03455000 FRENCH BROAD RIVER NEAR NEWPORT, TN

LOCATION.--Lat 35°58'54", long 83°09'40", Cocke County, Hydrologic Unit 06010105, on left bank, 200 ft upstream from bridge on U.S. Highway 321, 1.0 mi northeast of Newport city limits, 3.7 mi upstream from Pigeon River, and at mile 77.5.

DRAINAGE AREA.--1,858 mi^2.

PERIOD OF RECORD.--September to December 1900, February to August 1901, October to November 1901, November 1902 to December 1905, September to December 1907, October 1920 to September 1994, October 1996 to current year. Monthly discharge only October to November 1920, published in WSP 1306.

REVISED RECORDS.--WSP 783: 1933-34, WSP 823: Drainage area. WSP 893: 1928(M), WSP 1306: 1900-1908. WSP 1336: 1903(M), 1921-22(M), 1923, 1925(M), 1927(M), 1928, 1932. WSP 1706: 1901(M).

GAGE.--Water-stage recorder. Datum of gage is 1,011.61 ft above NGVD of 1929. See WSP 1910 for history of changes prior to Mar. 31, 1934.

REMARKS.--No estimated daily discharges. Records good. Diurnal fluctuation during low flow caused by powerplants above station.

EXTREMES OUTSIDE PERIOD OF RECORD.--From reports of Tennessee Valley Authority, the flood of Mar. 7, 1867, gage height, 24 ft, present datum, discharge estimated, 110,000 ft^3/s, has not been exceeded since that date. From the same reports, other outstanding floods occurred Feb. 28, 1902, gage height, 23.0 ft present datum, discharge estimated, 101,000 ft^3/s; and July 17, 1916, gage height, 22.5 ft present datum, discharge estimated 97,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 16,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb 23	0530	23,600	10.32	May 6	2345	*43,500	*14.68
Apr 10	1915	23,700	10.36				

Minimum discharge, 520 ft^3/s, Oct. 10.

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

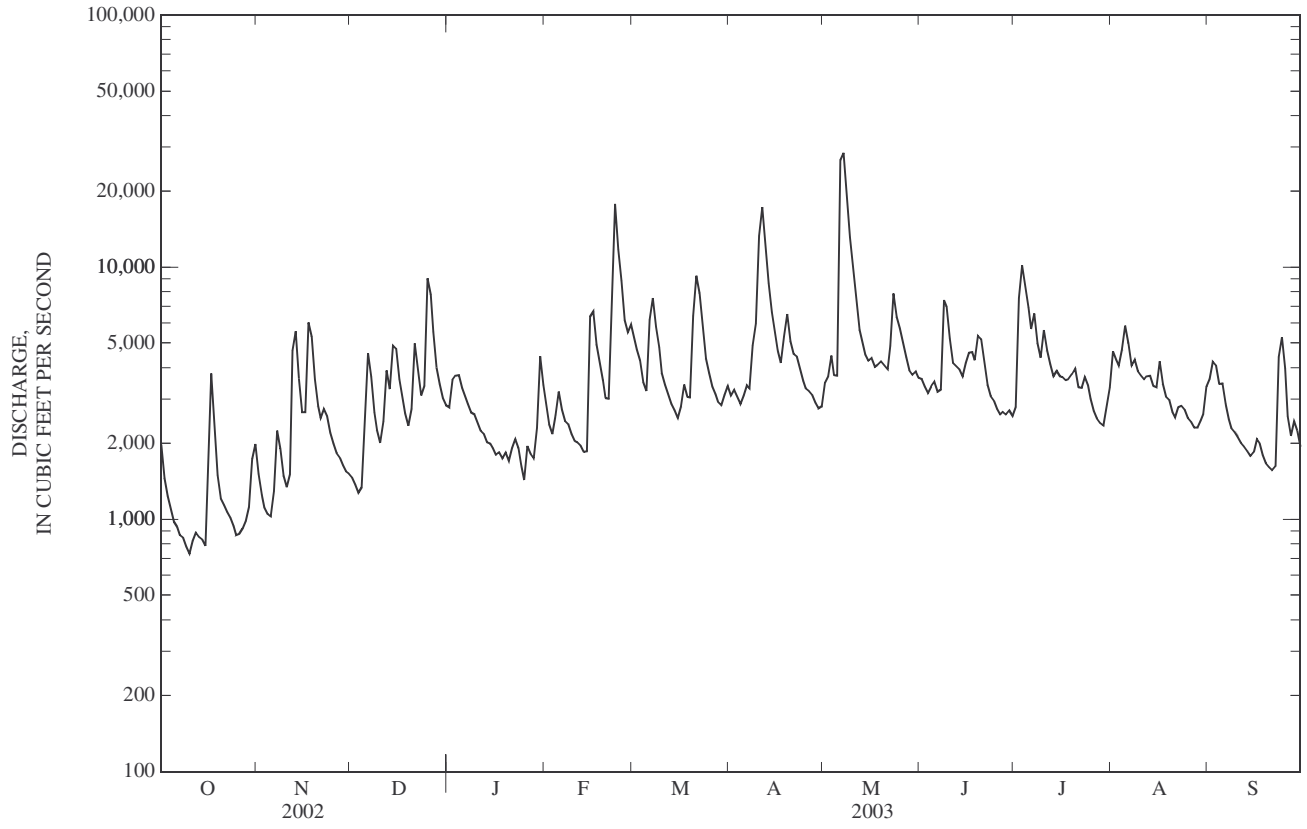
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,980	1,510	1,470	2,790	2,820	5,390	3,100	3,490	3,600	2,800	4,640	3,610
2	1,460	1,250	1,380	3,580	2,390	4,740	3,270	3,690	3,360	7,550	4,320	4,240
3	1,240	1,120	1,280	3,730	2,190	4,290	3,080	4,450	3,180	10,100	4,100	4,090
4	1,100	1,050	1,340	3,730	2,590	3,500	2,870	3,740	3,380	8,440	4,740	3,440
5	976	1,030	2,520	3,330	3,210	3,240	3,110	3,720	3,520	6,920	5,870	3,460
6	930	1,290	4,570	3,130	2,720	6,190	3,420	26,600	3,220	5,690	5,010	2,870
7	866	2,250	3,670	2,870	2,450	7,570	3,310	28,400	3,270	6,560	4,090	2,510
8	847	1,920	2,650	2,660	2,390	5,820	4,900	18,800	7,410	5,010	4,300	2,310
9	780	1,500	2,260	2,620	2,190	4,820	5,970	13,200	6,980	4,390	3,880	2,220
10	732	1,340	2,020	2,430	2,050	3,800	13,300	10,100	5,230	5,630	3,710	2,120
11	823	1,510	2,440	2,250	2,030	3,420	17,300	7,360	4,170	4,690	3,590	2,010
12	888	4,660	3,900	2,180	1,960	3,140	11,900	5,670	4,050	4,140	3,700	1,940
13	851	5,560	3,290	2,030	1,860	2,870	8,660	5,110	3,950	3,690	3,710	1,860
14	833	3,610	4,890	2,010	1,860	2,720	6,620	4,510	3,700	3,870	3,390	1,780
15	788	2,660	4,750	1,930	6,370	2,530	5,430	4,260	4,180	3,700	3,350	1,840
16	1,690	2,660	3,590	1,810	6,680	2,800	4,710	4,370	4,590	3,680	4,230	2,090
17	3,800	6,040	3,010	1,840	4,960	3,430	4,190	4,030	4,610	3,560	3,460	2,020
18	2,310	5,310	2,640	1,750	4,200	3,070	5,310	4,110	4,280	3,610	3,060	1,800
19	1,490	3,600	2,360	1,850	3,560	3,040	6,530	4,220	5,340	3,760	2,980	1,670
20	1,210	2,830	2,740	1,710	3,030	6,420	5,110	4,090	5,190	3,980	2,670	1,610
21	1,140	2,530	4,970	1,920	3,010	9,260	4,530	3,950	4,200	3,340	2,550	1,570
22	1,070	2,740	3,990	2,080	8,970	7,920	4,440	4,870	3,430	3,330	2,800	1,620
23	1,010	2,580	3,110	1,920	17,800	5,740	3,960	7,870	3,080	3,690	2,830	4,420
24	941	2,210	3,400	1,660	11,800	4,350	3,560	6,370	2,970	3,410	2,740	5,290
25	867	2,010	9,030	1,440	8,860	3,810	3,320	5,720	2,740	3,010	2,530	3,960
26	877	1,830	7,800	1,950	6,180	3,380	3,230	5,050	2,600	2,690	2,450	2,560
27	919	1,760	5,540	1,820	5,530	3,140	3,120	4,400	2,660	2,520	2,320	2,150
28	986	1,640	4,000	1,750	5,940	2,930	2,900	3,910	2,600	2,410	2,320	2,450
29	1,130	1,550	3,450	2,310	---	2,850	2,770	3,750	2,700	2,360	2,480	2,250
30	1,740	1,520	3,030	4,440	---	3,130	2,800	3,840	2,570	2,790	2,630	1,950
31	1,990	---	2,840	3,400	---	3,380	---	3,650	---	3,320	3,370	---
TOTAL	38,264	73,070	107,930	74,920	129,600	132,690	156,720	217,300	116,760	134,640	107,820	77,710
MEAN	1,234	2,436	3,482	2,417	4,629	4,280	5,224	7,010	3,892	4,343	3,478	2,590
MAX	3,800	6,040	9,030	4,440	17,800	9,260	17,300	28,400	7,410	10,100	5,870	5,290
MIN	732	1,030	1,280	1,440	1,860	2,530	2,770	3,490	2,570	2,360	2,320	1,570
CFSM	0.66	1.31	1.87	1.30	2.49	2.30	2.81	3.77	2.09	2.34	1.87	1.39
IN.	0.77	1.46	2.16	1.50	2.59	2.66	3.14	4.35	2.34	2.70	2.16	1.56

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1901 - 2003, BY WATER YEAR (WY)

MEAN	1,859	2,115	2,825	3,524	4,200	4,820	4,322	3,369	2,595	2,234	2,280	1,734
MAX	9,875	7,249	7,478	9,533	8,814	12,710	11,650	9,448	6,148	7,620	14,640	6,358
(WY)	(1965)	(1980)	(1962)	(1937)	(1990)	(1903)	(1903)	(1901)	(1901)	(1905)	(1901)	(1928)
MIN	508	713	819	968	1,450	1,399	1,362	1,252	722	711	380	421
(WY)	(1955)	(1932)	(1940)	(1956)	(1941)	(1988)	(1986)	(1941)	(1988)	(1986)	(1925)	(1925)

03455000 FRENCH BROAD RIVER NEAR NEWPORT, TN—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1901 - 2003	
ANNUAL TOTAL	738,918		1,367,424			
ANNUAL MEAN	2,024		3,746		2,933	
HIGHEST ANNUAL MEAN					4,641	1973
LOWEST ANNUAL MEAN					1,348	1988
HIGHEST DAILY MEAN	18,200	Mar 18	28,400	May 7	62,200	Apr 8, 1903
LOWEST DAILY MEAN	366	Aug 12	732	Oct 10	240	Sep 9, 1925
ANNUAL SEVEN-DAY MINIMUM	377	Aug 8	814	Oct 9	276	Aug 25, 1925
MAXIMUM PEAK FLOW			43,500	May 6	76,300	Aug 30, 1940
MAXIMUM PEAK STAGE			14.68	May 6	19.25	Aug 30, 1940
INSTANTANEOUS LOW FLOW			520	Oct 10	208	Oct 23, 1952
ANNUAL RUNOFF (CFSM)	1.09		2.02		1.58	
ANNUAL RUNOFF (INCHES)	14.79		27.38		21.45	
10 PERCENT EXCEEDS	3,810		6,000		5,370	
50 PERCENT EXCEEDS	1,550		3,230		2,250	
90 PERCENT EXCEEDS	621		1,500		952	



03461500 PIGEON RIVER AT NEWPORT, TN

LOCATION.--Lat 35°57'38", long 83°10'28", Cocke County, Hydrologic Unit 06010106, on left bank 100 ft upstream from bridge on U.S. Highway 25 and 70 at Newport, 0.6 mi downstream from Morell Branch, and at mile 6.8

DRAINAGE AREA.--666 mi^2.

PERIOD OF RECORD.-- September 1900 to September 1929, October 1944 to September 1946, August 1948 to February 1982, October 1996 to current year. Monthly discharge only for some peiods, published in WSP 1306. Published as "near Newport" 1945-46.

REVISED RECORDS.--WSP 1143: Drainage area. WSP 1306: 1901, 1904-10. WSP 1336: 1903, 1917(M), 1919-20(M), 1921, 1924(M), 1927-29(M), 1948-52 (monthly runoff).

GAGE.--Water-stage recorder. Datum of gage is 1,038.76 ft NGVD of 1929. Prior to Oct. 1, 1929, nonrecording gage at present site at datum 2.00 ft higher. May 8, 1945, to July 22, 1946, water-stage recorder at site 4.8 mi downstream at datum 35.85 ft lower. August 13, 1948, to Sept. 30, 1970, at present site at datum 2.00 ft higher.

