

Application Type

Renewal

Facility Type

Non-Municipal

Major / Minor

Minor

Application No.

PA0033588

APS ID

1136230

Authorization ID

1525016

**NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE**

Applicant and Facility Information

Applicant Name	<u>RV Village II, LLC</u>	Facility Name	<u>RV Village II</u>
Applicant Address	<u>50 Peninsula Drive</u> <u>Erie, PA 16505-2004</u>	Facility Address	<u>1011 South Lake Road</u> <u>Mercer, PA 16137-2205</u>
Applicant Contact	<u>Brian Candela, Owner</u> <u>(brian.candela@gmail.com)</u>	Facility Contact	<u>Marvin McAfoose, STP Operator</u> <u>(mcafoose92@hotmail.com)</u>
Applicant Phone	<u>(407) 376-0871</u>	Facility Phone	<u>(724) 699-4070</u>
Client ID	<u>391091</u>	Site ID	<u>247520</u>
Ch 94 Load Status	<u>Not Overloaded</u>	Municipality	<u>Jefferson Township</u>
Connection Status	<u>No Limitations</u>	County	<u>Mercer</u>
Date Application Received	<u>January 2, 2020</u>	EPA Waived?	<u>Yes</u>
Date Application Accepted	<u>January 14, 2020</u>	If No, Reason	<u>-</u>
Purpose of Application	Renewal of an NPDES Permit for an existing discharge of treated sanitary wastewater. This application also transfers ownership from the Country Estates MHP, LLC to the RV Village II, LLC, and changes the site name from the Country Estates MHP to the RV Village II.		

Summary of Review

Act 14 - Proof of Notification was submitted and received.

Water Quality Management permit 4373402 will be transferred with the Final NPDES Permit.

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

I. OTHER REQUIREMENTS:

- A. Stormwater into Sewers
- B. Right of Way
- C. Solids Handling
- D. Effluent Chlorine Optimization and Minimization
- E. Little or No Assimilative Capacity or Dilution

SPECIAL CONDITIONS:

- II. Solids Management

There are 4 open violations in efacts associated with the subject Client ID (391091) as of 7/11/2025 (see Attachment 3).

Approve	Deny	Signatures	Date
X		Stephen A. McCauley Stephen A. McCauley, E.I.T. / Project Manager	7/11/2025
X		Adam Olesnanik Adam Olesnanik, P.E. / Environmental Engineer Manager	7/15/2025

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	001	Design Flow (MGD)	0.015
Latitude	41° 15' 9.00"	Longitude	-80° 16' 40.00"
Quad Name	-	Quad Code	-
Wastewater Description:	Sewage Effluent		
Receiving Waters	Unnamed Tributary to the Lackawannock Creek (TSF)	Stream Code	N/A
NHD Com ID	130025760	RMI	N/A
Drainage Area	1.51 (point of first use)	Yield (cfs/mi ²)	0.1
Q ₇₋₁₀ Flow (cfs)	0.151	Q ₇₋₁₀ Basis	calculated
Elevation (ft)	1029	Slope (ft/ft)	0.01755
Watershed No.	20-A	Chapter 93 Class.	TSF
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)	-	-	
Temperature (°F)	-	-	
Hardness (mg/L)	-	-	
Other:	-	-	
Nearest Downstream Public Water Supply Intake	Aqua Pennsylvania, Inc. - Shenango Valley		
PWS Waters	Shenango River	Flow at Intake (cfs)	97.0
PWS RMI	30.0	Distance from Outfall (mi)	19.0

Sludge use and disposal description and location(s): All sludge is hauled to an approved landfill.

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 0.015 MGD of treated sewage from a non-Municipal STP in Jefferson Township, Mercer County.

Treatment permitted under WQM Permit 4373402 consists of: A manual bar screen, a comminutor, three 15,000 gallon aeration tanks in series, alum chemical addition for phosphorus control, a 3,000 gallon sludge holding tank, a 1,567 gallon clarifier, an approximately 1,600 gallon settling/dosing tank, a 7,200 square foot (200' x 36') sand filter and a 8,208 square foot (228' x 36') sand filter in parallel, tablet chlorine disinfection with a 3,275 gallon contact tank, and an effluent cascade aerator.

