

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. Several observations of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 492 ft³/s, May 14, gage height, 5.43 ft; minimum discharge, 4.5 ft³/s, Aug 18-19, gage height, 2.27 ft.

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	12	15	14	20	67	31	47	36	28	77	12	9.6
2	11	15	14	20	125	29	38	32	28	41	12	8.9
3	11	17	14	54	69	42	34	30	27	29	11	8.4
4	13	18	14	39	56	43	32	28	25	24	11	8.1
5	17	16	14	34	49	37	31	27	25	21	11	68
6	17	16	14	31	45	36	30	26	23	19	11	71
7	30	15	13	26	43	34	29	25	22	26	13	31
8	84	16	16	29	40	32	27	29	21	25	11	22
9	26	16	24	54	38	33	27	23	20	18	10	27
10	19	16	16	41	37	33	27	22	19	17	9.5	26
11	18	44	14	33	36	31	38	21	20	18	9.1	19
12	17	19	15	31	36	29	31	21	20	34	8.8	16
13	16	17	94	31	35	28	29	39	19	44	8.6	15
14	15	16	35	33	33	43	28	224	18	42	9.1	14
15	15	15	25	76	33	53	36	93	19	36	8.3	21
16	15	15	22	48	32	44	34	62	21	28	8.3	19
17	15	15	20	40	33	40	30	52	25	25	8.0	15
18	15	14	19	67	54	37	29	48	20	23	6.9	14
19	15	14	19	51	39	35	28	105	18	21	6.6	14
20	15	14	18	44	33	34	27	59	20	19	22	13
21	14	14	18	39	31	43	26	50	25	19	11	13
22	14	14	18	37	29	38	25	46	21	18	9.6	13
23	15	14	18	50	29	36	24	43	19	16	9.2	12
24	15	14	35	120	29	35	24	40	18	18	10	12
25	15	14	27	69	28	33	23	39	25	17	35	11
26	15	14	25	54	27	32	24	37	33	14	22	11
27	15	14	24	47	26	31	24	36	22	13	16	31
28	15	14	23	43	34	30	31	34	20	14	12	61
29	15	14	24	40	---	28	43	34	21	26	11	92
30	15	14	22	37	---	28	44	30	19	17	10	111
31	15	---	21	36	---	27	---	29	---	14	9.8	---
TOTAL	559	483	689	1374	1166	1085	920	1420	661	773	362.8	807.0
MEAN	18.0	16.1	22.2	44.3	41.6	35.0	30.7	45.8	22.0	24.9	11.7	26.9
MAX	84	44	94	120	125	53	47	224	33	77	35	111
MIN	11	14	13	20	26	27	23	21	18	13	6.6	8.1
CFM	.68	.60	.83	1.66	1.56	1.31	1.15	1.72	.83	.93	.44	1.01
IN.	.78	.67	.96	1.91	1.62	1.51	1.28	1.98	.92	1.08	.51	1.12

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

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	26.6	31.3	41.0	68.3	68.5	65.2	51.2	49.6	36.8	23.6	26.1	28.2
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	1999	1996	1996
MIN	15.5	16.1	17.6	44.3	41.6	35.0	30.7	37.4	22.0	22.2	11.7	13.2
(WY)	1998	1999	1998	1999	1999	1999	1999	1995	1999	1998	1999	1995

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1995 - 1999	
ANNUAL TOTAL	17623		10299.8			
ANNUAL MEAN	48.3		28.2		42.9	
HIGHEST ANNUAL MEAN					52.5	
LOWEST ANNUAL MEAN					28.2	
HIGHEST DAILY MEAN	383		Feb 17		669	
LOWEST DAILY MEAN	10		aSep 28		6.6	
ANNUAL SEVEN-DAY MINIMUM	11		Sep 27		8.0	
INSTANTANEOUS PEAK FLOW					492	
INSTANTANEOUS PEAK STAGE					5.43	
INSTANTANEOUS LOW FLOW					b4.5	
ANNUAL RUNOFF (CFSM)	1.81		1.06		1.61	
ANNUAL RUNOFF (INCHES)	24.55		14.35		21.83	
10 PERCENT EXCEEDS	92		45		75	
50 PERCENT EXCEEDS	31		24		33	
90 PERCENT EXCEEDS	14		12		14	

a Also Sep 29, 1998.
 b Also Aug 19, 1999.

