



Water-Data Report 2008

01661050 ST CLEMENT CREEK NEAR CLEMENTS, MD

Potomac Basin
Lower Potomac Subbasin

LOCATION.--Lat 38°19'59.9", long 76°43'30.0" referenced to North American Datum of 1983, St. Mary's County, MD, Hydrologic Unit 02070011, on left bank, 60 feet downstream from bridge on State Highway 242, 0.5 miles north of Clements, 2.3 miles upstream from mouth, and 5.7 miles northwest of Leonardtown.

DRAINAGE AREA.--18.5 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1968 to September 2005. October 2006 to current year.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Elevation of gage is 8 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good, except those above 100 ft³/s which are fair. Occasional regulation from unknown source upstream from station. U.S. Geological Survey satellite collection platform at station. Several measurements of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 220 ft³/s and (or) maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 12	0415	859	5.30
Jun 4	0700	226	2.92
Jun 5	0300	*1,290	*5.59

Minimum discharge, 0.00 ft³/s, on many day.

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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	0.00	1.7	2.6	9.3	44	5.9	7.1	6.6	33	11	3.0	0.70
2	0.00	1.5	2.6	6.1	52	5.1	6.7	5.2	23	5.2	2.3	0.47
3	0.00	1.4	6.3	4.9	20	5.1	5.3	4.2	11	3.5	1.9	0.27
4	0.00	1.4	4.5	4.5	15	5.3	18	3.5	139	5.5	1.5	0.13
5	0.00	1.5	3.7	4.9	13	18	13	2.8	450	22	1.3	0.02
6	0.00	1.7	4.1	5.2	13	15	17	2.8	48	11	1.4	13
7	0.00	2.2	3.8	4.9	9.2	18	17	2.9	25	8.4	1.3	15
8	0.00	2.2	4.0	7.0	8.4	55	13	3.0	18	6.0	1.5	3.6
9	0.00	2.3	4.1	6.7	7.1	30	9.5	28	14	4.8	1.2	1.8
10	0.00	2.3	4.0	5.0	6.4	16	8.7	24	10	4.7	1.1	1.7
11	0.00	2.3	4.4	16	5.0	13	8.1	46	13	3.6	1.3	1.5
12	0.00	2.4	4.5	9.6	5.2	11	7.6	563	8.6	2.9	0.93	1.3
13	0.00	3.1	3.7	5.6	17	9.9	6.6	155	6.2	2.3	1.1	1.3
14	0.00	2.8	3.5	7.0	19	8.3	5.7	39	6.8	3.5	2.2	1.1
15	0.00	5.7	3.6	5.4	13	8.4	5.1	25	23	4.1	3.3	0.90
16	0.00	7.0	16	4.8	12	11	4.8	98	11	2.6	1.9	0.71
17	0.00	4.6	10	10	8.0	9.0	4.6	54	22	1.9	1.3	0.78
18	0.00	3.5	5.6	23	8.2	7.9	4.4	28	11	1.6	0.98	0.70
19	0.00	2.8	4.9	12	6.8	8.3	4.1	28	7.4	1.4	0.77	0.58
20	0.00	2.6	4.5	8.6	7.8	13	14	27	6.0	1.3	0.48	0.49
21	0.00	3.8	4.3	5.5	7.2	8.6	30	24	5.1	1.1	0.31	0.52
22	0.00	3.3	4.1	5.6	9.9	6.9	22	17	16	2.1	0.25	0.56
23	0.00	2.5	4.5	7.5	12	6.0	13	14	62	17	0.24	0.47
24	0.00	2.2	6.3	6.3	8.6	6.0	8.8	11	15	46	0.33	0.41
25	0.00	2.5	4.7	5.2	7.3	6.6	6.8	10	8.2	8.3	0.26	1.9
26	5.5	3.1	4.5	4.9	7.9	5.9	5.2	8.9	6.1	3.3	0.11	12
27	22	2.8	6.9	5.1	8.7	5.9	4.6	7.4	5.1	4.3	0.02	14
28	9.4	3.3	7.3	4.9	6.3	5.8	12	6.3	4.9	8.2	0.27	7.1
29	3.1	3.3	12	4.9	5.3	5.2	21	5.3	4.1	7.3	1.4	3.7
30	2.0	3.0	10	5.2	---	4.8	11	5.0	6.5	7.7	1.6	2.7
31	1.7	---	16	4.6	---	5.3	---	13	---	4.1	1.1	---
Total	43.70	84.8	181.0	220.2	363.3	340.2	314.7	1,267.9	1,019.0	216.7	36.65	89.41
Mean	1.41	2.83	5.84	7.10	12.5	11.0	10.5	40.9	34.0	6.99	1.18	2.98
Max	22	7.0	16	23	52	55	30	563	450	46	3.3	15
Min	0.00	1.4	2.6	4.5	5.0	4.8	4.1	2.8	4.1	1.1	0.02	0.02
Cfsm	0.08	0.15	0.32	0.38	0.68	0.59	0.57	2.21	1.84	0.38	0.06	0.16
In.	0.09	0.17	0.36	0.44	0.73	0.68	0.63	2.55	2.05	0.44	0.07	0.18

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 – 2005, 2007 – 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	10.2	15.9	20.6	25.7	29.1	33.6	26.8	21.7	16.4	11.7	10.4	12.2
Max	46.8	45.4	48.9	77.4	89.7	115	54.7	57.9	116	56.4	45.0	75.2
(WY)	(1980)	(2007)	(1997)	(1978)	(1998)	(1994)	(1983)	(1978)	(1972)	(1975)	(1985)	(1979)
Min	0.73	2.83	5.01	5.30	6.74	10.1	9.05	3.59	1.04	0.46	0.00	0.00
(WY)	(1989)	(2008)	(1989)	(1981)	(2002)	(1981)	(1985)	(1999)	(1999)	(1999)	(2002)	(1988)

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SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1969 – 2005, 2007 – 2008	
Annual total	4,880.85		4,177.56			
Annual mean	13.4		11.4		19.5	
Highest annual mean					34.5 1972	
Lowest annual mean					5.83 2002	
Highest daily mean	203	Mar 17	563	May 12	1,580	Jun 22, 1972
Lowest daily mean	0.00	Jul 19 ^a	0.00	Oct 1 ^a	0.00	Aug 15, 1980 ^a
Annual seven-day minimum	0.00	Sep 3	0.00	Oct 1	0.00	Aug 31, 1980
Maximum peak flow			1,290	Jun 5	^b 4,500	Sep 6, 1979
Maximum peak stage			5.59	Jun 5	^c 6.96	Sep 6, 1979
Instantaneous low flow			0.00	Oct 1 ^d	0.00	Oct 1, 1977 ^f
Annual runoff (cfsm)	0.723		0.617		1.05	
Annual runoff (inches)	9.81		8.40		14.29	
10 percent exceeds	28		18		38	
50 percent exceeds	4.3		5.1		11	
90 percent exceeds	0.00		0.39		1.2	

^a Many days.

^b From rating curve extended above 480 ft³/s on basis of contracted-opening and flow-over-road measurement of peak flow.

^c Backwater from tide; maximum gage height unaffected by backwater, 6.55 ft., June 22, 1972.

^d Oct. 1-26, Sept. 25, 26.

^f No flow at times in 1977, 1980, 1981, 1983, 1985-89, 1991, 1993, 1995, 1999, 2002, 2003, 2005, 2007, 2008.

