Pennsylvania Department of Environmental Protection

Northeast Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0060348**
Facility Type	**Non-Municipal**	APS ID	**567498**
Major / Minor	**Minor**	Authorization ID	**1412941**

Applicant and Facility Information

Applicant Name	**PA DOT Bureau Of Project Delivery**	Facility Name	**PA DOT Rest Areas 61 & 62**
Applicant Address	Bureau Of Operation, 400 North Street, 6th Floor	Facility Address	I-84 West
	Harrisburg, PA 17120		Palmyra Twp, PA 18426
Applicant Contact	Mark Bowen	Facility Contact	Sean Skeath
Applicant Phone	(215) 397-4055	Facility Phone	(570) 449-4538
Client ID	62162	Site ID	4282
Ch 94 Load Status	Not Overloaded	Municipality	Palmyra Township
Connection Status		County	Pike
Date Application Received	October 6, 2022	EPA Waived?	No
Date Application Accepted		If No, Reason	Lake Wallenpaupack TMDL

Purpose of Application: RENEWAL OF EXISTING NPDES PERMIT.

Summary of Review

The applicant is requesting renewal of an NPDES permit to discharge 0.015 MGD of treated sewage Kleinhans Creek, a designated High-Quality, Cold-Water Fishes, Migratory Fishes (HQ-CWF-MF) stream in state water plan basin 01-C (Wallenpaupack Creek). As per the Department's Existing Use list, Kleinhans Creek does not have an existing use more protective than its designated use. Outfall 001 discharges into a drainage ditch, so the point of first use is determined to be where the ditch meets Kleinhans Creek. Kleinhans Creek drains into Lake Wallenpaupack, which has a finalized TMDL named "Lake Wallenpaupack TMDL" alongside an impairment for fish consumption due to mercury poisoning. The permittee's discharge is not expected to contribute to this impairment.

The Ammonia-Nitrogen and Total Phosphorus limits will be carried over from the previous permit. The Annual Total Phosphorus limit was part of the Lake Wallenpaupack TMDL from 2005, and the limit will remain at 22.8 lbs/yr. The permittee will also be required to calculate and report monthly total phosphorous loadings as well to reach minimum technology standards. The Ammonia-Nitrogen limit is only applied during the summer months (May-Oct).

The limits for $CBOD_5$, TSS, pH, and Fecal Coliform are technology-based limits and will be carried over from the previous permit. Modeling the discharge in WQM 7.0 (attached) with a default low flow yield (LFY) of 0.1 cfs/mi^2 did not give a result more stringent than the technology-based standards for $CBOD_5$, Ammonia-Nitrogen, or Dissolved Oxygen. RMI values, drainage areas, and stream elevations for modeling inputs were found using USGS's StreamStats Interactive Map. The default LFY value was used due to no historical flow data being available for Kleinhans Creek upstream or downstream.

E. Coli was also added as a reporting requirement due to a recently added technology based effluent limit. All sewage permits now require E. Coli monitoring, with a sampling frequency of 1/year for design flows between 0.002 MGD and 0.05 MGD according to PA 25 Code §92a.61(11)(12).

Approve	Deny	Signatures	Date
X		Luca Jordache Luca Jordache, Environmental Engineer Trainee	June 27, 2025
X		Edward Dudick Edward Dudick, P.E. / Environmental Engineer Manager	June 27, 2025

Summary of Review

The Total Residual Chlorine (TRC) limit from the previous permit of 0.5 mg/L AML and 1.1 IMAX will be carried over. This limit is determined from PA 25 Code 92a.47(a)(8) referring to 92a.48(b)(2). The TRC spreadsheet modeling did not indicate any need for more stringent limits for this discharge.

Total Nitrogen will continue to be monitored and reported as previously done so, including monitoring and reporting Nitrate+Nitrite-N and Total Kjeldahl Nitrogen to calculate Total Nitrogen.

For this permit, all monitoring frequencies are consistent with the Department's *Technical Guidance for the Development and Specification of Effluent limitations and Other Permit Conditions in NPDES Permits* (document no. 362-0400-001)

The previous permit expired on March 31, 2023, and the renewal application was not received at least 180 days before the expiration. An extension has been provided by the DEP via letter while the renewal is being processed.


