pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northwest Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0263893**
Facility Type	**Municipal**	APS ID	**1071963**
Major / Minor	**Minor**	Authorization ID	**1411362**

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Applicant and Facility Information

Applicant Name	**Hawthorn Redbank Redbank Municipal Authority**	Facility Name	**Hawthorn Redbank Redbank Municipal Authority WWTP**
Applicant Address	PO Box 241	Facility Address	3110 Brookville Street
	Hawthorn, PA 16230-0241		Fairmount City, PA 16224
Applicant Contact	Brenda Miller, Township Secretary (hrrma2298@gmail.com)	Facility Contact	Spurgeon Shilling, Operator (spurgeonshilling@icloud.com)
Applicant Phone	-	Facility Phone	(814) 229-3955
Client ID	43381	Site ID	750265
Ch 94 Load Status	Not Overloaded	Municipality	Redbank Township
Connection Status	No Limitations	County	Clarion
Date Application Received	September 23, 2022	EPA Waived?	Yes
Date Application Accepted	September 26, 2022	If No, Reason	-
Purpose of Application	Renewal of an NPDES Permit for an existing discharge of treated sanitary wastewater from a municipal sewer system.		

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 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

SPECIAL CONDITIONS:

II. Solids Management

There are 25 open violations in efacts associated with the subject Client ID (43381) as of 7/12/2023 (see Attachment 2). *8/7/2023 CWY*

Approve	Return	Deny	Signatures	Date
X			Stephen A. McCauley Stephen A. McCauley, E.I.T. / Environmental Engineering Specialist	7/12/2023
X			Chad W. Yurisic Chad W. Yurisic, P.E. / Environmental Engineer Manager	8/7/2023

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.2
Latitude	41º 00' 42.70"	Longitude	-79º 17' 58.90"
Quad Name	-	Quad Code	-
Wastewater Description:	Sewage Effluent		

Receiving Waters	Redbank Creek (TSF)	Stream Code	48064
NHD Com ID	123862912	RMI	26.0
Drainage Area	482.2	Yield (cfs/mi^2)	0.12
Q_{7-10} Flow (cfs)	57.9	Q_{7-10} Basis	calculated
Elevation (ft)	1027	Slope (ft/ft)	0.0006
Watershed No.	17-C	Chapter 93 Class.	TSF
Existing Use	-	Existing Use Qualifier	-
Exceptions to Use	-	Exceptions to Criteria	-
Assessment Status	Impaired*		
Cause(s) of Impairment	Metals, Nutrients, Siltation		
Source(s) of Impairment	Abandoned Mine Drainage, Abandoned Mine Drainage, Other		
TMDL Status	Final	Name	Redbank Creek TMDL

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

Nearest Downstream Public Water Supply Intake	Redbank Valley Municipal Authority		
PWS Waters	Redbank Creek	Flow at Intake (cfs)	30.6
PWS RMI	28.6	Distance from Outfall (mi)	2.0

* Due to the receiving stream being impaired by metals from abandoned mine drainage, monitoring for Aluminum, Iron, and Manganese was previously added to ensure this discharge is not contributing to the impairment, and will be retained.

Sludge use and disposal description and location(s): Sludge is transported to the Punxsutawney Borough STP, where it is disposed of at 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 0.2 MGD of treated sewage from an existing Publicly Owned Treatment Works (POTW) in Redbank Township, Clarion County.

Treatment permitted under Water Quality Management Permit No. 1612406 consists of: A mechanical bar screen with a backup manually-cleaned bar screen, a washer/compactor, a splitter box, two ABJ-ICEAS (Austin Bio Jet - Intermittent Cycle Extended Aeration System) SBR units, UV disinfection, post aeration, and an aerated 6,250 gallon sludge holding tank.

1. Streamflow:

The yieldrate for the receiving stream at the outfall was calculated using the nearest USGS gage station.

