

**01638500 POTOMAC RIVER AT POINT OF ROCKS, MD**

Potomac Basin  
Middle Potomac-Catoctin Subbasin

LOCATION.--Lat 39°16'24.9", long 77°32'35.2" referenced to North American Datum of 1983, Frederick County, MD, Hydrologic Unit 02070008, on left bank at downstream side of bridge on U.S. Highway 15 at Point of Rocks, 0.3 mi downstream from Catoctin Creek (Virginia), 6 mi upstream from Monocacy River, and at mile 159.5.

DRAINAGE AREA.--9,651 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--February 1895 to current year.

REVISED RECORDS.--WSP 192: 1895-1905. WSP 1432: 1899, 1901-2, 1904-5, 1912, 1914(M), 1915, 1917(M), 1918, 1919(M), 1920, 1921-23(M), 1924, 1925-28(M), 1930(M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 200.63 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 28, 1929, nonrecording gage at same site. Prior to Sept. 2, 1902, at datum about 0.45 ft higher.

REMARKS.--Records good except those for estimated daily discharges (ice effect and equipment malfunction), which are fair. Low flow affected slightly from 1913 to July 1981 by Stony River Reservoir; since December 1950 by Savage River Reservoir (see station 01597500); and since July 1981 by Jennings Randolph Lake. Low flow affected extensively at times by run-of-the-river hydroelectric plants. National Weather Service gage-height telemeter at station. U.S. Geological Survey satellite collection platform at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 2, 1889, reached a stage of 40.2 ft, from floodmarks, discharge, about 460,000 ft<sup>3</sup>/s from rating curve extended as explained in footnotes.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 35,000 ft<sup>3</sup>/s and (or) maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec 2	1730	38,300	8.97
Mar 8	2130	42,900	9.74
Mar 12	0845	121,000	19.92
Apr 14	1745	72,400	14.01
Apr 18	0930	*144,000	*22.52
Apr 20	2300	69,600	13.63
Apr 29	1815	74,500	14.28
May 19	1715	141,000	22.15
Sep 8	1500	38,000	8.93

Minimum discharge, 1,620 ft<sup>3</sup>/s, Aug. 3.

## 01638500 POTOMAC RIVER AT POINT OF ROCKS, MD—Continued

**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	5,450	1,960	4,520	2,610	2,430	21,500	10,700	40,100	14,400	3,820	1,790	2,070
2	11,200	1,850	24,500	2,660	2,520	24,700	10,400	29,700	11,900	3,640	1,820	2,000
3	15,000	1,780	32,600	2,560	3,370	22,200	10,100	24,600	10,100	3,490	1,770	1,940
4	10,100	1,920	23,800	2,420	5,390	18,200	9,560	21,500	8,720	3,640	1,720	1,970
5	6,860	2,230	17,100	e2,380	8,730	14,900	9,680	22,100	8,030	3,530	1,820	2,110
6	5,340	2,470	13,100	e2,440	10,400	14,500	10,500	23,300	7,320	3,400	1,800	2,610
7	4,330	2,620	9,890	e2,580	9,540	24,700	12,500	20,100	6,860	3,360	1,810	5,720
8	3,610	2,910	8,160	e2,560	9,140	39,300	14,400	17,400	6,640	3,530	1,840	32,800
9	3,120	2,920	6,520	e2,470	8,510	37,400	14,300	15,400	6,050	3,830	1,990	26,800
10	2,910	2,720	5,560	e2,510	7,920	32,100	15,400	13,600	5,780	4,070	2,030	23,900
11	2,680	2,600	4,950	e2,440	7,000	76,200	16,100	12,100	5,430	5,120	1,930	25,500
12	2,520	2,380	4,860	e2,340	6,050	112,000	16,400	10,800	5,400	4,570	1,920	14,400
13	2,380	2,160	e4,660	e2,350	5,600	65,000	23,500	9,860	5,680	3,970	1,810	10,800
14	2,470	2,120	e4,450	e2,430	5,390	39,600	62,000	9,360	5,490	3,400	1,880	8,700
15	2,500	2,120	e3,860	2,610	5,550	29,800	53,100	9,550	5,680	3,080	2,390	7,370
16	2,310	2,070	e3,350	2,530	6,310	24,400	38,700	11,800	5,170	2,860	2,210	10,600
17	2,150	2,550	e3,500	2,530	6,810	21,600	84,900	16,200	4,800	2,660	2,580	9,450
18	2,100	3,670	3,660	2,490	6,440	18,900	131,000	e50,400	4,860	2,560	2,870	7,180
19	2,170	5,090	3,990	2,410	6,320	16,000	68,700	e129,000	4,580	2,480	2,570	6,050
20	2,130	4,270	e4,020	2,420	7,040	13,900	60,200	101,000	5,040	2,490	2,460	5,240
21	2,060	3,910	e3,810	2,370	7,690	12,700	59,400	55,400	5,530	2,420	2,470	4,980
22	2,040	3,430	3,640	2,330	7,410	12,100	41,100	39,100	8,510	2,140	2,110	5,190
23	1,900	3,220	3,570	e2,290	7,190	11,800	31,700	28,900	11,300	2,270	1,970	4,670
24	1,820	3,050	3,390	e2,140	7,370	13,100	29,300	24,100	8,330	2,290	2,010	4,420
25	1,820	2,870	3,130	e2,160	8,910	18,600	30,900	21,400	6,690	2,200	1,840	4,490
26	1,780	2,720	e2,930	2,390	13,500	22,200	29,100	17,800	5,630	2,120	1,910	4,430
27	1,920	2,720	e2,790	e2,720	23,900	20,300	25,300	16,900	5,010	2,070	1,900	4,620
28	1,900	2,680	2,590	2,830	21,300	17,100	28,500	22,800	4,630	2,190	2,140	6,480
29	1,850	2,750	e2,900	2,670	---	14,700	63,800	29,200	4,280	2,150	2,250	12,600
30	1,940	2,880	2,720	e2,740	---	13,000	61,900	23,500	4,000	2,020	2,240	13,500
31	2,080	---	2,680	2,490	---	11,600	---	18,100	---	1,910	2,190	---
<b>Total</b>	112,440	82,640	221,200	76,870	227,730	834,100	1,073,140	885,070	201,840	93,280	64,040	272,590
<b>Mean</b>	3,627	2,755	7,135	2,480	8,133	26,910	35,770	28,550	6,728	3,009	2,066	9,086
<b>Max</b>	15,000	5,090	32,600	2,830	23,900	112,000	131,000	129,000	14,400	5,120	2,870	32,800
<b>Min</b>	1,780	1,780	2,590	2,140	2,430	11,600	9,560	9,360	4,000	1,910	1,720	1,940
<b>Cfsm</b>	0.38	0.29	0.74	0.26	0.84	2.79	3.71	2.96	0.70	0.31	0.21	0.94
<b>In.</b>	0.43	0.32	0.85	0.30	0.88	3.22	4.14	3.41	0.78	0.36	0.25	1.05

