

## 03503000 LITTLE TENNESSEE RIVER AT NEEDMORE, NC

LOCATION.--Lat 35°20'11", long 83°31'37", Swain County, Hydrologic Unit 06010202, on left bank on Secondary Road 1113, 0.8 mi downstream of DeHart Creek, 0.8 mi north of Needmore, 2.4 mi downstream of Brush Creek, 6.3 mi downstream of Tellico Creek, and at mile 92.9.

DRAINAGE AREA.--436 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1943 to December 1981, October 1983 to current year. Monthly discharge only for some periods, published in WSP 1306.

GAGE.--Water-stage recorder. Datum of gage is 1,761.19 ft above NGVD of 1929 (levels by Tennessee Valley Authority). Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Considerable diurnal fluctuation caused by Porters Bend power plant at Lake Emory, 20 mi upstream. Minimum discharge for period of record also occurred Nov. 8, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of October 1898 and Aug. 30, 1940, reached stages of about 13 and 11.5 ft, respectively, from flood profiles by Tennessee Valley Authority.

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	852	589	768	1,480	846	1,530	1,030	1,350	1,290	1,490	1,060	1,560
2	736	559	735	1,340	817	1,400	1,000	1,210	1,230	5,880	1,150	1,140
3	654	547	732	1,350	809	1,310	966	1,230	1,240	3,000	1,120	865
4	617	540	785	1,260	1,030	1,200	932	1,140	1,420	2,220	1,350	876
5	600	593	1,950	1,150	990	1,170	1,210	1,790	1,300	1,830	1,120	896
6	574	1,040	1,370	1,070	902	2,420	1,300	8,860	1,200	1,890	1,020	770
7	543	848	1,060	983	932	1,970	1,720	9,070	2,900	1,980	953	667
8	526	731	977	1,010	901	1,540	1,700	6,240	3,410	1,710	951	706
9	482	694	933	909	868	1,390	1,720	3,780	1,980	1,550	974	674
10	472	708	913	918	917	1,320	2,100	2,940	1,650	1,610	913	668
11	613	1,640	1,140	878	932	1,250	2,530	2,550	1,520	1,600	1,020	633
12	567	2,050	1,010	854	893	1,200	1,940	2,270	1,540	1,370	931	621
13	535	1,540	1,070	844	871	1,150	1,610	1,960	1,550	1,290	915	594
14	479	1,140	1,330	833	939	1,140	1,430	1,820	1,410	1,550	884	581
15	475	1,020	1,140	820	2,050	1,120	1,300	1,800	1,390	1,480	890	616
16	1,560	1,750	1,050	793	1,680	1,330	1,230	1,730	1,320	1,280	1,080	590
17	920	2,060	980	812	1,990	1,180	1,140	1,600	1,460	1,220	918	563
18	720	1,360	929	e800	1,470	1,150	1,560	1,750	1,560	1,390	967	549
19	640	1,130	886	781	1,270	1,200	1,450	1,650	2,210	1,200	841	526
20	594	1,030	2,410	759	1,160	2,110	1,250	1,510	1,540	1,140	795	516
21	578	1,170	1,540	784	1,120	2,000	1,370	1,590	1,380	1,100	745	511
22	561	1,180	1,230	794	3,460	1,580	1,480	3,270	1,290	1,130	765	1,160
23	531	1,020	1,080	778	3,290	1,400	1,270	3,010	1,260	1,460	782	3,530
24	522	968	2,700	e770	2,010	1,310	1,200	2,230	1,190	1,120	699	1,200
25	507	924	2,870	e763	1,620	1,220	1,170	1,920	1,170	1,020	671	917
26	522	891	1,770	755	1,480	1,160	1,250	1,760	1,150	980	632	840
27	519	879	1,440	742	1,850	1,110	1,150	1,600	1,140	949	617	771
28	527	828	1,270	739	1,820	1,070	1,080	1,500	1,180	937	624	823
29	747	821	1,150	822	---	1,050	1,040	1,440	1,170	915	642	718
30	707	796	1,050	1,030	---	1,180	1,280	1,390	1,170	910	893	666
31	651	---	1,000	913	---	1,140	---	1,340	---	1,120	838	---
TOTAL	19,531	31,046	39,268	28,534	38,917	42,300	41,408	77,300	45,220	48,321	27,760	25,747
MEAN	630	1,035	1,267	920	1,390	1,365	1,380	2,494	1,507	1,559	895	858
MAX	1,560	2,060	2,870	1,480	3,460	2,420	2,530	9,070	3,410	5,880	1,350	3,530
MIN	472	540	732	739	809	1,050	932	1,140	1,140	910	617	511
CFSM	1.45	2.37	2.91	2.11	3.19	3.13	3.17	5.72	3.46	3.58	2.05	1.97
IN.	1.67	2.65	3.35	2.43	3.32	3.61	3.53	6.60	3.86	4.12	2.37	2.20

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2003,® BY WATER YEAR (WY)

MEAN	639	794	1,030	1,347	1,563	1,718	1,520	1,186	923	700	636	580
MAX	2,557	2,169	2,231	2,570	3,718	3,372	2,746	2,573	2,061	2,136	1,670	1,605
(WY)	(1965)	(1980)	(1962)	(1946)	(1990)	(1990)	(1964)	(1976)	(1949)	(1989)	(1967)	(1950)
MIN	192	282	368	349	660	596	553	458	351	238	213	201
(WY)	(1955)	(1955)	(1966)	(1981)	(1986)	(1988)	(1986)	(2001)	(1988)	(1986)	(1986)	(1999)

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SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1944 - 2003 <sup>®</sup>	
ANNUAL TOTAL	291,950		465,352		1,053	
ANNUAL MEAN	800		1,275		1,565	
HIGHEST ANNUAL MEAN					495	1973
LOWEST ANNUAL MEAN					1986	
HIGHEST DAILY MEAN	5,190	Sep 27	9,070	May 7	17,200	Oct 5, 1964
LOWEST DAILY MEAN	143	Sep 12	472	Oct 10	71	Nov 7, 1954
ANNUAL SEVEN-DAY MINIMUM	165	Sep 8	518	Oct 9	142	Oct 2, 1986
MAXIMUM PEAK FLOW			10,500	May 6	22,100	Oct 5, 1964
MAXIMUM PEAK STAGE			8.06	May 6	12.87	Oct 5, 1964
INSTANTANEOUS LOW FLOW			394	Sep 7	52*	Nov 7, 1954
ANNUAL RUNOFF (CFSM)	1.83		2.92		2.42	
ANNUAL RUNOFF (INCHES)	24.91		39.70		32.83	
10 PERCENT EXCEEDS	1,360		1,950		1,910	
50 PERCENT EXCEEDS	712		1,130		810	
90 PERCENT EXCEEDS	262		619		359	

e Estimated.  
<sup>®</sup> See PERIOD OF RECORD.  
 \* See REMARKS.

