

Application Type Renewal
Wastewater Type Sewage
Facility Type SRSTP

**NPDES PERMIT FACT SHEET
INDIVIDUAL SFTF/SRSTP**

Application No. PA0245054
APS ID 1103341
Authorization ID 1466454

Applicant, Facility and Project Information

| | | | |
|---------------------------|---|------------------|---|
| Applicant Name | <u>Dougherty Shawn Jr</u> | Facility Name | <u>Dougherty Res</u> |
| Applicant Address | <u>1507 Charles Road</u> <u>West Chester, PA 19382</u> | Facility Address | <u>1507 Charles Road</u> <u>West Chester, PA 19382</u> |
| Applicant Contact | <u>Shawn Dougherty</u> | Facility Contact | <u>Shawn Dougherty</u> |
| Applicant Phone | <u>(484) 886-2689</u> | Facility Phone | <u>(484) 886-2689</u> |
| Client ID | <u>345989</u> | Site ID | <u>832508</u> |
| SIC Code | <u>4952</u> | Municipality | <u>Westtown Township</u> |
| SIC Description | <u>Trans. & Utilities - Sewerage Systems</u> | County | <u>Chester</u> |
| Date Application Received | <u>December 1, 2023</u> | WQM Required | <u></u> |
| Date Application Accepted | <u></u> | WQM App. No. | <u></u> |
| Project Description | <u>Permit Renewal</u> | | |

Summary of Review

A renewal application is for the facility designed to serve the existing 4-bedroom single-family residence (500 GPD) located at 1507 Charles Road, West Chester, PA 19382.

The system is consisting of the followings:

1,250-gal dual-compartment septic tank with a Polylok PL625 effluent → one EcoFlo EC7-500-P-P biofilter/pump unit → one Orenco Advantex ultraviolet disinfection unit → 4" PVC discharge with riprap discharge channel to UNT to East Branch Chester Creek.

The proposed septic tank will have enough capacity to handle 500 GPD. The septic tank will provide initial treatment by removing floatable and settleable solids and provide anaerobic bacterial decomposition of the storage sludge. The septic tank will be 2 compartment concrete tank manufactured by Schwarr Concrete Products, Inc. The tank will have one 4" inspection hole and two 24" access hole. The floor and wall will be 3" thick and the top will be 5" thick. The bottom of the outlet 4" pipe will be 3" below the bottom of inlet 4" pipe. The second compartment of the septic tank will house Polylok PL625 filter. From septic tank, the effluent will flow by gravity to a 500-gallon Ecoflo® EC7-500-P-P biofilter and lift pump unit. The biofilter will have 26" of filtering media with a treatment surface area of 30 sft. The pump will be provided by Champion Pump Company, Inc. The pumping capacity will be 5 gpm at total of 5.31' total head. The discharge volume per dose will be 60-gallon. Disinfection will be provided by Orenco® UV Disinfection Unit accompanied by Orenco® UVIB Control panel. The outfall line will be of 4-inch PVC.

Per the updated DEP's Small Flow Treatment Facilities Manual (Technical Guidance Number 362-0300-002), EC7-500-P-P biofilter still does not qualify for coverage under general permit (PAG04). There is an ongoing review on this particular type of biofilter for the general permit qualification. It may be revisited on the next permit renewal.

| Approve | Deny | Signatures | Date |
|---------|------|---|---------------|
| X | | <i>Charley Yang</i> Charley Yang / Environmental Engineering Specialist | March 7, 2024 |
| X | | <i>Pravin Patel</i> Pravin C. Patel, P.E. / Environmental Engineer Manager | 03/07/2024 |

Summary of Review

The permit conditions and the limits from the previous permit will be carried over. UV cleaning was added to the Part C of the permit.

The draft permit will include the following Part C conditions:

- Small Flow Treatment Facility Maintenance, including measurement of the depth of septage and scum, 3-year septic tank pumping requirement, reporting requirement of a completed Annual Maintenance Form.
- Stormwater Prohibition
- Property Rights
- Proper Disposal of Solid
- UV Cleaning

The approval is being recommended.

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. | <u>001</u> | Design Flow (MGD) | <u>.0005</u> |
| Latitude | <u>39° 57' 40.85"</u> | Longitude | <u>-75° 31' 40.13"</u> |
| Quad Name | <u>West Chester</u> | Quad Code | <u>1941</u> |
| Wastewater Description: <u>Sewage Effluent</u> | | | |
| Receiving Waters | <u>Unnamed Tributary to East Branch Chester Creek (TSF, MF)</u> | Stream Code | <u>00607</u> |
| NHD Com ID | <u>25621234</u> | RMI | <u>0.2000</u> |
| Drainage Area | <u></u> | Yield (cfs/mi ²) | <u></u> |
| Q ₇₋₁₀ Flow (cfs) | <u></u> | Q ₇₋₁₀ Basis | <u></u> |
| Elevation (ft) | <u></u> | Slope (ft/ft) | <u></u> |
| Watershed No. | <u>3-G</u> | Chapter 93 Class. | <u>TSF, MF</u> |
| Existing Use | <u></u> | Existing Use Qualifier | <u></u> |
| Exceptions to Use | <u></u> | Exceptions to Criteria | <u></u> |
| Assessment Status | <u>Impaired</u> | | |
| Cause(s) of Impairment | <u>CAUSE UNKNOWN, FLOW REGIME MODIFICATION, HABITAT ALTERATIONS, SILTATION</u> | | |
| Source(s) of Impairment | <u>HABITAT MODIFICATION - OTHER THAN HYDROMODIFICATION, URBAN RUNOFF/STORM SEWERS, URBAN RUNOFF/STORM SEWERS, URBAN RUNOFF/STORM SEWERS</u> | | |
| TMDL Status | <u></u> | Name | <u></u> |

Changes Since Last Permit Issuance:

Other Comments:

| Compliance History | |
|-------------------------|---|
| Summary of DMRs: | |
| Summary of Inspections: | No signed of system malfunction per the inspection on 6/23/2022 |

Other Comments: **NOV due to late renewal of NPDES which has been taken care of with this application**

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) ⁽¹⁾ | | Concentrations (mg/L) | | | | Minimum ⁽²⁾ 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 Daily Min | XXX | XXX | 9.0 | 1/year | Grab |
| BOD5 | XXX | XXX | XXX | 10.0 | XXX | 20 | 1/year | Grab |
| TSS | XXX | XXX | XXX | 10.0 | XXX | 20 | 1/year | Grab |
| Fecal Coliform (No./100 ml) | XXX | XXX | XXX | 200 | XXX | XXX | 1/year | Grab |

Compliance Sampling Location: Outfall 001

Other Comments: