

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

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Application No. PA0051799
APS ID 624850
Authorization ID 1483647

Applicant and Facility Information

Applicant Name <u>Lehigh Carbon Comm College</u>	Facility Name <u>Lehigh Carbon Comm College</u>
Applicant Address <u>4525 Education Park Drive</u> <u>Schnecksville, PA 18078</u>	Facility Address <u>4525 Education Park Drive</u> <u>Schnecksville, PA 18078-2502</u>
Applicant Contact <u>Carl Peckitt</u>	Facility Contact <u>Carl Peckitt</u>
Applicant Phone <u>(610) 799-1113</u>	Facility Phone <u></u>
Client ID <u>85677</u>	Site ID <u>270870</u>
Ch 94 Load Status <u>Not Overloaded</u>	Municipality <u>North Whitehall Township</u>
Connection Status <u></u>	County <u>Lehigh</u>
Date Application Received <u>May 1, 2024</u>	EPA Waived? <u>Yes</u>
Date Application Accepted <u>May 1, 2024</u>	If No, Reason <u></u>

Purpose of Application Renewal of NPDES Permit to discharge treated sewage effluent.

Summary of Review

The applicant is requesting renewal of their NPDES permit to discharge up to 0.036225 MGD of treated sewage to Tributary 3450 to Jordan Creek, a High Quality-Cold Water Fishes, Migratory Fishes (HQ-CWF,MF) designated receiving water in state water plan basin 02-C (Lower Lehigh River). As per the Department's current existing use list, the receiving stream does not have an existing use classification that is more protective than its designated use.

The system for this facility is primary treatment, followed by secondary treatment via extended aeration and clarification, and then uses chlorine tablets for disinfection. The facility adds in the following treatment chemicals: Soda Ash for pH control, Sodium Bisulfate for dechlorination, and Clarifloc NE 560 for flocculant aid.

A point of first use (POFU) determination for this discharge was completed on July 25th, 2017 by Tim Daley, DEP Aquatic Biologist. The POFU was determined to be where a stream channel first forms as flows exit an earthen berm a few hundred feet downstream of Outfall 001.

There are no representative stream gages in the vicinity of the outfall. The default LFY of 0.1 cfs/mi² was chosen to model the discharge. 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 the following equation: Using the outfall's drainage area and the state-wide Low-Flow Yield (LFY) of 0.1 cfs/mi²:

$$\frac{0.1 \text{ ft}^3/\text{sec}}{\text{mi}^2} \times .07 \text{ mi}^2 = \frac{.007 \text{ ft}^3}{\text{sec}}$$

Approve	Deny	Signatures	Date
X		<i>William Hon</i> William Hon / Environmental Engineer Specialist	May 29, 2025
X		<i>Edward Dudick</i> Edward Dudick, P.E. / Environmental Engineer Manager	May 30, 2025

Summary of Review

This facility has DRBC Docket D-2009-025 CP-4 assigned to it, approved on March 12, 2025 and expires on March 12, 2030. The following effluent limitations are included in the DRBC docket and the NPDES permit:

- pH (SU): 6 to 9
- TSS: 10.0mg/L
- DO: 5.0mg/L minimum
- CBOD₅ (at 20°C) (5-1 to 10-31): 10mg/L; 85% removal
- CBOD₅ (at 20°C) (11-1 to 4-30): 20mg/L; 85% removal
- CBOD₅ (at 20°C) Influent: Monitor & Report
- Nitrate-Nitrite as N (5/1 – 9/30): 5.96 lbs/day
- Nitrate-Nitrite as N (10/1 – 4/30): 8.94 lbs/day
- Total Nitrogen (5/1 – 9/30): 6.89 lbs/day
- Total Nitrogen (10/1 – 4/30): 10.34 lbs/day
- Total Phosphorus (5/1 – 9/30): 0.96 lbs/day
- Total Phosphorus (10/1 – 4/30): 2.88 lbs/day
- Ammonia-Nitrogen (5/1 – 9/30): 0.24 lbs/day
- Ammonia-Nitrogen (5/1 – 9/30): 1.6mg/L
- Ammonia-Nitrogen (10/1 – 4/30): 0.72 lbs/day
- Ammonia-Nitrogen (10/1 – 4/30): 4.8mg/L
- Total Dissolved Solids: Monitor & Report

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.

WQM modeling recommended more stringent limits for Dissolved Oxygen. Current limitation is a minimum of 5.0mg/L. Modeling recommended establishing a minimum of 6.0mg/L. This new limitation will go into effect three (3) years after the permit goes into effect.

Limitations for pH, CBOD₅, Total Suspended Solids, and Fecal Coliform are technology-based and carried over from the previous permit. Limitations for Ammonia-Nitrogen and TRC are water quality-based and carried over from the previous permit. WQM modeling did not recommend stricter limitations for Ammonia-Nitrogen.

All monitoring & sampling requirements have been verified against Table 6-3 of the Permit Writer's Manual and the SOP for Establishing Effluent Limits in Individual Sewage Treatment Facilities. The only change is the language for sampling frequency: "Daily while Discharging" will be changed to "1/Day" for TRC, DO, and pH.