Redbank Creek @ St. Charles gage:

Drainage Area:	528	sq. mi.	(from StreamStats)
Q_{7-10}:	62.6	cfs	(from StreamStats)
Yieldrate:	0.12	cfsm	(calculated)

Redbank Creek at Outfall 001:

Yieldrate:	0.12	cfsm	(calculated above)
Drainage Area:	482.2	sq. mi.	(from StreamStats)
% of stream allocated:	100%	Basis:	no nearby discharges
Q_{7-10}:	57.9	cfs	(calculated)

2. Wasteflow:

Maximum discharge: 0.2 MGD = 0.3 cfs

Runoff flow period: 24 hours Basis: Runoff flow for a Municipal STP

There is more than 3 parts stream flow (Q7-10) to 1 part effluent (design flow). Per the SOP, the standards in DEP guidance (391-2000-014) will not be applied.

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 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), and will be retained.

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:	200/100ml	(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 92a.47 technology-based limits

d. E. Coli

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

Basis: Application of Chapter 92a.61 as recommended by the SOP for flows greater than 0.05 MGD but less than 1.0 MGD.

e. Total Phosphorus

Chapter 96.5 does not apply. However, 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:	6.9	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:	7.0	Standard Units (S.U.)
	Basis:	Default value used for modeling purposes
Stream Temperature:	25˚C	(default value used for TSF modeling purposes)
Background NH_3-N concentration:	N/A	mg/l
	Basis:	No background data available for NH_3-N.
Calculated NH_3-N Summer limits:	25.0	mg/l (monthly average)
	50.0	mg/l (instantaneous maximum)
Calculated NH_3-N Winter limits:	25.0	mg/l (monthly average)
	50.0	mg/l (instantaneous maximum)

Result: WQ modeling resulted in the NH_3-N summer limits above (see Attachment 1), which are the same as the previous permit and will be retained. The winter limits are calculated as three times the summer limits, but since the technology-based limits are more protective, they will be used. Per the SOP, monitoring will be required in lieu of limits, as was done in the previous permit.

h. $CBOD_5$

Median discharge pH to be used: 6.9 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: 7.0 Standard Units (S.U.)

Basis: Default value used for modeling purposes

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

Background $CBOD_5$ concentration: 2.0 mg/l

Basis: Default value

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

Result: WQ modeling resulted in the above $CBOD_5$ limits (see Attachment 1), which are the same as the previous permit and will be retained.

i. Influent Total Suspended Solids and BOD_5

Monitoring for these two parameters will be retained as recommended in the SOP for POTWs, as authorized under Chapter 92a.61.

j. Dissolved Oxygen (DO)

The Dissolved Oxygen minimum of 4.0 mg/l will be retained with this renewal. The technology-based minimum is recommended by the WQ Model (see Attachment 1) and the SOP based on Chapter 93.7, under the authority of Chapter 92a.61.

The measurement frequency was previously set 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), and will be retained.

k. Disinfection

☒ Ultraviolet (UV) light monitoring

☐ TRC limits: _____ mg/l (monthly average)
_____ mg/l (instantaneous maximum)

Basis: The previous UV Intensity (µw/cm²) reporting will be retained with this renewal.

The measurement frequency was previously set 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), and will be retained.

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). However, since no sample data was provided, mass-balance calculations were not performed.

Nearest Downstream potable water supply (PWS): Redbank Valley Municipal Authority
Distance downstream from the point of discharge: 2.0 miles (approximate)

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

6. Flow Information:

100% of the wastewater flow comes from the Hawthorn Borough. All the sewers in the system are separate sewers.

7. 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.

