

Application Type Renewal  
Wastewater Type Sewage  
Facility Type SRSTP

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

Application No. PA0232718  
APS ID 1029643  
Authorization ID 1338245

**Applicant, Facility and Project Information**

Applicant Name	<u>David A. Hall</u>	Facility Name	<u>Hall SRSTP</u>
Applicant Address	<u>1190 Pleasant Hills Road</u> <u>Williamsport, PA 17701-8439</u>	Facility Address	<u>1190 Pleasant Hills Road</u> <u>Williamsport, PA 17701-8439</u>
Applicant Contact	<u>David Hall</u>	Facility Contact	<u>David Hall</u>
Applicant Phone	<u>570-506-0930</u>	Facility Phone	<u>570-506-0930</u>
Client ID	<u>324175</u>	Site ID	<u>812235</u>
SIC Code	<u>4952</u>	Municipality	<u>Eldred Township</u>
SIC Description	<u>Trans. &amp; Utilities - Sewerage Systems</u>	County	<u>Lycoming</u>
Date Application Received	<u>December 29, 2020</u>	WQM Required	<u>N/A</u>
Date Application Accepted	<u>February 01, 2021</u>	WQM App. No.	<u>4115402</u>
Project Description	<u>Renewal of NPDES permit</u>		

**Summary of Review**

INTRODUCTION

David A. Hall, homeowner, submitted an application to renew the NPDES permit authorizing the discharge from a single-residence sewage treatment plant (SRSTP) in Eldred Township, Lycoming County.

APPLICATION

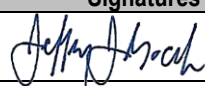

Mr. Hall submitted the *NPDES Application for Permit to Discharge Sewage Effluent from Small Flow Treatment Facilities* (DEP #3800-PM-BCW0018c). This application was received by the Department on December 29, 2020 and considered administratively complete on February 01, 2021. Mr. Hall is both the client and site contact. His additional contact information is (phone) 570-322-6583 and (email) [hally11901@gmail.com](mailto:hally11901@gmail.com).

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.

The casefile, permit application package and draft permit will be available for public review at the Department's Northcentral Regional Office. The address for this office is 208 West Third Street, Williamsport, PA 17701. An appointment can be made to review these materials during the comment period by calling the file coordinator at 570-327-3636.

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Approve	Deny	Signatures	Date
X		Jeffrey J. Gocek, EIT 	06/30/2022
X		Nicholas W. Hartranft, PE 	06/30/2022

DISCHARGE, RECEIVING WATERS AND WATER SUPPLY INFORMATION

Outfall No.	<u>001</u>	Design Flow (MGD)	<u>0.0004</u>
Latitude	<u>41° 17' 52.28"</u>	Longitude	<u>-76° 59' 33.27"</u>
Quad Name	<u>Montoursville North</u>	Quad Code	<u>0830</u>
Wastewater Description: <u>Sewage Effluent</u>			
Receiving Waters	<u>Unnamed Tributary of Millers Run</u>	Stream Code	<u>20488</u>
NHD Com ID	<u>66913903</u>	RMI	<u>0.6500</u>
Drainage Area	<u>None (See Below)</u>	Yield (cfs/mi <sup>2</sup> )	<u>None (See Below)</u>
Q <sub>7-10</sub> Flow (cfs)	<u>None (See Below)</u>	Q <sub>7-10</sub> Basis	<u>None (See Below)</u>
Elevation (ft)	<u>1119</u>	Slope (ft/ft)	<u>N/A</u>
Watershed No.	<u>10-B</u>	Chapter 93 Class.	<u>WWF, MF</u>
Existing Use	<u>None</u>	Existing Use Qualifier	<u>N/A</u>
Exceptions to Use	<u>N/A</u>	Exceptions to Criteria	<u>N/A</u>
Assessment Status	<u>Attaining Use(s)</u>		
Cause(s) of Impairment	<u>N/A</u>		
Source(s) of Impairment	<u>N/A</u>		
TMDL Status	<u>N/A</u>	Name	<u>N/A</u>
Nearest Downstream Public Water Supply Intake	<u>Pennsylvania-American Water Company</u>		
PWS Waters	<u>West Branch Susquehanna River</u>	Flow at Intake (cfs)	<u>679.73</u>
PWS RMI	<u>10.66</u>	Distance from Outfall (mi)	<u>33</u>

