Project Name:	St Albans	**PIN:**	19298
Stream Name:	Ray Brook	**Town:**	St Albans
Bridge Name:	Ray Brook Bridge	**Bridge No.**	5330
Route No.	SR 23-43-1252	**USGS Quad:**	
Analysis by:	CSH	**Date:**	1/6/2012

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

Enter data in blue cells only!

	km^2	mi^2	ac	*Enter data in [mi^2]*
A	11.09	4.28	2741.4	Watershed Area
W	0.87	0.33	213.7	Wetlands area (by NWI)
P_c	465400	4973200		watershed centroid (E, N; UTM 19N; meters)
County	Somerset S			*choose county from drop-down menu*
pptA	39.5			mean annual precipitation (inches; by look-up)
SG	0.00			sand & gravel aquifer as decimal fraction of watershed A

A (km^2)	11.09	**Conf Lvl**	0.67
W (%)	7.80		

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		2.35		83.0
2	3.65	5.13	7.22	181.2
5	5.92	8.37	11.84	295.7
10	7.60	10.85	15.51	383.3
25	9.85	14.30	20.74	504.8
50	11.61	17.06	25.07	602.3
100	13.46	20.05	29.84	707.8
500	17.93	27.61	42.53	975.0

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

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

Project Name:	FRANKFORT LOGGIN ROAD STRUT	**PIN:**	19298
Stream Name:	Ray Brook	**Town:**	St Albans
Bridge Name:	Ray Brook Bridge	**Bridge No.**	
Route No.	SR 23-43-1252	**USGS Quad:**	
Analysis by:	CSH	**Date:**	12/1/2008

DO NOT ENTER ANY DATA ON THIS PAGE; EVERYTHING IS CALCULATED

MAINE MONTHLY MEDIAN FLOWS BY USGS REGRESSION EQUATIONS (2004)

Worksheet prepared by:
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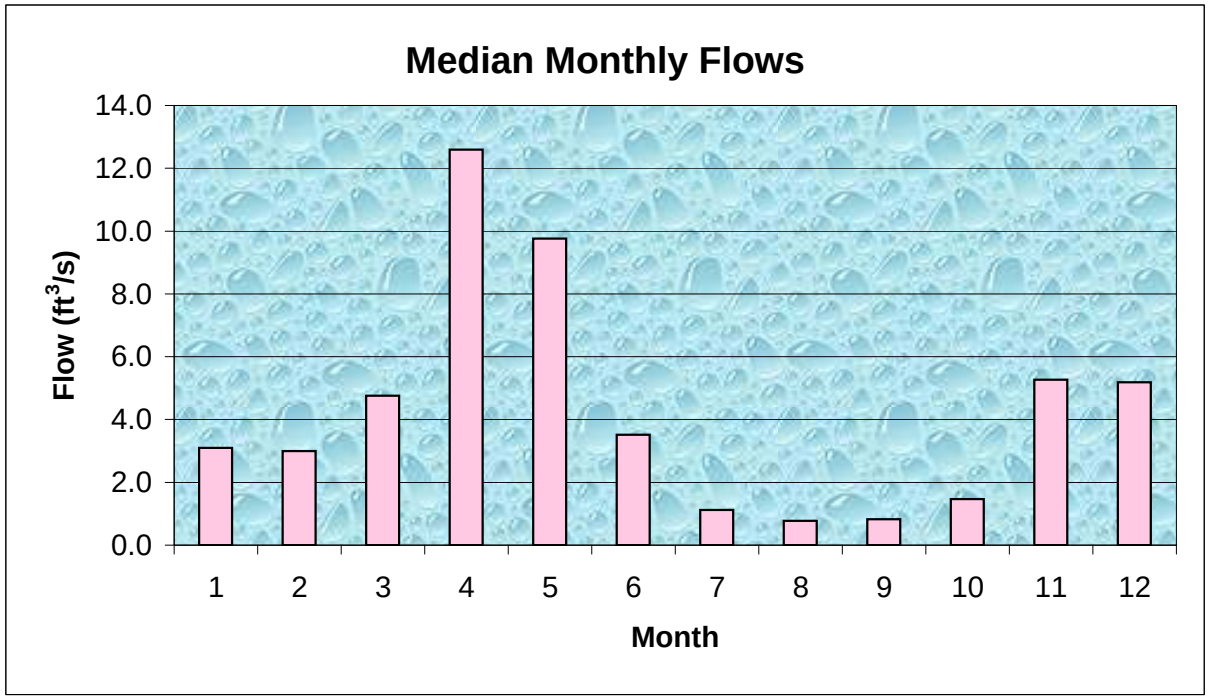
	Value	Variable	Explanation
	4.283	*A*	Area (mi^2)
465400	4973200	P_c	Watershed centroid (E,N; UTM; Zone 19; meters)
	87.46	*DIST*	Distance from Coastal reference line (mi)
	39.5	*pptA*	Mean Annual Precipitation (inches)
	0.00	*SG*	Sand & Gravel Aquifer (decimal fraction of watershed area)

Month	Q_{median} (ft3/s)	(m^3/s)
Jan	**3.10**	0.0878
Feb	**3.00**	0.0850
Mar	**4.76**	0.1349
Apr	**12.59**	0.3569
May	**9.76**	0.2766
Jun	**3.51**	0.0995
Jul	**1.12**	0.0317
Aug	**0.78**	0.0220
Sep	**0.83**	0.0235
Oct	**1.46**	0.0415
Nov	**5.26**	0.1492
Dec	**5.19**	0.1470

Q_{bf}	**23.9**
ann avg	**8.2**
ann med	**3.8**
$Q_{1.002}$	**33.6**
$Q_{1.01}$	46.4
$Q_{1.05}$	68.3