8. Attachment Details:

Attachment 1 - WQ Modeling Printouts

Attachment 2 - WMS Open Violations by Client

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

Compliance History

DMR Data for Outfall 001 (from June 1, 2022 to May 31, 2023)

Parameter	MAY-23	APR-23	MAR-23	FEB-23	JAN-23	DEC-22	NOV-22	OCT-22	SEP-22	AUG-22	JUL-22	JUN-22
Flow (MGD) Average Monthly	0.102	0.113	0.124	0.109	0.134	0.119	0.107	0.096	0.095	0.087	0.093	0.108
Flow (MGD) Weekly Average	0.112	0.122	0.125	0.112	0.143	0.127	0.128	0.103	0.101	0.088	0.101	0.128
pH (S.U.) Instantaneous Minimum	6.7	6.6	6.6	6.6	6.6	6.7	6.7	6.8	6.9	6.9	6.8	6.8
pH (S.U.) Instantaneous Maximum	7.0	7.0	6.9	6.9	7.0	7.0	7.1	7.1	7.1	7.1	7.2	7.2
DO (mg/L) Instantaneous Minimum	5.02	7.19	6.34	7.43	5.16	7.21	7.24	7.36	6.25	5.16	5.32	6.05
CBOD5 (lbs/day) Average Monthly	2.7	2.8	2.5	1.8	2.1	1.8	1.6	1.6	1.5	1.4	1.4	1.9
CBOD5 (lbs/day) Weekly Average	3.6	2.8	3.1	1.9	2.4	1.9	1.6	1.6	1.6	1.5	1.5	2.2
CBOD5 (mg/L) Average Monthly	2.9	3.0	2.7	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
CBOD5 (mg/L) Weekly Average	3.6	3.1	3.5	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
BOD5 (lbs/day) Raw Sewage Influent Average Monthly	110	110	131	165	208	87	283	147	173	90	130	100
BOD5 (mg/L) Raw Sewage Influent Average Monthly	121.3	120	144	182	192	96.2	356	188.7	228	129	188	101
TSS (lbs/day) Average Monthly	4.6	5.4	5.0	4.5	5.2	4.5	5.1	6.8	6.6	3.5	3.5	4.8
TSS (lbs/day) Raw Sewage Influent Average Monthly	77	81	135	152	188	108	265	90	173	84	146	106
TSS (lbs/day) Weekly Average	5.0	6.2	5.3	4.7	6.1	4.8	6.4	8.2	9.5	3.7	3.6	5.4
TSS (mg/L) Average Monthly	5.0	6.0	5.5	5.0	5.0	5.0	6.5	8.5	8.5	5.0	5.0	5.0
TSS (mg/L) Raw Sewage Influent Average Monthly	85	88	149	167	172	119	334	113	230	120	210	108
TSS (mg/L) Weekly Average	5.0	7.0	6.0	5.0	5.0	5.0	8.0	10.0	12.0	5.0	5.0	5.0

Fecal Coliform (No./100 ml) Geometric Mean	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10.0	< 10	38	10	155
Fecal Coliform (No./100 ml) Instantaneous Maximum	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10.0	< 10	144	10	1099
UV Intensity (µw/cm²) Average Monthly	8.9	12.9	12.5	8.8	7.4	7.0	6.8	11.2	10.6	9.8	13.2	12.4
UV Intensity (µw/cm²) Instantaneous Maximum	14	14.0	14.0	14	12.9	13.1	13	14.0	14.0	14	14.0	14
Total Nitrogen (lbs/day) Average Monthly	2.0	3.0	10.0	5.0	6.0	5.0	3.0	1.0	2.0	3.0	3.0	4.0
Total Nitrogen (mg/L) Average Monthly	1.79	3.1	10.46	5.09	4.94	5.82	4.13	1.87	2.06	4.27	4.87	4.3
Ammonia (lbs/day) Average Monthly	< 0.2	< 0.20	< 0.2	< 0.20	< 0.1	< 0.6	0.6	0.6	0.08	0.07	0.3	0.2
Ammonia (mg/L) Average Monthly	< 0.2	< 0.20	< 0.2	< 0.20	< 0.1	< 0.657	0.8	0.8	0.1	0.1	0.459	0.221
Total Phosphorus (lbs/day) Average Monthly	3.0	2.0	3.0	2.0	4.0	3.0	2.0	2.0	3.0	5.0	4.0	3.0
Total Phosphorus (mg/L) Average Monthly	3.43	2.16	3.21	2.65	3.89	2.84	2.68	2.64	4.31	6.61	5.1	3.61
Total Aluminum (lbs/day) Average Quarterly			< 0.09			< 0.10			< 0.10			< 0.10
Total Aluminum (mg/L) Average Quarterly			< 0.1			< 0.10			< 0.10			< 0.10
Total Iron (lbs/day) Average Quarterly			< 0.09			< 0.10			< 0.10			0.10
Total Iron (mg/L) Average Quarterly			< 0.1			< 0.10			< 0.10			0.10
Total Manganese (lbs/day) Average Quarterly			0.1			< 0.05			< 0.05			< 0.05
Total Manganese (mg/L) Average Quarterly			0.16			< 0.05			< 0.05			< 0.05

