Pennsylvania Department of Environmental Protection

Northeast Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0032123**
Facility Type	**Non-Municipal**	APS ID	**632214**
Major / Minor	**Minor**	Authorization ID	**1541562**

Applicant and Facility Information

Applicant Name	**PA DCNR - Promised Land State Park**	Facility Name	**Promised Land State Park Sewage Treatment Plant**
Applicant Address	RR 1, Box 96, Route 390	Facility Address	RR 1, Route 390
	Greentown, PA 18426-9735		Greentown, PA 18426
Applicant Contact	Tarah Brugger, Park Manager	Facility Contact	Tarah Brugger, Park Manager
Applicant Phone	(570) 676-3428	Facility Phone	(570) 676-5043
Client ID	6236	Site ID	3849
Ch 94 Load Status	Not Overloaded	Municipality	Greene Township
Connection Status	No Limitations	County	Pike
Date Application Received	August 17, 2023	EPA Waived?	Yes
Date Application Accepted	August 29, 2023	If No, Reason	-

Purpose of Application: Renewal of NPDES permit for discharge of treated sewage.

Summary of Review

The applicant is requesting the renewal of an NPDES permit to discharge treated sewage into Each Branch Wallenpaupack Creek, a High-Quality, Cold-Water Fishery, Migratory Fish (HQ-CWF, MF) receiving stream in State Water Plan Basin 1-C (Wallenpaupack Creek). 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. 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.

Limitations for pH, Total Suspended Solids (TSS), Dissolved Oxygen (DO), and Fecal Coliform are technology-based and carried over from the previous permit.

Limitations for $CBOD_5$ and Ammonia-Nitrogen are water quality-based and carried over from the previous permit. WQM 7.0 modeling did not recommend stricter limits. The Total Phosphorus limitations and the monitoring/reporting for Total Iron have both also been maintained in this permit renewal.

The Total Residual Chlorine (TRC) Calculation Spreadsheet recommends stricter limitations than the previous permit. The permittee will be required to meet the new water quality-based limits for TRC starting three years after the effective date of the permit. TRC limitations from the previously issued permit are in effect for the first three years after the permit effective date.

Sewage discharges now require monitoring and reporting for E. Coli. A monitoring frequency of 1/month for design flows >= 1 MGD, 1/quarter for design flows >= 0.05 and < 1 MGD, 1/year for design flows of 0.002 – 0.05 MGD will be utilized. There are numerous effluent violations in the previous year for this facility, which appears to be a common occurrence. Therefore, 24-hour composite sampling is now required in place of 8-hour composite sampling.

Approve	Deny	Signatures	Date
X		Allison Seyfried Zukosky / Project Manager	September 30, 2025
X		Edward Dudick, P.E. / Environmental Engineer Manager	September 30, 2025

Summary of Review

pH, DO, and TRC have 1/day monitoring/reporting requirements between May 1 and September 30 and 3/week monitoring/ reporting requirements between October 1 and April 30 (as per agreement between DCNR and DEP Central Office).

The previous NPDES Permit utilized USGS Stream Gage 01431500 – Lackawaxen River at Hawley, PA. This stream gage is not close to Outfall 001 and is located on a different river that may not be representative of the receiving stream. USGS StreamStats was instead used to obtain a $Q_{7\text{-}10}$ and calculate a LFY. The RMI values were obtained using the "PA Historic Streams" feature of eMapPA, drainage areas were delineated using USGS's StreamStats Interactive Map, and elevations were obtained using the elevation profile feature of StreamStats. Modeling can be seen on pages 7-9 of this fact sheet.

The existing permit expired on September 3, 2023 and the application for renewal was not received until August 17, 2023.

A Water Management System Inspection query indicated a Compliance Evaluation was performed on October 27, 2021.

There are currently 8 open violations for this client and facility that may need to be resolved before issuance of the final permit:

1. 08/06/2021 - Violation ID 926761 – Violation Code C4A – Failure to operate and maintain the water system.
2. 08/06/2021 - Violation ID 926762 – Violation Code C1A – Failure to meet design and construction standards.
3. 08/06/2021 - Violation ID 927264 – Violation Code C1A – Failure to meet design and construction standards.
4. 04/21/2021 - Violation ID 914553 – Violation Code 92A.44 – NPDES – Violation of effluent limits in Part A of the permit.
5. 04/21/2021 - Violation ID 914554 – Violation Code 92A.41(A)12B – NPDES – Failure to submit monitoring report(s) or properly complete monitoring reports.
6. 04/21/2021 - Violation ID 914555 – Violation Code CSL611 – CSL - Failure to comply with terms and conditions of a WQM permit.
7. 07/05/2021 - Violation ID 926435 – Violation Code CSL611 – CSL - Failure to comply with terms and conditions of a WQM permit.
8. 10/12/2021 - Violation ID 934475 – Violation Code 92A.41(A)5 – NPDES – Failure to properly operate and maintain all facilities which are installed or used by the permittee to achieve compliance.

