

Application Type Renewal
Facility Type Municipal
Major / Minor Minor

**NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE**

Application No. PA0020303
APS ID 1050312
Authorization ID 1373911

Applicant and Facility Information

Applicant Name	<u>Schwenksville Borough Authority</u>	Facility Name	<u>SCHWENKSVILLE BORO WWTP</u>
Applicant Address	<u>298 Main Street PO Box 458</u> <u>Schwenksville, PA 19473-0458</u>	Facility Address	<u>Main Nad Church Street</u> <u>Schwenksville, PA 19473-0458</u>
Applicant Contact	<u>Michael Sullivan</u>	Facility Contact	<u>Michael Sullivan</u>
Applicant Phone	<u>(610) 287-7772</u>	Facility Phone	<u>(215) 766-2626</u>
Client ID	<u>41728</u>	Site ID	<u>451886</u>
Ch 94 Load Status	<u>Not Overloaded</u>	Municipality	<u>Schwenksville Borough</u>
Connection Status	<u>No Limitations</u>	County	<u>Montgomery</u>
Date Application Received	<u>October 26, 2021</u>	EPA Waived?	<u>Yes</u>
Date Application Accepted	<u></u>	If No, Reason	<u></u>
Purpose of Application	<u>Renewal of permit of sewage discharge.</u>		

Summary of Review

The applicant has submitted the renewal application for their NPDES permit of treated sewage to discharge into Perkiomen Creek (WWF, MF) through Outfall 001.

The facility is serving Schwenksville Borough (87%), Lower Frederick Township (12%), and Perkiomen Township (1%).

DEP has conducted a site inspection on 10/1/21.

Below are the comments from the inspection report:

The inspection was done with uncertified operator Connor Stepnowski present. Lead operator Matt McVaugh was contacted later. The plant is still recovering from the flooding caused by Hurricane Ida but is in operational status and providing full treatment. Mr. Stepnowski stated that most of their log books and daily sheet records were washed out during the flood. They are still attempting to recover whatever information they can from a damaged laptop. The effluent sampler had been washed out during the flood and the facility is currently using a makeshift sampler that is not flow paced until a replacement sampler arrived. The makeshift sampler was not being iced and I informed Mr. Stepnowski that the sample container should be cooled or placed on ice as soon as possible until the sampler unit arrives. Mixed liquors had a medium brown coloration and the final effluent was clear.

Based on the evaluation of the application Operations Section's following comment was received:

Plant is well operated and maintained. There are township operators onsite most days, but the plant is managed by PUE contract operators.

Since there are no changes in quality and quantity of the discharge all previously established monitoring requirements and effluent limits except for E.coli based on recent department guidance to collect data will be proposed as listed in pp. 11 and 12.

Approve	Deny	Signatures	Date
X		<i>Begay Omuralieva</i> Begay Omuralieva / Environmental Engineering Specialist	July 5, 2022
X		<i>Pravin Patel</i> Pravin C. Patel, P.E. / Environmental Engineer Manager	07/06/2022

Summary of Review

Sludge use and disposal description and location(s): Pottstown WWTP.

Act 14 Notifications:

Montgomery County Commissioners and Schwenksville Borough were notified on June 14, 2021.

Public Participation

DEP will publish notice of the receipt of the NPDES permit application and a tentative decision to issue the individual NPDES permit in the *Pennsylvania Bulletin* in accordance with 25 Pa. Code § 92a.82. Upon publication in the *Pennsylvania Bulletin*, DEP will accept written comments from interested persons for a 30-day period (which may be extended for one additional 15-day period at DEP's discretion), which will be considered in making a final decision on the application. Any person may request or petition for a public hearing with respect to the application. A public hearing may be held if DEP determines that there is significant public interest in holding a hearing. If a hearing is held, notice of the hearing will be published in the *Pennsylvania Bulletin* at least 30 days prior to the hearing and in at least one newspaper of general circulation within the geographical area of the discharge.

