

Application Type New
Wastewater Type Sewage
Facility Type SRSTP

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

Application No. PA0267643
APS ID 1050918
Authorization ID 1374910

Applicant, Facility and Project Information

Applicant Name	<u>Scott Barrick</u>	Facility Name	<u>Barrick SRSTP</u>
Applicant Address	<u>35 Mel Ron Court</u> <u>Carlisle, PA 17015-8421</u>	Facility Address	<u>26 Beagle Club Road</u> <u>Carlisle, PA 17013</u>
Applicant Contact	<u>Scott Barrick</u>	Facility Contact	<u>Scott Barrick</u>
Applicant Phone	<u>(717) 991-8544</u>	Facility Phone	<u>(717) 991-8544</u>
Client ID	<u>366565</u>	Site ID	<u>852991</u>
SIC Code	<u>8800</u>	Municipality	<u>Middlesex Township</u>
SIC Description	<u>Private Households</u>	County	<u>Cumberland</u>
Date Application Received	<u>October 29, 2021</u>	WQM Required	<u>Yes</u>
Date Application Accepted	<u>November 4, 2021</u>	WQM App. No.	<u>2121407</u>
Project Description	<u>New NPDES Permit.</u>		

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 Middlesex 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		<i>Jinsu Kim</i> Jinsu Kim / Environmental Engineering Specialist	November 18, 2021
x		<i>Maria D. Bebenek for</i> Daniel W. Martin, P.E. / Environmental Engineer Manager	November 29, 2021
x		<i>Maria D. Bebenek</i> Maria D. Bebenek, P.E. / Program Manager	November 29, 2021

Discharge, Receiving Waters and Water Supply Information

Outfall No.	<u>001</u>	Design Flow (MGD)	<u>.0004</u>
Latitude	<u>40° 15' 20"</u>	Longitude	<u>-77° 9' 33"</u>
Quad Name	<u></u>	Quad Code	<u></u>
Wastewater Description: <u>Sewage Effluent</u>			
Receiving Waters	<u>Unnamed Tributary Spring Run (WWF, MF)</u>	Stream Code	<u>See Comments Below</u>
NHD Com ID	<u>56404671</u>	RMI	<u>See Comments Below</u>
Drainage Area	<u>See Comments Below</u>	Yield (cfs/mi ²)	<u></u>
Q ₇₋₁₀ Flow (cfs)	<u>See Comments Below</u>	Q ₇₋₁₀ Basis	<u></u>
Elevation (ft)	<u></u>	Slope (ft/ft)	<u></u>
Watershed No.	<u></u>	Chapter 93 Class.	<u>WWF, MF</u>
Existing Use	<u></u>	Existing Use Qualifier	<u></u>
Exceptions to Use	<u></u>	Exceptions to Criteria	<u></u>
Assessment Status	<u>Attaining Use(s)</u>		
Cause(s) of Impairment	<u></u>		
Source(s) of Impairment	<u></u>		
TMDL Status	<u>Name</u>		
Nearest Downstream Public Water Supply Intake	<u>PA American Water Company</u>		
PWS Waters	<u>Conodoguinet Creek</u>	Flow at Intake (cfs)	<u></u>
PWS RMI	<u></u>	Distance from Outfall (mi)	<u>16</u>

Drainage Area

The discharge will be to an unnamed tributary to Spring Run. DEP's eMapPa shows no indication of streams nearby and the nearest one is Spring Run about 0.25 miles from the site. DEP Aquatic Biologist conducted a Point of First Use Survey on July 7, 2021. During the survey, a channel within the wooded portion of the property was located and was dry at that time. The survey report indicated that this channel is a tributary to another unnamed tributary which shows flowing surface water with shallow riffles and small pools. From this unnamed tributary, water flows into Spring Run. The survey concluded that the receiving stream is intermittent having no surface water and the point of first surface water use (POFU) is in the next unnamed tributary of Spring Run approximately 125 meters from the proposed discharge point. The drainage area at this point is estimated to be 0.11 sq.mi. according to USGS StreamStats <https://streamstats.usgs.gov/ss/>. The POFU survey is attached to this fact sheet.

Streamflow

USGS StreamStats does not produce a Q7-10 at the POFU.