According to previous three years of DMR data, this facility has two effluent non-compliance violations: Fecal Coliform (9/30/2024) and Total Phosphorus (5/31/2024). Both issues have been corrected.

The permittee has indicated no sludge has been hauled off-site in previous 6 months of uploaded reports. The sludge disposal form will continue to be included in the permit package. The previous fact sheet indicated sludge was hauled to Lehigh County Pretreatment in Trexlertown via Allstate Septic Systems.

The following special conditions will be added to Part C of the Permit:

- Chlorine Minimization
- Dry Streams
- DRBC Requirements
- Solids Management
- DO Schedule

The existing permit expired on 10/31/2024 and the application for renewal was received on time. The previous inspection at this facility was a compliance evaluation performed on 7/3/2024 that resulted in one (1) NOV: 92A.44 - NPDES - Violation of effluent limits in Part A of permit. There are no other open violations that would warrant the withholding of the issuance of this permit.

Recommend approval.

Summary of Review

Modeling Inputs:

PT1 @ Outfall, Tributary 3450 of Jordan Creek, 2-C Lower Lehigh River, HQ-CWF, MF

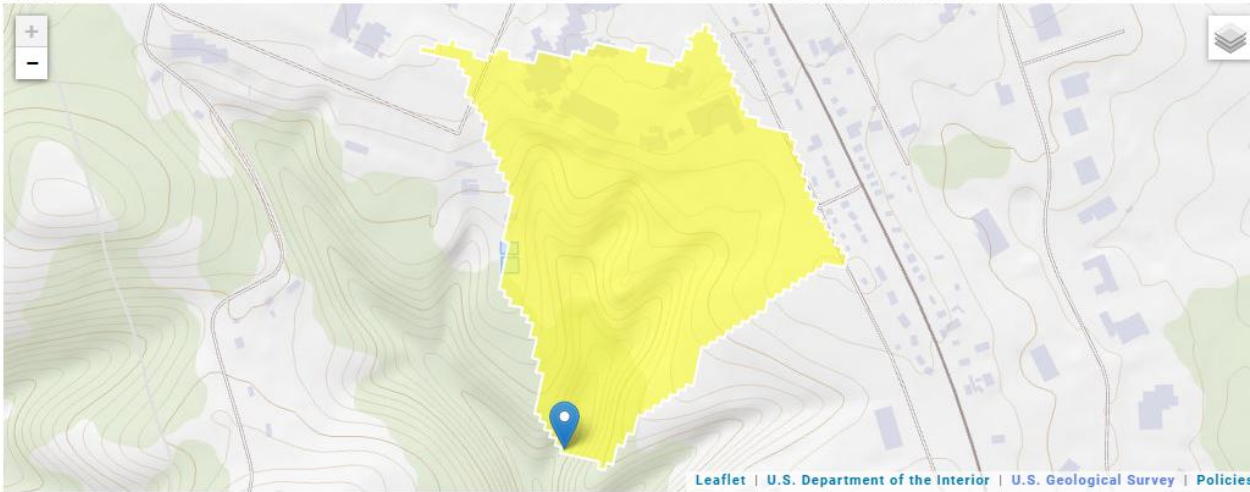
RMI: 1.8 (for modeling)

Clicked Point (Latitude, Longitude):

Time:

40.65844, -75.60864

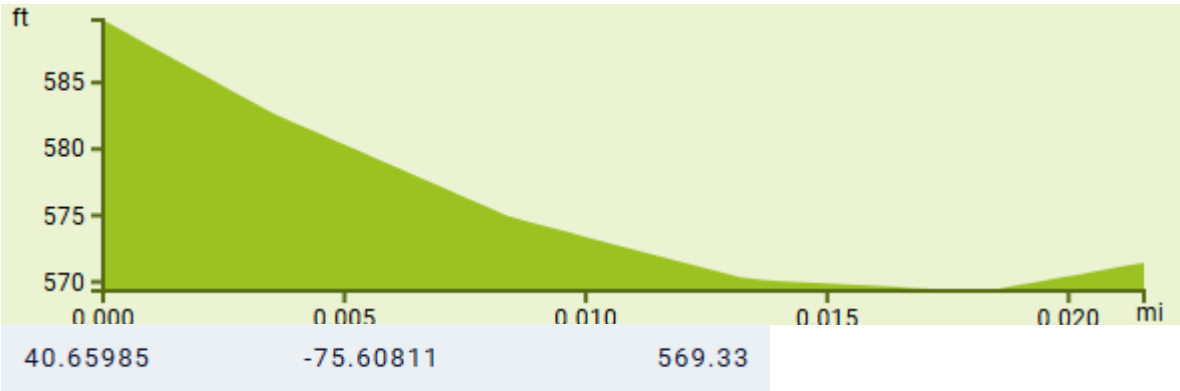
2025-04-30 15:35:02 -0400



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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	.07	square miles