1. Streamflow:

Unnamed Tributary to the Lackawannock Creek @ Outfall 001 (first point of use):

Drainage Area:	<u>0.38</u>	sq. mi.	(USGS StreamStats)
Yieldrate:	<u>0.1</u>	cfs/mi ²	(default value)
Q ₇₋₁₀ :	<u>0.038</u>	cfs	(calculated)
% of stream allocated:	<u>100%</u>	Basis:	No nearby discharges

2. Wasteflow:

Permitted discharge: 0.015 MGD = 0.023 cfs

Runoff flow period: 24 hours Basis: Runoff flow for a non-Municipal STP using sand filtration

There is less than 3 parts stream flow (Q₇₋₁₀) to 1 part effluent (design flow). In accordance with the SOP, since this is an existing discharge, 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 evaluated for this facility. Based on eDMR data, the treatment requirements are not attainable with the treatment technology in place so the requirements will not be implemented in this NPDES Permit renewal.

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, Total Nitrogen, NH₃-N, CBOD₅, Dissolved Oxygen, and Total Residual Chlorine. NH₃-N, CBOD₅, and Dissolved Oxygen were evaluated using WQM 7.0 at the discharge point.

a. pH

Between 6.0 and 9.0 at all times

Basis: Application of Chapter 93.7 technology-based limits.

The measurement frequency was changed from 1/week to 1/day as recommended in the SOP, based on Table 6-3 in the "Technical Guidance for the Development and Specification of Effluent Limitations" (362-0400-001).

b. Total Suspended Solids

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

Basis: Application of Chapter 92a47 technology-based limits. The technology-based limits are less restrictive than the limits that are set in the previous permit. The more restrictive limits set in the previous renewal are retained since, based on eDMR data, the limits are attainable.

c. Fecal Coliform

05/01 - 09/30: 200/100ml (monthly average geometric mean)
1,000/100ml (instantaneous maximum)

10/01 - 04/30: 2,000/100ml (monthly average geometric mean)
10,000/100ml (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 between 0.002 MGD and 0.05 MGD.

e. Phosphorus

The previous monitoring for Total Phosphorus will remain in accordance with the SOP, based on Chapter 92a.61.

f. Total Nitrogen

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

g. Ammonia-Nitrogen (NH₃-N)

Median discharge pH to be used: 7.1 Standard Units (S.U.)

Basis: eDMR data

Discharge temperature: 25°C (default value used in the absence of data)

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

Basis: (default value used in the absence of data)

Stream Temperature: 25°C (default value used for TSF modeling)

Background NH₃-N concentration: 0.0 mg/l

Basis: Default value.

Calculated NH₃-N Summer limits: 25.0 mg/l (monthly average)

50.0 mg/l (instantaneous maximum)

Calculated NH₃-N Winter 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). The winter limits are calculated as three times the summer limits, but since the technology-based limits are more protective, they will be used. The calculated limits are less restrictive than the limits that are set in the previous permit. The more restrictive limits set in the previous renewal are retained since, based on eDMR data, the limits are attainable.

h. CBOD₅

Median discharge pH to be used: 7.1 Standard Units (S.U.)
Basis: eDMR data

Discharge temperature: 25°C (default value used in the absence of data)

Median stream pH to be used: 7.0 Standard Units (S.U.)
Basis: (default value used in the absence of data)

Stream Temperature: 25°C (default value used for TSF modeling)

Background CBOD₅ concentration: 2.0 mg/l
Basis: Default value

Calculated CBOD₅ limits: 25.0 mg/l (monthly average)
50.0 mg/l (instantaneous maximum)

Result: WQ modeling resulted in the calculated limits above (see Attachment 2). The calculated limits are less restrictive than the limits that are set in the previous permit. The more restrictive limits set in the previous renewal are retained since, based on eDMR data, the limits are attainable.

i. Dissolved Oxygen (DO)

The technology-based minimum of 4.0 mg/l is recommended by the WQ Model (see Attachment 1) and the SOP based on Chapter 93.7, under the authority of Chapter 92a.61. This is the same as the previous permit and will be retained.

