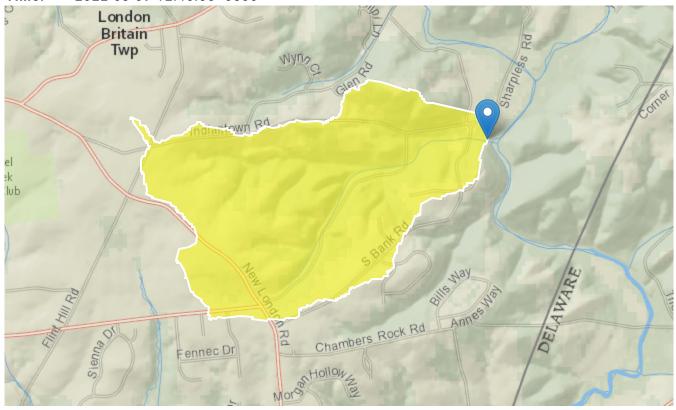
UAPP411 Group 2 London Tract Run Analysis

Region ID: PA

Workspace ID: PA20220309174536237000

Clicked Point (Latitude, Longitude): 39.74514, -75.77354

Time: 2022-03-09 12:45:55 -0500



Survey done on 3/6

Basin Characteristics				
Parameter Code	Parameter Description	Value	Unit	
DRNAREA	Area that drains to a point on a stream	1.06	square miles	
CARBON	Percentage of area of carbonate rock	0	percent	
BSLOPD	Mean basin slope measured in degrees	5.6696	degrees	
ROCKDEP	Depth to rock	5	feet	
URBAN	Percentage of basin with urban development	0.0328	percent	

Parameter Code	Parameter Description	Value	Unit
ELEV	Mean Basin Elevation	308	feet
PRECIP	Mean Annual Precipitation	43	inches
FOREST	Percentage of area covered by forest	57.3477	percent
BSLOPDRAW	Unadjusted basin slope, in degrees	5.8783	degrees
BSLPDRPA20	Unadjusted basin slope, in degrees, from PA v1	6.766	degrees
CENTROXA83	X coordinate of the centroid, in NAD_1983_Albers, meters	189527.7261	meters
CENTROYA83	Basin centroid horizontal (y) location in NAD 1983 Albers	84683.3367	meters
DRN	Drainage quality index from STATSGO	3	dimensionless
ELEVMAX	Maximum basin elevation	440	feet
GLACIATED	Percentage of basin area that was historically covered by glaciers	0	percent
IMPNLCD01	Percentage of impervious area determined from NLCD 2001 impervious dataset	0.2785	percent
LC01DEV	Percentage of land-use from NLCD 2001 classes 21-24	1.8679	percent
LC11DEV	Percentage of developed (urban) land from NLCD 2011 classes 21-24	14.2649	percent
LC11IMP	Average percentage of impervious area determined from NLCD 2011 impervious dataset	0.9621	percent
LONG_OUT	Longitude of Basin Outlet	-75.773543	degrees
MAXTEMP	Mean annual maximum air temperature over basin area from PRISM 1971-2000 800-m grid	63.9	degrees F
OUTLETXA83	X coordinate of the outlet, in NAD_1983_Albers,meters	190826.3774	meters
OUTLETYA83	Y coordinate of the outlet, in NAD_1983_Albers, meters	85139.8149	meters
STORAGE	Percentage of area of storage (lakes ponds reservoirs wetlands)	0.24	percent

Parameter Code	Parameter Description	Value	Unit
STRDEN	Stream Density total length of streams divided by drainage area	2.68	miles per square mile
STRMTOT	total length of all mapped streams (1:24,000-scale) in the basin	2.84	miles

Peak-Flow Statistics Parameters [Peak Flow Region 4 SIR 2019 5094]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	1.06	square miles	1.2	512
CARBON	Percent Carbonate	0	percent	0	68.5

Peak-Flow Statistics Disclaimers [Peak Flow Region 4 SIR 2019 5094]

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

Peak-Flow Statistics Flow Report [Peak Flow Region 4 SIR 2019 5094]

Statistic	Value	Unit
50-percent AEP flood	239	ft^3/s
20-percent AEP flood	423	ft^3/s
10-percent AEP flood	579	ft^3/s
4-percent AEP flood	809	ft^3/s
2-percent AEP flood	1000	ft^3/s
1-percent AEP flood	1220	ft^3/s
0.5-percent AEP flood	1450	ft^3/s
0.2-percent AEP flood	1790	ft^3/s

Peak-Flow Statistics Citations

Roland, M.A., and Stuckey, M.H.,2019, Development of regression equations for the estimation of flood flows at ungaged streams in Pennsylvania: U.S. Geological Survey Scientific Investigations Report 2019-5094, 36 p. (https://doi.org/10.3133/sir20195094)