Unnamed Tributary of Spring Run

Under 25 Pa Code §93.9o, the Spring Run basin has a designated protected use of warm water fishes (WWF) and migratory fishes (MF). No special protection will be impacted by this proposed discharge. DEP's latest integrated water quality report finalized in 2020 indicates that the receiving stream (or the entire Spring Run basin) is not impaired.

Public Water Supply Intake

Based on DEP's eMapPa, the nearest downstream public water supply intake is PA American Water Company located on the Conodoguinet Creek approximately 16 miles from the proposed discharge point. Given the distance, the proposed discharge is not expected to affect 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 Middlesex Township, Cumberland County. The proposed treatment system will serve a new single family residence (400 GPD) and will consist of a 1,250-gallon dual chambered septic tank, 500-gallon dosing tank, 12'x50' subsurface sand filter, UV disinfection and outfall structure. 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 July 13, 2021 (no. A3-21915-239-3s).

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).

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) ⁽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
CBOD5	XXX	XXX	XXX	10.0	XXX	20	1/year	Grab
TSS	XXX	XXX	XXX	10.0	XXX	20	1/year	Grab
Fecal Coliform (No./100 ml)	XXX	XXX	XXX	200	XXX	1000	1/year	Grab



July 13, 2021

Middlesex Township Supervisors
c/o Township Manager
350 Middlesex Road
Carlisle, PA 17013

Re: Approval Letter – Revision
Act 537 Planning
Terry Barrick
DEP CODE NO. A3-21915-239-3s
APS ID No. 1038511; AUTH ID No. 1354176
Middlesex Township, Cumberland County

Dear Supervisors:

The Department of Environmental Protection (DEP) has reviewed the proposed Official Plan revision consisting of one residential lot using a Small Flow Treatment Facility with discharge to an unnamed tributary to Spring Run. The proposed development is located at 30 Beagle Club Road.

The plan revision is approved with the following comments:

1. The approved project will require an NPDES (Part I) permit for the proposed effluent discharge. The permit application must be submitted in the name of the property owner. The Part I permit application can be obtained from DEP's Clean Water Program at the letterhead address or by telephone at 717.705.4800.
2. The approved project will require a Water Quality Management (Part II) permit for the construction and operation of the proposed sewage facilities. The permit application must be submitted in the name of the property owner. Issuance of a Part II permit will be based upon a technical evaluation of the permit application and supporting documentation. Starting construction prior to obtaining a permit is a violation of the Clean Streams Law.
3. In accordance with Chapter 71, Section 71.64(f), DEP is requiring the design engineer to be present during the system installation to ensure that it is being installed in accordance with the specifications and conditions of the Pennsylvania Clean Streams Law (CSL) permit.

Any person aggrieved by this action may appeal the action to the Environmental Hearing Board (Board), pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. § 7514, and the Administrative Agency Law, 2 Pa.C.S. Chapter 5A. The Board's address is:

Environmental Hearing Board
Rachel Carson State Office Building, Second Floor
400 Market Street
P.O. Box 8457
Harrisburg, PA 17105-8457

Middlesex Township

- 2 -

July 13, 2021

TDD users may contact the Environmental Hearing Board through the Pennsylvania Relay Service, 800-654-5984.

Appeals must be filed with the Board within 30 days of receipt of notice of this action unless the appropriate statute provides a different time. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.

A Notice of Appeal form and the Board's rules of practice and procedure may be obtained online at <http://ehb.courtapps.com> or by contacting the Secretary to the Board at 717-787-3483. The Notice of Appeal form and the Board's rules are also available in braille and on audiotape from the Secretary to the Board.

IMPORTANT LEGAL RIGHTS ARE AT STAKE. YOU SHOULD SHOW THIS DOCUMENT TO A LAWYER AT ONCE. IF YOU CANNOT AFFORD A LAWYER, YOU MAY QUALIFY FOR FREE PRO BONO REPRESENTATION. CALL THE SECRETARY TO THE BOARD AT 717-787-3483 FOR MORE INFORMATION. YOU DO NOT NEED A LAWYER TO FILE A NOTICE OF APPEAL WITH THE BOARD.

IF YOU WANT TO CHALLENGE THIS ACTION, YOUR APPEAL MUST BE FILED WITH AND RECEIVED BY THE BOARD WITHIN 30 DAYS OF RECEIPT OF NOTICE OF THIS ACTION.