The measurement frequency was changed from 1/week to 1/day as recommended in the SOP, based on Table 6-3 in the "Technical Guidance for the Development and Specification of Effluent Limitations" (362-0400-001).

j. Total Residual Chlorine (TRC)

TRC limits: 0.5 mg/l (monthly average)
1.6 mg/l (instantaneous maximum)

Basis: The TRC limits above are technology-based using the TRC_Calc Spreadsheet (see Attachment 1) at the first point of use on the receiving stream. The calculated TRC instantaneous maximum limit is less restrictive than the previous renewal. Based on eDMR data, the more restrictive limit is attainable and will be retained.

The measurement frequency was changed from 1/week to 1/day as recommended in the SOP, based on Table 6-3 in the "Technical Guidance for the Development and Specification of Effluent Limitations" (362-0400-001).

k. 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.

4. **Attachments:** (located at the end of this document)

Attachment 1 - TRC_Calc Spreadsheet

Attachment 2 - WQ Modeling Printouts

Attachment 3 - WMS Open Violations by Client

Compliance History

DMR Data for Outfall 001 (from June 1, 2024 to May 31, 2025)

Parameter	MAY-25	APR-25	MAR-25	FEB-25	JAN-25	DEC-24	NOV-24	OCT-24	SEP-24	AUG-24	JUL-24	JUN-24
Flow (MGD) Average Monthly	0.004	0.005	0.004	0.008	0.01	0.006	0.004	0.004	0.003	0.003	0.004	0.004
Flow (MGD) Daily Maximum	0.006	0.005	0.004	0.013	0.011	0.01	0.005	0.004	0.007	0.004	0.004	0.004
pH (S.U.) Minimum	7.0	7.3	7.4	6.5	6.9	6.8	6.5	7.2	7.1	7.2	7.0	7.0
pH (S.U.) Maximum	7.9	7.9	7.7	7.8	7.7	7.7	7.8	7.4	7.5	7.7	7.5	7.5
DO (mg/L) Minimum	5.2	4.0	5.4	5.4	5.9	5.3	5.7	6.1	8.0	7.9	7.0	7.9
TRC (mg/L) Average Monthly	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4
TRC (mg/L) Instantaneous Maximum	0.57	0.470	0.47	0.47	0.47	0.47	0.47	0.47	0.48	0.47	0.47	0.47
CBOD5 (mg/L) Average Monthly	< 5	< 3	< 3	< 2	< 3	< 3	< 2	< 2	< 7	< 3	< 2	< 3
TSS (mg/L) Average Monthly	< 5	< 5	< 5	< 5	< 6	< 6	< 5	< 5	< 5	< 5	< 5	< 5
Fecal Coliform (CFU/100 ml) Geometric Mean	< 1	< 1	< 1	< 1	< 1	< 5	< 1	< 2	< 3	< 4	< 1	< 1
Fecal Coliform (CFU/100 ml) Instantaneous Maximum	< 1	< 1	< 1	< 1	< 1	27	< 1	4	12	16	< 1	2
Total Nitrogen (mg/L) Average Monthly	0.729	11.7	6.23	3.99	6.58	4.26	9.93	4.278	6.01	10	14.4	5.64
Ammonia (mg/L) Average Monthly	< 0.9	< 0.6	< 0.7	0.5	1.1	< 0.5	0.4	0.7	0.1	0.9	1.3	< 2.3
Total Phosphorus (mg/L) Average Monthly	1.45	2.19	1.06	0.645	1.14	0.835	4.42	1.97	3.17	3.2	3.6	1.9

Proposed Effluent Limitations and Monitoring Requirements

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (362-0400-001), SOPs and/or BPJ.

Outfall 001, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) ⁽¹⁾		Concentrations (mg/L)				Minimum ⁽²⁾ Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	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	1.2	1/day	Grab
CBOD5	XXX	XXX	XXX	10.0	XXX	20	2/month	8-Hr Composite
TSS	XXX	XXX	XXX	10.0	XXX	20	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	1/month	8-Hr Composite
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	9.0	XXX	18	2/month	8-Hr Composite
Ammonia May 1 - Oct 31	XXX	XXX	XXX	3.0	XXX	6	2/month	8-Hr Composite
Total Phosphorus	XXX	XXX	XXX	Report	XXX	XXX	1/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 $CBOD_5$ and Total Suspended Solids are technology-based on a previous Dry Stream Guidance. The limits for Fecal Coliform are technology based on Chapter 92a.47. The limits for Ammonia-Nitrogen are technology-based on a previous Dry Stream Guidance. Monitoring for E. Coli, Total Nitrogen, and Total Phosphorus is based on Chapter 92a.61.

