

Project Name: Roxbury
 Stream Name: 120 Stream
 Bridge Name:
 Route No. ME 120
 Analysis by: CSH

PIN: 18847
 Town: Roxbury
 Bridge No.
 USGS Quad:
 Date: 5/19/2015

Peak Flow Calculations by USGS Regression Equations (Hodgkins, 1999 & Lombard/Hodgkins, 2015)

Enter data in blue cells only!

	km ²	mi ²	ac
A	7.54	2.91	1862.4
W	0.07	0.03	16.2
P _c	372033	4942984	
County	Oxford W		
pptA	43.8		
SG	0.00		
A (km ²)	7.54		
W (%)	0.87		

Enter data in [mi²]

Watershed Area
 Wetlands area (by NWI)

watershed centroid (E, N; UTM 19N; meters)
choose county from drop-down menu
 mean annual precipitation (inches; by look-up)
 sand & gravel aquifer as decimal fraction of watershed A

Worksheet prepared by:

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Conf Lvl 0.67

Ret Pd T (yr)	Peak Flow Estimate		
	Lower	Q _T (m ³ /s)	Upper
1.1		1.94	
2		4.16	
5		6.68	
10		8.57	
25		11.23	
50		13.34	
100		15.62	
500		21.44	

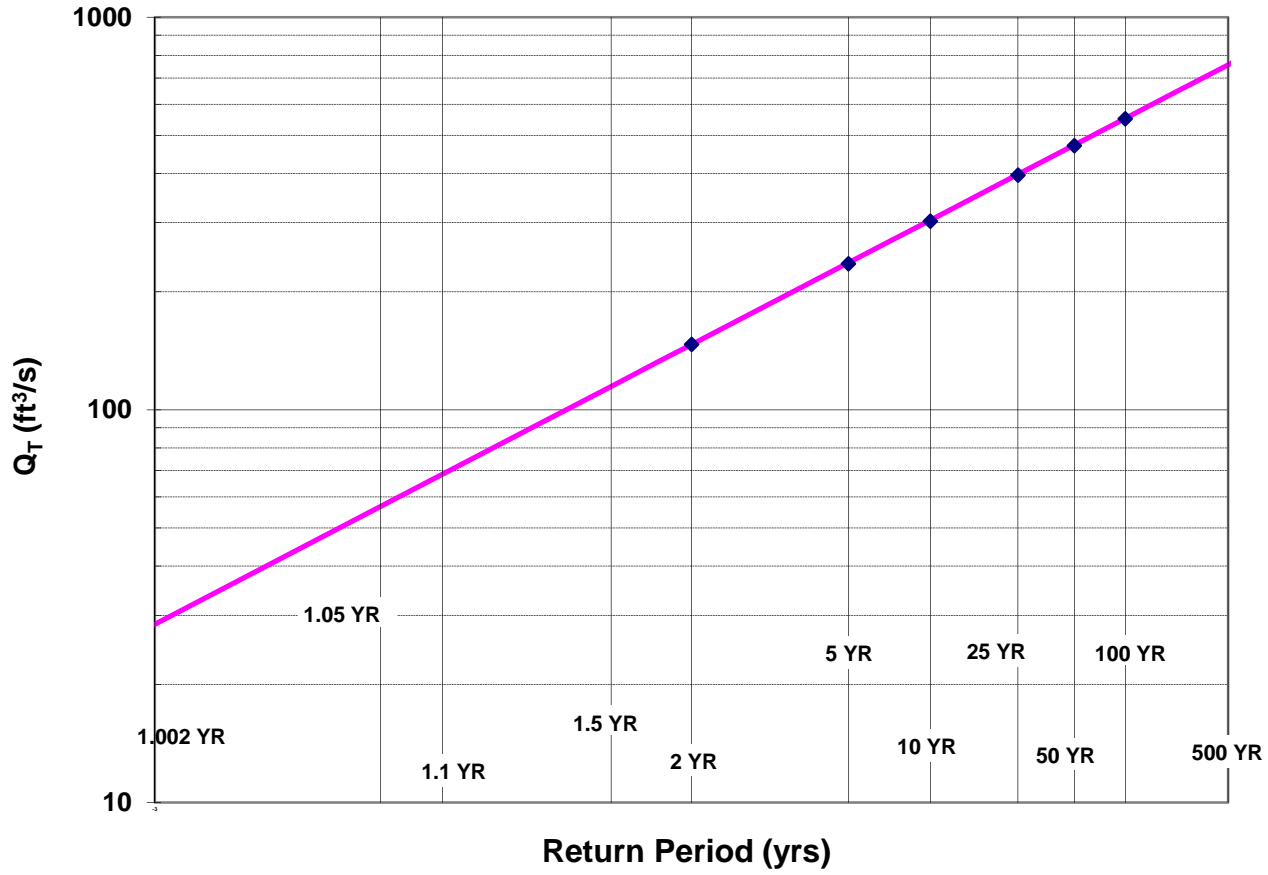
Q _T (ft ³ /s)
68.6
146.8
235.9
302.5
396.4
471.1
551.6
757.1

