

Application Type Renewal
Facility Type Municipal
Major / Minor Minor

**NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE**

Application No. PA0064092
APS ID 924256
Authorization ID 1371725

Applicant and Facility Information

Applicant Name	<u>Beach Lake Municipal Authority</u>	Facility Name	<u>Beach Lake Municipal Authority WWTP</u>
Applicant Address	<u>PO Box 151 Beach Lake, PA 18405</u>	Facility Address	<u>State Route 652 Beach Lake, PA 18405</u>
Applicant Contact	<u>Cathy Hunt</u>	Facility Contact	<u>William Buckman</u>
Applicant Phone	<u>(570) 729-8073</u>	Facility Phone	<u>(570) 814-9857</u>
Client ID	<u>39448</u>	Site ID	<u>253022</u>
Ch 94 Load Status	<u>Not Overloaded</u>	Municipality	<u>Berlin Township</u>
Connection Status	<u>No Prohibitions</u>	County	<u>Wayne</u>
Date Application Received	<u>October 1, 2021</u>	EPA Waived?	<u>Yes</u>
Date Application Accepted	<u>October 1, 2021</u>	If No, Reason	<u>-</u>
Purpose of Application	<u>Renewal of NPDES permit.</u>		

Summary of Review

The applicant is requesting renewal of an NPDES permit to discharge up to 0.09 MGD of treated sewage to Beach Lake Creek, a high quality, cold water fishery, migratory fishery-designated receiving stream (HQ-CWF, MF) in State Water Plan watershed 01-A (Shehawken-Rattlesnake Creeks). 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.

Since there are no nearby or downstream representative stream gages to obtain a more representative low flow yield from and there's not enough drainage area leading to Outfall 001 for USGS StreamStats to return a reliable Q₇₋₁₀, the stream flow assumptions from the previous renewal are carried over for this renewal. For modeling purposes, drainage areas, RMIs and elevations have been updated slightly using USGS StreamStats and DEP's eMapPA (see attached).

WQM 7.0 modeling did not recommend more stringent limitations for Ammonia-N, D.O., or CBOD₅. The TRC calculation spreadsheet recommended more stringent limitations due to the smaller drainage area delineated at Outfall 001 by the latest version of USGS StreamStats. As in the previous permit, the permittee shall monitor TRC when using it for backup disinfection or cleaning purposes (see Part C.I.D.). The permittee may conduct site-specific studies to modify the TRC limitations (see Part C.III.)

The CBOD₅, TSS and NH₃-N limits remain based upon special protection waters BAT. The Fecal Coliform and pH limits are technology-based. The Dissolved Oxygen, TRC and Phosphorus limits are water quality-based. The minimum monitoring frequency for Dissolved Oxygen and pH is updated to 1/day in accordance with 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). Monthly influent monitoring/reporting for TSS & CBOD₅ is carried over from the previous renewal.

Approve	Deny	Signatures	Date
X		<i>Brian Burden</i> Brian Burden, E.I.T. / Project Manager	July 18, 2022
X		Amy M. Bellanca (signed) Amy M. Bellanca, P.E. / Environmental Engineer Manager	8-30-22

Summary of Review

DRBC Docket D-2001-052 CP-3 (attached) requires a quarterly average limitation of 1,000 mg/L for Total Dissolved Solids. Monthly monitoring/reporting is carried over for Total Kjeldahl Nitrogen and Nitrate-Nitrite as N. A monthly average Total Nitrogen calculation is included in this renewal (TKN + Nitrate-Nitrite as N). Note: the eDMR statistical base code for TKN has been updated from Average Weekly to Average Monthly in this renewal.

DEP's Toxics Management Spreadsheet recommended monitoring requirements for Total Copper and Total Zinc when modeling the sampling results submitted with the permit application. Quarterly monitoring/reporting is added to the permit for those parameters.

As per DEP guidance, quarterly monitoring/reporting is added to the permit for E.Coli.

There are no open violations for the client that would warrant withholding issuance of this permit. The existing permit expired on 5/31/2022 and the renewal application was submitted in a timely manner.

Sludge use and disposal description and location(s): The permit application indicates sewage sludge or biosolids produced by the facility are currently being managed under a beneficial use permit issued by DEP (Permit No. PAG079901, issued to Lang Enviroventures, Inc. on 8/15/2018). 5.109 dry tons of sewage sludge / biosolids were disposed of during 2020.

eDMR review for the previous 2 years revealed the following concentration exceedance:

- September 2021: Ammonia-N – 6.6 mg/L average monthly (limit was 1.5 mg/L)



WQM
Modeling.pdf



TRC Calculation.pdfTMS PA0064092.pdf



StreamStats1.pdf



StreamStats2.pdf



Elevations RMI's.pdf



DRBC Docket.pdf

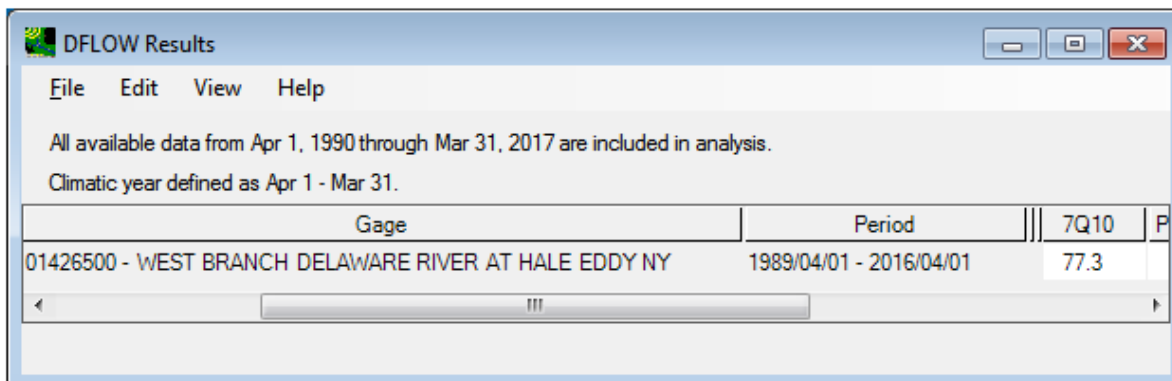


Public Participation

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)	0.09
Latitude	41° 36' 3"	Longitude	-75° 8' 38"
Quad Name	White Mills	Quad Code	0644
Wastewater Description: Sewage Effluent			
Receiving Waters	Beach Lake Creek (HQ-CWF, MF)	Stream Code	6168
NHD Com ID	132689929	RMI	3.75
Drainage Area	2.1 mi ²	Yield (cfs/mi ²)	0.13
Q ₇₋₁₀ Flow (cfs)	0.273	Q ₇₋₁₀ Basis	Gage 01426500
Elevation (ft)	1200	Slope (ft/ft)	0.018
Watershed No.	1-A	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	-
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 (using default LFY)
PWS RMI	109.8	Distance from Outfall (mi)	~111

Changes Since Last Permit Issuance: USGS StreamStats calculated a smaller drainage area at Outfall 001, which affected modeling results.



Latitude 42°00'11", Longitude 75°23'01" NAD83 Hydrologic Unit 02040101
 Drainage area: 595 square miles Datum of gage: 946.46 feet above NGVD29.
 LFY = 77.3/595 = 0.13

Treatment Facility Summary				
Treatment Facility Name: Beach Lake Municipal Authority WWTP				
WQM Permit No.		Issuance Date		
6401403		2/15/2002		
Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	SBR	UV	0.036 (2021)
Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.09	153	Not Overloaded	Belt Filter Press	PAG079901

Development of Effluent Limitations

Outfall No. 001
Latitude 41° 36' 3"
Wastewater Description: Sewage Effluent

Design Flow (MGD) 0.09
Longitude -75° 8' 38"

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
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)

Water Quality-Based Limitations

The following limitations were determined through water quality modeling:

Parameter	Limit (mg/l)	SBC	Model
CBOD ₅	20.0	Average Monthly	SPW BAT
	30.0	Average Weekly	
	40.0	IMAX	
Total Suspended Solids	10.0	Average Monthly	SPW BAT
	15.0	Average Weekly	
	20.0	IMAX	
Ammonia-N (5/1 – 10/31)	1.5	Average Monthly	SPW BAT
	3.0	IMAX	
Ammonia-N (11/1 – 4/30)	4.5	Average Monthly	
	9.0	IMAX	
Dissolved Oxygen	5.0	Minimum	Previous Permit
Total Phosphorus	2.0	Average Monthly	Previous Permit
	4.0	IMAX	
Total Residual Chlorine	0.29	Average Monthly	2022 TRC Calculation Spreadsheet
	0.96	IMAX	
Total Dissolved Solids	1,000	Average Quarterly	DRBC Docket D-2001-052 CP-3

Comments: The TRC limitations come into effect 3 years after the permit effective date.