



Water-Data Report 2007

**01021500 MACHIAS RIVER AT WHITNEYVILLE, ME**

Maine Coastal Basin  
Maine Coastal Subbasin

LOCATION.--Lat 44°43'23", long 67°31'14" referenced to North American Datum of 1983, Washington County, ME, Hydrologic Unit 01050002, on right bank 800 ft downstream from U.S. Route 1A highway bridge at Whitneyville.

DRAINAGE AREA.--458 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--

DISCHARGE: October 1905 to September 1921, September 1929 to September 1977. May 2001 to current year. Monthly discharge only for some periods published in WSP 1301. Records for October 1903 to September 1905, published in WSP 97, 124, 165, and 241, are unreliable and should not be used.

REVISED RECORDS.--WSP 971: Drainage area. WSP 1231: 1907-15, 1916-21(M). See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 37.22 ft above National Geodetic Vertical Datum of 1929. October 1, 1905, to Sept. 30, 1921, nonrecording gage on highway bridge at different datum.

REMARKS.--Records good, except for periods of ice effect, Dec. 29 to Jan. 3, Jan. 12 to Mar. 11, and Mar. 24-25, and 29, which are fair. Satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,800 ft<sup>3</sup>/s, May 29, 1961, gage height, 16.92 ft; minimum daily discharge, 3.5 ft<sup>3</sup>/s, Oct. 12, 1939, when flow was held back by cofferdam during reconstruction of highway bridge upstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,200 ft<sup>3</sup>/s and (or) maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct 29	2315	3,920	7.79
Nov 15	1645	7,480	11.20
Mar 19	0745	7,320	11.05
Apr 18	1945	*8,750	*12.32

Minimum discharge, 52 ft<sup>3</sup>/s, Sept. 27, gage height, 2.74 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	183	1,690	1,230	e893	e453	e377	1,600	2,720	693	221	142	68
2	210	1,430	1,600	e1,190	e435	e374	1,520	2,650	650	210	133	70
3	292	1,310	1,720	e1,330	e455	e401	1,470	2,290	624	203	126	68
4	322	1,190	1,530	1,190	e485	e441	1,410	1,980	624	199	129	67
5	289	1,080	1,380	1,070	e477	e455	1,390	1,750	1,050	225	144	63
6	275	997	1,180	1,090	e457	e451	1,430	1,630	1,400	249	147	58
7	253	961	1,200	1,610	e439	e431	1,440	1,520	1,180	292	142	57
8	224	952	1,210	1,730	e420	e414	1,360	1,390	927	367	151	57
9	202	2,190	1,130	2,200	e403	e392	1,300	1,280	742	342	193	58
10	189	2,980	1,100	2,080	e391	e376	1,290	1,180	623	302	204	62
11	177	2,310	1,030	1,470	e377	e492	1,290	1,110	552	271	175	73
12	186	1,860	967	e1,240	e365	883	1,330	1,070	502	253	149	106
13	256	2,250	854	e1,080	e356	1,050	1,460	1,010	463	244	135	151
14	296	4,500	1,040	e963	e349	1,150	1,780	920	430	232	141	135
15	269	7,300	1,100	e880	e475	1,600	1,740	852	402	214	148	116
16	236	6,860	1,100	e828	e656	2,030	2,240	888	377	208	138	103
17	219	5,100	1,070	e782	e637	2,500	6,180	1,950	354	196	134	101
18	254	4,320	990	e756	e588	6,540	8,430	2,320	348	184	129	90
19	531	3,810	922	e789	e560	7,060	8,310	2,990	351	183	117	80
20	633	3,110	852	e1,420	e533	6,320	6,600	2,940	327	222	106	74
21	1,190	2,590	773	e1,330	e506	4,750	4,920	2,310	315	421	97	69
22	1,390	2,260	739	e1,130	e482	3,300	4,110	1,800	314	464	88	66
23	1,040	2,030	866	e984	e460	2,930	3,650	1,480	329	365	82	65
24	932	1,880	1,900	e880	e444	e3,080	3,370	1,290	338	290	82	62
25	877	1,740	1,880	e788	e428	e3,070	3,130	1,180	312	249	84	60
26	751	1,600	1,580	e713	e413	2,810	2,800	1,080	283	219	90	58
27	634	1,500	1,520	e648	e398	2,510	2,490	970	260	196	84	56
28	586	1,410	1,370	e592	e386	2,310	2,360	881	247	178	78	84
29	3,000	1,330	e1,060	e549	---	e2,110	2,330	829	242	165	74	123
30	3,500	1,260	e965	e513	---	1,900	2,380	781	235	155	72	137
31	2,340	---	e919	e481	---	1,720	---	733	---	150	69	---
<b>Total</b>	21,736	73,800	36,777	33,199	12,828	64,227	85,110	47,774	15,494	7,669	3,783	2,437
<b>Mean</b>	701	2,460	1,186	1,071	458	2,072	2,837	1,541	516	247	122	81.2
<b>Max</b>	3,500	7,300	1,900	2,200	656	7,060	8,430	2,990	1,400	464	204	151
<b>Min</b>	177	952	739	481	349	374	1,290	733	235	150	69	56
<b>Cfsm</b>	1.53	5.37	2.59	2.34	1.00	4.52	6.19	3.36	1.13	0.54	0.27	0.18
<b>In.</b>	1.77	5.99	2.99	2.70	1.04	5.22	6.91	3.88	1.26	0.62	0.31	0.20

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1906 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Mean</b>	560	951	1,041	811	699	1,208	2,392	1,704	869	452	307	327
<b>Max</b>	2,486	2,460	2,972	2,116	2,799	3,633	5,836	3,163	3,206	1,189	993	1,624
<b>(WY)</b>	(2006)	(2007)	(1951)	(2006)	(1976)	(1936)	(1920)	(1963)	(1917)	(1947)	(1943)	(1954)
<b>Min</b>	62.1	76.4	144	146	195	242	813	549	228	127	50.0	50.5
<b>(WY)</b>	(2002)	(2002)	(1956)	(1948)	(1940)	(1967)	(2006)	(1966)	(1941)	(1949)	(2001)	(2001)

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SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1906 - 2007	
<b>Annual total</b>	418,094		404,834			
<b>Annual mean</b>	1,145		1,109		942	
<b>Highest annual mean</b>					1,498	1973
<b>Lowest annual mean</b>					542	1966
<b>Highest daily mean</b>	7,300	Nov 15	8,430	Apr 18	13,900	May 29, 1961
<b>Lowest daily mean</b>	166	Sep 29	56	Sep 27	3.5	Oct 12, 1939
<b>Annual seven-day minimum</b>	181	Sep 18	60	Sep 4	27	Sep 15, 2001
<b>Maximum peak flow</b>			8,750	Apr 18	14,800	May 29, 1961
<b>Maximum peak stage</b>			12.32	Apr 18	16.92	May 29, 1961
<b>Annual runoff (cfsm)</b>	2.50		2.42		2.06	
<b>Annual runoff (inches)</b>	33.96		32.88		27.94	
<b>10 percent exceeds</b>	2,350		2,490		2,260	
<b>50 percent exceeds</b>	841		693		562	
<b>90 percent exceeds</b>	252		106		172	

