

Application Type Renewal  
Facility Type Municipal  
Major / Minor Minor

**NPDES PERMIT FACT SHEET  
INDIVIDUAL SEWAGE**

Application No. PA0050466  
APS ID 1062213  
Authorization ID 1393988

**Applicant and Facility Information**

Applicant Name	<u>East Vincent Township</u>	Facility Name	<u>Veterans Center STP</u>
Applicant Address	<u>262 Ridge Road</u> <u>Spring City, PA 19475-2203</u>	Facility Address	<u>6130 Kit Road Unit 4</u> <u>Pipersville, PA 18947-1800</u>
Applicant Contact	<u>Catherine Ricardo</u>	Facility Contact	<u>John Scully</u>
Applicant Phone	<u>(610) 933-4424</u>	Facility Phone	<u>(215) 766-2626</u>
Client ID	<u>77296</u>	Site ID	<u>239549</u>
Ch 94 Load Status	<u>Not Overloaded</u>	Municipality	<u>East Vincent Township</u>
Connection Status	<u>No Limitations</u>	County	<u>Chester</u>
Date Application Received	<u>April 27, 2022</u>	EPA Waived?	<u>Yes</u>
Date Application Accepted	<u></u>	If No, Reason	<u></u>
Purpose of Application	<u>Renewal.</u>		

**Summary of Review**

The permittee has applied for renewal of their NPDES permit to discharge treated sewage from their municipally owned facility to UNT to Schuylkill River through Outfall 001.

Latest upgrade for the plant was in 2014.

The facility consists of:

- Influent screen and bypass channel with bar screen.
- 2 (two) SBR treatment tanks
- Alum addition system
- Two (2) effluent drum filter screens
- Two (2) Ultraviolet Disinfection Systems

Sludge handling at the plant includes:

1. Two (2) aerobic digesters
2. Dewatering via centrifuge.

DEP has conducted a site visit on 02/07/2022. No issues are noted except some I/I that is not significant.

The facility is submitting Annual report to DEP according to requirements for PA Code Chapter 94. Review of the reports determined that the facility is "not overloaded" (organically or hydraulically). To make the reporting to be consistent with the Chapter 94 requirements, influent monitoring for BOD5 is added in this renewal.

The CBOD5 and TSS influent monitoring are included, to verify secondary treatment requirements (§ 92a.47).

Additionally, quarterly monitoring for E. coli is added according recent revision of SOP for sewage treatment plants.

Approve	Deny	Signatures	Date
X		<i>Begay Omuralieva</i> Begay Omuralieva / Environmental Engineering Specialist	November 7, 2022
X		<i>Pravin Patel</i> Pravin C. Patel, P.E. / Environmental Engineer Manager	11/7/2022

**Summary of Review**

Act 14 Notification:

East Vincent Township and Chester County Commissioners were notified on April 11, 2022.

Sludge use and disposal description and location(s): Pioneer Crossing Landfill

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)	.325
Latitude	40° 11' 50.88"	Longitude	-75° 33' 12.25"
Quad Name	Phoenixville	Quad Code	1741
Wastewater Description: Effluent from Veteran's Center STP			
Receiving Waters	Unnamed Stream	Stream Code	01619
NHD Com ID	25989370	RMI	1.09
Drainage Area		Yield (cfs/mi <sup>2</sup> )	
Q <sub>7-10</sub> Flow (cfs)		Q <sub>7-10</sub> Basis	
Elevation (ft)		Slope (ft/ft)	
Watershed No.	3-D	Chapter 93 Class.	HQ - TSF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	

Changes Since Last Permit Issuance: none

Treatment Facility Summary				
<b>Treatment Facility Name:</b> Veterans Center STP				
<b>WQM Permit No.</b>	<b>Issuance Date</b>			
1512408	08/01/2012			
<b>Waste Type</b>	<b>Degree of Treatment</b>	<b>Process Type</b>	<b>Disinfection</b>	<b>Avg Annual Flow (MGD)</b>
Sewage	Secondary With Phosphorus Reduction	Sequencing Batch Reactor	Ultraviolet	0.325
<b>Hydraulic Capacity (MGD)</b>	<b>Organic Capacity (lbs/day)</b>	<b>Load Status</b>	<b>Biosolids Treatment</b>	<b>Biosolids Use/Disposal</b>
0.400	813	Not Overloaded	Combination	Landfill

