

07029500 HATCHIE RIVER AT BOLIVAR, TN

LOCATION.--Lat 35°16'31", long 88°58'36", Hardeman County, Hydrologic Unit 08010208, on left bank 25 ft upstream from bridge on State Highway 18, 250 ft upstream from Illinois Central Gulf Railroad bridge, 0.6 mi downstream from Spring Creek, 1.5 mi northeast of Bolivar, and at mile 135.1.

DRAINAGE AREA.--1,480 mi².

PERIOD OF RECORD.--July 1929 to current year.

GAGE.--Data collection platform. Datum of gage is 323.49 ft above NGVD of 1929, determined using benchmark Q-64, April 14, 1966.

REMARKS.--Records good except for estimated daily discharges, which are fair. 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 8,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 1	1300	*16,200	*17.47	Feb 24	2245	15,500	17.35
Dec 19	2345	10,500	16.32	May 9	1400	16,000	17.44

Minimum discharge, 382 ft³/s, Sept. 21.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15,900	1,770	1,050	6,330	2,390	8,920	3,040	2,740	1,340	706	2,420	560
2	14,700	1,630	1,020	5,660	2,380	8,010	2,680	2,440	1,080	779	2,220	548
3	13,600	1,430	988	5,080	2,280	7,410	2,390	1,990	1,170	746	2,120	618
4	12,300	1,390	1,170	4,620	2,240	6,830	2,090	1,590	1,530	670	1,730	779
5	10,400	1,850	2,250	4,270	2,470	6,190	1,870	1,420	1,540	623	1,660	997
6	8,850	3,060	3,100	3,940	2,880	5,550	1,950	5,840	1,340	606	2,350	980
7	8,180	3,680	3,450	3,750	3,350	4,970	2,690	13,500	1,620	579	2,840	784
8	7,340	3,910	e3,800	3,520	3,660	4,420	3,460	14,900	1,750	588	3,750	645
9	6,920	4,030	e4,000	3,160	3,850	3,910	3,760	15,800	1,680	647	3,690	575
10	9,430	4,320	e3,900	2,720	4,210	3,480	4,050	14,800	1,350	647	3,550	534
11	13,800	4,930	e3,700	2,310	4,630	2,980	4,450	13,200	1,070	642	3,620	502
12	11,800	5,100	3,660	2,070	4,820	2,500	4,840	10,800	938	585	3,650	476
13	12,400	4,990	3,640	1,870	4,780	2,170	4,900	9,000	872	529	3,630	458
14	13,200	4,690	3,610	1,690	6,480	1,920	4,610	7,630	854	522	3,460	459
15	12,000	4,460	3,470	1,560	11,900	1,860	4,140	6,660	931	742	2,950	458
16	9,980	4,240	3,310	1,490	14,000	1,910	3,650	5,920	1,070	1,000	2,380	449
17	8,240	3,850	3,140	1,540	13,700	1,900	3,050	6,560	1,390	938	1,750	429
18	6,890	3,660	2,950	1,620	14,600	1,940	2,380	7,040	1,620	748	1,190	409
19	5,910	3,500	5,860	1,660	14,500	2,730	1,910	7,120	1,570	747	938	394
20	5,080	3,360	8,970	1,620	13,100	3,700	1,690	7,130	1,430	792	934	389
21	4,330	3,180	7,360	1,580	11,400	3,940	2,440	8,440	1,290	966	1,040	388
22	3,690	2,890	6,630	1,560	12,100	4,020	2,500	9,270	1,170	1,440	927	844
23	3,040	2,510	6,470	1,480	13,300	4,320	2,050	8,560	1,110	2,140	795	1,720
24	2,220	2,060	7,760	1,300	14,900	4,640	1,670	7,560	1,060	2,450	725	2,410
25	1,530	1,660	8,050	1,190	15,100	4,730	1,680	6,620	972	2,430	678	2,690
26	1,290	1,430	8,120	1,140	13,500	4,740	2,130	5,780	867	1,980	640	2,650
27	1,200	1,310	8,040	1,140	11,600	4,430	2,530	4,990	778	1,290	603	2,540
28	1,150	1,240	8,250	1,150	10,100	4,070	2,680	4,280	743	853	576	2,240
29	1,130	1,170	8,360	1,370	---	3,850	2,830	3,610	744	937	571	1,700
30	1,300	1,110	7,870	1,910	---	3,600	2,880	2,740	699	1,360	620	1,160
31	1,620	---	7,060	2,230	---	3,340	---	1,930	---	1,940	589	---
TOTAL	229,420	88,410	151,008	76,530	234,220	128,980	86,990	219,860	35,578	31,622	58,596	29,785
MEAN	7,401	2,947	4,871	2,469	8,365	4,161	2,900	7,092	1,186	1,020	1,890	993
MAX	15,900	5,100	8,970	6,330	15,100	8,920	4,900	15,800	1,750	2,450	3,750	2,690
MIN	1,130	1,110	988	1,140	2,240	1,860	1,670	1,420	699	522	571	388
CFSM	5.00	1.99	3.29	1.67	5.65	2.81	1.96	4.79	0.80	0.69	1.28	0.67
IN.	5.77	2.22	3.80	1.92	5.89	3.24	2.19	5.53	0.89	0.79	1.47	0.75