WQM 7.0 Results PA0060348.pdf


StreamStats Info PA0060348 PA DOT F


PA0060348 TRC Calc.pdf

The draft permit was published in the PA Bulletin on May 17th, 2025, for a 30-day public comment period. One comment was received by the EPA:

COMMENTS FROM EPA (Reply in bold):

1. It appears that the total phosphorus limit to address consistency with the TMDL WLA (40 CFR 122.44(d)(1)(vii)(B)) was inadvertently omitted from the draft permit. This appears to be an error, since the fact sheet indicates that limit of 22.8 lbs/yr will remain in the permit.

The total phosphorous limit was unintentionally written as "report" instead of the limit of 22.8 lbs/yr on the draft NPDES permit. The TMDL WLA has been added back into the permit and the fact sheet has been updated accordingly.

OTHER CHANGES TO DRAFT PERMIT:

Daily max limits were added to pollutants where the sample collection method was 8-hr composite and an IMAX limit was in place. This was done since the permittee cannot technically have an "instantaneous" 8-hr composite as it takes 8 hours to complete. The permittee may now report daily max of these pollutants on eDMRs as the former IMAX limit would not show up on eDMRs. The daily max limit is equal to IMAX limit and will not require anything new of the permittee.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.015
Latitude	41º 21' 27.59"	Longitude	-75º 14' 17.09"
Quad Name	Promised Land	Quad Code	0844
Wastewater Description:	Sewage Effluent		

Receiving Waters	Kleinhans Creek (HQ-CWF, MF) (Point of First Use)	Stream Code	64049
NHD Com ID	25935892	RMI	1.07 (Point of First Use)
Drainage Area	2.62	Yield (cfs/mi^2)	0.1
Q_{7-10} Flow (cfs)	0.262	Q_{7-10} Basis	Default LFY
Elevation (ft)	1314	Slope (ft/ft)	0.024
Watershed No.	1-C	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
PWS RMI	109.8	Distance from Outfall (mi)	123

Changes Since Last Permit Issuance: None

Other Comments: There is no TMDL for the receiving stream, but there is a TMDL for Lake Wallenpaupack. Kleinhans Creek drains into Lake Wallenpaupack about 1 mile downstream from the point of first use and 2.25 miles from outfall 001.

Treatment Facility Summary

Treatment Facility Name: PA DOT - Rest Area 62

WQM Permit No.	Issuance Date
5280401	9/26/1980
5290403	8/14/1990

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Aeration	Chlorine Contact	0.0033

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.015	30	Not Overloaded	Sludge Holding	Hauled

Changes Since Last Permit Issuance: None

Other Comments: N/A

Compliance History	
Summary of DMRs:	Facility has a history of compliance with few spots of non-compliance spread throughout years, such as pH in July 2024 and $CBOD_5$ in August 2024. This site has displayed the capability to maintain compliance.
Summary of Inspections:	The WWTP has been inspected regularly throughout its permit lifetime.

Other Comments: **N/A**

Compliance History

DMR Data for Outfall 001 (from March 1, 2024 to February 28, 2025)