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	<u>001</u>	Design Flow (MGD)	<u>0.3</u>
Latitude	<u>40° 15' 16.10"</u>	Longitude	<u>-75° 27' 41.46"</u>
Quad Name	<u>Perkiomenville</u>	Quad Code	<u>1642</u>
Wastewater Description: <u>Sewage Effluent</u>			
Receiving Waters	<u>Perkiomen Creek (WWF, MF)</u>	Stream Code	<u>01017</u>
NHD Com ID	<u>25987624</u>	RMI	<u>11.8</u>
Drainage Area	<u>212.3 mi²</u>	Yield (cfs/mi ²)	<u>0.15</u>
Q ₇₋₁₀ Flow (cfs)	<u>29.6 (See Below)</u>	Q ₇₋₁₀ Basis	<u>See Below</u>
Elevation (ft)	<u>496</u>	Slope (ft/ft)	<u>3.96%</u>
Watershed No.	<u>3-E</u>	Chapter 93 Class.	<u>WWF, MF</u>
Existing Use	<u></u>	Existing Use Qualifier	<u></u>
Exceptions to Use	<u></u>	Exceptions to Criteria	<u></u>
Assessment Status	<u>Attaining Use(s)</u>		
Cause(s) of Impairment	<u></u>		
Source(s) of Impairment	<u></u>		
TMDL Status	<u></u>		
		Name	

Changes Since Last Permit Issuance: none

Q7-10 flow calculates as follows:

For headwaters, minimum flow = 11.5 MGD (17.8 CFS), based on minimum required release flow from Green Lane Reservoir. For incremental drainage area (212.5 – 94.8) of = 117.7 mi², used yield 0.1 cfs/m based on USGS gage 01472500 (Perkiomen new Frederick), therefore, calculated low flow is 29.6 CFS.

Treatment Facility Summary				
Treatment Facility Name: Schwenksville Borough Authority WWTP				
WQM Permit No.	Issuance Date			
<u>4615401</u>	<u>12/21/2016</u>			
Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Activated Sludge	Gas Chlorine	0.3
Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.32	597	Not Overloaded		Pottstown

Changes Since Last Permit Issuance: none

Compliance History

DMR Data for Outfall 001 (from May 1, 2021 to April 30, 2022)

Parameter	APR-22	MAR-22	FEB-22	JAN-22	DEC-21	NOV-21	OCT-21	SEP-21	AUG-21	JUL-21	JUN-21	MAY-21
Flow (MGD) Average Monthly	0.3125	0.20031	0.2749	0.2242	0.1114	0.124	0.1661	0.162	0.159	0.0976	0.1357	0.1329
Flow (MGD) Daily Maximum	1.1081	0.3587	0.8681	0.5293	0.1788	0.2558	0.9341	0.984	0.583	0.199	0.3568	0.4821
pH (S.U.) Instantaneous Minimum	6.72	6.12	6.4	6.9	6.87	7.12	6.7	6.95	6.61	6.92	6.82	6.94
pH (S.U.) Instantaneous Maximum	7.3	6.02	7.11	7.86	7.9	7.71	7.7	7.74	7.49	7.39	7.38	7.38
DO (mg/L) Instantaneous Minimum	10.5	10.89	8.77	11.12	7.09	8.39	5.38	7.18	7.26	7.56	7.01	8.21
TRC (mg/L) Average Monthly	0.1	0.2	0.1	0.3	0.2	0.3	< 0.2	0.2	FF	0.04	0.04	0.1
TRC (mg/L) Instantaneous Maximum	0.52	0.91	0.53	0.89	0.74	1.02	0.26	1.18	FF	0.14	0.12	0.5
CBOD5 (lbs/day) Average Monthly	< 6	< 5	< 5.0	< 5	< 2.1	< 2.3	< 2.2	< 1.9	< 8.5	< 1.9	< 2.2	< 1.5
CBOD5 (lbs/day) Weekly Average	< 12.0	7.5	6.4	11.6	< 2.7	3.2	< 4.0	< 2.6	35.1	2.4	< 2.7	< 1.7
CBOD5 (mg/L) Average Monthly	< 2	< 3.6	< 3.0	< 2.6	< 2.1	< 2.4	< 2.0	< 2.0	< 4.7	< 2.7	< 2.0	< 2.0
CBOD5 (mg/L) Weekly Average	< 2	6.9	4.1	4.5	2.4	3.7	< 2.0	< 2.3	15.1	4.2	< 2.0	< 2.0
BOD5 (lbs/day) Influent Average Monthly	267	286	220	167	226	319	148	264	155	156	166	180
BOD5 (lbs/day) Influent Instantaneous Maximum	609	313	346	330	1139	143	233	372	190	275	260	229
BOD5 (mg/L) Influent Average Monthly	153.1	161.4	181	135.6	225.4	372.2	157.7	280	156	224	152.6	235

