pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0114936**
Facility Type	**Municipal**	APS ID	**1050595**
Major / Minor	**Minor**	Authorization ID	**1374385**

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Applicant and Facility Information

Applicant Name	**BCI Municipal Authority**	Facility Name	**BCI Municipal Authority STP**
Applicant Address	PO Box 388	Facility Address	625 Cressview Street Ext
	Irvona, PA 16656-0388		Irvona, PA 16656
Applicant Contact	Jack Laing	Facility Contact	Richard Hoover
Applicant Phone	(814) 672-4103	Facility Phone	814-672-5745
Client ID	44363	Site ID	255486
Ch 94 Load Status	Not Overloaded	Municipality	Irvona Borough
Connection Status	No Limitations	County	Clearfield
Date Application Received	October 29, 2021	EPA Waived?	Yes
Date Application Accepted	11/15/2021	If No, Reason	
Purpose of Application	Renewal of Existing NPDES Permit		

Summary of Review

BCI Municipal Authority has submitted an NPDES renewal application for their existing outfall to Clearfield Creek from their Wastewater Treatment Plant (WWTP) in Clearfield County, PA. The 0.3 MGD treatment plant serves Irvona Borough, Coalport Borough, and Beccaria Township. There are 46 commercial connections within the sewer system, none of which are considered significant industrial users. The facility does not accept any hauled in wastes.

The treatment facility utilizes an extended aeration process. Treatment consists of a wet well, grinder pumps, two aeration tanks, two clarifiers, two chlorination units with contact tanks, two sludge digesters, and a belt filter press.

Unless otherwise noted, all of the Department's applicable Standard Operating Procedures (SOPs) were used in developing the following fact sheet.

Sludge use and disposal description and location(s): Laurel Highland Landfill in Johnstown, PA.

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.

Approve	Deny	Signatures	Date
X		*Chad A. Fabian* Chad A. Fabian / Project Manager	September 1, 2022
X		*Nicholas W. Hartranft, P.E.* Nicholas W. Hartranft, P.E. / Environmental Engineer Manager	September 6, 2022

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	001	Design Flow (MGD)	0.3
Latitude	40º 46' 31.58"	Longitude	-78º 32' 50.64"
Quad Name	Irvona	Quad Code	
Wastewater Description:	Sewage Effluent		
Receiving Waters	Clearfield Creek	Stream Code	26107
NHD Com ID	61834927	RMI	38.8
Drainage Area	194 mi^2	Yield (cfs/mi^2)	0.065
Q_{7-10} Flow (cfs)	12.6	Q_{7-10} Basis	USGS Stream Stats
Elevation (ft)	1380	Slope (ft/ft)	0.0047
Watershed No.	8-C	Chapter 93 Class.	WWF, MF
Existing Use	WWF, MF	Existing Use Qualifier	n/a
Exceptions to Use	None	Exceptions to Criteria	None
Assessment Status	Impaired		
Cause(s) of Impairment	Metals		
Source(s) of Impairment	Abandoned Mine Drainage		
TMDL Status	Final	Name	Clearfield Creek
Nearest Downstream Public Water Supply Intake	Shawvillle Power Generation Plant, approximately 41 miles downstream on the West Branch Susquehanna River		

Changes Since Last Permit Issuance: None

Other Comments: The TMDL does not list the above discharge as a cause of impairment nor does it allocate a waste load for metals.

Compliance History	
Summary of eDMRs:	No effluent violations have been reported at the facility in the past 12 months. See below section regarding inspections.
Summary of Inspections:	The latest inspection performed at the facility was done on 8/17/2022. A violation was noted for failure to monitor dissolved oxygen on some weekends during the months of April and June of 2022. This issue has been resolved.