If you have any questions or concerns, please call Michael McNulty at 717.705.4758, and refer to DEP Code No. A3-21915-239-3s, Application No. 1038511 and Authorization No. 1354176.

Sincerely,



Timothy K. Wagner
Environmental Group Manager

cc: Terry Barrick
Grant Marshall, P.E.

Cumberland County Planning Department

COMMONWEALTH OF PENNSYLVANIA
Department of Environmental Protection

July 7, 2021
Stream Code: 10264
Stream File: 2.21.0

SUBJECT: Point of First Use Survey
UNT to Spring Run
Barrick SFTF
Middlesex Township, Cumberland County

TO: Mike McNulty
Clean Water Program

FROM: Andrew Blascovich
Aquatic Biologist 2
Clean Water Program

As requested, I investigated a proposed discharge point for a proposed small flow treatment facility (SFTF) to an unnamed tributary (UNT) to Spring Run in Middlesex Township, Cumberland County. The proposed sewage flow is 400 gallons per day. The property is located at 30 Beagle Club Road in Carlisle, PA. Access to the property is from the mowed field at the property address. See Figure 1. Barrick Stream Investigation Location Map for the property location.

The Spring Run basin has a designated protected use of warm water fishes (WWF) and migratory fishes (MF) under Title 25 of the Pennsylvania Code, Chapter 93. The 2020 integrated water quality monitoring and assessment report indicates Spring Run is attaining the Aquatic Life Use, but Recreational Use is impaired by pathogens from an unknown source as of the last assessment.

On 30 June 2021 the subject site was accessed from the property as previously described. Permission to enter the property followed coordination with the property owner. The plan (by Grant A Marshall) provided to me indicates the proposed discharge will be in a UNT approximately 250 feet (according to plan scale) north of Beagle Club Road near the middle of the property on the landowner's property. The proposed discharge point was not "flagged" or located in the field by survey for my use. I was able to locate the channel within the wooded portion of the property in the approximate location shown on the plan drawing. This location was at Shermans Dale, PA Quadrangle; N: 40.256463, W: -77.158934. The channel was dry at the time of my investigation.

