

Application Type Renewal
Facility Type Non-Municipal
Major / Minor Minor

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Application No. PA0032107
APS ID 582588
Authorization ID 1411859

Applicant and Facility Information

Applicant Name <u>PA DCNR State Parks Bureau</u>	Facility Name <u>Beltzville State Park</u>
Applicant Address <u>2950 Pohopoco Drive</u> <u>Lehigh, PA 18235-8905</u>	Facility Address <u>2950 Pohopoco Drive</u> <u>Lehigh, PA 18235-8905</u>
Applicant Contact <u>Cody Miller</u>	Facility Contact <u>Cody Miller</u>
Applicant Phone <u>(814) 723-0254</u>	Facility Phone <u>(814) 723-0254</u>
Client ID <u>64584</u>	Site ID <u>1903</u>
Ch 94 Load Status <u>Not Overloaded</u>	Municipality <u>Franklin Township</u>
Connection Status <u></u>	County <u>Carbon</u>
Date Application Received <u>August 26, 2022</u>	EPA Waived? <u>Yes</u>
Date Application Accepted <u>September 12, 2022</u>	If No, Reason <u></u>
Purpose of Application <u>Renewal of existing NPDES to discharge treated sewage effluent.</u>	

Summary of Review

The applicant is requesting to renew the existing NPDES permit to discharge up to .025mgd of treated sewage effluent to Pohopoco Creek, a Cold-Water Fishes, Migratory Fishes (CWF, MF) receiving water in PA State Water Plan Basin 2-B (Middle Lehigh River). 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 not designated as a naturally reproducing trout stream as per PA Fish & Boat Commission. This discharge is not expected to affect public water supplies.

The system for this facility is primary treatment via a grinder/bar screen basin, followed by an aeration basin and three clarifiers, two sand filter beds, and finally uses UV for disinfection. The facility also has a sludge holding tank and a dosing tank and has the capabilities of using chlorine for a backup to UV. The application listed no additional wastewater treatment chemicals.

The application was submitted to DEP in the summer of 2022 but was placed on the permit backlog due to permit engineer turnover. The existing permit has been in effect since the effective date of January 1, 2018. Contact with the facility was for the new permit was initially established on August 21, 2025 and client and facility contacts were verified on October 16, 2025. All information has been updated in DEP's systems to reflect the contact changes.

Outfall #001 is ~0.21 miles downstream of the (dammed, 949 acres per DCNR website) Beltzville Lake (which is non-attaining for fish consumption due to pollutants and is also a natural Trout reproduction area per E-maps). This is a regulated watershed (by Dam and by the DRBC) for purposes of "to serve multipurpose water requirements in the Lehigh and Delaware River Basins in conjunction with the Delaware River Basin Commission (Basin Commission)" (FERC License).

The previous fact sheet indicated a disagreement between data sources about the apparent Beltzville Lake discharge location (i.e. Pohopoco Creek flow route), which appears to represent confusion between the dam's normal discharge location and its emergency spill-way (with the lake discharge being the continuation of Pohopoco Creek). For permitting purposes, the Outfall #001 has been determined to discharge to Pohopoco Creek at the coordinates listed on the application and the previous permit.

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). Q7-10 for the point of first use was determined using Streamstats and USGS Station 01449800 (Pohopoco Cr bl Beltzville Dam).

Summary of Review

A DRBC docket for this facility exists: DRBC Docket No. D-2013-008 CP-2. The docket was approved on September 11, 2019 and will expire on December 31, 2027. The docket contains three (3) parameters that are not included in the existing NPDES permit and are listed below. These parameters will go immediately in effect upon permit effective date due to existing in the docket since 2019. Ammonia-Nitrogen will have an IMAX of 40.0mg/L (20.0mg/L * 2). A monthly influent sampling for CBOD₅ has been added to facilitate percent removed calculation.

EFFLUENT TABLE C-2: DRBC Parameters Not Included in NPDES Permit

OUTFALL 001 WWTP (Discharging to Pohopoco Creek)		
PARAMETER	LIMIT	MONITORING
Total Dissolved Solids*	1,000 mg/l*	Quarterly
CBOD ₅ (at 20° C)	Monitor & Report Percent Removal	Monthly
Ammonia Nitrogen	20 mg/l**	Monthly

E. Coli monitoring requirements will be introduced into the new permit according to PA DEP policy for individual sewage effluent limitations. E. Coli requirements for a treatment plant with less than .05 MGD discharge is found in the SOP for establishing effluent limitations for individual sewage.

