WIN:	18818	**Project Name:**	n.a.
Town:	Eddington	**Stream Name:**	unnamed trib to Holbrook Pond
Route No.	46	**Bridge Name:**	n.a.
Asset ID:	LC 46678	**Analysis by:**	MRL
Lat:	44.761440 **Long:** 68.59528	**Date:**	11/21/2016

Peak Flow Calculations by USGS Regression Equations (Hodgkins, 1999 & Lombard/Hodgkins, 2015)

Enter data in blue cells only!

	km^2	mi^2	ac	***Enter data in [mi^2]***
A	1.30	0.50	320.0	Watershed Area
W	0.02	0.0	4.7	Wetlands area (by NWI)
P_c	532467.67	4955811		watershed centroid (E, N; UTM 19N; meters)
County	Cumberland SE			*choose county from drop-down menu*
pptA	44.4			mean annual precipitation (inches; by look-up)
SG	0.00			sand & gravel aquifer as decimal fraction of watershed A

A (km^2)	1.30	**Conf Lvl**	0.67
W (%)	1.47		Wetlands area (by NWI)

Ret Pd	**Peak Flow Estimate**			
T (yr)	**Lower**	**Q_T (m^3/s)**	**Upper**	**Q_T (ft^3/s)**
1.1		0.47		16.6
2		0.99		35.0
5		1.57		55.5
10		2.01		70.8
25		2.61		92.3
50		3.09		109.2
100		3.61		127.6
500		4.93		174.0

Worksheet prepared by:
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ver. 2016 Feb 05

References:

Hodgkins, G.A., 1999.
Estimating the magnitude of peak flows for streams in Maine for selected recurrence intervals
WRIR 99-4008, USGS Augusta, ME

Lombard, P.J. & G.A. Hodgkins, 2015.
Peak flow regression equations for small, ungaged streams in Maine - Comparing map-based to field-based variables
SIR 2015-4059, USGS, Augusta, ME

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

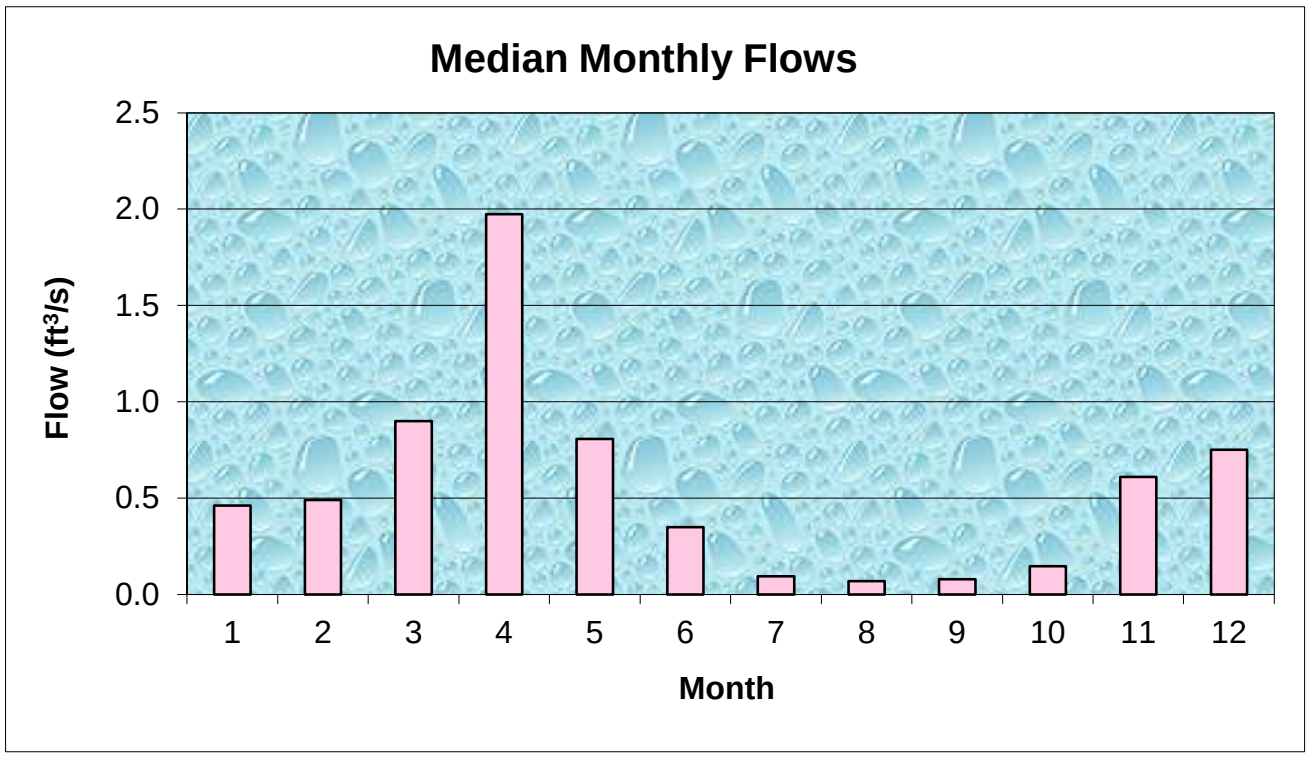
Project Name:	n.a.	**PIN:**	18818
Stream Name:	unnamed trib to Holbrook Pond	**Town:**	Eddington
Bridge Name:	n.a.	**Bridge No.**	LC 46678
Route No.	0	**USGS Quad:**	44.76144
Analysis by:	MRL	**Date:**	11/21/2016

