

Application Type Renewal  
Facility Type Municipal  
Major / Minor Minor

**NPDES PERMIT FACT SHEET  
INDIVIDUAL SEWAGE**

Application No. PA0097233  
APS ID 892140  
Authorization ID 1344710

**Applicant and Facility Information**

Applicant Name	<u>South Versailles Township</u>	Facility Name	<u>South Versailles Township STP</u>
Applicant Address	<u>PO Box 66</u> <u>Coulters, PA 15028</u>	Facility Address	<u>Lower Railroad Street</u> <u>Coulters, PA 15028</u>
Applicant Contact	<u>Arabella Kulasa</u>	Facility Contact	<u>Eric Planey</u>
Applicant Phone	<u>(412) 384-5400</u>	Facility Phone	<u>(412) 384-5400</u>
Client ID	<u>43882</u>	Site ID	<u>49135</u>
Ch 94 Load Status	<u>Not Overloaded</u>	Municipality	<u>South Versailles Township</u>
Connection Status		County	<u>Allegheny</u>
Date Application Received	<u>February 19, 2021</u>	EPA Waived?	<u>Yes</u>
Date Application Accepted	<u>August 10, 2021</u>	If No, Reason	
Purpose of Application	<u>Renewal application for the discharge of treated sewage from a minor POTW.</u>		

**Summary of Review**

Act 14 – Proof of notification were submitted and received.

There are 3 open violations for exceeding part A effluent limits for subject client no. 43882 as of 9/9/2021.

This facility is currently submitting eDMR reports.

There has been no change to the discharge or receiving stream since the last permit issuance.

A part 2 WQM permit is not required at this time.

Sludge use and disposal description and location(s): Septage must be pumped and hauled off-site by a septage hauler for land application under a general permit authorized by DEP or disposal at an STP.

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.

Approve	Deny	Signatures	Date
X		Jon F. Bucha Jonathan F. Bucha / Civil Engineer General	September 8, 2021
X		Justin C. Dickey Justin C. Dickey, P.E. / Environmental Engineer Manager	September 27, 2021

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	<u>001</u>	Design Flow (MGD)	<u>.03</u>
Latitude	<u>40° 17' 45"</u>	Longitude	<u>-79° 48' 12"</u>
Quad Name	<u>McKeesport</u>	Quad Code	<u>1607</u>
Wastewater Description: <u>Sewage Effluent</u>			
Receiving Waters	<u>Youghiogheny River (WWF)</u>	Stream Code	<u>37456</u>
NHD Com ID	<u>134770146</u>	RMI	<u>8.3 mi</u>
Drainage Area	<u>1740 sq. mi (Streamstats)</u>	Yield (cfs/mi <sup>2</sup> )	<u>0.293 (Calculated)</u> U.S. Army Corps Estimate, Youghiogheny River at Sutersville
Q <sub>7-10</sub> Flow (cfs)	<u>510.3</u>	Q <sub>7-10</sub> Basis	<u>Sutersville</u>
Elevation (ft)	<u>726 (Google Earth)</u>	Slope (ft/ft)	<u>-</u>
Watershed No.	<u>19-D</u>	Chapter 93 Class.	<u>WWF</u>
Existing Use	<u>-</u>	Existing Use Qualifier	<u>-</u>
Exceptions to Use	<u>-</u>	Exceptions to Criteria	<u>-</u>
Assessment Status	<u>Not Assessed</u>		
Cause(s) of Impairment	<u>-</u>		
Source(s) of Impairment	<u>-</u>		
TMDL Status	<u>-</u>	Name	<u>-</u>
Background/Ambient Data		Data Source	
pH (SU)	<u>-</u>		<u>-</u>
Temperature (°F)	<u>-</u>		<u>-</u>
Hardness (mg/L)	<u>-</u>		<u>-</u>
Other:	<u>-</u>		<u>-</u>
Nearest Downstream Public Water Supply Intake	<u>Westmoreland County Municipal Authority, McKeesport Plant on the Youghiogheny River</u>		
PWS Waters	<u>Youghiogheny River</u>	Flow at Intake (cfs)	<u>-</u>
PWS RMI	<u>1.34</u>	Distance from Outfall (mi)	<u>6.96</u>

Changes Since Last Permit Issuance: There are no changes since the last permit issuance.

