Water-Data Report 2008

01029500 EAST BRANCH PENOBSCOT RIVER AT GRINDSTONE, ME

Penobscot Basin
East Branch Penobscot Subbasin

LOCATION.--Lat 45°43′49″, long 68°35′22″ referenced to North American Datum of 1983, Penobscot County, ME, Hydrologic Unit 01020002, on left bank 500 ft downstream from Bangor and Aroostook Railroad bridge, 0.5 mi south of Grindstone, and 9.5 mi upstream from confluence with West Branch Penobscot River.

DRAINAGE AREA.--837 mi^2 of which -249 mi^2 probably is noncontributing.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--
DISCHARGE: October 1902 to September 1982 (monthly discharge only for some periods). October 1999 to current year.
GAGE HEIGHT: May 1998 to September 1999.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 294.74 ft above National Geodetic Vertical Datum of 1929. Prior to June 30, 1929, nonrecording gage on railroad bridge at same datum.

REMARKS.--Records good, except for period of ice effect, Nov. 30 to Apr. 17, which is poor. Flow regulated by Chamberlain, Telos, Second, Grand Lakes, and Round Pond, combined usable capacity, about 6.835 billion ft^3. Final regulation at Grand Lake Dam 35 mi upstream. Satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,000 ft^3/s, Apr. 30, 1923, gage height 16.9 ft, site then in use; minimum daily discharge, 77 ft^3/s, Nov. 19, 1924.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 35,200 ft^3/s, Apr. 30, gage height, 15.03 ft; minimum daily discharge, 444 ft^3/s, Oct. 3.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	451	982	e2,950	e1,860	e1,510	e1,500	e1,560	26,500	1,890	4,290	1,720	895
2	449	938	e2,320	e1,820	e1,410	e1,500	e1,690	18,800	1,900	3,820	2,890	866
3	444	902	e2,780	e1,780	e1,430	e1,520	e1,840	14,200	1,700	3,260	3,470	948
4	545	3,560	e2,920	e1,750	e1,490	e1,510	e2,010	11,700	1,590	2,730	4,040	963
5	684	4,640	e2,780	e1,730	e1,430	e1,680	e2,190	11,100	1,540	2,460	4,080	951
6	679	3,730	e2,630	e1,710	e1,390	e2,070	e2,410	10,400	1,450	2,330	4,050	941
7	668	5,190	e2,510	e1,690	e1,400	e2,150	e2,670	9,780	1,380	2,060	3,910	1,060
8	659	4,910	e2,390	e1,690	e1,350	e2,170	e2,940	9,140	1,340	1,690	3,810	1,160
9	659	4,100	e2,290	e2,070	e1,330	e2,340	e3,320	8,880	1,300	1,230	3,870	1,060
10	652	3,550	e2,190	e2,950	e1,330	e2,400	e3,830	8,170	1,340	1,300	3,730	1,180
11	651	2,930	e2,110	e3,510	e1,360	e2,410	e4,490	7,560	2,720	1,390	3,490	1,090
12	667	2,540	e2,040	e3,380	e1,240	e2,400	e4,670	7,070	2,810	1,400	3,210	996
13	2,820	2,260	e1,980	e3,120	e1,290	e2,330	e4,600	6,110	1,940	1,370	3,250	967
14	1,780	2,020	e1,920	e2,860	e1,300	e2,210	e4,600	5,620	1,730	1,400	3,310	949
15	1,280	2,460	e1,870	e2,600	e1,410	e2,100	e4,820	5,240	1,640	1,300	2,870	961
16	1,020	9,680	e1,820	e2,360	e1,410	e2,000	e5,350	5,020	1,610	1,060	2,500	918
17	857	13,200	e1,770	e2,140	e1,300	e1,910	e6,370	4,740	1,670	956	2,470	885
18	759	10,200	e1,740	e2,090	e1,330	e1,830	7,910	4,230	1,830	929	2,430	856
19	695	7,610	e1,710	e2,070	e1,490	e1,780	9,670	4,050	1,790	963	2,380	827
20	974	5,650	e1,680	e1,940	e1,950	e1,730	11,000	4,080	1,720	1,070	2,210	803
21	1,470	4,190	e1,650	e1,630	e1,820	e1,700	12,200	3,490	1,590	1,200	2,050	790
22	1,100	4,020	e1,630	e1,560	e1,730	e1,630	13,300	2,490	1,470	1,300	1,670	775
23	915	4,860	e1,620	e1,580	e1,710	e1,580	14,500	2,020	1,390	1,470	1,590	761
24	959	4,430	e1,690	e1,630	e1,620	e1,540	16,700	2,030	1,330	1,440	1,580	749
25	994	3,760	e2,970	e1,520	e1,550	e1,490	16,100	1,960	1,330	1,750	1,540	741
26	867	3,390	e2,650	e1,440	e1,530	e1,480	14,600	1,870	1,410	1,810	1,530	734
27	826	3,890	e2,380	e1,460	e1,580	e1,460	13,400	1,800	1,710	1,490	1,490	1,270
28	1,520	4,360	e2,160	e1,420	e1,570	e1,450	12,100	1,750	2,000	1,460	1,440	2,170
29	1,510	3,850	e2,030	e1,430	e1,520	e1,430	13,100	1,580	2,320	1,720	1,070	3,150
30	1,210	e3,360	e1,950	e1,480	---	e1,420	31,600	1,480	3,370	1,760	946	2,350
31	1,060	---	e1,910	e1,530	---	e1,470	---	1,470	---	1,540	930	---
Total	29,824	131,162	67,040	61,800	42,780	56,190	245,540	204,330	52,810	53,948	79,526	32,766
Mean	962	4,372	2,163	1,994	1,475	1,813	8,185	6,591	1,760	1,740	2,565	1,092
Max	2,820	13,200	2,970	3,510	1,950	2,410	31,600	26,500	3,370	4,290	4,080	3,150
Min	444	902	1,620	1,420	1,240	1,420	1,560	1,470	1,300	929	930	734
Cfsm	0.89	4.03	1.99	1.84	1.36	1.67	7.54	6.07	1.62	1.60	2.36	1.01
In.	1.02	4.49	2.30	2.12	1.47	1.92	8.41	7.00	1.81	1.85	2.72	1.12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1903 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	1,317	1,855	1,591	1,126	1,031	1,524	4,875	4,861	2,256	1,321	915	971
Max	6,395	6,564	6,015	3,657	3,680	7,851	9,941	10,890	6,292	4,697	2,807	4,200
(WY)	(2006)	(1964)	(1951)	(2006)	(1970)	(1936)	(2000)	(1961)	(1917)	(1918)	(1976)	(1954)
Min	210	327	203	255	216	222	1,268	1,545	796	357	250	264
(WY)	(1911)	(1956)	(1909)	(1948)	(1948)	(1923)	(1926)	(2004)	(1921)	(1955)	(1941)	(1910)

