Pennsylvania Department of Environmental Protection

Northeast Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0029483**
Facility Type	**Non-Municipal**	APS ID	**564349**
Major / Minor	**Minor**	Authorization ID	**1461083**

Applicant and Facility Information

Applicant Name	**Buck Hill Falls Company**	Facility Name	**Buck Hill Falls WWTP**
Applicant Address	PO Box 426	Facility Address	4231 Valley View Road
	Buck Hill Falls, PA 18323		Buck Hill Falls, PA 18323-0426
Applicant Contact	Garry Cramer	Facility Contact	Jeremy Price
Applicant Phone	(570) 595-7511	Facility Phone	(570) 595-7511
Client ID	51795	Site ID	243763
Ch 94 Load Status	-	Municipality	Barrett Township
Connection Status	-	County	Monroe
Date Application Received	November 3, 2023	EPA Waived?	Yes
Date Application Accepted	November 3, 2023	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 0.2 MGD of treated sewage into Buck Hill Creek, a High Quality - Cold Water Fishes and Migratory Fish (HQ-CWF, MF) receiving stream in State Water Plan Basin 1-E (Brodhead Creek). 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. This stream segment is designated as a naturally reproducing trout stream as per PA Fish & Boat Commission. This discharge is not expected to affect public water supplies.

Limitations for pH, TRC, $CBOD_5$, TSS and Fecal Coliform are technology-based and carried over from the previous permit. Limitations for Ammonia-Nitrogen and Dissolved Oxygen are water quality-based and carried over from the previous permit. The TDS limitation originated from DRBC Docket D-2009-001 CP-3 and is carried over in this renewal. Monthly monitoring/reporting requirements for Total Nitrogen (TKN + Nitrate-Nitrite as N) and Total Phosphorus are carried over from the previous permit. As per current DEP guidance, quarterly monitoring/reporting is added to the permit for E. Coli.

The latest DRBC Docket No. D-2009-001 CP-4 doesn't include any additional requirements to incorporate into the NPDES permit.

Monitoring frequencies for all 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 (Document No. 362-0400-001).

Since there are no representative stream gages in the vicinity of the outfall, the statewide default low flow yield (LFY) of 0.1 cfs/mi^2 was used to model the discharge. RMI values were obtained using 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. Modeling results (attached) didn't include more stringent limitations for any parameter already monitored in the permit.

Approve	Deny	Signatures	Date
X		Brian Burden, E.I.T. / Project Manager	October 31, 2024
X		Amy M. Bellanca (signed) Amy M. Bellanca, P.E. / Acting Engineer Manager	11-21-24

Summary of Review

Note: The PA Historic Stream feature used to obtain RMIs on eMapPA shows the confluence of Buck Hill Creek with Brodhead Creek at a location approximately ¼ of a mile downstream of where the actual confluence appears to be. The RMI of Outfall 001 on Buck Hill Creek is changed from 0.5 to 0.25 for modeling during this renewal.

DEP's Toxics Management Spreadsheet (TMS) was used to model the Total Copper, Total Lead, and Total Zinc sampling results provided with the renewal application (one result for each parameter). The TMS recommended limits for Total Copper and Total Lead and monitoring requirements for Total Zinc. All the discharge concentrations are below the most stringent WQBELs calculated by the TMS. Quarterly monitoring/reporting is included in this renewal for these three pollutants. Sampling data obtained during this permit cycle will be used to generate a long-term average for each pollutant. The long-term averages should be modeled during the next renewal to determine if limitations are needed. The permittee may also conduct site-specific studies to revise any of the default modeling inputs to alter the calculated limitations.

Sludge use and disposal description and location(s): The permit renewal application indicates approximately 18 dry tons of sludge was hauled to Grand Central Sanitary Landfill in the previous year.

WQM Modeling.pdf TRC Calculation.pdf Watershed Information.pdf TMS PA0029483.pdf 2009-001 CP-4.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)	0.20
Latitude	41º 11' 45"	Longitude	-75º 15' 42"
Quad Name	Buck Hill Falls	Quad Code	0943
Wastewater Description:	Sewage Effluent		
Receiving Waters	Buck Hill Creek	Stream Code	5023
NHD Com ID	26138038	RMI	0.25
Drainage Area	8.65 mi^2	Yield (cfs/mi^2)	0.1
Q_{7-10} Flow (cfs)	0.865	Q_{7-10} Basis	State-wide default
Elevation (ft)	1,032	Slope (ft/ft)	0.0125
Watershed No.	1-E	Chapter 93 Class.	HQ-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	-
Nearest Downstream Public Water Supply Intake	Brodhead Creek Regional Water Authority		
PWS Waters	Brodhead Creek	Flow at Intake (cfs)	13
PWS RMI	7.31	Distance from Outfall (mi)	≈15.5

Treatment Facility Summary

Treatment Facility Name: Buck Hill Falls Wastewater Treatment Plant

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Trickling Filter	Sodium Hypochlorite	0.144 (2022)

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.2	417	Not Overloaded	Sludge Drying Beds	Hauled

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.2
Latitude 41º 11' 45" **Longitude** -75º 15' 42"
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)
Total Residual Chlorine	0.5	Average Monthly	-	92a.48(b)(2)
	1.6	IMAX		

Water Quality-Based Limitations

The following limitations were determined through water quality modeling:

Parameter	Limit (mg/l)	SBC	Model
Ammonia-Nitrogen Nov 1 - Apr 30	9.0	Average Monthly	Previous modeling
	18.0	IMAX	
Ammonia-Nitrogen May 1 - Oct 31	3.0	Average Monthly	
	6.0	IMAX	
Total Dissolved Solids	1,000	Average Quarterly	DRBC Docket No. D-2009-001 CP-3
Dissolved Oxygen	5.0	Minimum	Previous modeling

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Approve	Deny	Signatures	Date
X		Brian Burden, E.I.T. / Project Manager	October 31, 2024
X		Amy M. Bellanca (signed) Amy M. Bellanca, P.E. / Acting Engineer Manager	11-21-24