REMARKS.--No estimated daily discharges. Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data. Considerable regulation by Lakes Junaluska, Logan, and Walters for periods of low flow, combined usable capacity of reservoirs about 12,500 cfs-days. The largest of these, Lake Walters, usable capacity, 10,400 cfs-days was completed in 1929.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of Mar. 7, 1867, and June 17, 1876, reached a stage of 23 ft present datum, under present conditions about 21.1 ft, due to removal of mill dam in 1945, discharge, 48,000 ft^3/s, and flood of August 30, 1940, reached a stage of 19.3 ft present datum, discharge 36,000 ft^3/s, from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb 22	1500	8,210	8.05	Apr 10	1815	8,740	8.28
Feb 23	0015	9,750	8.70	May 6	2030	*42,300	*18.55

Minimum discharge, 174 ft^3/s, Oct. 6.

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	944	656	587	1,090	1,480	2,900	1,380	1,610	591	1,890	1,050	632
2	489	682	1,040	1,890	1,120	2,790	695	1,690	762	3,220	1,330	991
3	567	318	849	1,550	1,090	2,240	1,440	1,260	1,330	3,010	1,240	809
4	1,180	320	1,250	2,500	1,610	2,070	1,670	757	1,350	2,450	1,540	1,610
5	403	902	1,890	1,450	1,790	921	1,570	1,940	1,200	1,400	1,980	1,530
6	178	968	1,850	1,000	1,770	3,070	1,540	23,300	1,150	1,540	1,640	661
7	301	1,490	1,390	1,670	1,810	3,720	2,070	18,300	1,530	1,770	1,430	436
8	437	1,150	1,350	915	1,750	3,010	2,000	9,220	2,470	1,760	1,260	487
9	561	499	1,220	745	943	2,750	3,240	5,500	1,240	1,570	917	852
10	679	389	1,480	1,110	1,340	2,400	5,720	4,070	1,090	1,760	908	972
11	640	1,360	1,880	845	955	2,150	5,920	3,390	1,300	1,680	1,060	657
12	367	2,730	1,650	1,210	938	2,200	4,730	2,920	1,280	1,440	1,540	575
13	204	2,040	1,680	1,040	1,070	1,700	4,080	2,730	1,330	827	1,770	528
14	202	1,630	1,290	1,710	1,690	1,830	3,460	2,650	1,300	1,280	1,170	808
15	322	1,630	1,180	1,440	3,780	1,230	3,070	2,250	1,410	2,320	972	588
16	1,050	1,420	1,360	961	3,250	996	2,630	2,200	1,180	1,630	1,570	246
17	1,170	2,420	1,200	876	2,680	1,930	2,330	2,090	1,090	1,550	741	232
18	663	1,650	1,470	539	2,620	1,510	2,190	1,260	1,110	1,430	809	228
19	605	1,270	1,090	332	2,520	1,720	2,580	1,410	2,030	1,380	1,040	259
20	259	1,070	2,530	335	1,550	2,070	1,580	1,560	1,200	965	1,030	264
21	852	1,380	2,800	570	1,730	2,330	1,830	1,940	1,380	1,340	796	216
22	427	1,910	1,940	1,010	4,940	1,280	2,360	1,580	801	1,680	415	253
23	239	1,210	1,490	1,500	6,540	1,340	1,810	2,220	773	1,530	645	2,060
24	254	592	2,170	895	4,240	1,830	2,370	1,530	1,020	1,460	472	1,540
25	236	1,030	3,590	821	3,240	1,500	1,710	1,530	922	1,290	509	812
26	450	951	3,130	516	2,990	1,380	1,070	1,310	954	1,280	839	970
27	245	1,370	2,830	846	3,000	1,330	587	1,330	568	820	907	900
28	455	1,590	2,680	770	3,060	1,350	1,180	1,650	848	705	1,210	571
29	1,150	550	1,580	1,890	---	1,100	1,710	1,480	763	863	863	384
30	1,080	418	2,110	2,560	---	913	1,540	1,250	1,170	1,000	971	470
31	921	---	790	2,110	---	1,620	---	1,640	---	991	581	---
TOTAL	17,530	35,595	53,346	36,696	65,496	59,180	70,062	107,567	35,142	47,831	33,205	21,541
MEAN	565	1,186	1,721	1,184	2,339	1,909	2,335	3,470	1,171	1,543	1,071	718
MAX	1,180	2,730	3,590	2,560	6,540	3,720	5,920	23,300	2,470	3,220	1,980	2,060
MIN	178	318	587	332	938	913	587	757	568	705	415	216
CFSM	0.85	1.78	2.58	1.78	3.51	2.87	3.51	5.21	1.76	2.32	1.61	1.08
IN.	0.98	1.99	2.98	2.05	3.66	3.31	3.91	6.01	1.96	2.67	1.85	1.20

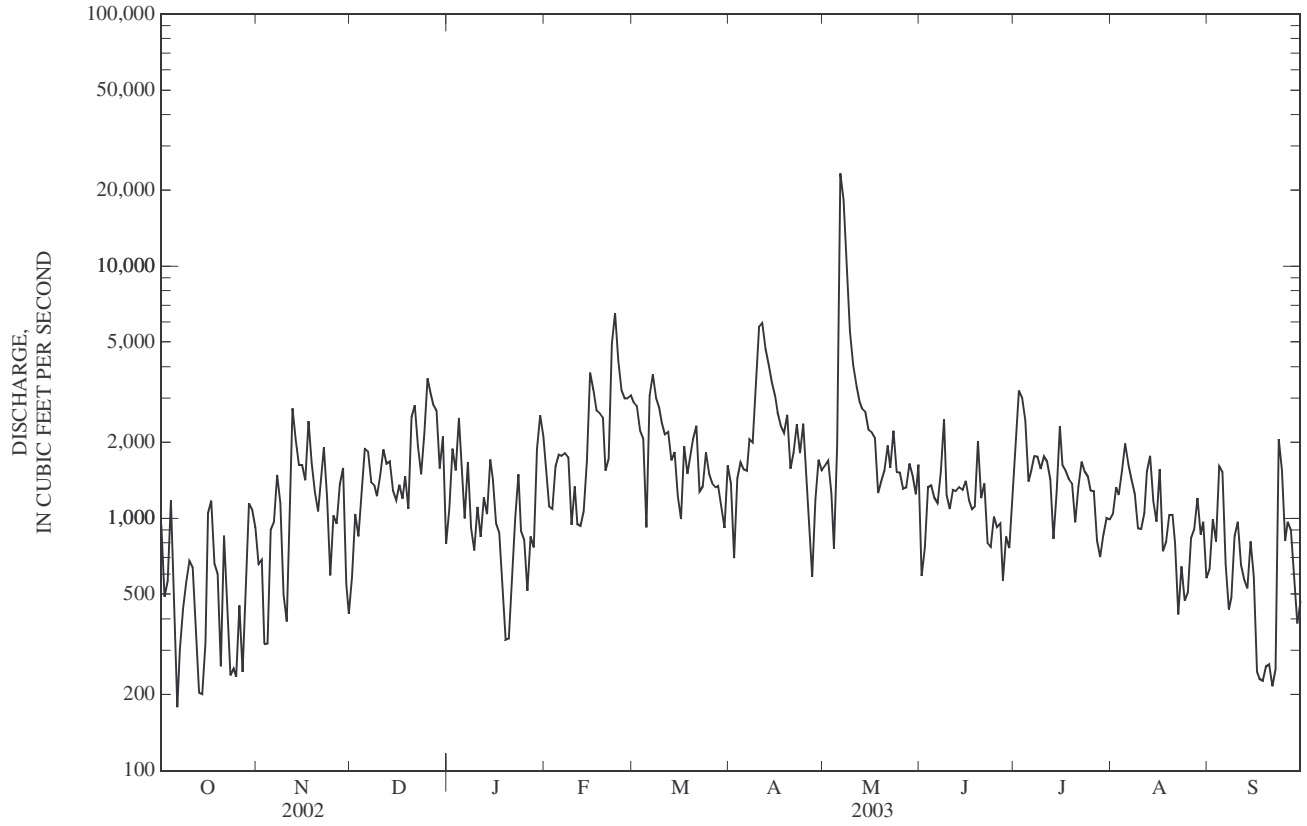
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1901 - 2003, BY WATER YEAR (WY)

MEAN	623	763	1,234	1,588	1,822	2,175	1,811	1,343	1,064	909	770	606
MAX	2,263	2,265	3,271	3,407	4,762	5,136	4,270	3,470	2,436	2,498	2,229	2,182
(WY)	(1965)	(1980)	(1962)	(1974)	(1957)	(1963)	(1903)	(2003)	(1967)	(1916)	(1928)	(1928)
MIN	148	234	391	369	853	907	716	651	457	328	158	145
(WY)	(1979)	(1954)	(1904)	(1981)	(1904)	(1915)	(1967)	(1914)	(1925)	(1925)	(1925)	(1953)

03461500 PIGEON RIVER AT NEWPORT, TN—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1901 - 2003	
ANNUAL TOTAL	347,557		583,191			
ANNUAL MEAN	952		1,598		1,218	
HIGHEST ANNUAL MEAN					1,761	1909
LOWEST ANNUAL MEAN					644	1914
HIGHEST DAILY MEAN	7,640	Mar 18	23,300	May 6	31,000	Apr 2, 1920
LOWEST DAILY MEAN	168	Sep 20	178	Oct 6	48	Sep 21, 1953
ANNUAL SEVEN-DAY MINIMUM	185	Sep 15	243	Sep 16	65	Nov 7, 1980
MAXIMUM PEAK FLOW			42,300	May 6	50,000	Feb 28, 1902
MAXIMUM PEAK STAGE			18.55	May 6	a23.40	Feb 28, 1902
INSTANTANEOUS LOW FLOW			174	Oct 6	38	Oct 5, 1952
ANNUAL RUNOFF (CFSM)	1.43		2.40		1.83	
ANNUAL RUNOFF (INCHES)	19.41		32.57		24.86	
10 PERCENT EXCEEDS	1,860		2,730		2,410	
50 PERCENT EXCEEDS	669		1,330		917	
90 PERCENT EXCEEDS	257		495		324	

a Present datum, under present conditions the stage for this flood would be about 1.9 ft lower, due to removal of dam 1.3 mi downstream in 1945, from reports of Tennessee Valley Authority.



03465500 NOLICHUCKY RIVER AT EMBREEVILLE, TN

LOCATION.--Lat 36°10'35", long 82°27'27", Washington County, Hydrologic Unit 06010108, on left bank, at Embreeville, 1,000 ft upstream from bridge on State Highway 81, 3 mi northwest of Erwin, 5.2 mi downstream from North Indian Creek, and at mile 89.0.

DRAINAGE AREA.--805 mi^2.

PERIOD OF RECORD.--September 1900 to May 1901 (published as "near Chucky Valley"), October 1919 to current year. Monthly discharge only October 1919 to June 1920, published in WSP 1306.

REVISED RECORDS.--WSP 803: 1935(M). WSP 823: Drainage area. WSP 1336: 192l-24, 193l(M).

GAGE.--Data collection platform. Datum of gage is 1,519.30 ft above NGVD of 1929. Sept. 1, 1900 to May 21, 1901, nonrecording gage at site 3 mi downstream at different datum, destroyed by flood of May 21, 1901. July 1, 1920 to Sept. 30, 1931, nonrecording gage at bridge 2,000 ft downstream at datum 6.33 ft lower.

REMARKS.--No estimated 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 of May 21, 1901, reached a stage of 24 ft, discharge, 120,000 ft^3/s, present site and datum, from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 9,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb 22	2045	*17,200	*6.82	Apr 18	1415	15,400	6.43
Apr 10	2345	13,000	5.88				

Minimum discharge, 295 ft^3/s, Oct. 10.

