pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northeast Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0061450**
Facility Type	**Municipal**	APS ID	**589958**
Major / Minor	**Minor**	Authorization ID	**1344988**

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Applicant and Facility Information

Applicant Name	**Elmhurst Township Sewer Authority**	Facility Name	**Elmhurst Township Sewer Authority**
Applicant Address	112 Municipal Lane Elmhurst Twp, PA 18444-8548	Facility Address	112 Municipal Lane Elmhurst Twp, PA 18444-8548
Applicant Contact	Richard Miller - elmhurstsewer@comcast.net	Facility Contact	Richard Miller
Applicant Phone	(570) 842-9999	Facility Phone	(570) 842-9999
Client ID	80108	Site ID	251708; PF 260097
Ch 94 Load Status	Existing Hydraulic Overload	Municipality	Elmhurst Township
Connection Status	Legally Modified Connection Prohibition	County	Lackawanna
Date Application Received	March 2, 2021	EPA Waived?	Yes
Date Application Accepted	March 2, 2021	If No, Reason	

Purpose of Application: RENEWAL OF EXISTING NPDES PERMIT.

Summary of Review

The applicant is requesting the renewal of a NPDES Permit to discharge up to 0.281 MGD of treated sewage into the Roaring Brook (CWF) in State Watershed 5-A. In 2020, their average daily flow was 0.203 MGD. Per the Department's current existing use list, the receiving stream does not have an existing use classification that is more protective than the designated use. The discharge is not expected to affect public water supplies.

Sewage influent is collected in a 35’ deep well and pumped to one of four reactors. Cycles are 1-hour aeration,1-hour sedimentation, and 1-hour decant before UV disinfection.

The Permits existing limits will remain unchanged; modelling compels additional Copper M&R which will be added to the renewal.

This is a Phase 4 Chesapeake Bay facility. Chesapeake Bay: As a Phase 4 Chesapeake Bay facility, it is subject to the general requirement of 1/month Chesapeake Bay monitoring with 24-hour composite sampling. (Phase 4 facilities: ≥ 0.2 MGD and < 0.4 MGD).

Section 2 of Pennsylvania’s Phase 3 Chesapeake Bay Watershed Implementation Plan (Phase 3 WIP) describes Pennsylvania’s strategy for reducing nutrients to the Chesapeake Bay from wastewater facilities. Phase 3 Watershed Implementation Plan Wastewater Supplement Revised, December 17, 2019 updates are:

For Phase 4 sewage facilities (average annual design flow on August 29, 2005 ≥ 0.2 MGD and < 0.4 MGD), a future decision may be made as to the establishment of Cap Loads in permits. Until then, DEP will permit Phase 4 sewage facilities as follows:
1. Renewed or amended permits for facilities that do not increase design flow (compared to the date of the latest prior permit action) will contain monitoring and reporting for TN and TP throughout the permit term at a frequency no less than monthly.

Approve	Deny	Signatures	Date
X		Bernard Feist (signed) Bernard Feist, P.E. / Environmental Engineer	March 30, 2021
X		Amy M. Bellanca (signed) Amy M. Bellanca, P.E. / Environmental Engineer Manager	4-5-21

Summary of Review

2. Renewed or amended permits that include an increase in design flow will contain Cap Loads based on the lesser of a) existing TN and TP concentrations at current design average annual flow or b) 7,306 lbs/yr TN and 974 lbs/yr TP.

NOTE - TMDL: Facility was not given WLAs in the TMDL (AMD metals, pH), and is not expected to be a significant source of AMD metals or pH issues. Yearly monitor and reporting will continue.

NOTE – 2021 update - Sewage discharges will include monitoring, at a minimum, for E. Coli, in new and reissued permits, with 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.

NOTE - UV is the approved disinfection method. Where the permittee does not use chlorine for primary or backup disinfection, but proposes the use of chlorine for emergency disinfection, cleaning or other purposes, the following monitoring and reporting requirements pertain:

1. Daily, when using chlorine, the operator shall take grab samples to measure the TRC instantaneous maximum.

2. In addition to the average monthly value and instantaneous maximum value DMR reporting requirements, the DMR comment section shall be used to report the utilization or non-utilization of chlorine, the number of days of chlorine utilization, and the purpose of chlorine utilization for that time period. The eDMR NODI Code GG (Conditional Monitoring – Not Required) shall be used for eDMR reporting that chlorine has not been utilized during that time period.

Chapter 94 reporting states:

Projected Flows for Next Five Years (MGD)

	2019	2020	2021	2022	2023
New EDUs	0.0	0.0	0.0	0.0	0.0
New EDU Flow	0	0	0	0	0
Proj. Annual Avg	0.219	0.219	0.219	0.219	0.219
Proj. Max 3-Mo Avg	0.316	0.316	0.316	0.316	0.316
Proj. Overload?	YES	YES	YES	YES	YES

Condition of the Sewer System

Portions of the collection systems located in Elmhurst and Roaring Brook Townships experience moderate to severe inflow. Although inspection of the Roaring Brook system is not currently the responsibility of the ETSA, ETSA has approached the Roaring Brook Township Sewer Authority (RBTSA) in a cooperative manner in an effort to identify and address deficiencies. As significant progress has not been made to date, they have been put on notice of their non-compliance with existing service agreements governing the amount of wastewater they can discharge.

NOTE – A High Flow Management Plan (HFMP) will continue to be used to address the impact of high flows to this treatment plant during wet weather.

Sludge use and disposal description and location(s): Offsite at DEP approved location.

The WMS Report query “Water Management System Inspections” was run. On 05/01/2020 an Administrative/File Review was done with No Violations noted.

Summary of Review
The WMS “Open Violations by Client Report" was run and there are No Open Violations. 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

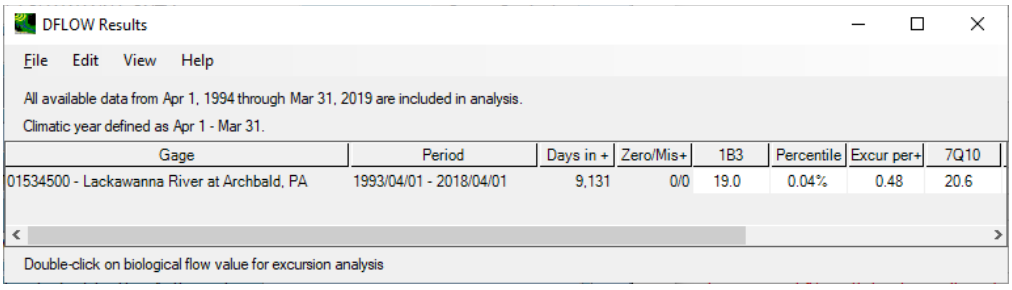
Outfall No.	001	Design Flow (MGD)	.281
Latitude	41º22' 38.02" 41.377	Longitude	-75º 32' 46.47" -75.546
Quad Name	Olyphant	Quad Code	0741 (3.21.1)
Wastewater Description:	Sewage Effluent		

Receiving Waters	Roaring Brook (CWF)	Stream Code	28452
NHD Com ID	65630551	RMI	10.8
Drainage Area	37.1	Yield (cfs/mi^2)	0.19
Q_{7-10} Flow (cfs)	7.05	Q_{7-10} Basis	DFlow USGS 01534500
Elevation (ft)	1,354	Slope (ft/ft)	
Watershed No.	5-A	Chapter 93 Class.	CWF
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	Final, 04/07/2005	Name	Lackawanna River Watershed (AMD metals and pH)

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

Nearest Downstream Public Water Supply Intake	Danville Water Supply		
PWS Waters		Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	➢ 50

Other Comments: Hydrologic Unit Code: 2050107
USGS STATION.--01534500 LACKAWANNA RIVER AT ARCHBALD, PA
LOCATION.--Lat 4l`30'16", long 75`32'33", Lackawanna County, Hydrologic Unit 02050107, on right bank along SR 1012 in Archbald, and 0.5 mi upstream from White Oak Run and Gilmartin Street bridge.
DRAINAGE AREA.--108 square miles.
PERIOD OF RECORD.--October 1939 to current year.

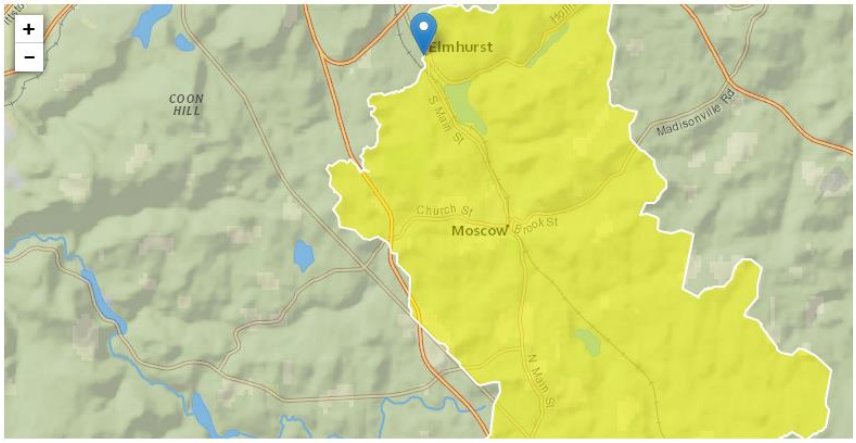


Q7-10 LowFlowYield (cfs/mi2)= LFY = 20.6/108 = 0.19

Outfall 001 at Roaring Brook - RMI 10.8 Outfall @ 1,354 ft

StreamStats Report

Region ID:	PA
Workspace ID:	PA20210330124610
Clicked Point (Latitude, Longitude):	41.37695, -75.54545
Time:	2021-03-30 08:46:26 -



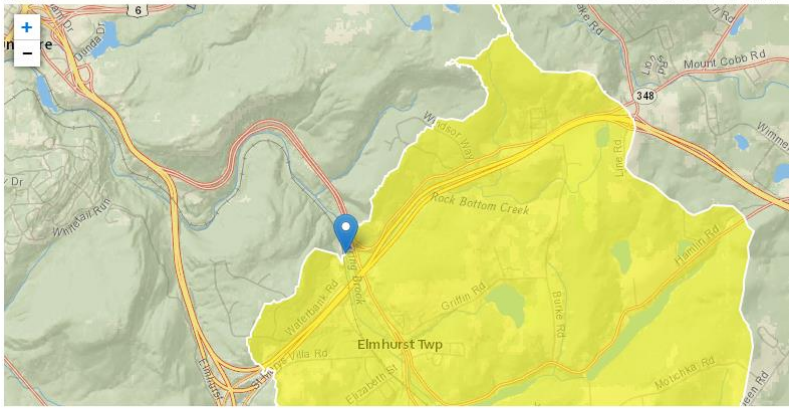
Low-Flow Statistics Parameters [100.0 Percent (37.1 square miles) Low Flow Region 2]

Parameter Code	Parameter Name	Value	Units
DRNAREA	Drainage Area	37.1	square miles

Stream CFS = 0.19 * 37.1 = 7.05

RMI 9.9 at Trib Rock Bottom Creek @ 1,305 ft

Clicked Point (Latitude, Longitude):	41.39007, -75.55435
Time:	2021-03-30 08:58:59 -



Low-Flow Statistics Parameters [100.0 Percent (41.8 square miles) Low Flow Region 2]

Parameter Code	Parameter Name	Value	Units
DRNAREA	Drainage Area	41.8	square miles

Treatment Facility Summary

Treatment Facility Name: Elmhurst Township WWTP

WQM Permit No.	Issuance Date	Scope
3512402	5/22/2012	New screen (0.7 MGD capacity at influent suspended solids concentration of 200 mg/l), with abandonment of old comminutor.
3593403	5/24/1993	Expansion to 0.281 MGD, allowing for receipt of Roaring Brook Township flows per 2014 Chapter 94 Report. WWTP included 0.562 MGD max influent WWTP pump station and effluent WWTP pump station.
3586410	1/20/1987	0.106 MGD STP and related sewage facilities (collection system, pump stations, outfall/headwall).

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	ICEAS Sequencing Batch Reactor	UV	0.281

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.281	407	Existing Hydraulic Overload	Aerobic digesters	Offsite disposal

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** .281
Latitude 41º 22' 38.00" **Longitude** -75º 32' 47.00"
Wastewater Description: Sewage Effluent

Technology-Based Limitations

The following technology-based limitations apply, subject to water quality analysis and BPJ where applicable:

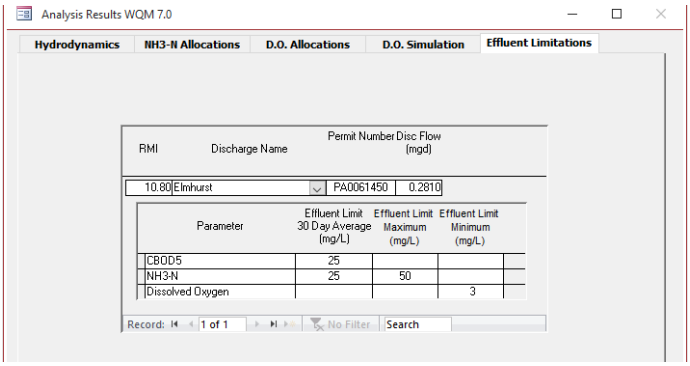
Parameter	Minimum	Average Monthly	Average Weekly	IMAX	Basis
Flow (MGD)	XXX	Report	Report Max Daily	XXX	§§ 92a.27, 92a.61
CBOD5 (mg/L)	XXX	25	40	50	§ 92a.47
TSS (mg/L)	XXX	30	45	60	§ 92a.47
TRC (mg/L)	XXX	0.5	XXX	1.6	§§ 92a.47-48
NH3-N (mg/L)	XXX	25	XXX	50	BPJ
D.O. (mg/L)	4	XXX	XXX	XXX	BPJ
pH (SU)	6	XXX	XXX	9	§ 92a.47, § 95.2
Total N (mg/L)	XXX	Report	XXX	XXX	§ 92a.61
Total P (mg/L)	XXX	Report	XXX	XXX	§ 92a.61
Fecal Coliform (No./100 ml) (May-Sept)	XXX	200 Geo Mean	XXX	1,000	§ 92a.47
Fecal Coliform (No./100 ml) (Oct-April)	XXX	2,000 Geo Mean	XXX	10,000	§ 92a.47
E. Coli (No./100 ml)*	XXX	XXX	XXX	Report	§ 92a.61

*2021 update - Sewage discharges will include monitoring, at a minimum, for E. Coli, in new and reissued permits, with 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.

Water Quality-Based Limitations

A “Reasonable Potential Analysis” determined the following parameters were candidates for limitations:

The following limitations were determined through water quality modeling (output files attached):



pennsylvania
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Toxics Management Spreadsheet
Version 1.3, March 2021

Model Results

Elmhurst, NPDES Permit No. PA0061450, Outfall 001

Instructions | Results | RETURN TO INPUTS | SAVE AS PDF | PRINT | ◉ All | ○ Inputs | ○ Results | ○ Limits

☑ ***Recommended WQBELs & Monitoring Requirements***

No. Samples/Month: 4

	Mass Limits		Concentration Limits						
Pollutants	AML (lbs/day)	MDL (lbs/day)	AML	MDL	IMAX	Units	Governing WQBEL	WQBEL Basis	Comments
Total Copper	Report	Report	Report	Report	Report	µg/L	127	AFC	Discharge Conc > 10% WQBEL (no RP)

☑ ***Other Pollutants without Limits or Monitoring***

The following pollutants do not require effluent limits or monitoring based on water quality because reasonable potential to exceed water quality criteria was not determined and the discharg concentration was less than thresholds for monitoring, or the pollutant was not detected and a sufficiently sensitive analytical method was used (e.g., <= Target QL).

Pollutants	Governing WQBEL	Units	Comments
Total Dissolved Solids (PWS)	N/A	N/A	PWS Not Applicable
Chloride (PWS)	N/A	N/A	PWS Not Applicable
Bromide	N/A	N/A	No WQS
Sulfate (PWS)	N/A	N/A	PWS Not Applicable
Total Aluminum	6,808	µg/L	Discharge Conc ≤ 10% WQBEL
Total Iron	25,823	µg/L	Discharge Conc ≤ 10% WQBEL
Total Lead	N/A	N/A	Discharge Conc < TQL
Total Manganese	17,216	µg/L	Discharge Conc ≤ 10% WQBEL
Total Zinc	1,088	µg/L	Discharge Conc ≤ 10% WQBEL

Comments: Yearly Copper M&R will be added to the Permit renewal

Elmhurst%20TMS%201.3.xlsb

Compliance History

DMR Data for Outfall 001 (from February 1, 2020 to January 31, 2021)

