

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

**NPDES PERMIT FACT SHEET  
INDIVIDUAL SEWAGE**

Application No. PA0050482  
 APS ID 1063545  
 Authorization ID 1396501

**Applicant and Facility Information**

Applicant Name	<u>Freedoms Foundation At Valley Forge</u>	Facility Name	<u>Freedoms Foundation STP</u>
Applicant Address	<u>1601 Valley Forge Road</u> <u>Valley Forge, PA 19482</u>	Facility Address	<u>1601 Valley Forge Road</u> <u>Valley Forge, PA 19482</u>
Applicant Contact	<u>Jason Raia</u>	Facility Contact	<u>Steven Cawley</u>
Applicant Phone	<u>(610) 933-8825</u>	Facility Phone	<u>(484) 593-2989</u>
Client ID	<u>170015</u>	Site ID	<u>452205</u>
Ch 94 Load Status	<u>Not Overloaded</u>	Municipality	<u>Schuylkill Township</u>
Connection Status		County	<u>Chester</u>
Date Application Received	<u>April 29, 2022</u>	EPA Waived?	<u>Yes</u>
Date Application Accepted		If No, Reason	
Purpose of Application	<u>Renewal</u>		

**Summary of Review**

The applicant requests a renewal of their NPDES permit to discharge 0.0189 MGD treated sewage from STP serving Freedoms Foundation at Valley Forge in Schuylkill Township, Chester County. The treated effluent is continued to discharge into Jug Hollow, which is tributary to the Schuylkill River, is designated HQ-TSF

The facility provides overnight accommodations, libraries, dining facilities, office buildings, meetings spaces, and historical site. Annual average flows for 2019, 2020 and 2021 were 1681 gpd, 920 gpd, and 1199 gpd, respectively. There is one small pump station, but most of the flow is gravity fed to an aeration tank, followed by a clarifier, chlorine contact tank and dichlorination chamber prior to stream discharge. A parallel aeration tank is currently not in use.

As per the application, the facility is in the process of connecting to the public sewer by end of the year.

There were no other changes to the facility, wastewater quantities, qualities and receiving stream designation since last permit renewal, therefore, previously established effluent limits and monitoring requirements will remain for this current renewal.

Act 14 Notification:

Schuylkill Township - April 12, 2022  
 Chester County Health Department - Undated delivery receipt. Sent by certified mail dated April 12, 2022

Approve	Deny	Signatures	Date
x		<i>Vasantha</i> Vasantha Palakurti / Environmental Engineering Specialist	May 23, 2022
X		<i>Pravin Patel</i> Pravin C. Patel, P.E. / Environmental Engineer Manager	05/24/2022

**Summary of Review**

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.	<u>001</u>	Design Flow (MGD)	<u>.0189</u>
Latitude	<u>40° 6' 6.22"</u>	Longitude	<u>-75° 28' 23.81"</u>
Quad Name	<u>Valley Forge</u>	Quad Code	<u>1842</u>
Wastewater Description: <u>Sewage Effluent</u>			
Receiving Waters	<u>Jug Hallow, Tributary to Schuylkill River (HQ-TSF)</u>	Stream Code	<u>01014</u>
NHD Com ID	<u>26003262</u>	RMI	<u>0.4</u>
Drainage Area	<u>1.15 mi2</u>	Yield (cfs/mi <sup>2</sup> )	<u>0.076</u>
Q <sub>7-10</sub> Flow (cfs)	<u>0.087</u>	Q <sub>7-10</sub> Basis	<u>Previous WQPR</u>
Elevation (ft)	<u>3-F</u>	Slope (ft/ft)	<u>HQ-TSF</u>
Watershed No.	<u>Same as Ch. 93</u>	Chapter 93 Class.	<u>na</u>
Existing Use	<u>na</u>	Existing Use Qualifier	<u>na</u>
Exceptions to Use	<u>1.15 mi2</u>	Exceptions to Criteria	<u>01014</u>
Assessment Status	<u>Impaired</u>		
Cause(s) of Impairment	<u>CAUSE UNKNOWN, FLOW REGIME MODIFICATION</u>		
Source(s) of Impairment	<u>URBAN RUNOFF/STORM SEWERS, URBAN RUNOFF/STORM SEWERS</u>		
Nearest Downstream Public Water Supply Intake	<u>PA American - Norristown</u>		
PWS Waters	<u>Schuylkill River</u>	Flow at Intake (cfs)	<u>7.2</u>

Changes Since Last Permit Issuance: There were no other changes to the facility, wastewater quantities, qualities and receiving stream designation since last permit renewal

Compliance History

DMR Data for Outfall 001 (from April 1, 2021 to March 31, 2022)