Changes Since Last Permit Issuance: none

Compliance History

DMR Data for Outfall 001 (from October 1, 2021 to September 30, 2022)

Parameter	SEP-22	AUG-22	JUL-22	JUN-22	MAY-22	APR-22	MAR-22	FEB-22	JAN-22	DEC-21	NOV-21	OCT-21
Flow (MGD) Average Monthly	0.177077	0.17017	0.163951	0.170307	0.204132	0.252984	0.186482	0.200328	0.189678	0.173734	0.174132	0.179945
Flow (MGD) Daily Maximum	0.354933	0.261635	0.264426	0.250994	0.508725	0.652159	0.311996	0.397865	0.265138	0.301175	0.21902	0.255568
pH (S.U.) Instantaneous Minimum	6.25	6.51	6.51	6.31	6.39	6.22	6.33	6.75	6.72	6.58	6.5	6.4
pH (S.U.) Instantaneous Maximum	7.23	7.24	7.09	7.19	7.28	7.49	7.92	7.36	7.97	7.93	8.86	8.39
DO (mg/L) Instantaneous Minimum	5.9	5.3	5.93	6.11	6.11	6.94	6.9	7.76	7.21	6.13	6.0	6.23
CBOD5 (lbs/day) Average Monthly	< 3.9	< 4.3	< 3.1	< 3.4	< 5.0	6.1	< 3.5	< 3.7	< 2.9	< 3.1	< 3.1	< 3.3
CBOD5 (lbs/day) Weekly Average	4.9	5.5	< 3.6	4.2	8.7	11.4	5.1	< 3.9	< 3.1	4.0	< 3.5	5.0
CBOD5 (mg/L) Average Monthly	< 2.2	< 2.4	< 2.0	< 2.0	< 2.7	2.8	< 2.1	< 2.0	< 2.0	< 2.6	< 2.1	< 2.3
CBOD5 (mg/L) Weekly Average	2.8	3.2	< 2.0	2.0	4.7	3.4	2.4	< 2.0	2.1	4.1	2.2	3.1
TSS (lbs/day) Average Monthly	10.8	7.6	< 5.1	6.1	16.3	16.0	8.9	12.5	9.0	5.4	12.9	13.8
TSS (lbs/day) Weekly Average	12.5	11.2	9.0	8.2	23.4	36.8	18.8	17.5	11.1	8.0	25.1	17.1
TSS (mg/L) Average Monthly	6.0	4.2	< 3.2	3.6	8.7	7.1	5.3	6.8	6.2	4.7	7.9	9.8
TSS (mg/L) Weekly Average	7.1	5.2	5.0	5.1	11.4	11.4	8.8	9.0	7.6	8.2	14.3	12.7
Total Dissolved Solids (mg/L) Average Monthly	495.0	531.0	551.0	513.0	387.0	399.0	518.0	566.0	487.0	572.0	550.0	426.0
Total Dissolved Solids (mg/L) Daily Maximum	495.0	531.0	551.0	513.0	387.0	399.0	518.0	566.0	487.0	572.0	550.0	426.0

**NPDES Permit Fact Sheet  
Veterans Center STP**

**NPDES Permit No. PA0050466**

Fecal Coliform (No./100 ml) Geometric Mean	< 2	< 2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 3	< 5
Fecal Coliform (No./100 ml) Instantaneous Maximum	7	13	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1	41	232
Total Nitrogen (lbs/day) Average Monthly	< 4.5	3.7	2.8	5.8	4.1	9.9	7.1	9.6	7.0	10.8	6.9	1.6
Total Nitrogen (mg/L) Average Monthly	< 2.5	2.1	1.8	3.3	2.2	4.2	4.8	5.3	4.9	7.9	4.7	1.1
Ammonia (lbs/day) Average Monthly	< 0.20	< 0.40	< 0.30	< 0.50	< 0.80	< 2.64	< 0.20	< 0.20	< 0.10	< 0.09	< 1.07	< 0.20
Ammonia (mg/L) Average Monthly	< 0.1	< 0.2	0.2	< 0.3	< 0.5	< 1.3	< 0.1	< 0.1	< 0.1	< 1.1	< 0.8	< 0.1
Total Phosphorus (lbs/day) Average Monthly	0.50	0.70	0.50	0.70	0.80	1.77	0.30	0.60	0.30	0.30	0.30	0.80
Total Phosphorus (mg/L) Average Monthly	0.3	0.4	0.3	0.4	0.4	0.9	0.2	0.3	0.2	0.2	0.2	0.5
UV Dosage (mWsec/cm <sup>2</sup> ) Minimum	45.43	64.27	2376.1	63.33	51.9	59.77	62.19	68.4	1341.7	108.5	63.21	30.92