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	Weekly Average	Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	Continuous	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
CBOD5	41.7	66.7	XXX	25.0	40.0	50	2/month	24-Hr Composite
BOD5 Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	2/month	8 Grabs/24 Hours
TSS	50.0	75.0	XXX	30.0	45.0	60	2/month	24-Hr Composite
TSS Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	2/month	8 Grabs/24 Hours
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/quarter	Grab
UV Intensity (µw/cm²)	XXX	XXX	XXX	Report	XXX	Report	1/day	Measured
Total Nitrogen	Report	XXX	XXX	Report	XXX	XXX	2/month	24-Hr Composite
Ammonia-Nitrogen	Report	XXX	XXX	Report	XXX	XXX	2/month	24-Hr Composite
Total Phosphorus	Report	XXX	XXX	Report	XXX	XXX	2/month	24-Hr Composite

Outfall 001 , Continued (from 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	Weekly Average	Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Total Aluminum	Report Avg Qrtly	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	24-Hr Composite
Total Iron	Report Avg Qrtly	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	24-Hr Composite
Total Manganese	Report Avg Qrtly	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	24-Hr Composite

Compliance Sampling Location: at Outfall 001, after Ultraviolet (UV) light 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 limits for $CBOD_5$, Total Suspended Solids, and Fecal Coliforms are technology-based on Chapter 92a.47. Monitoring for UV Intensity, Total Nitrogen, Total Phosphorus, Ammonia-Nitrogen, influent BOD5 and influent Total Suspended Solids, and Aluminum, Iron, and Manganese is based on Chapter 92a.61.

Attachment 1

WQM 7.0 Effluent Limits

SWP Basin	Stream Code	Stream Name
17C	48064	REDBANK 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)
26.000	Redbank	PA0263893	0.200	CBOD5	25		
				NH3-N	25	50	
				Dissolved Oxygen			4

WQM 7.0 D.O.Simulation

SWP Basin	Stream Code	Stream Name
17C	48064	REDBANK CREEK

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
26.000	0.200	25.000	6.999
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
111.480	1.002	111.264	0.521
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
2.12	0.082	0.13	1.029
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
7.521	12.353	Tsivoglou	5
Reach Travel Time (days)			
0.153			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.015	2.12	0.13	7.54
0.031	2.12	0.13	7.54
0.046	2.11	0.13	7.54
0.061	2.11	0.12	7.54
0.076	2.11	0.12	7.54
0.092	2.10	0.12	7.54
0.107	2.10	0.12	7.54
0.122	2.10	0.12	7.54
0.137	2.09	0.12	7.54
0.153	2.09	0.11	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
17C	48064	REDBANK CREEK	**26.000**	1080.00	482.20	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	0.120	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
Redbank	PA0263893	0.2000	0.0000	0.0000	0.000	25.00	6.90

Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	25.00	2.00	0.00	1.50
Dissolved Oxygen	4.00	7.54	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
17C	48064	REDBANK CREEK	**24.700**	1049.00	502.20	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	0.120	0.00	0.00	0.000	0.000	0.0	0.00	0.00	25.00	7.00	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
		0.0000	0.0000	0.0000	0.000	25.00	7.00

Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	25.00	2.00	0.00	1.50
Dissolved Oxygen	3.00	8.24	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