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

MAINE MONTHLY MEDIAN FLOWS and HYDRAULIC GEOMETRY BY USGS REGRESSION EQUATIONS (2004)

	Value	Variable	Explanation
	0.50	*A*	Area (mi^2)
532467.7	4955811.4	P_c	Watershed centroid (E,N; UTM; Zone 19; meters)
	57.46	*DIST*	Distance from Coastal reference line (mi)
	44.4	*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	**0.46**	0.0131
Feb	**0.49**	0.0139
Mar	**0.90**	0.0255
Apr	**1.97**	0.0559
May	**0.81**	0.0229
Jun	**0.35**	0.0099
Jul	**0.09**	0.0027
Aug	**0.07**	0.0020
Sep	**0.08**	0.0022
Oct	**0.15**	0.0041
Nov	**0.61**	0.0173
Dec	**0.75**	0.0213



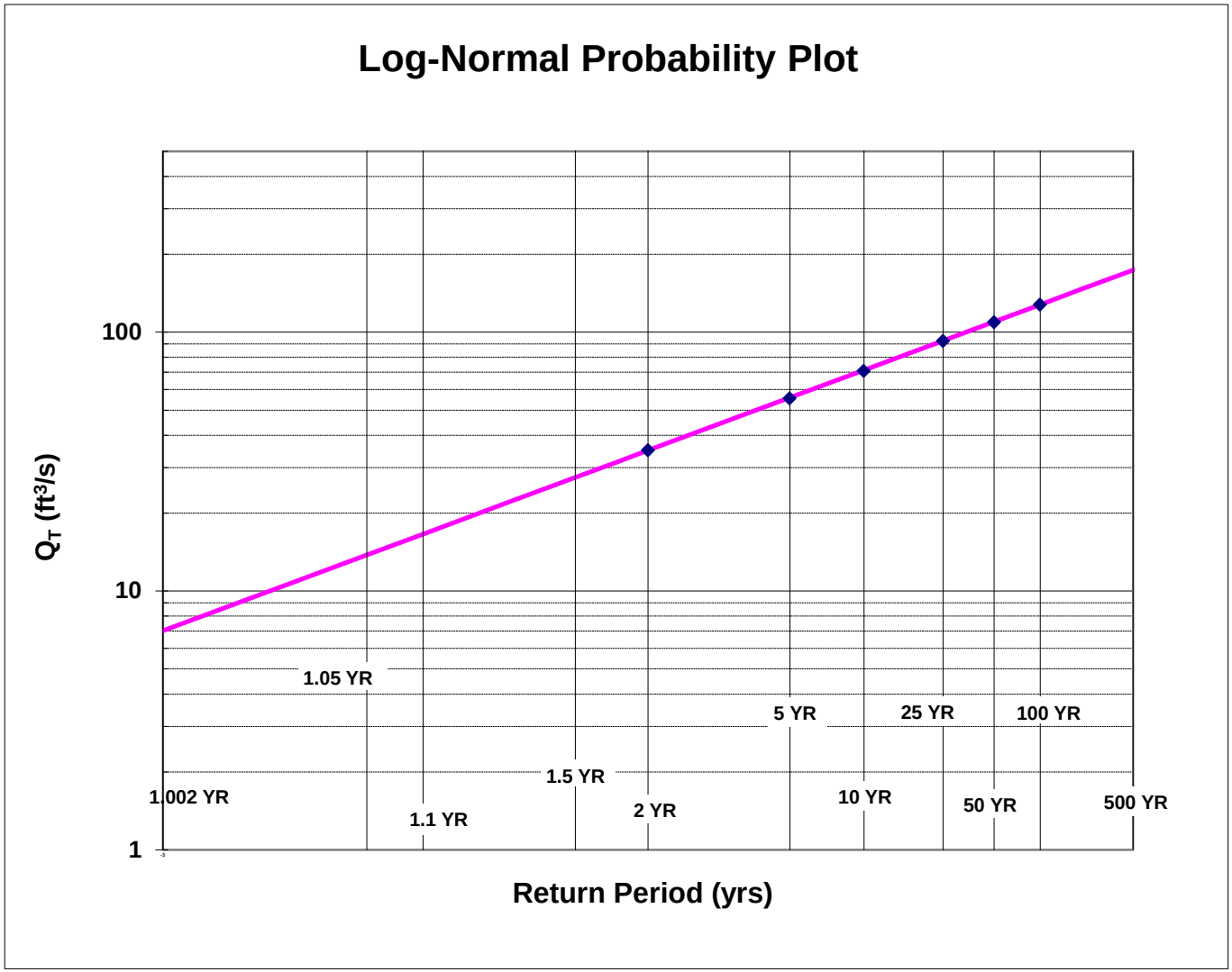
Q_{bf}	**2.5**	
ann avg	**1.0**	
ann med	**0.5**	
$Q_{1.002}$	**7.0**	
$Q_{1.01}$	**9.5**	
$Q_{1.05}$	**13.8**	
Q_{bf}	**8.9**	assume v = 4ft/s