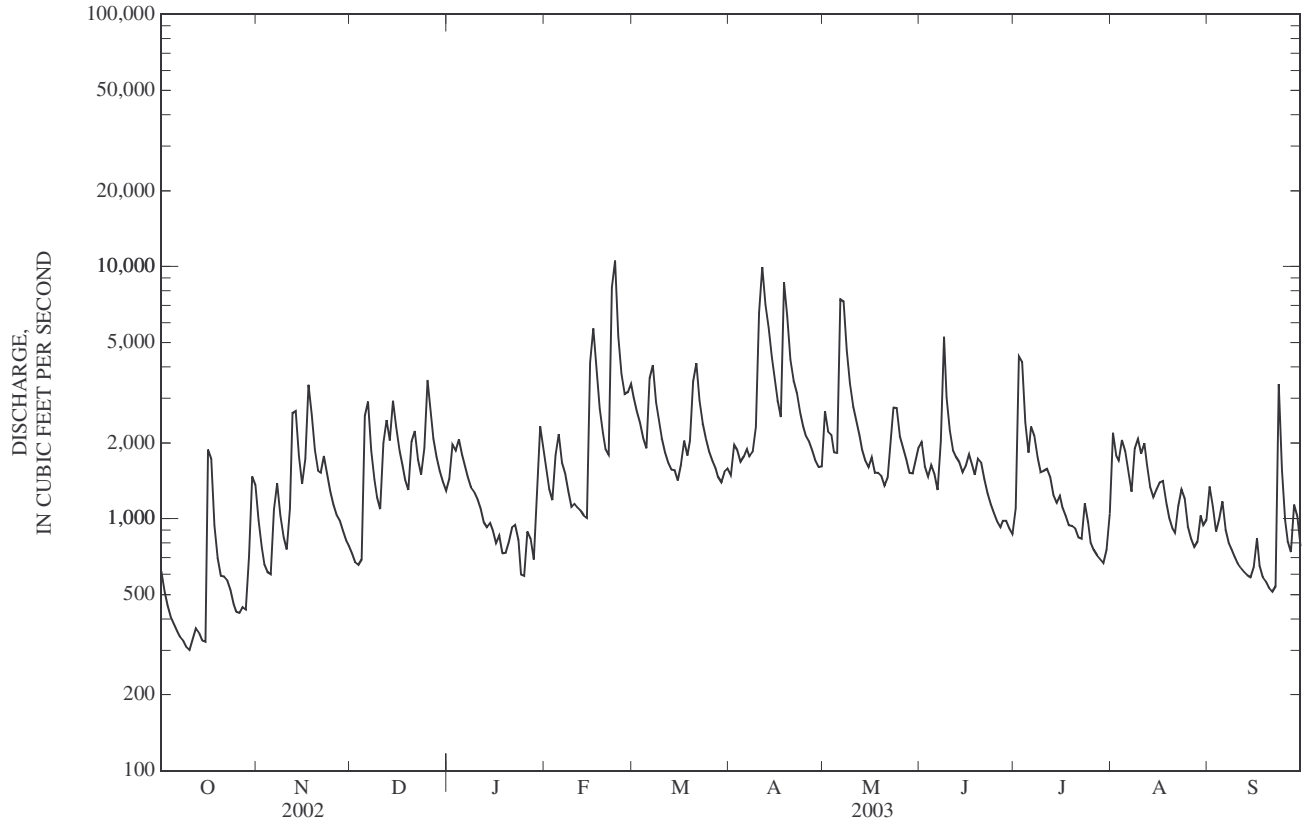
DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	618	980	729	1,450	1,550	3,040	1,490	2,670	2,020	1,100	2,190	1,340
2	518	771	673	1,970	1,320	2,670	1,960	2,220	1,610	4,430	1,790	1,120
3	451	660	657	1,870	1,190	2,400	1,870	2,160	1,480	4,200	1,700	892
4	406	617	687	2,070	1,780	2,090	1,680	1,840	1,630	2,400	2,050	1,000
5	381	606	2,560	1,800	2,170	1,910	1,760	1,820	1,510	1,820	1,860	1,170
6	358	1,080	2,910	1,630	1,670	3,610	1,890	7,420	1,300	2,320	1,550	905
7	340	1,380	1,860	1,460	1,510	4,070	1,770	7,300	2,030	2,140	1,280	803
8	330	1,030	1,430	1,340	1,280	2,900	1,840	4,660	5,270	1,760	1,910	761
9	311	851	1,220	1,280	1,110	2,420	2,300	3,440	3,020	1,530	2,080	710
10	302	756	1,090	1,200	1,150	2,080	6,590	2,800	2,250	1,550	1,810	664
11	333	1,100	2,000	1,100	1,110	1,840	9,930	2,440	1,870	1,580	1,990	636
12	369	2,620	2,460	966	1,080	1,680	7,040	2,150	1,760	1,470	1,650	615
13	354	2,670	2,050	920	1,030	1,570	5,700	1,880	1,680	1,240	1,340	598
14	329	1,780	2,930	959	1,010	1,560	4,370	1,710	1,530	1,160	1,220	589
15	326	1,370	2,310	900	4,170	1,420	3,530	1,610	1,630	1,230	1,310	645
16	1,880	1,730	1,880	802	5,670	1,650	2,940	1,760	1,800	1,110	1,400	835
17	1,730	3,390	1,620	860	3,790	2,040	2,530	1,520	1,640	1,030	1,410	652
18	939	2,590	1,430	729	2,740	1,790	8,670	1,530	1,500	942	1,170	587
19	699	1,870	1,300	734	2,190	2,040	6,350	1,480	1,740	936	1,000	564
20	594	1,550	2,030	810	1,890	3,510	4,270	1,360	1,670	914	915	533
21	591	1,520	2,240	921	1,800	4,150	3,530	1,460	1,440	847	881	513
22	571	1,770	1,730	944	8,240	2,930	3,160	2,010	1,260	836	1,130	538
23	522	1,510	1,500	826	10,500	2,380	2,650	2,760	1,150	1,150	1,310	3,420
24	460	1,280	1,910	603	5,280	2,070	2,330	2,760	1,050	973	1,210	1,560
25	428	1,140	3,540	596	3,740	1,850	2,140	2,120	980	807	935	984
26	424	1,030	2,670	888	3,130	1,700	2,030	1,910	930	750	836	815
27	445	981	2,080	835	3,190	1,590	1,870	1,720	982	718	773	737
28	436	897	1,770	688	3,430	1,460	1,710	1,520	981	693	809	1,140
29	704	819	1,550	1,150	---	1,400	1,610	1,520	918	667	1,030	1,020
30	1,470	781	1,400	2,320	---	1,530	1,620	1,720	870	756	946	779
31	1,370	---	1,290	1,890	---	1,580	---	1,910	---	1,050	992	---
TOTAL	18,989	41,129	55,506	36,511	78,720	68,930	101,130	75,180	49,501	44,109	42,477	27,125
MEAN	613	1,371	1,791	1,178	2,811	2,224	3,371	2,425	1,650	1,423	1,370	904
MAX	1,880	3,390	3,540	2,320	10,500	4,150	9,930	7,420	5,270	4,430	2,190	3,420
MIN	302	606	657	596	1,010	1,400	1,490	1,360	870	667	773	513
MED	445	1,120	1,770	959	1,850	2,040	2,320	1,910	1,570	1,110	1,310	770
CFSM	0.76	1.70	2.22	1.46	3.49	2.76	4.19	3.01	2.05	1.77	1.70	1.12
IN.	0.88	1.90	2.56	1.69	3.64	3.19	4.67	3.47	2.29	2.04	1.96	1.25
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1920 - 2003, BY WATER YEAR (WY)												
MEAN	799	1,001	1,275	1,700	2,045	2,337	2,025	1,571	1,122	940	918	756
MAX	2,630	4,720	3,073	4,020	4,494	5,102	4,169	3,171	3,196	2,525	4,876	2,648
(WY)	(1930)	(1978)	(1962)	(1995)	(1957)	(1963)	(1983)	(1984)	(1992)	(1949)	(1940)	(1928)
MIN	246	294	353	382	635	649	699	586	376	351	182	187
(WY)	(1954)	(1940)	(1940)	(1940)	(1941)	(1988)	(1986)	(2001)	(1988)	(1988)	(1925)	(1925)

03465500 NOLICHUCKY RIVER AT EMBREEVILLE, TN—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1920 - 2003	
ANNUAL TOTAL	378,839		639,307			
ANNUAL MEAN	1,038		1,752		1,370	
HIGHEST ANNUAL MEAN					1,948	1974
LOWEST ANNUAL MEAN					694	1988
HIGHEST DAILY MEAN	11,900	Mar 18	10,500	Feb 23	50,800	Nov 6, 1977
LOWEST DAILY MEAN	110	Sep 14	302	Oct 10	88	Sep 8, 1925
ANNUAL SEVEN-DAY MINIMUM	126	Sep 9	332	Oct 9	121	Sep 3, 1925
MAXIMUM PEAK FLOW			17,200	Feb 22	a110,000	Nov 6, 1977
MAXIMUM PEAK STAGE			6.82	Feb 22	21.52	Nov 6, 1977
INSTANTANEOUS LOW FLOW			295	Oct 10	b85	Sep 8, 1925
ANNUAL RUNOFF (CFSM)	1.29		2.18		1.70	
ANNUAL RUNOFF (INCHES)	17.51		29.54		23.12	
10 PERCENT EXCEEDS	1,950		3,030		2,560	
50 PERCENT EXCEEDS	711		1,510		999	
90 PERCENT EXCEEDS	239		629		394	

a From rating curve extended above 48,000 ft^3/s on basis of contracted opening and slope-area measurements of peak flow.
b Also occurred on Sept. 9, 1925.



03466208 BIG LIMESTONE CREEK NEAR LIMESTONE, TN

LOCATION.--Lat 36°12'21", long 82°39'02", Greene County, Hydrologic Unit 06010108, on right bank, 0.6 mi above confluence with Nolichucky River, 1.8 mi southwest of Limestone, and at mile 0.6.

DRAINAGE AREA.--79.0 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1996 to February 2000, August 2000 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,340 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR PERIOD.--Maximum discharge, 10,400 ft^3/s, Aug. 4, 2001, gage height, 12.33 ft minimum, 8.6 ft^3/s, Sept. 18, 2002.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,460 ft^3/s, Feb. 22, gage height, 6.70 ft; minimum discharge, 9.4 ft^3/s, Oct. 3.

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	14	28	44	66	137	201	99	109	67	171	122	170
2	15	23	44	64	126	188	91	115	63	642	264	112
3	13	21	45	90	116	173	86	115	64	273	763	102
4	15	23	59	86	169	164	83	104	63	154	202	122
5	13	23	211	76	150	160	94	108	60	134	233	119
6	12	34	139	74	135	238	88	149	57	123	159	102
7	14	38	104	70	137	190	89	126	68	173	141	97
8	14	30	91	68	129	164	90	116	72	143	147	94
9	13	25	83	66	123	155	133	107	59	124	126	90
10	13	24	78	61	126	145	191	101	55	192	116	86
11	15	105	123	57	123	142	333	100	62	149	110	82
12	14	144	97	55	119	136	240	95	73	124	138	79
13	14	112	94	56	108	134	201	91	59	119	122	77
14	13	74	119	57	110	133	180	88	84	109	103	75
15	14	62	97	56	242	127	166	88	137	103	97	87
16	22	66	87	55	432	139	157	88	84	101	209	79
17	20	97	81	56	239	130	150	84	74	100	135	73
18	16	86	75	53	201	127	195	84	77	92	126	71
19	15	72	71	53	181	122	174	80	107	88	103	70
20	15	66	96	54	170	122	153	77	86	84	96	68
21	16	71	83	56	167	117	168	92	74	81	93	66
22	16	84	75	57	1,580	111	160	93	68	106	90	91
23	15	75	70	56	478	106	145	83	64	120	87	139
24	15	66	102	55	238	104	140	76	60	89	83	88
25	15	60	117	56	202	102	134	73	57	82	80	80
26	15	57	95	55	194	102	129	72	54	77	77	76
27	15	61	84	54	205	102	125	69	60	75	75	75
28	18	54	79	55	222	97	120	68	56	73	97	84
29	37	50	74	164	---	96	116	70	52	71	86	75
30	66	47	70	212	---	109	112	68	65	72	113	73
31	41	---	68	150	---	109	---	74	---	84	192	---
TOTAL	563	1,778	2,755	2,243	6,559	4,245	4,342	2,863	2,081	4,128	4,585	2,702
MEAN	18.2	59.3	88.9	72.4	234	137	145	92.4	69.4	133	148	90.1
MAX	66	144	211	212	1,580	238	333	149	137	642	763	170
MIN	12	21	44	53	108	96	83	68	52	71	75	66
CFSM	0.23	0.75	1.12	0.92	2.97	1.73	1.83	1.17	0.88	1.69	1.87	1.14
IN.	0.27	0.84	1.30	1.06	3.09	2.00	2.04	1.35	0.98	1.94	2.16	1.27

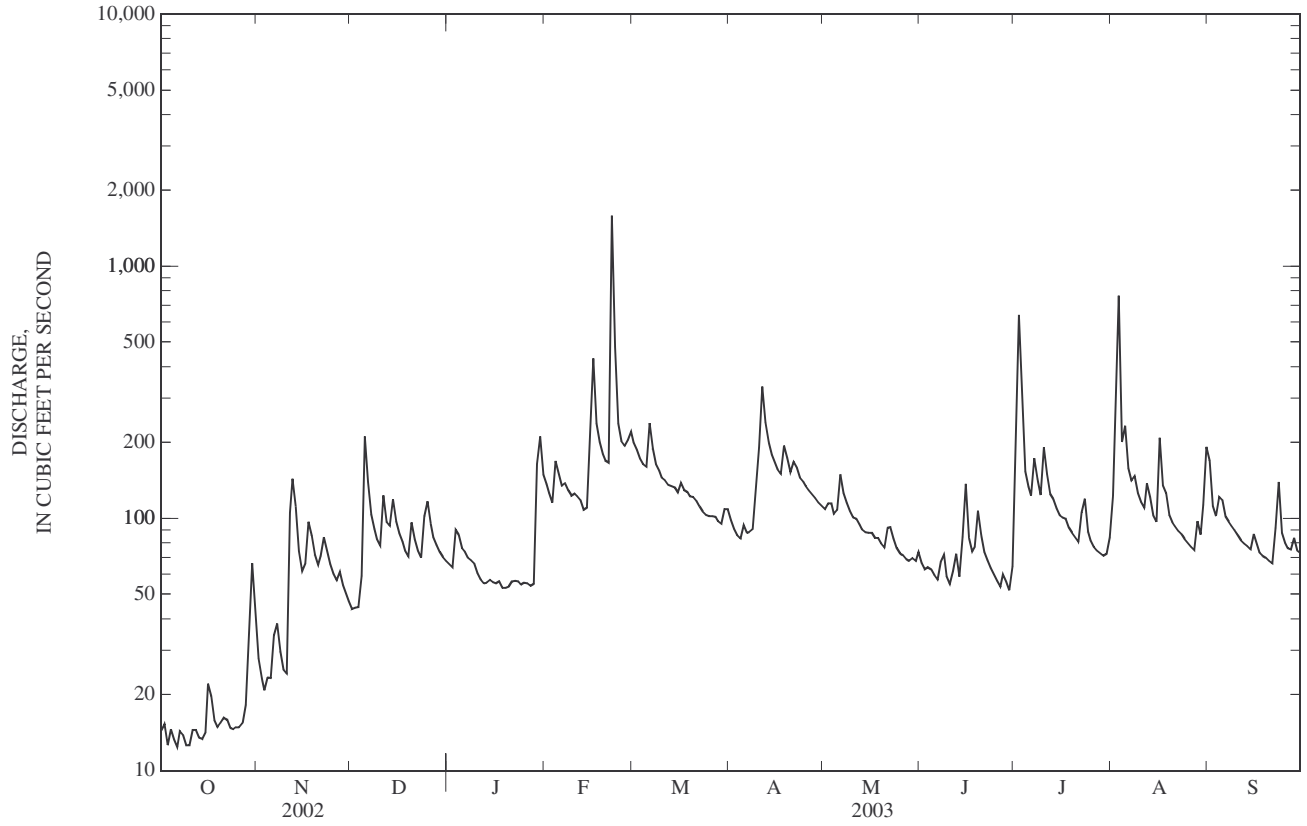
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2003, BY WATER YEAR (WY)

MEAN	26.1	35.3	51.5	77.4	119	134	113	86.3	62.4	68.6	79.7	42.0
MAX	42.1	67.5	127	172	234	264	165	137	104	133	242	90.1
(WY)	(2002)	(1997)	(1997)	(1997)	(2003)	(1997)	(1998)	(1998)	(1998)	(2003)	(2001)	(2003)
MIN	16.0	19.0	17.1	26.7	41.6	93.2	73.9	39.7	31.4	19.2	14.4	13.8
(WY)	(2000)	(2000)	(2000)	(2000)	(2000)	(2001)	(1999)	(2001)	(2002)	(2002)	(2002)	(2002)

03466208 BIG LIMESTONE CREEK NEAR LIMESTONE, TN—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1996 - 2003	
ANNUAL TOTAL	20,653.9		38,844			
ANNUAL MEAN	56.6		106		77.4	
HIGHEST ANNUAL MEAN					106	2003
LOWEST ANNUAL MEAN					51.6	1999
HIGHEST DAILY MEAN	1,080	Mar 18	1,580	Feb 22	3,790	Aug 4, 2001
LOWEST DAILY MEAN	9.6	Sep 19	12	Oct 6	9.6	Sep 19, 2002
ANNUAL SEVEN-DAY MINIMUM	10	Sep 13	13	Oct 3	10	Sep 13, 2002
MAXIMUM PEAK FLOW			3,460	Feb 22	a10,400	Aug 4, 2001
MAXIMUM PEAK STAGE			6.70	Feb 22	12.33	Aug 4, 2001
INSTANTANEOUS LOW FLOW			9.4	Oct 3	8.6	Sep 18, 2002
ANNUAL RUNOFF (CFSM)	0.72		1.35		0.98	
ANNUAL RUNOFF (INCHES)	9.73		18.29		13.31	
10 PERCENT EXCEEDS	109		172		147	
50 PERCENT EXCEEDS	38		88		58	
90 PERCENT EXCEEDS	13		32		20	

a From rating curve extended above 3,400 ft^3/s on basis on contracted-opening measurement of peak flow.



03466208 BIG LIMESTONE CREEK NEAR LIMESTONE, TN—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--March 1996 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous discharge, cfs (00061)	Turbidity, water, unfltrd field, NTU (61028)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)	Chloride, water, fltrd, mg/L (00940)
NOV													
22...	1200	83	11	725	9.4	87	8.3	512	9.5	230	276	2	10.5
DEC													
11...	1300	144	120	725	10.1	92	8.2	450	9.0	199	242	--	9.26
JAN													
29...	1515	232	570	729	11.1	90	8.2	338	4.5	174	212	--	13.1
FEB													
28...	1415	222	36	727	10.1	93	8.2	410	9.5	196	239	--	8.11
MAR													
25...	1445	106	11	723	12.3	130	8.5	435	15.5	226	259	8	7.43
APR													
29...	1500	114	24	724	10.8	120	8.4	422	18.0	215	259	2	5.32
MAY													
22...	1500	93	40	726	8.8	96	8.3	456	17.0	210	256	--	6.93
JUN													
11...	1430	52	26	721	9.1	108	8.3	439	21.0	220	268	--	6.53
JUL													
30...	1430	74	32	725	8.9	105	8.3	443	21.0	209	255	--	6.98
AUG													
19...	1230	117	36	727	8.6	100	8.2	455	20.0	200	244	--	6.87
SEP													
03...	1545	98	30	725	8.1	96	8.2	480	20.5	220	268	--	7.12

Date	Sulfate water, fltrd, mg/L (00945)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	E coli, m-TEC MF, water, col/ 100 mL (31633)	2,6-Diethylaniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	Acetochlor, water, fltrd, ug/L (49260)	Alachlor, water, fltrd, ug/L (46342)
NOV													
22...	24.8	0.37	0.05	3.07	0.022	0.05	0.125	3.4	2,100	<0.006	E.031	<0.006	<0.004
DEC													
11...	16.0	0.92	0.04	3.06	0.016	0.12	0.24	4.0	6,500	<0.006	E.028	<0.006	<0.004
JAN													
29...	13.6	4.1	0.64	2.09	0.021	0.33	1.14	6.2	14,000	--	--	--	--
FEB													
28...	12.3	0.89	0.06	2.99	0.016	0.10	0.20	3.9	3,000	--	--	--	--
MAR													
25...	9.4	0.19	<0.04	2.32	0.008	0.02	0.037	2.5	64	<0.006	E.039	<0.006	<0.004
APR													
29...	8.2	0.27	<0.04	2.39	0.013	0.03	0.065	2.7	570	<0.006	E.042	<0.006	<0.004
MAY													
22...	10.4	0.70	<0.04	1.74	0.035	0.03	0.153	2.4	K35000	<0.006	E.038	<0.006	<0.004
JUN													
11...	8.3	0.31	<0.04	1.95	0.012	0.05	0.104	2.3	4,200	<0.006	E.023	<0.006	<0.004
JUL													
30...	8.7	0.41	E.03	2.37	0.009	0.07	0.119	2.8	6,800	<0.006	E.030	<0.006	<0.004
AUG													
19...	8.0	0.34	<0.04	2.33	0.011	0.07	0.125	2.7	1,600	--	--	--	--
SEP													
03...	8.9	0.33	<0.04	2.25	0.008	0.07	0.129	2.6	K9900	<0.006	E.021	<0.006	<0.004

E--Estimated
K--Results based on non-ideal colony county.

03466208 BIG LIMESTONE CREEK NEAR LIMESTONE, TN—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	alpha-HCH, water, fltrd, ug/L (34253)	Atrazine, water, fltrd, ug/L (39632)	Azinphos-methyl, water, fltrd 0.7u GF ug/L (82686)	Benfluralin, water, fltrd 0.7u GF ug/L (82673)	Butylate, water, fltrd, ug/L (04028)	Carbaryl, water, fltrd 0.7u GF ug/L (82680)	Carbofuran, water, fltrd 0.7u GF ug/L (82674)	Chlorpyrifos water, fltrd, ug/L (38933)	cis-Permethrin water fltrd 0.7u GF ug/L (82687)	Cyanazine, water, fltrd, ug/L (04041)	DCPA, water fltrd 0.7u GF ug/L (82682)	Diazinon, water, fltrd, ug/L (39572)	Dieldrin, water, fltrd, ug/L (39381)
NOV													
22...	<0.005	0.096	<0.050	<0.010	<0.002	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.005
DEC													
11...	<0.005	0.024	<0.050	<0.010	<0.002	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.006	<0.005
JAN													
29...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB													
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
25...	<0.005	0.017	<0.050	<0.010	<0.002	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.005
APR													
29...	<0.005	0.027	<0.050	<0.010	<0.002	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.005
MAY													
22...	<0.005	0.087	<0.050	<0.010	<0.002	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.005
JUN													
11...	<0.005	0.059	<0.050	<0.010	<0.002	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.005
JUL													
30...	<0.005	0.069	<0.050	<0.010	<0.002	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	0.006	<0.005
AUG													
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
03...	<0.005	0.032	<0.050	<0.010	<0.002	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.005

Date	Disulfoton, water, fltrd 0.7u GF ug/L (82677)	EPTC, water, fltrd 0.7u GF ug/L (82668)	Ethalfluralin, water, fltrd 0.7u GF ug/L (82663)	Ethoprop, water, fltrd 0.7u GF ug/L (82672)	Fonofos water, fltrd, ug/L (04095)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (82666)	Malathion, water, fltrd, ug/L (39532)	Methyl parathion, water, fltrd 0.7u GF ug/L (82667)	Metolachlor, water, fltrd, ug/L (39415)	Metribuzin, water, fltrd, ug/L (82630)	Molinate, water, fltrd 0.7u GF ug/L (82671)	Napropamide, water, fltrd 0.7u GF ug/L (82684)
NOV													
22...	<0.02	<0.002	<0.009	<0.005	<0.003	<0.004	<0.035	<0.027	<0.006	0.079	<0.006	<0.002	<0.007
DEC													
11...	<0.02	<0.016	<0.009	<0.005	<0.003	<0.004	<0.035	<0.027	<0.006	0.030	<0.006	<0.002	<0.007
JAN													
29...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB													
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
25...	<0.02	<0.002	<0.009	<0.005	<0.003	<0.004	<0.035	<0.027	<0.006	E.012	<0.006	<0.002	<0.007
APR													
29...	<0.02	<0.002	<0.009	<0.005	<0.003	<0.004	<0.035	<0.027	<0.006	0.014	<0.006	<0.002	<0.007
MAY													
22...	<0.02	<0.002	<0.009	<0.005	<0.003	<0.004	<0.035	<0.027	<0.006	0.046	<0.006	<0.002	E.004
JUN													
11...	<0.02	<0.002	<0.009	<0.005	<0.003	<0.004	<0.035	<0.027	<0.006	0.057	<0.006	<0.002	<0.007
JUL													
30...	<0.02	<0.002	<0.009	<0.005	<0.003	<0.004	<0.035	<0.027	<0.006	0.041	<0.006	<0.002	<0.007
AUG													
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
03...	<0.02	<0.025	<0.009	<0.005	<0.003	<0.004	<0.035	<0.027	<0.006	E.011	<0.006	<0.002	<0.007

E--Estimated

03466208 BIG LIMESTONE CREEK NEAR LIMESTONE, TN—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	p,p'-DDE, water, fltrd, ug/L (34653)	Parathion, water, fltrd, ug/L (39542)	Pebulate, water, fltrd 0.7u GF ug/L (82669)	Pendimethalin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)	Prometon, water, fltrd, ug/L (04037)	Pronamide, water, fltrd 0.7u GF ug/L (82676)	Propachlor, water, fltrd, ug/L (04024)	Propanil, water, fltrd 0.7u GF ug/L (82679)	Propargite, water, fltrd 0.7u GF ug/L (82685)	Simazine, water, fltrd, ug/L (04035)	Tebuthiuron water fltrd 0.7u GF ug/L (82670)	Terbacil, water, fltrd 0.7u GF ug/L (82665)
NOV													
22...	<0.003	<0.010	<0.004	<0.022	<0.011	<0.01	<0.004	<0.010	<0.011	<0.02	E.005	E.01	<0.034
DEC													
11...	<0.003	<0.010	<0.004	<0.022	<0.011	<0.01	<0.004	<0.010	<0.011	<0.02	<0.005	E.01	<0.034
JAN													
29...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB													
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
25...	<0.003	<0.010	<0.004	<0.022	<0.011	<0.01	<0.004	<0.010	<0.011	<0.02	<0.005	<0.02	<0.034
APR													
29...	<0.003	<0.010	<0.004	<0.022	<0.011	<0.01	<0.004	<0.010	<0.011	<0.02	<0.005	<0.02	<0.034
MAY													
22...	<0.003	<0.010	<0.004	<0.022	<0.011	<0.01	<0.004	<0.010	<0.011	<0.02	0.005	E.01	<0.034
JUN													
11...	<0.003	<0.010	<0.004	<0.022	<0.011	<0.01	<0.004	<0.010	<0.011	<0.02	<0.005	<0.02	<0.034
JUL													
30...	<0.003	<0.010	<0.004	<0.022	<0.011	<0.01	<0.004	<0.010	<0.011	<0.02	<0.005	<0.02	<0.034
AUG													
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
03...	<0.003	<0.010	<0.004	<0.022	<0.011	<0.01	<0.004	<0.010	<0.011	<0.02	<0.005	<0.02	<0.034

Date	Terbufos, water, fltrd 0.7u GF ug/L (82675)	Thiobencarb water fltrd 0.7u GF ug/L (82681)	Triallate, water, fltrd 0.7u GF ug/L (82678)	Trifluralin, water, fltrd 0.7u GF ug/L (82661)	Suspended sediment concentration mg/L (80154)
NOV					
22...	<0.02	<0.005	<0.002	<0.009	71
DEC					
11...	<0.02	<0.005	<0.002	<0.009	68
JAN					
29...	--	--	--	--	564
FEB					
28...	--	--	--	--	46
MAR					
25...	<0.02	<0.005	<0.002	<0.009	20
APR					
29...	<0.02	<0.005	<0.002	<0.009	124
MAY					
22...	<0.02	<0.005	<0.002	<0.009	82
JUN					
11...	<0.02	<0.005	<0.002	<0.009	54
JUL					
30...	<0.02	<0.005	<0.002	<0.009	62
AUG					
19...	--	--	--	--	44
SEP					
03...	<0.02	<0.005	<0.002	<0.009	22

E--Estimated

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03467609 NOLICHUCKY RIVER NEAR LOWLAND, TN

LOCATION.--Lat 36°07'34", long 83°10'31", Cocke County, Hydrologic Unit 06010108, on left bank at Jones Bridge on Tennessee Highway 160, 2.85 mi southeast of Lowland, and at mile 10.3.

