pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southcentral Regional Office
CLEAN WATER PROGRAM

NPDES & WQM PERMITS FACT SHEET INDIVIDUAL SFTF/SRSTP

Application Type	**New**	Application No.	**PA0291790 & WQM 2823401**
Wastewater Type	**Sewage**	APS ID	**1079151**
Facility Type	**SRSTP**	Authorization ID	**1423783 & 1423794 WQM**

Applicant, Facility and Project Information

Applicant Name	**Dirk Labonte**	Facility Name	**Dirk Labonte SRSTP**
Applicant Address	14600 Burnt Mill Road	Facility Address	Burnt Mill Road
	Shippensburg, PA 17257-9111		Shippensburg, PA 17257
Applicant Contact	Dirk Labonte	Facility Contact	Dirk Labonte
Applicant Phone	(717) 422-7429	Facility Phone	(717) 422-7429
Client ID	374709	Site ID	862167
SIC Code	8811	Municipality	Lurgan Township
SIC Description	Services - Private Households	County	Franklin
Date Application Received	January 18, 2023	WQM Required	
Date Application Accepted	January 19, 2023	WQM App. No.	2823401

Project Description: NPDES & WQM new applications.

Summary of Review

This fact sheet supports the issuance of a new NPDES permit for discharge of treated sewage from the Single Residence Sewage Treatment Plant (SRSTP) located in Lurgan Township, Franklin County. The annual average design flow is 400 gallons per day. The discharge will be to UNT 10640 to Conodoguinet Creek which is classified as Warm Water & Migratory Fishes (WWF & MF).

The WQM permit for the construction of the treatment system with permit No. WQM 2823401 is concurrently under review. DEP Planning for the project was approved under Code No. A3-28911-127-3s.

DEP has prepared this report for the applications for both NPDES and WQM permits.

Based on the review outlined in this report, it is recommended that the NPDES permit be drafted and publish in the Pennsylvania Bulletin for public comments for 30 days.

Approve	Deny	Signatures	Date
X		*Hilaryle* Hilary H. Le / Environmental Engineering Specialist	March 3, 2023
X		Maria D. Bebenek for Daniel W. Martin, P.E. / Environmental Engineer Manager	April 13, 2023

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	001	Design Flow (MGD)	0.0004
Latitude	40º 6' 19.25"	Longitude	-77º 33' 45.82"
Quad Name	Shippensburg	Quad Code	
Wastewater Description:	Sewage Effluent		
Receiving Waters	Unnamed Tributary to Conodoguinet Creek (WWF, MF)	Stream Code	10640
NHD Com ID	56409013	RMI	0.1200
Drainage Area	0.19 mi.^{2}	Yield (cfs/mi^2)	0.003
Q_{7-10} Flow (cfs)	0.00058	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	537.36	Slope (ft/ft)	
Watershed No.	7-B	Chapter 93 Class.	WWF, MF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment			
Source(s) of Impairment			
TMDL Status		Name	
Nearest Downstream Public Water Supply Intake	Middlesex Municipal authority, Cumberland County		
PWS Waters	Conodoguinet Creek	Flow at Intake (cfs)	
PWS RMI	28.4 miles	Distance from Outfall (mi)	Approximate 43.0 miles

Changes Since Last Permit Issuance: new

Drainage Area
The discharge is to UNT 10640 (dry channel) to Conodoguinet Creek at RMI 0.12 miles. A drainage area upstream of the discharge is estimated to be 0.19 mi.^{2}, according to USGS StreamStats available at https://streamstats.usgs.gov/ss/. USGS StreamStats also produced a Q7-10 flow of 0.00058 cfs at the point of proposed discharge.

UNT to Conodoguinet Creek
Under 25 Pa Code §93.9o, UNT to Conodoguinet Creek is designated as Warm-Water and Migratory Fishes (WWF & MF) and attaining its uses.

Based on integrated report 2022, Conodoguinet Creek, assessment ID 13564, is not impaired.

This discharge is not into a watershed that has proposed or final TMDL. No Exceptional Value Waters are impacted by this discharge.

Conodoguinet Creek does not support a Class A Wild Trout fishery. Therefore, no Class A Wild Trout fishery is impacted by this discharge.

