

01581752 PLUMTREE RUN NEAR BEL AIR, MD

Upper Chesapeake Basin
Gunpowder-Patapsco Subbasin

LOCATION.--Lat 39°29'47", long 76°20'52" referenced to North American Datum of 1927, Harford County, MD, Hydrologic Unit 02060003, on downstream side of bridge on Plumtree Road, 2.5 mi south of Bel Air.

DRAINAGE AREA.--2.50 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 2001 to current year.

REVISED RECORDS.--WDR-US-2006: 2003-04 (P).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 170 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except 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.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 350 ft³/s and (or) maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 1	0000	*487	*4.63
Aug 14	1045	409	4.38
Aug 28	0015	453	4.53
Sep 7	1900	421	4.42
Sep 8	0700	415	4.40
Sep 10	2015	456	4.54

Minimum discharge, 0.49 ft³/s, July 27, 28, Aug. 12, 13.

01581752 PLUMTREE RUN NEAR BEL AIR, 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	48	1.3	33	1.4	1.7	3.3	4.1	2.5	1.4	0.85	0.97	1.8
2	3.6	1.3	3.9	1.4	24	2.6	2.8	2.4	1.4	0.83	1.3	1.8
3	2.3	1.3	2.6	1.4	e4.4	2.3	2.5	2.3	1.4	1.00	3.6	1.7
4	7.8	18	e1.7	1.3	e2.4	2.2	2.4	10	1.7	0.85	1.1	1.6
5	2.8	3.1	e1.5	e1.3	e2.9	2.2	7.6	2.8	3.9	0.77	0.74	12
6	2.1	1.7	e1.4	e1.3	5.2	39	3.0	4.4	1.5	0.75	3.9	49
7	2.2	1.5	e1.4	e1.3	3.8	13	2.7	3.2	1.4	8.1	3.8	52
8	1.7	1.4	e1.4	e1.3	3.5	3.8	9.2	2.4	1.4	28	1.1	59
9	1.5	1.4	e1.4	e1.2	e2.9	3.3	4.3	2.2	1.3	4.1	1.4	11
10	1.4	1.4	1.3	e1.2	e2.4	85	3.1	2.1	1.2	1.8	0.93	38
11	1.3	2.6	1.4	e1.3	e2.1	13	2.9	2.1	1.3	3.4	0.62	11
12	1.3	1.4	25	e1.4	e1.9	4.9	7.2	2.0	11	2.3	0.53	4.7
13	1.3	1.3	5.5	e1.3	2.0	3.8	9.5	2.0	2.6	1.2	4.3	3.6
14	7.6	1.3	e2.0	e1.3	3.8	3.4	3.6	2.0	1.5	1.1	44	3.2
15	2.2	1.3	e1.7	1.4	2.6	3.2	3.2	6.0	1.4	1.0	3.0	2.9
16	1.4	1.5	e1.6	1.4	2.2	15	35	2.9	2.5	0.95	1.3	2.8
17	1.4	2.4	e1.5	1.3	2.3	3.6	9.5	2.5	2.7	0.91	1.1	2.6
18	1.4	1.5	e1.4	3.0	2.4	3.4	4.1	2.8	1.4	0.87	4.1	2.6
19	4.1	1.4	e1.4	4.0	2.2	3.1	6.0	4.3	1.3	0.84	2.2	2.4
20	1.6	1.4	e1.4	2.2	2.0	2.9	4.1	4.0	1.2	0.91	1.1	2.4
21	1.4	1.4	e1.4	e2.0	2.1	5.4	3.3	2.5	1.2	0.78	2.5	3.2
22	1.3	1.3	e1.4	e1.7	e2.2	3.1	3.1	2.0	1.3	0.73	1.1	3.8
23	1.3	1.4	e1.3	e1.6	e2.0	12	4.3	2.0	1.2	0.69	0.82	53
24	1.4	1.3	e1.3	e1.5	e2.1	5.7	5.3	1.9	1.1	0.63	0.76	9.0
25	1.4	1.6	e1.3	e1.6	22	3.4	3.6	1.8	0.99	1.0	4.8	4.2
26	1.4	1.4	e1.3	e2.0	3.8	3.2	3.0	1.8	0.95	0.90	1.3	3.5
27	6.4	1.3	e1.3	e2.5	2.9	2.9	2.9	1.7	0.99	0.59	48	3.8
28	2.1	1.3	e1.3	e1.9	6.6	2.8	4.7	1.6	0.99	2.0	69	4.7
29	1.6	1.3	e1.3	e1.7	---	2.7	2.8	1.6	0.92	1.7	4.0	5.1
30	1.5	1.3	e1.3	e1.6	---	2.6	2.6	1.5	0.87	0.73	2.5	3.1
31	1.4	---	e1.3	e1.6	---	3.3	---	1.5	---	0.60	2.0	---
Total	118.2	62.1	107.0	51.4	120.4	260.1	162.4	84.8	54.01	70.88	217.87	359.5
Mean	3.81	2.07	3.45	1.66	4.30	8.39	5.41	2.74	1.80	2.29	7.03	12.0
Max	48	18	33	4.0	24	85	35	10	11	28	69	59
Min	1.3	1.3	1.3	1.2	1.7	2.2	2.4	1.5	0.87	0.59	0.53	1.6
Cfsm	1.53	0.83	1.38	0.66	1.72	3.36	2.17	1.09	0.72	0.91	2.81	4.79
In.	1.76	0.92	1.59	0.76	1.79	3.87	2.42	1.26	0.80	1.05	3.24	5.35