Seasonal sampling frequency for pH and Dissolved Oxygen has been retained in this permit. Sampling for Total Residual Chloride has also been retained in this permit in a special condition in case the UV disinfection goes offline. TRC modeling did not recommend more stringent limits. Limitations for pH, TRC, CBOD₅, Total Suspended Solids, and Fecal Coliform are technology-based and carried over from the previous permit. DO limitations is a WQBEL and has been carried over from the previous permit. The quarterly monitoring and reporting for Total Nitrogen, Total Phosphorous, Total Kjeldahl Nitrogen, and Nitrate-Nitrite as N has been maintained in this permit. WQM 7.0 modeling did not recommend more stringent limitations.

Quarterly influent sampling for BOD₅ and Total Suspended Solids has been retained in this permit, as well as quarterly effluent sampling for BOD₅ removal percentage.

The following special conditions have been added into the permit:

- Part C.20: DRBC Requirements
- Part C.33: UV Monitoring
- Part C.110: Solids Management

The previous inspection held at this facility was performed on September 19, 2025 and was a compliance evaluation that resulted in zero (0) NOVs. There are no open violations for this facility in the Clean Water Program.

Recommend Approval.

Modeling Inputs:

Beltzville Modeling

PT1 @ Outfall 001, Pohopoco Creek, 3917, 2B (Middle Lehigh River), TSF, HQ-CWF, MF

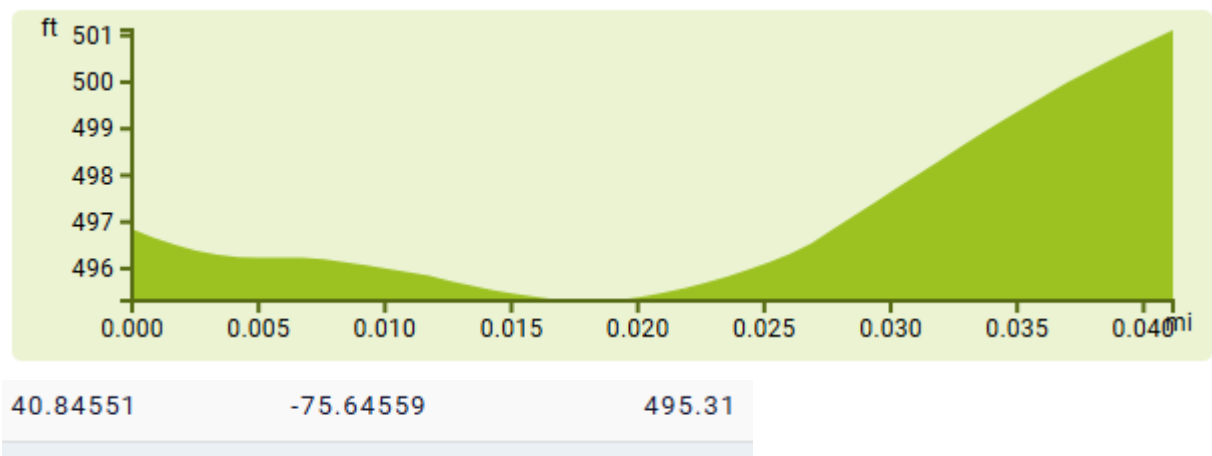
RMI: 1.5 (for modeling)

