

POTOMAC RIVER BASIN

01620500 NORTH RIVER NEAR STOKESVILLE, VA

LOCATION.--Lat 38°20'15", long 79°14'25", Augusta County, Hydrologic Unit 02070005, George Washington National Forest, on left bank 575 ft upstream from highway bridge, 2.8 mi upstream from city of Staunton dam, 3.8 mi upstream from Broad Run, 5.0 mi west of Stokesville, and 7.8 mi upstream from Skidmore Fork.

DRAINAGE AREA.--17.2 mi².

PERIOD OF RECORD.--October 1946 to current year.

REVISED RECORDS.--WSP 1903: 1960. WSP 2103: Drainage area. WDR VA-89-1: 1949 (M).

GAGE.--Water-stage recorder. Datum of gage is 2,051.37 ft above sea level. Prior to Jun. 10, 1958, at site 575 ft downstream at datum 6.0 ft lower. Prior to Oct. 25, 1996, at site 400 ft upstream at datum 3.2 ft higher.

REMARKS.--Records fair except those for periods of doubtful or no gage-height record, Dec. 8-31, Jan. 1, 2, 4-8, 10, 11, 14-22, 25-31, Feb. 1-8, 18, and Sep. 9-30, which are poor. Maximum discharge, 9,530 ft³/s, from rating curve extended above 900 ft³/s on basis of computation of peak flow over dam at site 2.8 mi downstream. Maximum gage height, 19.8 ft, from floodmarks, backwater from Elkhorn Lake. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in October 1942 reached a stage of 8.4 ft, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 24	1445	*145	*3.28	No peak greater than base discharge.			

Minimum daily discharge, 0.27 ft³/s, Oct 2-3.

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	.28	.37	.57	e.53	e23	14	19	6.2	4.0	1.0	1.1	1.3
2	.27	.38	.57	e.53	e25	13	18	5.9	3.5	.99	1.0	1.2
3	.27	.44	.56	2.4	e23	13	17	5.7	3.2	.94	.98	e1.0
4	.29	.43	.54	e1.6	e22	15	16	5.7	2.8	.86	1.1	e1.2
5	.28	.43	.53	e1.3	e21	16	16	5.7	2.5	.75	1.1	e3.2
6	.28	.43	.53	e1.0	e20	17	15	5.7	2.1	.64	1.0	e12
7	.30	.43	.53	e.90	e19	20	14	5.7	1.8	.58	.92	e37
8	.49	.43	e.70	e.80	e17	21	13	9.6	1.5	.51	.82	e28
9	.39	.42	e.80	1.8	16	21	13	13	1.3	.45	.74	e25
10	.40	.42	e.70	e1.5	15	21	13	12	1.3	.42	.62	e23
11	.40	.52	e.55	e1.0	15	19	12	12	1.3	.38	.54	e18
12	.37	.50	e.70	5.9	15	18	12	11	1.3	.39	.47	e17
13	.37	.52	e1.0	8.4	15	18	11	11	1.2	.37	.57	e16
14	.35	.53	e.95	e12	14	18	11	17	1.2	.36	.68	e14
15	.35	.53	e.90	e19	13	19	10	24	1.3	.35	.60	e13
16	.37	.52	e.90	e31	13	19	10	31	1.3	.33	.54	e16
17	.37	.53	e.88	e17	12	47	10	30	1.4	.51	.47	e15
18	.40	.53	e.87	e25	e18	122	9.8	27	1.3	.69	.41	e13
19	.44	.53	e.86	e29	19	117	9.1	23	1.3	.73	.45	e11
20	.46	.54	e.85	e26	21	78	8.7	20	1.4	.67	.74	e10
21	.48	.55	e.83	e22	20	67	8.8	17	1.5	.64	.78	e15
22	.50	.57	e.80	e18	19	85	8.7	15	1.4	.57	.70	e13
23	.50	.57	e.77	21	17	75	8.5	14	1.3	.50	.64	e11
24	.50	.57	e.75	78	16	57	8.2	13	1.3	.87	.63	e9.0
25	.46	.58	e.70	e45	15	47	7.4	11	1.2	1.3	.67	e8.5
26	.45	.64	e.68	e40	15	41	7.1	10	1.3	1.3	.71	e8.0
27	.43	.62	e.67	e35	14	35	6.8	8.9	1.2	1.3	.87	e7.0
28	.40	.62	e.62	e31	14	30	6.6	7.5	1.2	1.3	1.1	e9.0
29	.41	.62	e.60	e28	---	25	6.4	6.4	1.1	1.3	1.2	e18
30	.40	.59	e.58	e26	---	21	6.4	5.4	1.1	1.3	1.3	e37
31	.39	---	e.57	e25	---	20	---	4.4	---	1.2	1.3	---
TOTAL	12.05	15.36	22.06	555.66	486	1149	332.5	393.8	49.6	23.50	24.75	411.4
MEAN	.39	.51	.71	17.9	17.4	37.1	11.1	12.7	1.65	.76	.80	13.7
MAX	.50	.64	1.0	78	25	122	19	31	4.0	1.3	1.3	37
MIN	.27	.37	.53	.53	12	13	6.4	4.4	1.1	.33	.41	1.0
CFSM	.02	.03	.04	1.04	1.01	2.15	.64	.74	.10	.04	.05	.80
IN.	.03	.03	.05	1.20	1.05	2.49	.72	.85	.11	.05	.05	.89

01620500 NORTH RIVER NEAR STOKESVILLE, VA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	13.8	25.3	27.2	35.1	37.1	57.9	46.8	34.7	24.1	7.08	8.51	10.1
MAX	90.7	257	99.5	152	99.9	230	196	86.4	177	53.1	66.8	157
(WY)	1980	1986	1974	1995	1998	1993	1992	1960	1949	1995	1989	1996
MIN	.21	.41	.71	.74	4.64	8.21	11.1	5.32	1.65	.76	.26	.25
(WY)	1964	1954	1999	1981	1977	1981	1999	1977	1999	1999	1987	1963

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR	FOR 1999 WATER YEAR	FOR 1998 CALENDAR YEAR	FOR 1999 WATER YEAR	FOR 1998 CALENDAR YEAR	FOR 1999 WATER YEAR
ANNUAL TOTAL	12997.23	3475.68				
ANNUAL MEAN	35.6	9.52			27.2	
HIGHEST ANNUAL MEAN					49.0	1949
LOWEST ANNUAL MEAN					9.52	1999
HIGHEST DAILY MEAN	528	Mar 9	122	Mar 18	3300	Nov 5 1985
LOWEST DAILY MEAN	.26	Sep 18	.27	aOct 2	.10	bSep 15 1962
ANNUAL SEVEN-DAY MINIMUM	.28	Sep 30	.28	Oct 1	.12	Sep 29 1968
INSTANTANEOUS PEAK FLOW			145	Jan 24	9530	Jun 17 1949
INSTANTANEOUS PEAK STAGE			3.28	Jan 24	c19.80	Nov 5 1985
INSTANTANEOUS LOW FLOW			.26	aOct 2	.10	Sep 15 1962
ANNUAL RUNOFF (CFSM)	2.07		.55		1.58	
ANNUAL RUNOFF (INCHES)	28.11		7.52		21.52	
10 PERCENT EXCEEDS	87		23		60	
50 PERCENT EXCEEDS	6.7		1.3		12	
90 PERCENT EXCEEDS	.37		.43		1.0	

- a Also Oct 3, 1999.
- b Also Sep 16, 19-22, and Sep 7-13, 1966.
- c From floodmarks, backwater from Elkhorn Lake.
- e Estimated.