Q<sub>7.10</sub> DETERMINATION

While there is no requirement for the water quality modeling of SFTF discharges, site characteristics also prohibit a Q<sub>7.10</sub> determination. There is no perennial or intermittent stream on or near the Hall residential property. The design proposes an outfall sewer which will extend several hundred feet to the property boundary. From the boundary, effluent will cross under Pleasant Hills Road, via the existing right-of-way ditch and travel approximately another 1,000 feet to the Unnamed Tributary to Miller's Run.

See Attachment 01 for a map of this scenario.

FACILITY DESCRIPTION

The existing Hall residence contains three bedrooms and houses two residents. [See Attachment 02 for a map of the property location.](#)

The 0.0004 MGD SFTF design includes a dual compartment septic tank followed by an Orenco AdvanTex AX20-RTUV system which utilizes ultraviolet (UV) disinfection prior to discharge. The septic tank will be a precast two compartment tank with a capacity of 1,000 gallons. The Orenco AX20-RTUV system consists of a dual compartment processing tank which will recirculate the wastewater through the AdvanTex packed bed filters. Following recirculation and filtration, effluent will pass through the UV disinfection prior to discharge. According to a Department Memo to PA Sewage Enforcement Officers (SEOs) dated August 25, 2009, Orenco Systems, Inc. (Orenco) was the first company to complete the Department's Technical Verification Program which allows for consideration for classification as an appropriate alternate onlot wastewater technology. Based on test center and field verification data, the Department determined that classification for an alternate system is appropriate for Total Nitrogen (TN) reduction in accordance with 25 PA § 73.72(c)(7)(iii) and for enhanced treatment capacity for BOD and TSS. Similarly, the Department later issued a memo documenting that this system is capable of treating to less than 10 mg/L CBOD<sub>5</sub> and 10 mg/L TSS. The most critical part of the treatment is the recirculating treatment tank, which includes the textile treatment filters. With the addition of the UV system, the system can achieve fecal coliform concentrations of less than 200 CFU/100mL on a monthly average basis. According to the Orenco technical data sheet for the AdvanTex AX20-RTUV, the unit eliminates the need for separate recirculation, treatment, discharge and disinfection by performing all functions within a single module.

The design, construction, and operation of this SRSTP was authorized by Water Quality Management (WQM) permit #4115402, issued June 09, 2016.

The design engineer, Eric. S Lundy, PE of Nittany Engineering & Associates, LLC of Centre Hall, PA, certified the construction of this SRSTP. The construction was completed on November 23, 2016.

COMPLIANCE HISTORY

The WMS Query Open Violations for Client revealed no unresolved violations for David A. Hall.

The most recent Department ADMIN inspection was conducted August 25, 2020. It was documented that Annual Maintenance Reports (AMRs) were being submitted in a timely fashion. The report documented that the septic tank was pumped July 13, 2018. No violations were noted in the report.

Recent AMR data is presented in the table below.

Year	Flow Estimate (GPD)	pH (SU)	UV Cleaned	Fecal Coliforms (MPN/100mL)	BOD5 (mg/L)	TSS (mg/L)
2021-2022	< 250	3.6	Yes	< 1.0	4.8	10
2020-2021	< 250	5.0	Yes	1.0	3.5	ND
2019-2020	< 250	6.7	Yes	131.4	8.4	14
2018-2019	< 250	7.1	Yes	10.8	8.4	4.0

EXISTING LIMITATIONS

The following limitations were established at the permit issuance on June 09, 2016.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass (lb/day)		Concentration (mg/L, unless noted)				Minimum Measurement Frequency	Required Sample Type
	Average Monthly	Maximum Daily	Minimum	Average Monthly	Maximum Daily	Instant. Maximum		
Flow	Report	XXX	XXX	XXX	XXX	XXX	1/Year	Estimate
BOD <sub>5</sub>	XXX	XXX	XXX	10	XXX	20	1/Year	Grab
Total Suspended Solids	XXX	XXX	XXX	10	XXX	20	1/Year	Grab
Fecal Coliform (#/100mL)	XXX	XXX	XXX	200*	XXX	XXX	1/Year	Grab

