

Application Type

**Renewal**

Facility Type

**Non-Municipal**

Major / Minor

**Minor**

Application No.

**PA0060496**

APS ID

**588813**

Authorization ID

**1403177**

**NPDES PERMIT FACT SHEET  
INDIVIDUAL SEWAGE**

**Applicant and Facility Information**

Applicant Name	<u>Aqua Pennsylvania Wastewater, Inc.</u>	Facility Name	<u>Mast Hope Development WWTP</u>
Applicant Address	<u>762 West Lancaster Ave.</u>	Facility Address	<u>Masthope Plank Road</u>
Applicant Contact	<u>Bryn Mawr, PA 19010</u>	Facility Contact	<u>Lackawaxen, PA 18435</u>
Applicant Phone	<u>(610) 645-1122</u>	Facility Phone	<u>(570) 443-7099</u>
Client ID	<u>62614</u>	Site ID	<u>1341</u>
Ch 94 Load Status	<u>Not Overloaded</u>	Municipality	<u>Lackawaxen Township</u>
Connection Status	<u>No Prohibitions</u>	County	<u>Pike</u>
Date Application Received	<u>June 28, 2022</u>	EPA Waived?	<u>Yes</u>
Date Application Accepted	<u>June 28, 2022</u>	If No, Reason	<u>-</u>
Purpose of Application	<u>Renewal of NPDES permit.</u>		

**Summary of Review**

The applicant is requesting renewal of an NPDES permit to discharge up to 0.1 MGD of treated sewage into the Delaware River, a Warm Water & Migratory Fishes (WWF, MF) receiving stream in state water plan basin 01-A (Shehawken – Rattlesnake Creeks). As per the Department's current existing use list, the receiving stream does not have an existing use that is more protective than its designated use.

The Q<sub>7-10</sub> / LFY used to model the discharge was obtained from the USGS Open-File Report 2011-1070 for gage 01438500 (Delaware River at Montague, NJ). WQM 7.0 and the Toxics Management Spreadsheet did not recommend more stringent limitations for any parameters. All limitations and monitoring requirements from the previously issued permit are carried over in this renewal except for TRC and TDS (see below). For modeling inputs, RMI values were obtained using the "PA Historic Streams" feature of eMapPA as well as the "measure" tool. Drainage areas were delineated using USGS's StreamStats Interactive Map and elevations were obtained using the elevation profile feature of StreamStats.

The previously issued permit included facility-specific BAT limitations for TRC that were derived from old regional BAT policy (as per the fact sheet of the previously issued permit). PA Code 92a.48(b)(2) requires updated technology based TRC limitations (0.5 mg/L monthly average, 1.6 mg/L IMAX) that will come into effect 1 year after the permit effective date.

DRBC Docket No. D-1976-021-4 (approved March 9, 2022) includes the following additional requirements:

**EFFLUENT TABLE C-2: DRBC Parameters Not Included in NPDES Permit**

OUTFALL 001 (Discharging to UNT to Delaware River)		
PARAMETER	LIMIT	MONITORING
CBOD <sub>5</sub> (at 20° C)	Minimum 85% Removal	Monthly
Total Dissolved Solids*	1,000 mg/l *	Quarterly

Approve	Deny	Signatures	Date
X		 Brian Burden, E.I.T. / Project Manager	December 11, 2024
X		Amy M. Bellanca (signed) Amy M. Bellanca, P.E. / Acting Environmental Engineer Manager	12-12-24

### Summary of Review

The 1,000 mg/L quarterly average limitation for TDS replaces the monitoring/reporting requirement included in the previously issued permit. The CBOD<sub>5</sub> 85% minimum percent removal limitation is added to this renewal.

Quarterly monitoring/reporting for E. Coli is added to the permit as per current DEP guidance.

The latest Chapter 94 report for the WWTP (for operating year 2023) indicates both existing and projected hydraulic/organic overloads. After DEP's review of the facility's 2019 Chapter 94 report (which confirmed the WWTP is hydraulically overloaded), DEP requested the development of a Corrective Action Plan (CAP) in a letter dated December 11, 2020. The following steps in the CAP have been completed:

1. Installation of tertiary pilot effluent filter.
2. Equalization tank level monitoring.
3. Relocation of pilot filter backwash flows from flow splitter to equalization tank.

