pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northwest Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0038156**
Facility Type	**Municipal**	APS ID	**1019996**
Major / Minor	**Minor**	Authorization ID	**1320771**

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Applicant and Facility Information

Applicant Name	**Rimersburg Borough Municipal Authority**	Facility Name	**Rimersburg Borough STP**
Applicant Address	27 Main Street	Facility Address	794 Route 861
	Rimersburg, PA 16248-4333		Rimersburg, PA 16248-0648
Applicant Contact	Mike Graham	Facility Contact	Jeff Kriebel
Applicant Phone	(814) 473-6519	Facility Phone	(814) 221-9450
Client ID	35691	Site ID	244104
Ch 94 Load Status	Not Overloaded	Municipality	Rimersburg Borough
Connection Status	No Limitations	County	Clarion
Date Application Received	June 30, 2020	EPA Waived?	Yes
Date Application Accepted	November 4, 2020	If No, Reason	

Purpose of Application: Renewal of an NPDES Permit for an exist discharge of treated sewage from a POTW.

Summary of Review

The Rimersburg Borough STP is a municipal STP that receives domestic sewage from Rimersburg Borough, Toby Township and Madison Township. They do not currently take any hauled-in wastewater. The permittee submitted an amended application on December 20, 2020 to request increasing the hydraulic design flow of the plant from 0.2 MGD to 0.4 MGD as a result of planned plant upgrades to alleviate SSOs which have been occurring.

The permittee should be advised that effluent limits in the proposed draft NPDES Permit have remained at secondary treatment levels due to the receiving stream being impaired to the point it is not supporting aquatic life, and there have been no known projects that have occurred or are planned to occur in the next permit cycle. Therefore, if and when the receiving stream quality improves in the future as a result of AMD remediation projects, the permittee should be made aware that much more stringent effluent limits should be expected based on water quality modeling due to the effluent dominated discharge situation that may require tertiary treatment.

There are currently no open violations listed in EFACTS for this permittee (12/15/2022).

Sludge use and disposal description and location(s): Sludge is hauled offsite to Punxsutawney 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.

Approve	Deny	Signatures	Date
X		Adam J. Pesek Adam J. Pesek, E.I.T. / Project Manager	December 15, 2022
X		Vacant / Environmental Program Manager	Okay to Draft JCD 12/15/2022

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.2 (Current) 0.4 (Upgrade)
Latitude	41º 2' 17"	Longitude	-79º 29' 17"
Quad Name	Sligo 04063	Quad Code	
Wastewater Description:	Sewage Effluent		

Receiving Waters	Wildcat Run (CWF)	Stream Code	48086
NHD Com ID	123863384	RMI	3.8
Drainage Area	0.86	Yield (cfs/mi^2)	0.036
Q_{7-10} Flow (cfs)	0.031	Q_{7-10} Basis	USGS Streamstats
Elevation (ft)	1240	Slope (ft/ft)	
Watershed No.	17-C	Chapter 93 Class.	CWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	METALS, PH		
Source(s) of Impairment	ACID MINE DRAINAGE		
TMDL Status		Name	

Background/Ambient Data		Data Source
pH (SU)	6.85	WQN 820 ('94 – '02
Temperature (°C)	20	Default (CWF)
Hardness (mg/L)		
Other: NH_3-N	0.062	WQN 820 ('94 – '02)

Nearest Downstream Public Water Supply Intake		Kittanning Suburban Joint Water Authority	
PWS Waters	Allegheny River	Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	35

Changes Since Last Permit Issuance: Updated stream flow and drainage area determined using the USGS Streamstats web application. This results in a significant decrease in estimated Q7-10 flow at the discharge point.

Other Comments: An Aquatic Biological Investigation by Department Biologists, dated December 28, 2015, reaffirms an earlier finding that Wildcat Run is still not sustaining any aquatic life, although a TMDL has been developed for the watershed, and it is not anticipated that the water quality will improve "significantly" in the near future.

Treatment Facility Summary

Treatment Facility Name: Rimersburg Borough STP

WQM Permit No.	Issuance Date
1690401	9/26/1990
1601405	4/30/2002

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Sequencing Batch Reactor	Chlorine With Dechlorination	0.2

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.2	340	Not Overloaded	Aerobic Digestion	Other WWTP then to Landfill

Changes Since Last Permit Issuance:

Other Comments: The permittee has an amendment application currently submitted for WQM Permit No. 1601405 which will increase the hydraulic capacity to 0.4 MGD and an organic capacity of 767 lbs/day. Proposed upgraded plant will include retrofitting the existing lagoon to serve as an EQ basin, installing 2 new Sequential Batch Reactors (SBRs), converting the existing SBRs to aerobic digestors, installing an automated bar screen and grit chamber, an overflow weir, a parshall flume and flow meter, a new chlorine contact tank with associated chemical feed equipment, converting existing chlorine contact tank to a dechlorination tank, a new blower building and office/control room, and a SCADA system.

