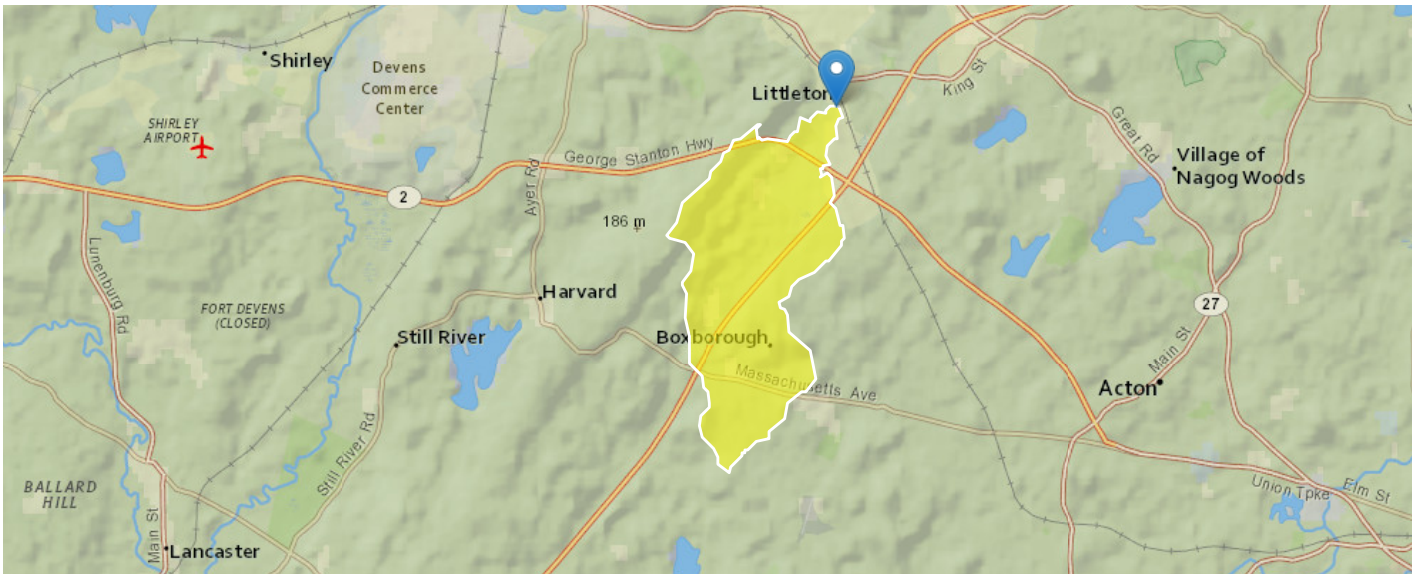
95 Taylor Street StreamStats Nov 6

Region ID: MA
Workspace ID: MA20231106181844753000
Clicked Point (Latitude, Longitude): 42.53415, -71.51150
Time: 2023-11-06 13:19:08 -0500



Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
BSLDEM10M	Mean basin slope computed from 10 m DEM	6.994	percent
BSLDEM250	Mean basin slope computed from 1:250K DEM	3.745	percent
DRFTPERSTR	Area of stratified drift per unit of stream length	0.2	square mile per mile
DRNAREA	Area that drains to a point on a stream	5.6	square miles
FOREST	Percentage of area covered by forest	63.7	percent
MAREGION	Region of Massachusetts 0 for Eastern 1 for Western	0	dimensionless
PCTSNDGRV	Percentage of land surface underlain by sand and gravel deposits	40.95	percent

Low-Flow Statistics

Low-Flow Statistics Parameters [Statewide Low Flow WRIR00 4135]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	5.6	square miles	1.61	149
BSLDEM250	Mean Basin Slope from 250K DEM	3.745	percent	0.32	24.6
DRFTPERSTR	Stratified Drift per Stream Length	0.2	square mile per mile	0	1.29
MAREGION	Massachusetts Region	0	dimensionless	0	1

Low-Flow Statistics Flow Report [Statewide Low Flow WRIR00 4135]

