

ROANOKE RIVER BASIN

02053800 SOUTH FORK ROANOKE RIVER NEAR SHAWSVILLE, VA

LOCATION.--Lat 37°08'24", long 80°16'00", Montgomery County, Hydrologic Unit 03010101, on right bank 95 ft downstream from bridge on State Highway 637, 0.3 mi downstream from Georges Run, 1.3 mi downstream from Elliott Creek, and 2.0 mi southwest of Shawsville.

DRAINAGE AREA.--110 mi².

PERIOD OF RECORD.--October 1960 to current year.

REVISED RECORDS.--WSP 2104: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,361.87 ft above sea level. Prior to Aug. 26, 1974, water-stage recorder, and Aug. 26, 1974, to July 24, 1975, nonrecording gage at site 95 ft upstream at same datum.

REMARKS.--Records good except those for period with ice effect, Jan. 4-6, and periods of doubtful or no gage-height record, Jan. 7-9 and Sep. 30, which are fair. Virginia Department of Emergency Services gage-height radio transmitter at station. Maximum discharge, 14,200 ft³/s, from rating curve extended above 3,700 ft³/s on basis of slope-area measurement of peak flow. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location by the Virginia Department of Environmental Quality - Water Division.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sep. 30, 1959, reached a stage of 9.89 ft, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Aug 23	1900	892	2.76	Sep 5	1630	*3,210	*5.61

Minimum discharge, 11 ft³/s, Aug 18-20.

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	23	26	24	24	48	53	75	52	29	20	21	17
2	22	26	25	22	78	47	73	50	29	19	20	16
3	21	26	25	51	71	59	63	48	35	19	19	15
4	22	27	25	e56	63	81	60	47	30	18	17	15
5	22	27	25	e40	56	73	57	46	27	17	16	1350
6	22	27	25	e30	51	91	54	44	26	16	15	1350
7	23	26	25	e34	49	120	51	43	25	15	14	364
8	101	26	32	e32	48	98	50	55	24	17	14	166
9	45	26	67	e35	44	89	50	46	23	16	14	147
10	31	26	34	62	42	81	50	41	22	15	14	145
11	27	31	26	38	39	70	282	39	22	16	13	85
12	25	32	24	34	40	65	276	37	22	53	13	62
13	23	29	83	37	42	60	168	36	21	63	13	51
14	23	28	56	44	36	66	124	125	20	35	18	45
15	23	28	34	123	37	107	114	124	20	29	14	44
16	23	27	27	76	37	134	110	87	21	24	13	50
17	22	26	25	51	40	184	89	71	26	21	13	40
18	22	26	23	59	185	196	80	62	24	21	12	35
19	22	26	22	58	160	157	74	100	21	20	11	33
20	23	26	22	45	112	120	71	68	21	19	21	33
21	23	27	21	39	85	175	65	56	26	18	20	52
22	22	26	21	36	69	226	61	51	27	19	16	46
23	23	26	21	83	59	172	57	47	23	19	177	35
24	23	26	28	308	57	139	55	45	21	17	107	31
25	24	25	25	176	54	116	51	42	21	16	58	29
26	24	28	23	104	51	96	53	40	23	15	46	27
27	24	27	22	78	48	83	57	37	23	14	32	37
28	24	26	24	65	55	75	63	35	21	16	26	114
29	25	25	28	56	---	69	61	33	25	96	22	124
30	25	24	28	49	---	64	57	31	21	42	20	e210
31	26	---	23	45	---	59	---	30	---	26	18	---
TOTAL	828	802	913	1990	1756	3225	2551	1668	719	771	847	4768
MEAN	26.7	26.7	29.5	64.2	62.7	104	85.0	53.8	24.0	24.9	27.3	159
MAX	101	32	83	308	185	226	282	125	35	96	177	1350
MIN	21	24	21	22	36	47	50	30	20	14	11	15
CFSM	.24	.24	.27	.58	.57	.95	.77	.49	.22	.23	.25	1.44
IN.	.28	.27	.31	.67	.59	1.09	.86	.56	.24	.26	.29	1.61

02053800 SOUTH FORK ROANOKE RIVER NEAR SHAWSVILLE, VA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	73.0	91.2	99.7	139	168	212	185	135	101	58.2	53.5	63.8
MAX	294	407	232	299	523	571	750	334	483	205	174	347
(WY)	1972	1986	1973	1996	1998	1993	1987	1978	1972	1972	1994	1989
MIN	21.4	24.4	22.1	18.9	62.7	55.6	51.0	50.7	24.0	20.6	17.4	17.8
(WY)	1992	1982	1966	1966	1999	1981	1966	1963	1999	1966	1963	1968

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1961 - 1999	
ANNUAL TOTAL	52205		20838			
ANNUAL MEAN	143		57.1		115	
HIGHEST ANNUAL MEAN					205	
LOWEST ANNUAL MEAN					46.5	
HIGHEST DAILY MEAN	1920	Mar 21	1350	aSep 5	6840	Jun 21 1972
LOWEST DAILY MEAN	21	bSep 15	11	Aug 19	7.5	Jul 28 1966
ANNUAL SEVEN-DAY MINIMUM	22	Sep 11	13	Aug 13	8.9	Jul 23 1966
INSTANTANEOUS PEAK FLOW			3210		14200	
INSTANTANEOUS PEAK STAGE			5.61		c11.12	
INSTANTANEOUS LOW FLOW			11		7.5	
ANNUAL RUNOFF (CFSM)	1.30		.52		1.04	
ANNUAL RUNOFF (INCHES)	17.65		7.05		14.17	
10 PERCENT EXCEEDS	288		107		220	
50 PERCENT EXCEEDS	64		33		70	
90 PERCENT EXCEEDS	23		19		28	

- a Also Sep 6, 1999.
- b Also Sep 16, 29, 1998.
- c From high-water mark in well.
- d Also Aug 19-20, 1999.
- e Estimated.
- f Also Jul 28, 29, 1966.