Sludge use and disposal description and location(s): As per the permittee's NPDES Renewal Application, sludge is applied to sludge drying beds at the facility.

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)	0.2
Latitude	41º 18' 47.76"	Longitude	-75º 14' 7.54"
Quad Name	Promised Land	Quad Code	0844
Wastewater Description:	Sewage Effluent		
Receiving Waters	East Branch Wallenpaupack Creek (HQ-CWF)	Stream Code	5745
NHD Com ID	25935994	RMI	5.24
Drainage Area	10.2	Yield (cfs/mi^2)	0.0376
Q_{7-10} Flow (cfs)	0.384	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	1,1697.15	Slope (ft/ft)	-
Watershed No.	1-C	Chapter 93 Class.	HQ-CWF
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	Easton Area Water System		
PWS Waters	Delaware River	Flow at Intake (cfs)	-
PWS RMI	110.4	Distance from Outfall (mi)	~137

Treatment Facility Summary

Treatment Facility Name: Promised Land State Park

WQM Permit No.	Issuance Date
5270401	03/06/1970
5207401	03/28/2008

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Extended Aeration	Chlorination	0.2

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.4	225	Not Overloaded	Waste Sludge Tank	Sludge Drying Beds*

***** As of a 2021 inspection report of the facility, the sludge drying beds were inoperable with sludge generally being recycled back to reseed the treatment plant or being hauled out on occasion.

Compliance History

DMR Data for Outfall 001 (from August 1, 2024 to July 31, 2025)

Parameter	JUL-25	JUN-25	MAY-25	APR-25	MAR-25	FEB-25	JAN-25	DEC-24	NOV-24	OCT-24	SEP-24	AUG-24
Flow (MGD) Average Monthly	0.021	0.049	0.077	0.014	0.030	0.006	0.008	0.016	0.004	0.003	0.004	0.008
Flow (MGD) Daily Maximum	0.047	0.112	0.129	0.027	0.103	0.018	0.032	0.061	0.014	0.012	0.008	0.023
pH (S.U.) Instantaneous Minimum	7.01	6.27	6.03	6.8	6.93	7.20	7.21	6.86	6.72	7.05	7.03	6.8
pH (S.U.) Instantaneous Maximum	7.89	7.71	7.68	8.37	8.48	8.75	7.93	8.33	7.72	7.71	7.77	7.68
DO (mg/L) Instantaneous Minimum	5.64	5.39	7.3	6.84	8.48	12.13	9.51	8.16	6.17	5.07	5.26	5.02
TRC (mg/L) Average Monthly	0.42	0.60	0.43	0.28	0.77	0.32	0.76	0.57	0.61	0.86	0.60	0.46
TRC (mg/L) Instantaneous Maximum	1.39	1.68	1.02	1.25	1.78	1.38	1.27	1.41	1.04	1.81	1.18	0.91
CBOD5 (lbs/day) Average Monthly	0.62	1.72	1.93	0.35	0.75	0.15	0.2	0.50	0.10	0.10	0.10	0.2
CBOD5 (mg/L) Average Monthly	3.54	4.2	3	3	3	3	3	0.377	3	3.8	3	3
TSS (lbs/day) Average Monthly	0.58	1.85	2.07	0.37	1.25	0.464	0.34	2.16	0.206	0.09	0.089	0.18
TSS (mg/L) Average Monthly	3.33	4.53	3.22	3.16	5	9.28	5.12	16.2	6.19	3.52	2.67	2.64
Fecal Coliform (No./100 ml) Geometric Mean	648.33	1.42	1.95	2.69	4.89	1	1	3.49	1	1	1	16.71
Fecal Coliform (No./100 ml) Instantaneous Maximum	2419.6	4.1	14.6	70.3	140	1	1	517.2	1	1	1	1011.3
Ammonia (lbs/day) Average Monthly	1.21	1.59	0.37	0.044	0.05	0.01	0.013	0.027	0.009	0.005	0.17	0.013
Ammonia (mg/L) Average Monthly	6.91	3.88	0.57	0.436	0.2	0.204	0.2	0.2	0.257	0.2	0.2	0.2

