

Application Type Renewal  
 Wastewater Type Sewage  
 Facility Type SRSTP
**NPDES PERMIT FACT SHEET  
 INDIVIDUAL SFTF/SRSTP**

 Application No. PA0262129  
 APS ID 819835  
 Authorization ID 1220130
**Applicant, Facility and Project Information**

Applicant Name	<u>Cheryl &amp; Gerald Mishler</u>	Facility Name	<u>Mishler SFTF</u>
Applicant Address	<u>1040 Manada Bottom Road Harrisburg, PA 17112-8824</u>	Facility Address	<u>1040 Manada Bottom Road Harrisburg, PA 17112-8824</u>
Applicant Contact	<u>Gerald Mishler</u>	Facility Contact	<u>Gerald Mishler</u>
Applicant Phone	<u>(717) 469-7354</u>	Facility Phone	<u>(717) 469-7354</u>
Client ID	<u>306469</u>	Site ID	<u>775681</u>
SIC Code	<u>6514</u>	Municipality	<u>East Hanover Township</u>
SIC Description	<u>Fin, Ins &amp; Real Est - Dwelling Operators, Except Apartments</u>	County	<u>Dauphin</u>
Date Application Received	<u>February 15, 2018</u>	WQM Required	<u></u>
Date Application Accepted	<u>March 12, 2018</u>	WQM App. No.	<u></u>
Project Description	<u>Permit renewal for discharge of treated sewage</u>		

**Summary of Review**
**1.0 General Discussion**

This factsheet supports the renewal of an existing NPDES permit to discharge treated sewage from a small flow residential treatment facility that serves a 2- bedroom single family residence. The system with a design capacity of 0.0004 mgd replaced a malfunctioning cesspool system and discharges to Manada Creek, which is classified for Cold Water Fishes (CWF) and Migratory Fishes (MF). The facility does not qualify for a general permit because the design deviates from DEPs small flow facility manual. A topographical map for the discharge location is presented in attachment A.

**1.1 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.

Approve	Deny	Signatures	Date
X		J. Pascal Kwedza, P.E. / Environmental Engineer	October 10, 2019
		Daniel W. Martin, P.E. / Environmental Engineer Manager	
		Maria D. Bebenek, P.E., Program Manager	

1.2 Discharge, Receiving Waters and Water Supply Information			
Outfall No.	<u>001</u>	Design Flow (MGD)	<u>.0004</u>
Latitude	<u>40° 22' 52.06"</u>	Longitude	<u>-76° 42' 40.76"</u>
Quad Name	<u></u>	Quad Code	<u></u>
Wastewater Description: <u>Sewage Effluent</u>			
Receiving Waters	<u>Manada Creek (CWF, MF)</u>	Stream Code	<u>09546</u>
NHD Com ID	<u>56397983</u>	RMI	<u>9.8400</u>
Drainage Area	<u></u>	Yield (cfs/mi <sup>2</sup> )	<u></u>
Q <sub>7-10</sub> Flow (cfs)	<u></u>	Q <sub>7-10</sub> Basis	<u></u>
Elevation (ft)	<u></u>	Slope (ft/ft)	<u></u>
Watershed No.	<u>07D</u>	Chapter 93 Class.	<u>Cold Water Fishes, Migratory Fishes</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>Pathogens</u>		
Source(s) of Impairment	<u>Source Unknown</u>		
TMDL Status	<u></u>	Name	<u></u>
Background/Ambient Data		Data Source	
pH (SU)	<u></u>		<u></u>
Temperature (°F)	<u></u>		<u></u>
Hardness (mg/L)	<u></u>		<u></u>
Other:	<u></u>		<u></u>
Nearest Downstream Public Water Supply Intake	<u>PA American Water</u>		
PWS Waters	<u>Manada Creek</u>	Flow at Intake (cfs)	<u></u>
PWS RMI	<u></u>	Distance from Outfall (mi)	<u>9.5</u>

Changes Since Last Permit Issuance: None

**1.3 Water Supply Intake**

The nearest downstream water supply intake is approximately 9.5 miles downstream by PA American Water on Manada Creek in Hummelstown, Dauphin County. No impact is expected from this discharge on the intake.

