

**Southwest Regional Office
CLEAN WATER PROGRAM**

Application Type **New**
Wastewater Type **Sewage**
Facility Type **SRSTP**

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

Application No. **PA0255769**
APS ID **1022720**
Authorization ID **1326091**

Applicant, Facility and Project Information

Applicant Name	<u>Carolyn Yoders</u>	Facility Name	<u>Yoders Property SRSTP</u>
Applicant Address	<u>1953 Aleppo Road</u> <u>Wind Ridge, PA 15380-1323</u>	Facility Address	<u>1953 Aleppo Road</u> <u>Wind Ridge, PA 15380-1323</u>
Applicant Contact	<u>Donnie Yoders</u>	Facility Contact	<u>Donnie Yoders</u>
Applicant Phone	<u>(304) 845-2923</u>	Facility Phone	<u>(304) 845-2923</u>
Client ID	<u>358294</u>	Site ID	<u>844880</u>
SIC Code	<u>8800</u>	Municipality	<u>Aleppo Township</u>
SIC Description	<u>Private Households</u>	County	<u>Greene</u>
Date Application Received	<u>September 1, 2020</u>	WQM Required	<u>Yes</u>
Date Application Accepted	<u>September 4, 2020</u>	WQM App. No.	<u>3020400</u>
Project Description	<u>Application for a new NPDES permit for discharge of treated Sewage.</u>		


Summary of Review

On September 1, 2020, on behalf of Carolyn Yoders, F.R. Brant Company submitted an application for a new NPDES permit for discharges of treated sewage from a new single residence sewage treatment plant (SRSTP). An application for a Water Quality Management (WQM) Permit No. 3020400 was submitted concurrently to authorize construction and operation of the SRSTP. An Act 537 Plan Revision was approved by letter dated May 11, 2020 to Aleppo Township for 1 EDU (400 GPD).

Carolyn Yoders owns the existing 1.78-acre property and the adjoining 37.52-acre property. No new lots are proposed. The new SRSTP will have a design flow of 400 GPD and a design organic loading of 0.90 lbs BOD-5/day and will replace a malfunctioning on-lot system at an existing 3-bedroom home in Aleppo Township of Greene County. The SRSTP will consist of an existing 1000-gallon septic tank, followed by a EC7-700 Ecoflo Coco Filter. Effluent from the Coco Filter then flows through a chlorinator and a 330-gallon chlorine contact tank disinfection system. Treated effluent from the system will then discharge to South Fork Dunkard Fork (TSF) located in State Watershed 20-E.

This SRSTP is not eligible for a PAG-04 NPDES General Permit for Discharges from Small Flow Treatment Facilities because the treatment units do not qualify for a General Permit under the design requirements of the current revision of the *Small Flow Treatment Facilities Manual* dated December 2, 2006 (Doc. No. 362-0300-002).

Per the Department's current Standard Operating Procedure (SOP)-*New and Reissuance SFTF Individual NPDES Permit Applications* (SOP No. BCW-PMT-003), the effluent limitations and monitoring requirements (shown on page 3 of the Fact Sheet), at a minimum, are to be established for new individual SRSTP permits. The sampling frequency for BOD, TSS, pH, and fecal coliform is 1/year based on the Department's SOP. The sampling frequency for TRC is 1/month. Water quality modeling is not required for SRSTPs.

Approve	Deny	Signatures	Date
X		 Lauren Nolfi, E.I.T. / Environmental Engineering Specialist	September 15, 2021
X		James Vanek James Vanek, P.E. / Environmental Engineer	September 17, 2021

Summary of Review

Pursuant to 25 Pa. Code §§ 71.64(d) and 92a.47(a), the *Small Flow Treatment Facilities Manual*, the Department's evaluation of the performance characteristics of the Ecoflo EC7 Series Coco filter in the Onlot Alternate Technology Listings, and the use of chlorine for disinfection (rather than ultraviolet light), average monthly technology-based effluent limits of 10 mg/L will be imposed for BOD5 and TSS; a fecal coliform limit of 200/100mL will be imposed; and monitoring for Total Residual Chlorine (TRC) will be required.

In accordance with DEP's procedure for converting average monthly effluent limitations to instantaneous maximum (IMAX) effluent limitations—described in Chapter 2, Section C of the Department's *Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits*, October 1, 1997 (Doc. No. 362-0400-001)—IMAX limits of 20 mg/L also will be imposed for BOD5 and TSS.

Technology-based effluent limits of 6.0 (instantaneous minimum) and 9.0 (instantaneous maximum) for pH are imposed pursuant to 25 Pa. Code § 92a.47(a)(7) and 25 Pa. Code § 95.2(1).

Flow monitoring will be required pursuant to 25 Pa. Code § 92a.61(b).

Sewage facilities with design flows less than 2,000 GPD are exempt from monitoring for Total Nitrogen and Total Phosphorus in new and renewal permits. SRSTPs are excluded from the Electronic Discharge Monitoring Report (eDMR) system.

The applicant has complied with Act 14 Notifications by letters dated May 14, 2020 to Aleppo Township and Greene County. No comments were received. Draft permit issuance is 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.

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
	Annual Average	Average Weekly	Instant. Minimum	Annual Average	Maximum	Instant. Maximum		
Flow (MGD)	Report	XXX	XXX	XXX	XXX	XXX	1/year	Estimate
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/year	Grab
Total Residual Chlorine (TRC)	XXX	XXX	XXX	Report Avg Mo	XXX	Report	1/month	Grab
Biochemical Oxygen Demand (BOD5)	XXX	XXX	XXX	10.0	XXX	20.0	1/year	Grab
Total Suspended Solids	XXX	XXX	XXX	10.0	XXX	20.0	1/year	Grab
Fecal Coliform (No./100 ml)	XXX	XXX	XXX	200	XXX	XXX	1/year	Grab

Compliance Sampling Location: Outfall 001

Discharge, Receiving Waters and Water Supply Information

Outfall No.	<u>001</u>	Design Flow (MGD)	<u>0.0004</u>
Latitude	<u>39° 51' 4"</u>	Longitude	<u>-80° 27' 39"</u>
Quad Name	<u>New Freeport</u>	Quad Code	<u>2002</u>
Wastewater Description: <u>Sewage effluent</u>			
Receiving Waters	<u>South Fork Dunkard Fork (TSF)</u>	Stream Code	<u>32536</u>
NHD Com ID	<u>73874908</u>	RMI	<u>4.63</u>
Drainage Area	<u>12.00 mi²</u>	Yield (cfs/mi ²)	<u>0.0153</u>
Q ₇₋₁₀ Flow (cfs)	<u>0.184</u>	Q ₇₋₁₀ Basis	<u>USGS StreamStats</u>
Elevation (ft)	<u>1855</u>	Slope (ft/ft)	<u>0.014</u>
Watershed No.	<u>20-E</u>	Chapter 93 Class.	<u>TSF</u>
Existing Use	<u></u>	Existing Use Qualifier	<u></u>
Exceptions to Use	<u></u>	Exceptions to Criteria	<u></u>
Assessment Status	<u>Attaining Use(s)</u>		
Cause(s) of Impairment	<u></u>		
Source(s) of Impairment	<u></u>		
TMDL Status	<u></u>	Name	<u></u>
Nearest Downstream Public Water Supply Intake	<u>N/A</u>		
PWS Waters	<u></u>	Flow at Intake (cfs)	<u></u>
PWS RMI	<u></u>	Distance from Outfall (mi)	<u></u>

Changes Since Last Permit Issuance: None, New Permit

Other Comments: An Operations Compliance Check Summary Report is not necessary as it is a new discharge.

StreamStats Report

Region ID: PA
 Workspace ID: PA20210830174736548000
 Clicked Point (Latitude, Longitude): 39.85110, -80.46086
 Time: 2021-08-30 13:47:55 -0400



Basin Characteristics			
Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	12	square miles
ELEV	Mean Basin Elevation	1302	feet

Low-Flow Statistics Parameters [Low Flow Region 4]					
Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	12	square miles	2.26	1400

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
ELEV	Mean Basin Elevation	1302	feet	1050	2580

Low-Flow Statistics Flow Report [Low Flow Region 4]

PII: Prediction Interval-Lower, PIu: Prediction Interval-Upper, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	SE	ASEp
7 Day 2 Year Low Flow	0.51	ft ³ /s	43	43
30 Day 2 Year Low Flow	0.88	ft ³ /s	38	38
7 Day 10 Year Low Flow	0.184	ft ³ /s	66	66
30 Day 10 Year Low Flow	0.33	ft ³ /s	54	54
90 Day 10 Year Low Flow	0.609	ft ³ /s	41	41

Low-Flow Statistics Citations

Stuckey, M.H., 2006, Low-flow, base-flow, and mean-flow regression equations for Pennsylvania streams: U.S. Geological Survey Scientific Investigations Report 2006-5130, 84 p. (<http://pubs.usgs.gov/sir/2006/5130/>)