

Application Type Renewal
Facility Type Municipal
Major / Minor Minor

**NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE**

Application No. PA0037974
APS ID 1086119
Authorization ID 1435512

Applicant and Facility Information

Applicant Name	<u>Washington Township Erie County</u>	Facility Name	<u>Washington Township Sewer Authority Kline Rd STP</u>
Applicant Address	<u>11800 Edinboro Road</u> <u>Edinboro, PA 16412-1024</u>	Facility Address	<u>Kline Road</u> <u>Edinboro, PA 16412</u>
Applicant Contact	<u>Norman Willow</u>	Facility Contact	<u>Norman Willow</u>
Applicant Phone	<u>(814) 734-3117</u>	Facility Phone	<u>(814) 734-3117</u>
Client ID	<u>41647</u>	Site ID	<u>248595</u>
Ch 94 Load Status	<u>Not Overloaded</u>	Municipality	<u>Washington Township</u>
Connection Status	<u>No Limitations</u>	County	<u>Erie</u>
Date Application Received	<u>March 28, 2023</u>	EPA Waived?	<u>Yes</u>
Date Application Accepted	<u></u>	If No, Reason	<u></u>
Purpose of Application	<u>Minor sewage renewal of a municipal sewage treatment plant (STP).</u>		

Summary of Review

This is an existing discharge for a minor sewage treatment facility.

Act 14 – Proof of Notification was submitted and received.

There are no open violations in WMS for the subject Client ID (41647) as of 1/30/2024.

Annual monitoring for E. Coli has been added per Department SOP for new and reissued NPDES permits with design flows exceeding 2000 GPD.

The EPA Waiver is in effect.

Sludge use and disposal description and location(s): Hauled to Edinboro STP by Edinboro Borough.

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.

Approve	Deny	Signatures	Date
X		Jordan A. Frey, E.I.T. Jordan A. Frey, E.I.T. / Project Manager	January 30, 2024
		Vacant / Environmental Engineer Manager	Okay to Draft JCD 2/5/2024

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	<u>001</u>	Design Flow (MGD)	<u>.08</u>
Latitude	<u>41° 52' 39.45"</u>	Longitude	<u>-80° 5' 49.24"</u>
Quad Name	<u>Cambridge Springs</u>	Quad Code	<u>41080H1</u>
Wastewater Description: <u>Sewage Effluent</u>			
Receiving Waters	<u>Unnamed Tributary to Darrows Creek (WWF)</u>	Stream Code	<u>53043</u>
NHD Com ID	<u>127344698</u>	RMI	<u>1.186 mi – dry; 0.311 mi – free flowing</u>
Drainage Area	<u>0.15 mi² – dry; 0.54 mi² – free flowing</u>	Yield (cfs/mi ²)	<u>0.0749</u>
Q ₇₋₁₀ Flow (cfs)	<u>0 – dry stream; 0.0405 – free flowing</u>	Q ₇₋₁₀ Basis	<u>Woodcock Ck @ Blooming Valley</u>
Elevation (ft)	<u>1411 – dry; 1244 – free flowing</u>	Slope (ft/ft)	<u>0.036 – dry; 0.0024 – free flowing</u>
Watershed No.	<u>16-A</u>	Chapter 93 Class.	<u>WWF</u>
Existing Use	<u></u>	Existing Use Qualifier	<u></u>
Exceptions to Use	<u>None</u>	Exceptions to Criteria	<u>None</u>
Assessment Status	<u>Impaired</u>		
Cause(s) of Impairment	<u>SILTATION</u>		
Source(s) of Impairment	<u>URBAN RUNOFF/STORM SEWERS</u>		
TMDL Status	<u></u>	Name	<u></u>
Background/Ambient Data		Data Source	
pH (SU)	<u>7.7</u>	1978 ECDH stream survey	<u></u>
Temperature (°F)	<u>25</u>	Default temp for a WWF steam	<u></u>
Hardness (mg/L)	<u>2</u>	Default value	<u></u>
Other:	<u>0.02</u>	1978 ECDH stream survey	<u></u>
Nearest Downstream Public Water Supply Intake	<u>Aqua PA Inc - Emlenton</u>		
PWS Waters	<u>Allegheny River</u>	Flow at Intake (cfs)	<u>1376</u>
PWS RMI	<u>94.1</u>	Distance from Outfall	<u>approx. 80 mi</u>

Changes Since Last Permit Issuance: None.

Other Comments: None.

Treatment Facility Summary				
Treatment Facility Name: Washington Township Sewer Authority Kline Road STP				
WQM Permit No.		Issuance Date		
2571413-T2		7/17/87		
2593409		5/10/93		
Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Extended Aeration	Gas Chlorine	0.08
Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.0113	210	Not Overloaded	Dewatering	Other WWTP

Changes since the last permit issuance: None

#2571413: Comminutor w/ bypass bar screen, 80,000-gallon extended aeration treatment system, tertiary tray settling unit and sand filtration. [The permit was originally issued to Lucman Land Corp., transferred to Imperial Point South and then taken over by the Township. The facilities were to be constructed in two phases but the second phase was never built.]

#2593409: 10,000-gallon aerated sludge holding tank and replacement of the existing chlorine solution feed with dual erosion-type chlorinator. The sludge holding tank that was permitted with the original design was not installed.

The facility is treating substantially less flow (0.006 MGD monthly average approximately) than what it is permitted to handle.

Development of Effluent Limitations

Outfall No.	001	Design Flow (MGD)	.08
Latitude	41° 52' 39.50"	Longitude	-80° 5' 49.20"
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)
	40	Average Weekly	133.102(a)(4)(ii)	92a.47(a)(2)
Total Suspended Solids	30	Average Monthly	133.102(b)(1)	92a.47(a)(1)
	45	Average Weekly	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)
Total Residual Chlorine	0.5	Average Monthly	-	92a.48(b)(2)

Comments: No TRC modeling necessary for this dry stream discharge. Apply the tech-based standard.

Water Quality-Based Limitations

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

Parameter	Limit (mg/l)	SBC	Model
NH ₃ -N (5/1-10/31)	3.0	Average Monthly	WQM 7.0 - DO/NH ₃ -N toxicity model
NH ₃ -N (11/1-4/30)	9.0	Average Monthly	WQM 7.0 - DO/NH ₃ -N toxicity model

Comments: See below for recommended NH₃-N limits.

Best Professional Judgment (BPJ) Limitations

Parameter	Limit (mg/l)	SBC	Basis
Dissolved Oxygen	4	Inst. Min.	Dept. SOP
Total Nitrogen	Monitor & Report	Quarterly	Dept. SOP
Total Phosphorus	Monitor & Report	Quarterly	Dept. SOP
BOD ₅ influent	Monitor & Report (conc. & mass)	Average Monthly	Dept. SOP
TSS influent	Monitor & Report (conc. & mass)	Average Monthly	Dept. SOP

Anti-Backsliding

Parameter	Limit (mg/l)	SBC
NH ₃ -N (5/1-10/31)	2.5	Average Monthly
NH ₃ -N (11/1-4/30)	7.5	Average Monthly
CBOD ₅	10	Average Monthly

Comments: The previous permit's NH₃-N limits are being recommended for this renewal. The facility is achieving those limits on a consistent basis.

The previous CBOD₅ limit is also being carried over as has been done for many permit cycles. It was originally set to protect against nuisance conditions in the dry stream. Modeling shows a CBOD₅ of 25 mg/l would be protective of both the dry and free-flowing stream segments. The facility is consistently meeting this year-round limit of 10 mg/l.

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	Weekly Average	Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	1/week	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	3/week	Grab
DO	XXX	XXX	4.0 Inst Min	XXX	XXX	XXX	3/week	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.6	3/week	Grab
CBOD5	6.7	10.0	XXX	10.0	15.0	20	2/month	8-Hr Composite
BOD5 Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	2/month	8-Hr Composite
TSS	20	30	XXX	30.0	45.0	60	2/month	8-Hr Composite
TSS Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	2/month	8-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
E. Coli (No./100 ml)	XXX	XXX	XXX	XXX	XXX	Report	1/quarter	Grab
Total Nitrogen	XXX	XXX	XXX	Report Annl Avg	XXX	XXX	1/year	8-Hr Composite
Ammonia Nov 1 - Apr 30	5.0	XXX	XXX	7.5	XXX	15	2/month	8-Hr Composite
Ammonia May 1 - Oct 31	1.6	XXX	XXX	2.5	XXX	5	2/month	8-Hr Composite
Total Phosphorus	XXX	XXX	XXX	Report Annl Avg	XXX	XXX	1/year	8-Hr Composite

Compliance Sampling Location: Compliance Sampling Location: Outfall 001 – after disinfection, except for the influent testing
Special Conditions: Dry/Intermittent Streams, Chlorine Minimization, Solids Management for Non-Lagoon Treatment Systems.