Attachment 1

TRC EVALUATION							
Input appropriate values in A3:A9 and D3:D9							
Source	Reference	AFC Calculations		Reference	CFC Calculations		
TRC	1.3.2.iii		WLA_afc = 2.095	1.3.2.iii		WLA_cfc = 2.035	
PENTOXSD TRG	5.1a		LTAMULT_afc = 0.373	5.1c		LTAMULT_cfc = 0.581	
PENTOXSD TRG	5.1b		LTA_afc = 0.781	5.1d		LTA_cfc = 1.183	
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 (Perennial Reach)

<u>SWP Basin</u>	<u>Stream Code</u>	<u>Stream Name</u>					
20A	36067	LACKAWANNOCK 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)
0.340	Perennial Reach	PA0033588b	0.015	CBOD5	5.88		
				NH3-N	6.42	12.84	
				Dissolved Oxygen			2

Inputs equal outputs so all three inputs into Dry Reach model are protective.

WQM 7.0 D.O.Simulation

<u>SWP Basin</u>	<u>Stream Code</u>	<u>Stream Name</u>		
20A	36067	LACKAWANNOCK CREEK		
<u>RMI</u> 0.340	<u>Total Discharge Flow (mgd)</u> 0.015	<u>Analysis Temperature (°C)</u> 25.000	<u>Analysis pH</u> 7.012	
<u>Reach Width (ft)</u> 5.678	<u>Reach Depth (ft)</u> 0.383	<u>Reach WDRatio</u> 14.833	<u>Reach Velocity (fps)</u> 0.080	
<u>Reach CBOD5 (mg/L)</u> 2.52	<u>Reach Kc (1/days)</u> 0.393	<u>Reach NH3-N (mg/L)</u> 0.86	<u>Reach Kn (1/days)</u> 1.029	
<u>Reach DO (mg/L)</u> 7.411	<u>Reach Kr (1/days)</u> 26.608	<u>Kr Equation</u> Owens	<u>Reach DO Goal (mg/L)</u> 5	
<u>Reach Travel Time (days)</u> 0.259	<u>Subreach Results</u>			
	TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
		0.026	2.48	0.83
		0.052	2.45	0.81
		0.078	2.42	0.79
		0.104	2.39	0.77
		0.130	2.36	0.75
		0.156	2.33	0.73
		0.181	2.30	0.71
		0.207	2.27	0.69
		0.233	2.24	0.67
		0.259	2.21	0.66
				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
20A	36067	LACKAWANNOCK CREEK	0.340	1029.00	1.51	0.00000	0.00	<input checked="" type="checkbox"/>

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 pH	Temp (°C)	pH
	(cfsm)	(cfs)	(cfs)									
Q7-10	0.100	0.00	0.00	0.000	0.000	0.0	0.00	0.00	25.00	7.00	25.00	7.00
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
Perennial Reach	PA0033588b	0.0150	0.0000	0.0000	0.000	25.00	7.10
Parameter Data							
Parameter Name		Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)		
CBOD5		5.88	2.00	0.00	1.50		
Dissolved Oxygen		2.00	8.24	0.00	0.00		
NH3-N		6.42	0.00	0.00	0.70		

(Input from Dry Reach)

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	36067	LACKAWANNOCK CREEK	0.000	997.00	3.99	0.00000	0.00	<input checked="" type="checkbox"/>

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 pH	Temp (°C)	Stream pH
	(cfsm)	(cfs)	(cfs)									
Q7-10	0.100	0.00	0.00	0.000	0.000	0.0	0.00	0.00	25.00	7.00	25.00	7.00
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	Disc Temp (°C)	Disc pH	
		0.0000	0.0000	0.0000						
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 Modeling Specifications

