



Water-Data Report 2007

01021470 LIBBY BROOK NEAR NORTHFIELD, ME

Maine Coastal Basin
Maine Coastal Subbasin

LOCATION.--Lat 44°48'03", long 67°43'30" referenced to North American Datum of 1983, Washington County, ME, Hydrologic Unit 01050002, on left bank, 0.9 mi southwest of the confluence with Machias River.

DRAINAGE AREA.--7.79 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--

DISCHARGE: July 2000 to current year.

REVISED RECORDS.--WDR ME-08-1: 2002(P), 2005(P), 2006(P).

GAGE.--Water-stage recorder. Datum of gage is 133.16 ft above North American Vertical Datum of 1988.

REMARKS.--Records good, except for periods of ice effect, Dec. 6, Dec. 29 to Jan. 1, Jan. 11, 15-22, 25-31, and Mar. 21, which are fair. Satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 299 ft³/s, Oct. 9, 2005, gage height, 4.66 ft; maximum gage height, 5.68 ft, Mar. 4, 2003 and Mar. 10, 2005 (backwater from ice); minimum discharge, 2.2 ft³/s, July 26, 2002, gage height, 1.48 ft.

REVISIONS: The peak discharges greater than base discharge of 100 ft³/s for water years 2002, 2005, and 2006 and maximum (*) for water years 2002 and 2005 have been revised as shown in the following table. The values supercede those published in the report of those years.

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar 1, 2002	1030	*130	3.48
Mar 5, 2002	0930	99	3.15
Mar 29, 2005	2345	*302	4.40
Apr 4, 2005	1000	234	4.07
May 27, 2005	0645	278	4.29
Oct 27, 2005	0015	148	3.55

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and (or) maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 15	0245	136	3.46
Feb 15	0300	111	3.26
Mar 18	0400	*261	*4.21
Apr 17	1330	249	4.15

Minimum discharge, 3.2 ft³/s, Aug. 3, gage height, 1.61 ft.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	7.7	24	15	e12	9.2	9.6	15	26	11	6.5	4.3	5.4
2	11	20	24	21	9.5	9.7	14	23	10	6.8	3.8	5.2
3	11	17	21	19	9.7	11	14	20	11	7.0	4.0	5.4
4	9.6	15	19	17	9.3	11	13	17	14	7.0	5.6	5.1
5	10	14	16	14	9.1	10	14	16	30	8.3	4.8	5.2
6	9.0	13	e14	19	9.2	10	14	15	25	8.1	4.9	5.2
7	8.5	13	15	23	9.3	10	15	14	19	7.6	5.3	5.3
8	8.3	14	15	26	9.2	9.9	14	13	14	7.4	6.8	5.4
9	7.9	46	14	33	9.3	9.5	14	12	12	7.1	7.9	5.7
10	7.5	47	13	26	9.3	9.4	15	12	10	7.5	5.7	6.4
11	7.5	33	13	e20	9.1	19	16	12	9.4	7.4	5.2	7.1
12	13	30	13	17	9.1	21	17	12	8.9	7.5	5.0	9.1
13	13	34	12	15	8.6	22	22	12	8.4	7.0	5.3	6.1
14	11	80	17	14	12	32	26	11	8.3	6.5	5.5	5.7
15	9.6	114	16	e13	81	46	25	11	8.1	7.1	5.2	6.3
16	9.0	63	16	e12	24	40	48	17	7.7	7.6	5.3	6.4
17	8.6	45	15	e11	15	64	201	40	7.8	6.9	5.8	5.7
18	16	50	14	e11	12	188	150	40	8.1	6.9	5.6	5.6
19	18	38	13	e28	11	80	73	52	7.5	7.8	5.5	5.5
20	17	28	12	e22	11	37	43	42	6.8	11	5.3	5.5
21	35	22	12	e19	10	e27	34	29	7.3	9.3	5.2	5.5
22	26	19	11	e17	10	22	28	22	7.8	7.5	5.3	5.6
23	21	17	21	14	10	29	25	18	9.4	6.9	5.2	5.2
24	19	16	37	13	9.9	30	23	15	8.6	7.2	6.1	5.1
25	16	15	30	e12	9.8	26	21	14	7.1	6.7	5.8	5.3
26	14	14	25	e11	9.7	23	19	13	6.5	6.3	5.7	5.2
27	12	14	22	e11	9.6	23	17	11	6.2	5.7	5.5	5.2
28	17	13	18	e10	9.6	22	18	11	6.7	5.4	5.4	9.3
29	76	13	e15	e9.6	---	20	18	11	7.0	5.2	5.5	7.1
30	59	13	e14	e9.2	---	17	21	11	7.0	5.2	5.4	6.0
31	34	---	e13	e9.1	---	16	---	11	---	5.0	5.5	---
Total	542.2	894	525	507.9	364.5	904.1	987	583	310.6	219.4	167.4	176.8
Mean	17.5	29.8	16.9	16.4	13.0	29.2	32.9	18.8	10.4	7.08	5.40	5.89
Max	76	114	37	33	81	188	201	52	30	11	7.9	9.3
Min	7.5	13	11	9.1	8.6	9.4	13	11	6.2	5.0	3.8	5.1
Cfsm	2.25	3.83	2.17	2.10	1.67	3.74	4.22	2.41	1.33	0.91	0.69	0.76
In.	2.59	4.27	2.51	2.43	1.74	4.32	4.71	2.78	1.48	1.05	0.80	0.84

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	15.2	17.7	18.3	11.6	12.0	21.7	26.0	18.0	13.7	6.97	7.05	6.42
Max	44.3	29.8	29.7	25.3	21.7	32.3	35.4	33.5	31.9	14.0	17.3	8.68
(WY)	(2006)	(2007)	(2006)	(2006)	(2006)	(2005)	(2005)	(2005)	(2006)	(2006)	(2004)	(2005)
Min	4.39	4.50	5.55	4.98	6.60	8.71	16.7	8.64	8.20	4.43	3.77	4.23
(WY)	(2002)	(2002)	(2002)	(2002)	(2004)	(2001)	(2006)	(2001)	(2001)	(2001)	(2002)	(2001)

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SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 2000 - 2007	
Annual total	6,784.9		6,181.9			
Annual mean	18.6		16.9		14.6	
Highest annual mean					21.5	2006
Lowest annual mean					9.16	2001
Highest daily mean	114	Nov 15	201	Apr 17	218	Oct 10, 2005
Lowest daily mean	6.7	Jul 20	3.8	Aug 2	2.7	Jul 26, 2002
Annual seven-day minimum	7.3	Sep 16	4.6	Jul 31	3.4	Jul 31, 2002
Maximum peak flow			261	Mar 18	299	Oct 9, 2005
Maximum peak stage			4.21	Mar 18	5.68	Mar 4, 2003
Instantaneous low flow			3.2	Aug 3	2.2	Jul 26, 2002
Annual runoff (cfsm)	2.39		2.17		1.87	
Annual runoff (inches)	32.40		29.52		25.46	
10 percent exceeds	34		30		28	
50 percent exceeds	14		12		9.3	
90 percent exceeds	7.9		5.5		4.6	

