

Project Name: Orient
Stream Name: Skagrock Brook
Bridge Name: Skagrock Bridge
Route No. Rt 1
Analysis by: AWMann

PIN:
Town: Orient
Bridge No. 2772
USGS Quad:
Date: 9/28/2010

Peak Flow Calculations by USGS Regression Equations (Hodgkins, 1999)

Enter data in blue cells only!

	km ²	mi ²	ac
A	6.80	2.63	1681.2
W	2.03	0.79	502.7
P _c	590063	5077426	
County	Aroostook S		
pptA	39.0		
SG	0.00		
A (km ²)	6.80		
W (%)	29.90		

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	Peak Flow Estimate		
T (yr)	Lower	Q _T (m ³ /s)	Upper
1.1		0.47	
2	0.61	0.88	1.26
5	0.90	1.29	1.87
10	1.08	1.59	2.33
25	1.33	1.99	2.97
50	1.51	2.29	3.46
100	1.70	2.62	4.02
500	2.12	3.38	5.41

Q _T (ft ³ /s)
16.5
30.9
45.7
56.1
70.1
80.7
92.4
119.5

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

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