ATTACHMENT A

USGS Stream Stats Output File

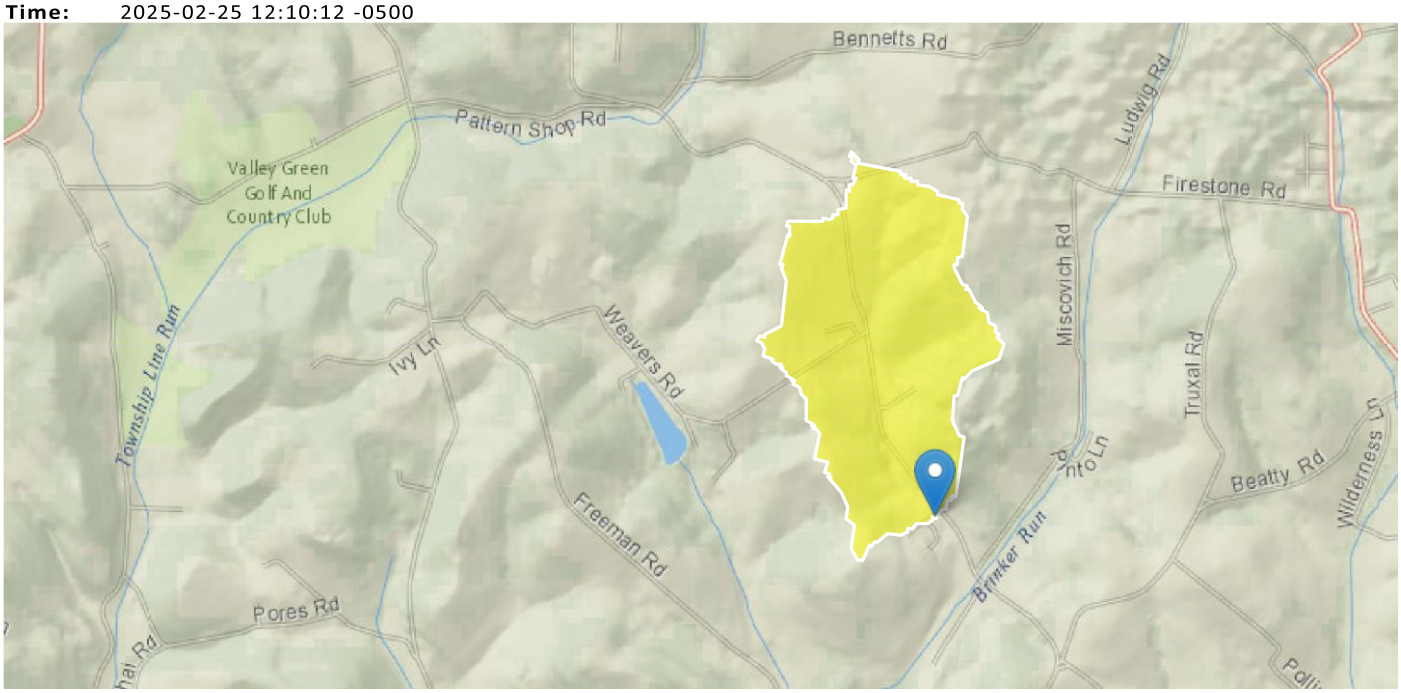
StreamStats Report

Region ID: PA

Workspace ID: PA20250225170941615000

Clicked Point (Latitude, Longitude): 40.23915, -79.50039

Time: 2025-02-25 12:10:12 -0500



Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.42	square miles
ELEV	Mean Basin Elevation	1161	feet
FOREST	Percentage of area covered by forest	34.6274	percent
PRECIP	Mean Annual Precipitation	41	inches
URBAN	Percentage of basin with urban development	0	percent

Low-Flow Statistics

Low-Flow Statistics Parameters [Low Flow Region 4]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.42	square miles	2.26	1400
ELEV	Mean Basin Elevation	1161	feet	1050	2580

Low-Flow Statistics Disclaimers [Low Flow Region 4]

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 4]

Statistic	Value	Unit
7 Day 2 Year Low Flow	0.0102	ft^3/s
30 Day 2 Year Low Flow	0.0204	ft^3/s
7 Day 10 Year Low Flow	0.00277	ft^3/s
30 Day 10 Year Low Flow	0.00631	ft^3/s
90 Day 10 Year Low Flow	0.0134	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/)

Application Version: 4.27.0
StreamStats Services Version: 1.2.22
NSS Services Version: 2.2.1

ATTACHMENT B

TRC Spreadsheet

TRC EVALUATION

Input appropriate values in A3:A9 and D3:D9

0.00277	= Q stream (cfs)	0.5	= CV Daily
0.001999	= Q discharge (MGD)	0.5	= CV Hourly
30	= no. samples	1	= AFC_Partial Mix Factor
0.3	= Chlorine Demand of Stream	1	= CFC_Partial Mix Factor
0	= Chlorine Demand of Discharge	15	= AFC_Criteria Compliance Time (min)
0.5	= BAT/BPJ Value	720	= CFC_Criteria Compliance Time (min)
0	= % Factor of Safety (FOS)		=Decay Coefficient (K)

Source	Reference	AFC Calculations	Reference	CFC Calculations
TRC	1.3.2.iii	WLA afc = 0.305	1.3.2.iii	WLA cfc = 0.290
PENTOXSD TRG	5.1a	LTAMULT afc = 0.373	5.1c	LTAMULT cfc = 0.581
PENTOXSD TRG	5.1b	LTA_afc= 0.114	5.1d	LTA_cfc = 0.168

Source		Effluent Limit Calculations	
PENTOXSD TRG	5.1f	AML MULT = 1.231	
PENTOXSD TRG	5.1g	AVG MON LIMIT (mg/l) = 0.140	AFC
		INST MAX LIMIT (mg/l) = 0.457	

WLA afc (.019/e(-k*AFC_tc)) + [(AFC_Yc*Qs*.019/Qd*e(-k*AFC_tc))...
...+ Xd + (AFC_Yc*Qs*Xs/Qd)]*(1-FOS/100)

LTAMULT afc EXP((0.5*LN(cvh^2+1))-2.326*LN(cvh^2+1)^0.5) LTA_afc
wla_afc*LTAMULT_afc

WLA_cfc (.011/e(-k*CFC_tc) + [(CFC_Yc*Qs*.011/Qd*e(-k*CFC_tc))...
...+ Xd + (CFC_Yc*Qs*Xs/Qd)]*(1-FOS/100)

LTAMULT_cfc EXP((0.5*LN(cvd^2/no_samples+1))-2.326*LN(cvd^2/no_samples+1)^0.5)

LTA_cfc wla_cfc*LTAMULT_cfc

AML MULT EXP(2.326*LN((cvd^2/no_samples+1)^0.5)-0.5*LN(cvd^2/no_samples+1))

AVG MON LIMIT MIN(BAT_BPJ,MIN(LTA_afc,LTA_cfc)*AML_MULT)

INST MAX LIMIT 1.5*((av_mon_limit/AML_MULT)/LTAMULT_afc)