

ROANOKE RIVER BASIN

02071530 SMITH RIVER AT SMITH RIVER CHURCH NEAR WOOLWINE, VA

LOCATION.--Lat 36°46'42", long 80°14'58", Patrick County, Hydrologic Unit 03010103, on left bank 10 ft downstream from bridge on State Highway 708, 119 miles southeast of Woolwine, and 29 miles upstream from Philpott Dam.

DRAINAGE AREA.--26.7 mi².

PERIOD OF RECORD.--October 1994 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 210 ft above sea level, from topographic map.

REMARKS.--Records good except for period with ice effect, Jan. 22 to Feb. 2, which is poor. Several observations of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 433 ft³/s, Mar. 20, gage height, 5.18 ft; minimum discharge, 8.3 ft³/s, Aug. 17-18, 23-24, and 26-27, gage height, 2.32 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	17	25	25	e19	24	33	49	20	19	16	26
2	35	43	23	25	e20	23	33	46	19	18	22	40
3	29	29	23	24	23	23	36	44	18	17	18	82
4	26	24	22	31	24	23	42	42	19	19	16	35
5	24	22	21	29	23	22	35	41	28	19	14	27
6	22	21	30	26	22	21	33	38	46	18	14	23
7	20	21	24	25	23	21	32	36	27	17	13	20
8	20	21	23	24	23	20	35	35	25	16	12	18
9	19	20	22	28	23	20	33	34	24	15	12	17
10	34	20	27	48	25	20	31	32	22	14	14	15
11	29	21	25	37	28	28	30	31	21	14	11	15
12	24	21	23	33	37	34	30	30	20	20	10	14
13	23	20	24	31	33	25	31	33	20	19	10	14
14	22	19	151	29	40	24	31	30	20	18	10	19
15	20	18	63	29	35	23	36	28	32	16	9.8	16
16	20	18	47	28	32	32	33	27	32	14	9.5	14
17	20	18	41	27	30	35	88	27	33	13	9.3	13
18	20	18	37	28	39	29	118	26	32	13	9.7	13
19	19	18	34	27	35	27	65	24	28	13	10	72
20	31	17	42	29	32	194	53	23	26	13	9.4	23
21	25	18	38	27	31	161	47	30	23	12	10	18
22	22	20	38	e24	29	82	43	42	22	13	9.8	16
23	21	21	35	e23	28	63	41	26	20	16	9.3	17
24	20	18	34	e23	27	54	41	24	20	28	9.8	15
25	19	18	32	e23	26	48	150	25	19	22	11	24
26	19	64	31	e22	25	44	96	22	19	19	9.9	38
27	18	41	30	e21	27	43	71	23	20	18	9.0	22
28	18	32	29	e20	27	40	65	24	28	28	22	18
29	18	28	28	e19	25	38	59	27	29	19	12	17
30	18	26	27	e18	---	37	53	23	22	19	11	16
31	17	---	26	e19	---	35	---	21	---	16	20	---
TOTAL	719	712	1075	822	811	1313	1524	963	734	535	383.5	717
MEAN	23.2	23.7	34.7	26.5	28.0	42.4	50.8	31.1	24.5	17.3	12.4	23.9
MAX	47	64	151	48	40	194	150	49	46	28	22	82
MIN	17	17	21	18	19	20	30	21	18	12	9.0	13
CFSM	.87	.89	1.30	.99	1.05	1.59	1.90	1.16	.92	.65	.46	.90
IN.	1.00	.99	1.50	1.15	1.13	1.83	2.12	1.34	1.02	.75	.53	1.00

02071530 SMITH RIVER AT SMITH RIVER CHURCH NEAR WOOLWINE, VA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	26.0	30.0	40.0	61.3	61.6	61.4	51.1	46.5	34.8	22.5	23.8	27.4
MAX	49.8	54.3	95.2	86.9	120	94.4	74.6	59.9	50.8	24.9	55.1	70.0
(WY)	1997	1997	1997	1995	1998	1998	1998	1998	1996	1996	1996	1996
MIN	15.5	16.1	17.6	26.5	28.0	35.0	30.7	31.1	22.0	17.3	11.7	13.2
(WY)	1998	1999	1998	2000	2000	1999	1999	2000	1999	2000	1999	1995

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1995 - 2000
ANNUAL TOTAL	11074.8	10308.5	
ANNUAL MEAN	30.3	28.2	40.4
HIGHEST ANNUAL MEAN			52.5
LOWEST ANNUAL MEAN			28.2
HIGHEST DAILY MEAN	224	May 14	669 Dec 1 1996
LOWEST DAILY MEAN	6.6	Aug 19	6.6 Aug 19 1999
ANNUAL SEVEN-DAY MINIMUM	8.0	Aug 13	8.0 Aug 13 1999
INSTANTANEOUS PEAK FLOW			433 Mar 20
INSTANTANEOUS PEAK STAGE			5.18 Mar 20
INSTANTANEOUS LOW FLOW			8.3 aAug 17
ANNUAL RUNOFF (CFSM)	1.14	1.05	1.51
ANNUAL RUNOFF (INCHES)	15.43	14.36	20.58
10 PERCENT EXCEEDS	47	42	72
50 PERCENT EXCEEDS	27	24	30
90 PERCENT EXCEEDS	13	14	14

a Also Aug. 18, 23, 24, 26, 27, 2000.

b Also Aug. 19, 1999.

e Estimated.

