

Application Type

Renewal

Facility Type

Non-Municipal

Major / Minor

Minor

Application No.

PA0062464

APS ID

575005

Authorization ID

1391310

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Applicant and Facility Information

Applicant Name	Pennsylvania American Water Company	Facility Name	Pennsylvania American Water Company Blue Mountain Lake WWTP
Applicant Address	852 Wesley Drive Mechanicsburg, PA 17055-4436	Facility Address	Brushy Mountain Road Stroud Township, PA 18301
Applicant Contact	James Runzer, Vice President of Operations	Facility Contact	David Altmiller, Operations Superintendent
Applicant Phone	(717) 550-1546	Facility Phone	(570) 242-3274
Client ID	87712	Site ID	443231
Ch 94 Load Status	Not Overloaded	Municipality	Stroud Township
Connection Status		County	Monroe
Date Application Received	April 6, 2022	EPA Waived?	Yes
Date Application Accepted	April 11, 2022	If No, Reason	-
Purpose of Application	Renewal of NPDES permit for discharge of treated sewage.		

Summary of Review

The applicant is requesting the renewal of an NPDES permit to discharge up to 0.0275MGD of treated sewage into Sambo Creek, a Cold-Water Fishery, Migratory Fish (CWF, MF) receiving stream in State Water Plan Basin 1-E (Broadhead Creek). As per the Department's current existing use list, the receiving stream does not have an existing use classification that is more protective than its designated use. This stream segment is designated as a naturally reproducing trout stream as per PA Fish & Boat Commission. This discharge is not expected to affect public water supplies.

Limitations for pH, Dissolved Oxygen (DO), Total Suspended Solids (TSS), and Fecal Coliform are technology-based and carried over from the previous permit.

Limitations for CBOD₅, and Ammonia Nitrogen are water quality-based and carried over from the previous permit.

WQM 7.0 modeling did not recommend stricter limits.

The facility utilizes Ultraviolet (UV) disinfection as the primary disinfection method. In the event the facility uses chlorine for cleaning purposes or as a back-up disinfection option, Total Residual Chlorine (TRC) should be sampled "daily when discharging" (see requirements under Part C.I.E). The TRC Calculation Spreadsheet did not recommend stricter limitations than the previous permit.

Sewage discharges now require monitoring and reporting for E. Coli. A monitoring frequency of 1/month for design flows >= 1 MGD, 1/quarter for design flows >= 0.05 and < 1 MGD, 1/year for design flows of 0.002 – 0.05 MGD will be utilized.

Pollutant sampling results submitted with the permit application were entered into the Toxic Management Spreadsheet (TMS). The average reported Total Copper concentration was 0.0208 mg/L and the average Total Zinc concentration was

Approve	Deny	Signatures	Date
X		/s/ Allison Seyfried / Project Manager	July 11, 2023
X		/s/ Amy M. Bellanca, P.E. / Acting Engineer Manager	7-17-23

Summary of Review

0.05445 mg/L. The average value was able to be used instead of the maximum value because at least 10 effluent sample results were included for each of the parameters. The TMS recommended limits for Total Copper and monitoring/reporting for Total Zinc.

Therefore, Total Copper limitations were added to the permit and will come into effect four years after the permit effective date. Monitoring/reporting requirements are included in the permit until the limitations come into effect. Monthly monitoring/reporting for Total Zinc has also been included. The Part C. III. condition regarding Toxics Reduction Evaluations (TREs) is added to the permit and applies to the Total Copper limitations. The permittee will have the option to accept the implementation of the limitations or to perform site-specific studies to verify or refine the WQBELs.

The latest DRBC Preliminary Docket No. D-1991-014 CP-5 requires the addition of monitoring/reporting for 85% minimum CBOD₅ Percent Removal at the same monitoring frequency as CBOD₅ and a monthly CBOD₅ monitoring requirement for the Raw Sewage Influent.

Limitations for Nitrate-Nitrite as N, Total Phosphorous, and Total Dissolved Solids (TDS) as well as monitoring/reporting for Total Nitrogen and Total Kjeldahl Nitrogen as per the previous DRBC docket have been carried over from the previous permit.

The weekly influent monitoring requirements for TSS has been carried over from the previous permit. The weekly influent monitoring for BOD₅ has been changed to influent monitoring of CBOD₅ to better determine the removal percentages and to comply with the DRBC Docket.

For this permit renewal, all monitoring frequencies for parameters with limitations are consistent with the Department's *Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits* (document no. 362-0400-001).

24-hour composite sampling is now required for every pollutant except pH, DO, Fecal Coliform, TRC, and E. coli.

There are no representative stream gages in the vicinity of the outfall. Therefore, the default Low Flow Yield (LFY) of 0.1 cfs/mi² was used to model the discharge. For modeling inputs, RMI values were obtained using the "PA Historic Streams" feature of eMapPA, drainage areas were delineated using USGS's StreamStats Interactive Map, and elevations were obtained using the elevation profile feature of StreamStats.