Other Comments: This treatment system is capable of meeting effluent limits.

Treatment Facility Summary				
<b>Treatment Facility Name:</b> South Versailles STP				
<b>WQM Permit No.</b>		<b>Issuance Date</b>		
0287401		July 17, 1987		
0287401-A1		April 19, 2007		
<b>Waste Type</b>	<b>Degree of Treatment</b>	<b>Process Type</b>	<b>Disinfection</b>	<b>Avg Annual Flow (MGD)</b>
Sewage	Tertiary	Activated Sludge With Solids Removal	Tablet Chlorination	0.023
<b>Hydraulic Capacity (MGD)</b>	<b>Organic Capacity (lbs/day)</b>	<b>Load Status</b>	<b>Biosolids Treatment</b>	<b>Biosolids Use/Disposal</b>
0.03	50.04	Not Overloaded	Sludge Holding Tank	

Changes Since Last Permit Issuance: None

Other Comments: The existing system consists of influent pumps, an extended aeration tank, one final clarifier, one sludge holding tank, and a chlorine contact tank utilizing tablet chlorination. WQM Permit 0287401-A1 approved elimination of the comminutor and bar screen since grinder pumps are now used in the pump station preceding the STP.

Compliance History

DMR Data for Outfall 001 (from August 1, 2020 to July 31, 2021)

Parameter	JUL-21	JUN-21	MAY-21	APR-21	MAR-21	FEB-21	JAN-21	DEC-20	NOV-20	OCT-20	SEP-20	AUG-20
Flow (MGD) Average Monthly	0.015	0.024	0.027	0.016	0.032	0.029	0.023	0.023	0.010	0.008	0.007	0.012
pH (S.U.) Minimum	6.5	6.7	6.9	6.7	7.0	6.9	6.9	6.7	6.2	6.2	6.3	6.1
pH (S.U.) Maximum	7.4	7.5	7.5	7.3	8.7	8.3	8.2	8.2	7.9	8.0	8.1	8.1
DO (mg/L) Minimum	4.0	4.1	4.4	4.9	6.8	7.3	6.6	4.8	4.3	4.1	4.3	4.3
TRC (mg/L) Average Monthly	0.43	0.50	0.48	0.4	0.39	0.4	0.4	0.43	0.42	0.46	0.49	0.49
TRC (mg/L) Instantaneous Maximum	0.95	0.97	0.96	0.9	0.9	0.8	0.9	0.94	0.86	0.95	0.90	0.90
CBOD5 (lbs/day) Average Monthly	0.38	0.60	0.68	0.60	0.8	0.73	0.7	0.84	0.43	0.25	0.17	0.3
CBOD5 (mg/L) Average Monthly	< 3.0	< 3.0	< 3.0	4.1	3.0	< 3.0	3.8	4.4	5.2	3.8	< 3.0	< 3.0
CBOD5 (mg/L) Instantaneous Maximum	< 3.0	< 3.0	< 3.0	5.2	3.0	< 3.0	4.6	5.8	7.4	4.5	< 3.0	< 3.0
TSS (lbs/day) Average Monthly	0.27	0.96	1.4	0.9	1.6	2.6	0.9	2.26	0.6	0.31	0.63	1.2
TSS (mg/L) Average Monthly	2.2	4.8	6.4	6.6	6.0	10.8	4.8	11.8	7.2	4.6	10.8	11.8
TSS (mg/L) Instantaneous Maximum	2.4	8.0	8.8	7.6	8.4	11.6	6.4	16.0	11.6	5.6	15.2	13.0
Fecal Coliform (No./100 ml) Geometric Mean	< 1	2.5	13	< 1	1	6.2	4.8	11	< 1.0	5.8	49	1.8
Fecal Coliform (No./100 ml) Instantaneous Maximum	< 1	6.3	35	< 1	1	37.9	23.1	11	< 1.0	8.5	2420	3.1
Total Nitrogen (mg/L) Daily Maximum								33.26				
Ammonia (lbs/day) Average Monthly	0.98	0.92	0.43	0.01	0.03	0.02	0.02	0.2	0.02	0.009	0.05	0.3
Ammonia (mg/L) Average Monthly	7.8	4.6	1.9	< 0.1	0.1	< 0.1	< 0.1	< 0.1	0.21	0.13	0.87	3.0
Ammonia (mg/L) Instantaneous Maximum	14.8	9.1	3.6	< 0.1	0.1	< 0.1	< 0.1	< 0.1	0.24	0.16	1.5	5.7
Total Phosphorus (mg/L) Daily Maximum								4.08				