DRAINAGE AREA.-- 1,687 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Operated by Tennessee Valley Authority as stage-discharge site from March 1990 to April 2001. Not published by the USGS. Re-established as stage discharge recording station by USGS personnel October 2001 to current year. Operated as a water-quality site from March 1996 to February 1998 (destroyed by flood of February 1998). Re-established November 1998, discontinued as water quality site October 2000.

GAGE.--Data logger.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 23,100 ft^3/s, Feb. 23, gage height 20.40 ft; minimum discharge, 425 ft^3/s, Oct. 10.

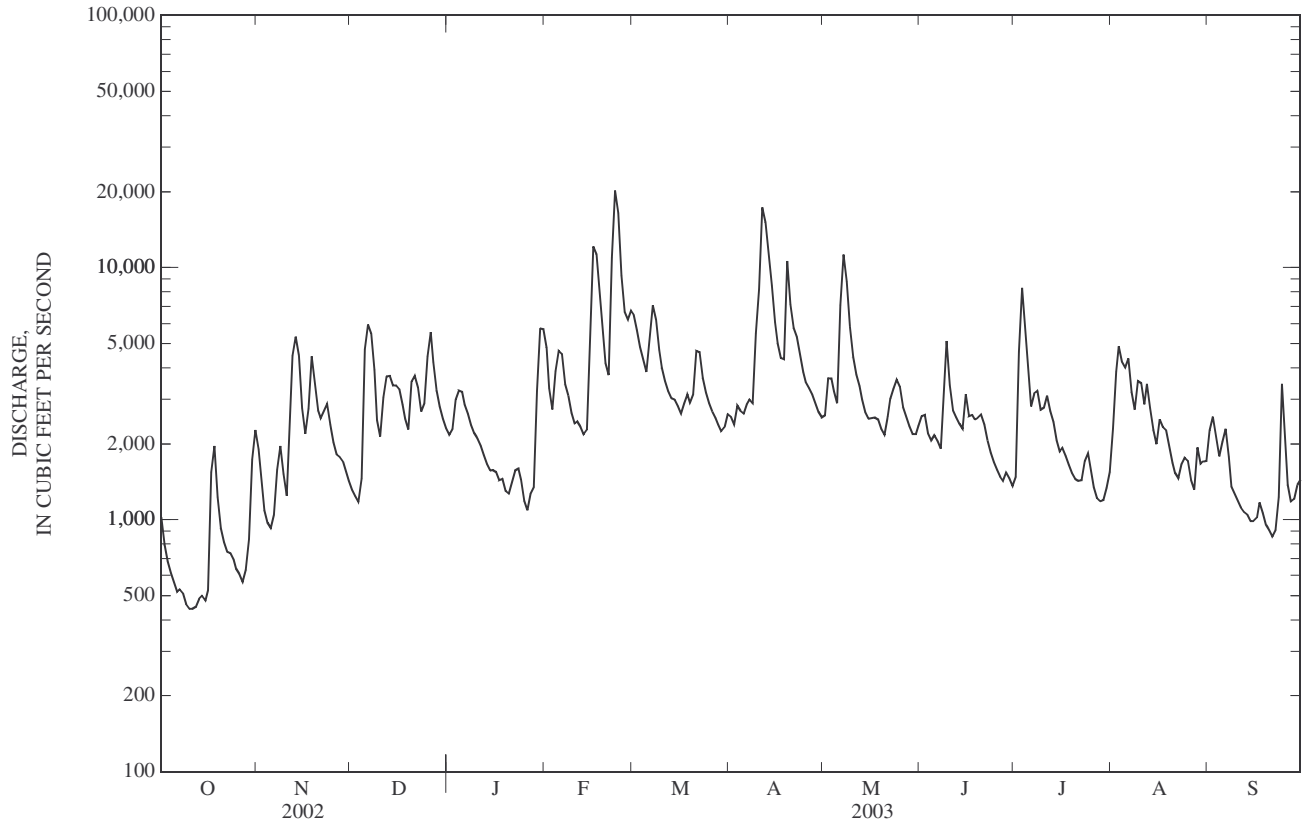
DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,020	1,910	1,320	2,180	4,820	6,530	2,560	2,600	2,570	1,480	2,300	2,270
2	800	1,400	1,240	2,300	3,330	5,670	2,400	3,650	2,600	4,640	3,860	2,560
3	684	1,090	1,180	3,010	2,740	4,860	2,840	3,640	2,200	8,280	4,880	2,130
4	614	973	1,450	3,260	3,890	4,310	2,710	3,240	2,060	5,870	4,240	1,790
5	565	925	4,740	3,220	4,690	3,870	2,640	2,890	2,170	3,900	4,020	2,040
6	516	1,050	5,950	2,860	4,540	5,240	2,880	7,110	2,050	2,810	4,370	2,300
7	530	1,580	5,470	2,630	3,460	7,100	3,010	11,300	1,910	3,160	3,230	1,780
8	511	1,960	3,920	2,380	3,100	6,220	2,890	8,800	3,290	3,240	2,730	1,360
9	462	1,520	2,490	2,200	2,650	4,700	5,490	5,800	5,130	2,740	3,560	1,270
10	444	1,240	2,140	2,110	2,410	4,020	8,190	4,440	3,410	2,790	3,490	1,200
11	444	2,500	3,060	1,980	2,450	3,560	17,300	3,770	2,720	3,110	2,860	1,120
12	453	4,460	3,700	1,800	2,330	3,240	15,100	3,400	2,550	2,700	3,460	1,070
13	485	5,330	3,730	1,660	2,180	3,030	11,200	3,000	2,410	2,450	2,760	1,050
14	498	4,510	3,420	1,570	2,270	3,010	8,510	2,680	2,290	2,060	2,280	989
15	480	2,770	3,410	1,580	5,900	2,830	6,060	2,510	3,150	1,860	2,000	987
16	527	2,190	3,290	1,550	12,100	2,640	5,020	2,540	2,590	1,930	2,500	1,020
17	1,540	2,750	2,870	1,440	11,300	2,910	4,390	2,550	2,610	1,790	2,340	1,170
18	1,960	4,450	2,520	1,460	8,290	3,150	4,340	2,500	2,500	1,650	2,270	1,070
19	1,230	3,470	2,280	1,300	5,760	2,910	10,600	2,300	2,540	1,540	1,950	957
20	927	2,720	3,530	1,270	4,190	3,150	7,120	2,170	2,610	1,460	1,680	909
21	813	2,530	3,730	1,410	3,760	4,670	5,780	2,560	2,390	1,430	1,530	859
22	747	2,710	3,350	1,570	10,900	4,630	5,320	3,020	2,060	1,440	1,460	913
23	737	2,880	2,690	1,600	20,200	3,670	4,520	3,310	1,850	1,710	1,660	1,230
24	697	2,390	2,900	1,450	16,400	3,200	3,860	3,600	1,700	1,840	1,760	3,460
25	637	2,040	4,430	1,190	9,260	2,910	3,520	3,380	1,580	1,590	1,710	2,000
26	607	1,820	5,540	1,090	6,690	2,690	3,340	2,800	1,480	1,350	1,440	1,380
27	568	1,770	4,220	1,270	6,240	2,530	3,150	2,570	1,430	1,220	1,310	1,180
28	633	1,700	3,280	1,350	6,790	2,390	2,900	2,360	1,540	1,180	1,940	1,210
29	837	1,540	2,810	3,240	---	2,250	2,680	2,180	1,460	1,200	1,660	1,370
30	1,740	1,430	2,520	5,740	---	2,320	2,550	2,190	1,360	1,340	1,700	1,440
31	2,260	---	2,310	5,710	---	2,620	---	2,370	---	1,550	1,720	---
TOTAL	24,966	69,608	99,490	67,380	172,640	116,830	162,870	111,230	70,210	75,310	78,670	44,084
MEAN	805	2,320	3,209	2,174	6,166	3,769	5,429	3,588	2,340	2,429	2,538	1,469
MAX	2,260	5,330	5,950	5,740	20,200	7,100	17,300	11,300	5,130	8,280	4,880	3,460
MIN	444	925	1,180	1,090	2,180	2,250	2,400	2,170	1,360	1,180	1,310	859
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2003, BY WATER YEAR (WY)												
MEAN	673	1,099	1,634	2,722	3,499	3,670	3,562	2,699	1,726	1,537	1,274	798
MAX	944	2,320	3,209	4,077	6,166	6,211	5,946	4,148	2,405	2,429	2,538	1,469
(WY)	(1997)	(2003)	(2003)	(1998)	(2003)	(1997)	(1998)	(1998)	(1998)	(2003)	(2003)	(2003)
MIN	458	535	653	1,268	1,784	2,515	1,673	1,398	775	679	422	556
(WY)	(2001)	(1999)	(2001)	(2001)	(2002)	(2000)	(1999)	(2002)	(2002)	(2002)	(2002)	(1998)

03467609 NOLICHUCKY RIVER NEAR LOWLAND, TN—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1996 - 2003	
ANNUAL TOTAL	650,618		1,093,288			
ANNUAL MEAN	1,783		2,995		2,241	
HIGHEST ANNUAL MEAN					2,995	2003
LOWEST ANNUAL MEAN					1,441	2002
HIGHEST DAILY MEAN	22,300	Mar 19	20,200	Feb 23	22,900	Jan 9, 1998
LOWEST DAILY MEAN	212	Sep 16	444	Oct 10	212	Sep 16, 2002
ANNUAL SEVEN-DAY MINIMUM	231	Sep 11	467	Oct 9	231	Sep 11, 2002
MAXIMUM PEAK FLOW			23,100	Feb 23	26,500	Mar 18, 2002
MAXIMUM PEAK STAGE			20.40	Feb 23	21.72	Mar 18, 2002
INSTANTANEOUS LOW FLOW			425	Oct 10	a208	Sep 13, 2002
10 PERCENT EXCEEDS	3,440		5,480		4,470	
50 PERCENT EXCEEDS	1,180		2,510		1,540	
90 PERCENT EXCEEDS	390		1,050		558	

a Also occurred Sept. 15, 16, 2002.



03467609 NOLICHUCKY RIVER NEAR LOWLAND, TN

WATER-QUALITY RECORDS

LOCATION.--Lat 36°07'34", long 83°10'31", Cocke County, Hydrologic Unit 06010108, on left bank at Jones Bridge on Tennessee Highway 160, 2.85 mi southeast of Lowland, and at mile 10.3.

DRAINAGE AREA.--1,687 mi^2.

PERIOD OF RECORD.--March 1996 to February 1998 (destroyed by flood of February 1998). Re-established November 1998 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous discharge, cfs (00061)	Turbidity, water, unfltrd field, NTU (61028)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Chloride, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)
NOV													
25...	1200	2,060	6.5	740	11.5	99	8.1	199	7.5	64	78	5.22	16.0
JAN													
29...	1115	2,030	57	739	14.1	105	8.2	212	2.0	91	111	6.43	17.7
FEB													
28...	1115	6,810	34	736	11.4	99	8.0	212	7.5	73	89	6.08	14.4
MAR													
25...	1045	2,930	13	736	10.5	103	8.2	178	13.0	65	79	4.94	10.9
APR													
29...	1015	2,640	17	726	9.5	104	8.1	191	17.5	77	94	4.12	10.4
MAY													
22...	1115	3,010	50	735	7.8	87	8.0	227	19.0	88	107	4.98	13.6
JUN													
11...	1030	2,770	25	733	7.7	90	7.8	122	21.5	48	59	3.32	6.8
JUL													
30...	1045	1,350	93	735	6.2	78	8.1	215	24.5	78	95	4.93	8.9
SEP													
03...	1200	2,080	55	735	6.4	80	8.1	227	25.0	84	102	4.41	12.1

Date	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	E coli, m-TEC MF, water, col/ 100 mL (31633)	2,6-Diethylaniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	Acetochlor, water, fltrd, ug/L (49260)	Alachlor, water, fltrd, ug/L (46342)	alpha-HCH, water, fltrd, ug/L (34253)
NOV													
25...	0.15	<0.04	0.94	E.005	0.02	0.034	1.1	28	<0.006	E.006	<0.006	<0.004	<0.005
JAN													
29...	0.26	<0.04	0.93	E.004	E.01	0.097	1.2	K47	<0.006	E.011	<0.006	<0.004	<0.005
FEB													
28...	0.37	E.03	1.12	<0.008	0.03	0.100	1.5	220	--	--	--	--	--
MAR													
25...	0.13	<0.04	0.71	<0.008	<0.02	0.029	0.84	K53	<0.006	<0.006	<0.006	<0.004	<0.005
APR													
29...	0.14	E.02	0.74	<0.008	0.03	0.030	0.88	K32	<0.006	E.007	<0.006	<0.004	<0.005
MAY													
22...	0.53	<0.04	0.62	E.005	0.04	0.115	1.2	1,600	<0.006	E.027	<0.006	<0.004	<0.005
JUN													
11...	0.28	<0.04	0.46	0.030	<0.02	0.062	0.74	75	<0.006	E.006	<0.006	<0.004	<0.005
JUL													
30...	0.59	<0.04	0.58	E.004	0.04	0.155	1.2	3,100	<0.006	E.015	<0.006	0.012	<0.005
SEP													
03...	0.52	<0.04	0.60	0.013	0.05	0.143	1.1	600	<0.006	E.008	<0.006	<0.004	<0.005