**Compliance History**

No non-compliance issues report

**Development of Effluent Limitations**

<b>Outfall No.</b> <u>001</u>	<b>Design Flow (MGD)</b> <u>.325</u>
<b>Latitude</b> <u>40° 11' 49.08"</u>	<b>Longitude</b> <u>-75° 33' 24.42"</u>
<b>Wastewater Description:</b> <u>Effluent</u>	

**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 <sub>5</sub>	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)

**Water Quality-Based Limitations**

Due to dry stream discharge into special protection watershed, following Water Quality Limitations were calculated previously and have been proposed.

Parameter	Limit (mg/l)	SBC	Model
BOD <sub>5</sub>	10	Average Monthly	Policy per Document NO.391-2000-014
Total Suspended Solids	10	Average Monthly	Policy per Document NO.391-2000-014
Ammonia as N	1.5	Average Monthly	Policy per Document NO.391-2000-014
Dissolved Oxygen	5.0	Average Monthly	Policy per Document NO.391-2000-014
Total Residual Chlorine	ND	Average Monthly	Policy per Document NO.391-2000-014
Phosphorus as P (4/1 to 10/31)	1.5	Average Monthly	BAT & Chapter 96.5
Phosphorus as P (11/1 to 03/31)	2.0	Average Monthly	BAT & Chapter 96.5

Based on the PA Code § 92a.61 DEP has established Standard Operational Procedure (SOP) – Establishing Effluent Limitations for Individual Sewage Permits, Revised, March 24, 2021:

*Sewage discharges will include monitoring, at a minimum, for E. Coli, in new and reissued permits, with 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.*

Therefore, quarterly monitoring for E.Coli will be proposed in draft permit additional to previously established parameters of concerns.

**Anti-Backsliding**

N/A

**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" (362-0400-001), SOPs and/or BPJ.

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

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average	Daily Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Recorded
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	5.0 Inst Min	XXX	XXX	XXX	1/day	Grab
CBOD5	27.1	40.7	XXX	10.0	15.0	20	1/week	24-Hr Composite
TSS	27.1	40.7	XXX	10.0	15.0	20	1/week	24-Hr Composite
Biochemical Oxygen Demand (BOD5) Raw Sewage Influent	XXX	XXX	XXX	Report	XXX	XXX	1/week	24-Hr Composite
Total Suspended Solids Raw Sewage Influent	XXX	XXX	XXX	Report	XXX	XXX	1/week	24-Hr Composite
CBOD5 Raw Sewage Influent	XXX	XXX	XXX	Report	XXX	XXX	1/week	24-Hr Composite
Total Dissolved Solids	XXX	XXX	XXX	1000.0	2000.0 Daily Max	2500	1/month	24-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	1/week	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	1/week	Grab
E. Coli (No./100 ml)	XXX	XXX	XXX	XXX	XXX	Report	1/quarter	Grab
Total Nitrogen	27.1	XXX	XXX	10.0	XXX	20	1/week	24-Hr Composite

Outfall001 , Continued (from Permit Effective Date through Permit Expiration Date)

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Daily Minimum	Concentrations (mg/L)			Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average		Average Monthly	Weekly Average	Instant. Maximum		
Ammonia	4.07	XXX	XXX	1.5	XXX	3	1/week	24-Hr Composite
Total Phosphorus Nov 1 - Mar 31	5.42	XXX	XXX	2.0	XXX	4	1/week	24-Hr Composite
Total Phosphorus Apr 1 - Oct 31	4.07	XXX	XXX	1.5	XXX	3	1/week	24-Hr Composite
UV Dosage (mWsec/cm <sup>2</sup> )	XXX	XXX	Report	XXX	XXX	XXX	1/day	Metered

Compliance Sampling Location: Outfall 001