**Compliance History**

**Effluent Violations for Outfall 001, from: September 1, 2020 To: July 31, 2021**

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
Fecal Coliform	09/30/20	IMAX	2420	No./100 ml	1000	No./100 ml

Summary of Inspections: An inspection occurred on 8/15/2018, where no violation were noted.

Other Comments: Since the fecal coliform violation noted above on 9/30/2020, the facility has slightly increased the chemical feed, and replace the sampling device. A second sample collect had a value of <1.0, therefore the issue appears to be resolved.

**Development of Effluent Limitations**

<b>Outfall No.</b> <u>001</u>	<b>Design Flow (MGD)</b> <u>.03</u>
<b>Latitude</b> <u>40° 17' 45.00"</u>	<b>Longitude</b> <u>-79° 48' 12.00"</u>
<b>Wastewater Description:</b> <u>Sewage Effluent</u>	

**Technology-Based Limitations**

The following technology-based limitations apply, subject to water quality analysis and BPJ where applicable:

Pollutant	Limit (mg/l)	SBC	Federal Regulation	State Regulation
CBOD <sub>5</sub>	25	Average Monthly	133.102(a)(4)(i)	92a.47(a)(1)
	40	Average Weekly	133.102(a)(4)(ii)	92a.47(a)(2)
Total Suspended Solids	30	Average Monthly	133.102(b)(1)	92a.47(a)(1)
	45	Average Weekly	133.102(b)(2)	92a.47(a)(2)
pH	6.0 – 9.0 S.U.	Min – Max	133.102(c)	95.2(1)
Fecal Coliform (5/1 – 9/30)	200 / 100 ml	Geo Mean	-	92a.47(a)(4)
Fecal Coliform (5/1 – 9/30)	1,000 / 100 ml	IMAX	-	92a.47(a)(4)
Fecal Coliform (10/1 – 4/30)	2,000 / 100 ml	Geo Mean	-	92a.47(a)(5)
Fecal Coliform (10/1 – 4/30)	10,000 / 100 ml	IMAX	-	92a.47(a)(5)
Total Residual Chlorine	0.5	Average Monthly	-	92a.48(b)(2)

**Water Quality-Based Limitations**

No water quality modeling was necessary due to the significant dilution available by the stream of 10,991 to 1, calculated as follows: Design Flow = 0.03 mgd = 0.0464 cfs; (Streamflow/Design Flow) = (510 cfs/0.0464 cfs) = 10,991

**Best Professional Judgment (BPJ) Limitations**

Comments: A D.O. limit of a minimum of 4 mg/l, a TRC IMAX limit of 1.6 mg/l, and monitoring for ammonia nitrogen, total nitrogen and total phosphorus will remain in the renewed permit, as well as the new addition of E. Coli monitoring in accordance with the Department’s SOP entitled “Establishing Effluent Limitations for Individual Sewage Permits”.

A new monitoring requirement for influent BOD<sub>5</sub> and TSS is being established for this permit renewal at the same frequency and sample type as is used for the effluent, which is required for POTWs with design flows greater than 2000 gpd according to the SOP entitled “New and Reissuance Sewage Individual NPDES Permit Applications”.

Flow monitoring is being changed from 2/month to 1/week in accordance with Table 6-3 of the Permit Writers Manual.

Ammonia-Nitrogen will remain at monitoring only at a frequency of 2/month based on review of the past 3 years of eDMR data, which demonstrates the ability of this treatment system to discharge ammonia-nitrogen at low concentrations.

**Mass Loading**

Mass loading limits are applicable for publicly owned treatment works. Current policy requires average monthly mass loading limits be established for CBOD<sub>5</sub>, TSS, and NH<sub>3</sub>-N. Average weekly mass loading limits were not established for CBOD<sub>5</sub> and TSS because sampling for these parameters is only 2/month. Average monthly mass loading limits (lbs/day) are based on the formula: design flow (MGD) x concentration limit (mg/L) x conversion factor (8.34).