K--Results based on non-ideal colony count.
E--Estimated

03467609 NOLICHUCKY RIVER NEAR LOWLAND, TN—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Atrazine, water, fltrd, ug/L (39632)	Azinphos-methyl, water, fltrd 0.7u GF ug/L (82686)	Benfluralin, water, fltrd 0.7u GF ug/L (82673)	Butylate, water, fltrd, ug/L (04028)	Carbaryl, water, fltrd 0.7u GF ug/L (82680)	Carbofuran, water, fltrd 0.7u GF ug/L (82674)	Chlorpyrifos water, fltrd, ug/L (38933)	cis-Permethrin water fltrd 0.7u GF ug/L (82687)	Cyanazine, water, fltrd, ug/L (04041)	DCPA, water fltrd 0.7u GF ug/L (82682)	Diazinon, water, fltrd, ug/L (39572)	Dieldrin, water, fltrd, ug/L (39381)	Disulfoton, water, fltrd 0.7u GF ug/L (82677)
NOV													
25...	0.008	<0.050	<0.010	<0.002	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.005	<0.02
JAN													
29...	E.007	<0.050	<0.010	<0.002	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.005	<0.02
FEB													
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
25...	<0.007	<0.050	<0.010	<0.002	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.005	<0.02
APR													
29...	0.020	<0.050	<0.010	<0.002	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.005	<0.02
MAY													
22...	0.809	<0.050	<0.010	<0.002	E.020	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.005	<0.02
JUN													
11...	0.051	<0.050	<0.010	<0.002	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.005	<0.02
JUL													
30...	0.059	<0.050	<0.010	<0.002	E.043	E.014	<0.005	<0.006	<0.018	<0.003	<0.005	<0.005	<0.02
SEP													
03...	0.015	<0.050	<0.010	<0.002	E.003	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.005	<0.02

Date	EPTC, water, fltrd 0.7u GF ug/L (82668)	Ethalfluralin, water, fltrd 0.7u GF ug/L (82663)	Ethoprop, water, fltrd 0.7u GF ug/L (82672)	Fonofos water, fltrd, ug/L (04095)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (82666)	Malathion, water, fltrd, ug/L (39532)	Methyl parathion, water, fltrd 0.7u GF ug/L (82667)	Metolachlor, water, fltrd, ug/L (39415)	Metribuzin, water, fltrd, ug/L (82630)	Molinate, water, fltrd 0.7u GF ug/L (82671)	Napropamide, water, fltrd 0.7u GF ug/L (82684)	p,p-' DDE, water, fltrd, ug/L (34653)
NOV													
25...	<0.002	<0.009	<0.005	<0.003	<0.004	<0.035	<0.027	<0.006	E.010	<0.006	<0.002	<0.007	<0.003
JAN													
29...	<0.002	<0.009	<0.005	<0.003	<0.004	<0.035	<0.027	<0.006	E.005	<0.007	<0.002	<0.007	<0.003
FEB													
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
25...	<0.002	<0.009	<0.005	<0.003	<0.004	<0.035	<0.027	<0.006	<0.013	<0.006	<0.002	<0.007	<0.003
APR													
29...	<0.002	<0.009	<0.005	<0.003	<0.004	<0.035	<0.027	<0.006	0.014	<0.006	<0.002	<0.007	<0.003
MAY													
22...	<0.002	<0.009	<0.005	<0.003	<0.004	<0.035	<0.027	<0.006	0.148	<0.006	<0.002	0.007	<0.003
JUN													
11...	<0.002	<0.009	<0.005	<0.003	<0.004	<0.035	<0.027	<0.006	E.011	<0.006	<0.002	<0.007	<0.003
JUL													
30...	<0.002	<0.009	<0.005	<0.003	<0.004	<0.035	E.006	<0.006	0.040	0.007	<0.002	0.092	<0.003
SEP													
03...	<0.002	<0.009	<0.005	<0.003	<0.004	<0.035	<0.027	<0.006	E.012	<0.006	<0.002	<0.007	<0.003

E--Estimated

03467609 NOLICHUCKY RIVER NEAR LOWLAND, TN—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Parathion, water, fltrd, ug/L (39542)	Pebulate, water, fltrd 0.7u GF ug/L (82669)	Pendimethalin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)	Prometon, water, fltrd, ug/L (04037)	Pronamide, water, fltrd 0.7u GF ug/L (82676)	Propachlor, water, fltrd, ug/L (04024)	Propanil, water, fltrd 0.7u GF ug/L (82679)	Propargite, water, fltrd 0.7u GF ug/L (82685)	Simazine, water, fltrd, ug/L (04035)	Tebuthiuron water fltrd 0.7u GF ug/L (82670)	Terbacil, water, fltrd 0.7u GF ug/L (82665)	Terbufos, water, fltrd 0.7u GF ug/L (82675)
NOV													
25...	<0.010	<0.004	<0.022	<0.011	<0.01	<0.004	<0.010	<0.011	<0.02	<0.005	<0.02	<0.034	<0.02
JAN													
29...	<0.010	<0.004	<0.022	<0.011	<0.01	<0.004	<0.010	<0.011	<0.02	<0.005	E.01	<0.034	<0.02
FEB													
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
25...	<0.010	<0.004	<0.022	<0.011	<0.01	<0.004	<0.010	<0.011	<0.02	<0.005	<0.02	<0.034	<0.02
APR													
29...	<0.010	<0.004	<0.022	<0.011	<0.01	<0.004	<0.010	<0.011	<0.02	0.011	<0.02	<0.034	<0.02
MAY													
22...	<0.010	<0.004	<0.022	<0.011	E.01	<0.004	<0.010	<0.011	<0.02	0.032	E.01	<0.034	<0.02
JUN													
11...	<0.010	<0.004	<0.022	<0.011	<0.01	<0.004	<0.010	<0.011	<0.02	0.028	<0.02	<0.034	<0.02
JUL													
30...	<0.010	<0.004	<0.022	<0.011	0.05	<0.004	<0.010	<0.011	<0.02	0.009	<0.02	<0.034	<0.02
SEP													
03...	<0.010	<0.004	<0.022	<0.011	E.01	<0.004	<0.010	<0.011	<0.02	<0.005	E.01	<0.034	<0.02

Date	Thiobencarb water fltrd 0.7u GF ug/L (82681)	Triallate, water, fltrd 0.7u GF ug/L (82678)	Trifluralin, water, fltrd 0.7u GF ug/L (82661)	Suspended sediment concentration mg/L (80154)
NOV				
25...	<0.005	<0.002	<0.009	7
JAN				
29...	<0.005	<0.002	<0.009	40
FEB				
28...	--	--	--	49
MAR				
25...	<0.005	<0.002	<0.009	13
APR				
29...	<0.005	<0.002	<0.009	16
MAY				
22...	<0.005	<0.002	<0.009	47
JUN				
11...	<0.005	<0.002	<0.009	25
JUL				
30...	<0.005	<0.002	<0.009	67
SEP				
03...	<0.005	<0.002	<0.009	51

E--Estimated

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03469175 LITTLE PIGEON RIVER ABOVE SEVIERVILLE, TN

LOCATION.--Lat 35°51'55", long 83°32'01", Sevier County, Hydrologic Unit 06010107, on left bank of county road, 1.2 mi downstream from East Fork, 1.2 mi upstream from West Prong, 0.8 mi east of Sevierville, and at mile 7.5.

DRAINAGE AREA.-- 184 mi^2.

PERIOD OF RECORD.--August 1988 to current year.

REVISED RECORD.--WDR TN-94-1: 1989-91 (M): 1992, 1993(P).

GAGE.--Data collection platform. Datum of gage is 898.08 ft above NGVD of 1929.

REMARKS.--No estimated daily discharges. Records good. The town of Sevierville diverts an average of about 1.5 ft^3/s (1.0 MGD) for municipal supply above gage. 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 4,600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb 22	1300	7,510	11.09	May 6	1830	*15,200	*15.57
Apr 10	2300	6,200	9.90				

Minimum discharge, 49 ft^3/s, Oct. 10, 11.

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	108	265	177	329	649	956	195	184	179	144	310	389
2	86	188	157	372	463	732	207	195	161	1,210	277	245
3	73	147	148	412	376	603	231	210	154	875	316	196
4	64	133	212	427	919	488	221	175	157	437	254	467
5	57	131	1,060	371	654	431	384	461	154	359	309	533
6	59	427	736	325	493	1,300	408	8,020	137	742	306	311
7	61	436	440	278	493	1,060	404	4,710	303	1,040	256	242
8	68	270	331	251	416	705	430	2,450	444	630	222	206
9	59	207	269	238	355	551	2,560	1,350	237	667	208	180
10	52	173	239	227	345	448	3,870	874	185	1,310	191	156
11	53	1,000	404	206	313	382	3,570	702	160	1,040	495	138
12	71	1,420	338	184	282	336	1,840	542	205	1,040	439	126
13	70	1,110	316	173	251	304	1,440	423	181	582	241	116
14	67	548	392	167	468	298	1,090	363	163	408	194	110
15	69	367	314	158	2,130	271	809	329	276	863	190	104
16	162	437	274	147	1,840	271	613	388	479	443	293	103
17	234	554	244	148	1,290	274	502	304	551	360	221	94
18	137	447	221	133	834	254	673	284	589	289	178	94
19	104	358	205	133	621	236	529	254	728	264	154	98
20	91	322	1,230	125	506	250	417	259	507	222	136	94
21	115	364	567	179	497	245	396	394	341	194	128	91
22	89	444	395	272	4,040	216	373	535	262	567	128	233
23	75	357	312	213	2,470	198	316	434	216	481	117	769
24	69	286	738	176	1,390	185	280	339	185	327	107	250
25	64	244	972	181	942	174	260	286	163	244	100	169
26	63	218	636	164	793	167	260	261	147	203	94	132
27	68	286	466	152	1,110	163	236	231	155	199	90	124
28	79	251	370	142	1,310	152	207	208	171	166	95	199
29	250	218	306	804	---	150	190	218	146	151	243	137
30	796	200	261	1,640	---	219	178	219	127	198	168	112
31	476	---	233	1,020	---	226	---	198	---	174	604	---
TOTAL	3,889	11,808	12,963	9,747	26,250	12,245	23,089	25,800	7,863	15,829	7,064	6,218
MEAN	125	394	418	314	938	395	770	832	262	511	228	207
MAX	796	1,420	1,230	1,640	4,040	1,300	3,870	8,020	728	1,310	604	769
MIN	52	131	148	125	251	150	178	175	127	144	90	91
CFSM	0.68	2.14	2.27	1.71	5.10	2.15	4.18	4.52	1.42	2.78	1.24	1.13
IN.	0.79	2.39	2.62	1.97	5.31	2.48	4.67	5.22	1.59	3.20	1.43	1.26

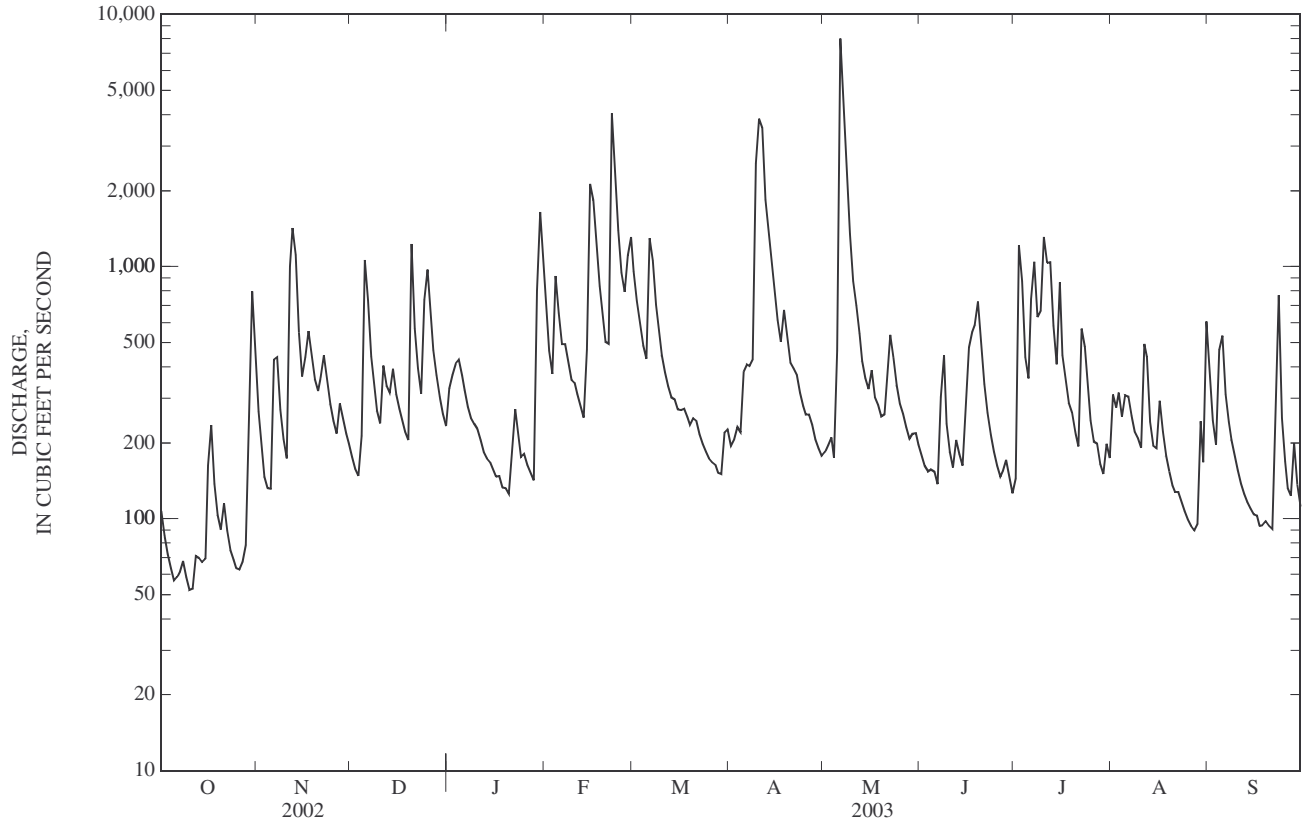
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2003, BY WATER YEAR (WY)

