Project Name:	Killick Brook	**PIN:**	12694.00
Stream Name:	Killick Brook	**Town:**	Hollis
Bridge Name:		**Bridge No.**	5297
Route No.	SR 117	**USGS Quad:**	
Analysis by:	CSH	**Date:**	1/11/2008

MAINE MONTHLY MEDIAN FLOWS BY USGS REGRESSION EQUATIONS (2004)

Worksheet prepared by:
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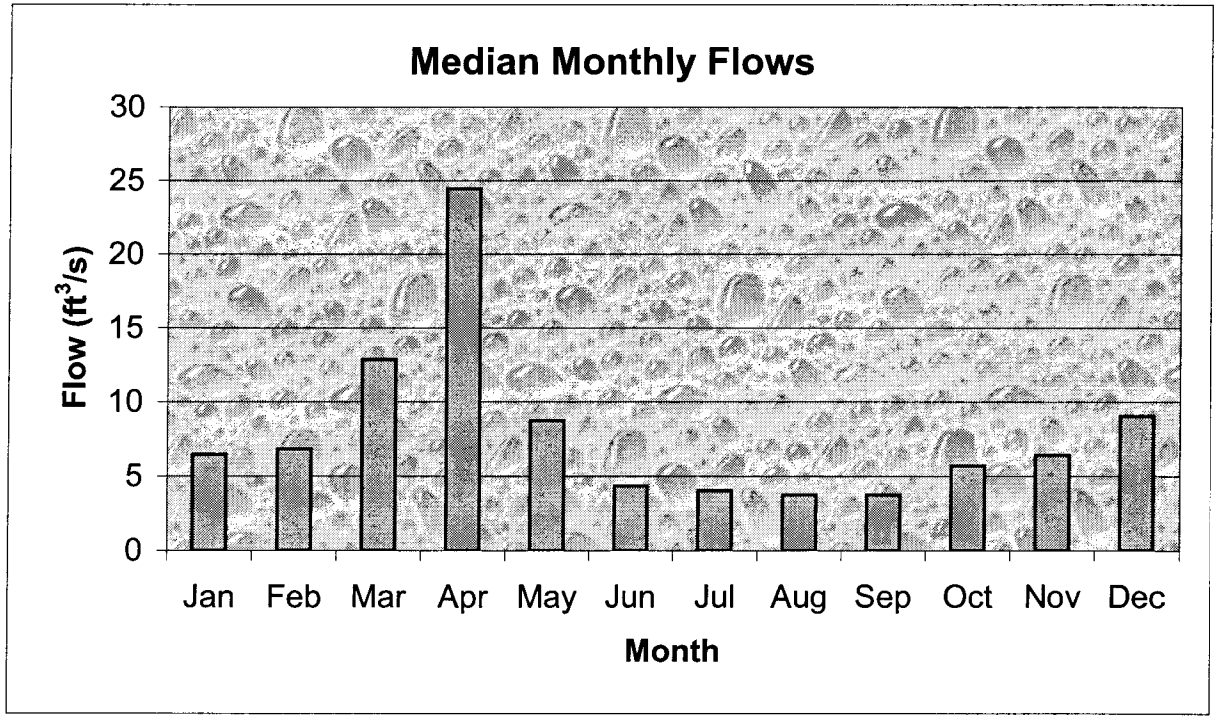
	Value	Variable	Explanation
	5.21	*A*	Area (mi^2)
364500	4832700	P_c	Watershed centroid (E,N; UTM; Zone 19; meters)
	43.52	*DIST*	Distance from Coastal reference line (mi)
	46.7	*pptA*	Mean Annual Precipitation (inches)
	0.45	*SG*	Sand & Gravel Aquifer (decimal fraction of watershed area)

Month	Q_{median} (ft3/s)	Q_{median} (m3/s)
Jan	6.46	0.1831
Feb	6.82	0.1931
Mar	12.85	0.3642
Apr	24.42	0.6921
May	8.73	0.2474
Jun	4.34	0.1229
Jul	4.02	0.1140
Aug	3.75	0.1062
Sep	3.75	0.1062
Oct	5.71	0.1617
Nov	6.41	0.1817
Dec	9.03	0.2558
Ann		0.0000



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

Enter data in blue cells only!

	km^2	mi^2	ac
A	13.5	5.21	3335.9
W	1.81		

Use just one consistent set of units:
Watershed Area
Wetlands area (by NWI)

A (km^2)	13.500
W (%)	13.41

Conf Lvl 0.67

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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		2.08		73.3
2	3.06	4.30	6.03	151.8
5	4.81	6.78	9.55	239.4
10	6.06	8.63	12.30	304.7
25	7.71	11.16	16.14	393.9
50	8.98	13.15	19.26	464.3
100	10.32	15.31	22.71	540.4
500	13.45	20.64	31.66	728.6

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

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