\*Geometric Mean

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DEVELOPMENT OF EFFLUENT LIMITATIONSTechnology-Based Limitations

The following technology-based limitations apply to single residence sewage treatment plants (SRSTPs), subject to water quality analysis and BPJ where applicable:

Parameter	Average	IMAX	Sample Type	Frequency
Flow (GPD)	Report	XXX	Estimate	1/Year
BOD5 (mg/L)	10	20	Grab	1/Year
TSS (mg/L)	10	20	Grab	1/Year
TRC (mg/L)	Report	XXX	Grab	1/Month
Fecal Coliform (No./100 mL)	200 (Annual Average)		Grab	1/Year

NOTE – Since Ultraviolet Disinfection is proposed for this facility, no limit for Total Residual Chlorine (TRC) will be assigned.

Water Quality-Based Limitations

In accordance with Department policy, water quality modeling using the PENTOXSD, the WQM and TRC Spreadsheet models is not performed for SRSTPs.

None are proposed.

Best Professional Judgment (BPJ) Limitations

In the absence of applicable effluent guidelines for the discharge or pollutant, permit writers must identify and/or develop needed technology-based effluent limitations (TBELs) on a case-by-case basis, in accordance with the statutory factors specified in the Clean Water Act.

None are proposed.

Additional Parameters

In accordance with the above referenced SOP, monitoring of pH and the UV disinfection system (UV Intensity or Transmittance) is not required for SFTFs.

RECEIVING STREAMCharacteristics

The receiving stream is an Unnamed Tributary (UNT) to Miller's Run. According to 25 PA § 93.9L, this stream is protected for Warm Water Fishes (WWF) and Migratory Fishes (MF). These are the stream's Designated Use, which is defined in 25 PA § 93.1 as "those uses specified in §§ 93.9a – 93.9z for each waterbody or segment whether or not the use is being attained". Designated uses are regulations promulgated by the Environmental Quality Board (EQB) through the rulemaking process. This stream currently has no Existing Use, which is defined in 25 PA § 93.1 as "those uses actually attained in the waterbody on or after November 28, 1975 whether or not they are included in the water quality standards".

This UNT to Miller's Run is identified by Department stream code 20488. The stream is located in (Chapter 93) drainage list L and State Water Plan watershed 10B (Loyalsock Creek).

Impairment

According to the Department's data from the 2014 Integrated Water Quality Report, approved by EPA in December 2014, this UNT to Miller's Run is attaining its designated uses with respect to Aquatic Life.

CHESAPEAKE BAY TMDL

Nutrient monitoring requirements associated with the Chesapeake Bay TMDL do not apply since the hydraulic design flow of this SFTF is less than 2,000 gallons per day.

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SPECIAL PERMIT CONDITIONS

- Annual Maintenance Form
- Discharge Monitoring Report Form
- Tank Monitoring
- Pumping Requirement
- Stormwater Prohibition
- Approval Contingencies
- Proper Waste Disposal
- Municipal Treatment Availability

ANNUAL MAINTENANCE REPORTS

For this permit, the operative compliance mechanism will be the Annual Maintenance Report (AMR), which is to be submitted annually. No Discharge Monitoring Reports (DMRs) will be utilized. The AMR will also be used to document maintenance activities which occur in the period between June 01 and May 31 of each year.

As mentioned above, the results for the required 1/Year sampling of Flow, BOD5, Total Suspended Solids and Fecal Coliforms are to be reported on the AMR.