**Anti-Backsliding**

Anti-backsliding is not applicable since the permit limits are not being relaxed.

**Proposed Effluent Limitations and Monitoring Requirements**

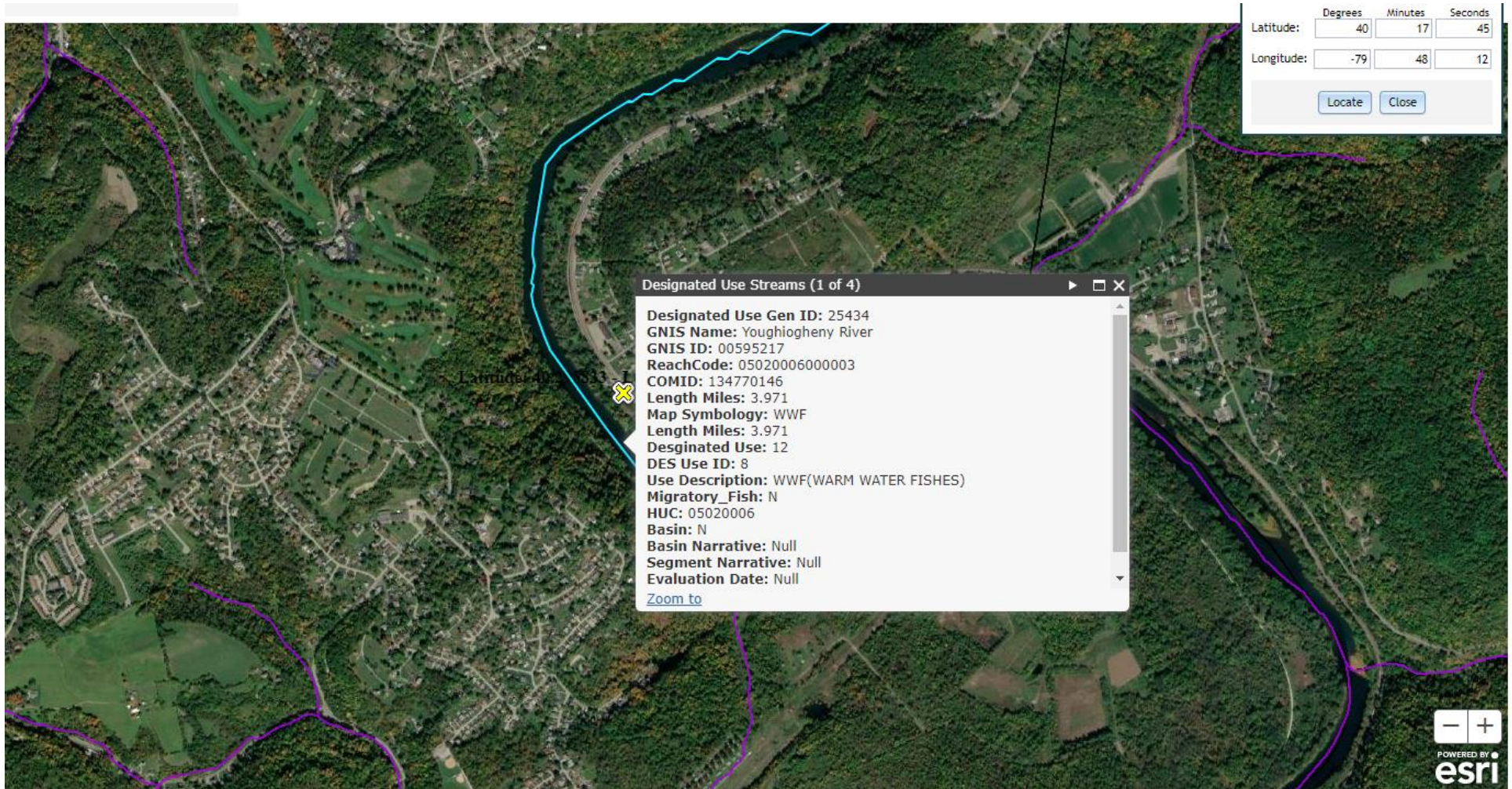
The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). 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) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	1/week	Measured
pH (S.U.)	XXX	XXX	6.0 Daily Min	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	4.0 Daily Min	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	0.5 Daily Min	XXX	XXX	1.6	1/day	Grab
CBOD5	6.3	XXX	XXX	25.0	XXX	50.0	2/month	Grab
BOD5 Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	2/month	Grab
TSS Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	2/month	Grab
TSS	7.5	XXX	XXX	30.0	XXX	60.0	2/month	Grab
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000	XXX	10000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200	XXX	1000	2/month	Grab
E. Coli (No./100 ml)	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab
Total Nitrogen	XXX	XXX	XXX	Report Annl Avg	XXX	XXX	1/year	Grab
Ammonia-Nitrogen	Report	XXX	XXX	Report	XXX	Report	2/month	Grab
Total Phosphorus	XXX	XXX	XXX	Report Annl Avg	XXX	XXX	1/year	Grab

