



Water-Data Report 2008

01619500 ANTIETAM CREEK NEAR SHARPSBURG, MD

Potomac Basin
Conococheague-Opequon Subbasin

LOCATION.--Lat 39°26'59.2", long 77°43'48.7" referenced to North American Datum of 1983, Washington County, MD, Hydrologic Unit 02070004, on left bank 400 ft downstream from Burnside Bridge, 1.0 mi southeast of Sharpsburg, and 4.0 mi upstream from mouth.

DRAINAGE AREA.--281 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--June 1897 to September 1905, August 1928 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 192: 1897-1905. WSP 726: Drainage area. WSP 1432: 1929-31(M), 1933, 1935(M), 1937(M), 1949(M), 1952(M).

GAGE.--Water-stage recorder. Concrete control since Mar. 29, 1934. Datum of gage is 311.05 ft above National Geodetic Vertical Datum of 1929. June 24, 1897, to Aug. 25, 1905, nonrecording gage a few hundred feet downstream from Middle Bridge, 1.2 mi upstream at datum 12 ft higher. Aug. 21, 1928, to July 13, 1933, nonrecording gage at Burnside Bridge, 0.1 mi upstream at present datum.

REMARKS.—No estimated daily discharges. Records good. Some diurnal fluctuation caused by powerplant upstream from station. Since 1928 records include pumpage from the Potomac River for municipal supply of Hagerstown. This water later enters Antietam Creek upstream from station as sewage. Adjusted for inflow since January 1930. National Weather Service gage-height telemeter 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 FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and (or) maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar 5	2100	1,860	5.61
Apr 21	0730	1,640	5.27
Apr 27	1315	1,850	5.59
May 12	1900	*3,590	*7.90

Minimum discharge, 76 ft³/s, Oct. 12.

01619500 ANTIETAM CREEK NEAR SHARPSBURG, MD—Continued

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	89	110	103	259	222	268	341	801	486	242	177	128
2	87	107	104	227	390	267	333	715	419	237	190	125
3	86	102	155	207	310	260	318	649	392	224	198	124
4	87	100	159	198	273	258	345	600	455	241	173	122
5	85	100	137	192	265	1,150	347	557	448	259	167	121
6	84	100	126	188	267	1,140	317	521	408	308	168	233
7	85	97	118	183	294	748	301	478	376	234	166	282
8	84	94	120	179	286	824	294	461	357	245	163	180
9	84	95	133	176	259	776	286	469	344	237	155	156
10	86	100	163	169	252	639	281	508	337	225	158	170
11	84	98	162	177	235	588	283	553	328	215	166	149
12	80	112	148	197	230	553	462	2,550	315	203	155	143
13	82	114	145	184	246	507	369	2,170	303	226	154	145
14	82	111	148	174	275	475	332	1,240	307	268	159	143
15	84	142	141	170	267	467	317	996	329	228	159	143
16	83	172	359	166	260	446	306	929	306	205	150	142
17	82	145	404	166	256	414	298	837	302	197	144	140
18	81	123	276	170	256	395	292	745	289	191	142	137
19	84	117	228	171	268	433	284	725	281	185	141	135
20	145	115	208	163	255	670	468	702	274	179	136	132
21	112	111	197	155	248	532	1,480	703	284	175	133	130
22	89	111	184	149	245	475	1,020	620	263	178	132	129
23	85	105	179	152	245	456	761	574	266	238	129	129
24	123	99	192	150	238	432	641	532	285	341	127	126
25	168	97	184	145	234	413	566	502	263	238	126	124
26	146	108	170	142	241	398	583	480	247	226	125	126
27	189	129	166	142	333	389	1,470	477	249	243	123	146
28	180	128	163	142	305	380	1,150	465	294	195	137	194
29	135	117	185	144	274	364	1,180	438	287	187	158	191
30	120	109	192	166	---	348	921	416	254	182	150	150
31	114	---	253	168	---	339	---	463	---	182	138	---
Total	3,205	3,368	5,602	5,371	7,729	15,804	16,346	22,876	9,748	6,934	4,699	4,495
Mean	103	112	181	173	267	510	545	738	325	224	152	150
Max	189	172	404	259	390	1,150	1,480	2,550	486	341	198	282
Min	80	94	103	142	222	258	281	416	247	175	123	121
Cfsm	0.37	0.40	0.64	0.62	0.95	1.81	1.94	2.63	1.16	0.80	0.54	0.53
In.	0.42	0.45	0.74	0.71	1.02	2.09	2.16	3.03	1.29	0.92	0.62	0.60
Pumpage in cubic feet per second, from Potomac River for municipal supply of Hagerstown.												
	-16.7	-16.0	-16.2	-16.4	-16.1	-15.6	-16.2	-16.4	-17.3	-17.2	-17.3	-16.8
MEAN Adjusted for pumpage.												
	83.6	96.0	165	157	251	494	529	722	308	207	135	133
CFSM Adjusted for pumpage.												
	0.31	0.34	0.59	0.56	0.89	1.76	1.88	2.57	1.10	0.74	0.48	0.47
IN Adjusted for pumpage.												
	0.35	0.38	0.68	0.64	0.96	2.03	2.10	2.96	1.23	0.85	0.55	0.53

