03584600 ELK RIVER AT PROSPECT, TN

LOCATION.--Lat 35°00'50", long 86°59'40", Giles County, Hydrologic Unit 06030004, on right bank 25 ft upstream from county road bridge, 800 ft above abandoned L&N Railraod bridge, 0.4 mi above Ford Creek, 0.8 mi south of Prospect, 2.9 mi upstream from Tennessee-Alabama State line, and at mile 36.5.

DRAINAGE AREA.--1,805 mi^2.

PERIOD OF RECORD.--July 1904 to February 1908, January 1919 to September 1994, August 2003 to current year. Published as "near Elkmont, Ala." 1904-8, 1919-34. Record for both sites published January to March 1934. Published as "near Prospect, Tenn." 1935-89.

REVISED RECORDS.--WSP 523: 1904-8, 1919-20. WSP 823: Drainage area. WSP 1436: 1920-22, 1923(M), 1924, 1927, 1929, 1931-32(M).

GAGE.--Data collection platform and pressure sensor. Datum of gage is 558.70 ft above NGVD of 1929. July 1, 1904, to Feb. 2, 1908, and Jan. 20, 1919, to Mar. 31, 1934: nonrecording gage 6.9 mi downstream at datum 8.93 ft. lower. January 1934 to September 1989, water-stage recorder at site 5.0 mi upstream at datum 4.59 ft higher.

REMARKS.--Records good except for estimated daily discharges which are fair. Flow regulated by Woods Reservoir (station 03579000) since May 1952, and Tims Ford Lake (station 03580740) since December 1970. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data. Tennessee Valley Authority satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1902 reach a stage of 40.9 ft, site and datum then in use, discharge, 130,000 ft^3/s, and may have been equaled by a flood in March 1897, from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 51,700 ft^3/s, Feb. 7, gage height 29.04 ft; minimum, 446 ft^3/s, Oct. 21, 22.

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	2,240	1,260	2,580	4,060	1,660	2,660	1,280	1,280	2,910	9,130	1,580	3,010
2	737	1,220	2,570	2,380	1,490	8,370	1,190	1,050	1,720	8,570	856	4,500
3	593	596	3,290	2,000	1,470	11,100	1,110	1,120	3,300	7,070	891	2,800
4	555	862	4,920	1,740	1,420	7,010	1,050	1,270	3,270	7,130	1,920	3,770
5	531	2,080	4,750	1,740	11,100	6,500	992	1,070	1,520	13,700	1,980	2,300
6	512	1,730	4,390	3,650	38,000	23,600	949	984	1,080	7,930	2,310	1,160
7	498	1,580	3,720	4,950	46,900	25,900	916	920	922	5,480	1,910	969
8	1,060	1,700	3,470	4,820	33,700	13,600	905	880	846	7,390	1,540	873
9	2,690	1,030	2,750	2,860	16,200	6,080	899	867	1,200	5,930	649	810
10	2,820	1,830	3,370	3,860	9,160	7,560	869	792	1,350	5,470	1,050	749
11	1,440	609	4,410	3,010	8,120	7,020	852	754	1,330	2,870	2,150	887
12	821	1,140	4,410	2,390	7,660	6,570	1,300	740	1,250	1,750	1,030	1,100
13	558	2,020	4,830	2,090	7,640	6,220	5,580	804	967	2,370	824	696
14	1,110	1,520	4,560	1,370	7,200	5,940	8,040	841	1,290	3,570	667	648
15	2,730	1,170	3,250	1,310	9,890	5,780	5,130	918	1,540	7,410	574	1,510
16	2,150	1,820	2,530	1,150	13,600	7,240	3,540	997	1,100	6,920	536	1,980
17	658	800	1,700	1,800	10,500	7,450	2,710	1,020	976	5,570	512	13,600
18	525	1,440	3,870	1,490	8,340	6,410	2,200	892	862	2,400	691	10,300
19	494	2,330	4,320	2,110	5,370	5,980	1,850	e801	865	1,480	2,660	4,040
20	471	1,880	4,060	2,590	4,870	4,870	1,630	e764	819	1,540	2,300	2,280
21	455	1,340	4,150	3,660	5,400	2,150	1,480	745	740	2,270	1,930	2,120
22	955	1,620	4,660	1,740	4,850	1,780	1,370	730	762	2,570	1,600	3,690
23	1,230	2,000	4,270	1,430	4,420	1,590	1,450	707	2,450	2,470	971	3,670
24	1,350	1,070	4,300	1,300	3,870	1,460	1,380	688	4,920	2,320	768	3,230
25	1,800	3,260	3,170	3,950	2,600	1,370	1,250	669	13,400	1,730	4,770	3,420
26	598	5,010	3,130	7,680	3,040	1,300	1,380	654	23,200	914	6,680	1,850
27	527	5,100	1,800	5,070	3,160	1,250	1,580	642	22,900	1,140	2,520	851
28	927	7,570	1,520	3,460	2,920	1,190	1,310	621	11,600	932	1,580	1,120
29	2,350	8,850	1,440	2,640	2,720	1,150	1,130	625	16,300	822	2,780	2,180
30	2,120	5,200	3,460	2,220	---	1,260	1,230	1,030	11,200	1,630	2,650	1,890
31	2,170	---	5,640	1,920	---	1,340	---	2,140	---	2,870	2,350	---
TOTAL	37,675	69,637	111,290	86,440	277,270	191,700	56,552	28,015	136,589	133,348	55,229	82,003
MEAN	1,215	2,321	3,590	2,788	9,561	6,184	1,885	904	4,553	4,302	1,782	2,733
MAX	2,820	8,850	5,640	7,680	46,900	25,900	8,040	2,140	23,200	13,700	6,680	13,600
MIN	455	596	1,440	1,150	1,420	1,150	852	621	740	822	512	648

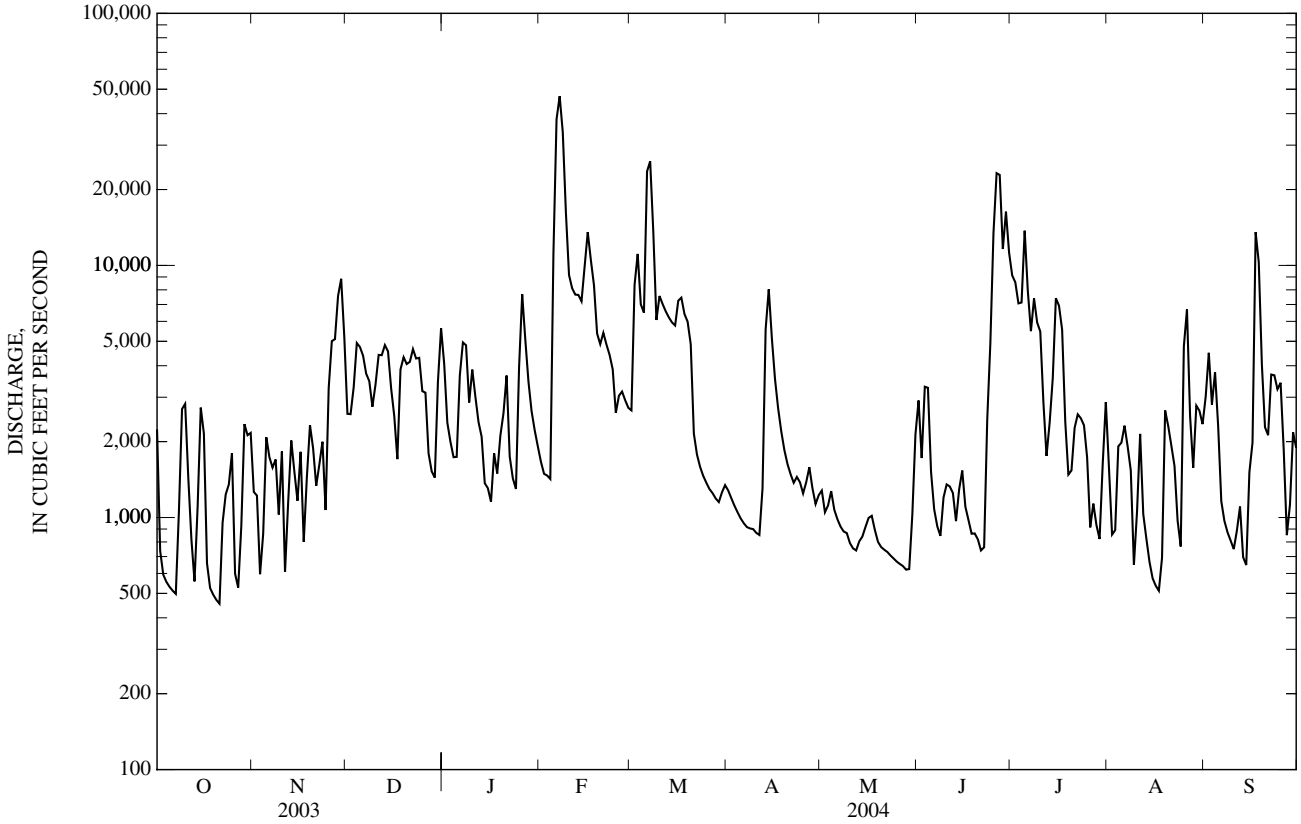
WTR YR 2004 MEAN‡ 3465 CSFM‡ 1.92 IN.‡ 26.06