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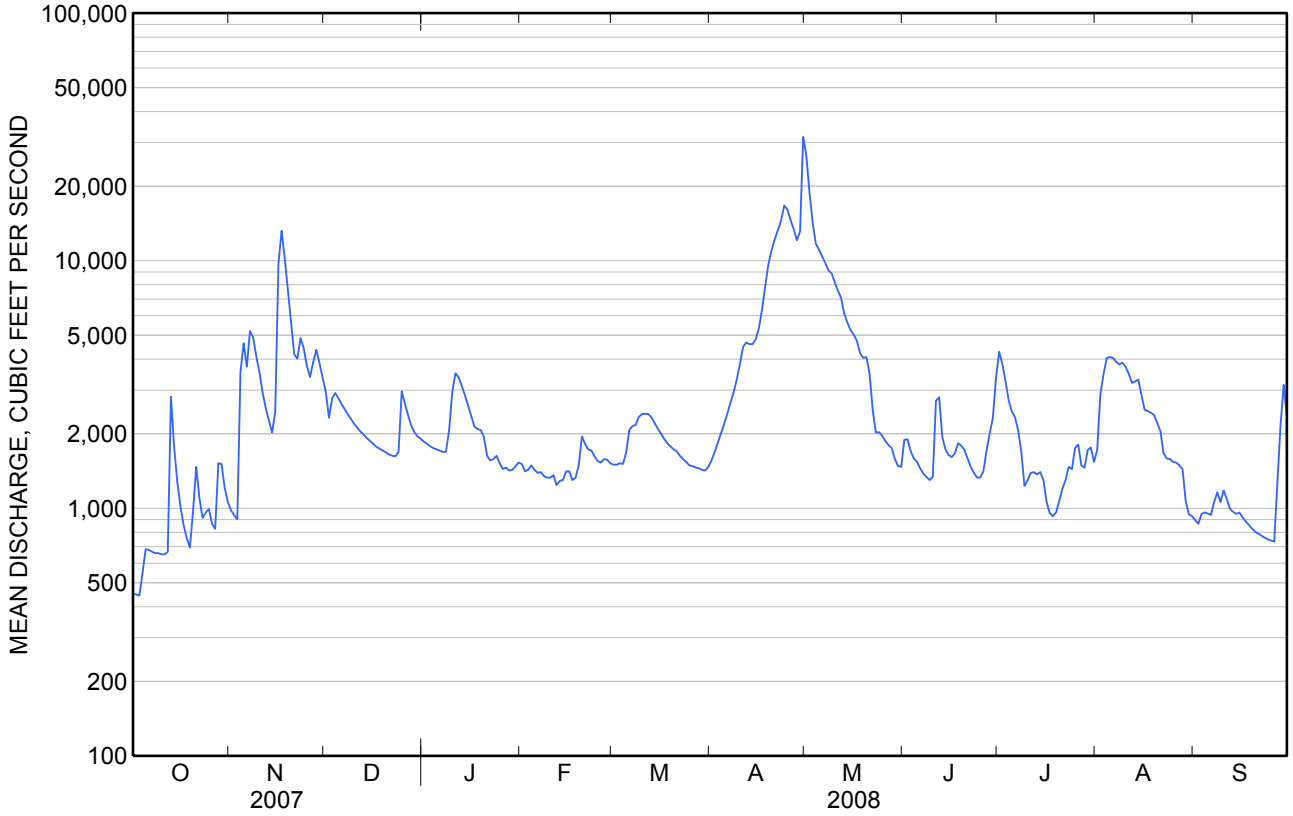
SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1903 - 2008	
Annual total	779,460		1,057,716			
Annual mean	2,136		2,890		1,972	
Highest annual mean					3,233	2006
Lowest annual mean					1,028	1911
Highest daily mean	14,100	Apr 25	31,600	Apr 30	33,700	Apr 30, 1923
Lowest daily mean	414	Sep 27	444	Oct 3	77	Nov 19, 1924
Annual seven-day minimum	428	Sep 21	560	Oct 1	117	Dec 25, 1914
Maximum peak flow			35,200	Apr 30	37,000	Apr 30, 1923
Maximum peak stage			15.03	Apr 30	16.90	Apr 30, 1923
Annual runoff (cfsm)	1.97		2.66		1.82	
Annual runoff (inches)	26.70		36.23		24.67	
10 percent exceeds	5,330		5,070		4,650	
50 percent exceeds	1,060		1,750		1,140	
90 percent exceeds	550		944		435