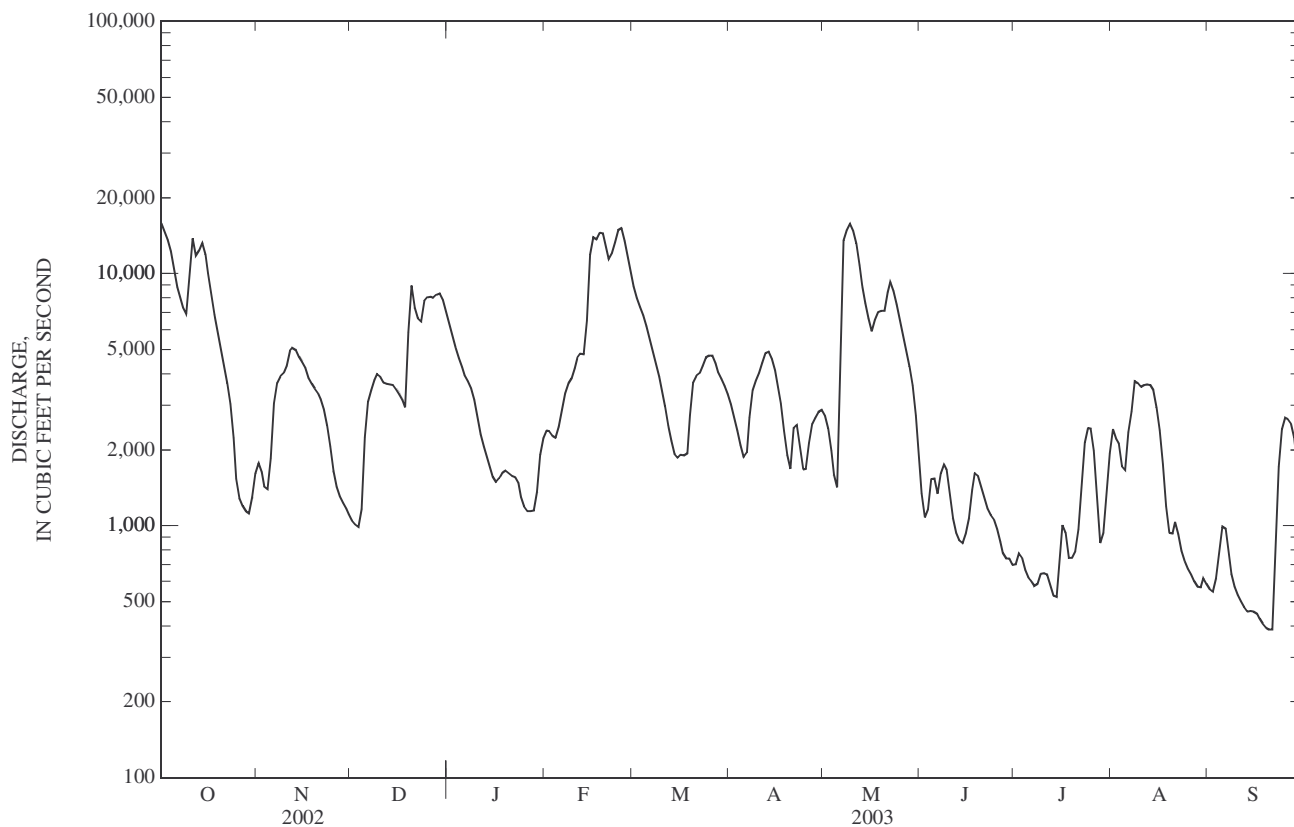
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2003, BY WATER YEAR (WY)

	848	1,687	3,316	4,467	4,758	4,592	3,919	2,749	1,442	925	638	728
MEAN	848	1,687	3,316	4,467	4,758	4,592	3,919	2,749	1,442	925	638	728
MAX	7,401	7,457	12,490	13,420	14,060	12,110	10,960	13,540	8,181	5,933	2,678	4,651
(WY)	(2003)	(1958)	(1983)	(1974)	(1948)	(1973)	(1979)	(1991)	(1997)	(1932)	(1931)	(1979)
MIN	150	233	422	555	829	1,053	711	444	209	189	193	127
(WY)	(1957)	(1957)	(1955)	(1955)	(1934)	(1941)	(1986)	(1942)	(1941)	(1943)	(1954)	(1956)

07029500 HATCHIE RIVER AT BOLIVAR, TN—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1929 - 2003	
ANNUAL TOTAL	1,193,203		1,370,999			
ANNUAL MEAN	3,269		3,756		2,494	
HIGHEST ANNUAL MEAN					5,003 1973	
LOWEST ANNUAL MEAN					971 1941	
HIGHEST DAILY MEAN	28,600	Jan 26	15,900	Oct 1	59,300	Mar 18, 1973
LOWEST DAILY MEAN	226	Sep 13	388	Sep 21	80	Sep 1, 1943
ANNUAL SEVEN-DAY MINIMUM	235	Sep 8	417	Sep 15	85	Aug 26, 1943
MAXIMUM PEAK FLOW			16,200		a61,600 Mar 18, 1973	
MAXIMUM PEAK STAGE			17.47		21.66 Mar 18, 1973	
INSTANTANEOUS LOW FLOW			382		78 Sep 2, 1943	
ANNUAL RUNOFF (CFSM)	2.21		2.54		1.69	
ANNUAL RUNOFF (INCHES)	29.99		34.46		22.90	
10 PERCENT EXCEEDS	7,940		8,880		6,110	
50 PERCENT EXCEEDS	2,010		2,450		1,120	
90 PERCENT EXCEEDS	378		703		273	

a From rating curve extended above 37,000 ft³/s.
 e Estimated



HATCHIE RIVER BASIN

07030050 HATCHIE RIVER AT RIALTO, TN

LOCATION.--Lat 35°38'14", long 89°36'14", Lauderdale County, Hydrologic Unit 08010208, at bridge on U.S. Highway 51, 6.5 mi north of Covington, and 1.5 mi west of Rialto, and at mile 34.

DRAINAGE AREA.--2,308 mi².

PERIOD OF RECORD.--May 2003 to September 2003. Low flow measurements, water year, 1977, 1978.

GAGE.--Data collection platform operated by Memphis District Corps of Engineers. Datum of gage is 239.81 ft above NGVD of 1929 determined by the Memphis District Corps of Engineers.

REMARKS.--No esitimated daily discharges. Records good. Periodic observation of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1937 reached a stage of 23.54 ft, discharge not determined, maximum discharge of 55,700 ft³/s, determined on June 13, 1946. Minimum discharge 180 ft³/s, determined on July 9, 1943 from reports by Memphis District Corps of Engineers.