‡Adjusted for change in contents in Woods Reservoir and Tims Ford Lake.
Note.--Contents(cfs-days) for adjustment by Arnold Engineering Development Center and Tennessee Valley Authority.

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 2004, BY WATER YEAR (WY)

MEAN	1,658	2,938	5,501	5,844	5,698	6,284	4,048	2,703	1,864	1,247	896	1,167
MAX	8,699	8,888	15,320	17,290	13,680	17,700	10,220	9,806	8,011	6,260	2,439	4,389
(WY)	(1976)	(1978)	(1991)	(1974)	(1994)	(1973)	(1983)	(1983)	(1989)	(1989)	(2001)	(1979)
MIN	209	619	1,256	799	1,904	1,464	728	445	201	341	241	169
(WY)	(1988)	(1988)	(1981)	(1981)	(2000)	(1985)	(1986)	(1988)	(1988)	(1988)	(1987)	(1999)

03584600 ELK RIVER AT PROSPECT, TN—Continued

SUMMARY STATISTICS	FOR 2004 WATER YEAR		*WATER YEARS 1972 - 2004	
ANNUAL TOTAL	1,265,748			
ANNUAL MEAN	3,458		3,305	
HIGHEST ANNUAL MEAN			5,214	1973
LOWEST ANNUAL MEAN			1,013	1981
HIGHEST DAILY MEAN	46,900	Feb 7	105,000	Mar 17, 1973
LOWEST DAILY MEAN	455	Oct 21	101	Sep 6, 1999
ANNUAL SEVEN-DAY MINIMUM	641	Oct 2	114	Aug 31, 1999
MAXIMUM PEAK FLOW	51,700	Feb 7	a117,000	Mar 17, 1973
MAXIMUM PEAK STAGE	29.04	Feb 7	40.12	Mar 17, 1973
INSTANTANEOUS LOW FLOW	b446	Oct 21	c78	Sep 29, 1961
10 PERCENT EXCEEDS	7,420		7,280	
50 PERCENT EXCEEDS	1,880		1,680	
90 PERCENT EXCEEDS	752		423	

* Regulated period only.
a From rating curve extended above 63,000 ft^3/s on basis of slope-area measurement of gage height 38.17 ft and contracted-opening measurement at gage height 38.96 ft, site and datum then in use.
b Also occurred Oct. 22.
c Caused by highway construction.
e Estimated