WQM 7.0 Hydrodynamic Outputs

SWP Basin	Stream Code	Stream Name
17C	48064	REDBANK 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												
26.000	57.86	0.00	57.86	.3094	0.00452	1.002	111.48	111.26	0.52	0.153	25.00	7.00
Q1-10 Flow												
26.000	37.03	0.00	37.03	.3094	0.00452	NA	NA	NA	0.41	0.196	25.00	7.00
Q30-10 Flow												
26.000	78.70	0.00	78.70	.3094	0.00452	NA	NA	NA	0.62	0.129	25.00	7.00

WQM 7.0 Wasteload Allocations

SWP Basin	Stream Code	Stream Name
17C	48064	REDBANK 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
26.000	Redbank	11.08	50	11.08	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
26.000	Redbank	1.37	25	1.37	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)		
26.00	Redbank	25	25	25	25	4	4	0	0

Attachment 2

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

WATER MANAGEMENT SYSTEM
OPEN VIOLATIONS BY CLIENT

Client ID: 43381
Client: All

Open Violations: 25

	CLIENT ID	CLIENT	PF ID	FACILITY	PF KIND	PF STATUS	INSP PROGRAM	PROGRAM SPECIFIC ID
1	43381	HAWTHORN REDBANK REDBANK MUNI AUTH	477743	HAWTHORN REDBANK REDBANK MA	Community	Active	Safe Drinking Water	6160026
2	43381	HAWTHORN REDBANK REDBANK MUNI AUTH	744133	HAWTHORN REDBANK REDBANK MUN AUTH WWTP	Sewage Publicly Owned (Muni)	Active	WPC NPDES	PA0263893
3	43381	HAWTHORN REDBANK REDBANK MUNI AUTH	744133	HAWTHORN REDBANK REDBANK MUN AUTH WWTP	Sewage Publicly Owned (Muni)	Active	WPC NPDES	PA0263893
4	43381	HAWTHORN REDBANK REDBANK MUNI AUTH	744133	HAWTHORN REDBANK REDBANK MUN AUTH WWTP	Sewage Publicly Owned (Muni)	Active	WPC NPDES	PA0263893
5	43381	HAWTHORN REDBANK REDBANK MUNI AUTH	744133	HAWTHORN REDBANK REDBANK MUN AUTH WWTP	Sewage Publicly Owned (Muni)	Active	WPC NPDES	PA0263893
6	43381	HAWTHORN REDBANK REDBANK MUNI AUTH	744133	HAWTHORN REDBANK REDBANK MUN AUTH WWTP	Sewage Publicly Owned (Muni)	Active	WPC NPDES	PA0263893
7	43381	HAWTHORN REDBANK REDBANK MUNI AUTH	744133	HAWTHORN REDBANK REDBANK MUN AUTH WWTP	Sewage Publicly Owned (Muni)	Active	WPC NPDES	PA0263893
8	43381	HAWTHORN REDBANK REDBANK MUNI AUTH	744133	HAWTHORN REDBANK REDBANK MUN AUTH WWTP	Sewage Publicly Owned (Muni)	Active	WPC NPDES	PA0263893
9	43381	HAWTHORN REDBANK REDBANK MUNI AUTH	744133	HAWTHORN REDBANK REDBANK MUN AUTH WWTP	Sewage Publicly Owned (Muni)	Active	WPC NPDES	PA0263893