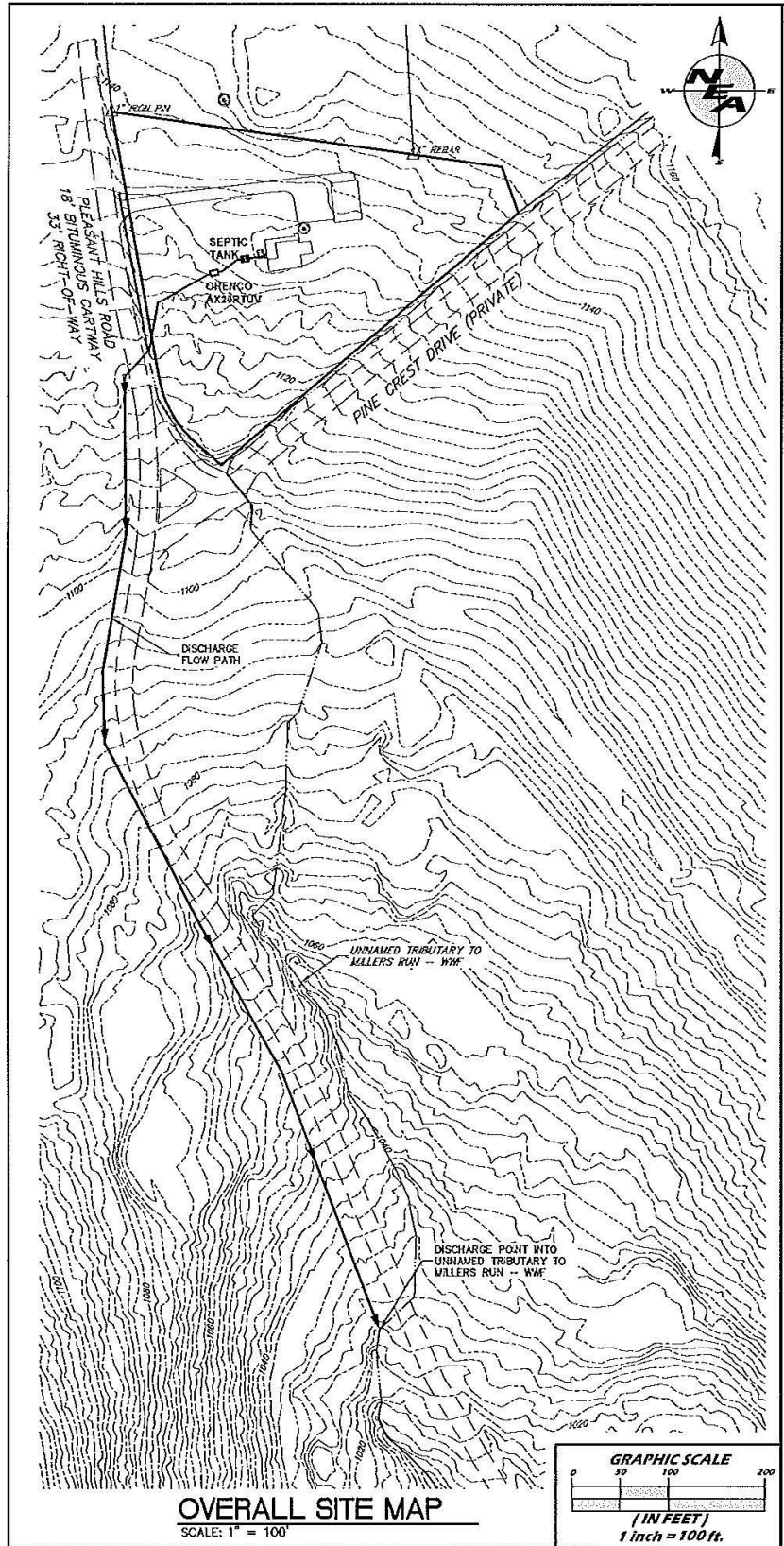
PROPOSED EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

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) and/or BPJ.

*Outfall 001, Effective Period: Permit Effective Date through Permit Expiration Date*

