01076500 PEMIGEWASSET RIVER AT PLYMOUTH, NH

Merrimack Basin
Pemigewasset Subbasin

LOCATION.--Lat 43°45′33″, long 71°41′10″ referenced to North American Datum of 1927, Grafton County, NH, Hydrologic Unit 01070001, on right bank, 200 ft downstream from Holderness Road bridge in Plymouth, 0.1 mi northeast of Plymouth Town Hall, and 0.3 mi downstream from Baker River.

DRAINAGE AREA.--622 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Discharge records: October 1903 to current year. Records for April 1886 to September 1903, published in WSP124, are unreliable and should not be used.

REVISED RECORDS.--WSP 471: 1912-14. WSP 726: Drainage area. WSP 1231: 1904-11, 1913-14, 1917-18, 1919(M), 1920-25, 1926-27(M),1929-31(M). WSP 1721: 1959(M). See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 457.07 ft above National Geodetic Vertical Datum of 1929. Prior to January 1, 1910, nonrecording gage at sites 150 ft and 200 ft upstream at present datum or datum 1.11 ft lower. January 1, 1910, to September 30, 1926, nonrecording gage at site 200 ft upstream at present datum.

COOPERATION.--National Streamflow Information Program (NSIP).

REMARKS.--Records good except those for estimated daily discharges, which are poor. Stage-discharge relationship at times is affected by variable slope. Some diurnal fluctuation during period 1940-52 caused by power plants upstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 12,600 ft^3/s and (or) maximum (*):

[e, estimated]

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 1	2100	17,700	11.31
Dec 2	0315	15,200	8.91
Dec 13	0930	15,700	10.56
Mar 7	0915	e17,000	Ice Jam
Apr 11	2230	16,400	11.60
Apr 26	1430	15,100	10.57
Aug 29	0330	*41,100	*21.38

Minimum discharge, 151 ft^3/s, July 25, gage height, 0.32 ft.

Suggested citation: U.S. Geological Survey, 2012, Water-resources data for the United States, Water Year 2011: U.S. Geological Survey Water-Data Report WDR-US-2011, site 01076500, accessed at http://wdr.water.usgs.gov/wy2011/pdfs/01076500.2011.pdf

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	11,300	1,280	1,310	e910	e461	e467	1,070	4,660	998	465	187	2,810
2	9,210	1,130	10,700	e1,330	e441	e438	1,100	3,890	903	461	169	2,160
3	3,910	1,030	4,410	e1,450	e464	e412	1,180	3,750	813	410	171	1,760
4	2,400	1,050	2,800	e1,220	e449	e403	1,300	4,210	733	417	172	1,410
5	1,680	4,000	2,100	e909	e434	e411	1,590	5,450	664	378	164	1,460
6	1,270	4,940	1,680	e775	e471	e1,270	2,090	3,850	611	340	166	3,550
7	1,290	2,750	1,430	e699	e476	e12,400	1,690	3,070	556	403	162	3,250
8	1,520	2,220	1,270	e693	e476	e8,940	1,740	2,800	517	383	178	4,810
9	1,230	2,180	e1,190	e724	e442	e4,950	1,990	2,530	504	539	166	3,530
10	1,030	1,860	e1,040	e635	e436	e3,400	2,920	2,280	585	442	189	2,280
11	885	1,590	e1,160	e615	e419	e3,450	11,000	2,120	543	342	411	1,710
12	786	1,370	e1,560	e594	e394	e5,730	14,500	2,010	770	300	309	1,430
13	707	1,230	11,900	e584	e391	e4,380	9,540	1,860	856	284	215	1,180
14	656	1,130	7,090	e593	e378	e2,950	7,880	1,870	1,110	269	183	1,030
15	4,560	1,050	3,750	e583	e378	e2,350	6,600	2,950	1,040	250	265	926
16	7,550	993	2,690	e583	e362	e2,070	4,910	6,610	821	228	2,320	985
17	4,100	2,330	e2,090	e567	e364	e1,990	8,750	4,180	683	216	1,510	866
18	2,750	3,480	e1,770	e534	e464	3,220	7,370	3,890	705	207	714	759
19	2,000	2,020	e1,620	e646	e672	5,470	4,880	5,850	643	221	455	668
20	1,570	1,540	e1,460	e640	e678	3,650	4,440	5,210	522	211	355	628
21	1,330	1,280	e1,340	e620	e601	2,870	4,060	4,210	456	189	319	637
22	1,400	1,150	e1,220	e567	e529	2,330	3,350	3,810	409	180	4,650	674
23	1,170	1,380	1,060	e540	e508	1,900	3,190	3,240	481	168	2,170	1,250
24	1,040	1,520	e972	e507	e492	1,620	3,420	3,290	808	159	1,020	1,250
25	1,070	1,210	e888	e503	e479	1,460	4,530	2,680	1,890	154	691	1,190
26	2,080	1,160	e843	e496	e472	1,190	10,900	2,100	1,220	208	914	905
27	2,830	1,090	e838	e489	e479	1,090	9,540	1,890	879	290	703	733
28	3,320	949	e834	e485	e479	1,030	12,000	1,680	693	231	11,400	637
29	2,110	904	e867	e469	---	1,020	10,900	1,470	576	195	30,000	882
30	1,680	849	e881	e468	---	985	6,120	1,330	503	251	7,520	3,460
31	1,480	---	e869	e452	---	1,020	---	1,170	---	224	4,170	---
Total	79,914	50,665	73,632	20,880	13,089	84,866	164,550	99,910	22,492	9,015	72,018	48,820
Mean	2,578	1,689	2,375	674	467	2,738	5,485	3,223	750	291	2,323	1,627
Max	11,300	4,940	11,900	1,450	678	12,400	14,500	6,610	1,890	539	30,000	4,810
Min	656	849	834	452	362	403	1,070	1,170	409	154	162	628
Cfsm	4.14	2.72	3.82	1.08	0.75	4.40	8.82	5.18	1.21	0.47	3.73	2.62
In.	4.78	3.03	4.40	1.25	0.78	5.08	9.84	5.98	1.35	0.54	4.31	2.92

