pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**New**	Application No.	**PA0267538**
Wastewater Type	**Sewage**	APS ID	**1043844**
Facility Type	**SRSTP**	Authorization ID	**1362576**

NPDES PERMIT FACT SHEET
INDIVIDUAL SFTF/SRSTP

Applicant, Facility and Project Information

Applicant Name	**Merlin B Zimmerman**	Facility Name	**Zimmerman SRSTP**
Applicant Address	231 Ridge Road	Facility Address	18 Fish Hatchery Road
	Shippensburg, PA 17257-9738		Newville, PA 17241-9692
Applicant Contact	Merlin Zimmerman	Facility Contact	Merlin Zimmerman
Applicant Phone	(717) 448-7676	Facility Phone	(717) 448-7676
Client ID	364367	Site ID	850879
SIC Code	8800	Municipality	North Newton Township
SIC Description	Private Households	County	Cumberland
Date Application Received	July 22, 2021	WQM Required	Yes
Date Application Accepted	July 29, 2021	WQM App. No.	2121405
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) expected to be located in North Newton Township, Cumberland 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	July 29, 2021
X		Maria D. Bebenek for Daniel W. Martin Daniel W. Martin, P.E. / Environmental Engineer Manager	August 4, 2021
X		Maria D. Bebenek Maria D. Bebenek, P.E. / Program Manager	August 4, 2021

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	001	Design Flow (MGD)	0.0004
Latitude	40º 8' 45.07"	Longitude	-77º 27' 42.76"
Quad Name		Quad Code	
Wastewater Description:	Treated Sewage		
Receiving Waters	Green Spring Creek (CWF, MF)	Stream Code	10430
NHD Com ID	56408239	RMI	2.7
Drainage Area	1.45	Yield (cfs/mi^2)	
Q_{7-10} Flow (cfs)	0.0128	Q_{7-10} Basis	
Elevation (ft)		Slope (ft/ft)	
Watershed No.	7-B	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	NUTRIENTS		
Source(s) of Impairment	AGRICULTURE		
TMDL Status	FINAL	Name	Conodoguinet Creek Watershed
Nearest Downstream Public Water Supply Intake	Carlisle Borough WTP		
PWS Waters	Conodoguinet Creek	Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	24

Drainage Area
The discharge will be to Green Spring Creek at RM 2.7. A drainage area upstream of the proposed discharge point is estimated to be 1.45 sq.mi. according to USGS StreamStats available at https://streamstats.usgs.gov/ss/.

Streamflow
USGS StreamStats produced a Q7-10 flow of 0.0128 cfs at the point of discharge.

Green Spring Creek
The receiving stream, Green Spring Creek is designated as cold water fishes and supports migratory fishes under 25 Pa Code §93.9o. No special protection water will therefore be impacted by this discharge. This stream is also a trout stocked stream but is not classified a Class Wild Trout Fishery. Based on DEP's 2020 integrated water quality report, Green Spring Creek is impaired for nutrients and sedimentation as a result of agricultural activities and organic enrichment/oxygen depletion as a result of an unknown source. A TMDL was developed for the Conodoguinet Creek watershed which includes Green Spring Creek. This TMDL only addresses impairments caused by agriculture, urban runoff, construction and storm sewers.

Public Water Supply Intake
Based on eMapPA, the nearest downstream public water supply intake is Carlisle Borough WTP located on the Conodoguinet Creek approximately 24 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 North NewtonTownship, Franklin County (18 Fish Hatchery Road Newville, PA 17241). The proposed treatment system will serve a 3-bed room single family residence (400 GPD) and will be Ecoflo EC7 series system with an UV disinfection unit. 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 May 27, 2021 (no. A3-21921-154-3S).

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 February 1, 2017, 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 A2017-0029-0001).

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

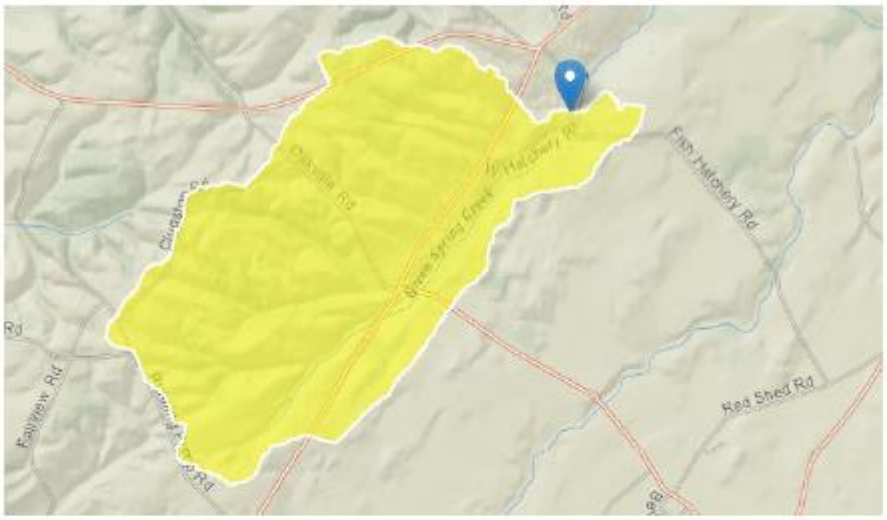
The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). 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
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: PA20210729133456347000
Clicked Point (Latitude, Longitude): 40.14591, -77.46187
Time: 2021-07-29 09:35:12 -0400



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	1.45	square miles
PRECIP	Mean Annual Precipitation	37	inches
STRDEN	Stream Density -- total length of streams divided by drainage area	3.38	miles per square mile
ROCKDEP	Depth to rock	3.6	feet
CARBON	Percentage of area of carbonate rock	25.91	percent

Low-Flow Statistics Parameters [Low Flow Region 2]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	1.45	square miles	4.93	1280
PRECIP	Mean Annual Precipitation	37	inches	35	50.4
STRDEN	Stream Density	3.38	miles per square mile	0.51	3.1
ROCKDEP	Depth to Rock	3.6	feet	3.32	5.65
CARBON	Percent Carbonate	25.91	percent	0	99

Low-Flow Statistics Disclaimers [Low Flow Region 2]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

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

Statistic	Value	Unit
7 Day 2 Year Low Flow	0.0421	ft^3/s
30 Day 2 Year Low Flow	0.0654	ft^3/s
7 Day 10 Year Low Flow	0.0128	ft^3/s
30 Day 10 Year Low Flow	0.021	ft^3/s
90 Day 10 Year Low Flow	0.0394	ft^3/s

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/)

USGS Data Disclaimer: Unless otherwise stated, all data, metadata and related materials are considered to satisfy the quality standards relative to the purpose for which the data were collected. Although these data and associated metadata have been reviewed for accuracy and completeness and approved for release by the U.S. Geological Survey (USGS), no warranty expressed or implied is made regarding the display or utility of the data for other purposes, nor on all computer systems, nor