Public Water Supply Intake
According to DEP's eMapPA available at http://www.depgis.state.pa.us/emappa/, the nearest downstream public water supply intake is Middlesex Municipal Authority, Cumberland County located on Conodoguinet Creek, approximately 43.0 miles. Given the nature and distance, the proposed discharge is not expected to impact the water supply.

Treatment Facility Summary

The facility is proposed to serve the existing three-bedroom single family residence (400 GPD) located at Burnt Mill Road, Shippensburg, PA 17257. The facility will be owned and maintained by Dirk E. Labonte. The proposed treatment process, according to the application, is as follows:

One (1) 1250-gallon dual compartment concrete septic tank (or equivalent) → Zabel A100 filter/Polylok PL-122 filter → Premier Tech EC7-500-P-P Coco filter → DiUV disinfection unit → Outfall.

The proposed septic tank will have enough capacity to handle the proposed design flow. An effluent filter will be provided at the end of the septic tank to reduce settleable and floatable solids in the effluent. "A" Biotube effluent filters will be provided, which has been demonstrated to produce effluent that does not exceed 10.0 mg/L BOD_5 and 10.0 mg/L TSS. The proposed UV disinfection system will be able to provide an effluent fecal coliform concentration less than or equal to 200 No./100 mL.

The primary treatment tank sludge levels will be monitored yearly and pumped out no longer than 3-year intervals. The outlet of the tank will have an effluent filter, preventing solids from leaving the tank. The surface filter will be inspected annually. The UV unit will be accessible from the ground surface, allowing the UV bulb to be replaced or cleaned. The UV unit has an alarm-light system to alert for a treatment malfunction, and one or more spare bulbs will be kept on site for emergency replacement.

Compliance History

On August 3, 2022, DEP approved the Act 537 planning as a revision to the Act 537 official sewage facilities plan of Lurgan Township (DEP Code No. A3-28911-127-3s).

This is a new facility; therefore, there are no effluent sample results / inspection reports associated with this facility. The Department's database indicates that there is currently no open violation associated with the facility or the applicant.

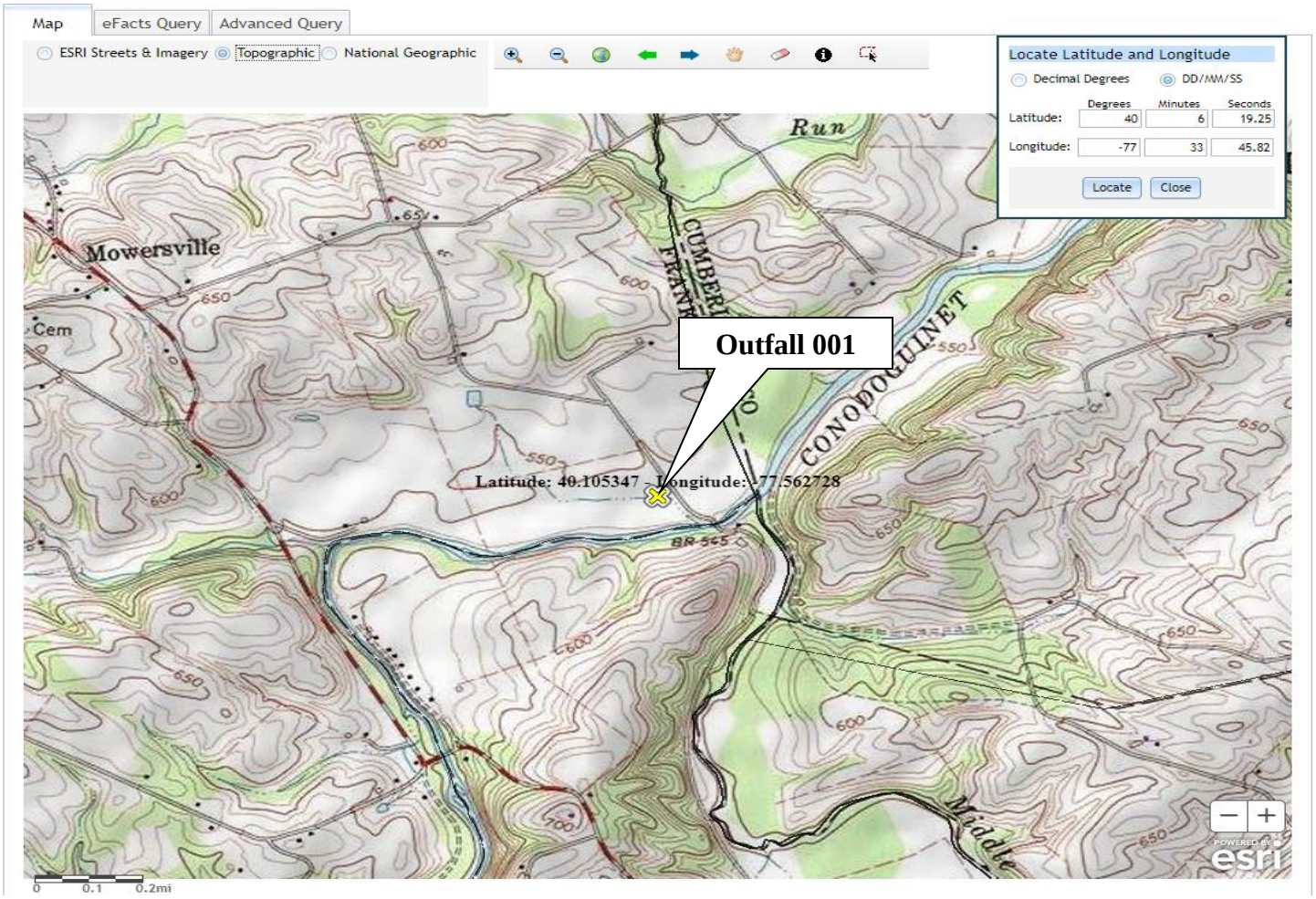
Development of Effluent Limitations and Monitoring Requirements