MEAN	121	202	342	523	591	659	488	397	306	250	181	146
MAX	335	394	743	873	1,024	1,426	1,141	832	635	511	477	530
(WY)	(1990)	(2003)	(1992)	(1994)	(1994)	(1994)	(1994)	(2003)	(1997)	(2003)	(1996)	(1989)
MIN	32.5	51.4	105	245	169	301	124	151	75.3	90.7	46.1	29.8
(WY)	(1999)	(2002)	(2001)	(2001)	(2002)	(2001)	(1995)	(2001)	(2002)	(1993)	(2002)	(1998)

03469175 LITTLE PIGEON RIVER ABOVE SEVIERVILLE, TN—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1988 - 2003	
ANNUAL TOTAL	107,361		162,765			
ANNUAL MEAN	294		446		350	
HIGHEST ANNUAL MEAN					573	1994
LOWEST ANNUAL MEAN					217	2001
HIGHEST DAILY MEAN	6,480	Mar 18	8,020	May 6	10,900	Mar 28, 1994
LOWEST DAILY MEAN	18	Sep 12	52	Oct 10	a18	Sep 12, 2002
ANNUAL SEVEN-DAY MINIMUM	22	Sep 8	58	Oct 5	20	Sep 14, 1998
MAXIMUM PEAK FLOW			15,200	May 6	19,700	Mar 28, 1994
MAXIMUM PEAK STAGE			15.57	May 6	17.50	Mar 28, 1994
INSTANTANEOUS LOW FLOW			b49	Oct 10	10	Sep 14, 2002
ANNUAL RUNOFF (CFSM)	1.60		2.42		1.90	
ANNUAL RUNOFF (INCHES)	21.71		32.91		25.84	
10 PERCENT EXCEEDS	551		893		746	
50 PERCENT EXCEEDS	140		261		204	
90 PERCENT EXCEEDS	43		109		56	

a Also occurred on Sept. 13, 2002.
b Also occurred on Oct. 11.



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 mi^2 .

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 except for periods of estimated daily values, Mar. 13-21, 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 1,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb 16	0530	*4,440	*8.08	Apr 10	2115	2,280	5.90
Feb 22	1330	3,490	7.15				

Minimum discharge, 6.3 ft^3/s, Oct. 6, 7.

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	9.7	34	36	59	114	206	41	61	33	30	46	49
2	8.2	23	33	56	92	170	39	56	26	222	37	23
3	7.6	18	31	62	77	139	37	52	24	157	34	17
4	7.3	17	35	64	215	116	36	45	26	87	71	39
5	6.9	20	502	62	171	105	42	54	25	63	55	44
6	6.5	87	260	62	118	114	45	136	22	51	39	25
7	7.0	57	143	58	104	104	299	144	25	51	34	19
8	7.0	37	103	57	86	94	191	104	44	46	32	16
9	7.0	29	82	55	74	86	263	80	29	40	27	14
10	7.1	25	69	50	73	76	1,050	67	24	148	25	12
11	7.2	490	178	44	67	69	769	62	22	174	23	12
12	7.5	308	137	40	65	64	267	56	36	119	22	11
13	7.7	177	111	37	59	e60	181	45	32	97	20	10
14	7.8	98	152	36	64	e60	138	40	25	70	20	10
15	7.9	70	118	34	866	e55	113	41	143	55	17	9.9
16	12	65	96	32	2,500	e70	96	45	114	60	17	8.9
17	19	99	79	33	464	e65	87	41	169	71	20	8.0
18	14	90	67	29	266	e60	103	141	118	48	32	7.6
19	11	72	60	29	199	e55	90	77	296	40	21	7.2
20	11	66	254	28	165	e60	79	56	173	35	17	7.2
21	14	97	160	30	145	e55	93	57	102	32	16	6.9
22	14	144	112	30	1,560	51	94	63	75	34	15	9.0
23	11	96	87	29	619	47	80	52	61	46	16	22
24	9.5	72	102	27	285	44	69	44	51	33	15	14
25	8.8	58	216	25	207	42	64	39	43	28	13	9.1
26	8.5	50	161	26	189	40	121	39	38	25	12	7.9
27	9.1	55	117	24	241	40	102	35	35	23	12	8.1
28	12	48	96	24	251	36	78	31	33	22	12	13
29	51	44	83	74	---	35	66	33	30	22	12	13
30	90	40	70	203	---	42	59	33	28	38	12	9.0
31	58	---	62	150	---	47	---	32	---	28	19	---
TOTAL	465.3	2,586	3,812	1,569	9,336	2,307	4,792	1,861	1,902	1,995	763	461.8
MEAN	15.0	86.2	123	50.6	333	74.4	160	60.0	63.4	64.4	24.6	15.4
MAX	90	490	502	203	2,500	206	1,050	144	296	222	71	49
MIN	6.5	17	31	24	59	35	36	31	22	22	12	6.9
CFSM	0.32	1.82	2.60	1.07	7.05	1.57	3.38	1.27	1.34	1.36	0.52	0.33
IN.	0.37	2.03	3.00	1.23	7.34	1.81	3.77	1.46	1.50	1.57	0.60	0.36

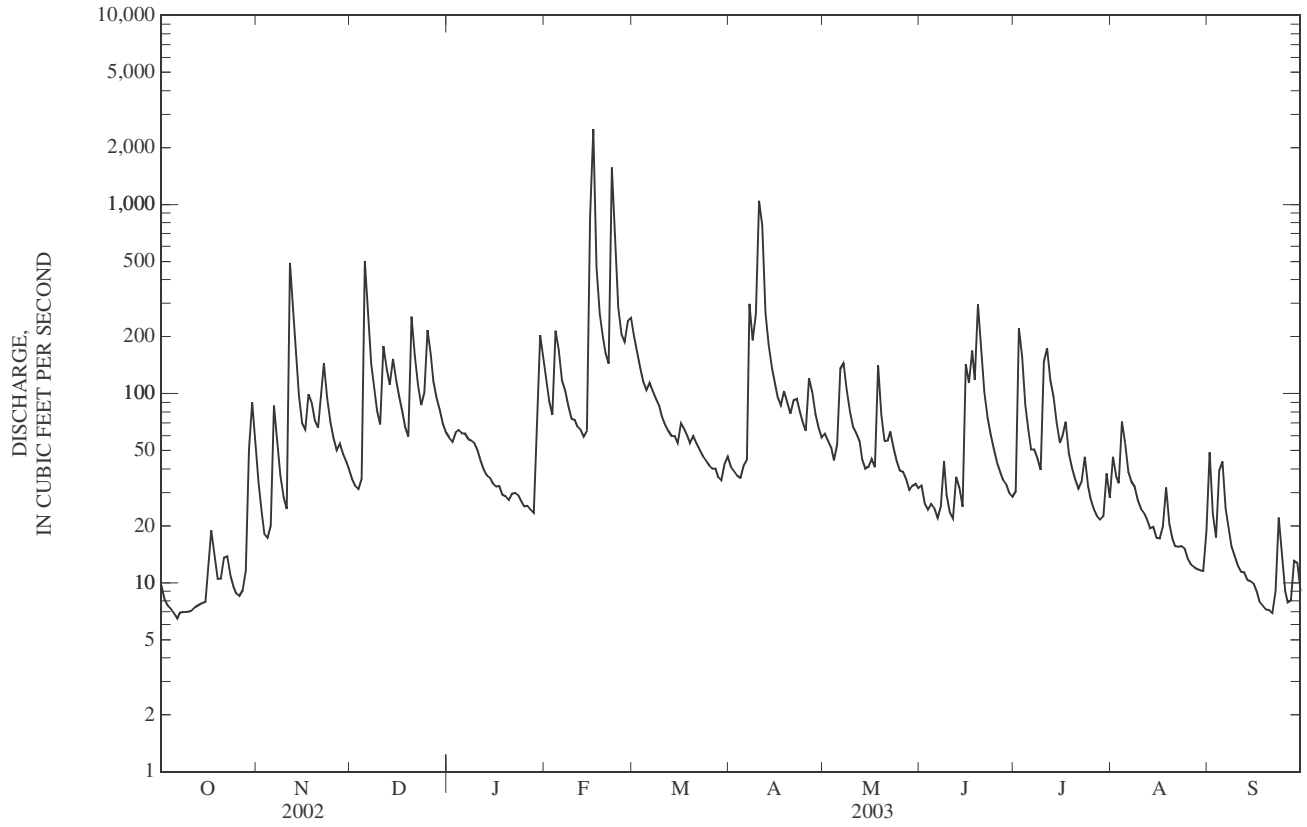
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2003, BY WATER YEAR (WY)

MEAN	14.1	29.8	70.1	102	133	128	89.7	56.6	29.7	23.7	16.8	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)

03491000 BIG CREEK NEAR ROGERSVILLE, TN—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1941 - 2003	
ANNUAL TOTAL	16,428.5		31,850.1			
ANNUAL MEAN	45.1		87.3		58.3	
HIGHEST ANNUAL MEAN					123	1994
LOWEST ANNUAL MEAN					20.1	2000
HIGHEST DAILY MEAN	880	Jan 25	2,500	Feb 16	4,000	Feb 11, 1994
LOWEST DAILY MEAN	1.1	Sep 11	6.5	Oct 6	1.1	Sep 11, 2002
ANNUAL SEVEN-DAY MINIMUM	1.3	Sep 7	7.0	Oct 5	1.3	Sep 7, 2002
MAXIMUM PEAK FLOW			4,440	Feb 16	a5,760	Mar 12, 1963
MAXIMUM PEAK STAGE			8.08	Feb 16	b12.21	Apr 17, 1998
INSTANTANEOUS LOW FLOW			c6.3	Oct 6	d1.1	Sep 8, 2002
ANNUAL RUNOFF (CFSM)	0.95		1.84		1.23	
ANNUAL RUNOFF (INCHES)	12.92		25.05		16.75	
10 PERCENT EXCEEDS	101		169		125	
50 PERCENT EXCEEDS	14		47		23	
90 PERCENT EXCEEDS	2.5		11		5.2	

a From rating curve extended above 3,000 ft^3/s on basis of contracted-opening measurement of peak flow.
b Due to backwater from debris.
c Also occurred on Oct. 7.
d Also occurred on Sept. 9, 10, 11, 12, 2002.
e Estimated



03497300 LITTLE RIVER ABOVE TOWNSEND, TN

LOCATION.--Lat 35°39'52", long 83°42'41", Blount County, Hydrologic Unit 06010201, in Great Smoky Mountains National Park, on left bank along Tennessee Highway 73, 0.3 mi upstream from Rush Branch, 0.4 mi southeast of Park entrance, 2.2 mi southeast of Townsend, and at mile 35.3.

DRAINAGE AREA.--106 mi^2.

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Data logger and crest-stage gage. Datum of gage is 1,106.92 ft above NGVD of 1929.

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 3,100 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb 22	1215	5,570	7.29	May 6	1445	*15,600	*12.00

Minimum discharge, 53 ft^3/s, Sept. 22.