Parameters	Both	Use Inputted Q1-10 and Q30-10 Flows	<input checked="" type="checkbox"/>
WLA Method	EMPR	Use Inputted W/D Ratio	<input type="checkbox"/>
Q1-10/Q7-10 Ratio	0.64	Use Inputted Reach Travel Times	<input type="checkbox"/>
Q30-10/Q7-10 Ratio	1.36	Temperature Adjust Kr	<input checked="" type="checkbox"/>
D.O. Saturation	90.00%	Use Balanced Technology	<input checked="" type="checkbox"/>
D.O. Goal	5		

WQM 7.0 Wasteload Allocations

<u>SWP Basin</u>		<u>Stream Code</u>	<u>Stream Name</u>															
20A	36067	LACKAWANNOCK CREEK																
NH3-N Acute Allocations																		
<hr/>																		
RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction											
0.340 Perennial Reach		6.68	12.84	6.68	12.84	0	0											
NH3-N Chronic Allocations																		
<hr/>																		
RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction											
0.340 Perennial Reach		1.33	6.42	1.33	6.42	0	0											
Dissolved Oxygen Allocations																		
<hr/>																		
RMI	Discharge Name	CBOD5 Baseline (mg/L)	CBOD5 Multiple (mg/L)	NH3-N Baseline (mg/L)	NH3-N Multiple (mg/L)	Dissolved Oxygen Baseline (mg/L)	Dissolved Oxygen Multiple (mg/L)											
0.34 Perennial Reach		5.88	5.88	6.42	6.42	2	2											
						0	0											

WQM 7.0 Hydrodynamic Outputs

<u>SWP Basin</u>		<u>Stream Code</u>		<u>Stream Name</u>								
20A		36067		LACKAWANNOCK 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												
0.340	0.15	0.00	0.15	.0232	0.01783	.383	5.68	14.83	0.08	0.259	25.00	7.01
Q1-10 Flow												
0.340	0.10	0.00	0.10	.0232	0.01783	NA	NA	NA	0.06	0.320	25.00	7.02
Q30-10 Flow												
0.340	0.21	0.00	0.21	.0232	0.01783	NA	NA	NA	0.09	0.223	25.00	7.01

WQM 7.0 D.O.Simulation (Dry Reach)

<u>SWP Basin</u>	<u>Stream Code</u>	<u>Stream Name</u>		
20A	36067	LACKAWANNOCK CREEK		
<u>RMI</u> 0.770	<u>Total Discharge Flow (mgd)</u> 0.015	<u>Analysis Temperature (°C)</u> 25.000	<u>Analysis pH</u> 7.035	
<u>Reach Width (ft)</u> 2.375	<u>Reach Depth (ft)</u> 0.372	<u>Reach WDRatio</u> 6.393	<u>Reach Velocity (fps)</u> 0.069	
<u>Reach CBOD5 (mg/L)</u> 10.72	<u>Reach Kc (1/days)</u> 1.260	<u>Reach NH3-N (mg/L)</u> 9.48	<u>Reach Kn (1/days)</u> 1.029	
<u>Reach DO (mg/L)</u> 2.758	<u>Reach Kr (1/days)</u> 25.531	<u>Kr Equation</u> Owens	<u>Reach DO Goal (mg/L)</u> NA	
<u>Reach Travel Time (days)</u> 0.379	<u>Subreach Results</u>			
	TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
		0.038	10.10	9.12
		0.076	9.51	8.77
		0.114	8.95	8.43
		0.152	8.43	8.11
		0.189	7.94	7.80
		0.227	7.48	7.50
		0.265	7.04	7.22
		0.303	6.63	6.94
		0.341	6.24	6.67
		0.379	5.88	6.42

(Input into perennial reach)

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RML	Elevation	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
20A	36067	LACKAWANNOCK CREEK	0.770	1242.00	0.38	0.00000	0.00	<input type="checkbox"/>