The 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, revised May 17, 2019). Since the facility will utilize ultraviolet (UV) disinfection, monitoring requirements for total residual chlorine are not applicable.

According to the SOP referenced above, water quality monitoring using Toxic Management Spreadsheet and/or WQM are not required for SRSTPs. The permittee will be required to submit a completed Annual Maintenance Report (AMR) as part of the permit requirements. No DMR is necessary for any facilities that are required to report effluent monitoring results on AMRs annually.

The draft permit will include the following Part C conditions:

a. Small Flow Treatment Facility Maintenance, including measurement of the depth of septage and scum, 3-year septic tank pumping requirement, reporting requirement of a completed Annual Maintenance Form.
b. Stormwater Prohibition
c. Property Rights
d. Proper Disposal of Solids


Map
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Degrees Minutes Seconds
Latitude: 40 6 19.25
Longitude: -77 33 45.82
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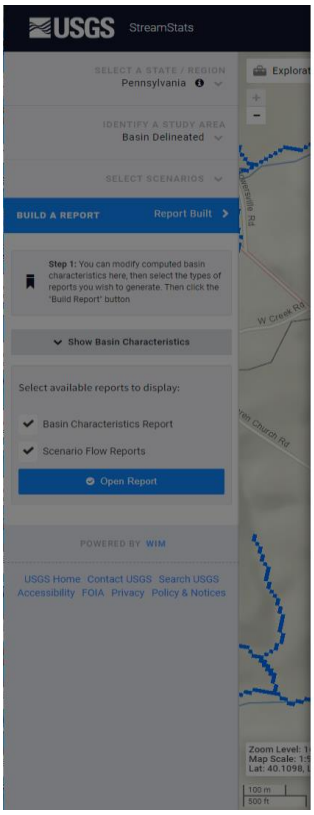
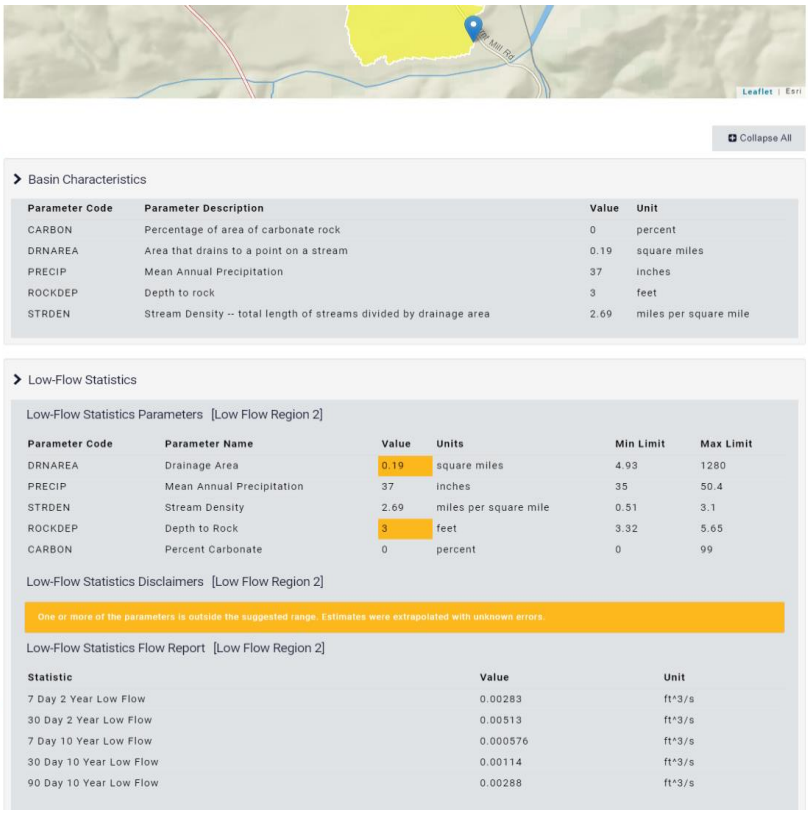
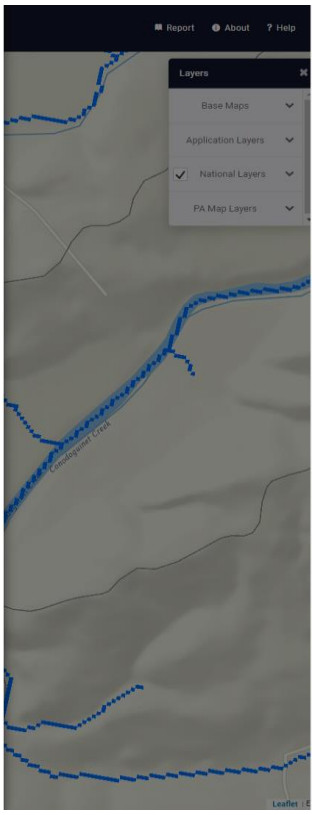

USGS StreamStats
Pennsylvania
Basin Delineated
BUILD A REPORT
Report Built
Show Basin Characteristics
Select available reports to display:
Basin Characteristics Report
Scenario Flow Reports
Open Report
USGS Home Contact USGS Search USGS