Parameter	FEB-25	JAN-25	DEC-24	NOV-24	OCT-24	SEP-24	AUG-24	JUL-24	JUN-24	MAY-24	APR-24	MAR-24
Flow (MGD) Average Monthly	0.0022	0.0028	0.0034	0.0032	0.0031	0.0030	0.0038	0.0037	0.0030	0.0036	0.0034	0.0032
Flow (MGD) Daily Maximum	0.0040	0.0043	0.0076	0.0064	0.0053	0.0049	0.0061	0.0068	0.0049	0.0054	0.0064	0.0087
pH (S.U.) Minimum	7.1	7.1	6.5	6.7	6.7	6.8	6.7	3.1	6.7	6.5	6.7	6.9
pH (S.U.) Instantaneous Maximum	7.9	8.1	8.1	8.3	8.1	8.2	8.1	8.1	7.7	8.0	8.0	8.2
TRC (mg/L) Average Monthly	< 0.02	< 0.01	< 0.02	< 0.04	< 0.05	< 0.03	< 0.03	< 0.03	< 0.02	< 0.04	< 0.02	< 0.02
TRC (mg/L) Instantaneous Maximum	0.04	0.05	0.05	0.3	0.8	0.3	0.29	0.28	0.08	0.5	0.06	0.1
CBOD5 (mg/L) Average Monthly	< 9.3	< 10.6	< 6.0	< 6.0	< 6.0	23.4	26.7	< 7.5	7.7	< 6.0	< 6.6	< 7.5
TSS (mg/L) Average Monthly	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	7.7	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Fecal Coliform (No./100 ml) Geometric Mean	< 1	< 1	< 1	< 2	58	< 1	33	< 1	176	< 1	< 4	< 1
Fecal Coliform (No./100 ml) Instantaneous Maximum	< 1	< 1	< 1	5.2	101.7	< 1	148.3	2	260.3	< 1	196.8	< 1
Nitrate-Nitrite (mg/L) Average Monthly	< 51.5	< 73.7	< 66.9	< 91.5	< 80.27	< 84.1	< 89	< 101.5	< 81.84	< 91.3	< 61.1	< 43.7
Total Nitrogen (mg/L) Average Monthly	< 52.5	< 74.7	< 67.9	< 92.5	< 80.77	< 85.1	< 90	< 102.5	< 82.84	< 92.3	< 62.1	< 44.7
Ammonia (mg/L) Average Monthly	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.9	< 0.2	< 0.3	< 0.2	< 0.3	< 0.2
TKN (mg/L) Average Monthly	< 1	< 1	< 1	< 1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Total Phosphorus (mg/L) Average Monthly	0.2	0.3	0.1	0.1	0.3	< 0.1	0.3	0.4	0.3	0.2	0.3	0.3

Total Phosphorus (lbs) Total Monthly	0.1	0.008	0.1	0.08	0.2	< 0.08	0.2	0.4	0.3	0.3	0.4	0.3
Total Phosphorus (lbs) Total Annual			3.0									

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** .015
Latitude 41º 21' 29.00" **Longitude** -75º 13' 23.00"
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	Average Monthly	133.102(a)(4)(i)	92a.47(a)(1)
	50	IMAX	-	-
Total Suspended Solids	30	Average Monthly	133.102(b)(1)	92a.47(a)(1)
	60	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 (TRC)	0.5	Average Monthly	-	92a.48(b)(2)
	1.1	IMAX	-	-
E. Coli	Report	IMAX	-	92a.61

Comments: N/A

Water Quality-Based Limitations

The following limitations were determined through water quality modeling (output files attached):

Parameter	Limit (mg/l)	SBC	Model
Ammonia-Nitrogen (May – Oct)	9	Average Monthly	Previous Modeling
	18	IMAX	
Total Phosphorus	0.5	Average Monthly	Lake Wallenpaupack TMDL and HQ protected waters
	1	IMAX	
	22.8 (lbs)	Total Annual	

Comments: N/A

Best Professional Judgment (BPJ) Limitations

Comments: N/A

Anti-Backsliding

The Lake Wallenpaupack TMDL has been completed, however due to anti-backsliding policy the phosphorus limits can not be removed or loosened on this permit.

Proposed Effluent Limitations and Monitoring Requirements

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (386-0400-001), SOPs and/or BPJ.

Outfall 001, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	1/week	Measured
pH (S.U.)	XXX	XXX	6.0 Daily Min	XXX	XXX	9.0	1/day	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.1	1/day	Grab
CBOD5	XXX	XXX	XXX	25.0	50 (Daily Max)	50	2/month	8-Hr Composite
TSS	XXX	XXX	XXX	30.0	60 (Daily Max)	60	2/month	8-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2,000 Geo Mean	XXX	10,000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1,000	2/month	Grab
E. Coli	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab
Nitrate-Nitrite	XXX	XXX	XXX	Report	XXX	XXX	2/month	8-Hr Composite
Total Nitrogen	XXX	XXX	XXX	Report	XXX	XXX	2/month	Calculation
Ammonia-Nitrogen Nov 1 - Apr 30	XXX	XXX	XXX	Report	XXX	XXX	2/month	8-Hr Composite
Ammonia-Nitrogen May 1 - Oct 31	XXX	XXX	XXX	9.0	18 (Daily Max)	18	2/month	8-Hr Composite
TKN	XXX	XXX	XXX	Report	XXX	XXX	2/month	8-Hr Composite

Outfall 001, Continued (from Permit Effective Date through Permit Expiration Date)

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Total Phosphorus (mg/L)	XXX	XXX	XXX	0.5	1 (Daily Max)	1	2/month	8-Hr Composite
Total Phosphorus (Total Load, lbs) (Monthly)	Report	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Total Phosphorus (Total Load, lbs) (Annual)	22.8 (lbs/yr)	XXX	XXX	XXX	XXX	XXX	1/year	Calculation

Other Comments: Total Phosphorus has been adjusted in this re-draft to clarify what the DEP requires of the permittee. The average monthly total phosphorus load in lbs/day must be reported once per month. Once per year an annual total phosphorus calculation must be reported and below 22.8 lbs for the year to stay in compliance.

8-hr composite samples are not technically instantaneous, so daily max limits were added to better clarify that a maximum value must still be reported. Daily max limits are identical to IMAX limits and were only added for pollutants with an 8-hr composite sampling type and an IMAX limit. This will show up on eDMR forms as well.

Tools and References Used to Develop Permit	
☐	WQM for Windows Model (see Attachment  WQM 7.0 Results PA0060348.pdf)
☐	TRC Model Spreadsheet (see Attachment  PA0060348 TRC Calc.pdf)
☐	Water Quality Toxics Management Strategy, 361-0100-003, 4/06.
☐	Technical Guidance for the Development and Specification of Effluent Limitations, 386-0400-001, 10/97.
☐	Policy for Permitting Surface Water Diversions, 386-2000-019, 3/98.
☐	Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 386-2000-018, 11/96.
☐	Technology-Based Control Requirements for Water Treatment Plant Wastes, 386-2183-001, 10/97.
☐	Technical Guidance for Development of NPDES Permit Requirements Steam Electric Industry, 386-2183-002, 12/97.
☐	Pennsylvania CSO Policy, 386-2000-002, 9/08.
☐	Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03.
☐	Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 386-2000-008, 4/97.
☐	Determining Water Quality-Based Effluent Limits, 386-2000-004, 12/97.
☐	Implementation Guidance Design Conditions, 386-2000-007, 9/97.
☐	Technical Reference Guide (TRG) WQM 7.0 for Windows, Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen, Version 1.0, 386-2000-016, 6/2004.
☐	Interim Method for the Sampling and Analysis of Osmotic Pressure on Streams, Brines, and Industrial Discharges, 386-2000-012, 10/1997.
☐	Implementation Guidance for Section 95.6 Management of Point Source Phosphorus Discharges to Lakes, Ponds, and Impoundments, 386-2000-009, 3/99.
☐	Technical Reference Guide (TRG) PENTOXSD for Windows, PA Single Discharge Wasteload Allocation Program for Toxics, Version 2.0, 386-2000-015, 5/2004.
☐	Implementation Guidance for Section 93.7 Ammonia Criteria, 386-2000-022, 11/97.
☐	Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers, 386-2000-013, 4/2008.
☐	Implementation Guidance Total Residual Chlorine (TRC) Regulation, 386-2000-011, 11/1994.
☐	Implementation Guidance for Temperature Criteria, 386-2000-001, 4/09.
☐	Implementation Guidance for Section 95.9 Phosphorus Discharges to Free Flowing Streams, 386-2000-021, 10/97.
☐	Implementation Guidance for Application of Section 93.5(e) for Potable Water Supply Protection Total Dissolved Solids, Nitrite-Nitrate, Non-Priority Pollutant Phenolics and Fluorides, 386-2000-020, 10/97.
☐	Field Data Collection and Evaluation Protocol for Determining Stream and Point Source Discharge Design Hardness, 386-2000-005, 3/99.
☐	Implementation Guidance for the Determination and Use of Background/Ambient Water Quality in the Determination of Wasteload Allocations and NPDES Effluent Limitations for Toxic Substances, 386-2000-010, 3/1999.
☐	Design Stream Flows, 386-2000-003, 9/98.
☐	Field Data Collection and Evaluation Protocol for Deriving Daily and Hourly Discharge Coefficients of Variation (CV) and Other Discharge Characteristics, 386-2000-006, 10/98.
☐	Evaluations of Phosphorus Discharges to Lakes, Ponds and Impoundments, 386-3200-001, 6/97.
☐	Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, 4/07.
☐	SOP:  Individual NPDES SOP - Sewage (Versi  Individual Sewage SOP - Effluent Limits