Compliance History	
Summary of DMRs:	14 effluent violations have been recorded in the last 5 years, all of which have occurred since June 2019. Violations were reported for TSS (9 violations), fecal coliform (4 violations), and TRC (1 violation)
Summary of Inspections:	Facility was last inspected on 1/05/2022. No violations were noted. Discussion in the inspection report reiterate the issues of severe hydraulic overload during precipitation events.

Other Comments:

Compliance History

DMR Data for Outfall 001 (from November 1, 2021 to October 31, 2022)

Parameter	OCT-22	SEP-22	AUG-22	JUL-22	JUN-22	MAY-22	APR-22	MAR-22	FEB-22	JAN-22	DEC-21	NOV-21
Flow (MGD) Average Monthly	0.059	0.057	0.054	0.051	0.056834	0.125433	0.145204	0.130686	0.24218	0.095309	0.115441	0.073476
Flow (MGD) Daily Maximum	0.118	0.09	0.107	0.086	0.114692	0.588573	0.469762	0.323108	0.791944	0.204361	0.209955	0.129986
pH (S.U.) Minimum	7.18	7.21	7.19	6.92	6.97	7.14	7.51	7.51	6.89	7.2	7.29	7.18
pH (S.U.) Maximum	7.39	7.51	7.44	7.5	7.78	7.73	7.91	8.06	7.98	7.5	7.42	8.01
DO (mg/L) Minimum	5.07	5.01	4.97	4.88	5.06	5.15	5.82	5.79	5.55	6.16	5.89	4.47
TRC (mg/L) Average Monthly	0.46	0.6	0.45	0.38	0.46	0.48	0.46	0.47	0.48	0.47	0.4	0.4
TRC (mg/L) Instantaneous Maximum	0.6	0.93	0.7	0.53	0.54	0.61	0.52	0.53	0.61	0.61	0.47	0.46
CBOD5 (lbs/day) Average Monthly	3.0	4.0	< 4.0	2.0	< 4.0	< 10.0	14.0	11	11.0	5.0	< 6.0	3.0
CBOD5 (lbs/day) Weekly Average	6.0	6.0	12.0	5.0	6.0	13	37.0	18	28.0	10.0	15.0	6.0
CBOD5 (mg/L) Average Monthly	7.0	8.0	< 7.0	4.0	< 8.0	< 12	14.0	13	7.0	6.0	< 5.0	5.0
CBOD5 (mg/L) Weekly Average	11.0	12.0	23.0	7.0	15.0	17	32.0	22	17.0	10.0	12.7	5.71
BOD5 (lbs/day) Raw Sewage Influent Average Monthly	151	122	205	163	185	174	181	145	235	161	158	191
BOD5 (lbs/day) Raw Sewage Influent Daily Maximum	196	128	287	238	210	255	260	187	276	212	222	306
BOD5 (mg/L) Raw Sewage Influent Average Monthly	312	207	410	332	426	255	206	170	148	199	178	310
TSS (lbs/day) Average Monthly	4.0	7.0	7.0	3.0	6.0	23	33	17	34.0	11	12.0	5.0

TSS (lbs/day) Raw Sewage Influent Average Monthly	135	101	206	140	155	115	185	105	152	168	197	144
TSS (lbs/day) Raw Sewage Influent Daily Maximum	157	114	353	207	179	169	312	138	224	260	316	206
TSS (lbs/day) Weekly Average	11.0	13.0	17.0	8.0	8.0	39	77.0	22	79	19	26.0	10.0
TSS (mg/L) Average Monthly	9.0	13	12.0	6.0	13.0	27	34.0	20	21.0	12	10.0	7.0
TSS (mg/L) Raw Sewage Influent Average Monthly	287	177	387	281	360	157	197	124	95	219	231	239
TSS (mg/L) Weekly Average	20.0	26	33.0	12.0	19.0	52	66	27	47.0	16	22.0	9.0
Fecal Coliform (CFU/100 ml) Geometric Mean	< 5.0	31.0	< 51.0	25	< 3.0	< 5.0	< 1.0	< 1.0	< 2.0	< 1.0	< 5.0	< 1.0
Fecal Coliform (CFU/100 ml) Instantaneous Maximum	26.2	2419.6	2419.6	201.4	11	2419.6	< 1.0	< 1.0	10.9	1.0	2419.6	4.1
Total Nitrogen (lbs/day) Average Quarterly		9.0			20.0			8.0			5.0	
Total Nitrogen (mg/L) Average Quarterly		13.697			17.583			14.0314			6.351	
Ammonia (lbs/day) Average Monthly	2.0	8.0	1.0	3.0	2.0	9.0	13.0	7.0	4.0	< 1.0	< 6.0	< 0.06
Ammonia (mg/L) Average Monthly	4.243	16.891	3.165	4.19	4.297	5.827	13.499	8.368	2.164	< 2.225	< 5.149	< 0.1
Total Phosphorus (lbs/day) Average Quarterly		5.8			1.8			1.0			2.0	
Total Phosphorus (mg/L) Average Quarterly		8.6			1.6			2.64			2.42	
Total Aluminum (mg/L) Annual Average											< 0.1	
Total Iron (mg/L) Annual Average											< 0.2	

