pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**New**	Application No.	**PA0266841**
Wastewater Type	**Sewage**	APS ID	**982841**
Facility Type	**SRSTP**	Authorization ID	**1255190**

NPDES PERMIT FACT SHEET
INDIVIDUAL SFTF/SRSTP

Applicant, Facility and Project Information

Applicant Name	**John Dietrich**	Facility Name	**Dietrich Residence**
Applicant Address	3497 New Holland Road	Facility Address	3497 New Holland Road
	Mohnton, PA 19540		Mohnton, PA 19540
Applicant Contact	John Dietrich	Facility Contact	John Dietrich
Applicant Phone	(610) 655-5838	Facility Phone	(610) 655-5838/ johnlynne2017@outlook.com
Client ID	346851	Site ID	833410
SIC Code	8811	Municipality	Cumru Township
SIC Description	Services - Private Households	County	Berks
Date Application Received	December 6, 2018	WQM Required	Application received
Date Application Accepted	January 7, 2019	WQM App. No.	0618404

Project Description: New SRSTP to replace failing on-lot system

Summary of Review

Planning approval for this site was granted by DEP on August 15, 2017: A3-06928-311-3s.

The proposed new Single Residence Sewage Treatment Plant (SRSTP) will provide tertiary treatment. The accompanying WQM permit application indicates that the new system will achieve the discharge limits in DEP's general permit for Small Flow Treatment Facilities, the PAG-04. The facility is not eligible for coverage under the PAG-04 because the proposed design is not one of the ones included in the DEP's Small Flow Treatment Facilities (SFTF) Manual.

Because the proposed system will use UV disinfection, no Total Residual Chlorine limits have been imposed. Otherwise, the limits, sample types, and monitoring frequencies in this draft permit match the recommendations of the DEP's Standard Operating Procedure (SOP) for New and Reissuance Individual SFTF NPDES Permits, with the exception noted below. In addition, the limits and sample types match the PAG-04, with the following exception. Whereas the SOP and PAG-04 include a Monthly Average limit for Fecal Coliform as "Geometric Mean", the DEP's computer system (WMS) does not allow a Statistical Base Code (SBC) of "Geometric Mean" when the reporting frequency is annual. The application indicates that the proposed treatment will achieve <200 #/100mL for Fecal Coliform as a daily maximum. For this reason, and to be consistent with other similar permits, the draft permit limit included for Fecal Coliform is 200 #/100mL as an Annual Average. The Annual Average Fecal limit is a Technology Based Effluent Limit/ Best Professional Judgement (TBEL/BPJ), based on performance standards.

As with other NPDES permits for SRSTPs, reporting will be allowed using Annual Monitoring Reports (AMRs) instead of Discharge Monitoring Reports (DMRs). The electronic reporting system eDMR is also not a requirement for SRSTPs.

Approve	Deny	Signatures	Date
x		Bonnie J. Boylan / Environmental Engineering Specialist	May 7, 2019
		Daniel W. Martin, P.E. / Environmental Engineer Manager	
		Maria D. Bebenek, P.E. / Environmental Program Manager	

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	.0004
Latitude	40º 15' 39" per application	Longitude	-75º 57' 18.2" per appl.
Quad Name		Quad Code	
Wastewater Description:	Sewage Effluent		
Receiving Waters	Angelica Creek (CWF, MF)	Stream Code	1827
NHD Com ID	25993038	RMI	4.9
Drainage Area	1.7 mi^2	Yield (cfs/mi^2)	0.09
Q_{7-10} Flow (cfs)	0.155 (equiv. of 0.1 MGD)	Q_{7-10} Basis	USGS PA Stream Stats
Elevation (ft)	510, approx	Slope (ft/ft)	
Watershed No.	03C	Chapter 93 Class.	Cold Water Fishes, Migratory Fishes
Existing Use	See comment below	Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment			
Source(s) of Impairment			
TMDL Status	None	Name	

Background/Ambient Data		Data Source
pH (SU)		
Temperature (°F)		
Hardness (mg/L)		
Other:		

Nearest Downstream Public Water Supply Intake	None nearby		
PWS Waters		Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	

Secondary Receiving Water: Schuylkill River

Other Comments:

Closest drinking well (transient non-community) shown on eMapPA is approx. 530 feet away and serves 25 people.

The entire length of Angelica Creek is classified as Trout Natural Reproduction. Such waterways have a more stringent Dissolved Oxygen (DO) water quality criteria during the salmonid spawning and early life stages, October through May. The tertiary treatment proposed is expected to be adequate treatment for sewage; and the amount of discharge is not expected to interfere with the Trout Natural Reproduction designation of stream given the Qs:Qd ratio of 250:1. To verify, however, the WQM 7.0 model was run using a DO goal of 8 mg/l (the criteria for Trout Natl Repro). Even without increasing the Q7-10 to account for the larger stream flow that would occur during October through May, the DO goal of >8 mg/l was obtained for the stream reach after the treated sewage 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
	Average	Average Weekly	Instant. Minimum	Annual Average	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report Annl Avg	XXX	XXX	XXX	XXX	XXX	1/year	Estimate
pH (S.U.)	XXX	XXX	6.0	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: at outfall