**1.4 Treatment Facility**

The treatment system consists of a two-compartment 1500-gallon concrete tank. The 1<sup>st</sup> compartment of the septic tank is used as pre-treatment settling basin and the 2<sup>nd</sup> compartment which house a Peakasys Clearrex Bubbler SBR unit treats the pre-treated wastewater from the 1<sup>st</sup> compartment. The Clear Rex Bubbler system consists of two submersible pumps, one aerator, a float switch and a control panel. NSF approved the system and concluded the system is capable of producing effluent with quality of 3mg/l of BOD, 4mg/l of TSS, 17mg/l of TN and 4mg/l of DO. Treated effluent from the Clearrex bubbler is pumped to a Premier Tech UV for disinfection. The construction permit for the facility was approved under WQM permit with No. 2213404. The facility has been operation for the past 6 years

**1.5 Compliance History**

The AMR report indicates the facility is unable to meet permitted limits. The permittee is in the process of working with the manufacturer to change the setting of the pumps to ensure the facility complies with the design limitation. The discharge does not appear to be having impact on the receiving stream at this time. The permit will be renewed as the permittee work on addressing necessary tweaks needed to bring the plant to design parameters to meet permit requirements.

**1.6 Development of Permit Limits**

DEPs Standard Operating Procedure (SOP) for the Clean Water Program indicates that in determining effluent limitations for a New and reissuance for Small Flow Treatment Facilities, Water quality modeling using PENTOXSD and/or WQM modeling will not be conducted, but the “TRC Spreadsheet” will be used to determine TRC limits for non-SRSTPs, unless UV disinfection is used or proposed. The SOP document that, effluent limitations and monitoring requirements listed on table 1, at a minimum, should be established in all new and renewed permits unless a written justification is provided in the fact sheet based on site-specific considerations such as TMDLs or anti-degradation. This facility has no unique site-specific considerations, effluent limits and monitoring requirement in the existing permit follows those recommended on table 1 below, and will be continued in the current renewal

**Table 1**

Parameter	Average Monthly	IMAX	Sample Type	Frequency
Flow (MGD)	Report	XXX	Estimate	1/year
CBOD5	10	20	Grab	1/year
Total Suspended Solids	10	20	Grab	1/year
Fecal Coliform (CFU/100 ml)	200 Geo Mean		Grab	1/year

**1.7 Chesapeake Bay, TRC and UV**

The facility will discharge less than 2000 gpd and is exempt from Bay nutrient evaluations and requirements. The facility utilizes UV for disinfection, no TRC calculation is required.

**1.8 Anti-Degradation (93.4)**

The effluent limits for this discharge have been developed to ensure that existing instream water uses and the level of water quality necessary to protect the existing uses are maintained and protected. No High-Quality Waters are impacted by this discharge. No Exceptional Value Waters are impacted by this discharge.

**1.9 Class A Wild Trout Fisheries**

No Class A Wild Trout Fisheries are impacted by this discharge.

**2.0 303d Listed Streams**

The discharge is located on a 303d listed stream. The stream is impaired due to pathogens, source of impairment is unknown. No action is warranted as this time.

**2.1 The following conditions are listed in Part C of the permit:**

- Annual Maintenance Report Requirement
- Measurement requirement of depth of septage and scum in all treatment units
- Septic & Treatment tank pumping requirement
- Chlorine Minimization
- Prohibition of Stormwater Discharges
- Collected screenings and solids Handling
- Abandonment of the treatment facility for public sewers

**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	XXX	XXX	XXX	XXX	XXX	1/year	Estimate
CBOD5	XXX	XXX	XXX	10	XXX	20	1/year	Grab
TSS	XXX	XXX	XXX	10	XXX	20	1/year	Grab
Fecal Coliform (CFU/100 ml)	XXX	XXX	XXX	200 Geo Mean	XXX	1,000	1/year	Grab

Compliance Sampling Location: At Outfall 001

Attachment

A. Topographical Map