Summary of Review

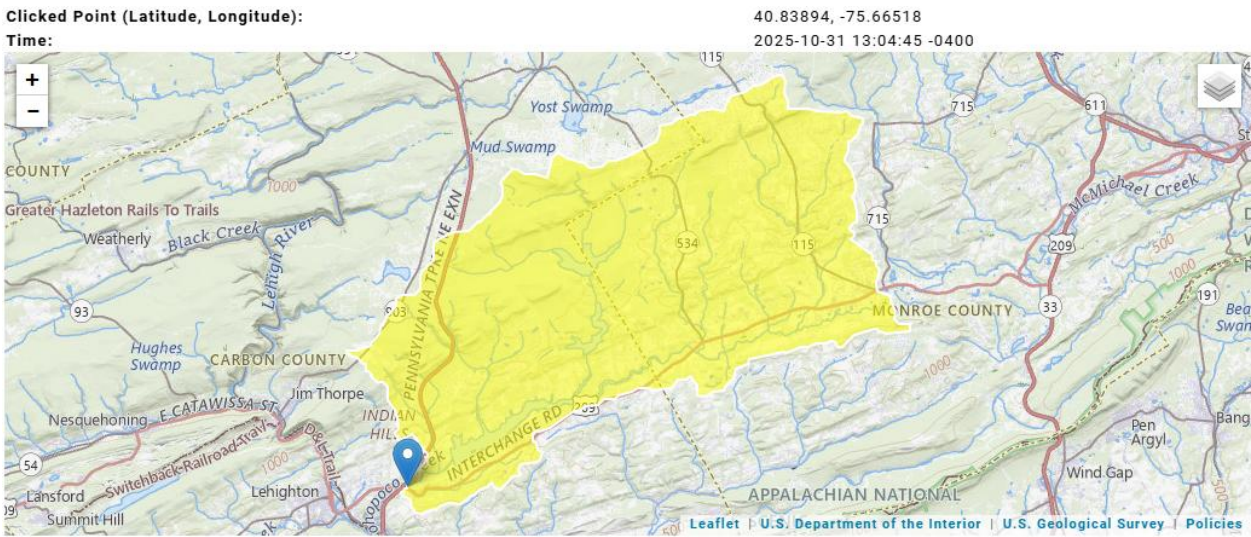


USGS Station Number		01449800	
Station Name		Pohopoco Cr bl Beltzville Dam nr Parryville, PA	
Station Type		Gaging Station, continuous record	
Latitude		40.84565	
Longitude		-75.64574	
NWIS Latitude		40.84564756	
NWIS Longitude		-75.6457437	
Basin Dimensional Characteristics			
Characteristic Name		Value	Units
Drainage Area		96.4	square miles
7 Day 10 Year Low F low	16.5	cubic feet per second	✓ 40

Summary of Review



PT2 @ Conflux w/ Bull Run, RMI: .01 (For modeling)

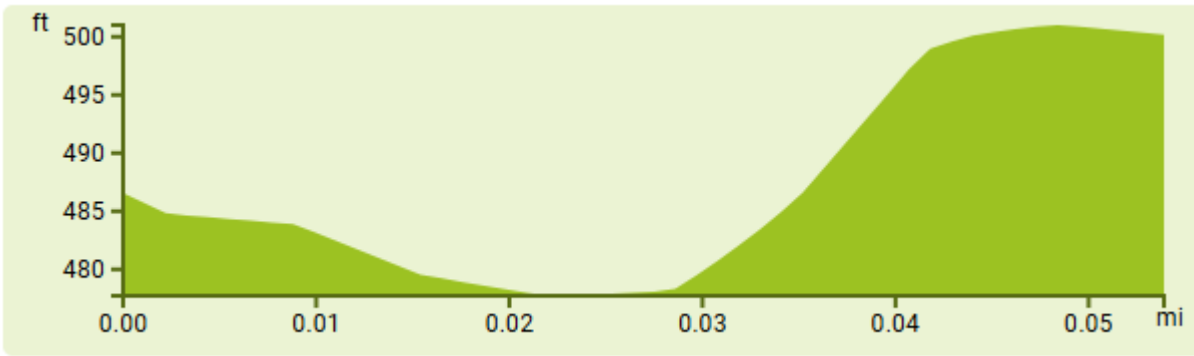


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Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
CARBON	Percentage of area of carbonate rock	0	percent
DRNAREA	Area that drains to a point on a stream	107	square miles
7 Day 10 Year Low Flow		13.2	ft ³ /s

Summary of Review



40.83901 -75.66516 477.78

Analysis Results WQM 7.0

Hydrodynamics NH3-N Allocations D.O. Allocations D.O. Simulation Effluent Limitations

RMI	Discharge Name	Permit Number	Disc Flow (mgd)
1.50	Beltzville	PA0032107	0.0250

Parameter	Effluent Limit 30 Day Average (mg/L)	Effluent Limit Maximum (mg/L)	Effluent Limit Minimum (mg/L)
CBOD5	25		
NH3-N	25	50	
Dissolved Oxygen			3

Record: 1 of 1 No Filter Search

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Summary of Review

TRC EVALUATION

Input appropriate values in A3:A9 and D3:D9

16.5	= Q stream (cfs)	0.5	= CV Daily
0.025	= Q discharge (MGD)	0.5	= CV Hourly
30	= no. samples	1	= AFC_Partial Mix Factor
0.3	= Chlorine Demand of Stream	1	= CFC_Partial Mix Factor
0	= Chlorine Demand of Discharge	15	= AFC_Criteria Compliance Time (min)
0.5	= BAT/BPJ Value	720	= CFC_Criteria Compliance Time (min)
0	= % Factor of Safety (FOS)		=Decay Coefficient (K)

Source	Reference	AFC Calculations	Reference	CFC Calculations
TRC	1.3.2.iii	WLA afc = 136.115	1.3.2.iii	WLA cfc = 132.694
PENTOXSD TRG	5.1a	LTAMULT afc = 0.373	5.1c	LTAMULT cfc = 0.581
PENTOXSD TRG	5.1b	LTA_afc= 50.720	5.1d	LTA_cfc = 77.142

Source	Effluent Limit Calculations
PENTOXSD TRG 5.1f	AML MULT = 1.231
PENTOXSD TRG 5.1g	AVG MON LIMIT (mg/l) = 0.500 BAT/BPJ
	INST MAX LIMIT (mg/l) = 1.635

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.



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