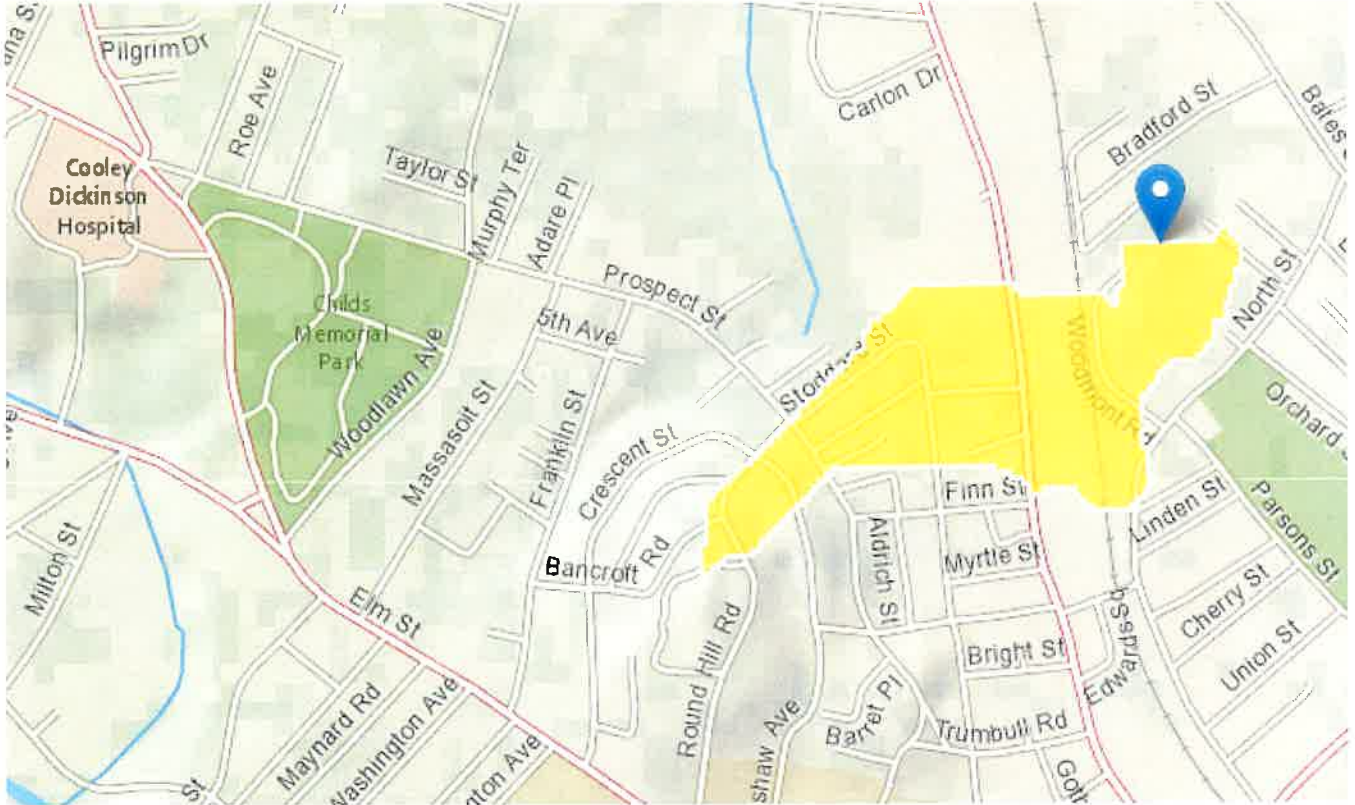


StreamStats Report: Perennial Stream at 8 View Ave, Northampton, at Stone Box Culvert under railbed

Region ID: MA
 Workspace ID: MA20241210145141235000
 Clicked Point (Latitude, Longitude): 42.32979, -72.63053
 Time: 2024-12-10 09:52:05 -0500



Collapse All

➤ Basin Characteristics

| Parameter Code | Parameter Description | Value | Unit |
|----------------|--|-------|----------------------|
| BSLDEM10M | Mean basin slope computed from 10 m DEM | 3.806 | percent |
| BSLDEM250 | Mean basin slope computed from 1:250K DEM | 1.225 | percent |
| DRFTPERSTR | Area of stratified drift per unit of stream length | 0.24 | square mile per mile |

| Parameter Code | Parameter Description | Value | Unit |
|----------------|---|--------|---------------|
| DRNAREA | Area that drains to a point on a stream | 0.0949 | square miles |
| ELEV | Mean Basin Elevation | 151 | feet |
| FOREST | Percentage of area covered by forest | 2.57 | percent |
| LC06STOR | Percentage of water bodies and wetlands determined from the NLCD 2006 | 0 | percent |
| MAREGION | Region of Massachusetts 0 for Eastern 1 for Western | 1 | dimensionless |
| PCTSNDGRV | Percentage of land surface underlain by sand and gravel deposits | 23.29 | percent |