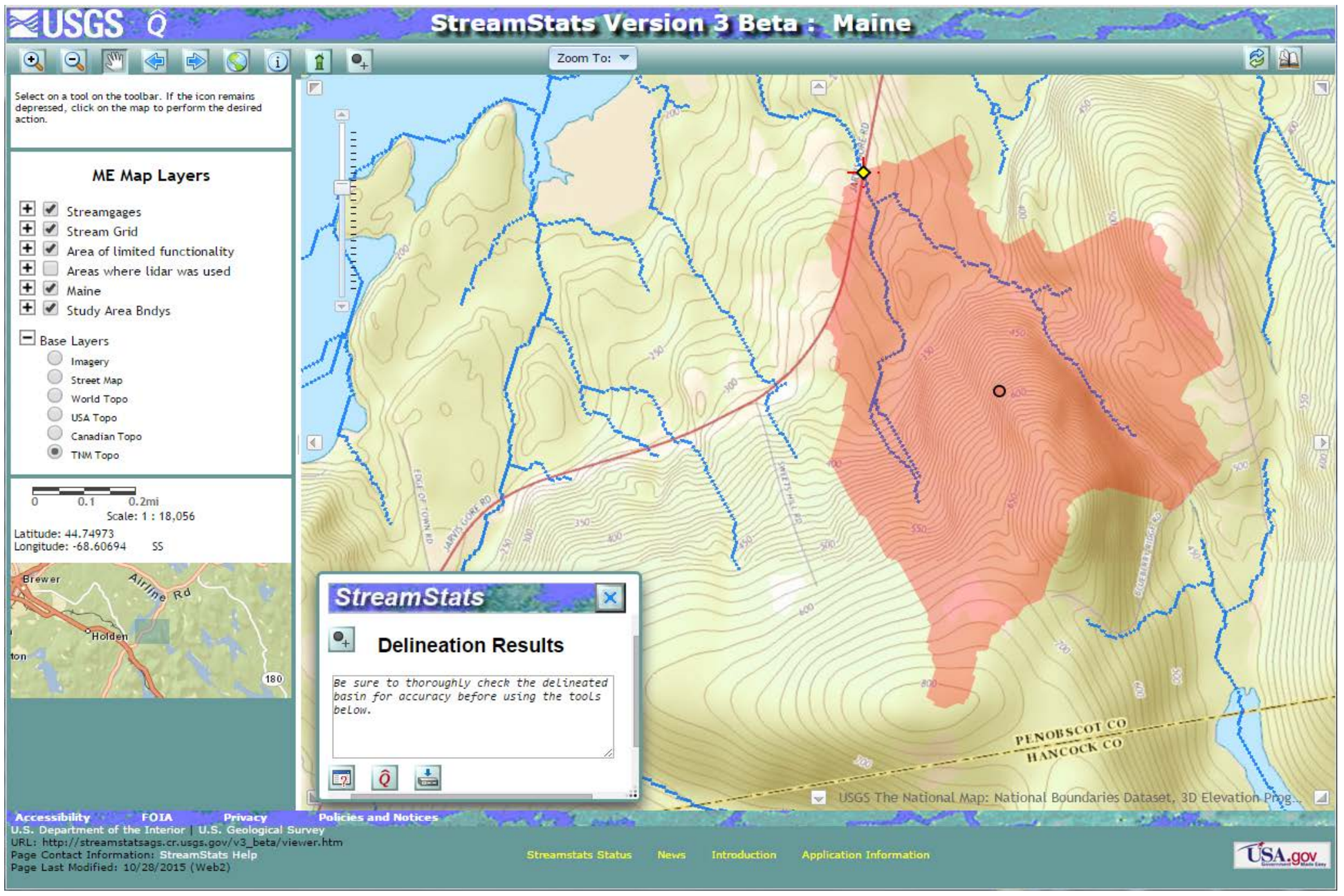
W_{bf}	**5.3**	estimated bankfull width
d_{bf}	**0.4**	estimated bankfull depth

References

Dudley, R.W., 2004. Hydraulic Geometry Relations ..., SIR 2004-5042

Dudley, R.W., 2004. Estimating Monthly Streamflows … , SIR 2004-5026


Log-Normal Probability Plot
100
10
1
Q_T (ft³/s)
1.002 YR
1.05 YR
1.1 YR
1.5 YR
2 YR
5 YR
10 YR
25 YR
50 YR
100 YR
500 YR
Return Period (yrs)



USGS StreamStats Version 3 Beta Print

Basin Characteristics Ungaged Site Report

Date: Mon Nov 23, 2015 9:28:36 AM GMT-5
NAD 1983 Latitude: 44.7614 (44 45 41)
NAD 1983 Longitude: -68.5951 (-68 35 43)

Label	Value	Units	Definition
DRNAREA	0.5	square miles	Area that drains to a point on a stream
STORNWI	1.47	percent	Percentage of strorage (combined water bodies and wetlands) from the Nationa Wetlands Inventory
ELEV	566.2	feet	Mean Basin Elevation
PRECIP	42.8	inches	Mean Annual Precipitation
PRDECFEB90	10.4	inches	Basin average mean precipitation for December to February from PRISM 1961-1990
SANDGRAVAP	0	percent	Percentage of land surface underlain by sand and gravel aquifers
COASTDIST	58.5	miles	Shortest distance from the coastline to the basin centroid
CENTROIDX	532467.67	State plane coordinates	Basin centroid horizontal (x) location in state plane coordinates
CENTROIDY	4955811.4	State plane coordinates	Basin centroid vertical (y) location in state plane units
SANDGRAVAF	0	dimensionless	Fraction of land surface underlain by sand and gravel aquifers