**NPDES Permit Fact Sheet
Schwenksville STP**

NPDES Permit No. PA0020303

BOD5 (mg/L) Influent Instantaneous Maximum	267	286	220	167	370	1360	261	354	235	408	196	319
TSS (lbs/day) Average Monthly	7	< 4	9	9	4.5	3.5	< 3.1	< 1.2	< 2.9	< 1.3	< 41.0	< 1.3
TSS (lbs/day) Influent Average Monthly	152	135	101	74	146	220	103	193	55	78	43	88
TSS (lbs/day) Influent Instantaneous Maximum	310	254	184	111	888	65	195	271	78	190	63	181
TSS (lbs/day) Weekly Average	18	10	17	26	6.9	7.6	10.1	3.4	4.9	2.1	200.8	2.1
TSS (mg/L) Average Monthly	2	< 3	5.8	4	4	3	< 2	< 1	< 3	< 2	< 36	< 2
TSS (mg/L) Influent Average Monthly	57	101	65	47	165	258	102	207	57	112	40	117
TSS (mg/L) Influent Instantaneous Maximum	136	232	117	56	1060	82	218	288	96	282	62	252
TSS (mg/L) Weekly Average	4	5	9	10	6.0	7.0	5.0	< 3.0	6.0	2.0	176	3.0
Total Dissolved Solids (lbs/day) Average Quarterly		347			642			690			602	
Total Dissolved Solids (mg/L) Average Quarterly		347.0			642.00			690.0			602.0	
Total Dissolved Solids (mg/L) Daily Maximum		347.0			642.00			690.0			602.0	
Fecal Coliform (CFU/100 ml) Geometric Mean	13	7	31	8	< 5	< 33	< 4	< 3	< 4	< 9	< 9	< 2
Fecal Coliform (CFU/100 ml) Instantaneous Maximum	50	18	92	46	78	2000	25	15	20	54	900	2

**NPDES Permit Fact Sheet
Schwenksville STP**

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Total Nitrogen (lbs/day) Average Monthly	41	28	31	27	35	25	41	21	27	23	24	22
Total Nitrogen (mg/L) Average Monthly	14.96	19.42	20.6	17.28	34.21	28.24	37.5	23	28.22	31.24	21.78	28.49
Total Nitrogen (mg/L) Instantaneous Maximum	18.68	29.41	29.27	24.2	39.26	32.72	38.8	28.3	43.55	33.37	30.7	34.73
Ammonia (lbs/day) Average Monthly	0.6	< 0.3	0.2	< 0.6	< 0.5	< 0.05	< 0.06	< 0.2	< 0.1	< 0.07	< 0.1	< 0.08
Ammonia (mg/L) Average Monthly	0.3	< 0.2	0.1	< 0.3	< 0.4	< 0.1	< 0.1	< 0.3	< 0.1	< 0.1	< 0.1	< 0.1
Total Phosphorus (lbs/day) Average Monthly	2.1						1.4	1.1	0.8	0.4	0.9	0.9
Total Phosphorus (mg/L) Average Monthly	0.6						1.2	1.2	0.7	0.6	0.9	1.2
Total Copper (mg/L) Average Quarterly		0.009			0.011			0.012			0.014	
Total Copper (mg/L) Instantaneous Maximum		0.009			0.011			0.012			0.014	
Sulfate (mg/L) Average Quarterly		63.1			176			123			91.1	
Sulfate (mg/L) Instantaneous Maximum		63.1			176			123			91.1	
Chloride (mg/L) Average Quarterly		91.7			171			178			171	
Chloride (mg/L) Instantaneous Maximum		91.7			171			178			171	
Bromide (mg/L) Average Quarterly		< 1.00			< 1.00			< 1.00			< 1.00	
Bromide (mg/L) Instantaneous Maximum		< 1.00			< 1.00			< 1.00			< 1.00	

