	40	9	11	< 8	< 6	< 5.8
Fecal Coliform (No./100 ml) Geometric Mean	< 3	< 4	> 456	< 1	< 1	< 1	< 1	< 9	< 1	< 1	< 1	< 1
Fecal Coliform (No./100 ml) Instantaneous Maximum	< 10	< 10	> 2420	< 1	< 1	< 1	1	74	< 1	< 1	< 1	< 1
Total Nitrogen (mg/L) Average Monthly	2.16	3.11	6.31	2.7	< 1.25	2.74	2.4	11.3	10.25	13.2	7.1	5.08
Ammonia (mg/L) Average Monthly	1.91	3.33	5.53	3.07	< 0.3	3.24	2.33	12.7	10.68	14.8	5.73	6.38
Total Phosphorus (mg/L) Average Monthly	0.068	0.158	0.367	< 0.02	< 0.02	< 0.02	0.1025	0.021	0.045	0.054	0.028	0.032

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	3/week	Grab
DO	XXX	XXX	4.0 Inst Min	XXX	XXX	XXX	3/week	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.6	3/week	Grab
CBOD5	XXX	XXX	XXX	25.0	XXX	50	2/month	8-Hr Composite
TSS	XXX	XXX	XXX	30.0	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	XXX	XXX	2/month	8-Hr Composite
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	25.0	XXX	50	2/month	8-Hr Composite
Ammonia May 1 - Oct 31	XXX	XXX	XXX	9.0	XXX	18	2/month	8-Hr Composite
Total Phosphorus	XXX	XXX	XXX	Report	XXX	XXX	2/month	8-Hr Composite

Compliance Sampling Location: at Outfall 001, after disinfection.

Flow is monitor only based on Chapter 92a.61. The limits for pH and Dissolved Oxygen are technology-based on Chapter 93.7. The Total Residual Chlorine (TRC) limits are technology-based on Chapter 92a.48. The limits for $CBOD_5$, Total Suspended Solids, and Fecal Coliforms are technology-based on Chapter 92a.47. The limits for Ammonia-Nitrogen are water quality-based on Chapter 93.7. Monitoring for E. Coli, Total Nitrogen, and Total Phosphorus are based on Chapter 92a.61.

Attachment 1

TRC EVALUATION

Input appropriate values in A3:A9 and D3:D9

0.11	= Q stream (cfs)	0.5	= CV Daily
0.0075	= 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 = 3.043	1.3.2.iii	WLA cfc = 2.960
PENTOXSD TRG	5.1a	LTAMULT afc = 0.373	5.1c	LTAMULT cfc = 0.581
PENTOXSD TRG	5.1b	LTA_afc= 1.134	5.1d	LTA_cfc = 1.721

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)**

Attachment 2

WQM 7.0 Effluent Limits

SWP Basin	Stream Code	Stream Name
20A	35482	SHENANGO 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)
2.400	Zoccoli MHP	PA0103861	0.007	CBOD5	25		
				NH3-N	19.37	38.74	
				Dissolved Oxygen			4

WQM 7.0 D.O.Simulation

SWP Basin	Stream Code	Stream Name
20A	35482	SHENANGO RIVER

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
2.400	0.007	25.000	7.000
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
5.687	0.362	15.700	0.060
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
4.15	0.408	1.81	1.029
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
7.209	24.328	Owens	5
Reach Travel Time (days)			
1.422			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.142	3.86	1.57	7.54
0.284	3.59	1.35	7.54
0.426	3.34	1.17	7.54
0.569	3.10	1.01	7.54
0.711	2.88	0.87	7.54
0.853	2.68	0.75	7.54
0.995	2.49	0.65	7.54
1.137	2.31	0.56	7.54
1.279	2.15	0.49	7.54
1.422	2.00	0.42	7.54

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		

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
20A	35482	SHENANGO RIVER	**2.400**	964.00	2.12	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	0.053	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
Zoccoli MHP	PA0103861	0.0075	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	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
20A	35482	SHENANGO RIVER	**1.000**	862.00	3.19	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	0.053	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	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	3.00	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
20A	35482	SHENANGO 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												
2.400	0.11	0.00	0.11	.0116	0.01380	.362	5.69	15.7	0.06	1.422	25.00	7.00
Q1-10 Flow												
2.400	0.07	0.00	0.07	.0116	0.01380	NA	NA	NA	0.05	1.774	25.00	7.00
Q30-10 Flow												
2.400	0.15	0.00	0.15	.0116	0.01380	NA	NA	NA	0.07	1.214	25.00	7.00

WQM 7.0 Wasteload Allocations

SWP Basin	Stream Code	Stream Name
20A	35482	SHENANGO 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
2.400	Zoccoli MHP	11.07	50	11.07	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
2.400	Zoccoli MHP	1.37	19.37	1.37	19.37	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)		
2.40	Zoccoli MHP	25	25	19.37	19.37	4	4	0	0