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	4.39	3.67	5.33	3.36	4.18	5.43	4.77	3.42	5.69	3.58	3.21	5.11
Max	8.66	6.42	10.5	5.44	7.49	8.74	6.50	6.46	23.2	6.96	7.95	12.0
(WY)	(2006)	(2007)	(2010)	(2010)	(2004)	(2003)	(2007)	(2003)	(2006)	(2004)	(2003)	(2011)
Min	0.80	1.13	1.28	1.66	0.98	1.86	2.06	2.22	1.65	0.81	0.91	0.52
(WY)	(2002)	(2002)	(2002)	(2011)	(2002)	(2009)	(2002)	(2002)	(2007)	(2002)	(2002)	(2005)

01581752 PLUMTREE RUN NEAR BEL AIR, MD—Continued

SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 2002 - 2011	
Annual total	1,490.23		1,668.66			
Annual mean	4.08		4.57		4.34	
Highest annual mean					6.47	2003
Lowest annual mean					1.62	2002
Highest daily mean	184	Sep 30	85	Mar 10	184	Sep 30, 2010
Lowest daily mean	0.30	Sep 19 ^a	0.53	Aug 12	0.07	Aug 20, 2002 ^b
Annual seven-day minimum	0.36	Sep 3	0.76	Jul 21	0.08	Aug 17, 2002
Maximum peak flow			487	Oct 1	^c 2,420	Jun 24, 2006
Maximum peak stage			4.63	Oct 1	6.61	Jun 24, 2006
Instantaneous low flow			0.49	Jul 27 ^d	0.07	Aug 19, 2002 ^f
Annual runoff (cfsm)	1.63		1.83		1.74	
Annual runoff (inches)	22.17		24.83		23.60	
10 percent exceeds	6.3		6.8		7.2	
50 percent exceeds	2.3		2.0		2.1	
90 percent exceeds	0.74		1.1		0.74	

^a Sept. 19, 20.

^b Aug. 20-22, 2002.

^c From rating curve extended above 154 ft³/s on basis of slope-area measurement of peak flow at gage height 6.21 ft.

^d July 27, 28, Aug. 12, 13.

^f Aug. 19-23, 2002.