Compliance History

Effluent Violations for Outfall 001, from: June 1, 2021 To: April 30, 2022

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
TSS	06/30/21	Wkly Avg	200.8	lbs/day	75	lbs/day
TSS	06/30/21	Avg Mo	< 36	mg/L	20	mg/L
TSS	06/30/21	Wkly Avg	176	mg/L	30	mg/L
Fecal Coliform	11/30/21	IMAX	2000	CFU/100 ml	1000	CFU/100 ml

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** .3
Latitude 40° 15' 15.37" **Longitude** -75° 27' 41.69"
Wastewater Description: Sewage Effluent from Schwenksville Boro WWTP

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)

Water Quality-Based Limitations

Existing permit limits will continue since there have been no significant modifications to the facility, discharge, or receiving water and water quality criteria have not been modified since the last permit renewal and modeling was completed. The average monthly and instantaneous maximum effluent limits for CBOD₅ (25 and 50 mg/l between 11/01 – 3/31 and 20 and 40 between 4/01 – 10/31), Total Suspended Solids (20 and 40 mg/l), Ammonia-Nitrogen (3 and 6 mg/l between 04/01 – 10/31 and 9 and 18 between 11/01 – 03/31), Total Phosphorus (1.5 and 3 mg/l between 04/01 – 10/31), Fecal Coliform (200 and 1,000 No./100ml), pH (Instantaneous Minimum of 6.0 and Instantaneous Maximum of 9.0 S.U.), and Dissolved Oxygen (Instantaneous Minimum of 5.0 mg/l) are continued in this permit renewal.

Total Suspended Solids limit of 20 mg/l is a technically achievable limit from previous permit renewal. Total Phosphorus is a seasonal limit and it will remain in this permit renewal. Total Nitrogen (TN) once per week reporting was added to previous permit renewal, reporting for TN is required for sewage dischargers with design flows greater than 2,000 gpd at a minimum. Due to the permitted discharge flow of 300,000 gpd and the treatment facility receiving influent from Schwenksville Borough, Lower Frederick Township, and Perkiomen Township, once per week influent sampling for BOD₅ and TSS was added in this permit renewal.

TDS was established based DRBC requirement and PA water Quality standards and remain in the permit as average quarterly limit of 1,000 mg/l, daily maximum of 2,000 mg/l, and 2,500 instantaneous maximum limits with a monitoring frequency of 1/quarter. The Sulfate, Chloride, and Bromide will remain as established in previous permit.

Cooper, Total will remain in the permit as established previously.

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	Weekly Average	Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Recorded
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	5.0 Inst Min	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.2	1/day	Grab
CBOD5 Nov 1 - Apr 30	63	100	XXX	25	40	50	1/week	24-Hr Composite
CBOD5 May 1 - Oct 31	50	75	XXX	20	30	40	1/week	24-Hr Composite
TSS	50	75	XXX	20	30	40	1/week	24-Hr Composite
Total Dissolved Solids	2502 Avg Qrtly	XXX	XXX	1000.0 Avg Qrtly	2000.0 Daily Max	2500	1/quarter	24-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	1/week	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	1/week	Grab
E.Coli (No./100 ml)	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/quarter	Grab
Total Nitrogen	Report	XXX	XXX	Report	XXX	Report	1/week	24-Hr Composite
Ammonia Nov 1 - Apr 30	23	XXX	XXX	9.0	XXX	18	1/week	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		
Ammonia May 1 - Oct 31	7.5	XXX	XXX	3.0	XXX	6	1/week	24-Hr Composite
Total Phosphorus Apr 1 - Oct 31	3.7	XXX	XXX	1.5	XXX	3	1/week	24-Hr Composite
Total Copper	XXX	XXX	XXX	Report Avg Qrtly	XXX	Report	1/quarter	24-Hr Composite
Sulfate	XXX	XXX	XXX	Report Avg Qrtly	XXX	Report	1/quarter	24-Hr Composite
Chloride	XXX	XXX	XXX	Report Avg Qrtly	XXX	Report	1/quarter	24-Hr Composite
Bromide	XXX	XXX	XXX	Report Avg Qrtly	XXX	Report	1/quarter	24-Hr Composite

Compliance Sampling Location: Outfall 001