➤ Peak-Flow Statistics

Peak-Flow Statistics Parameters [Peak Statewide 2016 5156]

| Parameter Code | Parameter Name | Value | Units | Min Limit | Max Limit |
|----------------|-------------------------------|--------|--------------|-----------|-----------|
| DRNAREA | Drainage Area | 0.0949 | square miles | 0.16 | 512 |
| ELEV | Mean Basin Elevation | 151 | feet | 80.6 | 1948 |
| LC06STOR | Percent Storage from NLCD2006 | 0 | percent | 0 | 32.3 |

Peak-Flow Statistics Disclaimers [Peak Statewide 2016 5156]

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

Peak-Flow Statistics Flow Report [Peak Statewide 2016 5156]

| Statistic | Value | Unit |
|----------------------|-------|--------------------|
| 50-percent AEP flood | 6.9 | ft ³ /s |
| 20-percent AEP flood | 11.8 | ft ³ /s |
| 10-percent AEP flood | 15.9 | ft ³ /s |

| Statistic | Value | Unit |
|-----------------------|-------|--------------------|
| 4-percent AEP flood | 21.8 | ft ³ /s |
| 2-percent AEP flood | 26.8 | ft ³ /s |
| 1-percent AEP flood | 32.2 | ft ³ /s |
| 0.5-percent AEP flood | 38.1 | ft ³ /s |
| 0.2-percent AEP flood | 46.8 | ft ³ /s |

Peak-Flow Statistics Citations

Zarriello, P.J.,2017, Magnitude of flood flows at selected annual exceedance probabilities for streams in Massachusetts: U.S. Geological Survey Scientific Investigations Report 2016–5156, 99 p. (<https://dx.doi.org/10.3133/sir20165156>)

➤ 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 | 0.0949 | square miles | 1.61 | 149 |
| BSLDEM250 | Mean Basin Slope from 250K DEM | 1.225 | percent | 0.32 | 24.6 |
| DRFTPERSTR | Stratified Drift per Stream Length | 0.24 | square mile per mile | 0 | 1.29 |
| MAREGION | Massachusetts Region | 1 | dimensionless | 0 | 1 |

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

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

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

| Statistic | Value | Unit |
|------------------------|---------|--------------------|
| 7 Day 2 Year Low Flow | 0.008 | ft ³ /s |
| 7 Day 10 Year Low Flow | 0.00288 | ft ³ /s |

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/>)

➤ 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 | 0.0949 | square miles | 1.61 | 149 |
| DRFTPERSTR | Stratified Drift per Stream Length | 0.24 | square mile per mile | 0 | 1.29 |
| MAREGION | Massachusetts Region | 1 | dimensionless | 0 | 1 |
| BSLDEM250 | Mean Basin Slope from 250K DEM | 1.225 | percent | 0.32 | 24.6 |

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

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

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

| Statistic | Value | Unit |
|---------------------|---------|--------------------|
| 50 Percent Duration | 0.0865 | ft ³ /s |
| 60 Percent Duration | 0.0564 | ft ³ /s |
| 70 Percent Duration | 0.0439 | ft ³ /s |
| 75 Percent Duration | 0.0361 | ft ³ /s |
| 80 Percent Duration | 0.0287 | ft ³ /s |
| 85 Percent Duration | 0.0195 | ft ³ /s |
| 90 Percent Duration | 0.014 | ft ³ /s |
| 95 Percent Duration | 0.00708 | ft ³ /s |
| 98 Percent Duration | 0.00512 | ft ³ /s |

| Statistic | Value | Unit |
|---------------------|--------------|--------------------|
| 99 Percent Duration | 0.00337 | ft ³ /s |

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 | 0.0949 | square miles | 1.61 | 149 |
| BSLDEM250 | Mean Basin Slope from 250K DEM | 1.225 | percent | 0.32 | 24.6 |
| DRFTPERSTR | Stratified Drift per Stream Length | 0.24 | square mile per mile | 0 | 1.29 |
| MAREGION | Massachusetts Region | 1 | dimensionless | 0 | 1 |

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

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

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

| Statistic | Value | Unit |
|----------------------------|--------------|--------------------|
| August 50 Percent Duration | 0.0237 | ft ³ /s |

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/>)

➤ Bankfull Statistics

Bankfull Statistics Parameters [Bankfull Statewide SIR2013 5155]

| Parameter Code | Parameter Name | Value | Units | Min Limit | Max Limit |
|----------------|-------------------------------|--------|--------------|-----------|-----------|
| DRNAREA | Drainage Area | 0.0949 | square miles | 0.6 | 329 |
| BSLDEM10M | Mean Basin Slope from 10m DEM | 3.806 | 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 | 0.0949 | 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 | 0.0949 | 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 | 0.0949 | square miles | 0.07722 | 59927.7393 |

Bankfull Statistics Disclaimers [Bankfull Statewide SIR2013 5155]

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

Bankfull Statistics Flow Report [Bankfull Statewide SIR2013 5155]

| Statistic | Value | Unit |
|----------------|-------|------|
| Bankfull Width | 5.33 | ft |
| Bankfull Depth | 0.443 | ft |
| Bankfull Area | 2.32 | ft^2 |