

POTOMAC RIVER BASIN

01613900 HOGUE CREEK NEAR HAYFIELD, VA

LOCATION.--Lat 39°12'52", long 78°17'18", Frederick County, Hydrologic Unit 02070004, on right bank 15 ft upstream from bridge on State Highway 614, 0.8 mi upstream from Gap Run, and 1.3 mi southeast of Hayfield.

DRAINAGE AREA.--15.0 mi².

PERIOD OF RECORD.--August 1960 to December 1986, October 1992 to current year.

REVISED RECORDS.--WSP 2103: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 668.60 ft above sea level.

REMARKS.--Records good except those for periods with ice effect, Dec. 24-27, Dec. 31 to Jan. 3, 5-9, 12, which are fair. Maximum discharge, 4,090 ft³/s, from rating curve extended above 870 ft³/s. Several measurements of water temperature were made during the year.

COOPERATION.--Records were provided by the Virginia Department of Environmental Quality - Water Division.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar 17	1845	*161	*2.25	No peak greater than base discharge.			

Minimum discharge, 0.08 ft³/s, Aug 7-8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	1.6	1.5	e1.1	2.7	2.7	8.2	7.3	1.6	1.0	.39	.28
2	1.5	1.7	1.4	e1.0	3.3	2.8	9.2	6.6	1.6	5.9	.41	.23
3	1.7	1.6	1.5	e2.8	3.1	11	8.0	6.0	1.6	5.6	.24	.19
4	2.3	1.6	1.5	3.8	2.8	37	15	5.8	1.7	1.9	.19	.56
5	1.9	1.6	1.5	e2.5	2.5	16	24	5.3	1.7	1.1	.22	11
6	1.9	1.7	1.4	e2.2	2.4	13	19	5.0	1.5	.76	.19	16
7	2.0	1.7	1.5	e2.1	2.5	11	15	4.9	1.5	.60	.12	17
8	3.8	1.7	1.7	e1.9	2.8	7.8	12	12	1.1	.54	.24	22
9	2.8	1.7	1.9	e4.5	2.5	7.1	15	10	.97	.43	.35	7.3
10	2.1	1.8	1.4	7.2	2.4	8.5	21	7.2	.95	.47	.17	4.7
11	1.9	1.8	1.2	3.0	2.2	6.9	44	6.0	1.0	.50	.16	2.6
12	1.9	1.7	1.0	e2.8	2.2	7.3	44	5.2	.89	.45	.13	1.8
13	1.7	1.7	1.1	4.3	2.1	9.7	28	5.2	.94	.53	.17	1.3
14	1.7	1.7	1.1	3.6	2.1	12	21	4.5	1.0	.47	.66	1.5
15	1.7	1.7	1.1	3.8	1.8	14	18	4.0	.84	.36	.50	1.6
16	1.7	1.6	1.0	3.1	1.8	24	15	3.6	.48	.37	.32	26
17	1.7	1.6	1.0	4.5	2.5	85	11	3.3	1.4	.33	.26	15
18	1.7	1.6	1.0	6.9	4.0	100	9.0	3.4	1.4	.30	.19	7.5
19	1.7	1.6	.95	6.5	5.8	44	7.9	3.1	1.0	.30	.16	4.9
20	1.6	1.7	1.0	5.9	5.5	24	7.7	2.8	.90	.33	.18	3.8
21	1.6	1.6	1.0	6.0	5.1	31	8.1	2.4	.73	.40	.40	3.9
22	1.7	1.6	1.0	7.0	4.2	53	9.0	2.8	1.0	.71	.34	3.4
23	1.7	1.6	.93	7.2	2.5	30	23	4.9	1.2	.48	.25	2.4
24	1.6	1.6	e.91	27	2.2	22	43	3.8	.63	.39	.31	2.0
25	1.5	1.5	e.89	13	2.1	16	23	3.2	.69	.39	.54	1.6
26	1.6	1.6	e.98	7.6	2.2	15	17	2.6	.66	.26	.78	1.4
27	1.5	1.4	e.92	5.7	2.0	13	13	2.4	.49	.20	.72	1.3
28	1.6	1.5	1.1	4.8	2.6	11	11	2.1	1.4	.48	.49	2.4
29	1.5	1.7	1.3	4.0	---	9.2	9.2	1.9	1.2	.75	.31	5.9
30	1.6	1.5	1.3	3.4	---	7.0	8.0	1.8	.72	.42	.22	70
31	1.6	---	e1.2	2.9	---	6.1	---	1.7	---	.31	.15	---
TOTAL	56.4	49.0	37.28	162.1	79.9	657.1	516.3	140.8	32.79	27.03	9.76	239.56
MEAN	1.82	1.63	1.20	5.23	2.85	21.2	17.2	4.54	1.09	.87	.31	7.99
MAX	3.8	1.8	1.9	27	5.8	100	44	12	1.7	5.9	.78	70
MIN	1.5	1.4	.89	1.0	1.8	2.7	7.7	1.7	.48	.20	.12	.19
CFM	.12	.11	.08	.35	.19	1.41	1.15	.30	.07	.06	.02	.53
IN.	.14	.12	.09	.40	.20	1.63	1.28	.35	.08	.07	.02	.59

01613900 HOGUE CREEK NEAR HAYFIELD, VA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1986, 1993 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	7.03	12.8	16.0	19.8	26.5	38.4	26.0	16.6	11.8	4.93	5.02	5.61
MAX	53.6	52.5	51.2	81.0	75.9	114	89.7	47.4	94.2	30.6	54.2	65.8
(WY)	1980	1986	1973	1996	1998	1993	1983	1978	1972	1978	1978	1996
MIN	.52	1.08	1.06	1.72	2.85	5.81	6.31	2.17	.98	.81	.31	.78
(WY)	1964	1966	1966	1966	1999	1981	1963	1969	1969	1964	1999	1963

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1960 - 1986 1993 - 1999	
ANNUAL TOTAL	8555.08		2008.02			
ANNUAL MEAN	23.4		5.50		15.9	
HIGHEST ANNUAL MEAN					32.2	
LOWEST ANNUAL MEAN					3.84	
HIGHEST DAILY MEAN	351		Mar 21		1060	
LOWEST DAILY MEAN	e.89		Dec 25		.06	
ANNUAL SEVEN-DAY MINIMUM	.95		Dec 21		.19	
INSTANTANEOUS PEAK FLOW			161		Mar 17	
INSTANTANEOUS PEAK STAGE			2.25		Mar 17	
INSTANTANEOUS LOW FLOW			.08		aAug 7	
ANNUAL RUNOFF (CFSM)	1.56		.37		1.06	
ANNUAL RUNOFF (INCHES)	21.22		4.98		14.36	
10 PERCENT EXCEEDS	64		14		35	
50 PERCENT EXCEEDS	4.3		1.8		5.3	
90 PERCENT EXCEEDS	1.5		.39		1.1	

a Also Aug 8, 1999.
 b No flow part of Sep 14, 1968, cause unknown.
 e Estimated.

