

TENNESSEE RIVER BASIN

03478400 BEAVER CREEK AT BRISTOL, VA

LOCATION.--Lat 36°37'54", long 82°08'02", Bristol City, Hydrologic Unit 06010102, on right bank 50 ft upstream from bridge on State Highway 1405, 75 ft downstream from Goose Creek, 0.9 mi downstream from Clear Creek, 3.7 mi northeast of Bristol, VA post office, and at mile 20.6.

DRAINAGE AREA.--27.7 mi².

PERIOD OF RECORD.--July 1957 to current year. Published as "near Bristol" prior to October 1974.

GAGE.--Water-stage recorder. Datum of gage is 1,780.98 ft above sea level.

REMARKS.--Records good except for period of no gage-height record, Oct. 26-27, which is fair. Small diurnal fluctuation at low flow caused by withdrawal of water, which is returned to stream 600 ft upstream from station, for car-washing operation. Since September 1965, some regulation at high flow by flood-control reservoirs, capacity, 7,600 acre-ft. Maximum discharge, 1,600 ft³/s, from rating curve extended above 390 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.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1936 reached a stage of about 12 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,080 ft³/s, Apr. 17, gage height, 8.80 ft; minimum, 13 ft³/s, Oct. 9, 12-18, 19-24, 25-26, minimum gage height, 2.75 ft, Nov. 27-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	16	40	15	58	48	57	67	41	83	29	18
2	15	18	23	15	57	47	50	67	39	53	27	18
3	15	17	20	16	102	47	57	69	44	47	26	18
4	15	18	20	16	134	45	125	71	72	48	26	18
5	14	16	18	16	113	43	86	62	60	48	25	17
6	14	15	17	16	93	41	71	58	50	43	25	17
7	14	15	16	40	80	40	64	89	46	41	24	16
8	14	15	15	80	73	51	61	90	44	43	24	18
9	14	14	17	52	68	66	116	78	48	42	24	17
10	14	14	19	38	64	55	99	103	54	39	41	16
11	14	14	18	33	61	50	83	142	49	38	27	16
12	14	14	17	31	59	47	73	104	58	37	25	15
13	14	14	16	30	53	45	68	90	61	37	41	15
14	13	18	16	27	50	44	65	81	52	35	41	15
15	13	16	15	31	48	43	64	74	54	34	31	14
16	13	15	15	33	50	45	110	69	47	33	29	14
17	13	15	15	31	65	43	466	65	45	33	29	14
18	13	14	14	29	66	75	267	61	43	32	30	15
19	13	14	14	33	58	122	285	57	47	35	27	15
20	13	14	14	30	55	135	284	54	43	34	24	14
21	13	18	14	28	52	166	204	55	41	32	23	15
22	13	17	17	31	50	117	146	52	50	30	22	16
23	13	15	15	36	62	94	123	66	99	31	22	15
24	14	15	17	34	60	82	106	56	54	31	21	14
25	14	14	17	31	55	75	93	49	48	30	21	14
26	e22	14	16	29	52	69	84	66	46	29	20	14
27	e20	13	19	39	51	64	82	51	44	29	20	13
28	16	13	18	64	49	60	78	46	42	28	20	13
29	15	13	17	64	---	57	72	44	44	28	19	13
30	14	21	17	67	---	55	68	42	76	28	19	13
31	14	---	16	63	---	52	---	41	---	36	19	---
TOTAL	446	459	542	1098	1838	2023	3607	2119	1541	1167	801	460
MEAN	14.4	15.3	17.5	35.4	65.6	65.3	120	68.4	51.4	37.6	25.8	15.3
MAX	22	21	40	80	134	166	466	142	99	83	41	18
MIN	13	13	14	15	48	40	50	41	39	28	19	13
CFSM	.52	.55	.63	1.28	2.37	2.36	4.34	2.47	1.85	1.36	.93	.55
IN.	.60	.62	.73	1.47	2.47	2.72	4.84	2.85	2.07	1.57	1.08	.62

e Estimated.

TENNESSEE RIVER BASIN

03478400 BEAVER CREEK AT BRISTOL, VA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1998, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	18.3	19.9	32.0	42.8	55.4	59.7	53.0	41.8	33.1	25.5	21.3	17.9
MAX	76.1	58.0	128	141	131	130	120	129	73.1	53.4	64.5	48.9
(WY)	1973	1978	1973	1974	1994	1963	1998	1958	1972	1972	1982	1982
MIN	8.08	10.3	9.13	8.92	19.5	19.7	19.3	17.7	13.0	10.2	9.96	9.23
(WY)	1970	1970	1966	1966	1981	1988	1985	1985	1988	1988	1988	1969

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1958 - 1998	
ANNUAL TOTAL	14430		16101			
ANNUAL MEAN	39.5		44.1		34.9	
HIGHEST ANNUAL MEAN					62.8	1973
LOWEST ANNUAL MEAN					16.2	1988
HIGHEST DAILY MEAN	204	Mar 3	466	Apr 17	580	Mar 12 1963
LOWEST DAILY MEAN	13	aOct 14	13	aOct 14	7.4	bSep 28 1969
ANNUAL SEVEN-DAY MINIMUM	13	Oct 14	13	Oct 14	7.6	Oct 13 1969
INSTANTANEOUS PEAK FLOW			1080	Apr 17	1600	Oct 2 1977
INSTANTANEOUS PEAK STAGE			8.80	Apr 17	9.94	Oct 2 1977
INSTANTANEOUS LOW FLOW			13	cOct 9	3.4	Dec 30 1963
ANNUAL RUNOFF (CFSM)	1.43		1.59		1.26	
ANNUAL RUNOFF (INCHES)	19.38		21.62		17.14	
10 PERCENT EXCEEDS	67		80		63	
50 PERCENT EXCEEDS	39		34		27	
90 PERCENT EXCEEDS	14		14		12	

a Also Oct. 15-23, and Nov. 27-29, 1997.
b Also Sept. 29 and Oct. 5, 15, 18, 19, 23, 24, 1969.
c Also Oct. 12-26, 1997.