Reference:

Hodgkins, G., 1999.
 Estimating the magnitude of peak flows for streams
 in Maine for selected recurrence intervals
Water-Resources Investigations Report 99-4008
 US Geological Survey, Augusta, Maine

$$Q_T = b \times A^a \times 10^{-ww}$$

Log-Normal Probability Plot



Project Name: Roxbury
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DO NOT ENTER ANY DATA ON THIS PAGE; EVERYTHING IS CALCULATED

MAINE MONTHLY MEDIAN FLOWS BY USGS REGRESSION EQUATIONS (2004)

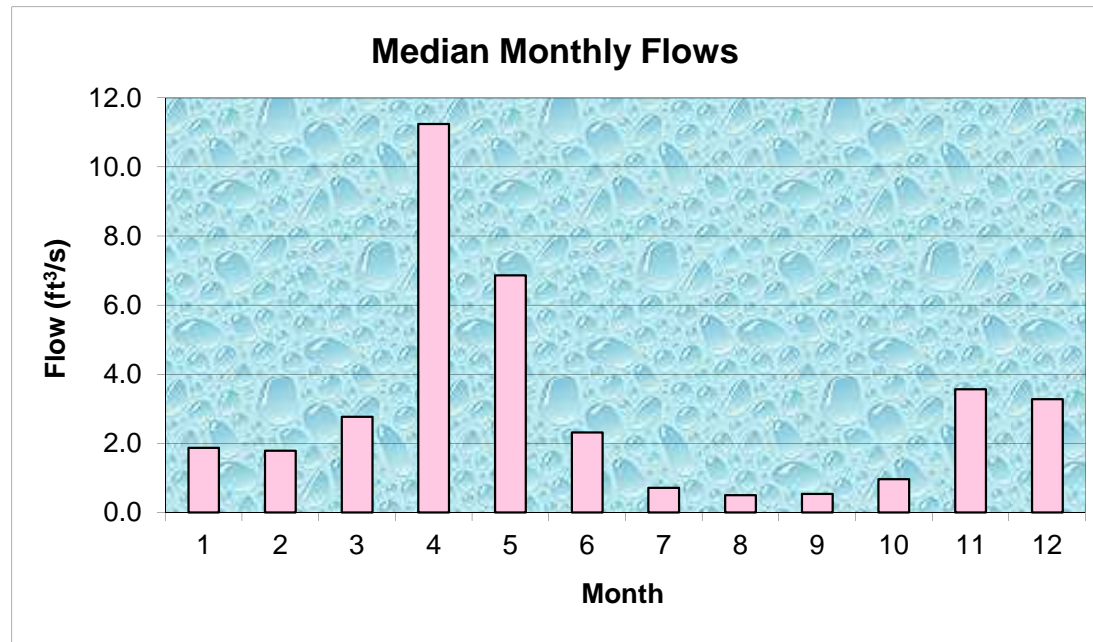
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Value	Variable	Explanation
2.910	A	Area (mi ²)
372033.2	P _c	Watershed centroid (E,N; UTM; Zone 19; meters)
100.14	DIST	Distance from Coastal reference line (mi)
43.8	pptA	Mean Annual Precipitation (inches)
0.00	SG	Sand & Gravel Aquifer (decimal fraction of watershed area)

Month	Q _{median} (ft ³ /s)	(m ³ /s)
Jan	1.87	0.0530
Feb	1.79	0.0509
Mar	2.77	0.0786
Apr	11.24	0.3187
May	6.87	0.1947
Jun	2.32	0.0656
Jul	0.72	0.0203
Aug	0.50	0.0142
Sep	0.54	0.0154
Oct	0.97	0.0274
Nov	3.57	0.1012
Dec	3.29	0.0931

Q _{bf}	15.9
ann avg	5.9
ann med	2.9
Q _{1.002}	28.4
Q _{1.01}	38.9
Q _{1.05}	56.7

W _{bf}	13.3	estimated bankfull width
d _{bf}	1.0	
Q _{bf}	55.0	assume v = 4ft/s





Partridge Peak

Roxbury Notch

North Twin Mountain

Pineview Cemetery

Frye

Old Frye Cemetery

Swift-River

Swift-River

MOORE RD

120

120

120

17

1600
1700

1000

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800

1400

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