Project Name:	Orland Orland Rvr	**PIN:**	15103
Stream Name:	Orland R / Narramissic R	**Town:**	Orland
Bridge Name:	Orland River Bridge	**Bridge No.**	2632
Route No.		**USGS Quad:**	
Analysis by:	CSH	**Date:**	6/18/2008

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

Note WS A from USGS Open File

Enter data in blue cells only!

	km^2	mi^2	ac	*Enter data in [mi^2]*
A	250.71	96.800	61952.0	Watershed Area
W	39.37	15.200	9728.0	Wetlands area (by NWI)

P_c		watershed centroid (E, N; UTM 19N; meters)
DIST		distance from Gulf of Maine line
pptA		mean annual precipitation (inches)
SG		sand & gravel aquifer as percentage of watershed area

A (km^2)	250.712	Conf Lvl	0.67
W (%)	15.70		

Worksheet prepared by:
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Ret Pd T (yr)	Peak Flow Estimate Lower	Q_T (m^3/s)	Upper	Q_T (ft^3/s)
1.1		24.85		877.5
2	31.97	44.49	61.91	1570.8
5	45.83	63.91	89.12	2256.7
10	55.08	77.59	109.31	2739.8
25	66.66	95.13	135.76	3358.9
50	75.15	108.42	156.43	3828.4
100	83.98	122.54	178.82	4327.1
500	103.75	156.06	234.74	5510.3

Reference:

Hodgkins, G., 1999.
Estimating the magnitude of peak flows for str
in Maine for selected recurrence intervals
Water-Resources Investigations Report 99-4C
US Geological Survey, Augusta, Maine

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