Water-Data Report 2012

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.--1,086 mi^2, including 249 mi^2 drained by Chamberlain Lake through Telos Canal.

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 periods of ice effect, Dec. 11-15, and Dec. 17 to Mar. 21, which are 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, 13,000 ft^3/s, Mar. 23, gage height, 10.24 ft; minimum daily discharge, 408 ft^3/s, Sept. 18.

Suggested citation: U.S. Geological Survey, 2013, Water-resources data for the United States, Water Year 2012: U.S. Geological Survey Water-Data Report WDR-US-2012, site 01029500, accessed at http://wdr.water.usgs.gov/wy2012/pdfs/01029500.2012.pdf

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1,540	1,480	2,120	e1,690	e941	e809	2,640	5,920	1,450	3,390	608	455
2	1,610	1,460	1,670	e1,630	e929	e802	2,460	5,140	1,420	2,860	609	442
3	3,070	1,420	1,440	e1,530	e927	e816	2,230	3,990	2,010	2,540	679	455
4	3,980	1,360	1,310	e1,410	e910	e814	2,120	3,470	2,680	2,300	655	443
5	4,190	1,250	1,260	e1,370	e891	e816	2,010	2,880	2,090	2,140	611	475
6	3,730	1,150	1,250	e1,290	e878	e802	1,900	2,600	1,740	1,900	593	537
7	3,020	1,110	1,280	e1,210	e870	e790	1,800	2,400	1,730	1,730	592	503
8	2,560	1,080	1,420	e1,200	e826	e824	1,730	2,260	1,720	1,620	571	483
9	2,040	1,050	1,450	e1,090	e827	e1,160	1,950	2,510	1,660	1,490	554	611
10	1,630	1,030	1,350	e882	e831	e1,500	2,210	3,140	1,860	1,290	571	688
11	1,140	1,460	e1,160	e815	e834	e1,310	2,330	5,270	2,050	1,190	705	552
12	1,060	2,130	e1,070	e775	e798	e1,210	2,230	4,320	1,950	1,130	694	493
13	1,020	1,890	e1,040	e750	e784	e1,230	2,150	3,540	1,840	1,030	651	466
14	1,190	1,570	e1,030	e931	e819	e1,360	1,980	3,520	2,140	905	610	447
15	4,150	1,430	e1,020	e867	e864	e1,380	1,730	3,530	1,980	899	581	433
16	4,240	1,350	1,970	e822	e846	e1,310	1,740	3,810	1,630	865	771	424
17	2,840	1,300	e2,220	e794	e831	e1,550	1,870	3,390	1,480	835	1,750	413
18	2,330	1,240	e1,690	e887	e847	e1,920	1,970	2,920	1,240	925	1,200	408
19	2,010	1,190	e1,430	e830	e834	e3,430	1,880	2,600	1,100	915	838	586
20	2,030	1,160	e1,280	e784	e817	e5,220	2,000	2,290	1,050	825	696	973
21	2,600	1,140	e1,200	e808	e797	e7,690	2,060	1,900	972	777	626	646
22	2,270	1,080	e1,160	e798	e833	11,100	2,630	1,650	939	748	591	560
23	2,100	998	e1,140	e772	e821	12,600	3,460	1,690	1,350	724	566	549
24	2,170	1,160	e1,120	e878	e836	10,500	8,880	1,700	5,160	715	553	528
25	2,090	1,130	e1,060	e1,310	e860	8,430	8,780	1,590	5,470	722	530	495
26	2,020	1,100	e1,050	e1,180	e870	7,090	6,350	1,510	4,790	696	517	478
27	1,920	1,140	e1,120	e1,070	e826	5,760	6,120	1,410	8,300	671	505	610
28	1,830	1,120	e1,300	e1,010	e833	4,890	7,420	1,320	9,140	655	520	752
29	1,750	1,160	e1,970	e1,040	e809	3,880	6,950	1,380	6,960	647	517	761
30	1,620	1,300	e1,800	e987	---	3,460	6,420	1,710	4,740	637	495	896
31	1,480	---	e1,710	e932	---	2,880	---	1,580	---	621	476	---
Total	71,230	38,438	43,090	32,342	24,589	107,333	100,000	86,940	82,641	38,392	20,435	16,562
Mean	2,298	1,281	1,390	1,043	848	3,462	3,333	2,805	2,755	1,238	659	552
Max	4,240	2,130	2,220	1,690	941	12,600	8,880	5,920	9,140	3,390	1,750	973
Min	1,020	998	1,020	750	784	790	1,730	1,320	939	621	476	408
Cfsm	2.75	1.53	1.66	1.25	1.01	4.14	3.98	3.35	3.29	1.48	0.79	0.66
In.	3.17	1.71	1.92	1.44	1.09	4.77	4.44	3.86	3.67	1.71	0.91	0.74

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1903 - 2012, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	1,354	1,896	1,655	1,122	1,020	1,555	4,938	4,843	2,267	1,336	941	968
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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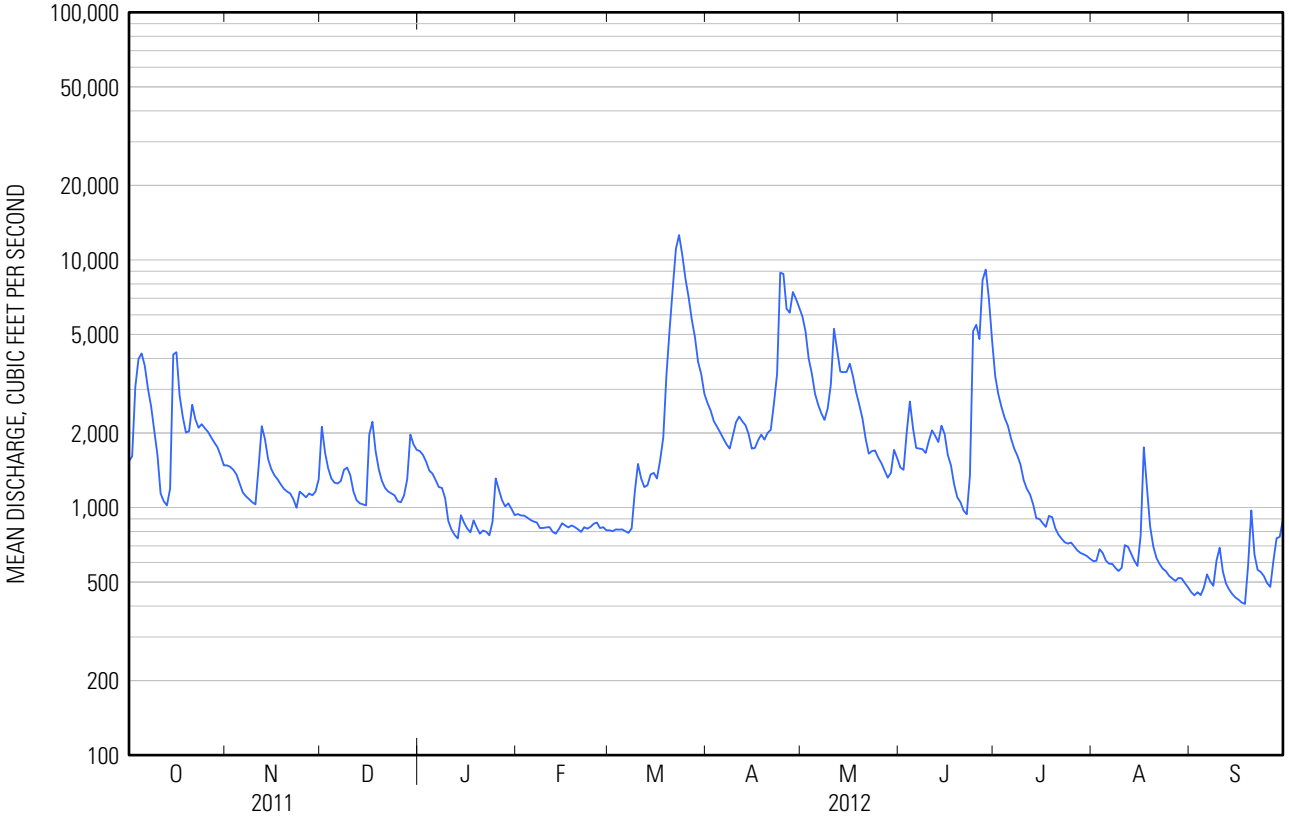
SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 1903 - 2012	
Annual total	1,012,202		661,992			
Annual mean	2,773		1,809		1,993	
Highest annual mean					3,478	2011
Lowest annual mean					1,028	1911
Highest daily mean	14,000	May 6	12,600	Mar 23	33,700	Apr 30, 1923
Lowest daily mean	690	Feb 27	408	Sep 18	77	Nov 19, 1924
Annual seven-day minimum	708	Feb 26	441	Sep 12	117	Dec 25, 1914
Maximum peak flow			13,000	Mar 23	37,000	Apr 30, 1923
Maximum peak stage			10.24	Mar 23	16.90	Apr 30, 1923
Annual runoff (cfsm)	2.55		1.67		1.84	
Annual runoff (inches)	34.67		22.68		24.94	
10 percent exceeds	6,420		3,530		4,680	
50 percent exceeds	1,720		1,240		1,150	
90 percent exceeds	787		592		441