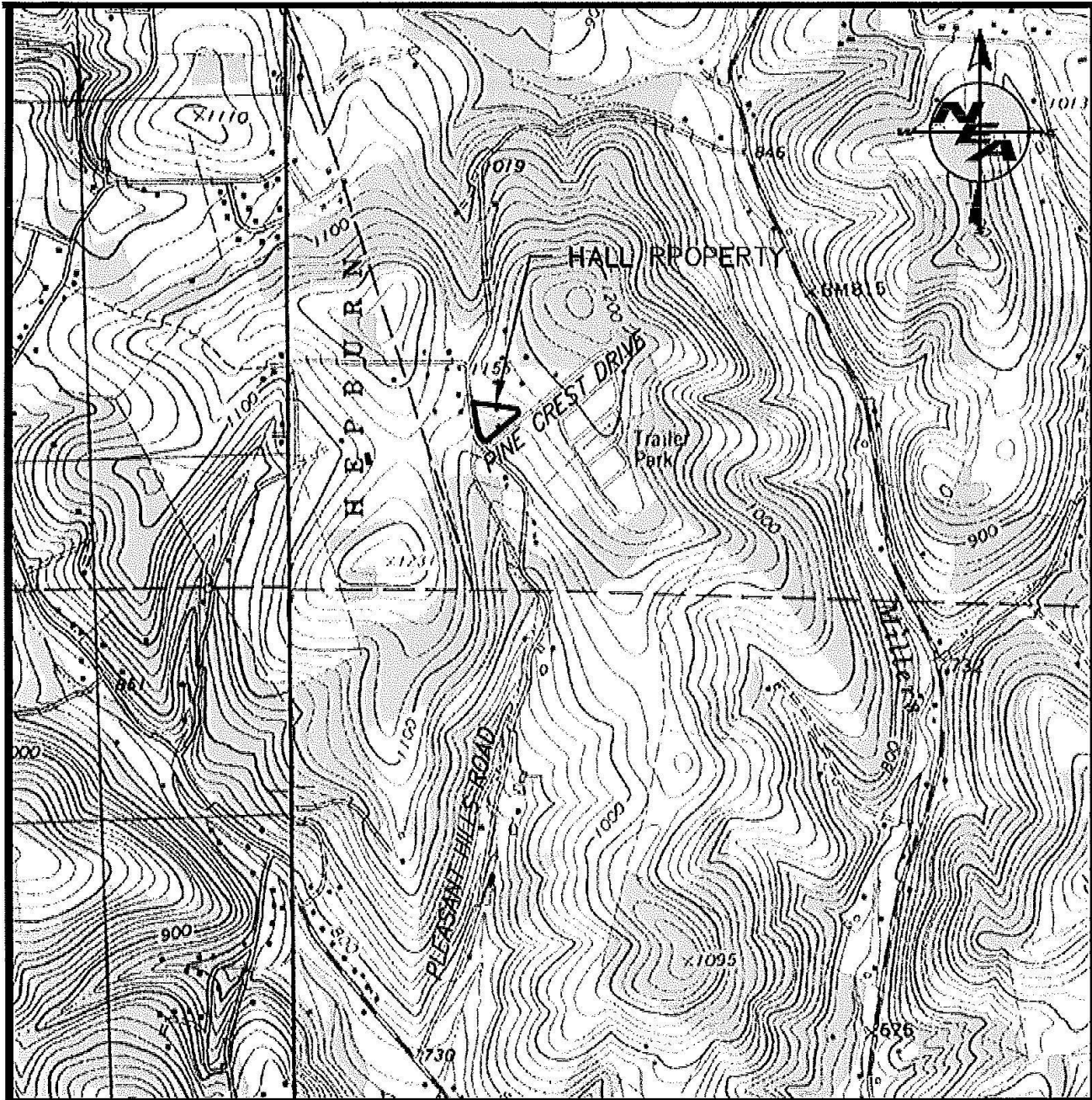
Discharge Parameter	Mass Limits (lb/day)		Concentration Limits (mg/L)				Monitoring Requirements	
	Monthly Average	Daily Maximum	Minimum	Monthly Average	Daily Maximum	IMAX	Minimum Measurement Frequency	Required Sample Type
Flow (GPD)	Report	XXX	XXX	XXX	XXX	XXX	1/Year	Estimate
BOD5	XXX	XXX	XXX	10	XXX	20	1/Year	Grab
Total Suspended Solids	XXX	XXX	XXX	10	XXX	20	1/Year	Grab
Fecal Coliform (No./100mL)	XXX	XXX	XXX	200 Annual Average	XXX	XXX	1/Year	Grab

END of Fact Sheet.



**DAVID A. AND MARGARET L. HALL  
SINGLE RESIDENCE SMALL FLOW TREATMENT FACILITY  
FACILITIES AND OUTFALL**

ATTACHMENT 02



LOCATION MAP (MONTOURSVILLE NORTH QUADRANGLE)

SCALE: 1"=2000'