

## ROANOKE RIVER BASIN

02055100 TINKER CREEK NEAR DALEVILLE, VA

**LOCATION.**--Lat 37°25'03", long 79°56'07", NAD83, Botetourt County, Hydrologic Unit 03010101, on left bank 1,100 ft downstream from Norfolk Southern Railway bridge, 0.2 mi downstream from unnamed tributary, 0.5 mi south of Glebe Mills, and 1.3 mi northwest of Daleville.

**DRAINAGE AREA.**--11.7 mi<sup>2</sup>.

**PERIOD OF RECORD.**--April 1956 to current year.

**REVISED RECORDS.**--WSP 1904: 1958-60(P). WSP 2104: Drainage area.

**GAGE.**--Water-stage recorder. Datum of gage is 1,217.47 ft above sea level (Norfolk Southern Railway bench mark).

**REMARKS.**--Records good except those for periods with ice effect, Dec. 23, 26 and Dec. 31 to Jan. 4, which are poor. Withdrawal of water 1,000 ft downstream of gage by city of Roanoke for Carvins Cove Reservoir. Virginia Department of Emergency Services radio transmitter at station. Maximum discharge, 10,400 ft<sup>3</sup>/s, from rating curve extended above 130 ft<sup>3</sup>/s on basis of contracted-opening measurement, at gage height 9.82 ft and slope-area measurements at gage heights 8.52 ft, 9.82 ft, and 13.36 ft. Minimum discharge, 0.20 ft<sup>3</sup>/s, result of freezeup. 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 1940 reached a stage of 9.0 ft, from information by local resident.

**PEAK DISCHARGES FOR CURRENT YEAR.**--Peak discharges greater than base discharge of 250 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)
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No peak greater than base discharge.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001**  
**DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.8	5.7	4.3	e4.4	8.1	4.9	32	6.9	8.5	3.0	4.5	1.5
2	8.2	5.7	4.2	e4.2	7.8	4.9	29	6.6	8.3	3.0	3.8	1.5
3	7.6	5.4	4.1	e4.2	7.3	4.9	25	6.2	7.4	3.0	3.3	1.4
4	7.3	5.4	3.8	e4.3	7.1	5.3	22	6.0	7.0	3.1	3.1	1.3
5	7.2	5.1	3.9	4.4	7.0	5.7	20	5.9	8.5	3.0	3.0	1.2
6	7.0	4.8	4.0	4.5	6.9	5.2	18	5.6	12	2.9	2.8	1.1
7	6.9	5.2	4.0	4.5	6.5	5.1	17	5.4	9.5	2.8	2.7	2.4
8	6.6	5.0	4.0	5.3	6.2	5.1	16	5.1	8.1	3.6	2.6	3.4
9	6.4	7.0	3.7	4.8	6.2	5.0	15	5.3	7.3	3.3	2.5	2.5
10	6.5	9.6	3.9	8.6	6.3	4.8	14	5.1	6.6	3.0	2.4	2.4
11	6.5	6.0	4.0	6.5	5.9	4.7	14	4.8	6.2	2.8	2.4	1.9
12	6.4	5.1	4.2	6.7	5.9	4.8	13	4.7	5.8	2.7	6.3	1.3
13	6.1	4.5	4.1	6.6	5.7	6.0	13	4.5	5.5	2.6	6.6	1.1
14	5.9	4.3	5.6	6.5	5.5	5.1	12	4.3	5.4	2.5	3.2	1.2
15	5.8	4.0	5.0	6.5	5.5	6.1	12	5.1	5.4	2.5	2.2	1.2
16	5.6	3.9	6.5	6.5	5.7	7.3	11	9.7	5.1	2.4	2.1	1.1
17	5.8	4.1	18	6.2	6.8	6.7	10	7.7	4.8	2.4	2.3	1.1
18	6.0	3.7	12	6.6	5.7	5.9	10	7.4	4.4	2.4	1.5	1.0
19	5.9	3.6	10	22	5.4	5.5	9.8	7.0	4.3	2.6	1.7	1.0
20	5.9	3.6	9.0	26	5.2	5.6	9.7	7.3	4.2	2.6	1.8	1.4
21	5.9	3.6	7.4	20	5.1	67	9.4	8.4	4.0	2.4	1.5	1.4
22	5.8	3.5	6.8	16	5.4	40	9.2	24	4.1	2.3	1.3	1.3
23	5.7	3.6	e6.2	14	5.4	27	8.7	20	4.3	2.2	1.4	1.3
24	5.6	3.6	6.0	13	5.2	21	8.3	14	4.0	2.2	1.7	1.8
25	5.6	5.5	5.8	11	5.5	17	8.5	24	3.8	2.4	1.7	2.1
26	5.6	8.5	e5.4	10	5.3	15	8.7	25	3.4	2.6	1.5	1.8
27	5.5	5.9	5.2	9.7	5.1	13	8.6	17	3.4	3.7	1.3	1.7
28	5.6	5.0	5.1	8.8	5.1	12	8.0	14	3.4	4.3	1.1	1.5
29	6.0	4.7	4.9	8.5	---	34	7.5	12	3.3	5.4	1.3	1.5
30	5.8	4.7	4.8	9.8	---	65	7.3	9.9	3.1	4.6	1.5	1.4
31	5.7	---	e4.6	9.0	---	35	---	8.7	---	4.3	1.5	---
TOTAL	195.2	150.3	180.5	279.1	168.8	454.6	406.7	297.6	171.1	92.6	76.6	46.8
MEAN	6.30	5.01	5.82	9.00	6.03	14.7	13.6	9.60	5.70	2.99	2.47	1.56
MAX	8.8	9.6	18	26	8.1	67	32	25	12	5.4	6.6	3.4
MIN	5.5	3.5	3.7	4.2	5.1	4.7	7.3	4.3	3.1	2.2	1.1	1.0
CFSM	.54	.43	.50	.77	.52	1.25	1.16	.82	.49	.26	.21	.13
IN.	.62	.48	.57	.89	.54	1.45	1.29	.95	.54	.29	.24	.15