The existing permit expired on October 31, 2022 and the application for renewal was received on time.

A Water Management System Inspection query indicated that on December 14, 2021 a Compliance Evaluation was performed.

There are currently ten open violations (five in the Clean Water Program and five in the Safe Drinking Water Program) for this client that may need to be resolved before issuance of the final permit. The Clean Water open violations are listed below:

1. 05/22/2023 - Violation ID 995798 – Violation Code 92A.44 – NPDES – Violation of effluent limits in Part A of permit. (SWRO – WPC NPDES - Program Specific ID: PA0023434).
2. 02/28/2022 - Violation ID 100155 – Violation Code CSL201 – CSL – Unauthorized, unpermitted discharge of sewage to waters of the Commonwealth (SCRO – WPC NPDES - Program Specific ID: PA0026981).
3. 04/20/2023 - Violation ID 995608 – Violation Code 92A.41(A)5 – NPDES – Failure to properly operate and maintain all facilities which are installed or used by the permittee to achieve compliance. (SWRO – WPC NPDES - Program Specific ID: PA0026981).
4. 04/20/2023 - Violation ID 995609 – Violation Code 92A.41(A)10B – NPDES – Failure to utilize approved analytical methods. (SWRO – WPC NPDES - Program Specific ID: PA0026981).
5. 04/07/2023 - Violation ID 990835 – Violation Code CSL401 – CSL – Unauthorized, unpermitted discharge of sewage to waters of the Commonwealth resulting in pollution. (SWRO).

Summary of Review

Sludge use and disposal description and location(s): As per the NPDES renewal application, sludge is hauled to the Saw Creek WWTP in Bushkill, PA by All State Septic.

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.	001	Design Flow (MGD)	0.275
Latitude	41° 2' 19.58"	Longitude	-75° 11' 19.10"
Quad Name	East Stroudsburg	Quad Code	1044
Wastewater Description:	Sewage Effluent		
Receiving Waters	Sambo Creek	Stream Code	4925
NHD Com ID	26141086	RMI	2.97
Drainage Area	3.09 mi ²	Yield (cfs/mi ²)	0.1
Q ₇₋₁₀ Flow (cfs)	0.309	Q ₇₋₁₀ Basis	State-wide default
Elevation (ft)	558	Slope (ft/ft)	-
Watershed No.	1-E	Chapter 93 Class.	-
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 -		
Nearest Downstream Public Water Supply Intake	Easton Area Water System		
PWS Waters	Delaware River	Flow at Intake (cfs)	-
PWS RMI	109.8	Distance from Outfall (mi)	~ 36.5

Treatment Facility Summary				
Treatment Facility Name: Blue Mountain Lake WWTP				
WQM Permit No.	Issuance Date			
4508405	5/18/2009			
Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Sequencing Batch Reactor	Ultraviolet	0.106 (June 2022 – May 2023)
Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.275	494	Not Overloaded	Aerobic Digestor	Hauled

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	0.131	0.094	0.096	0.098	0.106	0.103	0.097	0.1	0.1	0.107	0.102	0.138
Flow (MGD) Daily Maximum	0.99	0.111	0.118	0.118	0.144	0.132	0.123	0.118	0.116	0.117	0.122	1.09
pH (S.U.) Minimum	7.77	7.75	7.71	7.78	7.83	7.52	7.65	7.72	7.62	7.67	7.58	7.73
pH (S.U.) Instantaneous Maximum	8.21	8.24	8.34	8.29	8.36	8.32	8.31	8.29	8.30	8.28	8.96	8.2
DO (mg/L) Minimum	9.51	10.17	11.28	11.69	11.31	10.98	9.75	9.13	7.84	8.33	8.32	9.27
TRC (mg/L) Average Monthly	GG	GG	GG	GG	GG	GG	GG	GG	GG	GG	GG	GG
TRC (mg/L) Instantaneous Maximum	GG	GG	GG	GG	GG	GG	GG	GG	GG	GG	GG	GG
CBOD5 (lbs/day) Average Monthly	3.4	3.4	3.7	3.3	4.7	4.9	< 3.7	3.2	3.7	3.2	4.4	2.4
CBOD5 (mg/L) Average Monthly	3.86	4.18	4.38	3.71	5.12	5.37	< 4.44	3.59	4.11	3.49	4.9	2.69
BOD5 (mg/L) Raw Sewage Influent Average Monthly	254.8	273.8	356.7	320	365.8	362.9	402.5	340.6	286	315.9	357.3	376.4
TSS (lbs/day) Average Monthly	< 0.6	< 1.2	< 0.9	< 2.2	6.6	7.5	3.3	< 1.0	< 1.4	< 1.6	1.7	0.8
TSS (mg/L) Average Monthly	< 0.6	< 2.0	< 1.0	< 2.0	7.0	8.0	4.0	< 1.0	< 2.0	< 2.0	1.9	0.9
TSS (mg/L) Raw Sewage Influent Average Monthly	238.8	369.5	382.0	396	254.0	392.8	317.6	366	347.5	359.6	288	449.5
Total Dissolved Solids (mg/L) Average Monthly	455	438	429	425	408.0	415	442	409.0	407	411	434	413
Fecal Coliform (No./100 ml) Geometric Mean	< 10.0	< 10.0	< 10.0	< 10	< 26.8	< 12.59	< 12.82	< 10	< 15.65	< 10	< 10.0	< 10

