

Application Type New  
Wastewater Type Sewage  
Facility Type SRSTP

## NPDES PERMIT FACT SHEET INDIVIDUAL SFTF/SRSTP

Application No. PA0245615  
APS ID 1110372  
Authorization ID 1478518

### Applicant, Facility and Project Information

Applicant Name <u>Martin L &amp; Elizabeth H Cannon</u>	Facility Name <u>4 Brook Ln</u>
Applicant Address <u>4 Brook Lane</u>	Facility Address <u>4 Brook Lane</u>
<u>Paoli, PA 19301-1903</u>	<u>Paoli, PA 19301-1903</u>
Applicant Contact <u>Martin &amp; Elizabeth Cannon</u>	Facility Contact <u>Martin &amp; Elizabeth Cannon</u>
Applicant Phone <u>(415) 606-3611</u>	Facility Phone <u>(415) 606-3611</u>
Client ID <u>384821</u>	Site ID <u>870832</u>
SIC Code <u>8811</u>	Municipality <u>Willistown Township</u>
SIC Description <u>Services - Private Households</u>	County <u>Chester</u>
Date Application Received <u>March 4, 2024</u>	WQM Required <u>Yes</u>
Date Application Accepted <u>March 28, 2024</u>	WQM App. No. <u></u>
Project Description <u>Construction of SRSTP as repair of a failing on-lot disposal system.</u>	

### Summary of Review

The PADEP received a new National Pollutant Discharge Elimination System (NPDES) Individual Permit application. The application is to discharge 700 gallons per day (gpd) of treated sewage from the 4 Brook Lane single residence sewage treatment plant (SRSTP) to an Unnamed Tributary to Crum Creek a designated High Quality – Cold Water Fishes, Migratory Fishes (HQ-CWF, MF) under chapter 93 in watershed 3-G. The proposed facility is located at 4 Brook Lane, Paoli, PA 19301.

This facility is designed to serve an existing 6-bedroom residence on Tax Map Parcel 54-4-4. The Act 537 plan was approved by PA DEP on February 27, 2024. The proposed treatment process will replace a malfunctioning on lot-system.

The proposed treatment system is anticipated to consist of septic tank followed by a Premier Tech Aqua Ecoflo Coco Biofilter (Series EC7) treatment system and ultraviolet disinfection unit. The existing septic tank and pump tanks will be abandoned in place, and two 1,000-gallon septic tanks in series with an effluent filter will be installed and will discharge to the EcoFlo.

The proposed effluent limits for Outfalls 001 are based on a permitted discharge flow of 700 gpd, were included in the preliminary effluent limits, and are as follows:

Parameters	Concentration (mg/L)	
	Annual Average	Instantaneous Maximum
Flow	Report	
BOD <sub>5</sub>	10	20
Total Suspended Solids (TSS)	10	20
Fecal Coliform (No./100ml)	200 Geo Mean	1000
pH	6.0 – 9.0 S.U.	

Approve	Deny	Signatures	Date
X		Amy Boginsky, MS, EIT / Environmental Engineering Specialist	June 25, 2024
X		<i>Pravin Patel</i> Pravin C. Patel, P.E. / Environmental Engineer Manager	06/25/2024

### Summary of Review

The effluent limitations and monitoring requirements are derived from the Department's Standard Operating Procedures (SOP) for New and Reissuance Small Flow Treatment Facility Individual NPDES Permit Applications (SOP No. BPNPSM-PMT-003).

This discharge will be to a high-quality stream, so the following limits are being added as indicated in the Water Quality Antidegradation Implementation Guidance (391-0300-002):

Parameters	Concentration (mg/L)	
	Annual Average	Instantaneous Maximum
Ammonia-Nitrogen	9.0	18.0
Total Phosphorus	2.0	4.0

TRC limits are not applicable for this facility since the facility will utilize UV disinfection. Per the SOP, it is not necessary to require UV intensity or transmittance monitoring in the permit for SRSTP with UV system.

No Water Quality Modeling was conducted per SOP BPNPSM-PMT-003.

#### Act 14 Notifications:

Willistown Township - October 23, 2023  
Chester County Commissioners - October 23, 2023

#### Proposed Part C Conditions:

##### I. Other Requirements

- A. AMR
- B. DMR
- C. Depth of scum
- D. Septic pumping
- E. Chlorine minimization
- F. No stormwater
- G. Property rights
- H. Solid waste disposal
- I. Municipal sewage
- J. UV disinfection

#### 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 and Stream Data – 2 - Receiving Waters and PWS

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	001	Design Flow (MGD)	.0007
Latitude	40° 1' 26.51"	Longitude	-75° 28' 17.32"
Quad Name	Valley Forge	Quad Code	1842
Wastewater Description: Sewage Effluent			
Receiving Waters	Unnamed Tributary to Crum Creek (HQ-CWF, MF)	Stream Code	00737
NHD Com ID	25620410	RMI	0.5900
Drainage Area	1.07 mi <sup>2</sup>	Yield (cfs/mi <sup>2</sup> )	0.128
Q <sub>7-10</sub> Flow (cfs)	0.137	Q <sub>7-10</sub> Basis	StreamStats
Elevation (ft)	384.78	Slope (ft/ft)	
Watershed No.	3-G	Chapter 93 Class.	HQ-CWF, MF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	CAUSE UNKNOWN, FLOW REGIME MODIFICATION		
Source(s) of Impairment	URBAN RUNOFF/STORM SEWERS, URBAN RUNOFF/STORM SEWERS		
TMDL Status		Name	
Nearest Downstream Public Water Supply Intake	None		
PWS Waters		Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	

**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	Annual Average	Maximum	Instant. Maximum		
Flow (MGD)	Report Annl Avg	XXX	XXX	XXX	XXX	XXX	1/year	Estimate
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/year	Grab
BOD5	XXX	XXX	XXX	10.0	XXX	20.0	1/year	Grab
TSS	XXX	XXX	XXX	10.0	XXX	20.0	1/year	Grab
Fecal Coliform (No./100 ml)	XXX	XXX	XXX	200	XXX	1000	1/year	Grab
Total Phosphorus	XXX	XXX	XXX	2.0	XXX	4.0	1/year	Grab
Ammonia-Nitrogen	XXX	XXX	XXX	9.0	XXX	18.0	1/year	Grab

Compliance Sampling Location: Outfall 001