01593500 LITTLE PATUXENT RIVER AT GUILFORD, MD

Upper Chesapeake Basin
Patuxent Subbasin

LOCATION.--Lat 39°10'03.9", long 76°51'04.5" referenced to North American Datum of 1983, Howard County, MD, Hydrologic Unit 02060006, on left bank 25 ft downstream from bridge on Guilford Road (formerly State Highway 32), 1 mi west of Guilford, 3 mi upstream from Middle Patuxent River, 4 mi north of Laurel, and 20.1 mi upstream from mouth.

DRAINAGE AREA.--38.0 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--April 1932 to current year. Monthly discharge only for April 1932, published in WSP 1302.

REVISED RECORDS.--WSP 1502: 1933, 1934(M), 1939(M), 1945(M), 1948(P).

GAGE.--Water-stage recorder. Concrete control since June 20, 1946. Datum of gage is 259.26 ft above National Geodetic Vertical Datum of 1929. Prior to June 25, 1946, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Low flow affected by regulation from unknown source. U.S. Geological Survey satellite telemetry 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 800 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 17	0200	*1,320	*8.20
Mar 2	0800	858	6.34
Mar 16	1715	884	6.47
Apr 15	1700	1,240	7.95
Jun 13	2000	987	6.94

Minimum discharge, 1.4 ft^3/s, Sept. 3, 5, 24, 25.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	18	23	32	247	27	76	32	32	13	9.8	7.2	4.4
2	16	36	30	86	30	518	33	31	13	8.2	6.1	3.8
3	15	29	28	49	33	145	31	29	34	7.9	4.9	2.2
4	15	23	29	39	28	69	57	27	99	21	5.0	3.9
5	14	22	28	48	e26	59	40	26	67	50	5.1	1.9
6	113	22	27	49	25	51	31	25	30	18	6.7	1.8
7	98	21	28	39	e24	42	30	24	15	11	7.0	2.4
8	43	470	27	208	e23	40	29	25	14	9.9	6.8	2.8
9	24	114	26	96	23	37	28	25	13	8.6	23	2.9
10	19	50	26	53	22	35	28	24	12	7.8	18	2.8
11	17	36	26	40	21	50	28	24	12	8.2	9.9	6.4
12	17	126	26	38	22	37	127	21	19	11	8.0	6.4
13	16	78	30	37	24	32	59	22	170	7.6	7.4	4.6
14	16	50	31	37	32	32	37	20	77	11	7.1	4.5
15	15	37	29	35	33	33	773	20	22	7.8	6.3	5.3
16	15	333	27	34	26	510	222	29	16	7.5	7.6	3.8
17	83	415	26	31	24	255	84	36	14	7.1	8.6	2.4
18	57	58	26	30	e23	107	69	23	12	5.5	6.3	2.3
19	27	43	26	31	e23	84	64	22	11	6.8	5.5	2.4
20	69	38	25	30	24	71	62	20	11	6.4	17	2.4
21	36	33	25	28	80	59	54	19	12	4.1	77	2.0
22	24	80	54	31	108	55	47	17	14	3.4	23	2.7
23	21	234	216	32	101	57	42	17	11	3.5	13	2.6
24	19	67	58	30	46	85	40	16	10	5.6	11	1.8
25	18	44	70	30	41	66	38	16	9.7	5.3	10	1.8
26	18	38	100	30	77	49	35	16	9.4	5.3	10	2.4
27	20	35	49	29	112	44	63	15	8.5	6.1	8.6	3.3
28	398	33	39	30	124	39	49	16	8.4	5.2	7.3	11
29	65	30	35	29	---	35	38	15	17	7.8	6.7	3.8
30	35	30	32	28	---	34	34	14	12	8.9	6.4	3.1
31	26	---	31	31	---	34	---	15	---	7.9	5.4	---
Total	1,387	2,648	1,262	1,585	1,202	2,840	2,304	681	786.0	294.2	351.9	103.9
Mean	44.7	88.3	40.7	51.1	42.9	91.6	76.8	22.0	26.2	9.49	11.4	3.46
Max	398	470	216	247	124	518	773	36	170	50	77	11
Min	14	21	25	28	21	32	28	14	8.4	3.4	4.9	1.8
Cfsm	1.18	2.32	1.07	1.35	1.13	2.41	2.02	0.58	0.69	0.25	0.30	0.09
In.	1.36	2.59	1.24	1.55	1.18	2.78	2.26	0.67	0.77	0.29	0.34	0.10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	28.4	38.7	46.1	52.9	60.4	66.7	58.8	48.7	40.7	29.7	27.1	32.1
Max	129	108	130	145	147	181	160	197	265	119	130	214
(WY)	(2006)	(1973)	(1997)	(1978)	(1979)	(1993)	(1973)	(1989)	(1972)	(1945)	(1955)	(1975)
Min	5.90	9.31	11.6	12.9	14.4	24.9	21.0	15.7	9.32	6.66	4.91	3.46
(WY)	(1942)	(1942)	(1966)	(1955)	(2002)	(1981)	(1947)	(1955)	(1986)	(1966)	(1957)	(2007)