Low-Flow Statistics Parameters [Low Flow Region 1]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	1.06	square miles	4.78	1150
BSLOPD	Mean Basin Slope degrees	5.6696	degrees	1.7	6.4
ROCKDEP	Depth to Rock	5	feet	4.13	5.21
URBAN	Percent Urban	0.0328	percent	0	89

Low-Flow Statistics Disclaimers [Low Flow Region 1]

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 1]

Statistic	Value	Unit
7 Day 2 Year Low Flow	0.331	ft^3/s
30 Day 2 Year Low Flow	0.404	ft^3/s
7 Day 10 Year Low Flow	0.156	ft^3/s
30 Day 10 Year Low Flow	0.198	ft^3/s
90 Day 10 Year Low Flow	0.28	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/)

Annual Flow Statistics Parameters [Statewide Mean and Base Flow]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	1.06	square miles	2.26	1720
ELEV	Mean Basin Elevation	308	feet	130	2700
PRECIP	Mean Annual Precipitation	43	inches	33.1	50.4
FOREST	Percent Forest	57.3477	percent	5.1	100

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
URBAN	Percent Urban	0.0328	percent	0	89

Annual Flow Statistics Disclaimers [Statewide Mean and Base Flow]

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

Annual Flow Statistics Flow Report [Statewide Mean and Base Flow]

Statistic	Value	Unit
Mean Annual Flow	1.32	ft^3/s

Annual 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/)

General Flow Statistics Parameters [Statewide Mean and Base Flow]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	1.06	square miles	2.26	1720
PRECIP	Mean Annual Precipitation	43	inches	33.1	50.4
CARBON	Percent Carbonate	0	percent	0	99
FOREST	Percent Forest	57.3477	percent	5.1	100
URBAN	Percent Urban	0.0328	percent	0	89

General Flow Statistics Disclaimers [Statewide Mean and Base Flow]

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

General Flow Statistics Flow Report [Statewide Mean and Base Flow]

Statistic	Value	Unit
Harmonic Mean Streamflow	0.286	ft^3/s

General 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/)

Base Flow Statistics Parameters [Statewide Mean and Base Flow]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	1.06	square miles	2.26	1720
PRECIP	Mean Annual Precipitation	43	inches	33.1	50.4
CARBON	Percent Carbonate	0	percent	0	99
FOREST	Percent Forest	57.3477	percent	5.1	100
URBAN	Percent Urban	0.0328	percent	0	89

Base Flow Statistics Disclaimers [Statewide Mean and Base Flow]

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

Base Flow Statistics Flow Report [Statewide Mean and Base Flow]

Statistic	Value	Unit
Base Flow 10 Year Recurrence Interval	0.572	ft^3/s
Base Flow 25 Year Recurrence Interval	0.501	ft^3/s
Base Flow 50 Year Recurrence Interval	0.462	ft^3/s

Base 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/)

Bankfull Statistics Parameters [Statewide Bankfull Noncarbonate 2018 5066]

Parameter Code Parameter Name Value Units Min Limit Max Limit

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	1.06	square miles	2.62	207
CARBON	Percent Carbonate	0	percent		

Bankfull Statistics Parameters [Appalachian Highlands D Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	1.06	square miles	0.07722	940.1535

Bankfull Statistics Parameters [Piedmont P Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	1.06	square miles	0.289575	939.99906

Bankfull Statistics Parameters [USA Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	1.06	square miles	0.07722	59927.7393

Bankfull Statistics Disclaimers [Statewide Bankfull Noncarbonate 2018 5066]

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

Bankfull Statistics Flow Report [Statewide Bankfull Noncarbonate 2018 5066]

Statistic	Value	Unit
Bankfull Area	12.9	ft^2
Bankfull Streamflow	49.4	ft^3/s
Bankfull Width	14.7	ft
Bankfull Depth	0.927	ft

Bankfull Statistics Flow Report [Appalachian Highlands D Bieger 2015]

Statistic	Value	Unit
Bieger_D_channel_width	15.6	ft
Bieger_D_channel_depth	1.14	ft