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	1,044	1,391	1,196	896	731	1,724	3,952	2,742	1,157	660	560	607
Max	4,837	4,578	4,588	3,191	4,379	9,266	7,206	5,304	3,878	3,103	3,345	3,813
(WY)	(2006)	(1928)	(1974)	(1996)	(1981)	(1936)	(1969)	(1940)	(1917)	(1973)	(1990)	(1938)
Min	129	308	216	148	138	205	1,222	806	283	160	111	107
(WY)	(1948)	(1979)	(1948)	(1931)	(1931)	(1940)	(1995)	(1921)	(1921)	(1923)	(1923)	(1923)

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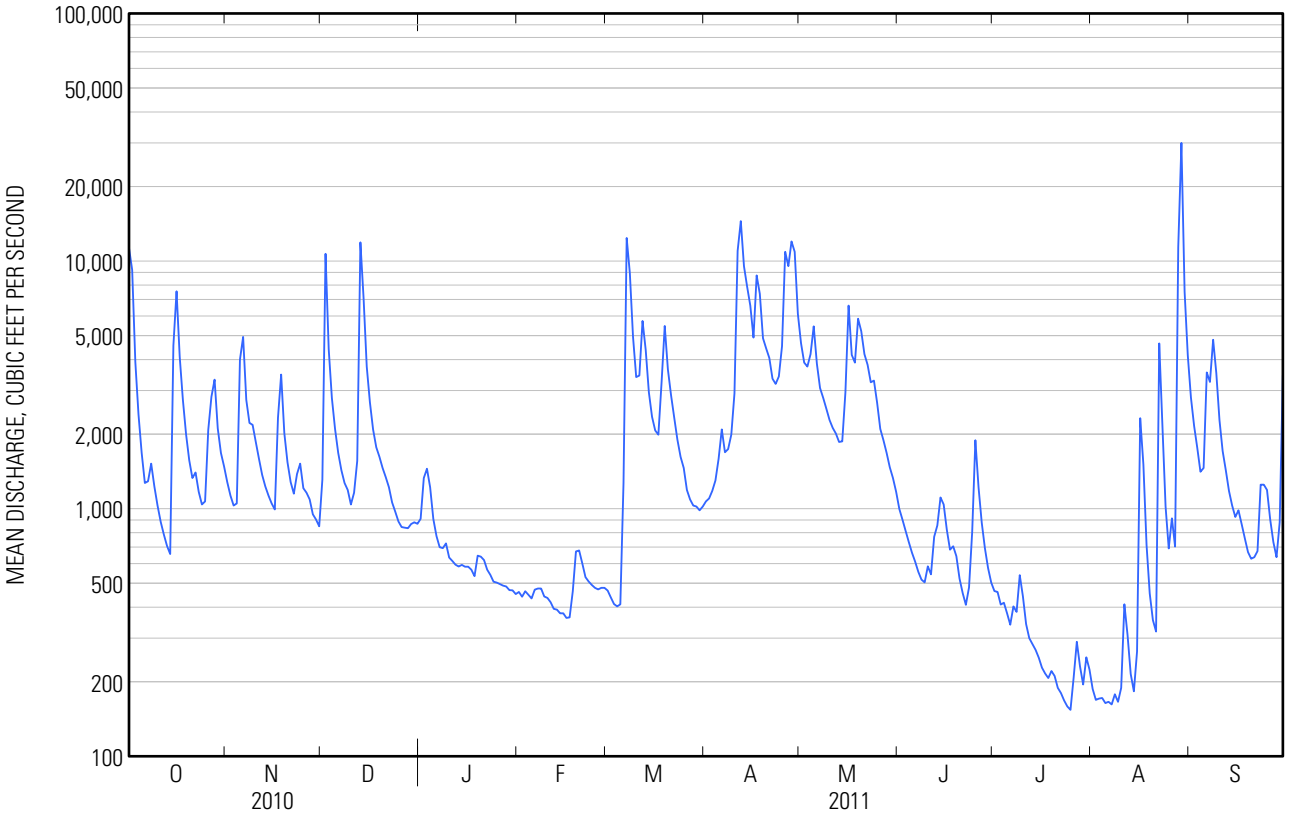
SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1904 - 2011	
Annual total	573,532		739,851			
Annual mean	1,571		2,027		1,389	
Highest annual mean					2,156	1996
Lowest annual mean					735	1965
Highest daily mean	11,900	Dec 13	30,000	Aug 29	57,300	Mar 19, 1936
Lowest daily mean	194	Sep 3	154	Jul 25	45	Sep 20, 1923
Annual seven-day minimum	232	Sep 7	168	Aug 3	66	Oct 11, 1923
Maximum peak flow			41,100	Aug 29	65,400	Mar 19, 1936
Maximum peak stage			21.38	Aug 29	[a]29.00	Mar 19, 1936
Instantaneous low flow			151	Jul 25	39	Oct 1, 1948[b]
Annual runoff (cfsm)	2.53		3.26		2.23	
Annual runoff (inches)	34.30		44.25		30.34	
10 percent exceeds	3,530		4,600		3,230	
50 percent exceeds	942		1,070		700	
90 percent exceeds	328		341		242	

[a] From floodmarks.
[b] Also on October 3, 1948.