01594526 WESTERN BRANCH AT UPPER MARLBORO, MD

Upper Chesapeake Basin
Patuxent Subbasin

LOCATION.--Lat 38°48'51.2", long 76°44'55.4" referenced to North American Datum of 1983, Prince Georgés County, MD, Hydrologic Unit 02060006, on left bank 1000 ft upstream from bridge on Water Street, 0.2 mi south of Upper Marlboro, and 4.7 mi upstream from mouth.

DRAINAGE AREA.--89.7 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1985 to April 1989, April 1992 to current year.

REVISED RECORDS.--WDR-US-2010: 1994(P), 1996(P), 1999, 2003(P), 2005(P), 2007, 2008-09. WDR-US-2011: 1999(P), 2007(P), 2008(P), 2010(P), 2008.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 5.24 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except for those for estimated daily discharges (ice effect), which are poor. 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.

REVISIONS.--The peak discharges and annual maximums (*) reported for water years 1999, 2007, 2008, and 2010 have been revised as shown in the following table. They supersede those published in corresponding water-data reports.

EXTREMES FOR THE 1999 WATER YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Aug 27	0615	1,070	9.20
Sep 16	2145	*4,190	*15.39

EXTREMES FOR THE 2007 WATER YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 8	2115	1,040	9.07
Nov 17	0345	*3,950	*15.05
Mar 17	0730	2,040	12.00
Apr 15	2330	2,620	13.05

01594526 WESTERN BRANCH AT UPPER MARLBORO, MD—Continued

EXTREMES FOR THE 2008 WATER YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 27	2045	2,270	12.49
Feb 2	0630	1,040	9.07
Apr 22	0000	1,370	10.23
May 9	1430	3,980	15.10
May 12	1045	*7,980	*18.55
Jun 5	1115	2,130	12.20

EXTREMES FOR 2010 WATER YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 18	1615	1,100	9.35
Oct 28	1545	1,970	11.83
Dec 9	2015	2,050	12.02
Dec 26	1815	*2,910	*13.50
Mar 14	0115	1,870	11.60

REVISIONS.--Monthly discharge, in cubic feet per second, for the period of May 2008 are given below. These figures supersede those published in the water-data reports for 2008 and 2010.

	Total	Mean	Max	Min	Cfsm	In
May 2008	15,728	507	5,320	37	5.66	6.52
Water Year 2008	47,051.7	129	5,320	2.1	1.43	19.51
Calendar Year 2008	45278.7	124	5,320	9.7	1.38	18.78

01594526 WESTERN BRANCH AT UPPER MARLBORO, MD—Continued

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and (or) maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)
Oct 1	1000	2,990	13.63
Mar 11	0515	1,920	11.72
Aug 28	1100	5,640	16.81
Sep 8	0730	*13,000	*21.18
Sep 24	0700	1,740	11.26

Minimum discharge, 3.8 ft³/s, Aug. 12, 13.