Parameter	JAN-21	DEC-20	NOV-20	OCT-20	SEP-20	AUG-20	JUL-20	JUN-20	MAY-20	APR-20	MAR-20	FEB-20
Flow (MGD) Average Monthly	0.187	0.238	0.160	0.138	0.141	0.165	0.155	0.161	0.255	0.282	0.240	0.270
Flow (MGD) Daily Maximum	0.309	0.781	0.249	0.386	0.295	0.844	0.427	0.348	0.723	0.451	0.418	0.484
pH (S.U.) Minimum	6.9	6.7	6.9	6.7	7.0	6.9	6.9	6.9	6.7	6.7	6.8	6.8
pH (S.U.) Instantaneous Maximum	7.2	7.3	7.1	7.2	7.3	7.3	7.3	7.3	7.2	7.4	7.2	7.4
DO (mg/L) Minimum	7.4	6.8	6.6	5.2	5.5	6.5	6.6	7.0	7.3	7.5	7.2	7.8
TRC (mg/L) Average Monthly	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
TRC (mg/L) Instantaneous Maximum	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
CBOD5 (lbs/day) Average Monthly	7.7	8.2	5.2	3.4	2.8	2.7	< 1.0	1.8	5.1	10.2	8.3	20.1
CBOD5 (lbs/day) Weekly Average	8.5	13.9	6.4	4.5	2.9	3.7	< 1.0	3.4	8.7	16.5	13.8	50.2
CBOD5 (mg/L) Average Monthly	5.1	4.1	3.9	3.4	2.5	2.3	< 1.0	1.4	2.2	4.0	4.0	8.2
CBOD5 (mg/L) Raw Sewage Influent Average Monthly	172.3	197.0	140.3	434.3	244.4	305.3	195.5	217.1	192.1	110.9	169.3	130.8
CBOD5 (mg/L) Weekly Average	5.6	5.6	4.6	4.6	2.6	3.1	< 1.0	2.6	3.6	5.1	5.6	17.0
TSS (lbs/day) Average Monthly	7.0	8.5	4.7	2.3	0.7	0.8	< 1.0	1.5	5.1	11.1	7.1	20.7
TSS (lbs/day) Weekly Average	8.6	21.2	9.1	3.2	3.3	3.3	< 1.0	3.9	7.4	16.1	14.8	55.9
TSS (mg/L) Average Monthly	4.0	4.0	3.0	2.0	1.0	1.0	< 1.0	1.0	2.0	4.0	3.0	8.0
TSS (mg/L) Raw Sewage Influent Average Monthly	136.5	51.0	170.7	383.0	217.5	368.0	259.0	235.0	346.5	80.5	286.0	107.5
TSS (mg/L) Weekly Average	5.0	7.0	6.0	3.0	3.0	3.0	< 1.0	3.0	3.0	5.0	6.0	19.0
Fecal Coliform (CFU/100 ml) Geometric Mean	1	2	7	50	6	2	6	1	7	5	2	21
Fecal Coliform (CFU/100 ml) Instantaneous Maximum	1	12	236	588	36	8	20	1	20	12	8	648
Nitrate-Nitrite (mg/L) Average Monthly	2.92	5.3	9.94	10.5	12.9	10.7	6.6	8.6	5.4	5.2	4.5	3.5
Nitrate-Nitrite (lbs) Total Monthly	194.02	402.7	318.3	333.9	422.8	345.8	268.3	332.1	408.5	296.8	245.6	212.8
Total Nitrogen (mg/L) Average Monthly	5.40	9.2	12.9	12.5	13.0	12.1	9.3	14.4	9.5	9.2	11.0	9.5
Total Nitrogen (lbs) Effluent Net Total Monthly	358.80	701.7	413.1	397.5	426.1	391.04	377.5	554.8	714.7	527.1	602.9	585.9
Total Nitrogen (lbs) Total Monthly	358.80	701.7	413.1	397.5	426.1	391.0	377.5	554.8	714.7	527.1	602.9	585.9
Total Nitrogen (lbs) Effluent Net Total Annual					6362.5							

Total Nitrogen (lbs) Total Annual					6362.5							
Ammonia (mg/L) Average Monthly	2.18	2.2	1.5	2.18	1.10	0.19	0.53	5.0	3.6	3.1	5.7	5.1
Ammonia (lbs) Total Monthly	120.60	135.3	51.6	71.4	39.1	6.75	22.2	190.1	239.4	235.0	276.4	373.8
Ammonia (lbs) Total Annual					1744.8							
TKN (mg/L) Average Monthly	2.50	4.0	3.0	2.01	1.0	1.44	2.6	5.8	4.1	4.0	6.5	6.0
TKN (lbs) Total Monthly	166.11	302.0	94.8	63.9	35.9	46.54	107.2	224.3	305.5	230.3	354.1	372.5
Total Phosphorus (mg/L) Average Monthly	0.90	2.0	4.8	4.0	3.2	3.40	9.2	2.7	1.6	1.8	1.4	2.4
Total Phosphorus (lbs) Effluent Net Total Monthly	59.80	152.5	153.7	127.2	104.9	109.88	373.4	104.0	116.6	100.3	76.7	144.9
Total Phosphorus (lbs) Total Monthly	59.80	152.5	153.7	127.2	104.9	109.88	373.4	104.0	116.6	100.3	76.7	144.9
Total Phosphorus (lbs) Effluent Net Total Annual					1538.7							
Total Phosphorus (lbs) Total Annual					1538.7							
Total Aluminum (mg/L) Average Monthly		< 0.100										
Total Iron (mg/L) Average Monthly		< 0.100										
Total Manganese (mg/L) Average Monthly		0.039										