



Water-Data Report 2008

01591610 PATUXENT RIVER BELOW BRIGHTON DAM NEAR BRIGHTON, MD

Upper Chesapeake Basin
Patuxent Subbasin

LOCATION.--Lat 39°11'31.9", long 77°00'15.8" referenced to North American Datum of 1983, Montgomery County, MD, Hydrologic Unit 02060006, on right bank at Brighton Dam, 500 ft downstream from Triadelphia Reservoir, 1.3 mi east of Brighton, and 92 mi upstream from mouth.

DRAINAGE AREA.--78.6 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1980 to current year.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 310 ft above National Geodetic Vertical Datum of 1929, from topographic map. June 1978 to October 1980, nonrecording gage 300 ft upstream on left bank at different datum.

REMARKS.--No estimated daily discharges. Records good below 2,000 ft³/s and fair above. Flow completely regulated by Triadelphia Reservoir, 500 ft upstream, usable capacity, 6,200,000,000 gal; no dead storage. U.S. Geological Survey gage-height telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior years have been collected at this station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 22, 1972, reached a discharge of 17,800 ft³/s. Data provided by Washington Suburban Sanitary Commission.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 381 ft³/s, May 12, June 4, gage height, 2.83 ft; minimum discharge, 5.9 ft³/s, Aug. 19.

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

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	19	13	11	11	85	118	48	44	43	138	43	45
2	23	12	11	11	126	118	46	44	43	191	42	45
3	31	12	11	12	127	118	46	43	43	112	43	45
4	35	11	14	13	126	117	46	44	138	44	43	45
5	36	11	11	13	126	119	45	44	258	45	44	45
6	36	11	11	13	126	119	45	44	45	45	43	46
7	36	11	11	13	126	96	45	59	45	45	44	45
8	36	11	11	13	125	62	45	69	47	45	43	47
9	42	11	11	12	128	48	45	88	46	45	41	47
10	56	10	11	12	128	84	45	87	47	45	42	47
11	54	11	11	12	117	83	45	87	47	45	43	46
12	53	12	11	24	91	82	44	211	47	44	42	47
13	53	13	12	54	94	81	43	326	47	45	42	46
14	52	13	14	53	94	82	43	321	46	45	42	48
15	53	12	14	53	94	81	43	187	47	45	42	48
16	53	11	15	52	96	82	43	45	47	45	42	48
17	54	11	15	52	97	84	43	44	47	45	43	48
18	53	11	14	52	99	83	43	45	47	45	43	48
19	53	13	14	53	77	84	43	45	46	44	32	48
20	54	15	14	52	106	83	42	45	45	44	13	48
21	55	15	14	51	106	73	43	45	50	45	14	48
22	55	14	14	52	105	61	43	45	45	44	13	50
23	55	13	14	51	105	62	43	45	45	45	13	51
24	55	13	13	51	106	61	43	44	45	44	13	45
25	29	13	12	51	104	62	43	45	45	44	13	39
26	16	13	12	50	102	56	43	45	45	43	13	39
27	16	12	12	50	103	49	44	45	45	44	13	40
28	15	12	11	51	82	48	44	46	45	43	23	40
29	15	12	12	51	118	47	44	46	45	43	45	40
30	15	11	11	50	---	48	44	45	45	43	45	40
31	15	---	11	49	---	48	---	43	---	43	45	---
Total	1,223	363	383	1,137	3,119	2,439	1,322	2,416	1,676	1,683	1,062	1,364
Mean	39.5	12.1	12.4	36.7	108	78.7	44.1	77.9	55.9	54.3	34.3	45.5
Max	56	15	15	54	128	119	48	326	258	191	45	51
Min	15	10	11	11	77	47	42	43	43	43	13	39
Monthend contents, in millions of gallons, in Triadelphia Reservoir (contents on Sept. 30, 2007, 3,670,000,000 gal). Records provided by Washington Suburban Sanitary Commission.												
	3240	3390	3990	4030	3590	3620	4740	5860	5870	5310	4870	4600

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	63.3	66.0	84.7	74.7	89.6	119	121	90.2	83.6	67.6	62.1	74.3
Max	161	186	373	183	256	320	304	229	313	156	143	261
(WY)	(2004)	(2004)	(1984)	(1991)	(1994)	(1993)	(1993)	(1989)	(2003)	(2006)	(1996)	(2003)
Min	7.87	12.1	12.4	9.33	9.57	8.90	8.49	8.63	22.4	30.3	18.1	17.8
(WY)	(1987)	(2008)	(2008)	(1982)	(1999)	(1981)	(1981)	(1981)	(1981)	(1995)	(1987)	(2002)

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	Calendar Year 2007	Water Year 2008		Water Years 1981 - 2008	
Annual total	26,023	18,187			
Annual mean	71.3	49.7		83.0	
Annual mean‡	64.2	52.4		81.7	
Highest annual mean				134	1984
Lowest annual mean				38.2	2002
Highest daily mean	539	Apr 16	326	May 13	1,790 Dec 11, 2003
Lowest daily mean	10	Aug 21 ^a	10	Nov 10	2.1 Jan 27, 1983 ^b
Annual seven-day minimum	11	Aug 21	11	Nov 4	4.0 Oct 16, 1980
Maximum peak flow			381	May 12 ^c	4,800 Dec 11, 2003
Maximum peak stage			2.83	May 12	11.03 Dec 11, 2003
Instantaneous low flow			5.9	Aug 19	1.2 Dec 3, 1985
10 percent exceeds	155		96		172
50 percent exceeds	52		45		54
90 percent exceeds	11		12		11

‡ Adjusted for change in reservoir contents.

^a Aug. 21, 22, 29, Nov. 10.

^b Jan. 27, 28, 1983.

^c May 12, June 4.

d From rating curve extended above 2,900 ft³/s.

