Project Name:	Grand Lake Stream	**PIN:**	15096
Stream Name:	Grand Lake Stream	**Town:**	Grand Lake Stream
Bridge Name:		**Bridge No.**	
Route No.	Milford Street	**USGS Quad:**	
Analysis by:	CSH	**Date:**	6/17/2008

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

Note: Nwi used to fit calculated Q

Enter data in blue cells only!

	km^2	mi^2	ac	*Enter data in [mi^2]*
A	588.00	227.027	145297.3	Watershed Area
W	173.53	67.000	42880.0	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)	588.000	**Conf Lvl**	0.67
W (%)	29.51		

Worksheet prepared by:

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Ret Pd	**Peak Flow Estimate**			
T (yr)	**Lower**	**Q_T (m^3/s)**	**Upper**	**Q_T (ft^3/s)**
1.1		25.44		898.3
2	27.71	39.34	55.85	1389.1
5	36.22	51.45	73.10	1816.9
10	41.28	59.42	85.52	2098.1
25	47.37	69.17	101.00	2442.3
50	51.56	76.20	112.63	2690.7
100	56.03	83.86	125.50	2960.9
500	65.08	100.67	155.73	3554.6

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

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