Development of Effluent Limitations			
Outfall No.	001	**Design Flow (MGD)**	0.3
Latitude	40º 46' 35.50"	**Longitude**	-78º 32' 48.80"
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	Average Monthly	133.102(a)(4)(i)	92a.47(a)(1)
	40	Average Weekly	133.102(a)(4)(ii)	92a.47(a)(2)
Total Suspended Solids	30	Average Monthly	133.102(b)(1)	92a.47(a)(1)
	45	Average Weekly	133.102(b)(2)	92a.47(a)(2)
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)
Fecal Coliform (5/1 – 9/30)	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)
Fecal Coliform (10/1 – 4/30)	10,000 / 100 ml	IMAX	-	92a.47(a)(5)
Total Residual Chlorine	0.5	Average Monthly	-	92a.48(b)(2)

Comments: None

Water Quality-Based Limitations

The Department's WQM 7.0 model allows the Department to evaluate point source discharges of dissolved oxygen (DO), carbonaceous BOD (CBOD5), and ammonia-nitrogen (NH3-N) into free-flowing streams and rivers. To accomplish this, the model simulates two basic processes: the mixing and degradation of NH3-N in the stream and the mixing and consumption of DO in the stream due to the degradation of CBOD5 and NH3-N. WQM 7.0 modeling was previously performed for the discharge. The results of the previous modeling shows that the existing limitations are protective of water quality standards. Per the Department's SOP for reissuance of NPDES permits, additional modeling is not required since there has been no change to the wastewater characteristics or the receiving stream.

Previously, a "Reasonable Potential Analysis" using the Department's PENTOXSD 2.0 model determined no monitoring requirements or effluent limitations for toxics were needed to protect water quality. Due the size of the facility and lack of industrial users, no toxics are required to be monitored and reported within the renewal application. However, the applicant did report results for total copper, total lead, and total zinc. All reported levels of the respective parameters are less than the values evaluated during the previous reasonable potential analysis. Therefore, per the aforementioned SOP, no additional modeling is required at this time.

A chlorine spreadsheet analysis shows that the technology standard of 0.5 mg/l monthly average limitation is protective of water quality.

Best Professional Judgment (BPJ) Limitations

During the existing permit cycle, the facility has been required to monitor and report total aluminum, total manganese, and total iron due to the metals impairment listed in the TMDL. As previously stated, the discharge is not identified as a contributing factor, as acid mine drainage (AMD) is the cause of impairment. The following is a summary of the results of this monitoring:

Parameter	Maximum Result
Total Aluminum	0.1 mg/l (non-detect)
Total Manganese	0.09 mg/l
Total Iron	0.3 mg/l

Since the monitoring results show that the facility is not contributing to the impairment, it is recommended that monitoring for the respective parameters be eliminated from this draft permit.

Chesapeake Bay Nutrient Requirements

According to the Department's Chesapeake Bay Watershed Implementation Plan (WIP III) Supplemental, the facility is classified as a Phase 4 discharger and is subject to 1/month monitoring for total nitrogen and total phosphorus.

Anti-Backsliding

This draft permit will not propose to reduce any existing effluent limitations.

Proposed Effluent Limitations and Monitoring Requirements

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (362-0400-001), SOPs and/or BPJ.

Outfall 001, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average	Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Metered
pH (S.U.)	XXX	XXX	6.0	XXX	9.0 Max	XXX	1/day	Grab
DO	XXX	XXX	Report	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.6	1/day	Grab
CBOD5	63	100	XXX	25	40	50	1/week	8-Hr Composite
TSS	75	113	XXX	30	45	60	1/week	8-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	1/week	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	1/week	Grab
Total Nitrogen	XXX	XXX	XXX	Report	XXX	XXX	1/month	8-Hr Composite
Total Phosphorus	XXX	XXX	XXX	Report	XXX	XXX	1/month	8-Hr Composite
BOD5 Raw Sewage Influent	Report	Report	XXX	Report	XXX	XXX	1/week	8-Hr Composite
TSS Raw Sewage Influent	Report	Report	XXX	Report	XXX	XXX	1/week	8-Hr Composite
e. Coli	XXX	XXX	XXX	Report	XXX	XXX	1/quarter	Grab

Other Comments: All of the above effluent limitations and monitoring frequencies are the same as the existing permit, with the exception of the elimination of the TMDL related metals as described above and the addition of E. coli monitoring in accordance with the Department's SOP for reissuance of NPDES permits. It is recommended a draft permit be sent as described within this fact sheet.