

ROANOKE RIVER BASIN

02072500 SMITH RIVER AT BASSETT, VA

LOCATION.--Lat 36°46'12", long 80°00'04", Henry County, Hydrologic Unit 03010103, on left bank 25 ft upstream from bridge on State Highway 666 at north edge of North Bassett, 1.0 mi northwest of Bassett, 3.0 mi downstream from Town Creek, 5.6 mi upstream from Reed Creek, 6.2 mi downstream from Philpott Dam, and at mile 38.1.

DRAINAGE AREA.--259 mi².

PERIOD OF RECORD.--April 1939 to current year.

REVISED RECORDS.--WSP 2104: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 753.09 ft above sea level (levels by U.S. Army Corps of Engineers).

REMARKS.--Records good. Since August 1950, flow regulated by Philpott Lake (station 02071900) 6.2 mi upstream. Diversion upstream from station by Henry County Public Service Authority, since 1985, has averaged less than 1.0 ft³/s. Statistics of monthly mean data and summary statistics for water years 1940 - 1950 (unregulated flow) are available in previous data books, water years 1991 - 1998. U.S. Army Corps of Engineers satellite gage-height telemeter at station. Minimum gage height, 1.06 ft, Sep. 18, 26, 1953. 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 of Oct. 19, 1937, reached a stage of about 22.9 ft, from information by local residents, discharge, 38,000 ft³/s, from rating curve extended above 23,000 ft³/s on basis of backwater studies and records for station at Martinsville.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,880 ft³/s, Sep 30, gage height, 4.25 ft; minimum discharge, 41 ft³/s, May 27, gage height, 1.32 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	290	77	246	242	196	187	218	186	296	297	73	553
2	179	241	247	75	300	183	208	86	296	293	347	547
3	66	246	241	109	230	186	94	184	274	73	346	547
4	71	250	241	209	204	188	91	93	292	69	347	64
5	184	246	77	210	195	185	246	236	74	343	e350	164
6	285	302	76	199	87	81	244	244	71	343	e350	598
7	307	75	237	221	86	79	e244	246	289	341	71	549
8	203	77	251	205	188	182	e244	94	293	349	61	537
9	187	245	265	86	187	185	e244	83	290	344	e510	208
10	74	246	247	89	185	185	86	152	291	71	512	108
11	73	276	244	192	184	183	e120	166	270	67	511	121
12	228	251	80	189	184	181	e265	173	74	350	513	69
13	232	246	211	191	81	77	264	173	67	361	514	176
14	233	78	272	191	78	94	e265	210	282	352	62	188
15	231	78	252	212	182	331	e265	110	289	348	62	164
16	233	245	248	95	182	253	265	79	293	346	513	168
17	75	247	245	87	184	170	92	210	296	71	512	162
18	72	246	244	223	219	277	89	224	289	70	515	87
19	285	245	80	214	207	180	e250	223	73	342	515	63
20	232	246	80	199	90	87	e250	224	69	344	369	138
21	231	77	243	192	85	99	e250	220	287	351	64	166
22	233	76	242	190	186	170	250	91	290	406	57	163
23	178	245	241	100	186	199	249	71	289	352	515	160
24	73	246	e330	269	186	199	85	165	288	74	532	159
25	73	247	256	244	185	196	84	168	290	69	647	85
26	227	247	82	208	183	193	248	169	75	342	552	61
27	237	247	80	195	78	86	244	153	70	347	543	157
28	237	77	246	150	86	86	257	170	286	360	71	266
29	238	76	246	216	---	186	e250	74	292	387	64	361
30	238	246	243	82	---	186	e440	73	287	364	538	559
31	77	---	242	81	---	205	---	290	---	75	541	---
TOTAL	5782	5947	6535	5365	4624	5279	6401	5040	6922	8301	11177	7348
MEAN	187	198	211	173	165	170	213	163	231	268	361	245
MAX	307	302	330	269	300	331	440	290	296	406	647	598
MIN	66	75	76	75	78	77	84	71	67	67	57	61
CFSM	.72	.77	.81	.67	.64	.66	.82	.63	.89	1.03	1.39	.95
IN.	.83	.85	.94	.77	.66	.76	.92	.72	.99	1.19	1.61	1.06

02072500 SMITH RIVER AT BASSETT, VA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	279	271	300	335	341	416	462	370	334	285	298	308
MAX	944	996	724	655	846	1197	1474	902	1004	759	568	912
(WY)	1990	1986	1997	1991	1998	1993	1987	1978	1992	1972	1994	1979
MIN	121	98.4	110	107	110	114	98.6	86.7	84.4	138	124	157
(WY)	1952	1953	1996	1989	1989	1982	1969	1964	1964	1981	1953	1967

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR	FOR 1999 WATER YEAR	WATER YEARS 1951 - 1999
ANNUAL TOTAL	139439	78721	
ANNUAL MEAN	382	216	333
HIGHEST ANNUAL MEAN			523 1987
LOWEST ANNUAL MEAN			150 1953
HIGHEST DAILY MEAN	1830	Apr 19	6080 Apr 24 1992
LOWEST DAILY MEAN	58	Sep 27	44 Aug 23 1964
ANNUAL SEVEN-DAY MINIMUM	133	May 11	67 Oct 6 1980
INSTANTANEOUS PEAK FLOW			1880 Sep 30 17700 Sep 7 1987
INSTANTANEOUS PEAK STAGE			4.25 Sep 30 15.20 Sep 7 1987
INSTANTANEOUS LOW FLOW			41 May 27 19 Jul 19 1956
ANNUAL RUNOFF (CFSM)	1.47	.83	1.29
ANNUAL RUNOFF (INCHES)	20.03	11.31	17.47
10 PERCENT EXCEEDS	900	350	725
50 PERCENT EXCEEDS	271	210	249
90 PERCENT EXCEEDS	80	74	76

e Estimated.