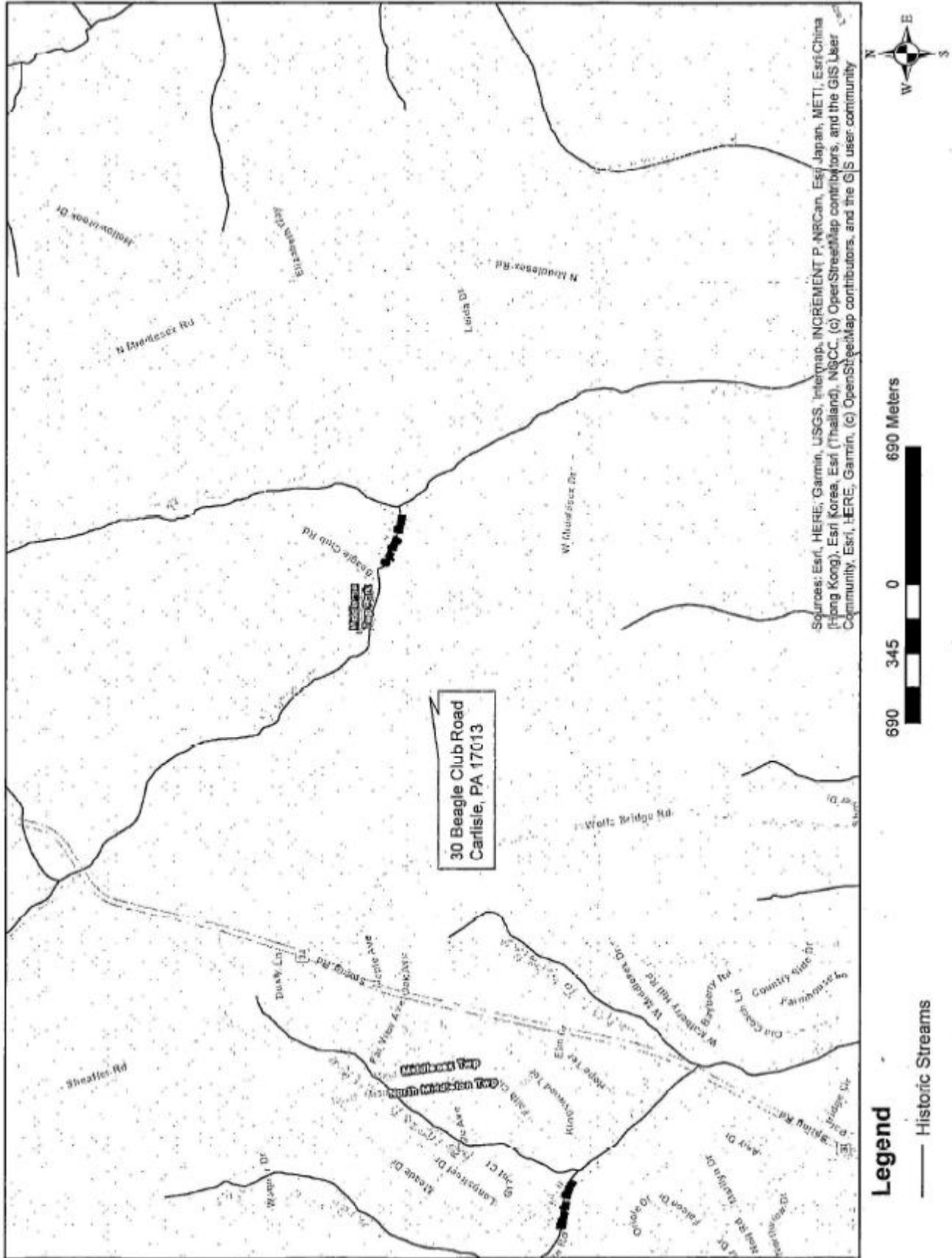
I followed the dry channel downslope (heading North) to where it emptied into another unmapped UNT to Spring Run (Shermans Dale, PA Quadrangle; N: 40.257623, W: -77.159328). This is near a wooden footbridge on the nearby disc golf course. In that UNT, I observed flowing surface water with shallow riffles and small pools containing unidentified fish and herptiles. I performed several kick screen samples between the confluence of the dry channel and UNT and a downstream culvert under an access road for the athletic fields. See Figure 2. Barrick Stream Investigation Sampling Location for spatial reference. The kick screens resulted in the finding of only two macroinvertebrate taxa (Leptophlebiidae and Hydrophilidae), and they were not abundant. Downstream of that culvert, there were several dry pockets of channel.

The investigation continued after driving East on Beagle Club Road from the property to where Spring Run crosses Beagle Club Road (Shermans Dale, PA Quadrangle; N: 40.258155, W: -77.154014). There are two previous DEP assessment stations located at this site which indicate Spring Run is a perennial stream based on the taxa lists from those stations. I performed several rock picks to confirm there is a robust macroinvertebrate community present, and I found at least five taxa (Neophylax, Ephemerellidae, Heptageniidae, Psephenidae, Tricpaxonemata) on individual rocks. The map titled Figure 3. Barrick Stream Investigation Wide-angle illustrates those stations and Spring Run in relation to the dry channel at the Barrick property and proposed discharge point. Images 1 through 8 depict the site and sampling conditions.

In summary, the dry channel at the proposed discharge point is clearly intermittent having no surface water at the time of my investigation. The unmapped UNT to Spring Run has low macroinvertebrate community and fish diversities. I would say that based on my observations, though this UNT may experience dry conditions during very dry periods, the point of first surface water use is in this UNT which is about 125 meters down-gradient from the proposed discharge. Further, it was confirmed that Spring Run maintains a diverse macroinvertebrate community with indications of perennial flow. Spring Run is approximately 400 meters downstream of the proposed discharge.