Parameter	MAR-22	FEB-22	JAN-22	DEC-21	NOV-21	OCT-21	SEP-21	AUG-21	JUL-21	JUN-21	MAY-21	APR-21
Flow (MGD) Average Monthly	0.0015	0.002	0.001	0.0009	0.0013	0.0014	0.0022	0.0008	0.00209	0.0008	0.0005	0.0005
Flow (MGD) Daily Maximum	0.0043	0.0058	0.0023	0.0018	0.0043	0.004	0.0241	0.0025	0.0066	0.0027	0.0013	0.0021
pH (S.U.) Instantaneous Minimum	7.05	7.4	7.31	6.97	7.19	7.41	6.6	6.3	7.0	7.2	7.2	6.9
pH (S.U.) Instantaneous Maximum	7.97	8.09	8.22	8.25	8.28	8.34	8.3	7.9	8.1	8.2	8.3	7.9
DO (mg/L) Instantaneous Minimum	9.48	10.09	10.54	9.43	9.43	8.88	8.2	6.11	6.46	7.44	8.48	8.8
TRC (mg/L) Average Monthly	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.05	< 0.05	< 0.05	< 0.1	< 0.04	< 0.03
TRC (mg/L) Instantaneous Maximum	0.11	0.19	0.16	0.16	0.74	0.19	0.16	0.16	0.14	0.41	0.12	0.09
CBOD5 (mg/L) Average Monthly	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 9	< 2	< 2	< 2
TSS (mg/L) Average Monthly	10	32	21	24	17	19	16	< 7	< 7	< 4	< 4	< 4
Fecal Coliform (No./100 ml) Geometric Mean	< 1	< 7	< 1	< 1	3	< 2	< 3	54	< 1	< 1	< 1	< 1
Fecal Coliform (No./100 ml) Instantaneous Maximum	< 1	47	< 1	< 1	9	< 5	15	750	2	< 1	< 1	< 1
Total Nitrogen (mg/L) Average Monthly	5.58	9.98	8.51	14.5	16.3	18.8	6.45	28	39.5	7.08	5.12	5.07
Ammonia (mg/L) Average Monthly	< 0.1	< 0.1	< 0.8	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 15.2	< 0.1	< 0.1	< 0.1
Total Phosphorus (mg/L) Average Monthly	0.99	1.01	0.72	1.38	1.38	1.24	0.93	1.85	1.38	0.32	0.2	0.18

**Compliance History**

**Effluent Violations for Outfall 001, from: May 1, 2021 To: March 31, 2022**

<b>Parameter</b>	<b>Date</b>	<b>SBC</b>	<b>DMR Value</b>	<b>Units</b>	<b>Limit Value</b>	<b>Units</b>
TSS	02/28/22	Avg Mo	32	mg/L	30	mg/L
Ammonia	07/31/21	Avg Mo	< 15.2	mg/L	1.0	mg/L

Summary of Inspections: No Violations were noted during the last inspection conducted on 9/16/2021

**Development of Effluent Limitations**

<b>Outfall No.</b> 001	<b>Design Flow (MGD)</b> .0189
<b>Latitude</b> 40° 6' 7.00"	<b>Longitude</b> -75° 28' 24.00"
<b>Wastewater Description:</b> 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 <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**

Limits for CBOD<sub>5</sub>, NH<sub>3</sub>-N, and Dissolved Oxygen (DO) are protective of the Ch. 93 DO standard of 6 mg/l (minimum average daily) and NH<sub>3</sub>-N toxicity, based on previous modeling.

Total Residual Chlorine (TRC) limit of 0.5 mg/l is protective of the instream criteria. The Instantaneous Maximum limit is 1.2 mg/l.

Monthly monitoring for Total Nitrogen and Total Phosphorus per the SOP "Establishing Effluent Limitations for Individual Sewage Permits", since design flow exceeds 2,000 gpd. Limits also comply with technology standards, shown in Table below:

**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	Average Weekly	Minimum	Average Monthly	Maximum	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	6.0 Inst Min	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.2	1/day	Grab
CBOD5	XXX	XXX	XXX	25	XXX	50	2/month	24-Hr Composite
TSS	XXX	XXX	XXX	30	XXX	60	2/month	24-Hr Composite
Fecal Coliform (No./100 ml)	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
Total Nitrogen	XXX	XXX	XXX	Report	XXX	XXX	1/month	24-Hr Composite
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	3.0	XXX	6	2/month	24-Hr Composite
Ammonia May 1 - Oct 31	XXX	XXX	XXX	1.0	XXX	2	2/month	24-Hr Composite
Total Phosphorus	XXX	XXX	XXX	Report	XXX	XXX	1/month	24-Hr Composite