

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)
Dec 9	2245	*2,390	*6.01	Dec 11	0345	1,520	5.05

Minimum discharge, 3.4 ft³/s, Sept. 14.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.2	18	705	31	82	223	75	333	18	12	58	6.3
2	8.4	15	209	30	68	139	405	184	21	9.9	27	5.7
3	8.2	14	132	30	81	109	271	135	24	10	19	5.0
4	8.2	187	100	28	84	93	174	106	21	10	15	4.8
5	7.9	116	80	28	74	92	130	90	19	11	12	4.4
6	7.6	59	77	28	66	84	105	80	18	10	12	4.3
7	7.4	43	148	32	60	77	91	70	27	28	10	4.1
8	7.4	34	134	226	58	303	84	62	24	65	11	3.9
9	7.0	28	788	153	54	192	87	55	24	24	11	4.1
10	7.0	24	722	100	57	136	70	52	20	16	9.8	4.0
11	6.9	22	861	151	52	110	63	49	18	13	8.6	3.9
12	7.5	176	275	352	48	95	64	44	17	12	7.8	3.9
13	19	128	184	178	51	82	131	41	17	11	7.2	4.0
14	19	68	137	290	137	80	161	38	16	13	7.2	3.8
15	12	50	110	183	156	69	114	40	18	18	7.7	3.7
16	9.6	41	94	137	116	67	88	35	16	16	7.3	4.0
17	8.7	36	82	107	92	72	75	32	14	18	7.2	4.1
18	8.0	31	72	88	76	73	66	30	13	18	9.9	4.3
19	17	29	65	78	66	69	60	28	12	20	15	4.8
20	28	27	57	72	63	65	54	45	11	95	10	4.5
21	54	25	52	66	89	59	50	42	11	31	7.7	4.0
22	45	23	49	60	108	55	51	31	11	96	6.9	4.1
23	25	25	56	56	92	69	87	29	11	36	6.3	3.9
24	20	184	56	47	83	70	70	27	10	22	5.7	4.1
25	19	255	47	46	73	63	60	25	9.9	17	5.5	3.9
26	16	129	43	45	63	60	54	23	9.7	14	5.2	4.1
27	14	87	40	42	58	55	67	22	9.5	12	5.3	4.9
28	16	73	36	37	112	110	62	22	9.3	11	5.5	6.5
29	16	59	35	40	---	122	476	20	9.2	228	5.4	6.1
30	34	57	34	116	---	96	427	20	11	111	6.4	5.5
31	24	---	33	111	---	85	---	19	---	40	6.7	---
TOTAL	497.0	2,063	5,513	2,988	2,219	3,074	3,772	1,829	469.6	1,047.9	339.3	134.7
MEAN	16.0	68.8	178	96.4	79.2	99.2	126	59.0	15.7	33.8	10.9	4.49
MAX	54	255	861	352	156	303	476	333	27	228	58	6.5
MIN	6.9	14	33	28	48	55	50	19	9.2	9.9	5.2	3.7
CFSM	0.34	1.45	3.76	2.04	1.68	2.10	2.66	1.25	0.33	0.71	0.23	0.09
IN.	0.39	1.62	4.34	2.35	1.75	2.42	2.97	1.44	0.37	0.82	0.27	0.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2005, BY WATER YEAR (WY)

	14.0	31.5	72.0	102	131	127	90.2	56.3	29.9	23.8	16.5	11.7
MEAN	14.0	31.5	72.0	102	131	127	90.2	56.3	29.9	23.8	16.5	11.7
MAX	109	124	258	331	472	366	342	206	150	96.5	67.1	58.7
(WY)	(1972)	(1974)	(1992)	(1974)	(1994)	(1963)	(1998)	(1958)	(1989)	(1960)	(1942)	(1989)
MIN	3.19	4.43	5.06	9.33	23.6	27.4	15.4	10.7	7.07	4.35	2.45	2.60
(WY)	(2001)	(1988)	(1966)	(1981)	(2002)	(1983)	(1986)	(1985)	(2002)	(1988)	(1988)	(1999)

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SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1941 - 2005	
ANNUAL TOTAL	23,919.2		23,946.5		58.9	
ANNUAL MEAN	65.4		65.6		123	
HIGHEST ANNUAL MEAN					20.1	
LOWEST ANNUAL MEAN					4,000	
HIGHEST DAILY MEAN	861	Dec 11	861	Dec 11		1994
LOWEST DAILY MEAN	6.0	Aug 20	3.7	Sep 15		2000
ANNUAL SEVEN-DAY MINIMUM	7.1	Aug 15	3.9	Sep 10		1994
MAXIMUM PEAK FLOW			2,390	Dec 9		1994
MAXIMUM PEAK STAGE			6.01	Dec 9		1994
INSTANTANEOUS LOW FLOW			3.4	Sep 14		1994
ANNUAL RUNOFF (CFSM)	1.38		1.39			1994
ANNUAL RUNOFF (INCHES)	18.81		18.83			1994
10 PERCENT EXCEEDS	129		136			1994
50 PERCENT EXCEEDS	40		36			1994
90 PERCENT EXCEEDS	8.3		6.4			1994

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 Sept. 9, 10, 11, 12, 2002.

