

TENNESSEE RIVER BASIN

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 mi².

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 good 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. Minimum discharge for current water year also occurred Sept. 11, 12.

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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	352	344	554	460	990	629	2060	1130	589	399	237	250
2	336	356	451	e440	956	688	1590	1130	538	391	244	234
3	316	345	417	e450	891	1480	1380	1070	498	397	261	226
4	297	336	392	e450	861	976	1220	3030	509	381	262	268
5	282	340	398	e460	821	853	1130	2580	722	378	225	222
6	316	320	375	492	831	813	1050	1520	690	368	212	202
7	352	320	378	652	1410	771	1000	1200	658	357	197	198
8	306	324	373	496	1230	748	969	1040	551	339	192	185
9	286	322	377	458	1050	746	1000	940	494	330	172	162
10	285	310	426	471	979	797	1430	922	475	295	175	186
11	286	312	856	485	950	723	1140	874	451	304	190	146
12	299	312	586	470	888	791	1040	803	439	290	154	143
13	410	303	524	455	855	1300	1050	828	425	399	174	168
14	938	310	602	447	820	1230	1030	921	442	676	173	168
15	1130	316	605	430	790	1010	1040	756	435	484	165	725
16	617	298	529	424	778	1000	990	712	415	405	243	845
17	514	307	545	408	760	1130	951	688	405	358	299	409
18	476	292	964	418	729	1180	932	940	412	338	277	332
19	454	290	724	972	721	1060	918	773	375	309	293	326
20	434	298	624	2190	730	1010	886	696	365	290	240	295
21	422	290	564	1340	799	1170	859	659	350	301	217	740
22	409	293	535	1190	731	1110	829	639	362	301	190	1320
23	385	290	520	2460	699	1020	792	617	348	295	188	968
24	395	558	745	2570	690	961	773	618	378	313	194	571
25	411	723	603	3510	674	920	887	586	404	370	201	515
26	380	626	558	2280	668	935	859	565	572	406	434	1870
27	354	479	536	1650	655	1230	775	567	644	333	629	5190
28	358	421	515	1380	630	1000	769	661	460	299	437	3310
29	364	409	497	1220	---	946	762	572	399	276	349	1370
30	344	450	472	1120	---	1540	725	543	400	264	292	959
31	360	---	465	1040	---	2160	---	527	---	239	252	---
TOTAL	12868	10894	16710	31288	23586	31927	30836	29107	14205	10885	7768	22503
MEAN	415.1	363.1	539.0	1009	842.4	1030	1028	938.9	473.5	351.1	250.6	750.1
MAX	1130	723	964	3510	1410	2160	2060	3030	722	676	629	5190
MIN	282	290	373	408	630	629	725	527	348	239	154	143
CFSM	0.95	0.83	1.24	2.31	1.93	2.36	2.36	2.15	1.09	0.81	0.57	1.72
IN.	1.10	0.93	1.43	2.67	2.01	2.72	2.63	2.48	1.21	0.93	0.66	1.92

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2002,® BY WATER YEAR (WY)

MEAN	639.1	789.3	1026	1355	1566	1725	1523	1163	912.4	685.4	631.1	575.2
MAX	2557	2169	2231	2570	3718	3372	2746	2573	2061	2136	1670	1605
(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 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1944 - 2002 [®]	
ANNUAL TOTAL	203518		242577		1049	
ANNUAL MEAN	557.6		664.6		1565	
HIGHEST ANNUAL MEAN					495	
LOWEST ANNUAL MEAN					1986	
HIGHEST DAILY MEAN	3020	Jan 20	5190	Sep 27	17200	Oct 5 1964
LOWEST DAILY MEAN	249	Sep 17	143	Sep 12	71	Nov 7 1954
ANNUAL SEVEN-DAY MINIMUM	262	Sep 13	165	Sep 8	142	Oct 2 1986
MAXIMUM PEAK FLOW			7070		22100	
MAXIMUM PEAK STAGE			6.60		12.87	
INSTANTANEOUS LOW FLOW			142*		52*	
ANNUAL RUNOFF (CFSM)	1.28		1.52		2.41	
ANNUAL RUNOFF (INCHES)	17.36		20.70		32.70	
10 PERCENT EXCEEDS	910		1130		1910	
50 PERCENT EXCEEDS	475		509		804	
90 PERCENT EXCEEDS	312		262		357	

e Estimated.
[®] See PERIOD OF RECORD.
 * See REMARKS.