01619500 ANTIETAM CREEK NEAR SHARPSBURG, MD—Continued**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2008, BY WATER YEAR (WY)**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	179	197	263	304	357	470	469	379	298	215	173	176
Max	916	628	964	943	1,206	1,299	1,201	859	1,278	604	531	1,090
(WY)	(1977)	(1997)	(1997)	(1996)	(1998)	(1994)	(1993)	(1998)	(1972)	(1996)	(1996)	(1975)
Min	65.5	65.6	61.5	57.3	66.0	91.5	105	119	95.9	66.4	58.6	69.4
(WY)	(1964)	(1966)	(1966)	(1966)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(1963)

SUMMARY STATISTICS

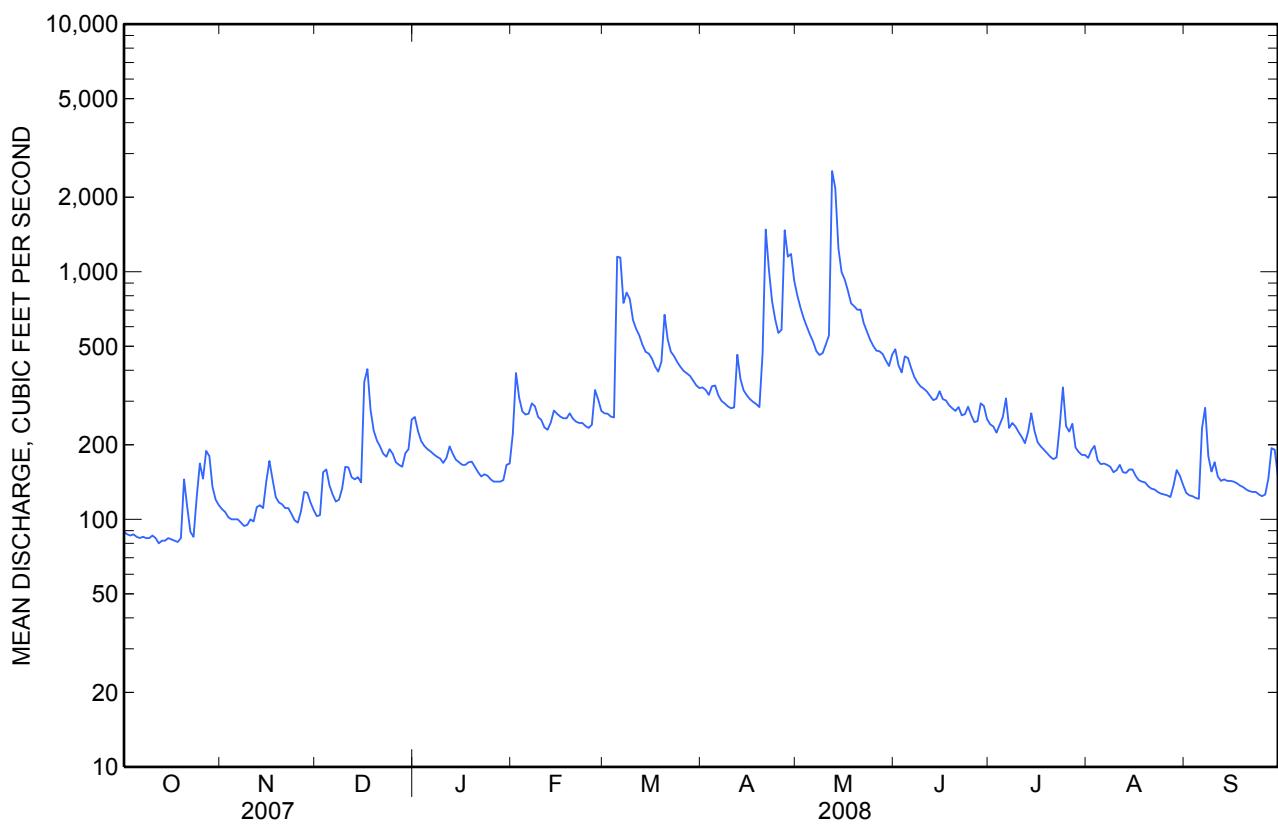
	Calendar Year 2007			Water Year 2008			Water Years 1931 - 2008		
Annual total		87,914			106,177				
Annual mean		241			290			290	
Annual mean [‡]		224			274			280	
Highest annual mean								554	1996
Lowest annual mean								82.7	2002
Highest daily mean	1,290		Apr 16		2,550	May 12		8,970	Sep 26, 1975
Lowest daily mean	80		Oct 12		80	Oct 12		37	Jan 30, 1966
Annual seven-day minimum	82		Oct 12		82	Oct 12		43	Aug 17, 2002
Maximum peak flow					3,590	May 12	a12,600		Jul 20, 1956
Maximum peak stage					7.90	May 12		16.73	Jul 20, 1956
Instantaneous low flow					76	Oct 12	b9.4		Nov 22, 1957
Annual runoff (cfsm)		0.857			1.03			1.03	
Annual runoff (cfsm) [‡]		0.797			0.974			1.00	
Annual runoff (inches)		11.64			14.06			14.00	
Annual runoff (inches) [‡]		10.82			13.22			13.61	
10 percent exceeds		464			553			558	
50 percent exceeds		180			200			209	
90 percent exceeds		98			108			98	

