Pennsylvania Department of Environmental Protection

Northeast Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0024015**
Facility Type	**Municipal**	APS ID	**629655**
Major / Minor	**Minor**	Authorization ID	**1486884**

Applicant and Facility Information

Applicant Name	**Cressona Borough Authority**	Facility Name	**Cressona Borough STP**
Applicant Address	58 S. Sillyman Street	Facility Address	58 S. Sillyman Street
	Cressona, PA 17929		Cressona, PA 17929
Applicant Contact	Gail Buffington	Facility Contact	Jarrad Bernitsky
Applicant Phone	(570) 385-1155	Facility Phone	(570) 449-8180
Client ID	78409	Site ID	543303
Ch 94 Load Status	Not Overloaded	Municipality	Cressona Borough
Connection Status	No Prohibitions	County	Schuylkill
Date Application Received	May 28, 2024	EPA Waived?	Yes
Date Application Accepted	May 28, 2024	If No, Reason	-

Purpose of Application: Renewal of NPDES permit.

Summary of Review

The applicant is requesting the renewal of an NPDES permit to discharge up to 0.72 MGD of treated sewage into the West Branch Schuylkill River, a Cold-Water & Migratory Fish (CWF, MF) receiving stream in State Water Plan Basin 3-A (Upper Schuylkill River). As per the Department's current existing use list, the receiving stream does not have an existing use classification that's more protective than its designated use. This discharge is not expected to affect public water supplies.

Limitations for pH, $CBOD_5$, Total Suspended Solids (TSS), Total Residual Chlorine (TRC), and Fecal Coliform are technology-based and carried over from the previous permit. The BPJ-based limitation for Dissolved Oxygen (DO) is also carried over.

WQM permit 5421401 (issued April 26, 2021) approved the installation of an ultraviolet radiation disinfection system at the STP and an inspection completed on June 29, 2022 confirmed completion of the system installation. The existing monthly average limitation for TRC is removed from the permit and the minimum monitoring frequency is updated to "Daily When Discharging". The permittee is required to monitor for TRC in the effluent only on days where the permittee utilizes chlorine at the STP for backup disinfection, cleaning, or any other purposes (See Part C.I.D.).

The following template Part C.I.E. special condition for UV system monitoring is included in this renewal:

The permittee shall report operation of the ultraviolet (UV) disinfection system on a daily basis using the Daily Effluent Monitoring Form (3800-FM-BCW0435) and the parameter named "UV Functional" The permittee shall report values of "1" for Yes (i.e., the UV system is functional) and "< 1" for No (i.e., the UV system is not functional). The UV system shall be considered functional when all components that are necessary for disinfection to achieve effluent limitations in Part A of this permit are operating properly.

Approve	Deny	Signatures	Date
X		Brian Burden, E.I.T. / Project Manager	February 3, 2025
X		Amy M. Bellanca (signed) Amy M. Bellanca, P.E. / Program Manager	2-6-25

Summary of Review

The summertime water quality-based Ammonia-Nitrogen limitations (13.8 mg/L monthly average, 27.6 mg/L IMAX) continue in this renewal as well as the wintertime monitoring/reporting requirements. Quarterly monitoring/reporting for Total Nitrogen, Total Phosphorous, Total Kjeldahl Nitrogen, and Nitrate-Nitrite as N are carried over as well as the monitoring/reporting of influent BOD_5 and TSS. Quarterly monitoring/reporting is added to the permit for E. Coli as per current guidance.

Total Maximum Daily Loads (TMDLs) for the West Branch Schuylkill River watershed and the Upper Schuylkill River watershed both address metals (iron, manganese, and aluminum) and low pH associated with acid mine drainage (AMD). There are no Waste Load Allocations (WLAs) for this facility. Quarterly monitoring/reporting requirements for Total Iron, Total Manganese, and Total Aluminum are continued in this renewal. Discharge concentrations of these metals since the previous permit effective date were well below the water quality criteria established in the TMDLs.

A TMDL for polychlorinated biphenyls (PCBs) was approved for the Schuylkill River in April 2007. There are no assigned Waste Load Allocations (WLAs) for this facility. The TMDL requires sampling for PCBs for facilities that discharge directly to the Schuylkill River only. PCBs are not expected to be present in the effluent.

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).