10	43381	HAWTHORN REDBANK REDBANK MUNI AUTH	744133	HAWTHORN REDBANK REDBANK MUN AUTH WWTP	Sewage Publicly Owned (Muni)	Active	WPC NPDES	PA0263893
11	43381	HAWTHORN REDBANK REDBANK MUNI AUTH	744133	HAWTHORN REDBANK REDBANK MUN AUTH WWTP	Sewage Publicly Owned (Muni)	Active	WPC NPDES	PA0263893
12	43381	HAWTHORN REDBANK REDBANK MUNI AUTH	744133	HAWTHORN REDBANK REDBANK MUN AUTH WWTP	Sewage Publicly Owned (Muni)	Active	WPC NPDES	PA0263893
13	43381	HAWTHORN REDBANK REDBANK MUNI AUTH	744133	HAWTHORN REDBANK REDBANK MUN AUTH WWTP	Sewage Publicly Owned (Muni)	Active	WPC NPDES	PA0263893
14	43381	HAWTHORN REDBANK REDBANK MUNI AUTH	744133	HAWTHORN REDBANK REDBANK MUN AUTH WWTP	Sewage Publicly Owned (Muni)	Active	WPC NPDES	PA0263893
15	43381	HAWTHORN REDBANK REDBANK MUNI AUTH	744133	HAWTHORN REDBANK REDBANK MUN AUTH WWTP	Sewage Publicly Owned (Muni)	Active	WPC NPDES	PA0263893
16	43381	HAWTHORN REDBANK REDBANK MUNI AUTH	744133	HAWTHORN REDBANK REDBANK MUN AUTH WWTP	Sewage Publicly Owned (Muni)	Active	WPC NPDES	PA0263893
17	43381	HAWTHORN REDBANK REDBANK MUNI AUTH	744133	HAWTHORN REDBANK REDBANK MUN AUTH WWTP	Sewage Publicly Owned (Muni)	Active	WPC NPDES	PA0263893
18	43381	HAWTHORN REDBANK REDBANK MUNI AUTH	744133	HAWTHORN REDBANK REDBANK MUN AUTH WWTP	Sewage Publicly Owned (Muni)	Active	WPC NPDES	PA0263893
19	43381	HAWTHORN REDBANK REDBANK MUNI AUTH	744133	HAWTHORN REDBANK REDBANK MUN AUTH WWTP	Sewage Publicly Owned (Muni)	Active	WPC NPDES	PA0263893
20	43381	HAWTHORN REDBANK REDBANK MUNI AUTH	744133	HAWTHORN REDBANK REDBANK MUN AUTH WWTP	Sewage Publicly Owned (Muni)	Active	WPC NPDES	PA0263893
21	43381	HAWTHORN REDBANK REDBANK MUNI AUTH	744133	HAWTHORN REDBANK REDBANK MUN AUTH WWTP	Sewage Publicly Owned (Muni)	Active	WPC NPDES	PA0263893
22	43381	HAWTHORN REDBANK REDBANK MUNI AUTH	744133	HAWTHORN REDBANK REDBANK MUN AUTH WWTP	Sewage Publicly Owned (Muni)	Active	WPC NPDES	PA0263893
23	43381	HAWTHORN REDBANK REDBANK MUNI AUTH	744133	HAWTHORN REDBANK REDBANK MUN AUTH WWTP	Sewage Publicly Owned (Muni)	Active	WPC NPDES	PA0263893
24	43381	HAWTHORN REDBANK REDBANK MUNI AUTH	744133	HAWTHORN REDBANK REDBANK MUN AUTH WWTP	Sewage Publicly Owned (Muni)	Active	WPC NPDES	PA0263893
25	43381	HAWTHORN REDBANK REDBANK MUNI AUTH	477743	HAWTHORN REDBANK REDBANK MA	Community	Active	Safe Drinking Water	SM2263801