Total Manganese (mg/L) Annual Average											0.0632	

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.2 (Current); 0.4 (Upgraded Plant)
Latitude 41º 2' 17.00" **Longitude** -79º 29' 17.00"
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)
E. Coli	Report (No./100 ml)	IMAX	-	92a.61

Comments: Monitoring for E. coli will be placed in the permit in accordance with the Department's SOP entitled "Establishing Effluent Limitations for Individual Sewage Permits."

Please note that mass limits for $CBOD_5$ and TSS were adjusted according in the proposed draft permit for the final upgraded flow.

Water Quality-Based Limitations

Comments: Since there is no aquatic life in the receiving stream in the vicinity of the discharge, secondary treatment limits are applied in accordance with PA Code 25 Ch. 95.5. Although a TMDL was developed for the Redbank Creek Watershed (Wildcat Run is part of this watershed), there is no reasonable expectation that the stream will improve "significantly" within the next permit cycle.

Water quality modeling was not conducted at the first known point of aquatic life (Redbank Creek) to demonstrate that downstream waters were being protected due to the significant distance and travel time to get to that point (at least 3.8 miles) allowing for D.O. recovery. It is also expected that the diluted concentration of $CBOD_5$ or Ammonia at the first point of aquatic life will be well below water quality criteria for those parameters.

Best Professional Judgment (BPJ) Limitations

Comments: Influent BOD_5 and TSS monitoring will be placed in the permit in accordance with the Department's SOP entitled "New and Reissuance Sewage Individual NPDES Permit Applications." A dissolved oxygen limit of a minimum of 4.0 mg/l, a TRC IMAX limit of 1.6 mg/l, and monitoring for ammonia nitrogen, total nitrogen, and total phosphorus will be placed in the permit in accordance with the Department's SOP entitled "Establishing Effluent Limitations for Individual Sewage Permits."

Monitoring for total aluminum, total iron, and total manganese (TMDL) will not be placed in the permit in accordance with the Department's SOP entitled "Establishing Effluent Limitations for Individual Sewage Permits" because of effluent sampling done for these parameters as part of their renewal application and annual sampling in the current permit from 2016 to present all demonstrated that show plant effluent is well below water quality criteria for those parameters. The permittee indicated in the PEL request that only a small number of additional customers will be added as part of the upgrade, so no significant spike in effluent concentrations is expected.

Anti-Backsliding

N/A

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 Startup of New or Upgraded Facilities.

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 Daily Max	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0 Daily Min	XXX	9.0 Daily Max	XXX	1/day	Grab
DO	XXX	XXX	4.0 Daily Min	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.6	1/day	Grab
CBOD5	42	67	XXX	25	40	50	1/week	8-Hr Composite
TSS	50	75	XXX	30	45	60	1/week	8-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	1/week	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	1/week	Grab
Ammonia	Report	XXX	XXX	Report	XXX	XXX	2/month	8-Hr Composite

Compliance Sampling Location: Outfall 001 (after disinfection)

Other Comments: Prior to Phase 1 plant upgrades are completed.

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	Daily Maximum	Minimum	Average Monthly	Maximum	Instant. Maximum		
BOD5 Raw Sewage Influent	Report	Report	XXX	Report	XXX	XXX	1/week	8-Hr Composite
TSS Raw Sewage Influent	Report	Report	XXX	Report	XXX	XXX	1/week	8-Hr Composite
E. Coli (No./100 ml)	XXX	XXX	XXX	XXX	XXX	Report	1/quarter	Grab
Total Nitrogen	Report Avg Qrtly	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	8-Hr Composite
Total Phosphorus	Report Avg Qrtly	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	8-Hr Composite

Compliance Sampling Location: Outfall 001 (after disinfection)

Other Comments:

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: Startup of New or Upgraded Facilities 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 Daily Max	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0 Daily Min	XXX	9.0 Daily Max	XXX	1/day	Grab
DO	XXX	XXX	4.0 Daily Min	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.6	1/day	Grab
CBOD5	83	133	XXX	25.0	40.0	50	1/week	8-Hr Composite
TSS	100	150	XXX	30.0	45.0	60	1/week	8-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	1/week	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	1/week	Grab
Ammonia	Report	XXX	XXX	Report	XXX	XXX	2/month	8-Hr Composite

Compliance Sampling Location: Outfall 001 (after disinfection)

Other Comments: Limits take effect after Phase 1 plant upgrades are completed.