Pennsylvania Department of Environmental Protection

Northeast Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0061352**
Facility Type	**Municipal**	APS ID	**600908**
Major / Minor	**Minor**	Authorization ID	**1483701**

Applicant and Facility Information

Applicant Name	**Delaware Water Gap Municipal Authority**	Facility Name	**Delaware Water Gap Municipal Authority WWTP**
Applicant Address	PO Box 128	Facility Address	92 Broad Street
	Delaware Water Gap, PA 18327-0128		Delaware Water Gap, PA 18327
Applicant Contact	Harry Darlington	Facility Contact	David Scholtz
Applicant Phone	-	Facility Phone	(570) 629-2981
Client ID	163121	Site ID	4603
Ch 94 Load Status	Not Overloaded	Municipality	Delaware Water Gap Borough
Connection Status	No Limitations	County	Monroe
Date Application Received	May 2, 2024	EPA Waived?	No
Date Application Accepted	May 2, 2024	If No, Reason	IPP Program

Purpose of Application: Renewal of existing NPDES permit.

Summary of Review

The applicant is requesting renewal of their NPDES permit to discharge up to 0.176 MGD of treated sewage from the Delaware Water Gap WWTP into Cherry Creek, a cold water and migratory fish (CWF, MF) receiving stream in state water plan basin 01-E (Brodhead 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 the designated use. Cherry Creek is categorized as supporting aquatic life with no impairments as per the 2024 Integrated Water Quality Report.

Technology-based effluent limitations for pH, $CBOD_5$, Total Suspended Solids, Total Residual Chlorine, and Fecal Coliform are carried over from the previous permit. The summertime technology-based Fecal Coliform limitations are in effect throughout the year. Water quality-based effluent limitations for Dissolved Oxygen (DO), Ammonia-N (summertime only), and Total Copper are carried over from the previous permit.

The previously issued permit included an 85% minimum monthly average removal percentage requirement for both BOD_5 and TSS, which is carried over in this renewal. Monthly monitoring/reporting requirements for influent for BOD_5 and TSS are carried over as well as quarterly monitoring/reporting requirements for Total Dissolved Solids, Total Phosphorus, Total Nitrogen, Nitrate-Nitrite as N, and Total Kjeldahl Nitrogen. Quarterly monitoring/reporting requirements are included in this renewal for E. Coli as per current DEP guidance.

Currently, there are no Chapter 93 water quality standards for Bromide. Quarterly Bromide monitoring/reporting requirements were established during the previous renewal to gain data on this pollutant of concern. Most results were non-detect and analyzed at varying QLs (between 0.1 mg/L – 5.0 mg/L). An outlier result of 25 mg/L was reported in the 4th quarter of 2021. Studies conducted by the Environmental Protection Agency (EPA) suggest source water with bromide concentrations of 250 micrograms per liter (0.25 mg/L) are classified as containing high levels, concentrations of 150 µg/L (0.15 mg/L) as moderate levels, and 20 µg/L (0.020 mg/L) as low concentrations. Most of the QLs used to analyze Bromide

Approve	Deny	Signatures	Date
X		Brian Burden, E.I.T. / Project Manager	December 19, 2024
X		Amy M. Bellanca (signed) Amy M. Bellanca, P.E. / Program Manager	12-23-24

Summary of Review

during the previous permit term could only detect the pollutant in wastewaters with high concentrations. DEP's current target QL for analyzing Bromide is 0.2 mg/L, which can only detect Bromide is wastewaters with moderately high levels of the pollutant. For this renewal, the quarterly monitoring requirement will be adjusted to annual monitoring/reporting. It's recommended for the permittee to seek test methods with the lowest QL to obtain better data on Bromide concentrations in the effluent.

Neither WQM 7.0 nor the TRC Calculation Spreadsheet recommended more stringent limitations (see attached .pdfs). 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 (see Watershed Information attachment). The statewide default low flow yield (LFY) of 0.1 cfs/mi^2 was used since there's no nearby representative stream gages with current data.

DEP's Toxics Management Spreadsheet (TMS) was used to model sampling results submitted with the permit renewal application. The following recommendations were made:

- Total Copper: Limitations were recommended, however, the limitations in the previously issued permit are more stringent and will be retained in this renewal.

- Total Lead: Limitations were recommended: 0.027 mg/L monthly average, 0.043 mg/L daily maximum, 0.069 mg/L IMAX. The sample result for Total Lead was "<0.5 mg/L" in the renewal application. It's recommended for the permittee to double check the units (mg/L vs. µg/L) in the laboratory result sheets since Total Lead is generally tested using a method with much greater sensitivity in other NPDES sewage permit renewal applications. If the originally reported units are correct, then the permittee may conduct additional sampling at DEP's target QL during the draft permit public comment period. The updated results would then be remodeled using the TMS. An additional three Total Lead sampling results taken one week apart are required to remodel the discharge. If the originally reported units are correct and the permittee chooses not to resample the discharge for Total Lead, then the recommended limitations will come into effect three years after the permit effective date and a Toxics Reduction Evaluation will need to be conducted. Monitoring requirements are included in the permit until the limitations come into effect.

