Section IV

Filing Fee Information

Section V

USGS StreamStats Analysis

USGS
Massachusetts StreamStats

Streamstats Ungaged Site Report

Date: Mon Jun 24 2013 12:03:33 Mountain Daylight Time
Site Location: Massachusetts
NAD27 Latitude: 42.4726 (42 28 21)
NAD27 Longitude: -71.4491 (-71 26 57)
NAD83 Latitude: 42.4727 (42 28 22)
NAD83 Longitude: -71.4486 (-71 26 55)
ReachCode: 01070005000415
Measure: 99.52
Drainage Area: 0.38 mi2
Percent Urban: 67.4 %
Percent Impervious: 28.1 %

Basin has been edited

Low Flows Basin Characteristics

100% Statewide Low Flow (0.38 mi2)

Parameter	Value	Regression Equation Valid Range	
		Min	Max
Drainage Area (square miles)	0.38 (below min value 1.61)	1.61	149
Mean Basin Slope from 250K DEM (percent)	1.98	0.32	24.6
Stratified Drift per Stream Length (square mile per mile)	0	0	1.29
Massachusetts Region (dimensionless)	1	0	1

Warning: Some parameters are outside the suggested range. Estimates will be extrapolations with unknown errors.

Basin has been edited

Probability of Perennial Flow Basin Characteristics

100% Perennial Flow Probability (0.38 mi2)

Parameter	Value	Regression Equation Valid Range	
		Min	Max
Drainage Area (square miles)	0.38	0.01	1.99
Percent Underlain By Sand And Gravel (percent)	0.00	0	100
Percent Forest (percent)	25.99	0	100
Massachusetts Region (dimensionless)	1	0	1

Low Flows Streamflow Statistics

Statistic	Flow (ft^3/s)	Prediction Error (percent)	Equivalent years of record	90-Percent Prediction Interval	
				Minimum	Maximum
D50	0.36				
D60	0.21				
D70	0.13				
D75	0.0953				
D80	0.0586				
D85	0.0395				
D90	0.0227				
D95	0.0123				
D98	0.00849				
D99	0.00573				
M7D2Y	0.0153				
AUGD50	0.0464				
M7D10Y	0.0044				

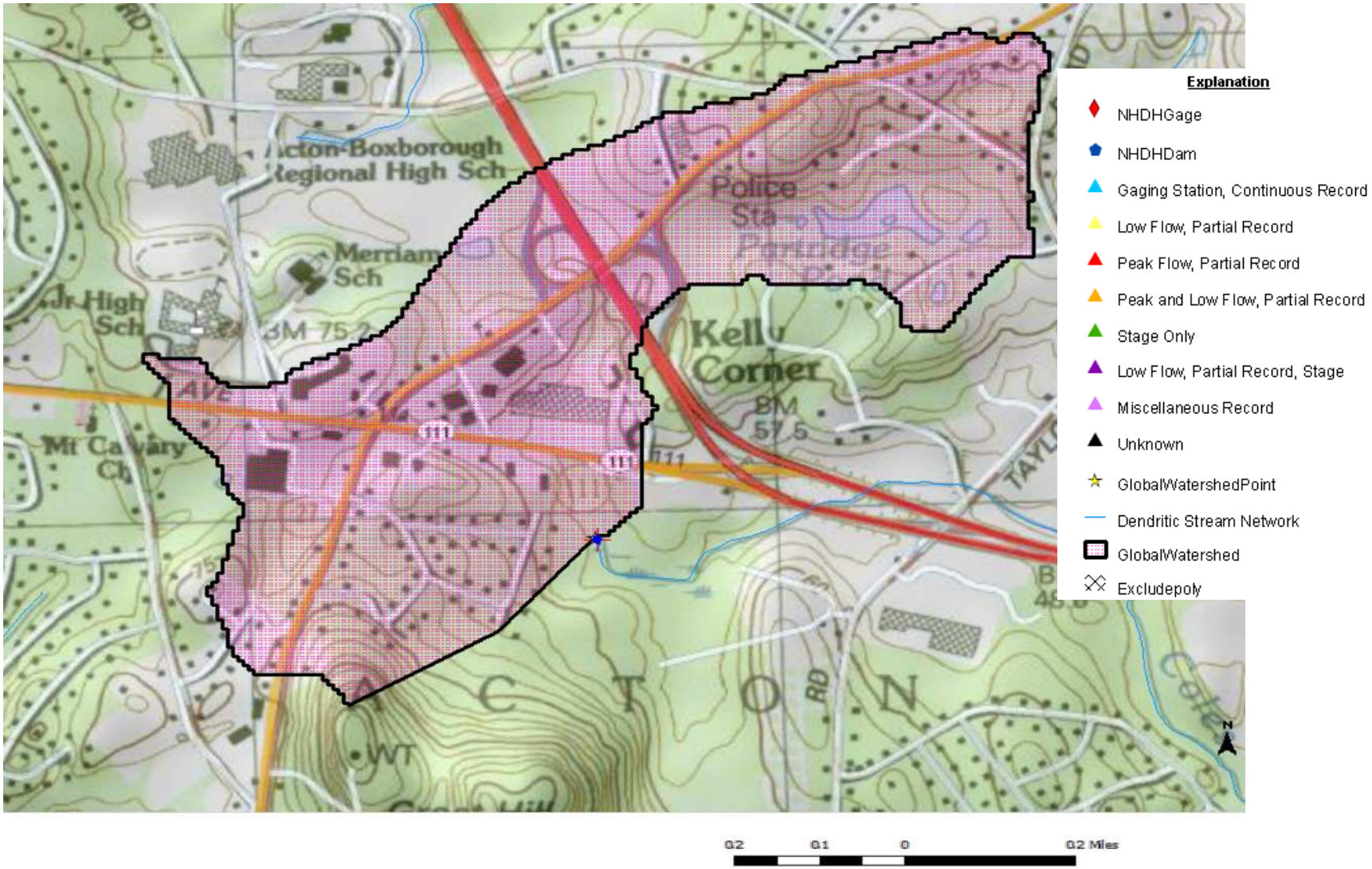
The equation for estimating the probability of perennial flow is applicable for most areas of Massachusetts except eastern Buzzards Bay, Cape Cod, and the Island regions. The estimate obtained from the equation assumes natural flow conditions at the site. The equation also is best used for sites with drainage areas between 0.01 to 1.99 mi2, as errors beyond for basins beyond these bounds are unknown.

Probability of Perennial Flow Statistics

Statistic	Value	Standard Error (percent)
PROBPEREN	0.88	0.5

USGS
Massachusetts StreamStats

StreamStats Print Page



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