Compliance Sampling Location: Outfall 001 after disinfection.

### Attachment A – eMAP Stream Designation



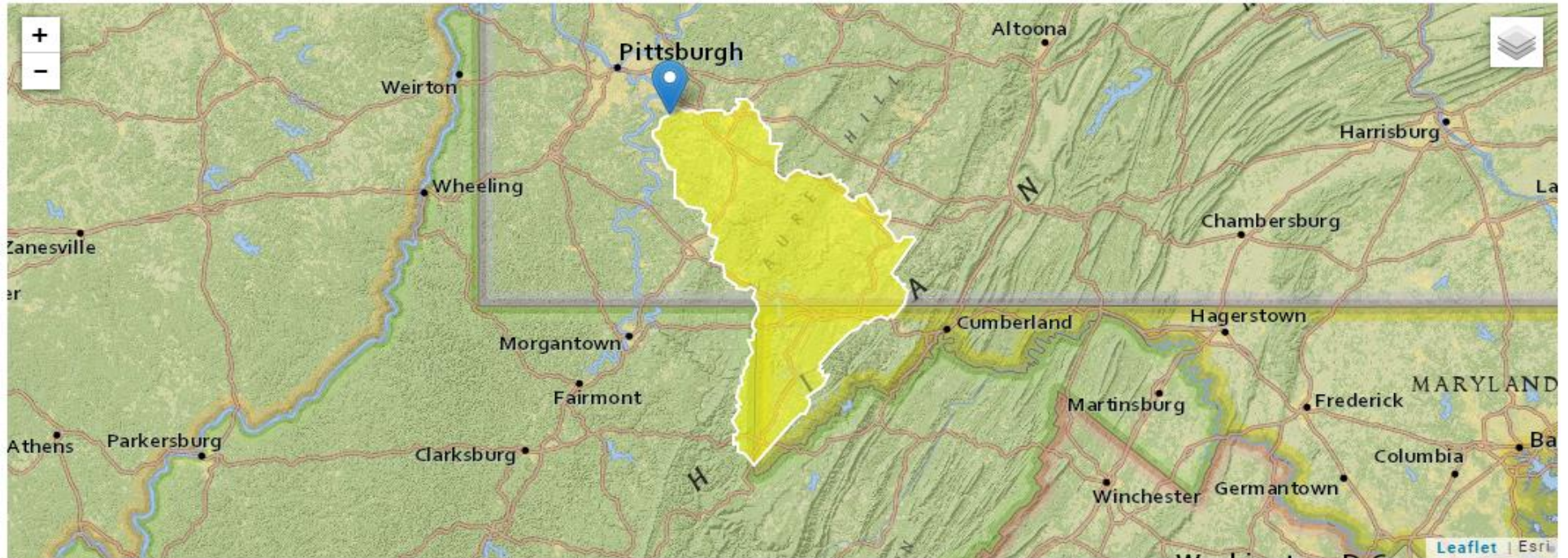


## Attachment B – Streamstats Drainage Area

# StreamStats Report

Region ID:  
Workspace ID:  
Clicked Point (Latitude, Longitude):  
Time:

PA  
PA20210909212807719000  
40.29530, -79.80452  
2021-09-09 17:28:30 -0400



### Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	1740	square miles
ELEV	Mean Basin Elevation	2007	feet