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

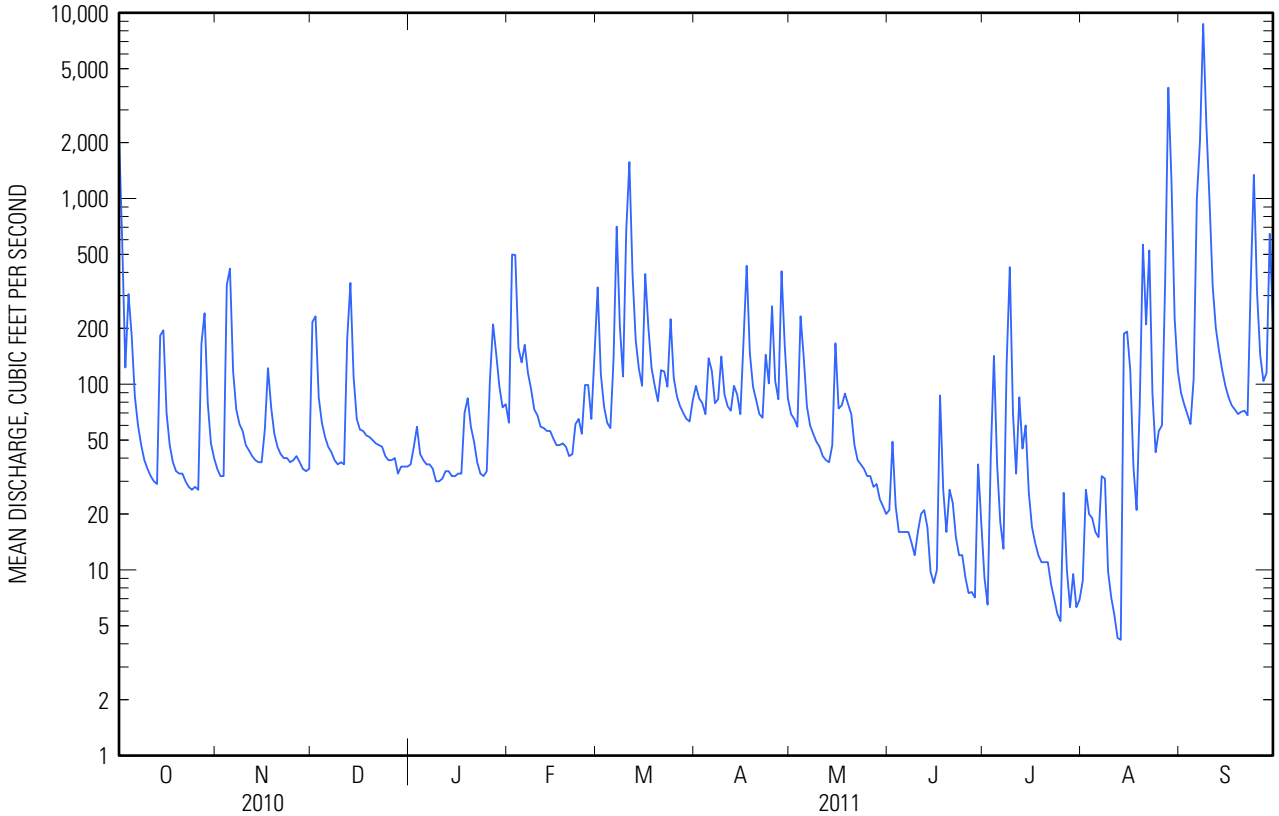
Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	2,270	35	216	37	62	332	98	69	21	9.1	8.7	90
2	596	32	232	46	499	113	84	65	49	6.5	27	78
3	123	32	85	59	496	76	79	59	22	41	20	69
4	306	341	62	42	157	62	69	232	16	142	19	61
5	183	419	52	39	131	58	138	139	16	37	16	107
6	86	117	46	37	163	136	118	76	16	18	15	993
7	60	73	43	37	115	705	79	60	16	13	32	2,050
8	47	61	39	35	94	204	83	54	14	128	31	8,710
9	39	56	37	e30	73	110	141	49	12	427	9.8	2,510
10	35	47	38	e30	68	666	88	46	16	70	7.1	977
11	32	44	37	31	e59	1,570	76	41	20	33	5.7	337
12	30	41	177	34	58	388	72	39	21	85	4.3	200
13	29	39	351	e34	56	172	98	38	17	45	4.2	151
14	183	38	110	e32	56	121	88	47	9.8	60	187	119
15	195	38	e65	32	51	98	69	166	8.5	26	192	98
16	70	57	e57	33	47	392	170	74	10	17	119	85
17	47	122	56	33	47	201	434	77	87	14	36	77
18	38	75	e53	70	48	122	147	89	27	12	21	73
19	34	54	52	84	46	98	97	78	16	11	79	69
20	33	46	50	59	41	81	82	69	27	11	564	71
21	33	42	48	49	42	119	69	47	23	11	210	72
22	30	40	47	38	61	117	66	39	15	8.4	525	68
23	28	40	46	e33	65	97	144	37	12	7.0	89	352
24	27	38	41	e32	54	224	101	35	12	5.8	43	1,340
25	28	39	39	e34	99	108	263	32	9.1	5.3	56	310
26	27	41	39	105	99	86	104	32	7.5	26	60	143
27	165	38	40	210	65	76	83	28	7.6	10	353	104
28	241	35	e33	145	145	70	406	29	7.1	6.3	3,950	115
29	79	34	36	97	---	65	162	24	37	9.5	1,250	645
30	48	35	36	75	---	63	84	22	18	6.3	226	217
31	40	---	36	78	---	82	---	20	---	6.9	118	---
Total	5,182	2,149	2,299	1,730	2,997	6,812	3,792	1,912	589.6	1,308.1	8,277.8	20,291
Mean	167	71.6	74.2	55.8	107	220	126	61.7	19.7	42.2	267	676
Max	2,270	419	351	210	499	1,570	434	232	87	427	3,950	8,710
Min	27	32	33	30	41	58	66	20	7.1	5.3	4.2	61
Cfsm	1.86	0.80	0.83	0.62	1.19	2.45	1.41	0.69	0.22	0.47	2.98	7.54
In.	2.15	0.89	0.95	0.72	1.24	2.83	1.57	0.79	0.24	0.54	3.43	8.41

01594526 WESTERN BRANCH AT UPPER MARLBORO, MD—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 – 1989, 1992 – 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	68.7	98.7	115	114	135	171	123	111	84.0	61.1	57.9	93.4
Max	185	287	389	251	332	436	197	507	341	175	267	676
(WY)	(2010)	(2007)	(2010)	(1996)	(1998)	(1994)	(2007)	(2008)	(2003)	(2003)	(2011)	(2011)
Min	6.54	11.0	24.5	32.3	19.7	37.7	49.1	21.4	9.42	5.62	9.74	5.78
(WY)	(1999)	(1999)	(1999)	(2002)	(2002)	(2006)	(1995)	(1999)	(1986)	(1999)	(1995)	(2007)

SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1986 – 1989, 1992 – 2011	
Annual total	41,596.4		57,339.5			
Annual mean	114		157		104	
Highest annual mean					175	2003
Lowest annual mean					31.9	2002
Highest daily mean	2,270	Oct 1	8,710	Sep 8	8,710	Sep 8, 2011
Lowest daily mean	4.8	Jul 9	4.2	Aug 13	1.1	Aug 21, 2002
Annual seven-day minimum	6.3	Jul 3	8.5	Jul 19	1.3	Aug 15, 2002
Maximum peak flow			[a]13,000	Sep 8	[a]13,000	Sep 8, 2011
Maximum peak stage			21.18	Sep 8	21.18	Sep 8, 2011
Instantaneous low flow			3.8	Aug 12[b]	0.32	Sep 21, 2002
Annual runoff (cfsm)	1.27		1.75		1.16	
Annual runoff (inches)	17.25		23.78		15.78	
10 percent exceeds	257		228		213	
50 percent exceeds	57		57		53	
90 percent exceeds	13		16		10	

[a] From rating curve extended above 5,500 ft³/s on basis of contracted-opening measurement of peak flow at gage height 21.18 ft.
[b] Aug. 12, 13.