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	159	297	205	429	496	736	162	220	169	141	264	113
2	131	235	190	393	410	626	178	217	157	827	203	82
3	113	198	181	472	362	519	171	213	155	480	267	112
4	98	185	218	443	943	443	167	188	164	333	246	285
5	118	188	703	413	736	400	318	342	152	367	273	228
6	107	519	595	369	575	787	294	6,920	136	340	235	149
7	140	452	462	323	494	664	331	3,190	348	347	243	122
8	142	350	377	300	395	555	358	1,670	340	278	206	115
9	115	284	320	282	345	479	1,450	996	236	241	179	101
10	104	249	287	265	340	409	1,490	711	e210	301	174	92
11	122	593	331	235	294	360	1,670	638	e250	475	185	86
12	122	817	284	213	271	323	1,160	495	e200	453	214	82
13	109	708	306	206	248	299	927	416	184	337	172	78
14	101	501	370	197	353	291	712	365	177	304	145	75
15	96	400	332	184	1,140	265	564	334	179	268	138	74
16	209	473	312	175	1,360	264	468	316	168	235	397	70
17	188	492	288	176	1,050	248	429	277	209	215	208	66
18	152	432	266	158	745	240	570	293	223	190	173	62
19	132	401	254	163	588	237	460	262	261	171	143	60
20	120	366	774	156	496	245	407	252	226	155	126	58
21	122	507	538	237	506	229	420	293	196	150	119	56
22	109	506	456	241	2,900	210	375	433	173	445	112	243
23	97	414	378	207	1,900	197	335	386	157	375	102	359
24	91	350	637	192	1,100	186	307	317	142	348	94	163
25	86	304	793	232	792	178	289	277	130	274	89	125
26	92	274	644	195	694	173	300	253	121	229	84	108
27	90	304	518	172	874	168	259	230	136	209	104	108
28	127	256	427	168	913	158	237	211	127	184	82	139
29	261	239	363	463	---	166	222	223	114	178	80	99
30	667	228	318	750	---	194	222	201	103	164	79	90
31	424	---	286	606	---	167	---	184	---	218	132	---
TOTAL	4,744	11,522	12,413	9,015	21,320	10,416	15,252	21,323	5,543	9,232	5,268	3,600
MEAN	153	384	400	291	761	336	508	688	185	298	170	120
MAX	667	817	793	750	2,900	787	1,670	6,920	348	827	397	359
MIN	86	185	181	156	248	158	162	184	103	141	79	56
CFSM	1.44	3.62	3.78	2.74	7.18	3.17	4.80	6.49	1.74	2.81	1.60	1.13
IN.	1.66	4.04	4.36	3.16	7.48	3.66	5.35	7.48	1.95	3.24	1.85	1.26

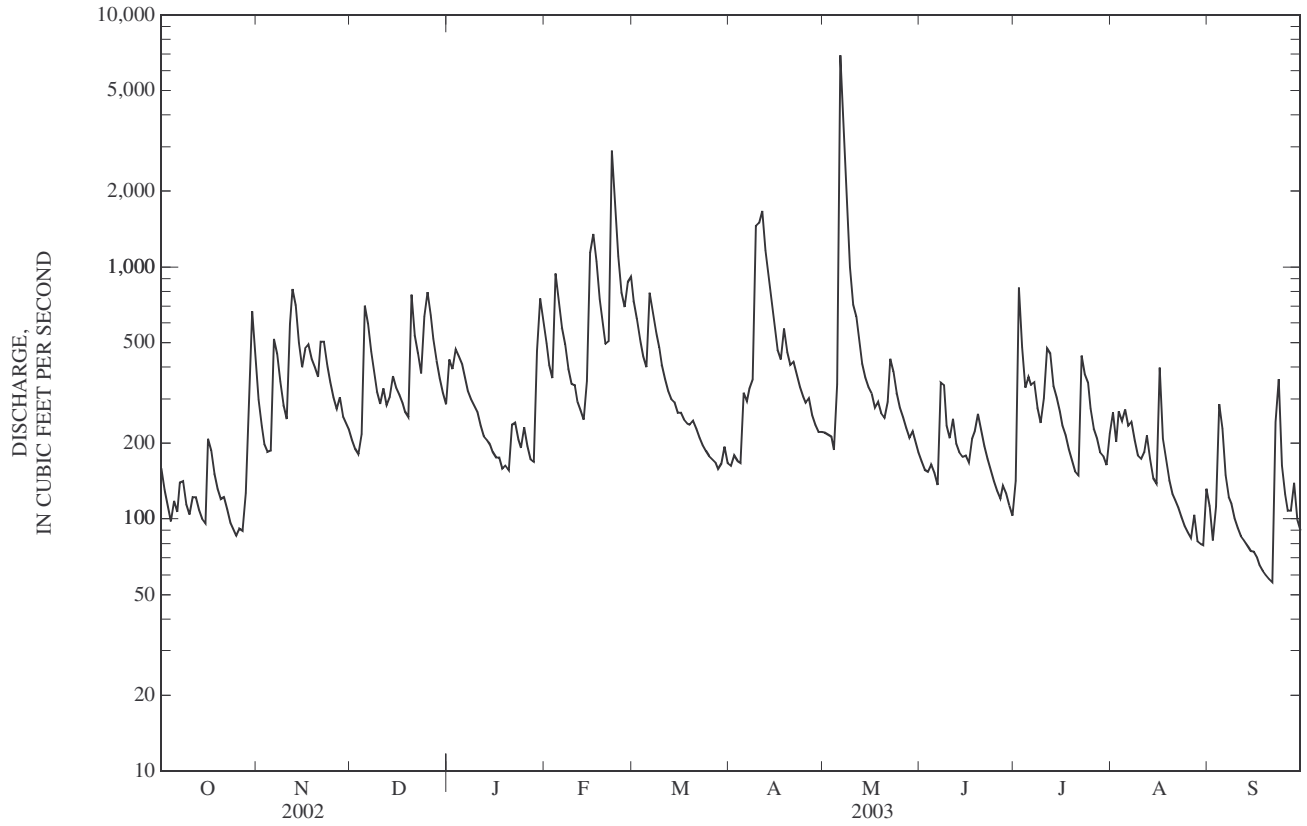
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2003, BY WATER YEAR (WY)

MEAN	123	206	332	412	453	509	391	291	220	195	166	117
MAX	373	436	725	796	857	1,195	818	774	648	815	530	492
(WY)	(1973)	(1967)	(1992)	(1996)	(1990)	(1994)	(1998)	(1984)	(1989)	(1971)	(1966)	(1989)
MIN	28.9	36.0	58.8	72.7	191	185	141	124	50.4	63.8	40.5	31.9
(WY)	(1988)	(1988)	(1966)	(1981)	(1978)	(1988)	(1995)	(1986)	(1988)	(1993)	(1987)	(1998)

03497300 LITTLE RIVER ABOVE TOWNSEND, TN—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1964 - 2003	
ANNUAL TOTAL	95,502		129,648			
ANNUAL MEAN	262		355		284	
HIGHEST ANNUAL MEAN					460	1994
LOWEST ANNUAL MEAN					141	1988
HIGHEST DAILY MEAN	2,310	Jan 24	6,920	May 6	9,000	Mar 28, 1994
LOWEST DAILY MEAN	34	Sep 13	56	Sep 21	22	Sep 15, 1998
ANNUAL SEVEN-DAY MINIMUM	37	Sep 8	64	Sep 15	23	Sep 12, 1998
MAXIMUM PEAK FLOW			15,600	May 6	27,100	Mar 27, 1994
MAXIMUM PEAK STAGE			12.00	May 6	a15.75	Mar 27, 1994
INSTANTANEOUS LOW FLOW			53	Sep 22	b21	Jan 18, 1981
ANNUAL RUNOFF (CFSM)	2.47		3.35		2.68	
ANNUAL RUNOFF (INCHES)	33.52		45.50		36.39	
10 PERCENT EXCEEDS	511		640		556	
50 PERCENT EXCEEDS	177		248		194	
90 PERCENT EXCEEDS	63		108		60	

a From flood mark in gage house.
b Results of freeze-up.
e Estimated



03498500 LITTLE RIVER NEAR MARYVILLE, TN

LOCATION.--Lat 35°47'10", long 83°53'04", Blount County, Hydrologic Unit 06010201, on left bank 200 ft above bridge on U.S. Highway 411, 0.8 mi downstream from Crooked Creek, 5.0 mi east of Maryville, and at mile 17.3.

DRAINAGE AREA.--269 mi^2.

PERIOD OF RECORD.--July 1951 to current year.

GAGE.--Data-collection platform and crest-stage gage. Datum of gage is 850.00 ft above NGVD of 1929.

REMARKS.--Records good except for estimated daily discharges, which are fair. Diurnal fluctuations of flow caused by small mills above station. The town of Maryville diverted an average of about 4.0 ft^3/s (2.6 MGD) for municipal supply 100 ft upstream from gage. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 25, 1875, reached a stage of 31 ft, discharge, 50,000 ft^3/s, and flood of April 1, 1896, reached a stage of 26 ft, discharge, 36,000 ft^3/s, from reports by Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb 22	1600	17,200	18.38	May 6	unknown	*32,200	*24.42

Minimum discharge, 125 ft^3/s, Oct. 5.

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	199	495	339	693	939	1,680	312	377	360	242	592	254
2	170	372	309	668	762	1,300	312	362	334	1,740	578	210
3	152	313	297	917	658	1,020	303	371	327	1,070	571	194
4	137	295	392	838	1,630	861	302	324	336	630	461	415
5	130	297	2,020	752	1,330	783	480	691	326	576	473	473
6	153	814	1,350	664	964	1,810	517	e19,000	294	562	435	309
7	148	714	855	570	970	1,440	610	e12,000	347	541	1,710	259
8	209	531	681	519	774	1,070	678	4,050	598	458	995	243
9	158	416	561	482	669	896	3,980	2,190	396	405	493	225
10	146	361	490	442	648	777	3,790	1,420	348	1,320	425	210
11	145	1,990	734	393	582	688	3,570	1,190	317	1,660	417	199
12	165	2,220	578	359	517	615	2,450	929	374	1,320	508	191
13	159	1,550	664	338	463	561	1,730	787	330	777	400	185
14	150	889	891	328	888	542	1,250	705	308	627	360	180
15	139	679	694	313	3,740	491	953	653	315	528	331	179
16	285	748	610	301	3,440	466	813	832	326	456	566	176
17	280	836	531	302	2,630	446	739	623	392	420	430	166
18	212	765	467	254	1,780	427	937	689	368	382	377	160
19	184	689	435	273	1,260	417	772	555	542	358	329	155
20	171	627	1,370	262	990	409	689	548	424	324	296	151
21	268	875	873	395	954	391	709	663	361	299	285	148
22	187	921	746	478	8,680	363	658	849	318	552	270	255
23	161	726	623	374	5,080	343	572	792	286	624	257	797
24	149	598	1,170	300	2,510	326	516	655	264	569	242	331
25	142	505	1,710	328	1,700	311	483	566	246	451	232	253
26	140	437	1,250	327	1,470	303	516	517	232	391	223	225
27	144	507	913	298	2,280	296	440	462	243	362	234	215
28	166	418	752	283	2,410	284	394	423	250	335	217	285
29	756	387	638	1,150	---	288	370	427	237	344	221	224
30	1,800	369	547	2,050	---	390	356	408	214	312	214	199
31	791	---	483	1,270	---	351	---	378	---	506	227	---
TOTAL	8,196	21,344	23,973	16,921	50,718	20,345	30,201	54,436	10,013	19,141	13,369	7,466
MEAN	264	711	773	546	1,811	656	1,007	1,756	334	617	431	249
MAX	1,800	2,220	2,020	2,050	8,680	1,810	3,980	19,000	598	1,740	1,710	797
MIN	130	295	297	254	463	284	302	324	214	242	214	148
CFSM	0.98	2.64	2.87	2.03	6.73	2.44	3.74	6.53	1.24	2.30	1.60	0.93
IN.	1.13	2.95	3.32	2.34	7.01	2.81	4.18	7.53	1.38	2.65	1.85	1.03

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2003, BY WATER YEAR (WY)

MEAN	195	339	609	802	950	1,004	759	521	375	325	253	178
MAX	830	1,160	1,679	1,792	2,254	2,517	1,701	1,782	1,261	1,391	867	1,019
(WY)	(1973)	(1958)	(1962)	(1974)	(1957)	(1994)	(1994)	(1984)	(1989)	(1971)	(1971)	(1989)
MIN	50.7	65.4	103	121	308	385	224	208	86.1	100	78.1	55.6
(WY)	(1988)	(1988)	(1966)	(1981)	(1954)	(1988)	(1986)	(1986)	(1988)	(1952)	(1987)	(1954)

03498500 LITTLE RIVER NEAR MARYVILLE, TN—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1951 - 2003	
ANNUAL TOTAL	200,155		276,123			
ANNUAL MEAN	548		757		524	
HIGHEST ANNUAL MEAN					862	1994
LOWEST ANNUAL MEAN					220	1988
HIGHEST DAILY MEAN	11,100	Mar 18	19,000	May 6	23,100	Mar 28, 1994
LOWEST DAILY MEAN	58	Sep 12	130	Oct 5	43	Oct 19, 1987
ANNUAL SEVEN-DAY MINIMUM	61	Sep 9	152	Oct 9	45	Oct 14, 1987
MAXIMUM PEAK FLOW			32,200	May 6	a42,100	Mar 28, 1994
MAXIMUM PEAK STAGE			b24.42	May 6	27.95	Mar 28, 1994
INSTANTANEOUS LOW FLOW			125	Oct 5	32	Aug 27, 1956
ANNUAL RUNOFF (CFSM)	2.04		2.81		1.95	
ANNUAL RUNOFF (INCHES)	27.68		38.19		26.46	
10 PERCENT EXCEEDS	910		1,360		1,040	
50 PERCENT EXCEEDS	286		456		315	
90 PERCENT EXCEEDS	103		205		100	

a From rating curve extended above 14,800 ft^3/s on basis of a contracted opening measurement and road overflow computations.
b From floodmarks.
e Estimated