

03491000 BIG CREEK NEAR ROGERSVILLE, TN

LOCATION.--Lat 36°25'34", long 82°57'07", Hawkins County, Hydrologic Unit 06010104, on left bank 300 ft upstream from county road bridge, 3 mi northeast of Rogersville, and at mile 2.0.

DRAINAGE AREA.--47.3 mi².

PERIOD OF RECORD.--April 1941 to June 1949. Occasional low-flow measurements, water years 1950-55, 1957. Annual maximum, water years 1955-57; October 1957 to current year.

REVISED RECORDS.--WSP 1436: 1945.

GAGE.--Data collection platform and crest-stage gage. Datum of gage is 1,128.9 ft above NGVD of 1929 (levels based on City of Rogersville construction plans for pumping station). Dec. 7, 1954, to Sept. 30, 1957, crest-stage gage at same site and datum.

REMARKS.--Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 19	1415	*1,330	*4.84	No peaks greater than base discharge.			

Minimum discharge, 5.4 ft³/s, Oct. 9, 22-25, Nov. 4, 5.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.8	6.3	61	43	47	42	88	48	98	28	11	12
2	7.4	5.9	49	44	46	55	74	48	48	26	11	8.7
3	7.1	5.7	43	51	195	89	63	54	51	30	9.5	7.4
4	6.7	5.6	49	50	144	76	55	42	124	25	8.7	7.1
5	7.3	5.8	115	537	104	67	47	38	191	25	8.3	6.8
6	7.6	325	109	344	529	570	43	35	81	23	9.2	6.3
7	6.5	140	86	174	371	252	40	32	53	21	9.2	6.5
8	6.2	58	69	127	189	160	38	30	41	18	8.0	14
9	5.5	36	57	105	141	129	35	28	34	16	7.2	35
10	5.9	26	79	85	115	127	32	27	29	15	7.0	17
11	6.1	21	161	72	95	108	32	65	49	14	6.7	11
12	6.4	18	97	63	84	96	42	39	32	15	7.6	9.1
13	6.0	21	75	57	73	82	420	31	26	19	13	8.1
14	6.9	16	70	52	64	74	266	27	23	19	9.7	7.4
15	11	15	68	50	62	65	142	25	152	14	8.3	7.1
16	14	17	60	45	73	98	104	24	81	13	7.1	7.1
17	9.2	20	78	41	88	103	85	27	57	12	6.6	139
18	7.5	20	82	63	84	86	72	27	45	12	6.2	108
19	6.9	763	75	110	95	74	64	23	35	13	6.3	40
20	7.5	298	64	78	95	64	58	23	30	11	6.0	25
21	6.3	138	55	63	94	66	55	20	26	10	8.9	18
22	5.7	93	51	56	79	57	50	19	23	9.3	18	14
23	5.4	70	48	49	69	51	46	18	27	9.3	11	12
24	5.6	62	71	45	62	48	45	17	26	8.9	8.2	11
25	5.7	58	80	51	56	45	40	17	49	8.3	7.4	9.7
26	5.9	48	65	91	52	42	106	18	136	10	9.7	9.5
27	7.7	43	57	85	50	39	122	29	62	41	9.6	9.1
28	15	90	51	77	47	38	76	27	44	24	7.8	11
29	11	118	46	66	44	35	61	28	36	15	6.9	13
30	8.4	78	52	61	---	61	52	22	31	12	6.4	11
31	7.2	---	48	53	---	86	---	214	---	12	21	---
TOTAL	233.4	2,621.3	2,171	2,888	3,247	2,985	2,453	1,122	1,740	528.8	281.5	600.9
MEAN	7.53	87.4	70.0	93.2	112	96.3	81.8	36.2	58.0	17.1	9.08	20.0
MAX	15	763	161	537	529	570	420	214	191	41	21	139
MIN	5.4	5.6	43	41	44	35	32	17	23	8.3	6.0	6.3
CFSM	0.16	1.85	1.48	1.97	2.37	2.04	1.73	0.77	1.23	0.36	0.19	0.42
IN.	0.18	2.06	1.71	2.27	2.55	2.35	1.93	0.88	1.37	0.42	0.22	0.47

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2004, BY WATER YEAR (WY)

	MEAN	MAX	MIN	WY	MEAN	MAX	MIN	WY	MEAN	MAX	MIN	WY	MEAN	MAX	MIN	WY
	13.9	109	3.19	(1972)	30.9	124	4.43	(1974)	70.1	258	5.06	(1966)	102	331	9.33	(1981)
									132	472	23.6	(2002)	128	366	27.4	(1983)
													89.6	342	15.4	(1986)
													56.3	206	10.7	(1985)
													30.2	150	7.07	(2002)
													23.6	96.5	4.35	(1988)
													16.6	67.1	2.45	(1988)
													11.8	58.7	2.60	(1999)

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SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1941 - 2004	
ANNUAL TOTAL	30,012.5		20,871.9		58.8	
ANNUAL MEAN	82.2		57.0		123	
HIGHEST ANNUAL MEAN					20.1	
LOWEST ANNUAL MEAN					4,000	
HIGHEST DAILY MEAN	2,500	Feb 16	763	Nov 19	5,760	Feb 11, 1994
LOWEST DAILY MEAN	5.4	Oct 23	5.4	Oct 23	1.1	Sep 11, 2002
ANNUAL SEVEN-DAY MINIMUM	6.0	Oct 20	6.0	Oct 20	1.3	Sep 7, 2002
MAXIMUM PEAK FLOW			1,330	Nov 19	a5,760	Mar 12, 1963
MAXIMUM PEAK STAGE			4.84	Nov 19	b12.21	Apr 17, 1998
INSTANTANEOUS LOW FLOW			c5.4	Oct 9	d1.1	Sep 8, 2002
ANNUAL RUNOFF (CFSM)	1.74		1.21		1.24	
ANNUAL RUNOFF (INCHES)	23.60		16.42		16.89	
10 PERCENT EXCEEDS	149		108		126	
50 PERCENT EXCEEDS	45		41		24	
90 PERCENT EXCEEDS	8.1		7.1		5.4	

a From rating curve extended above 3,000 ft³/s on basis of contracted-opening measurement of peak flow.

b Due to backwater from debris.

c Also occurred on Oct. 22, 23, 24, 25 and Nov. 4, 5.

d Also occurred on Sept. 9, 10, 11, 12, 2002.