Stream Data												
Design Cond.	LFY	Trib Flow	Stream Flow	Rch Trav Time	Rch Velocity	WD Ratio	Rch Width	Rch Depth	Tributary Temp	Stream pH	Temp	pH
	(cfsm)	(cfs)	(cfs)	(days)	(fps)		(ft)	(ft)	(°C)		(°C)	
Q7-10	0.100	0.00	0.00	0.000	0.000	0.0	0.00	0.00	25.00	7.00	25.00	7.00
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
Dry Reach	PA0033588a	0.0150	0.0000	0.0000	0.000	25.00	7.10
Parameter Data							
Parameter Name		Disc Conc	Trib Conc	Stream Conc	Fate Coef		
		(mg/L)	(mg/L)	(mg/L)	(1/days)		
CBOD5		25.00	2.00	0.00	1.50		
Dissolved Oxygen		4.00	2.00	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	36067	LACKAWANNOCK CREEK	0.340	1029.00	1.51	0.00000	0.00	<input type="checkbox"/>

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 pH	Temp (°C)	Stream pH
	(cfsm)	(cfs)	(cfs)									
Q7-10	0.100	0.00	0.00	0.000	0.000	0.0	0.00	0.00	25.00	7.00	25.00	7.00
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	Temp (°C)	pH
		0.0000	0.0000	0.0000					
		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 Hydrodynamic Outputs

<u>SWP Basin</u>		<u>Stream Code</u>		<u>Stream Name</u>									
20A		36067		LACKAWANNOCK 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													
0.770	0.04	0.00	0.04	NA	0.09382	.372	2.37	6.39	0.07	0.379	25.00	7.04	
Q1-10 Flow													
0.770	0.02	0.00	0.00	NA	0.09382	NA	NA	NA	0.00	0.000	0.00	0.00	
Q30-10 Flow													
0.770	0.05	0.00	0.00	NA	0.09382	NA	NA	NA	0.00	0.000	0.00	0.00	

WQM 7.0 Modeling Specifications

Parameters	D.O.	Use Inputted Q1-10 and Q30-10 Flows	<input checked="" type="checkbox"/>
WLA Method	Simulation	Use Inputted W/D Ratio	<input type="checkbox"/>
Q1-10/Q7-10 Ratio	0.64	Use Inputted Reach Travel Times	<input type="checkbox"/>
Q30-10/Q7-10 Ratio	1.36	Temperature Adjust Kr	<input checked="" type="checkbox"/>
D.O. Saturation	90.00%	Use Balanced Technology	<input checked="" type="checkbox"/>
D.O. Goal	2		

Attachment 3



**WATER MANAGEMENT SYSTEM
OPEN VIOLATIONS BY CLIENT**

Client ID: 391091

Client: All

Open Violations: 4

	CLIENT ID	CLIENT	PF ID	FACILITY	PF KIND	PF STATUS	INSP PROGRAM	PROGRAM SPECIFIC ID	INSP ID
1	391091	RV VILLAGE II LLC	480923	COUNTRY ESTATES MHP	Community	Active	Safe Drinking Water	6430002	3952045
2	391091	RV VILLAGE II LLC	480923	COUNTRY ESTATES MHP	Community	Active	Safe Drinking Water	6430002	3952045
3	391091	RV VILLAGE II LLC	480923	COUNTRY ESTATES MHP	Community	Active	Safe Drinking Water	6430002	3952045
4	391091	RV VILLAGE II LLC	480923	COUNTRY ESTATES MHP	Community	Active	Safe Drinking Water	6430002	3952045

	VIOLATION ID	INSPECTION CATEGORY	VIOLATION DATE	VIOLATION CODE	VIOLATION	PF INSPECTOR	INSP REGION
1	8228453	PF	04/11/2025	D2A	FAILURE TO REVISE AND RESUBMIT A MONITORING PLAN FOR THE TOTAL COLIFORM RULE	ELKIN, KIRK	NWRO
2	8228454	PF	04/11/2025	B3C	CHRONIC FAILURE TO ISSUE PUBLIC NOTICE OR FAILURE TO ISSUE TIER 1 PUBLIC NOTICE DURING AN IMMINENT THREAT SITUATION THAT HAS PASSED	ELKIN, KIRK	NWRO
3	8228455	PF	04/11/2025	D2I	FAILURE TO COMPLY WITH UNINTERRUPTED SYSTEM SERVICE PLAN REQUIREMENTS	ELKIN, KIRK	NWRO
4	8228456	PF	04/11/2025	D6D	FAILURE TO PREPARE AND/OR MAINTAIN A SYSTEM MAP	ELKIN, KIRK	NWRO