cc: Tim Wagner
Kristen Bardell

Figure 1. Barrick Stream Investigation Location Map

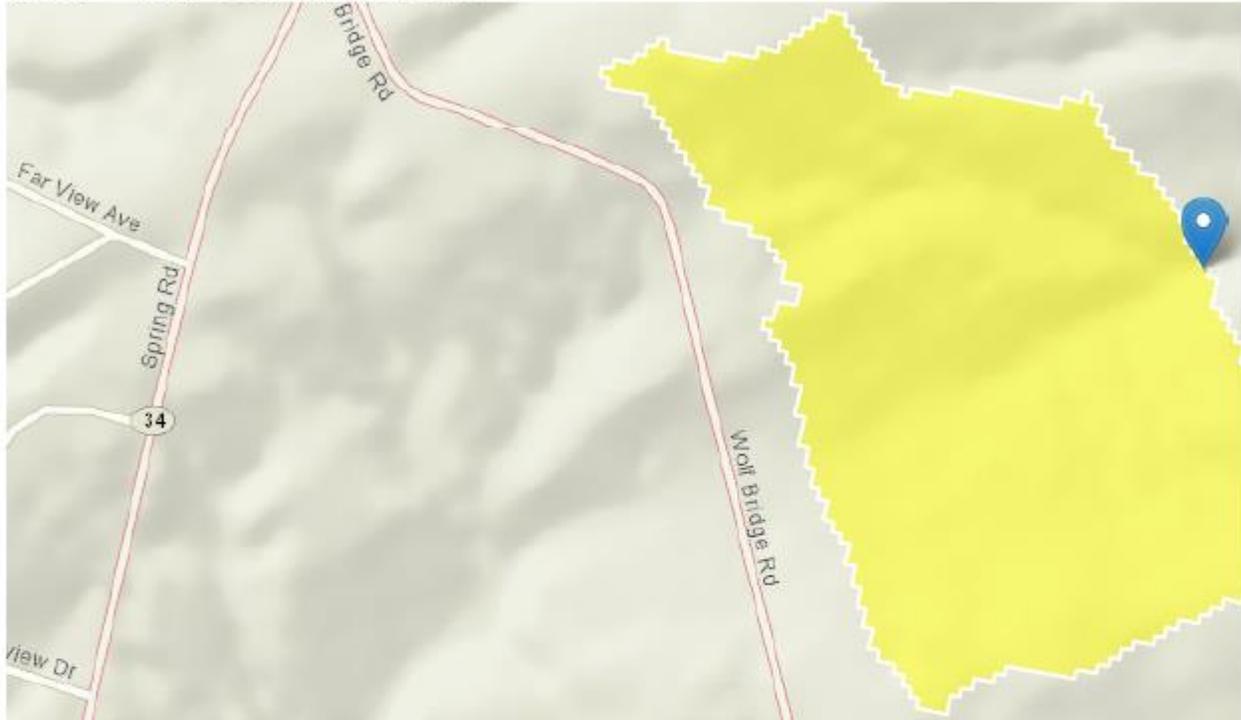


11/4/21, 1:58 PM

StreamStats

StreamStats Report

Region ID: PA
 Workspace ID: PA20211104174402279000
 Clicked Point (Latitude, Longitude): 40.25723, -77.16020
 Time: 2021-11-04 13:44:31 -0400



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.11	square miles
PRECIP	Mean Annual Precipitation	39	inches
STRDEN	Stream Density -- total length of streams divided by drainage area	0	miles per square mile
ROCKDEP	Depth to rock	3	feet
CARBON	Percentage of area of carbonate rock	29.2	percent

11/4/21, 1:59 PM

StreamStats

Low-Flow Statistics Parameters [Low Flow Region 2]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.11	square miles	4.93	1280
PRECIP	Mean Annual Precipitation	39	inches	35	50.4
STRDEN	Stream Density	0	miles per square mile	0.51	3.1
ROCKDEP	Depth to Rock	3	feet	3.32	5.65
CARBON	Percent Carbonate	29.2	percent	0	99

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

Statistic	Value	Unit
-----------	-------	------

Low-Flow Statistics Citations

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 shall the act of distribution constitute any such warranty.

USGS Software Disclaimer: This software has been approved for release by the U.S. Geological Survey (USGS). Although the software has been subjected to rigorous review, the USGS reserves the right to update the software as needed pursuant to further analysis and review. No warranty, expressed or implied, is made by the USGS or the U.S. Government as to the functionality of the software and related material nor shall the fact of release constitute any such warranty. Furthermore, the software is released on condition that neither the USGS nor the U.S. Government shall be held liable for any damages resulting from its authorized or unauthorized use.

USGS Product Names Disclaimer: Any use of trade, firm, or product names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

Application Version: 4.6.2

StreamStats Services Version: 1.2.22

NSS Services Version: 2.1.2