pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northeast Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0061590**
Facility Type	**Non-Municipal**	APS ID	**544458**
Major / Minor	**Major**	Authorization ID	**1464175**

Applicant and Facility Information

Applicant Name	**Aqua Pennsylvania Wastewater, Inc.**	Facility Name	**Eagle Rock WWTP**
Applicant Address	762 W. Lancaster Ave.	Facility Address	551 Mountain Road
	Bryn Mawr, PA 19010		Zion Grove, PA 17985
Applicant Contact	Todd Duerr	Facility Contact	David Hoogstad
Applicant Phone	(610) 645-1122	Facility Phone	(570) 443-7099
Client ID	62614	Site ID	626380
Ch 94 Load Status	Not Overloaded	Municipality	North Union Township
Connection Status	No Prohibitions	County	Schuylkill
Date Application Received	November 2, 2023	EPA Waived?	No
Date Application Accepted	November 2, 2023	If No, Reason	Significant CB Discharge

Purpose of Application: Renewal of NPDES permit.

Summary of Review

The applicant is requesting renewal of an NPDES permit to discharge 0.35 MGD of treated sewage to Tomhicken Creek, a CWF/MF designated receiving stream in state water plan basin 05-E (Catawissa – Roaring Creeks). 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. Tomhicken Creek is designated as a natural trout reproduction stream as per PA Fish & Boat Commission (from headwaters downstream to mouth).

As in the last permit renewal, this permit renewal will be issued with tiered limitations to accommodate plans to upgrade and increase the permitted flow from the WWTP. Water quality modeling was performed to determine if more stringent limitations are needed for each of the following permitted flows: 0.35 MGD, 0.98 MGD and 1.318 MGD.

USGS gage 01540300 (Tomhicken Creek near Zion Grove, PA) provided a LFY of 0.11 cfs/mi^2. Drainage areas were delineated using USGS StreamStats, RMIs were determined using the historical streams layer of eMapPA, and elevations were found using the elevation profile tool of StreamStats.

WQM 7.0 recommended more stringent limitations for Ammonia-N at the 0.98 MGD and 1.318 MGD discharge rates. The TRC calculation spreadsheet recommended more stringent limitations for the 0.98 MGD and 1.318 MGD discharge rates.

Note: Water quality modeling was not performed during the previous renewal. The assumptions and limitations were carried over from the permit renewal issued in 2011.

A Total Maximum Daily Load (TMDL) for the Catawissa Creek watershed was finalized on March 1, 2003. The TMDL addresses the three primary metals associated with acid mine drainage (Iron, Manganese and Aluminum) and pH. Treated sewage is not considered a major contributor of the primary metals to the affected streams, however, quarterly monitoring and reporting requirements were included in the previous permit renewal for these pollutants of concern. The highest

Approve	Deny	Signatures	Date
X		Brian Burden, E.I.T. / Project Manager	October 29, 2024
X		Amy M. Bellanca (signed) Amy M. Bellanca, P.E. / Program Manager	10-29-24

Summary of Review

reported concentrations of each pollutant were modeled with the Toxics Management Spreadsheet at each discharge rate. No limitations or monitoring requirements were recommended for all discharge rates. Since it's confirmed these pollutants are not of concern in the discharge at this time, the monitoring frequencies are updated to 1/year for Total Aluminum, Total Iron, and Total Manganese.

To quantify nutrient reduction needs, maximum nutrient loads (cap loads) for each major watershed tributary to the Chesapeake Bay were established. This included allocation of cap loads for Total Nitrogen (TN) and Total Phosphorus (TP) in Pennsylvania for the Potomac and Susquehanna watersheds. Pennsylvania's overall cap loads for TN and TP were further divided into cap loads for point and non-point sources. The method used to allocate the point source portion of the load was developed after DEP conducted an extensive stakeholder process with sewage treatment plants in 2006. The workgroup recommendation made the allocations based on the design annual average daily flow, and concentrations of 6 mg/L TN and 0.8 mg/L TP. Based on this methodology, the allocations for TN and TP for this facility are 24,073 lbs/yr and 3,210 lbs/yr, respectively. The WWTP is considered a Phase 3 facility in the Department's *Phase 3 Watershed Implementation Plan Wastewater Supplement (revised 9/13/2021)*.

Monthly influent monitoring requirements for BOD_5 and TSS are continued in this renewal. There are no current or projected overloads at the treatment plant as per the most recently submitted Chapter 94 report (for calendar year 2023). No antidegradation analysis is required since the watershed is not high quality or exceptional value. None of the existing effluent limitations have been made less stringent, therefore, the antibacksliding requirement has been met.

As per current DEP guidance, quarterly monitoring/reporting is added to the permit for E. Coli. The minimum monitoring frequency will be updated to monthly after completion of the 1.318 MGD upgrade.

Since this facility has yet to upgrade their design flow into the "Major Sewage" category (1.0 MGD or greater design discharge), WET testing was not required during the last permit cycle. Part C.IV regarding WET testing requirements is included in the permit during this renewal and is only applicable when the facility upgrades their design flow into the major sewage category. Upon completion of the 1.318 MGD WWTP upgrade, the permittee shall collect discharge samples and perform WET tests to generate chronic survival and reproduction data for the cladoceran, *Ceriodaphnia dubia* and chronic survival and growth data for the fathead minnow, *Pimephales promelas*. The permittee shall perform testing using the following dilution series: 15%, 31%, 61%, 81%, and 100% effluent, with a control, where 61% is the facility-specific Target In-Stream Waste Concentration (TIWC).

The Part C special condition requiring the permittee to notify DEP at least 120 days in advance of when they project the WWTP upgrades to be completed is carried over from the previous permit.

The previously issued permit expired on April 30, 2024 and the application for permit renewal was submitted on time.

Sludge use and disposal description and location(s): The permit renewal application states 14.487 dry tons of sludge was hauled to the Greater Hazleton Joint Sewer Authority WWTP during the previous year.

The monitoring frequencies for all parameters with limitations conform with the monitoring frequencies recommended in the Department's Technical Guidance for the Development and Specification of Effluent Limitations (doc. no. 362-0400-001).

Watershed Information.pdf
WET Dilution Series.pdf
2011 WQ Report.pdf
WQM Modeling 0.35 MGD.pdf
TRC Calculation 0.35 MGD.pdf
TMS PA0061590 0.35 MGD.pdf
WQM Modeling 0.98 MGD.pdf
TRC Calculation 0.98 MGD.pdf
TMS PA0061590 0.98 MGD.pdf
WQM Modeling 1.318 MGD.pdf
TRC Calculation 1.318 MGD.pdf
TMS PA0061590 1.318 MGD.pdf
Chapter 94.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*,

Summary of Review
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)	0.35
Latitude	40º 55' 36"	Longitude	-76º 9' 5"
Quad Name	Nuremberg	Quad Code	1136
Wastewater Description:	Sewage Effluent		

Receiving Waters	Tomhicken Creek (CWF, MF)	Stream Code	27567
NHD Com ID	65641015	RMI	5.3
Drainage Area	11.9 mi^2	Yield (cfs/mi^2)	0.11
Q_{7-10} Flow (cfs)	1.3	Q_{7-10} Basis	Gage 01540300
Elevation (ft)	996	Slope (ft/ft)	0.01
Watershed No.	5-E	Chapter 93 Class.	CWF, MF
Existing Use	-	Existing Use Qualifier	-
Exceptions to Use	-	Exceptions to Criteria	-
Assessment Status	Impaired		
Cause(s) of Impairment	pH, Metals		
Source(s) of Impairment	Abandoned Mine Drainage		
TMDL Status	Final	Name	Catawissa Creek

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

Nearest Downstream Public Water Supply Intake	Catawissa Municipal Water Authority		
PWS Waters	Catawissa Creek	Flow at Intake (cfs)	15
PWS RMI	1.2	Distance from Outfall (mi)	~27

Treatment Facility Summary

Treatment Facility Name: Eagle Rock WWTP

WQM Permit No.	Issuance Date
5409403	11/2/2009

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Extended Aeration	Sodium Hypochlorite	0.35

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.35	671	Not Overloaded	Holding Tank	Hauled

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.35
Latitude 40º 55' 36" **Longitude** -76º 9' 5"
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
$CBOD_5$	25.0	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)
Fecal Coliform (10/1 – 4/30)	2,000 / 100 ml	Geo Mean	-	92a.47(a)(5)
	10,000 / 100 ml	IMAX	-	92a.47(a)(5)

Water Quality-Based Limitations (from Permit Effective Date until Date Upgrade to 0.98 MGD Plant is Complete)

The following limitations were determined through water quality modeling:

Parameter	Limit (mg/l)	SBC	Model / Basis
Total Residual Chlorine	0.35	Average Monthly	2011 WQ Report
	0.82	IMAX	
Ammonia-Nitrogen (5/1 – 10/31)	5.5	Average Monthly	2011 WQ Report
	11.0	IMAX	
Ammonia-Nitrogen (11/1 – 4/30)	16.5	Average Monthly	2011 WQ Report
	33.0	IMAX	
Dissolved Oxygen	5.0	Minimum	2011 WQ Report

(From Date Upgrade to 0.98 MGD Plant is Complete until Date Upgrade to 1.318 MGD Plant is Complete)

Parameter	Limit (mg/l)	SBC	Model / Basis
Total Residual Chlorine	0.13	Average Monthly	2024 TRC Calculation Spreadsheet
	0.43	IMAX	
Ammonia-Nitrogen (5/1 – 10/31)	3.5	Average Monthly	2024 WQM 7.0
	7.0	IMAX	
Ammonia-Nitrogen (11/1 – 4/30)	10.5	Average Monthly	2024 WQM 7.0
	21.0	IMAX	
Dissolved Oxygen	5.0	Minimum	2011 WQ Report

(From Date Upgrade to 1.318 MGD Plant is Complete until Permit Expiration Date)

Parameter	Limit (mg/l)	SBC	Model / Basis
Total Residual Chlorine	0.10	Average Monthly	2024 TRC Calculation Spreadsheet
	0.33	IMAX	
Ammonia-Nitrogen (5/1 – 10/31)	2.9	Average Monthly	2024 WQM 7.0
	5.8	IMAX	
Ammonia-Nitrogen (11/1 – 4/30)	8.7	Average Monthly	2024 WQM 7.0
	17.4	IMAX	
Dissolved Oxygen	5.0	Minimum	2011 WQ Report

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