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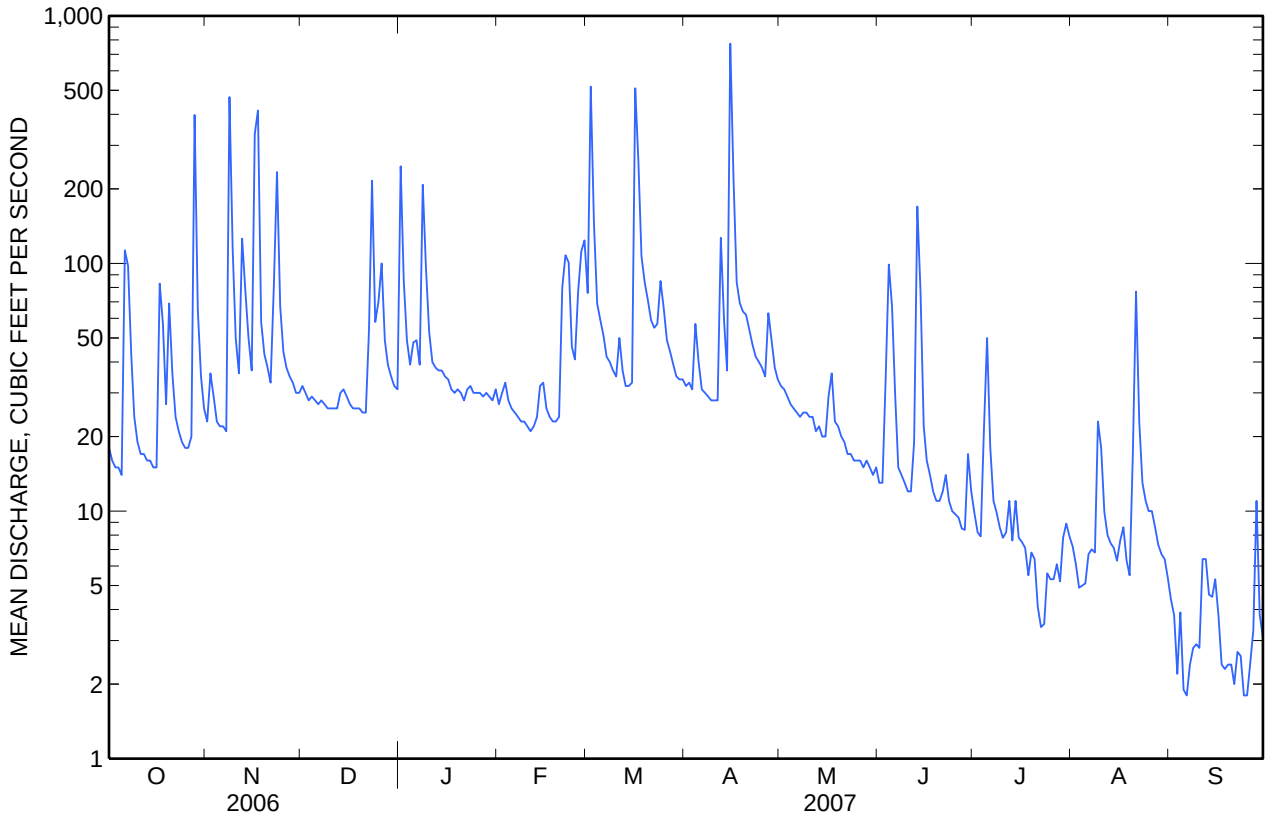
SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1932 - 2007	
Annual total	19,026.8		15,445.0			
Annual mean	52.1		42.3		44.2	
Highest annual mean					93.7	1972
Lowest annual mean					18.9	2002
Highest daily mean	2,580	Jun 26	773	Apr 15	4,680	Jun 22, 1972
Lowest daily mean	[e]4.0	Aug 26[a]	1.8	Sep 6[b]	0.00	Sep 8, 1966
Annual seven-day minimum	4.3	Aug 23	2.2	Sep 19	0.73	Sep 6, 1966
Maximum peak flow			1,320	Nov 17	[c]12,400	Jun 22, 1972
Maximum peak stage			8.20	Nov 17	[d]18.38	Jun 22, 1972
Instantaneous low flow			1.4	Sep 3[f]	0.00	Sep 6, 1966[g]
Annual runoff (cfsm)	1.37		1.11		1.16	
Annual runoff (inches)	18.63		15.12		15.82	
10 percent exceeds	80		77		74	
50 percent exceeds	26		26		26	
90 percent exceeds	12		5.4		10	

[e] Estimated.
[a] Aug. 26, 27.
[b] Sept. 6, 24, 25.
[c] From rating curve extended above 1,800 ft³/s on basis of contracted-opening measurement at gage height 13.26 ft and contracted-opening and flow-over-embankment measurement at gage height 18.38 ft.
[d] From high-water mark in well.
[f] Sept. 3, 5, 24, 25.
[g] Sept. 6-12, 1966.