PIL: Lower 90% Prediction Interval, PIU: Upper 90% Prediction Interval, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	PIL	PIU	SE	ASEp
7 Day 2 Year Low Flow	0.618	ft^3/s	0.211	1.74	49.5	49.5
7 Day 10 Year Low Flow	0.286	ft^3/s	0.0769	0.991	70.8	70.8

Low-Flow Statistics Citations

Ries, K.G., III,2000, Methods for estimating low-flow statistics for Massachusetts streams: U.S. Geological Survey Water Resources Investigations Report 00-4135, 81 p. (http://pubs.usgs.gov/wri/wri004135/)

Bankfull Statistics

Bankfull Statistics Parameters [Bankfull Statewide SIR2013 5155]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	5.6	square miles	0.6	329
BSLDEM10M	Mean Basin Slope from 10m DEM	6.994	percent	2.2	23.9

Bankfull Statistics Parameters [Appalachian Highlands D Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	5.6	square miles	0.07722	940.1535

Bankfull Statistics Parameters [New England P Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	5.6	square miles	3.799224	138.999861

Bankfull Statistics Parameters [USA Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	5.6	square miles	0.07722	59927.7393

Bankfull Statistics Flow Report [Bankfull Statewide SIR2013 5155]

PIL: Lower 90% Prediction Interval, PIU: Upper 90% Prediction Interval, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	ASEp
Bankfull Width	29.5	ft	21.3
Bankfull Depth	1.56	ft	19.8
Bankfull Area	45.6	ft^2	29
Bankfull Streamflow	134	ft^3/s	55

Bankfull Statistics Flow Report [Appalachian Highlands D Bieger 2015]

Statistic	Value	Unit
Bieger_D_channel_width	31.1	ft
Bieger_D_channel_depth	1.84	ft
Bieger_D_channel_cross_sectional_area	58	ft^2

Bankfull Statistics Flow Report [New England P Bieger 2015]

Statistic	Value	Unit
Bieger_P_channel_width	40.9	ft
Bieger_P_channel_depth	2.01	ft
Bieger_P_channel_cross_sectional_area	83.3	ft^2

Bankfull Statistics Flow Report [USA Bieger 2015]

Statistic	Value	Unit
Bieger_USA_channel_width	22.7	ft
Bieger_USA_channel_depth	1.74	ft
Bieger_USA_channel_cross_sectional_area	43.3	ft^2

Bankfull Statistics Flow Report [Area-Averaged]

PIL: Lower 90% Prediction Interval, PIU: Upper 90% Prediction Interval, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	ASEp
Bankfull Width	29.5	ft	21.3
Bankfull Depth	1.56	ft	19.8
Bankfull Area	45.6	ft^2	29
Bankfull Streamflow	134	ft^3/s	55
Bieger_D_channel_width	31.1	ft	
Bieger_D_channel_depth	1.84	ft	
Bieger_D_channel_cross_sectional_area	58	ft^2	
Bieger_P_channel_width	40.9	ft	
Bieger_P_channel_depth	2.01	ft	
Bieger_P_channel_cross_sectional_area	83.3	ft^2	
Bieger_USA_channel_width	22.7	ft	
Bieger_USA_channel_depth	1.74	ft	
Bieger_USA_channel_cross_sectional_area	43.3	ft^2	

Bankfull Statistics Citations

Bent, G.C., and Waite, A.M.,2013, Equations for estimating bankfull channel geometry and discharge for streams in Massachusetts: U.S. Geological Survey Scientific Investigations Report 2013–5155, 62 p., (http://pubs.usgs.gov/sir/2013/5155/)

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)

Probability Statistics

Probability Statistics Parameters [Perennial Flow Probability]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	5.6	square miles	0.01	1.99
PCTSNDGRV	Percent Underlain By Sand And Gravel	40.95	percent	0	100
FOREST	Percent Forest	63.7	percent	0	100

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
MAREGION	Massachusetts Region	0	dimensionless	0	1

Probability Statistics Disclaimers [Perennial Flow Probability]

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

Probability Statistics Flow Report [Perennial Flow Probability]