NPDES Permit Fact Sheet
Blue Mountain Lake WWTP

NPDES Permit No. PA0062464

Fecal Coliform (No./100 ml) Instantaneous Maximum	< 10.0	10.0	10.0	10	6488.0	63.0	30	10	30	10	< 10.0	< 10
Nitrate-Nitrite (lbs/day) Average Monthly	< 2.3	< 2.0	2.8	2.8	2.7	< 2.8	< 2.6	< 2.9	< 4.1	< 4.9	< 4.1	< 3.2
Nitrate-Nitrite (mg/L) Average Monthly	< 2.59	< 2.4	3.3	3.2	2.9	< 3.0	< 3.2	< 3.2	< 4.6	< 5.4	< 4.52	< 3.59
Total Nitrogen (mg/L) Average Monthly	< 4.35	< 4.47	< 5.60	5.24	5.28	< 5.38	< 5.00	< 4.43	< 5.85	< 6.39	< 5.9	< 5.03
Ammonia (lbs/day) Average Monthly	< 0.1	< 0.3	< 1.2	< 0.2	0.4	< 0.6	< 0.1	< 0.1	< 0.1	< 0.1	< 0.2	< 0.09
Ammonia (mg/L) Average Monthly	< 0.13	< 0.310	< 1.527	< 0.192	0.448	< 0.56	< 0.105	< 0.114	< 0.1	< 0.1	< 0.195	< 0.1
TKN (mg/L) Average Monthly	1.76	2.05	2.25	2.09	2.37	2.39	1.83	< 1.21	< 1.29	< 1.02	1.39	1.43
Total Phosphorus (lbs/day) Average Monthly	< 0.5	< 0.5	< 0.41	< 0.44	< 0.46	< 0.42	< 0.43	< 0.60	< 0.49	1.10	< 0.9	< 0.5
Total Phosphorus (mg/L) Average Monthly	< 0.54	< 0.62	0.5	< 0.5	< 0.5	< 0.44	< 0.52	< 0.67	< 0.55	1.22	< 1.02	< 0.53

Development of Effluent Limitations				
Outfall No.	001	Design Flow (MGD)	0.275	
Latitude	41° 2' 18.00"	Longitude	-75° 11' 22.00"	
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
Total Suspended Solids	30.0	Average Monthly	133.102(b)(1)	92a.47(a)(1)
	60.0	IMAX	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)
Dissolved Oxygen	5.0	Minimum	-	BPJ
E. Coli	Report	IMAX	-	92a.61

Water Quality-Based Limitations

The following limitations were determined through water quality modeling:

Parameter	Limit (mg/l)	SBC	Model
Ammonia-Nitrogen Nov 1 - Apr 30	6.0	Average Monthly	1990 Pollution Report
	12.0	IMAX	
Ammonia-Nitrogen May 1 - Oct 31	2.0	Average Monthly	
	4.0	IMAX	
CBOD ₅ Nov 1 - Apr 30	20.0	Average Monthly	
	40.0	IMAX	
CBOD ₅ May 1 - Oct 31	10.0	Average Monthly	
	20.0	IMAX	
CBOD ₅ Minimum % Removal (%)	85	Average Monthly	DRBC Docket
CBOD ₅ Raw Sewage Influent	Report	Average Monthly	DRBC Docket
Total Suspended Solids Raw Sewage Influent	Report	Average Monthly	Previous Permit Requirement
Total Dissolved Solids	1,000	Average Monthly	DRBC Docket
Nitrate-Nitrite as N	9.5	Average Monthly	DRBC Docket
Total Phosphorus	2.0	Average Monthly	DRBC Docket
Total Kjeldahl Nitrogen	Report	Average Monthly	Previous Permit Requirement
Total Nitrogen	Report	Average Monthly	Previous Permit Requirement
Total Residual Chlorine	0.04	Average Monthly	Previous TRC Calculation Spreadsheet
	0.10	IMAX	
Total Copper	0.016	Average Monthly	
	0.024	Daily Maximum	
	0.039	IMAX	
Total Zinc	Report	Average Monthly	Toxic Modeling Spreadsheet
		Daily Maximum	

Anti-Backsliding

No limitations were made less stringent.

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Approve	Deny	Signatures	Date
X		/s/ Allison Seyfried / Project Manager	July 11, 2023
X		/s/ Amy M. Bellanca, P.E. / Acting Engineer Manager	7-17-23