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1895 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Mean</b>	4,970	5,786	8,822	11,400	14,050	19,740	16,640	12,530	8,045	4,443	4,153	4,035
<b>Max</b>	37,030	39,000	32,610	42,160	47,870	68,360	43,840	41,970	40,400	16,000	23,580	38,300
<b>(WY)</b>	(1943)	(1986)	(1973)	(1996)	(1998)	(1936)	(1993)	(1924)	(1972)	(1949)	(1955)	(1996)
<b>Min</b>	706	840	1,253	1,703	1,982	4,407	4,368	3,276	1,932	1,056	771	834
<b>(WY)</b>	(1931)	(1931)	(1966)	(1981)	(2002)	(2009)	(1915)	(1930)	(1969)	(1966)	(1930)	(1930)

## 01638500 POTOMAC RIVER AT POINT OF ROCKS, MD—Continued

## SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1895 - 2011	
<b>Annual total</b>	3,488,690		4,144,940			
<b>Annual mean</b>	9,558		11,360		9,536	
<b>Highest annual mean</b>					18,750	1996
<b>Lowest annual mean</b>					4,015	2002
<b>Highest daily mean</b>	154,000	Mar 15	131,000	Apr 18	434,000	Mar 19, 1936
<b>Lowest daily mean</b>	1,010	Sep 11	1,720	Aug 4	540	Sep 10, 1914
<b>Annual seven-day minimum</b>	1,080	Sep 6	1,790	Aug 1	593	Sep 6, 1966
<b>Maximum peak flow</b>			144,000	Apr 18	<sup>a</sup> 480,000	Mar 19, 1936
<b>Maximum peak stage</b>			22.52	Apr 18	41.03	Mar 19, 1936
<b>Instantaneous low flow</b>			1,620	Aug 3	530	Sep 11, 1966 <sup>b</sup>
<b>Annual runoff (cfsm)</b>	0.990		1.18		0.988	
<b>Annual runoff (inches)</b>	13.45		15.98		13.43	
<b>10 percent exceeds</b>	20,600		26,000		20,900	
<b>50 percent exceeds</b>	4,860		4,660		5,400	
<b>90 percent exceeds</b>	1,460		2,040		1,700	

<sup>a</sup> From rating curve extended above 300,000 ft<sup>3</sup>/s, on basis of adjustment of figure of peak flow at station near Washington for inflow and storage, and slope-area measurement of peak flow.

<sup>b</sup> Sept. 11, 12, 1966.