Three long-term goals were identified in the CAP:

1. Complete initial planning requirements.
2. Update Act 537 planning.
3. Design and construct WWTP upgrades.

**Sludge use and disposal description and location(s):** The permit application indicates 22.01 dry tons of sludge was hauled to Greater Hazleton Joint Sanitary Authority's WWTP in the previous year via Environmental Service Corporation and Russell Reid Wastewater Management.



WQM  
Modeling.pdf



TRC Calculation.pdf



TMS PA0060496.pdf



Watershed  
Information.pdf



DRBC Docket  
1976-021-4.pdf

### 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)	0.1
Latitude	41° 30' 28"	Longitude	-75° 0' 28"
Quad Name	Narrowsburg	Quad Code	0645
Wastewater Description: Sewage Effluent			
Receiving Waters	Delaware River (WWF, MF)	Stream Code	2
NHD Com ID	25869776	RMI	207.6
Drainage Area	2020 mi <sup>2</sup>	Yield (cfs/mi <sup>2</sup> )	0.25
Q <sub>7-10</sub> Flow (cfs)	505	Q <sub>7-10</sub> Basis	Gage 01438500
Elevation (ft)	611	Slope (ft/ft)	0.002
Watershed No.	1-A	Chapter 93 Class.	WWF, MF
Existing Use	-	Existing Use Qualifier	-
Exceptions to Use	-	Exceptions to Criteria	-
Assessment Status	Impaired		
Cause(s) of Impairment	Mercury		
Source(s) of Impairment	Unknown		
TMDL Status	-	Name	-
Background/Ambient Data		Data Source	
pH (SU)	-	-	
Temperature (°F)	-	-	
Hardness (mg/L)	-	-	
Other:	-	-	
Nearest Downstream Public Water Supply Intake		Easton Area Water System	
PWS Waters	Delaware River	Flow at Intake (cfs)	1160 (using 0.25 LFY)
PWS RMI	110.5	Distance from Outfall (mi)	~97

**Changes Since Last Permit Issuance:**

Issuance of WQM permit 5217405 for the replacement of an existing influent grinder pump with a 740 gpm Muffin Monster grinder.

Issuance of WQM permit amendment 5275415 A-1 for the replacement of the existing forward flow pumps that convey sewage from the EQ tank to the process trains as well as the addition of two blowers.

**Other Comments:**

The TMS was not run using Outfall 001 and the PWS intake location as modeling points due to the large distance between the two points (~97 miles) and the relatively small discharge value of 0.1 MGD.

Treatment Facility Summary				
<b>Treatment Facility Name:</b> Mast Hope Development WWTP				
<b>WQM Permit No.</b>	<b>Issuance Date</b>			
5275415 A-1	11/18/2021			
Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Extended Aeration	Hypochlorite	0.1
Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.1	209	Overloaded	Holding Tank	Hauled

Development of Effluent Limitations				
Outfall No.	001	Design Flow (MGD)	0.1	
Latitude	41° 30' 28"	Longitude	-75° 0' 28"	
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 <sub>5</sub>	25.0	Average Monthly	133.102(a)(4)(i)	92a.47(a)(1)
	50.0	IMAX	-	-
Total Suspended Solids	30.0	Average Monthly	133.102(b)(1)	92a.47(a)(1)
	60.0	IMAX	-	-
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)
	1,000 / 100 mL	IMAX	-	92a.47(a)(4)
Total Residual Chlorine	0.5	Average Monthly	-	92a.48(b)(2)
	1.6	IMAX	-	-

Comments: The Total Residual Chlorine limitation comes into effect 1 year after the permit effective date.

### Water Quality-Based Limitations / DRBC Limitations

The following limitations were determined through water quality modeling or are required by the DRBC:

Parameter	Limit (mg/L)	SBC	Model / Basis
Fecal Coliform (10/1 – 4/30)	200 / 100 ml	Geo Mean	Previous requirement
	1,000 / 100 ml	IMAX	
Total Dissolved Solids	1,000	Average Quarterly	DRBC Docket D-1976-021-4
CBOD <sub>5</sub> Minimum Removal Percentage (%)	85.0	Minimum Monthly Average	DRBC Docket D-1976-021-4