[‡] Adjusted for inflow since January 1930.

^a From rating curve extended above 7,300 ft³/s on basis of contracted-opening measurement of peak flow.

^b Result of regulation caused by construction work upstream from station.

01619500 ANTETAM CREEK NEAR SHARPSBURG, MD—Continued



01619500 ANTIETAM CREEK NEAR SHARPSBURG, MD—Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--Intermittent water-quality samples collected from 1963 to 2007.

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 1 of 6

[Remark codes: <, less than; E, estimated; M, presence verified but not quantified.]

Date	Time	Sample medium and type	Instan- taneous dis- charge, ft3/s (00061)	Dis- solved oxygen, mg/L (00300)	pH, water, unfiltrd field, std units (00400)	conduc- tance, μS/cm (00095)	Temper- ature, wat unf water, deg C (00010)	Organic carbon, water, unfiltrd mg/L (00680)	1,4-Di- chloro- benzene water, filtrd, μg/L (34572)		
Oct 04...	1050	Surface water, regular			87	9.8	8.1	623	18.8	2.2	<.1

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 2 of 6

[Remark codes: <, less than; E, estimated; M, presence verified but not quantified.]

1-Methyl-naphth- naphth- alene, water, filtrd, μg/L (62054)	2,6-Di-methyl-naphth- naphth- alene, water, filtrd, μg/L (62055)	2-Methyl-naphth- alene, water, filtrd, μg/L (62056)	3-beta-Copros- tanol, water, filtrd, μg/L (62057)	3-tert-Methyl- 1H-indole, water, filtrd, μg/L (62058)	Butyl- 4-hydroxy- anisole wat flt μg/L (62059)	4-Cumyl- phenol, water, filtrd, μg/L (62060)	4-Octyl- phenol, water, filtrd, μg/L (62061)	4-Nonyl- phenol, all isomers wat flt μg/L (62085)	4t-Octyl- Iphenol diethox- ylate, wat flt μg/L (62083)	4t-Octyl- Iphenol diethox- ylate, wat flt μg/L (61705)	4t-Octyl- monooethox- ylate, wat flt μg/L (61706)		
Oct 04...	<.1	<.1	<.1	<1	<.08	<.6	<.1	<.16	<1	<5	<1	<1	<1

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 3 of 6

[Remark codes: <, less than; E, estimated; M, presence verified but not quantified.]