Total Phosphorus (lbs/day) Average Monthly	0.041	0.181	0.033	0.006	0.057	0.017	0.023	0.047	0.005	0.005	0.004	0.016
Total Phosphorus (mg/L) Average Monthly	0.234	0.443	0.052	0.056	0.227	0.335	0.338	0.006	0.138	0.183	0.117	0.236
Total Iron (mg/L) Average Monthly	0.396	0.581	0.370	0.313	0.248	4.38	1.37	1.91	0.641	0.535	0.22	0.241

Compliance History

Effluent Violations for Outfall 001, from: September 1, 2024 To: July 31, 2025

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
Fecal Coliform	07/31/25	Geo Mean	648.33	No./100 ml	200	No./100 ml
Fecal Coliform	07/31/25	IMAX	2419.6	No./100 ml	1000	No./100 ml
Ammonia	07/31/25	Avg Mo	6.91	mg/L	3.0	mg/L
Ammonia	06/30/25	Avg Mo	3.88	mg/L	3.0	mg/L

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.2
Latitude 41º 18' 49.45" **Longitude** -75º 14' 7.62"
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
Total Suspended Solids	30.0	Average Monthly	133.102(b)(1)	92a.47(a)(1)
	60.0	Average Monthly	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)
Dissolved Oxygen	5.0	Minimum	-	BPJ
E. Coli	Report	IMAX	-	92a.61

Water Quality-Based Limitations

The following limitations were determined through water quality modeling:

Parameter	Limit (mg/l)	SBC	Model
Total Residual Chlorine	0.19	Average Monthly	TRC Calculation Spreadsheet
	0.62	IMAX	
$CBOD_5$	10.0	Average Monthly	Previous Permit/Modeling
	20.0	IMAX	
Ammonia-Nitrogen Nov 1 - Apr 30	9.0	Average Monthly	
	18.0	IMAX	
Ammonia-Nitrogen May 1 - Oct 31	3.0	Average Monthly	
	6.0	IMAX	
Total Phosphorous	0.5	Average Monthly	
	1.0	IMAX	
Total Iron	Report	Average Monthly	

Anti-Backsliding

No limitations were made less stringent.

Modeling Using USGS StreamStats Data:

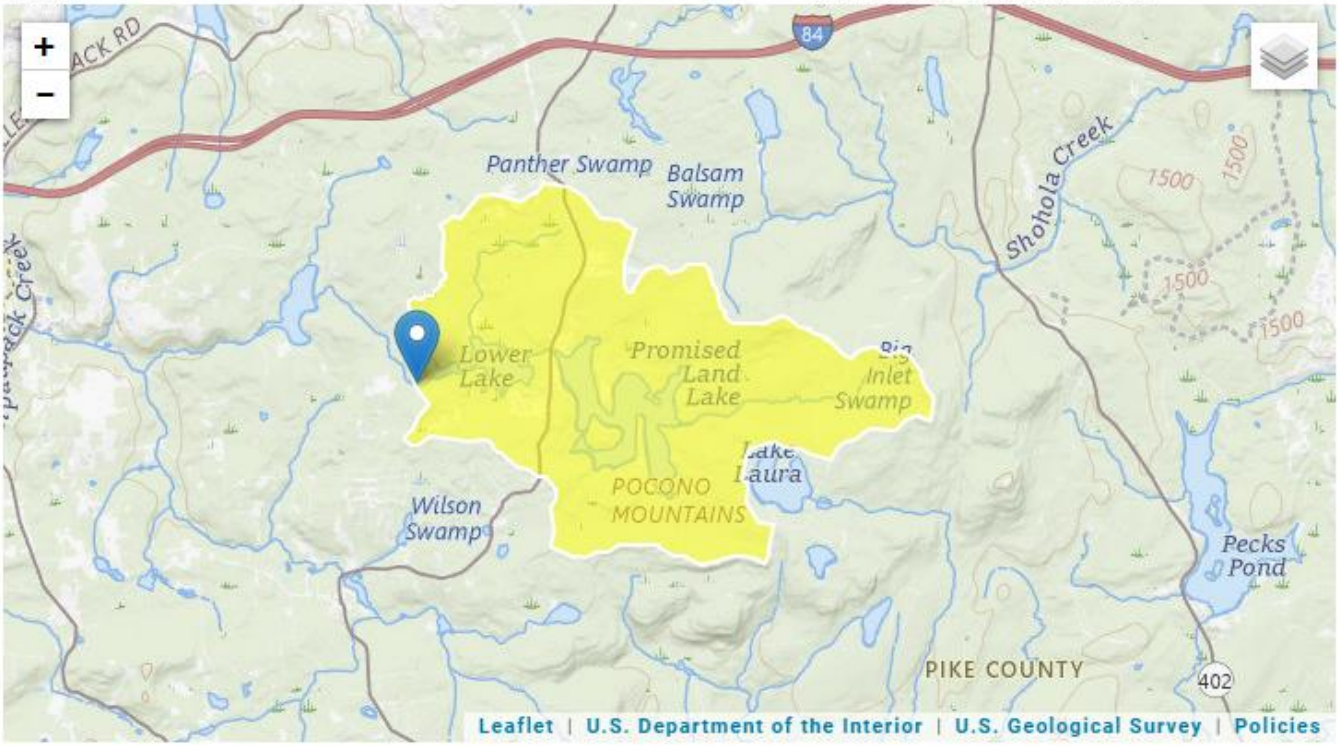
At Outfall 001 on East Branch Wallenpaupack Creek:

RMI	Elevation (ft)	Drainage Area (mi²)	$Q_{7\text{-}10}$ Flow (cfs)
5.24	1,697.15	10.2	0.384

$$Low\ Flow\ Yield\ using\ StreamStats = \frac{0.384\ ft^3/sec}{10.2\ mi^2} = \mathbf{0.0376}\ \frac{\boldsymbol{ft^3/sec}}{\boldsymbol{mi^2}}$$

StreamStats Report

Region ID: PA
Workspace ID: PA20250929192916078000
Clicked Point (Latitude, Longitude): 41.31334, -75.23553
Time: 2025-09-29 15:29:37 -0400



Parameter Code	Parameter Name	Value	Units
DRNAREA	Drainage Area	10.2	square miles

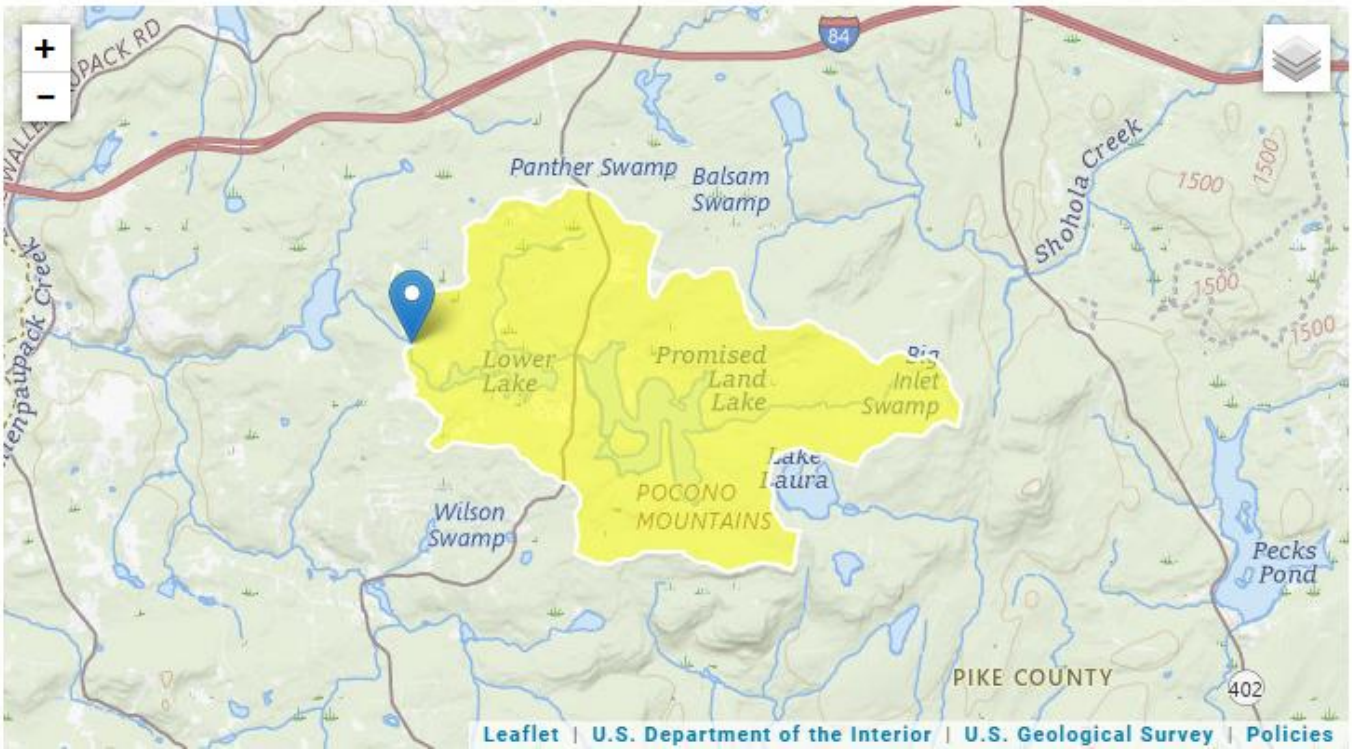
Statistic	Value	Unit	SE	ASEp
7 Day 2 Year Low Flow	1.04	ft^3/s	38	38
30 Day 2 Year Low Flow	1.49	ft^3/s	33	33
7 Day 10 Year Low Flow	0.384	ft^3/s	57	57