- Total Zinc: Limitations were recommended: 0.66 mg/L monthly average, 1.04 mg/L daily maximum, 1.66 mg/L IMAX. The sample result for Total Lead was "42.2 mg/L" in the renewal application. As with Total Lead above, it's recommended for the permittee to double check the units (mg/L vs. µg/L) in the laboratory result sheets since Total Zinc sample results are generally orders of magnitude lower in domestic wastewater treatment plant discharges. If the originally reported units are correct, then the recommended limitations will come into effect three years after the permit effective date and a Toxics Reduction Evaluation will need to be conducted. Monitoring requirements are included in the permit until the limitations come into effect.

The TMS was not used to model the discharge in relation to the nearest downstream public water supply intake location due to the distance (~28 miles) from Outfall 001 and the dilution available in the Delaware River.

All monitoring frequencies for parameters with limitations are consistent with the recommended frequencies found in Table 6-3 of DEP's Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits (doc. No. 362-0400-001).

A new internal monitoring point (IMP 101) was added to Part A of the previous permit as a location to sample influent wastewater for BOD_5 and TSS. IMP 101 will remain in this renewal, but it's noted that the NPDES permits of other similar treatment facilities may or may not include separate IMPs for reporting influent sampling results. Currently, most other NPDES sewage permits in the Northeast region include the influent sampling results as part of Outfall 001 reporting requirements on eDMR.

There is no DRBC docket for this facility available on DRBC's interactive docket holder map. The fact sheet for the previous renewal states that the July 11, 2012 DRBC Docket for the water supply system indicated the WWTP was covered under DRBC Docket No. D-1986-008 CP-1 (effective March 26, 1986).

Summary of Review

All Part C.I (Other Requirements) and Part C.III (Solids Management) special conditions are carried over in this renewal. The Part C.IV condition (Water Quality-Based Effluent Limitations for Toxic Pollutants) is updated to remove requirements for Total Copper and add requirements for Total Lead and Total Zinc.

The 2023 Chapter 94 Report shows no existing or projected hydraulic / organic overloads at the WWTP. The report indicates a 514 lbs BOD_5 / day organic capacity, but that conflicts with the 293 lbs/day capacity in WQM permit 4585406-T1. Overloads aren't projected at the 293 lbs/day capacity.

The Chapter 94 report contains industrial wastewater discharge permits issued by the Authority to Aurorium DWG, LLC, and Frank Martz Coach Company. The permittee currently has an EPA-approved pretreatment program.

Note: Since the renewal application indicates the facility operates an EPA-approved industrial pretreatment program (IPP), the EPA Discretionary checkbox was checked in eFACTS during this renewal to ensure all permit documents are sent to the EPA. The template Part C special condition for facilities with existing IPPs is added to this renewal.

Sludge use and disposal description and location(s): The renewal application indicates 8.631 dry tons of sludge was hauled to the Lehigh Pretreatment Facility during the previous year.

TMS PA0061352.pdf

WQM Modeling.pdf

TRC Calculation.pdf

Watershed Information.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)	0.176
Latitude	40º 59' 7"	Longitude	-75º 8' 36"
Quad Name	Stroudsburg	Quad Code	1144
Wastewater Description:	Sewage Effluent		

Receiving Waters	Cherry Creek (CWF, MF)	Stream Code	4751
NHD Com ID	26174906	RMI	0.45
Drainage Area	20.8 mi^2	Yield (cfs/mi^2)	0.1
Q_{7-10} Flow (cfs)	2.08	Q_{7-10} Basis	Statewide default LFY
Elevation (ft)	304	Slope (ft/ft)	0.0063
Watershed No.	1-E	Chapter 93 Class.	CWF, MF
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	-

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)	1105
PWS RMI	110.5	Distance from Outfall (mi)	~28

Treatment Facility Summary

Treatment Facility Name: Delaware Water Gap WWTP

WQM Permit No.	Issuance Date	Scope
4585406	1/15/1986	Design, Construction and operation of WWTP, issued to Borough
4585406-T1	6/27/2013	Transfer of WQM Permit to Authority

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Activated Sludge	Chlorine with dechlorination	0.176

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.176	293	Not Overloaded	Aerobic digesters	Disposal

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.176
Latitude 40º 59' 7" **Longitude** -75º 8' 36"
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)
	40.0	Average Weekly	133.102(a)(4)(ii)	92a.47(a)(2)
	50.0	IMAX	-	-
Total Suspended Solids	30.0	Average Monthly	133.102(b)(1)	92a.47(a)(1)
	45.0	Average Weekly	133.102(b)(2)	92a.47(a)(2)
	60.0	IMAX	-	-
pH	6.0 – 9.0 S.U.	Min – Max	133.102(c)	95.2(1)
Fecal Coliform	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 summertime technology-based Fecal Coliform limitations are in effect throughout the year.

Water Quality-Based Limitations

The following limitations were determined through water quality modeling:

Parameter	Limit (mg/l)	SBC	Model
Dissolved Oxygen	4.0	Instant. Minimum	2019 Water quality modeling
Ammonia-Nitrogen (5/1 – 10/31)	7.96	Average Monthly	
	15.92	IMAX	
Total Copper	0.059	Average Monthly	
	0.109	Daily Maximum	
	0.118	IMAX	
Total Lead**	0.027	Average Monthly	2024 Toxics Management Spreadsheet
	0.043	Daily Maximum	
	0.069	IMAX	
Total Zinc**	0.66	Average Monthly	
	1.04	Daily Maximum	
	1.66	IMAX	

Comments: ** See discussion on Total Lead and Total Zinc above

Anti-Backsliding

No limitations were removed from the permit or made less stringent.

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