Accessibility FOIA Privacy Policy & Notices


Collapse All
Basin Characteristics
Parameter Code Parameter Description Value Unit
CARBON Percentage of area of carbonate rock 0 percent
DRNAREA Area that drains to a point on a stream 0.19 square miles
PRECIP Mean Annual Precipitation 37 inches
ROCKDEP Depth to rock 3 feet
STRDEN Stream Density -- total length of streams divided by drainage area 2.69 miles per square mile
Low-Flow Statistics
Low-Flow Statistics Parameters [Low Flow Region 2]
Parameter Code Parameter Name Value Units Min Limit Max Limit
DRNAREA Drainage Area 0.19 square miles 4.93 1280
PRECIP Mean Annual Precipitation 37 inches 35 50.4
STRDEN Stream Density 2.69 miles per square mile 0.51 3.1
ROCKDEP Depth to Rock 3 feet 3.32 5.65
CARBON Percent Carbonate 0 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 0.00283 ft^3/s
30 Day 2 Year Low Flow 0.00513 ft^3/s
7 Day 10 Year Low Flow 0.000576 ft^3/s
30 Day 10 Year Low Flow 0.00114 ft^3/s
90 Day 10 Year Low Flow 0.00288 ft^3/s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Layers
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PA Map Layers

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 Monthly	Average Weekly	Minimum	Annual Average	Maximum	Instant. Maximum		
Flow (MGD)	Report Annl Avg	XXX	XXX	XXX	XXX	XXX	1/year	Estimate
BOD5	XXX	XXX	XXX	10.0	XXX	20.0	1/year	Grab
TSS	XXX	XXX	XXX	10.0	XXX	20.0	1/year	Grab
Fecal Coliform (No./100 ml)	XXX	XXX	XXX	200	XXX	XXX	1/year	Grab

Compliance Sampling Location:

Other Comments: