

# StreamStats Report B75 small inflow near outflow pipe

**Region ID:** VA

**Workspace ID:** VA20220222155104058000

**Clicked Point (Latitude, Longitude):** 37.31390, -79.82205

**Time:** 2022-02-22 10:51:28 -0500



## Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
BRMETA	Percent area of metamorphic rocks within the Blue Ridge Physiographic Region	100	percent
CPSED	Percent area of sedimentary rock within the Coastal Plain Physiographic Region	0	percent
DRNAREA	Area that drains to a point on a stream	0.0566	square miles
ELEV	Mean Basin Elevation	2062.62	feet
ELEVMAX	Maximum basin elevation	2247.52	feet

Parameter Code	Parameter Description	Value	Unit
I24H2Y	Maximum 24-hour precipitation that occurs on average once in 2 years - Equivalent to precipitation intensity index	3	inches
LC01BARE	Percentage of area barren land, NLCD 2001 category 31	0	percent
LC01CRPHAY	Percentage of cultivated crops and hay, classes 81 and 82, from NLCD 2001	0	percent
LC01DEV	Percentage of land-use from NLCD 2001 classes 21-24	0	percent
LC01FORSHB	Percentage of forests and shrub lands, classes 41 to 52, from NLCD 2001	98.7	percent
LC01HERB	Percentage of herbaceous upland from NLCD 2001 class 71	0	percent
LC01IMP	Percent imperviousness of basin area 2001 NLCD	0	percent
LC01WATER	Percentage of open water, class 11, from NLCD 2001	1.3	percent
LC01WETLND	Percentage of wetlands, classes 90 and 95, from NLCD 2001	0	percent
LC06BARE	Percent of area covered by barren rock using 2006 NLCD	0	percent
LC06CRPHAY	Percentage of cultivated crops and hay, classes 81 and 82, from NLCD 2006	0	percent
LC06DEV	Percentage of land-use from NLCD 2006 classes 21-24	0	percent
LC06FORSHB	Percentage of forests and shrub lands, classes 41 to 52, from NLCD 2006	98.84	percent
LC06GRASS	Percent of area covered by grassland/herbaceous using 2006 NLCD	0	percent
LC06IMP	Percentage of impervious area determined from NLCD 2006 impervious dataset	0	percent
LC06WATER	Percent of open water, class 11, from NLCD 2006	1.16	percent
LC06WETLND	Percent of area covered by wetland using 2006 NLCD	0	percent
LC11BARE	Percentage of barren from NLCD 2011 class 31	0	percent

Parameter Code	Parameter Description	Value	Unit
LC11CRPHAY	Percentage of cultivated crops and hay, classes 81 and 82, from NLCD 2011	0	percent
LC11DEV	Percentage of developed (urban) land from NLCD 2011 classes 21-24	0	percent
LC11FORSHB	Percentage of forests and shrub lands, classes 41 to 52, from NLCD 2011	98.84	percent
LC11GRASS	Percent of area covered by grassland/herbaceous using 2011 NLCD	0	percent
LC11IMP	Average percentage of impervious area determined from NLCD 2011 impervious dataset	0	percent
LC11WATER	Percent of open water, class 11, from NLCD 2011	1.16	percent
LC11WETLND	Percentage of wetlands, classes 90 and 95, from NLCD 2011	0	percent
LFREGNO	Low Flow Region Number	1546	dimensionless
MESZOIC	Percent of area within the Mesozoic Basins	0	percent
MINBELEV	Minimum basin elevation	1924.08	feet
PDIGMET	Percent area of igneous and metamorphic within the Piedmont Physiographic Region	0	percent
PKREGNO	Peak Flow Region Number	1553	dimensionless
PRECIP	Mean Annual Precipitation	46.207	inches
RELIEF	Maximum - minimum elevation	323	feet
STATOM19_8	Percentage of soils with greater than 7.3 percent and less than or equal to 19.8 percent organic matter from STATSGO	0	percent
STATOM55_7	Percentage of soils with greater than 19.8 percent and less than or equal to 55.7 percent organic matter from STATSGO	0	percent
STATSCLAY10	Percentage of soils with less than 10 percent clay from STATSGO	0	percent
STATSCLY20	Percentage of soils with greater than 10 percent and less than or equal to 20 percent clay from STATSGO	0	percent
STATSCLY30	Percentage of soils with greater than 20 percent and less than or equal to 30 percent clay from STATSGO	100	percent

Parameter Code	Parameter Description	Value	Unit
STATSCLY40	Percentage of soils with greater than 30 percent and less than or equal to 40 percent clay from STATSGO	0	percent
STATSCLY50	Percentage of soils with greater than 40 percent and less than or equal to 50 percent clay from STATSGO	0	percent
STATSCLY60	Percentage of soils with greater than 50 percent and less than or equal to 60 percent clay from STATSGO	0	percent
STATSGODEP	Area-weighted average soil depth from NRCS STATSGO database	59	inches
STATSOM0_5	Percentage of soils with less than 0.5 percent organic matter from STATSGO	0	percent
STATSOM2_6	Percentage of soils with greater than 0.50 percent and less than or equal to 2.60 percent organic matter from STATSGO	100	percent
STATSOM7_3	Percentage of soils with greater than 2.6 percent and less than or equal to 7.3 percent organic matter from STATSGO	0	percent
STATSPERM	Area-weighted average soil permeability from NRCS STATSGO database	3	inches per hour
STATSWATCP	Available water capacity of the top 60 inches of soil - determined from STATSGO data	0	inch per inch
VRCARB	Percent of area of carbonate rocks within the Valley and Ridge Physiographic Region	0	percent
VRPLSLC	Percent of area of siliciclastic rocks within the Valley and Ridge or Appalachian Plateau Physiographic Regions	0	percent

### Peak-Flow Statistics Parameters [Blue Ridge 2011 5144]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.0566	square miles	0.06	7866

### Peak-Flow Statistics Disclaimers [Blue Ridge 2011 5144]

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

## Peak-Flow Statistics Flow Report [Blue Ridge 2011 5144]

Statistic	Value	Unit
50-percent AEP flood	17.5	ft <sup>3</sup> /s
42.9-percent AEP flood	21.4	ft <sup>3</sup> /s
20-percent AEP flood	45.4	ft <sup>3</sup> /s
10-percent AEP flood	76.2	ft <sup>3</sup> /s
4-percent AEP flood	128	ft <sup>3</sup> /s
2-percent AEP flood	183	ft <sup>3</sup> /s
1-percent AEP flood	278	ft <sup>3</sup> /s
0.5-percent AEP flood	361	ft <sup>3</sup> /s

### Peak-Flow Statistics Citations

**Austin, S.H., Krstolic, J.L., and Wiegand, Ute, 2011, Peak-flow characteristics of Virginia streams: U.S. Geological Survey Scientific Investigations Report 2011–5144, 106 p. + 3 tables and 2 appendixes on CD. (<http://pubs.usgs.gov/sir/2011/5144/>)**

## Low-Flow Statistics Parameters [Blue Ridge 2011 5143]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.0566	square miles	0.09	7393

## Low-Flow Statistics Disclaimers [Blue Ridge 2011 5143]

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

## Low-Flow Statistics Flow Report [Blue Ridge 2011 5143]

Statistic	Value	Unit
1 Day 1.11 Year Low Flow	0.00821	ft <sup>3</sup> /s
1 Day 1.25 Year Low Flow	0.00502	ft <sup>3</sup> /s
1 Day 1.43 Year Low Flow	0.00336	ft <sup>3</sup> /s

Statistic	Value	Unit
1 Day 1.67 Year Low Flow	0.00227	ft <sup>3</sup> /s
1 Day 2 Year Low Flow	0.00151	ft <sup>3</sup> /s
1 Day 2.5 Year Low Flow	0.000961	ft <sup>3</sup> /s
1 Day 3.33 Year Low Flow	0.000556	ft <sup>3</sup> /s
1 Day 5 Year Low Flow	0.000275	ft <sup>3</sup> /s
1 Day 10 Year Low Flow	0.0000841	ft <sup>3</sup> /s
4 Day 1.11 Year Low Flow	0.00825	ft <sup>3</sup> /s
4 Day 1.25 Year Low Flow	0.00513	ft <sup>3</sup> /s
4 Day 1.43 Year Low Flow	0.00345	ft <sup>3</sup> /s
4 Day 1.67 Year Low Flow	0.00233	ft <sup>3</sup> /s
4 Day 2 Year Low Flow	0.00156	ft <sup>3</sup> /s
4 Day 2.5 Year Low Flow	0.001	ft <sup>3</sup> /s
4 Day 3.33 Year Low Flow	0.000586	ft <sup>3</sup> /s
4 Day 5 Year Low Flow	0.000287	ft <sup>3</sup> /s
4 Day 10 Year Low Flow	0.0000887	ft <sup>3</sup> /s
4 Day 20 Year Low Flow	0.000024	ft <sup>3</sup> /s
7 Day 1.11 Year Low Flow	0.00886	ft <sup>3</sup> /s
7 Day 1.25 Year Low Flow	0.00544	ft <sup>3</sup> /s
7 Day 1.43 Year Low Flow	0.00364	ft <sup>3</sup> /s
7 Day 1.67 Year Low Flow	0.00246	ft <sup>3</sup> /s
7 Day 2 Year Low Flow	0.00165	ft <sup>3</sup> /s
7 Day 2.5 Year Low Flow	0.00106	ft <sup>3</sup> /s
7 Day 3.33 Year Low Flow	0.000621	ft <sup>3</sup> /s
7 Day 5 Year Low Flow	0.000309	ft <sup>3</sup> /s
7 Day 10 Year Low Flow	0.000101	ft <sup>3</sup> /s
7 Day 20 Year Low Flow	0.0000314	ft <sup>3</sup> /s
30 Day 1.11 Year Low Flow	0.0139	ft <sup>3</sup> /s
30 Day 1.25 Year Low Flow	0.0086	ft <sup>3</sup> /s
30 Day 1.43 Year Low Flow	0.00584	ft <sup>3</sup> /s
30 Day 1.67 Year Low Flow	0.00409	ft <sup>3</sup> /s

Statistic	Value	Unit
30 Day 2 Year Low Flow	0.00286	ft <sup>3</sup> /s
30 Day 2.5 Year Low Flow	0.00194	ft <sup>3</sup> /s
30 Day 3.33 Year Low Flow	0.00123	ft <sup>3</sup> /s
30 Day 5 Year Low Flow	0.000705	ft <sup>3</sup> /s
30 Day 10 Year Low Flow	0.000298	ft <sup>3</sup> /s
30 Day 20 Year Low Flow	0.000129	ft <sup>3</sup> /s
30 Day 50 Year Low Flow	0.0000454	ft <sup>3</sup> /s
30 Day 100 Year Low Flow	0.0000222	ft <sup>3</sup> /s
30 Day 200 Year Low Flow	0.0000146	ft <sup>3</sup> /s

#### Low-Flow Statistics Citations

**Austin, S.H., Krstolic, J.L., and Wiegand, Ute, 2011, Low-flow characteristics of Virginia streams: U.S. Geological Survey Scientific Investigations Report 2011–5143, 122 p. + 9 tables on CD. (<http://pubs.usgs.gov/sir/2011/5143/>)**

#### Bankfull Statistics Parameters [Appalachian Highlands D Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.0566	square miles	0.07722	940.1535

#### Bankfull Statistics Parameters [Valley and Ridge P Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.0566	square miles	0.100386	395.999604

#### Bankfull Statistics Parameters [USA Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.0566	square miles	0.07722	59927.7393

#### Bankfull Statistics Parameters [Valley Ridge DAO Channel Chars SIR 2005 5076]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.0566	square miles	0.1	247

## Bankfull Statistics Disclaimers [Appalachian Highlands D Bieger 2015]

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

## Bankfull Statistics Flow Report [Appalachian Highlands D Bieger 2015]

Statistic	Value	Unit
Bieger_D_channel_width	4.61	ft
Bieger_D_channel_depth	0.492	ft
Bieger_D_channel_cross_sectional_area	2.28	ft <sup>2</sup>