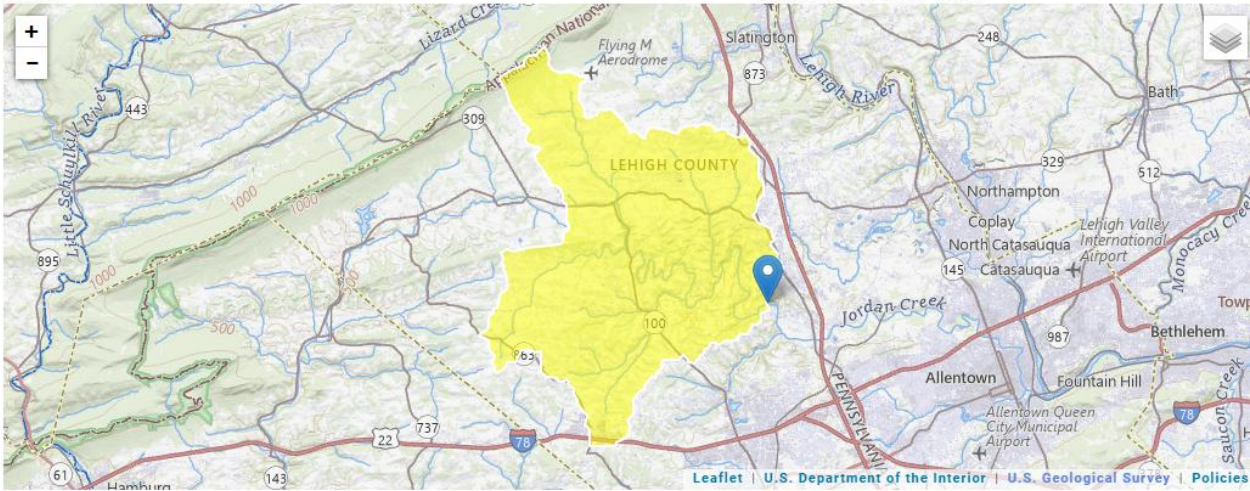


PT2 @ conflux w/ Jordan Creek

Summary of Review

RMI: .01 (For modeling)
Clicked Point (Latitude, Longitude):
Time:

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2025-04-30 15:11:11 -0400



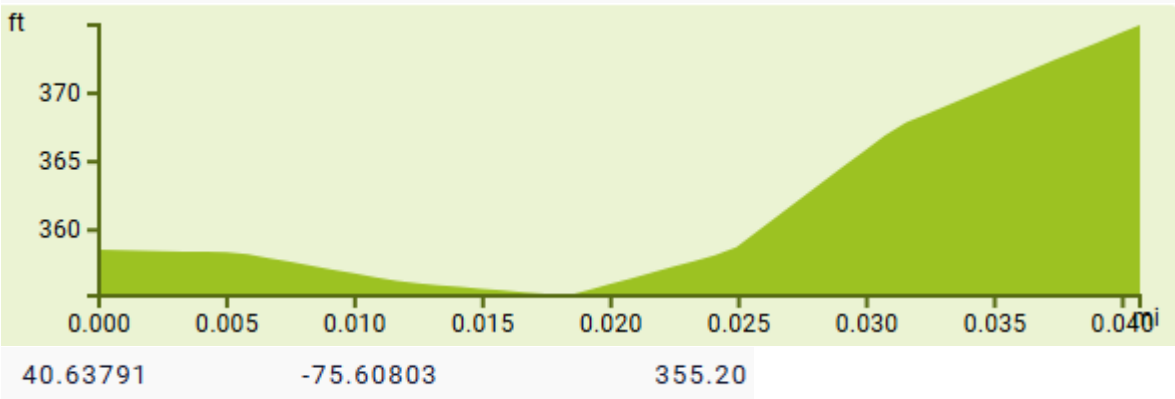
Collapse All

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	56.7	square miles

Q7-10 from stream gauge 01451800

7 Day 10 Year Low F	2.2	cubic feet per second	✓	42	49	Statistic Date Range 4/1/1966 - 3/31/2008
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Summary of Review

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)
1.80	Lehigh Carbon C	PA0051799	0.0362

Parameter	Effluent Limit 30 Day Average (mg/L)	Effluent Limit Maximum (mg/L)	Effluent Limit Minimum (mg/L)
CBOD5	25		
NH3-N	4.52	9.04	
Dissolved Oxygen			6

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TRC EVALUATION

Input appropriate values in A3:A9 and D3:D9

0.007	= Q stream (cfs)	0.5	= CV Daily
0.0362	= 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 = 0.059	1.3.2.iii	WLA cfc = 0.050
PENTOXSD TRG	5.1a	LTAMULT afc = 0.373	5.1c	LTAMULT cfc = 0.581
PENTOXSD TRG	5.1b	LTA_afc = 0.022	5.1d	LTA_cfc = 0.029

Source	Effluent Limit Calculations
PENTOXSD TRG 5.1f	AML MULT = 1.231
PENTOXSD TRG 5.1g	AVG MON LIMIT (mg/l) = 0.027
	INST MAX LIMIT (mg/l) = 0.088

Public Participation

Summary of Review

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.



Pennsylvania
**Department of
Environmental Protection**