EXTREMES FOR CURRENT PERIOD.--Maximum discharge during period May to September 2003, 24,300 ft³/s, May 12, gage height 17.60 ft; minimum discharge, 778 ft³/s, Sept. 21.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	2,380	6,630	1,230	4,670	1,150
2	---	---	---	---	---	---	---	2,440	6,030	1,190	3,520	1,120
3	---	---	---	---	---	---	---	2,530	5,470	1,150	2,720	1,210
4	---	---	---	---	---	---	---	2,610	4,880	1,140	2,520	1,250
5	---	---	---	---	---	---	---	4,890	4,000	1,150	2,520	1,170
6	---	---	---	---	---	---	---	6,150	2,800	1,130	2,460	1,090
7	---	---	---	---	---	---	---	7,170	2,150	1,090	2,580	1,120
8	---	---	---	---	---	---	---	8,120	2,010	1,050	2,850	1,200
9	---	---	---	---	---	---	---	9,440	2,020	1,020	2,970	1,220
10	---	---	---	---	---	---	---	13,000	2,040	992	2,800	1,150
11	---	---	---	---	---	---	---	21,000	2,320	974	2,590	1,060
12	---	---	---	---	---	---	---	24,000	2,550	981	2,530	985
13	---	---	---	---	---	---	---	23,500	2,320	990	2,560	948
14	---	---	---	---	---	---	---	20,600	2,000	982	2,650	991
15	---	---	---	---	---	---	---	17,200	1,990	950	2,770	1,030
16	---	---	---	---	---	---	---	14,400	2,500	902	2,890	938
17	---	---	---	---	---	---	---	20,900	3,380	880	2,990	874
18	---	---	---	---	---	---	---	22,400	3,830	976	3,070	842
19	---	---	---	---	---	---	---	19,200	3,220	1,160	3,130	821
20	---	---	---	---	---	---	---	16,600	2,360	1,210	3,140	799
21	---	---	---	---	---	---	---	13,600	2,020	1,120	2,970	795
22	---	---	---	---	---	---	---	11,300	1,930	1,090	2,330	1,110
23	---	---	---	---	---	---	---	10,000	1,870	1,230	1,800	1,070
24	---	---	---	---	---	---	---	9,250	1,790	1,450	1,670	1,010
25	---	---	---	---	---	---	---	9,010	1,690	1,570	1,540	1,150
26	---	---	---	---	---	---	---	9,640	1,590	1,650	1,360	1,400
27	---	---	---	---	---	---	---	9,890	1,520	1,740	1,230	1,610
28	---	---	---	---	---	---	---	9,440	1,470	1,830	1,160	1,760
29	---	---	---	---	---	---	---	8,770	1,400	4,250	1,100	1,890
30	---	---	---	---	---	---	---	8,010	1,300	5,790	1,040	2,000
31	---	---	---	---	---	---	---	7,310	---	5,400	1,050	---
TOTAL	---	---	---	---	---	---	---	364,750	81,080	48,267	75,180	34,763
MEAN	---	---	---	---	---	---	---	11,770	2,703	1,557	2,425	1,159
MAX	---	---	---	---	---	---	---	24,000	6,630	5,790	4,670	2,000
MIN	---	---	---	---	---	---	---	2,380	1,300	880	1,040	795
CFSM	---	---	---	---	---	---	---	5.10	1.17	0.67	1.05	0.50
IN.	---	---	---	---	---	---	---	5.88	1.31	0.78	1.21	0.56

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2003 - 2003, BY WATER YEAR (WY)

MEAN	---	---	---	---	---	---	---	11,770	2,703	1,557	2,425	1,159
MAX	---	---	---	---	---	---	---	11,770	2,703	1,557	2,425	1,159
(WY)	---	---	---	---	---	---	---	(2003)	(2003)	(2003)	(2003)	(2003)
MIN	---	---	---	---	---	---	---	11,770	2,703	1,557	2,425	1,159
(WY)	---	---	---	---	---	---	---	(2003)	(2003)	(2003)	(2003)	(2003)

07030050 HATCHIE RIVER AT RIALTO, TN—Continued

SUMMARY STATISTICS	FOR 2003 WATER YEAR	
ANNUAL TOTAL	604040	
ANNUAL MEAN	3948	
HIGHEST DAILY MEAN	24,000	May 12
LOWEST DAILY MEAN	795	Sep 21
ANNUAL SEVEN-DAY MINIMUM	871	Sep 15
ANNUAL RUNOFF (CFSM)	1.71	
ANNUAL RUNOFF (INCHES)	9.74	
10 PERCENT EXCEEDS	9790	
50 PERCENT EXCEEDS	2000	
90 PERCENT EXCEEDS	987	

07030240 LOOSAHATCHIE RIVER NEAR ARLINGTON, TN

LOCATION.--Lat 35°18'37", long 89°38'23", Shelby County, Hydrologic Unit 08010209, on left bank 20 ft downstream from bridge on U.S. Highways 70 and 79, 1.5 mi upstream from Beaver Creek, 1.5 mi northeast of Arlington, and at mile 30.4.

DRAINAGE AREA.--262 mi².

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Data collection platform. Datum of the gage is 246.43 ft above NGVD of 1929, from reference mark, provided by FEMA.

REMARKS.--Records good except for estimated discharges, which are poor. 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 5,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 11	1515	15,900	21.98	Feb 22	1615	8,260	17.89
Dec 20	1130	16,000	22.00	May 7	1530	13,000	20.88
Dec 24	0545	8,470	18.10	May 18	0545	12,700	20.73
Feb 15	unknown	*18,000	*22.58	Jul 29	1745	5,970	14.86

