

Project Name: Winslow SR 137  
 Stream Name:  
 Bridge Name:  
 Route No. SR 137  
 Analysis by: CSH

PIN: 17533  
 Town: Winslow  
 Bridge No.  
 USGS Quad:  
 Date: 2/15/2011

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

*Enter data in blue cells only!*

	km <sup>2</sup>	mi <sup>2</sup>	ac
A	3.64	1.41	899.2
W	0.58	0.23	144.1
P <sub>c</sub>	454750	4927600	
County	Kennebec		
pptA	41.7		
SG	0.00		
A (km <sup>2</sup> )	3.64		
W (%)	16.02		

*Enter data in [mi<sup>2</sup>]*

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

Conf Lvl 0.67

**Worksheet prepared by:**

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Ret Pd T (yr)	Peak Flow Estimate		
	Lower	Q <sub>T</sub> (m <sup>3</sup> /s)	Upper
1.1		0.56	
2	0.85	1.20	1.71
5	1.37	1.95	2.77
10	1.74	2.50	3.61
25	2.24	3.28	4.81
50	2.62	3.90	5.80
100	3.04	4.58	6.90
500	4.00	6.26	9.78

Q <sub>T</sub> (ft <sup>3</sup> /s)
19.8
42.5
68.7
88.4
115.9
137.7
161.6
221.0

**Reference:**

Hodgkins, G., 1999.  
 Estimating the magnitude of peak flows for str  
 in Maine for selected recurrence intervals  
*Water-Resources Investigations Report 99-40*  
 US Geological Survey, Augusta, Maine

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

reams

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