pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**New**	Application No.	**PA0267465**
Wastewater Type	**Sewage**	APS ID	**1040306**
Facility Type	**SRSTP**	Authorization ID	**1356954**

NPDES PERMIT FACT SHEET
INDIVIDUAL SFTF/SRSTP

Applicant, Facility and Project Information

Applicant Name	**Estate of Arbutus Metcalfe**	Facility Name	**Lot 6A of the Estate of Arbutus L. Metcalfe**
Applicant Address	11790 Punch Bowl Road	Facility Address	11664 Punch Bowl Road
	Mercersburg, PA 17236-9780		Mercersburg, PA 17236-9780
Applicant Contact	Barry Metcalfe	Facility Contact	Barry Metcalfe
Applicant Phone	(717) 372-8150	Facility Phone	(717) 372-8150
Client ID	363409	Site ID	849858
SIC Code	8800	Municipality	Montgomery Township
SIC Description	Private Households	County	Franklin
Date Application Received	June 8, 2021	WQM Required	Yes
Date Application Accepted	June 10, 2021	WQM App. No.	2821401
Project Description	New NPDES Permit.		

Summary of Review

This report supports the issuance of an NPDES permit for discharge of treated sewage from a new single residence sewage treatment plant (SRSTP) located in Montgomery Township, Franklin County. The WQM permit application is also received and the IRR has been prepared separately for the WQM permit.

Based on the review, it is recommended that the NPDES permit be drafted.

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		*Jinsu Kim* Jinsu Kim / Environmental Engineering Specialist	June 24, 2021
X		Maria Bebenek for Daniel Martin Daniel W. Martin, P.E. / Environmental Engineer Manager	July 6, 2021
X		Maria D. Bebenek Maria D. Bebenek, P.E. / Program Manager	July 6, 2021

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	001	Design Flow (MGD)	0.0004
Latitude	39º 45' 47.95"	Longitude	-77º 57' 34.26"
Quad Name		Quad Code	
Wastewater Description:	Treated Sewage		
Receiving Waters	Licking Creek (TSF, MF)	Stream Code	59425
NHD Com ID	49472432	RMI	11.4
Drainage Area	7.08	Yield (cfs/mi^2)	
Q_{7-10} Flow (cfs)	0.211	Q_{7-10} Basis	
Elevation (ft)		Slope (ft/ft)	
Watershed No.	13-C	Chapter 93 Class.	
Existing Use	None	Existing Use Qualifier	None
Exceptions to Use	None	Exceptions to Criteria	None
Assessment Status	Impaired		
Cause(s) of Impairment	SILTATION		
Source(s) of Impairment	GRAZING IN RIPARIAN OR SHORELINE ZONES		
TMDL Status		Name	
Nearest Downstream Public Water Supply Intake	Hagerstown, MD		
PWS Waters	Potomac River	Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	42

Drainage Area
The discharge will be to Licking Creek at RM 11.4. A drainage area upstream of the proposed discharge point is estimated to be 7.08 sq.mi. according to USGS StreamStats available at https://streamstats.usgs.gov/ss/.

Streamflow
USGS StreamStats produced a Q7-10 flow of 0.211 cfs at the point of discharge.

Licking Creek
The receiving stream, Licking Creek, is a tributary of the West Branch Conococheague Creek. 25 Pa Code §93.9z classifies Licking Creek as Trout Stocking. Licking Creek also supports migratory fishes. No special protection water is therefore impacted by this discharge. No Class A Wild Trout Fishery is impacted by this discharge. Based on DEP's 2020 integrated water quality report, Licking Creek at the proposed discharge point is impaired for siltation and sediment as a result of agricultural activities (grazing in riparian or shoreline zones). A TMDL has not been developed to address this impairment as of the date of this fact sheet.

Public Water Supply Intake
Based on eMapPA, the nearest downstream public water supply intake is located near Hagerstown MD on the Potomac River approximately 42 miles from the proposed discharge. Given the distance and nature, the proposed discharge is not expected to impact the water supply.

Compliance History	
Summary of DMRs:	This is a new NPDES permit; therefore, no AMR is available for review.
Summary of Inspections:	There is no open violation associated with this facility or permittee.

Treatment Facility Summary

The proposed treatment system will be located in Montgomery Township, Franklin County (11664 Punch Bowl Road, Mercersburg PA 17236). The proposed treatment system will serve a single residence (400 GPD) and will consist of a 1,300 gallon bio-film reactor tank including 450-gallon pretreatment chamber, 600-gallon extended aeration chamber, and 250-gallon bio-kinetic clarification chamber. The proposed system will also consist of a 620-gallon chlorine contact tank. The details of the proposed system are described in the Internal Review and Recommendation (IRR) report for the WQM permit application. The Official Act 537 Plan Revision was approved on April 13, 2021 (no. A3-289150438-3S).

