

01589305 POWDER MILL RUN NEAR LOCHEARN, MD

Upper Chesapeake Basin
Gunpowder-Patapsco Subbasin

LOCATION.--Lat 39°20'06.4", long 76°42'39.0" referenced to North American Datum of 1983, Baltimore County, MD, Hydrologic Unit 02060003, on left bank, 350 ft downstream from State Highway 26 (Liberty Road) culvert, at Baltimore County/Baltimore City line, in Powder Mill Park, 0.75 mi southeast of Lochearn, and 0.5 mi upstream from mouth.

DRAINAGE AREA.--3.64 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--November 2005 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 330 ft above National Geodetic Vertical Datum of 1929, from topographic map

REMARKS.--Records fair, except those for estimated daily discharges (backwater, missing record) which are poor. Some diurnal regulation from unknown sources upstream of 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 625 ft³/s and (or) maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar 10	1215	706	6.29
Mar 10	1630	834	6.67
Jul 25	1400	1,050	7.25
Aug 14	0930	1,050	7.25
Sep 7	1245	*1,390	*8.06
Sep 7	1900	748	6.42
Sep 11	1615	1,110	7.39

Minimum discharge, 0.35 ft³/s, July 24, 25.

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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	22	e1.1	29	1.0	1.5	3.0	6.0	2.5	1.2	e0.80	4.2	1.2
2	3.0	e1.0	2.1	1.7	32	2.3	2.5	1.8	e1.0	e0.84	1.3	1.2
3	4.1	e1.1	1.5	1.1	4.7	1.8	2.5	1.7	e0.90	3.0	3.4	1.1
4	15	27	e1.4	1.1	2.5	1.7	2.6	12	e1.0	0.69	1.6	1.1
5	2.4	3.0	e1.4	1.1	7.9	1.7	16	1.9	e1.2	0.68	0.63	18
6	1.8	2.0	e1.3	1.1	5.8	29	2.5	2.3	e0.96	0.64	14	33
7	1.5	e1.8	e1.3	1.0	4.2	6.5	2.1	1.8	e0.86	14	6.0	187
8	1.4	e1.6	e1.3	1.0	3.8	2.5	10	1.5	e0.86	9.3	0.89	106
9	1.4	e1.5	e1.2	1.0	2.4	2.1	3.3	1.4	e12	1.1	1.2	29
10	1.4	e1.3	e1.2	1.0	2.0	228	2.3	1.3	3.1	0.72	0.68	5.4
11	1.4	e1.2	e1.3	1.1	1.9	16	2.3	1.3	3.2	13	0.58	60
12	1.5	e1.2	26	1.4	1.7	6.8	11	1.3	10	1.3	0.55	9.4
13	1.6	e1.1	3.7	1.1	1.7	4.3	8.2	1.3	1.2	0.90	15	3.8
14	17	e1.1	1.9	1.1	3.3	3.2	2.7	12	0.94	0.53	80	2.6
15	2.0	e1.1	1.5	1.1	2.3	3.7	2.4	13	0.89	0.51	16	2.9
16	e1.8	e6.0	1.3	1.1	1.9	23	49	2.3	0.88	0.49	1.8	2.0
17	e1.7	e4.0	1.5	1.0	2.1	3.6	8.9	5.5	1.1	0.48	1.2	1.6
18	e1.7	e2.0	1.6	6.7	2.2	3.1	4.1	6.3	0.93	0.46	2.8	1.6
19	9.4	e1.4	1.4	3.9	e2.0	2.6	8.9	11	0.86	1.5	1.2	1.5
20	1.4	e1.2	1.3	1.4	e1.8	2.3	3.5	2.9	0.86	1.0	0.86	1.5
21	e1.3	e1.1	1.2	2.6	e1.9	7.9	2.5	1.6	1.6	0.44	23	1.3
22	e1.3	e1.0	1.2	1.6	6.1	2.5	3.9	1.4	0.85	0.49	2.2	4.1
23	e1.2	e1.0	e1.1	1.1	2.5	12	7.1	1.4	0.80	2.0	0.99	32
24	e1.4	e0.96	e1.0	1.1	2.6	4.7	9.6	1.3	0.79	0.41	0.88	2.6
25	e1.2	e1.2	e1.1	1.2	33	2.8	3.4	1.3	0.78	54	4.2	1.8
26	e1.4	e1.1	e1.2	3.8	3.8	2.4	2.4	1.3	0.77	1.7	0.96	2.8
27	16	e1.0	e1.2	4.1	2.6	2.3	3.2	1.3	0.81	0.91	70	3.0
28	2.1	e1.0	e1.2	3.0	11	2.2	6.0	1.5	0.80	0.76	79	11
29	e1.4	e1.0	1.0	1.8	---	2.1	2.1	1.3	0.79	0.72	3.5	2.9
30	e1.2	e4.6	1.0	1.6	---	3.8	1.8	1.3	e0.78	0.70	2.2	1.6
31	e1.1	---	1.0	1.3	---	3.7	---	1.2	---	0.67	1.4	---
Total	123.1	75.66	95.4	54.2	151.2	393.6	192.8	100.0	52.71	114.74	342.22	533.0
Mean	3.97	2.52	3.08	1.75	5.40	12.7	6.43	3.23	1.76	3.70	11.0	17.8
Max	22	27	29	6.7	33	228	49	13	12	54	80	187
Min	1.1	0.96	1.0	1.0	1.5	1.7	1.8	1.2	0.77	0.41	0.55	1.1
Cfsm	1.09	0.69	0.85	0.48	1.48	3.49	1.77	0.89	0.48	1.02	3.03	4.88
In.	1.26	0.77	0.97	0.55	1.55	4.02	1.97	1.02	0.54	1.17	3.50	5.45

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2006 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	5.47	4.10	5.82	3.38	4.34	6.47	6.71	4.35	4.53	4.15	4.30	8.82
Max	9.41	9.51	13.8	5.63	6.80	12.7	9.22	7.26	10.8	8.02	11.0	17.8
(WY)	(2010)	(2007)	(2010)	(2010)	(2008)	(2011)	(2009)	(2009)	(2006)	(2010)	(2011)	(2011)
Min	1.75	1.64	3.08	1.72	1.33	1.21	4.75	1.82	1.21	1.87	1.27	0.81
(WY)	(2009)	(2008)	(2011)	(2008)	(2009)	(2006)	(2008)	(2007)	(2010)	(2007)	(2006)	(2007)

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SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 2006 - 2011	
Annual total	1,916.80		2,228.63			
Annual mean	5.25		6.11		5.36	
Highest annual mean					6.86	2010
Lowest annual mean					4.35	2007
Highest daily mean	176	Sep 30	228	Mar 10	292	Sep 27, 2008
Lowest daily mean	0.71	Sep 8	0.41	Jul 24	0.28	Sep 24, 2008
Annual seven-day minimum	0.77	Sep 5	0.67	Jul 12	0.35	Sep 18, 2008
Maximum peak flow			1,390	Sep 7	^a 1,470	May 25, 2009
Maximum peak stage			8.06	Sep 7	8.24	May 25, 2009
Instantaneous low flow			0.35	Jul 24 ^b	0.18	Sep 25, 2008
Annual runoff (cfsm)	1.44		1.68		1.47	
Annual runoff (inches)	19.59		22.78		20.01	
10 percent exceeds	9.4		12		10	
50 percent exceeds	1.6		1.7		1.5	
90 percent exceeds	0.89		0.87		0.71	

^a From rating curve extended above 50 ft³/s on basis of slope-area measurement at gage-height 8.12 ft.

^b July 24, 25.