Statistic	Value	Unit
Probability Stream Flowing Perennially	0.97	dim

Probability Statistics Citations

Bent, G.C., and Steeves, P.A.,2006, A revised logistic regression equation and an automated procedure for mapping the probability of a stream flowing perennially in Massachusetts: U.S. Geological Survey Scientific Investigations Report 2006–5031, 107 p. (http://pubs.usgs.gov/sir/2006/5031/pdfs/SIR_2006-5031rev.pdf)

Flow-Duration Statistics

Flow-Duration Statistics Parameters [Statewide Low Flow WRIR00 4135]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	5.6	square miles	1.61	149
DRFTPERSTR	Stratified Drift per Stream Length	0.2	square mile per mile	0	1.29
MAREGION	Massachusetts Region	0	dimensionless	0	1
BSLDEM250	Mean Basin Slope from 250K DEM	3.745	percent	0.32	24.6

Flow-Duration Statistics Flow Report [Statewide Low Flow WRIR00 4135]

PIL: Lower 90% Prediction Interval, PIU: Upper 90% Prediction Interval, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	PIL	PIU	SE	ASEp
50 Percent Duration	5.54	ft^3/s	2.82	10.8	17.6	17.6
60 Percent Duration	4.02	ft^3/s	1.95	8.25	19.8	19.8
70 Percent Duration	2.5	ft^3/s	1.23	5.05	23.5	23.5
75 Percent Duration	1.94	ft^3/s	0.95	3.91	25.8	25.8
80 Percent Duration	1.76	ft^3/s	0.776	3.94	28.4	28.4
85 Percent Duration	1.34	ft^3/s	0.561	3.15	31.9	31.9
90 Percent Duration	1.09	ft^3/s	0.444	2.62	36.6	36.6
95 Percent Duration	0.647	ft^3/s	0.226	1.79	45.6	45.6
98 Percent Duration	0.405	ft^3/s	0.123	1.27	60.3	60.3
99 Percent Duration	0.3	ft^3/s	0.0851	0.995	65.1	65.1

Flow-Duration Statistics Citations

Ries, K.G., III,2000, Methods for estimating low-flow statistics for Massachusetts streams: U.S. Geological Survey Water Resources Investigations Report 00-4135, 81 p. (http://pubs.usgs.gov/wri/wri004135/)

August Flow-Duration Statistics

August Flow-Duration Statistics Parameters [Statewide Low Flow WRIR00 4135]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	5.6	square miles	1.61	149
BSLDEM250	Mean Basin Slope from 250K DEM	3.745	percent	0.32	24.6
DRFTPERSTR	Stratified Drift per Stream Length	0.2	square mile per mile	0	1.29
MAREGION	Massachusetts Region	0	dimensionless	0	1

August Flow-Duration Statistics Flow Report [Statewide Low Flow WRIR00 4135]

PIL: Lower 90% Prediction Interval, PIU: Upper 90% Prediction Interval, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	PIL	PIU	SE	ASEp
August 50 Percent Duration	1.38	ft^3/s	0.568	3.3	33.2	33.2

August Flow-Duration Statistics Citations

Ries, K.G., III,2000, Methods for estimating low-flow statistics for Massachusetts streams: U.S. Geological Survey Water Resources Investigations Report 00-4135, 81 p. (http://pubs.usgs.gov/wri/wri004135/)

Maximum Probable Flood Statistics

Maximum Probable Flood Statistics Parameters [Crippen Bue Region 2]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	5.6	square miles	0.1	3000

Maximum Probable Flood Statistics Flow Report [Crippen Bue Region 2]

Statistic	Value	Unit
Maximum Flood Crippen Bue Regional	17600	ft^3/s

Maximum Probable Flood Statistics Citations

Crippen, J.R. and Bue, Conrad D.1977, Maximum Floodflows in the Conterminous United States, Geological Survey Water-Supply Paper 1887, 52p. (https://pubs.usgs.gov/wsp/1887/report.pdf)

Application Version: 4.18.1
StreamStats Services Version: 1.2.22
NSS Services Version: 2.2.1