## Bankfull Statistics Disclaimers [Valley and Ridge P Bieger 2015]

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

## Bankfull Statistics Flow Report [Valley and Ridge P Bieger 2015]

Statistic	Value	Unit
Bieger_P_channel_width	4.09	ft
Bieger_P_channel_depth	0.432	ft
Bieger_P_channel_cross_sectional_area	2	ft <sup>2</sup>

## Bankfull Statistics Disclaimers [USA Bieger 2015]

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

## Bankfull Statistics Flow Report [USA Bieger 2015]

Statistic	Value	Unit
Bieger_USA_channel_width	4.51	ft
Bieger_USA_channel_depth	0.654	ft
Bieger_USA_channel_cross_sectional_area	3.62	ft <sup>2</sup>

## Bankfull Statistics Disclaimers [Valley Ridge DAO Channel Chars SIR 2005 5076]



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

## Bankfull Statistics Flow Report [Valley Ridge DAO Channel Chars SIR 2005 5076]

Statistic	Value	Unit
Bankfull Area	1.58	ft <sup>2</sup>
Bankfull Width	3.56	ft
Bankfull Depth	0.438	ft
Bankfull Streamflow	4.43	ft <sup>3</sup> /s

## Bankfull Statistics Flow Report [Area-Averaged]

Statistic	Value	Unit
Bieger_D_channel_width	4.61	ft
Bieger_D_channel_depth	0.492	ft
Bieger_D_channel_cross_sectional_area	2.28	ft <sup>2</sup>
Bieger_P_channel_width	4.09	ft
Bieger_P_channel_depth	0.432	ft
Bieger_P_channel_cross_sectional_area	2	ft <sup>2</sup>
Bieger_USA_channel_width	4.51	ft
Bieger_USA_channel_depth	0.654	ft
Bieger_USA_channel_cross_sectional_area	3.62	ft <sup>2</sup>
Bankfull Area	1.58	ft <sup>2</sup>
Bankfull Width	3.56	ft
Bankfull Depth	0.438	ft
Bankfull Streamflow	4.43	ft <sup>3</sup> /s

### *Bankfull Statistics Citations*

**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=PDFCoverSheet](https://digitalcommons.unl.edu/usdaarsfacpub/1515?utm_source=digitalcommons.unl.edu%2Fusdaarsfacpub%2F1515&utm_medium=PDF&utm_campaign=PDFCoverSheet))**  
**Jefferson N. Keaton, Terence Messinger, and Edward J. Doheny Development and Analysis of Regional Curves for Streams in the Non-Urban Valley and Ridge Physiographic Province,**

**Maryland, Virginia, and West Virginia**

(https://pubs.usgs.gov/sir/2005/5076/sir05\_5076.pdf)

## Urban Peak-Flow Statistics Parameters [Peak Urban01 2014 5090]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.0566	square miles	0.07	2404
LC01DEV	Percent_Developed_from_NLCD2001	0	percent	10	96

## Urban Peak-Flow Statistics Parameters [Peak Urban06 2014 5090]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.0566	square miles	0.07	2404
LC06DEV	Percent Developed from NLCD2006	0	percent	10	96

## Urban Peak-Flow Statistics Parameters [Peak Urban11 2014 5090]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.0566	square miles	0.07	2404
LC11DEV	Percent Developed from NLCD2011	0	percent	10	96

## Urban Peak-Flow Statistics Disclaimers [Peak Urban01 2014 5090]

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

## Urban Peak-Flow Statistics Flow Report [Peak Urban01 2014 5090]

Statistic	Value	Unit
Urban 99.5-percent AEP flood	2.15	ft <sup>3</sup> /s
Urban 99-percent AEP flood	2.37	ft <sup>3</sup> /s