5-Methyl-1H-benzo- tri- azole, wat flt μg/L (62063)	9,10-Anthra- quinone water, filtrd, μg/L (62066)	Aceto- phenone water, filtrd, μg/L (62064)	AHTN, water, filtrd, μg/L (62065)	Anthra- cene, water, filtrd, μg/L (34221)	Benzo- [a]- pyrene, water, filtrd, μg/L (34248)	Benzophenone water, filtrd, μg/L (62067)	beta-Sitos- terol, water, filtrd, μg/L (62068)	beta-Stigmas- tanol, water, filtrd, μg/L (62086)	Bromacil, water, filtrd, μg/L (04029)	Caffeine, water, filtrd, μg/L (50305)	Caffe- ine-13C sur Sch 2033 & 8033, water, filtrd, μg/L (99584)		
Oct 04...	<.08	<.2	<.1	<.5	<.1	<.1	<.1	<2	<1	<.4	<.1	93.4	<.1

01619500 ANTIETAM CREEK NEAR SHARPSBURG, MD—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 4 of 6

[Remark codes: <, less than; E, estimated; M, presence verified but not quantified.]

Date	Car-	Carba-	Chlor-	Choles-	Cot-	Decaf-				Fluor-	
	baryl,	Carba-	pyrifos	terol,	inine,	biphenyl	sur Sch	Diazi-	D-Limo-	anthene	
	water,	zole,	water,	water,	water,	2033 &	DEET,	non,	water,	-d10,	
	0.7u GF	filtrd,	filtrd,	filtrd,	filtrd,	8033,	water,	water,	water,	sur Sch	
	μg/L	μg/L	μg/L	μg/L	μg/L	% recvy	μg/L	μg/L	μg/L	20/8033	
	(82680)	(62071)	(38933)	(62072)	(62005)	(99585)	(62082)	(39572)	(62073)	(34377)	
Oct											
04...	<1	<.1	<.1	M	<.400	50.1	<.1	<.1	<.04	<.1	88.4
											<.5
											<.1

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 5 of 6

[Remark codes: <, less than; E, estimated; M, presence verified but not quantified.]

Date	Isobor-	Iso-	Iso-	Methyl						Promo-	
	neol,	phorone	propyl-	quin-	Menthol	Metaxyl,	salicy-	Metola-	Naphth-	phenan-	
	water,	water,	benzene	water,	water,	water,	late,	chlor,	alene,	p-	
	filtrd,	filtrd,	filtrd,	filtrd,	filtrd,	filtrd,	filtrd,	filtrd,	filtrd,	Cresol,	
	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	water,	
	(62077)	(34409)	(62078)	(62079)	(62080)	(50359)	(62081)	(39415)	(34443)	(62084)	
Oct											
04...	<.1	<.1	<.1	<.2	<.2	<.1	<.1	<.1	<.1	<.18	<.1
											<.2
											<.2

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 6 of 6

[Remark codes: <, less than; E, estimated; M, presence verified but not quantified.]

Date	Tetra-	Tri-	Tri-	Tri-			Tri-	Tris(2-	Tris(2-	Tris(di	
	chloro-	bromo-	butyl	butyl	phenyl	butoxy-	chloro-	chloro-	i-Pr)	chloro-	
	Pyrene,	ethene,	methane	phosphate,	Triclo-	ethyl	phos-	ethyl)		ethyl)	
	water,	water,	water,	water,	san,	citrate	phosphate,	phosphate,	phosphate,	phosphate,	Sam-
	filtrd,	filtrd,	filtrd,	filtrd,	water,	water,	water,	water,	water,	water,	pling
	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	method,
	(34470)	(34476)	(34288)	(62089)	(62090)	(62091)	(62092)	(62093)	(62087)	(62088)	Sampler code
Oct											
04...	<.1	<.1	<.1	<.2	<.2	<.2	<.1	<.4	M	E.1	3070
											70