Development of Effluent Limitations and Monitoring Requirements

The proposed effluent limitations and monitoring requirements are derived from DEP's Standard Operating Procedure (SOP) for New and Reissuance Small Flow Treatment Facility Individual NPDES Permit Applications (SOP No. BPNPSM-PMT-003).

On December 10, 20215, DEP classified the proposed system as an alternate on-lot sewage treatment system and required this system (if installed) to meet 10 mg/L CBOD5, and 10 mg/L TSS as monthly averages. (Alternate technology no. A2015-0028-0001).

Facilities that are designed based on a flow of less than 2,000 GPD or considered as SRSTPs are exempt from the Bay requirements. Accordingly, it is not necessary for the permittee to perform nutrient monitoring.

Proposed Effluent Limitations and Monitoring Requirements

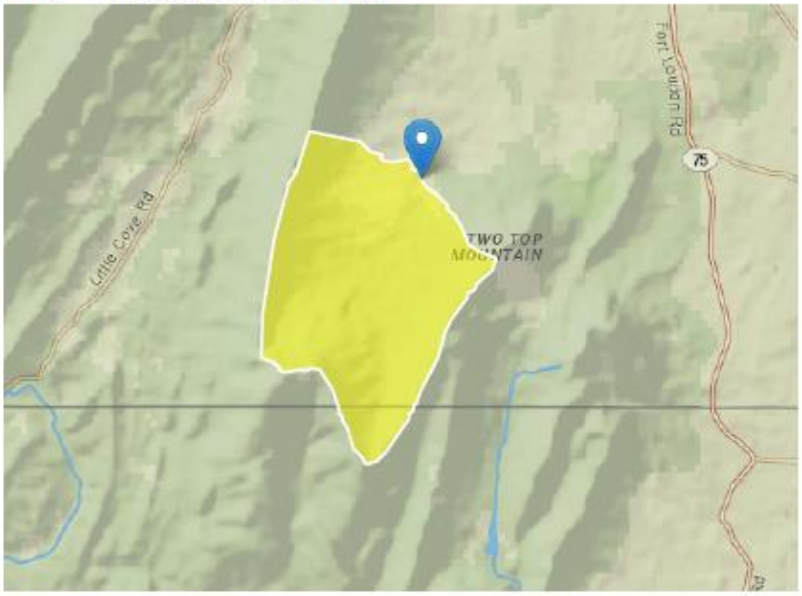
The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). 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)		Concentrations (mg/L)				Minimum Measurement Frequency	Required Sample Type
	Annual Average	Daily Maximum	Minimum	Annual Average	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	1/year	Estimate
Total Residual Chlorine	XXX	XXX	XXX	Report Average Monthly	XXX	XXX	1/month	Grab
CBOD5	XXX	XXX	XXX	10	XXX	20	1/year	Grab
Total Suspended Solids	XXX	XXX	XXX	10	XXX	20	1/year	Grab
Fecal Coliform (No./100 ml)	XXX	XXX	XXX	200	XXX	XXX	1/year	Grab

StreamStats Report

Region ID: PA
Workspace ID: PA20210617141839966000
Clicked Point (Latitude, Longitude): 39.76341, -77.95920
Time: 2021-06-17 10:18:58 -0400



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	7.08	square miles
PRECIP	Mean Annual Precipitation	41	inches
STRDEN	Stream Density -- total length of streams divided by drainage area	3	miles per square mile
ROCKDEP	Depth to rock	4.7	feet
CARBON	Percentage of area of carbonate rock	0	percent

Low-Flow Statistics Parameters [Low Flow Region 2]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	7.08	square miles	4.93	1280
PRECIP	Mean Annual Precipitation	41	inches	35	50.4
STRDEN	Stream Density	3	miles per square mile	0.51	3.1
ROCKDEP	Depth to Rock	4.7	feet	3.32	5.65
CARBON	Percent Carbonate	0	percent	0	99

Low-Flow Statistics Flow Report [Low Flow Region 2]

PIl: Prediction Interval-Lower, Plu: Prediction Interval-Upper, SEp: Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	SE	SEp
7 Day 2 Year Low Flow	0.468	ft^3/s	38	38
30 Day 2 Year Low Flow	0.652	ft^3/s	33	33
7 Day 10 Year Low Flow	0.211	ft^3/s	51	51
30 Day 10 Year Low Flow	0.288	ft^3/s	46	46
90 Day 10 Year Low Flow	0.454	ft^3/s	36	36

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/)