	INSP ID	VIOLATION ID	INSPECTION CATEGORY	VIOLATION DATE	VIOLATION CODE	VIOLATION	PF INSPECTOR	INSP REGION
1	3396171	962531	PF	07/22/2022	C3F	FAILURE TO TEST ALARM AND SHUTDOWN CAPABILITIES OR RESPOND TO ALARM AND SHUTDOWN EQUIPMENT FAILURES	MUMFORD,MIRANDA	NWRO
2	3218650	923041	PF	06/10/2021	92A.61(C)	NPDES - Failure to monitor pollutants as required by the NPDES permit	STONESIFER,CLINTON	NWRO
3	3218650	923042	PF	06/10/2021	92A.41(A)10B	NPDES - Failure to utilize approved analytical methods	STONESIFER,CLINTON	NWRO
4	3218650	923043	PF	06/10/2021	92A.41(A)10B	NPDES - Failure to utilize approved analytical methods	STONESIFER,CLINTON	NWRO
5	3218650	923044	PF	06/10/2021	92A.41(A)10B	NPDES - Failure to utilize approved analytical methods	STONESIFER,CLINTON	NWRO
6	3218650	923045	PF	06/10/2021	252.4(A)	NPDES - Failure to utilize an accredited environmental laboratory for testing or analysis of environmental samples	STONESIFER,CLINTON	NWRO
7	3218650	923046	PF	06/10/2021	92A.41(A)10B	NPDES - Failure to utilize approved analytical methods	STONESIFER,CLINTON	NWRO
8	3218650	923047	PF	06/10/2021	92A.41(A)10B	NPDES - Failure to utilize approved analytical methods	STONESIFER,CLINTON	NWRO
9	3218650	923048	PF	06/10/2021	92A.41(A)10B	NPDES - Failure to utilize approved analytical methods	STONESIFER,CLINTON	NWRO
10	3218650	923049	PF	06/10/2021	92A.41(A)10B	NPDES - Failure to utilize approved analytical methods	STONESIFER,CLINTON	NWRO
11	3218650	923050	PF	06/10/2021	92A.41(A)8	NPDES - Failure to provide information or records required by the permit or otherwise needed to determine compliance	STONESIFER,CLINTON	NWRO
12	3218650	923051	PF	06/10/2021	92A.61(F)1	NPDES - Failure to properly document monitoring activities and results	STONESIFER,CLINTON	NWRO
13	3218650	923052	PF	06/10/2021	92A.61(F)1	NPDES - Failure to properly document monitoring activities and results	STONESIFER,CLINTON	NWRO
14	3218650	923053	PF	06/10/2021	92A.61(F)1	NPDES - Failure to properly document monitoring activities and results	STONESIFER,CLINTON	NWRO
15	3218650	923054	PF	06/10/2021	92A.41(A)12B	NPDES - Failure to submit monitoring report(s) or properly complete monitoring reports	STONESIFER,CLINTON	NWRO
16	3218650	923055	PF	06/10/2021	92A.41(A)5	NPDES - Failure to properly operate and maintain all facilities which are installed or used by the permittee to achieve compliance	STONESIFER,CLINTON	NWRO
17	3218650	923056	PF	06/10/2021	92A.41(A)5	NPDES - Failure to properly operate and maintain all facilities which are installed or used by the permittee to achieve compliance	STONESIFER,CLINTON	NWRO
18	3218650	923057	PF	06/10/2021	92A.41(A)12B	NPDES - Failure to submit monitoring report(s) or properly complete monitoring reports	STONESIFER,CLINTON	NWRO
19	3218650	923058	PF	06/10/2021	92A.41(A)12B	NPDES - Failure to submit monitoring report(s) or properly complete monitoring reports	STONESIFER,CLINTON	NWRO
20	3218650	923059	PF	06/10/2021	CSL611	CSL - Failure to comply with terms and conditions of a WQM permit	STONESIFER,CLINTON	NWRO
21	3218650	923060	PF	06/10/2021	CSL611	CSL - Failure to comply with terms and conditions of a WQM permit	STONESIFER,CLINTON	NWRO
22	3218650	923061	PF	06/10/2021	CSL611	CSL - Failure to comply with terms and conditions of a WQM permit	STONESIFER,CLINTON	NWRO
23	3218650	923062	PF	06/10/2021	302.1201	Operator Certification - Operator failed to comply with the Act or Chapter 302 regulations	STONESIFER,CLINTON	NWRO
24	3218650	923063	PF	06/10/2021	302.1201	Operator Certification - Operator failed to comply with the Act or Chapter 302 regulations	STONESIFER,CLINTON	NWRO
25	3559851	996134	PF	05/25/2023	46	DISINFECTION/DISINFECTION BYPRODUCTS PRECURSOR REMOVAL VIOLATION	MUMFORD,MIRANDA	NWRO