The September 5, 2024 facility inspection report indicates an effluent composite sampler has been installed. Since 24-hour composite samples are preferred for a facility of this design flow, the renewed permit will update the 8-hour sample type to a 24-hour sample type for all composite samples.

Modeling the discharge with DEP's Toxics Management Spreadsheet, WQM 7.0 and the TRC calculation spreadsheet did not recommend new or more stringent limitations for any parameter. Since there are no representative stream gages in the vicinity of the outfall with current data, the state-wide default low flow yield (LFY) of 0.1 cfs/mi^2 was used to model the discharge. RMI values were obtained using the historic streams feature of the Department's eMapPA, drainage areas were delineated using USGS's StreamStats interactive map, and elevations were obtained using the elevation profile tool on StreamStats.

There are no open violations for the permittee that would warrant withholding issuance of the final permit. All template Part C special conditions from the previous renewal are included in this permit. The latest Chapter 94 report for the facility indicates no current or project hydraulic / organic overloads. There is no DRBC docket for this facility.

Sludge use and disposal description and location(s): The permit renewal application indicates 19.1 dry tons of sludge was hauled to the Commonwealth Environmental Services (CES) Landfill in Foster Township, Schuylkill County in the previous year.

WQM Modeling.pdf TRC Calculation.pdf TMS PA0024015.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)	0.72
Latitude	40º 37' 45"	Longitude	-76º 11' 30"
Quad Name	Pottsville	Quad Code	1336
Wastewater Description:	Sewage Effluent		
Receiving Waters	West Branch Schuylkill River (CWF, MF)	Stream Code	2329
NHD Com ID	25991190	RMI	0.72
Drainage Area	53.6 mi^2	Yield (cfs/mi^2)	0.1
Q_{7-10} Flow (cfs)	5.36	Q_{7-10} Basis	Statewide default LFY
Elevation (ft)	525	Slope (ft/ft)	0.0039
Watershed No.	3-A	Chapter 93 Class.	CWF, MF
Existing Use	-	Existing Use Qualifier	-
Exceptions to Use	-	Exceptions to Criteria	-
Assessment Status	Impaired		
Cause(s) of Impairment	Flow Regime Modification, Habitat Alterations, Metals, Polychlorinated Biphenyls, Siltation		
Source(s) of Impairment	Acid Mine Drainage, Channelization, Highway/Road/Bridge Runoff, Streambank Modifications/Destabilization, Urban Runoff/Storm Sewers, and Unknown Sources		
TMDL Status	Final	Name	Schuylkill River PCB TMDL, Upper Schuylkill River TMDL, West Branch Schuylkill River Watershed TMDL

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

Nearest Downstream Public Water Supply Intake		Pottstown Borough Water Authority (12 MGD)	
PWS Waters	Schuylkill River	Flow at Intake (cfs)	-
PWS RMI	57	Distance from Outfall (mi)	~63

Treatment Facility Summary

Treatment Facility Name: Cressona Borough Authority STP

WQM Permit No.	Issuance Date
5421401	4/26/2021
5406403	10/12/2006

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Sequencing Batch Reactor	UV	0.72

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.72	1200	Not Overloaded	Aerobic Digestion	Landfill

Changes Since Last Permit Issuance: Installation of UV disinfection system.

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.72
Latitude 40º 37' 45" **Longitude** -76º 11' 30"
Wastewater Description: Sewage Effluent

Technology-Based Limitations

The following technology-based concentration 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 (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)
Total Residual Chlorine	1.6	IMAX	-	-

Comments: Mass-based limitations included in the permit for $CBOD_5$ and TSS are based on a design flow of 0.72 MGD.

Water Quality-Based Limitations

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

Parameter	Limit (mg/l)	SBC	Model
Ammonia-N (5/1 – 10/31)	13.8	Average Monthly	2019 WQM 7.0
	27.6	IMAX	

Comments: The Mass-based limitation included in the permit for Ammonia-N is based on a design flow of 0.72 MGD.

Best Professional Judgment (BPJ) Limitations

Parameter	Limit (mg/l)	SBC	Basis
Dissolved Oxygen	5.0	Minimum	BPJ

Anti-Backsliding

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

Pennsylvania
Department of
Environmental Protection

Approve	Deny	Signatures	Date
X		Brian Burden, E.I.T. / Project Manager	February 3, 2025
X		Amy M. Bellanca (signed) Amy M. Bellanca, P.E. / Program Manager	2-6-25