

Water-Data Report 2011

01589290 SCOTTS LEVEL BRANCH AT ROCKDALE, MD

Upper Chesapeake Basin
Gunpowder-Patapsco Subbasin

LOCATION.--Lat 39°21'41.8", long 76°45'42.3" referenced to North American Datum of 1927, Baltimore County, MD, Hydrologic Unit 02060003, on left bank at upstream side of bridge on Rolling Road, 0.40 mi northeast of Liberty Road (State Route 26), and 0.50 mi upstream from mouth.

DRAINAGE AREA.--3.23 mi².

SURFACE-WATER RECORDS

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

REVISED RECORDS.--WDR-US-2009: 2006-2008.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 450 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges (backwater, ice effect), which are poor. 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 300 ft³/s and (or) maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar 10	Unknown	387	3.87
Jul 25	1500	654	4.54
Sep 7	1250	*2,370	*7.62
Sep 8	0015	823	4.88

Minimum discharge, 0.16 ft³/s, July 10, 11, 21-25.

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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	18	0.63	18	e0.59	e0.90	3.1	4.6	2.3	0.69	0.32	0.54	0.80
2	1.6	0.63	1.5	e1.1	25	1.9	2.0	2.2	0.61	0.39	0.90	2.1
3	1.0	0.63	0.85	e0.75	5.5	1.7	1.7	2.4	0.69	2.0	1.8	0.80
4	9.0	14	0.81	e0.65	2.2	1.5	2.2	8.1	0.68	0.24	2.6	0.73
5	1.3	1.7	0.80	e0.60	6.0	1.5	7.7	2.1	0.73	0.23	0.63	13
6	0.73	0.77	0.72	e0.57	6.3	32	2.2	2.9	0.73	0.30	6.8	27
7	0.70	0.64	0.68	e0.57	4.5	11	2.0	2.8	0.67	1.9	13	397
8	0.73	0.64	0.63	e0.55	4.0	3.4	6.4	1.6	0.62	4.7	1.5	133
9	0.71	0.70	0.63	e0.53	e2.0	2.5	3.8	1.5	1.4	1.00	2.0	25
10	0.61	0.63	0.63	e0.53	e1.4	121	2.3	1.2	2.3	0.19	0.97	6.2
11	0.55	e0.63	0.67	e0.70	1.3	13	2.0	1.3	1.5	3.6	0.39	11
12	0.55	e0.62	15	e1.1	1.3	5.1	10	1.2	1.2	2.2	0.35	5.0
13	0.55	e0.62	3.9	e0.85	1.3	3.6	8.0	1.2	0.67	0.36	16	2.6
14	5.8	e0.61	e1.2	e0.75	4.7	2.8	3.4	2.3	0.48	0.27	6.9	2.6
15	0.84	e0.63	e0.90	e0.72	2.9	2.6	2.5	4.1	0.46	0.20	16	2.6
16	0.55	3.3	e0.80	e0.72	1.7	15	31	2.1	0.44	0.25	1.4	1.7
17	0.54	6.9	e1.0	e0.70	1.9	3.5	9.6	4.7	4.4	0.23	0.62	1.5
18	0.56	0.87	e0.90	e3.0	2.0	2.9	3.9	5.1	0.60	0.19	0.48	1.5
19	4.4	0.67	e0.85	e3.5	1.6	2.4	7.2	8.0	0.46	0.18	1.2	1.5
20	0.65	0.60	e0.80	e1.0	1.5	2.1	4.0	4.1	0.40	0.44	0.62	1.6
21	0.84	0.55	e0.73	e1.5	1.5	4.9	2.7	1.7	2.0	0.22	4.5	1.5
22	0.64	0.60	e0.68	e0.80	3.3	2.3	3.0	1.4	0.45	0.16	3.1	2.1
23	0.67	0.60	e0.62	e0.70	2.2	8.5	5.6	1.3	0.37	1.1	0.46	22
24	0.61	0.63	e0.59	1.1	2.0	5.8	5.1	1.2	0.36	0.18	0.39	3.6
25	0.58	0.82	e0.60	0.98	27	2.4	3.8	1.1	0.35	75	3.8	2.0
26	0.62	0.79	e0.60	1.2	4.2	2.0	2.3	0.93	0.36	4.5	0.73	1.6
27	8.7	0.59	e0.62	1.9	2.6	1.8	4.4	1.3	0.41	1.3	26	1.6
28	0.89	0.55	e0.60	e1.8	7.1	1.7	13	1.2	0.48	0.63	80	7.9
29	0.73	0.55	e0.59	e1.3	---	1.6	2.9	0.81	0.52	0.70	3.8	4.0
30	0.73	0.89	e0.57	e1.0	---	2.2	2.1	0.77	0.33	1.4	2.1	2.1
31	0.72	---	e0.56	e0.90	---	3.2	---	0.76	---	1.0	1.0	---
Total	65.10	42.99	58.03	32.66	127.90	269.0	161.4	73.67	25.36	105.38	200.58	685.63
Mean	2.10	1.43	1.87	1.05	4.57	8.68	5.38	2.38	0.85	3.40	6.47	22.9
Max	18	14	18	3.5	27	121	31	8.1	4.4	75	80	397
Min	0.54	0.55	0.56	0.53	0.90	1.5	1.7	0.76	0.33	0.16	0.35	0.73
Cfsm	0.65	0.44	0.58	0.33	1.41	2.69	1.67	0.74	0.26	1.05	2.00	7.08
In.	0.75	0.50	0.67	0.38	1.47	3.10	1.86	0.85	0.29	1.21	2.31	7.90

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	5.09	3.48	4.90	3.21	4.63	5.35	5.01	3.71	3.91	1.87	2.38	6.49
Max	14.2	9.45	10.6	4.91	7.01	9.42	6.45	6.68	10.8	3.40	6.47	22.9
(WY)	(2006)	(2007)	(2010)	(2006)	(2008)	(2010)	(2009)	(2008)	(2006)	(2011)	(2011)	(2011)
Min	1.50	1.43	1.87	1.05	1.63	1.52	3.95	1.68	0.84	0.89	0.88	0.36
(WY)	(2009)	(2011)	(2011)	(2011)	(2009)	(2006)	(2006)	(2007)	(2010)	(2007)	(2008)	(2007)

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	Calendar Year 2010	Water Year 2011	Water Years 2006 - 2011	
Annual total	1,256.77	1,847.70		
Annual mean	3.44	5.06	4.16	
Highest annual mean			5.06	2011
Lowest annual mean			3.33	2008
Highest daily mean	107	Mar 13	397	Sep 7, 2011
Lowest daily mean	0.18	Aug 9 ^a	0.16	Jul 22
Annual seven-day minimum	0.21	Aug 27	0.24	Jul 16
Maximum peak flow			c2,370	Sep 7, 2011
Maximum peak stage			7.62	Sep 7, 2011
Instantaneous low flow			0.16	Jul 10 ^d
Annual runoff (cfsm)	1.07	1.57		1.29
Annual runoff (inches)	14.47	21.28		17.50
10 percent exceeds	7.5	7.4		7.5
50 percent exceeds	1.4	1.3		1.5
90 percent exceeds	0.28	0.53		0.39

^a Aug. 9, Sept. 2, 15.^b Oct. 5-8, 2007.^c From rating curve extended above 340 ft³/s on basis of culvert type 2 measurement of peak flow.^d July 10, 11, 21-25.^f Oct. 5-9, 2007.