## ROANOKE RIVER BASIN

02055100 TINKER CREEK NEAR DALEVILLE, VA--Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	8.15	10.8	10.4	14.1	18.6	22.3	19.6	12.5	8.64	6.55	6.22	7.09
MAX	34.2	118	32.6	35.9	82.6	69.3	87.9	33.8	39.0	21.8	29.8	50.4
(WY)	1980	1986	1973	1996	1998	1993	1987	1958	1972	1973	1984	1979
MIN	2.09	1.76	2.00	1.78	3.78	3.16	3.21	3.44	1.67	1.13	1.10	1.36
(WY)	1987	1982	1966	1981	1981	1981	1981	1981	1999	1966	1999	1968

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR	FOR 2001 WATER YEAR	WATER YEARS 1956 - 2001
ANNUAL TOTAL	3234.8	2519.9	
ANNUAL MEAN	8.84	6.90	
HIGHEST ANNUAL MEAN			12.1
LOWEST ANNUAL MEAN			21.6
HIGHEST DAILY MEAN	139	Apr 18	3.23
LOWEST DAILY MEAN	2.9	Jul 18	1973
ANNUAL SEVEN-DAY MINIMUM	3.3	Jul 12	1981
MAXIMUM PEAK FLOW			2560
MAXIMUM PEAK STAGE			Nov 4 1985
INSTANTANEOUS LOW FLOW			.59
ANNUAL RUNOFF (CFSM)	.76		Sep 3 1999
ANNUAL RUNOFF (INCHES)	10.29	8.01	.65
10 PERCENT EXCEEDS	15	13	Aug 12 1999
50 PERCENT EXCEEDS	6.5	5.4	10400
90 PERCENT EXCEEDS	4.0	1.8	Nov 4 1985

a Also Sept. 19, 2001.

b From floodmarks.

c Result of freezeup.

e Estimated.