Minimum daily discharge, 104 ft³/s, July 18.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	189	123	117	391	171	337	203	122	139	125	526	117
2	167	121	118	350	155	282	186	122	146	123	267	265
3	152	140	120	341	154	242	174	117	188	118	336	476
4	1,490	168	1,170	245	166	223	167	115	142	116	229	177
5	495	1,270	1,590	215	152	214	163	118	132	117	242	131
6	217	660	426	191	240	211	160	4,850	137	115	2,510	120
7	1,130	236	274	176	836	192	1,260	10,800	310	115	674	114
8	310	167	226	176	328	180	440	5,980	149	115	251	111
9	185	144	200	178	269	170	255	725	130	114	186	110
10	9,850	420	198	167	363	158	229	378	127	113	166	108
11	14,500	957	197	153	350	154	199	1,390	148	112	156	107
12	3,080	262	181	147	249	149	178	450	202	109	152	107
13	431	177	771	145	199	148	163	298	129	110	151	238
14	270	155	629	145	e2,390	145	152	270	165	112	151	336
15	218	245	305	141	e15,300	139	144	257	166	108	142	137
16	190	385	240	150	e8,010	137	141	701	653	107	139	120
17	172	207	214	155	1,340	135	156	10,200	470	105	137	116
18	162	165	198	140	e700	153	144	9,470	169	104	133	113
19	168	172	10,200	135	e350	1,330	135	1,230	149	211	131	114
20	175	161	14,500	140	e250	476	136	403	150	124	128	112
21	155	148	3,010	144	1,410	267	465	471	130	106	125	115
22	146	138	468	137	7,550	209	210	326	126	1,520	123	283
23	142	133	479	127	4,160	185	152	244	125	635	546	177
24	140	129	6,800	121	870	174	239	211	123	228	181	129
25	138	127	1,570	119	472	247	313	196	122	186	134	118
26	138	128	431	124	683	1,980	190	184	136	171	136	117
27	132	126	279	121	863	444	152	171	311	163	221	115
28	132	123	223	125	480	279	135	164	130	156	129	112
29	154	122	187	338	---	727	129	157	120	2,880	125	111
30	149	122	173	319	---	364	126	152	121	2,120	127	113
31	131	---	177	199	---	236	---	148	---	1,140	120	---
TOTAL	35,108	7,631	45,671	5,755	48,460	10,287	6,896	50,420	5,445	11,678	8,774	4,619
MEAN	1,133	254	1,473	186	1,731	332	230	1,626	182	377	283	154
MAX	14,500	1,270	14,500	391	15,300	1,980	1,260	10,800	653	2,880	2,510	476
MIN	131	121	117	119	152	135	126	115	120	104	120	107
MED	172	158	274	150	417	211	165	270	140	117	151	117
CFSM	4.32	0.97	5.62	0.71	6.61	1.27	0.88	6.21	0.69	1.44	1.08	0.59
IN.	4.98	1.08	6.48	0.82	6.88	1.46	0.98	7.16	0.77	1.66	1.25	0.66

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2003, BY WATER YEAR (WY)

	180	349	643	499	665	666	556	400	274	203	163	173
MEAN	180	349	643	499	665	666	556	400	274	203	163	173
MAX	1,133	1,517	1,962	1,479	2,064	2,038	2,306	1,626	1,609	1,155	521	885
(WY)	(2003)	(2002)	(1988)	(1974)	(1990)	(1997)	(1991)	(2003)	(1974)	(1989)	(1974)	(2002)
MIN	73.4	75.6	106	94.5	128	141	107	93.8	86.7	87.5	80.5	73.3
(WY)	(1970)	(1972)	(1977)	(1981)	(1995)	(1986)	(1978)	(1988)	(1972)	(1970)	(1999)	(1999)

07030240 LOOSAHATCHIE RIVER NEAR ARLINGTON, TN—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1970 - 2003	
ANNUAL TOTAL	237,487		240,744			
ANNUAL MEAN	651		660		396	
HIGHEST ANNUAL MEAN					769 1989	
LOWEST ANNUAL MEAN					154 1986	
HIGHEST DAILY MEAN	15,500	Mar 18	15,300	Feb 15	19,900	Dec 26, 1987
LOWEST DAILY MEAN	95	Jul 7	104	Jul 18	66	Apr 7, 1974
ANNUAL SEVEN-DAY MINIMUM	96	Jul 5	108	Jul 12	68	Nov 5, 1982
MAXIMUM PEAK FLOW			18,000	Feb 15	27,400	Dec 25, 1987
MAXIMUM PEAK STAGE			a22.58	Feb 15	25.27	Dec 25, 1987
INSTANTANEOUS LOW FLOW			b102	Jul 18	66	Apr 6, 1974
ANNUAL RUNOFF (CFSM)	2.48		2.52		1.51	
ANNUAL RUNOFF (INCHES)	33.72		34.18		20.54	
10 PERCENT EXCEEDS	1,060		905		614	
50 PERCENT EXCEEDS	167		170		121	
90 PERCENT EXCEEDS	112		118		86	

a From crest-stage gage.
 b Also occurred July 21.
 c Estimated