At confluence with Unnamed Tributary to East Branch Wallenpaupack Creek (05781):

RMI	Elevation (ft)	Drainage Area (mi^2)
4.72	1,639.83	10.6

StreamStats Report

Region ID: PA
Workspace ID: PA20250930113856782000
Clicked Point (Latitude, Longitude): 41.31951, -75.24068
Time: 2025-09-30 07:39:17 -0400



Parameter Code	Parameter Name	Value	Units
DRNAREA	Drainage Area	10.6	square miles

WQM 7.0 Effluent Limits

SWP Basin	Stream Code	Stream Name
01C	5745	EAST BRANCH WALLENPAUPACK CREEK

RMI	Name	Permit Number	Disc Flow (mgd)	Parameter	Effl. Limit 30-day Ave. (mg/L)	Effl. Limit Maximum (mg/L)	Effl. Limit Minimum (mg/L)
5.240	Promised Land	PA0020940	0.200	CBOD5	25		
				NH3-N	4.5	9	
				Dissolved Oxygen			3

TRC EVALUATION

Input appropriate values in A3:A9 and D3:D9

0.384	= Q stream (cfs)	0.5	= CV Daily
0.2	= 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 =	0.415	1.3.2.iii	WLA cfc =	0.397
PENTOXSD TRG	5.1a	LTAMULT afc =	0.373	5.1c	LTAMULT cfc =	0.581
PENTOXSD TRG	5.1b	LTA_afc=	0.155	5.1d	LTA_cfc =	0.231

Source		Effluent Limit Calculations		
PENTOXSD TRG	5.1f	AML MULT =	1.231	
PENTOXSD TRG	5.1g	AVG MON LIMIT (mg/l) =	0.190	AFC
		INST MAX LIMIT (mg/l) =	0.622	

WLA afc	(.019/e(-k*AFC_tc)) + [(AFC_Yc*Qs*.019/Qd*e(-k*AFC_tc))...
	...+ Xd + (AFC_Yc*Qs*Xs/Qd)]*(1-FOS/100)
LTAMULT afc	EXP((0.5*LN(cvh^2+1))-2.326*LN(cvh^2+1)^0.5)
LTA_afc	wla_afc*LTAMULT_afc
WLA_cfc	(.011/e(-k*CFC_tc) + [(CFC_Yc*Qs*.011/Qd*e(-k*CFC_tc))...
	...+ Xd + (CFC_Yc*Qs*Xs/Qd)]*(1-FOS/100)
LTAMULT_cfc	EXP((0.5*LN(cvd^2/no_samples+1))-2.326*LN(cvd^2/no_samples+1)^0.5)
LTA_cfc	wla_cfc*LTAMULT_cfc
AML MULT	EXP(2.326*LN((cvd^2/no_samples+1)^0.5)-0.5*LN(cvd^2/no_samples+1))
AVG MON LIMIT	MIN(BAT_BPJ,MIN(LTA_afc,LTA_cfc)*AML_MULT)
INST MAX LIMIT	1.5*((av_mon_limit/AML_MULT)/LTAMULT_afc)

WQM 7.0.pdf