Statistic	Value	Unit
Urban 95-percent AEP flood	3.14	ft <sup>3</sup> /s
Urban 90-percent AEP flood	4.03	ft <sup>3</sup> /s
Urban 80-percent AEP flood	5.38	ft <sup>3</sup> /s
Urban 66.7-percent AEP flood	5.52	ft <sup>3</sup> /s
Urban 50-percent AEP flood	6.69	ft <sup>3</sup> /s
Urban 42.9-percent AEP flood	7.56	ft <sup>3</sup> /s
Urban 20-Percent AEP flood	12	ft <sup>3</sup> /s
Urban 10-percent AEP flood	18.1	ft <sup>3</sup> /s
Urban 4-percent AEP flood	33.1	ft <sup>3</sup> /s
Urban 2-percent AEP flood	47.6	ft <sup>3</sup> /s
Urban 1-percent AEP flood	54.7	ft <sup>3</sup> /s
Urban 0.5-percent AEP flood	66.9	ft <sup>3</sup> /s
Urban 0.2-percent AEP flood	117	ft <sup>3</sup> /s

### Urban Peak-Flow Statistics Disclaimers [Peak Urban06 2014 5090]

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

### Urban Peak-Flow Statistics Flow Report [Peak Urban06 2014 5090]

Statistic	Value	Unit
Urban 99.5-percent AEP flood	2.15	ft <sup>3</sup> /s
Urban 99-percent AEP flood	2.37	ft <sup>3</sup> /s
Urban 95-percent AEP flood	3.14	ft <sup>3</sup> /s
Urban 90-percent AEP flood	4.03	ft <sup>3</sup> /s
Urban 80-percent AEP flood	5.38	ft <sup>3</sup> /s
Urban 66.7-percent AEP flood	5.52	ft <sup>3</sup> /s
Urban 50-percent AEP flood	6.69	ft <sup>3</sup> /s
Urban 42.9-percent AEP flood	7.56	ft <sup>3</sup> /s
Urban 20-Percent AEP flood	12	ft <sup>3</sup> /s
Urban 10-percent AEP flood	18.1	ft <sup>3</sup> /s

Statistic	Value	Unit
Urban 4-percent AEP flood	33.1	ft <sup>3</sup> /s
Urban 2-percent AEP flood	47.6	ft <sup>3</sup> /s
Urban 1-percent AEP flood	54.7	ft <sup>3</sup> /s
Urban 0.5-percent AEP flood	66.9	ft <sup>3</sup> /s
Urban 0.2-percent AEP flood	117	ft <sup>3</sup> /s

### Urban Peak-Flow Statistics Disclaimers [Peak Urban11 2014 5090]

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

### Urban Peak-Flow Statistics Flow Report [Peak Urban11 2014 5090]

Statistic	Value	Unit
Urban 99.5-percent AEP flood	2.15	ft <sup>3</sup> /s
Urban 99-percent AEP flood	2.37	ft <sup>3</sup> /s
Urban 95-percent AEP flood	3.14	ft <sup>3</sup> /s
Urban 90-percent AEP flood	4.03	ft <sup>3</sup> /s
Urban 80-percent AEP flood	5.38	ft <sup>3</sup> /s
Urban 66.7-percent AEP flood	5.52	ft <sup>3</sup> /s
Urban 50-percent AEP flood	6.69	ft <sup>3</sup> /s
Urban 42.9-percent AEP flood	7.56	ft <sup>3</sup> /s
Urban 20-Percent AEP flood	12	ft <sup>3</sup> /s
Urban 10-percent AEP flood	18.1	ft <sup>3</sup> /s
Urban 4-percent AEP flood	33.1	ft <sup>3</sup> /s
Urban 2-percent AEP flood	47.6	ft <sup>3</sup> /s
Urban 1-percent AEP flood	54.7	ft <sup>3</sup> /s
Urban 0.5-percent AEP flood	66.9	ft <sup>3</sup> /s
Urban 0.2-percent AEP flood	117	ft <sup>3</sup> /s

#### *Urban Peak-Flow Statistics Citations*

**Austin, S.H.,2014, Methods and equations for estimating peak streamflow per square mile in Virginia's urban basins: U.S. Geological Survey Scientific Investigations Report 2014-**

**5090, 25 p. (<http://pubs.usgs.gov/sir/2014/5090>)**

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Application Version: 4.7.0

StreamStats Services Version: 1.2.22

NSS Services Version: 2.1.2