

JAMES RIVER BASIN

02028500 ROCKFISH RIVER NEAR GREENFIELD, VA

LOCATION.--Lat 37°52'10", long 78°49'25", Nelson County, Hydrologic Unit 02080203, on left bank 50 ft downstream from bridge on State Highway 634, 2.8 mi downstream from confluence of North and South Forks, and 4.1 mi south of Greenfield.

DRAINAGE AREA.--94.6 mi<sup>2</sup>.

PERIOD OF RECORD.--April 1943 to current year.

REVISED RECORDS.--WSP 2104: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 530.29 ft above sea level. Prior to Aug. 21, 1943, nonrecording gage at same site and datum.

REMARKS.--Records good except those for periods of no gage-height record, Oct. 13 to Dec. 14, and period with ice effect, Jan. 6 which are fair. Maximum discharge, 70,000 ft<sup>3</sup>/s, from rating curve extended above 8,500 ft<sup>3</sup>/s on basis of contracted-opening measurement at gage height 18.11 ft, slope-area measurements at gage heights 17.2 ft, 23.4 ft, and 31.2 ft, and peak runoff comparison with nearby stations. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 15, 1942, reached a stage of 23.4 ft, from floodmarks, discharge, about 30,000 ft<sup>3</sup>/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Sep 30	0230	*5,300	*9.54	No other peak greater than base discharge.			

Minimum discharge, 1.2 ft<sup>3</sup>/s, Aug 19.

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	7.7	e12	e15	20	88	69	102	34	19	5.4	4.0	2.6
2	7.4	e13	e15	20	446	59	97	32	19	6.7	5.3	2.4
3	7.3	e16	e14	159	284	59	85	31	20	5.9	3.6	2.1
4	8.8	e18	e15	99	213	66	81	30	17	4.9	3.8	2.3
5	9.4	e16	e15	65	169	57	75	30	15	4.1	2.8	431
6	10	e15	e16	e48	147	59	70	30	14	3.3	2.2	391
7	12	e15	e19	37	133	56	68	30	14	8.0	2.2	320
8	85	e14	e28	35	119	52	65	94	13	14	1.9	150
9	31	e14	e37	60	104	55	66	59	10	7.3	1.7	134
10	18	e15	e31	59	94	58	62	50	9.6	5.6	1.5	163
11	15	e18	e26	44	85	56	68	44	12	5.8	1.4	87
12	14	e21	e23	43	81	54	64	41	13	5.0	1.4	63
13	e13	e18	e60	46	70	51	57	42	11	8.5	1.4	49
14	e13	e17	e41	53	62	80	53	79	12	7.8	1.7	39
15	e12	e16	32	152	63	219	55	62	10	7.0	1.5	41
16	e12	e16	27	113	63	191	58	49	9.0	6.0	1.4	151
17	e12	e15	25	88	62	179	51	45	13	4.8	1.6	113
18	e13	e15	23	184	116	182	48	43	16	4.0	1.4	84
19	e14	e15	21	161	100	167	47	42	11	6.2	1.4	71
20	e14	e16	21	121	88	148	48	38	10	5.2	4.4	61
21	e13	e17	21	98	77	167	46	35	15	9.7	6.6	68
22	e12	e16	21	83	68	159	46	37	14	10	4.1	54
23	e13	e16	20	112	63	141	42	51	11	7.4	3.1	45
24	e13	e15	23	552	61	133	42	41	8.6	7.6	2.7	40
25	e14	e14	22	328	62	122	39	36	7.8	10	7.9	36
26	e13	e15	21	210	61	112	38	32	8.0	7.1	13	31
27	e12	e16	21	166	59	104	36	30	7.5	4.6	6.5	44
28	e13	e15	22	138	74	96	39	28	7.8	3.7	4.8	349
29	e13	e14	23	116	---	90	39	26	6.5	4.1	3.6	1080
30	e12	e14	22	99	---	83	36	23	5.2	4.6	3.0	2240
31	e13	---	20	82	---	77	---	21	---	3.7	2.6	---
TOTAL	469.6	467	740	3591	3112	3201	1723	1265	359.0	198.0	104.5	6344.4
MEAN	15.1	15.6	23.9	116	111	103	57.4	40.8	12.0	6.39	3.37	211
MAX	85	21	60	552	446	219	102	94	20	14	13	2240
MIN	7.3	12	14	20	59	51	36	21	5.2	3.3	1.4	2.1
CFSM	.16	.16	.25	1.22	1.17	1.09	.61	.43	.13	.07	.04	2.24
IN.	.18	.18	.29	1.41	1.22	1.26	.68	.50	.14	.08	.04	2.49

02028500 ROCKFISH RIVER NEAR GREENFIELD, VA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	94.1	124	150	173	198	246	221	161	123	73.2	85.6	86.1
MAX	394	733	445	480	723	629	698	369	696	327	1246	506
(WY)	1991	1986	1951	1996	1998	1993	1983	1990	1995	1972	1969	1979
MIN	8.65	15.6	18.5	23.1	62.0	55.9	52.5	40.8	12.0	6.39	3.37	3.34
(WY)	1964	1999	1966	1981	1944	1981	1981	1999	1999	1999	1999	1954

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR	FOR 1999 WATER YEAR	WATER YEARS 1943 - 1999
ANNUAL TOTAL	72773.0	21574.5	
ANNUAL MEAN	199	59.1	144
HIGHEST ANNUAL MEAN			290
LOWEST ANNUAL MEAN			45.9
HIGHEST DAILY MEAN	2330	Feb 17	e28800
LOWEST DAILY MEAN	6.7	Sep 29	.20
ANNUAL SEVEN-DAY MINIMUM	7.3	Sep 27	.30
INSTANTANEOUS PEAK FLOW			70000
INSTANTANEOUS PEAK STAGE			c31.20
INSTANTANEOUS LOW FLOW			.20
ANNUAL RUNOFF (CFSM)	2.11	.62	1.53
ANNUAL RUNOFF (INCHES)	28.62	8.48	20.75
10 PERCENT EXCEEDS	515	121	300
50 PERCENT EXCEEDS	77	26	87
90 PERCENT EXCEEDS	12	4.6	18

- a Also Aug 12, 13, 16, 18, 19, 1999.
- b Also Sep 9-11, 1966.
- c From floodmarks.
- d Also Sep 9-12, 1966.
- e Estimated.