Statistic	Value	Unit
Bieger_D_channel_cross_sectional_area	18	ft^2
Bankfull Statistics Flow Report [Piedmont P Bieger 2015]		
Statistic	Value	Unit
Bieger_P_channel_width	14.1	ft
Bieger_P_channel_depth	1.17	ft
Bieger_P_channel_cross_sectional_area	16.3	ft^2
Bankfull Statistics Flow Report [USA Bieger 2015]		
Statistic	Value	Unit
Bieger_USA_channel_width	12.6	ft
Bieger_USA_channel_depth	1.22	ft
Bieger_USA_channel_cross_sectional_area Bankfull Statistics Flow Report [Area-Averaged]	17.6	ft^2
Bieger_USA_channel_cross_sectional_area Bankfull Statistics Flow Report [Area-Averaged] Statistic	17.6 Value	ft^2 Unit
Bankfull Statistics Flow Report [Area-Averaged]		
Bankfull Statistics Flow Report [Area-Averaged] Statistic	Value	Unit
Bankfull Statistics Flow Report [Area-Averaged] Statistic Bankfull Area	Value 12.9	Unit ft^2
Bankfull Statistics Flow Report [Area-Averaged] Statistic Bankfull Area Bankfull Streamflow	Value 12.9 49.4	Unit ft^2 ft^3/s
Bankfull Statistics Flow Report [Area-Averaged] Statistic Bankfull Area Bankfull Streamflow Bankfull Width	Value 12.9 49.4 14.7	Unit ft^2 ft^3/s ft
Bankfull Statistics Flow Report [Area-Averaged] Statistic Bankfull Area Bankfull Streamflow Bankfull Width Bankfull Depth	Value 12.9 49.4 14.7 0.927	Unit ft^2 ft^3/s ft ft
Bankfull Statistics Flow Report [Area-Averaged] Statistic Bankfull Area Bankfull Streamflow Bankfull Width Bankfull Depth Bieger_D_channel_width	Value 12.9 49.4 14.7 0.927 15.6	Unit ft^2 ft^3/s ft ft
Bankfull Statistics Flow Report [Area-Averaged] Statistic Bankfull Area Bankfull Streamflow Bankfull Width Bankfull Depth Bieger_D_channel_width Bieger_D_channel_depth	Value 12.9 49.4 14.7 0.927 15.6 1.14	Unit ft^2 ft^3/s ft ft ft
Bankfull Statistics Flow Report [Area-Averaged] Statistic Bankfull Area Bankfull Streamflow Bankfull Width Bankfull Depth Bieger_D_channel_width Bieger_D_channel_depth Bieger_D_channel_depth Bieger_D_channel_cross_sectional_area	Value 12.9 49.4 14.7 0.927 15.6 1.14 18	Unit ft^2 ft^3/s ft ft ft ft ft ft
Bankfull Statistics Flow Report [Area-Averaged] Statistic Bankfull Area Bankfull Streamflow Bankfull Width Bankfull Depth Bieger_D_channel_width Bieger_D_channel_depth Bieger_D_channel_depth Bieger_D_channel_depth Bieger_D_channel_width	Value 12.9 49.4 14.7 0.927 15.6 1.14 18 14.1	Unit ft^2 ft^3/s ft ft ft ft ft ft
Bankfull Statistics Flow Report [Area-Averaged] Statistic Bankfull Area Bankfull Streamflow Bankfull Width Bankfull Depth Bieger_D_channel_width Bieger_D_channel_depth Bieger_D_channel_depth Bieger_P_channel_width Bieger_P_channel_width	Value 12.9 49.4 14.7 0.927 15.6 1.14 18 14.1 1.17	Unit ft^2 ft^3/s ft
Bankfull Statistics Flow Report [Area-Averaged] Statistic Bankfull Area Bankfull Streamflow Bankfull Width Bankfull Depth Bieger_D_channel_width Bieger_D_channel_depth Bieger_D_channel_cross_sectional_area Bieger_P_channel_width Bieger_P_channel_depth Bieger_P_channel_depth Bieger_P_channel_depth	Value 12.9 49.4 14.7 0.927 15.6 1.14 18 14.1 1.17 16.3	Unit ft^2 ft^3/s ft ft ft ft ft ft ft ft ft*2

Bankfull Statistics Citations

Clune, J.W., Chaplin, J.J., and White, K.E., 2018, Comparison of regression relations of bankfull discharge and channel geometry for the glaciated and nonglaciated settings of Pennsylvania and southern New York: U.S. Geological Survey Scientific Investigations Report 2018–5066, 20 p. (https://doi.org/10.3133/sir20185066)

Bieger, Katrin; Rathjens, Hendrik; Allen, Peter M.; and Arnold, Jeffrey G.,2015, Development and Evaluation of Bankfull Hydraulic Geometry Relationships for the Physiographic Regions of the United States, Publications from USDA-ARS / UNL Faculty, 17p.

(https://digitalcommons.unl.edu/usdaarsfacpub

/1515?utm_source=digitalcommons.unl.edu%2Fusdaarsfacpub%2F1515&utm_medium=PDF&utm_campaign=PDFCoverPages)

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Application Version: 4.7.0

StreamStats Services Version: 1.2.22

NSS Services Version: 2.1.2