03453500 FRENCH BROAD RIVER AT MARSHALL, NC

LOCATION.--Lat 35°47'10", long 82°39'39", Madison County, Hydrologic Unit 06010105, on right bank 0.7 mi upstream from Hayes Creek, 1.0 mi downstream of Ivy River, 1.5 mi southeast of Marshall, and at mile 126.7.

DRAINAGE AREA.--1,332 mi^2.

PERIOD OF RECORD.--October 1942 to current year.

REVISED RECORDS.--WSP 1436: 1954(M).

GAGE.--Water-stage recorder. Datum of gage is 1,646.79 ft above NGVD of 1929 (levels by Tennessee Valley Authority). Satellite and telephone telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Small diversions from tributaries for water supply. Slight diurnal fluctuation and occasional slight regulation at low flow caused by small reservoirs upstream from station. Prior to July 1963, some regulation by Weaver plant of Carolina Power and Light Company 15 mi upstream, after November 1986 the same power plant was operated by the Metropolitan Sewage Treatment Plant. Minimum discharge for period of record also occurred Sept. 14, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage observed since at least 1791: 22.0 ft, July 16, 1916; discharge: 115,000 ft^3/s. Flood of Aug. 30, 1940, reached a stage of 16.6 ft; discharge, 70,000 ft^3/s, from high water marks, flood profiles, and studies by Tennessee Valley Authority.

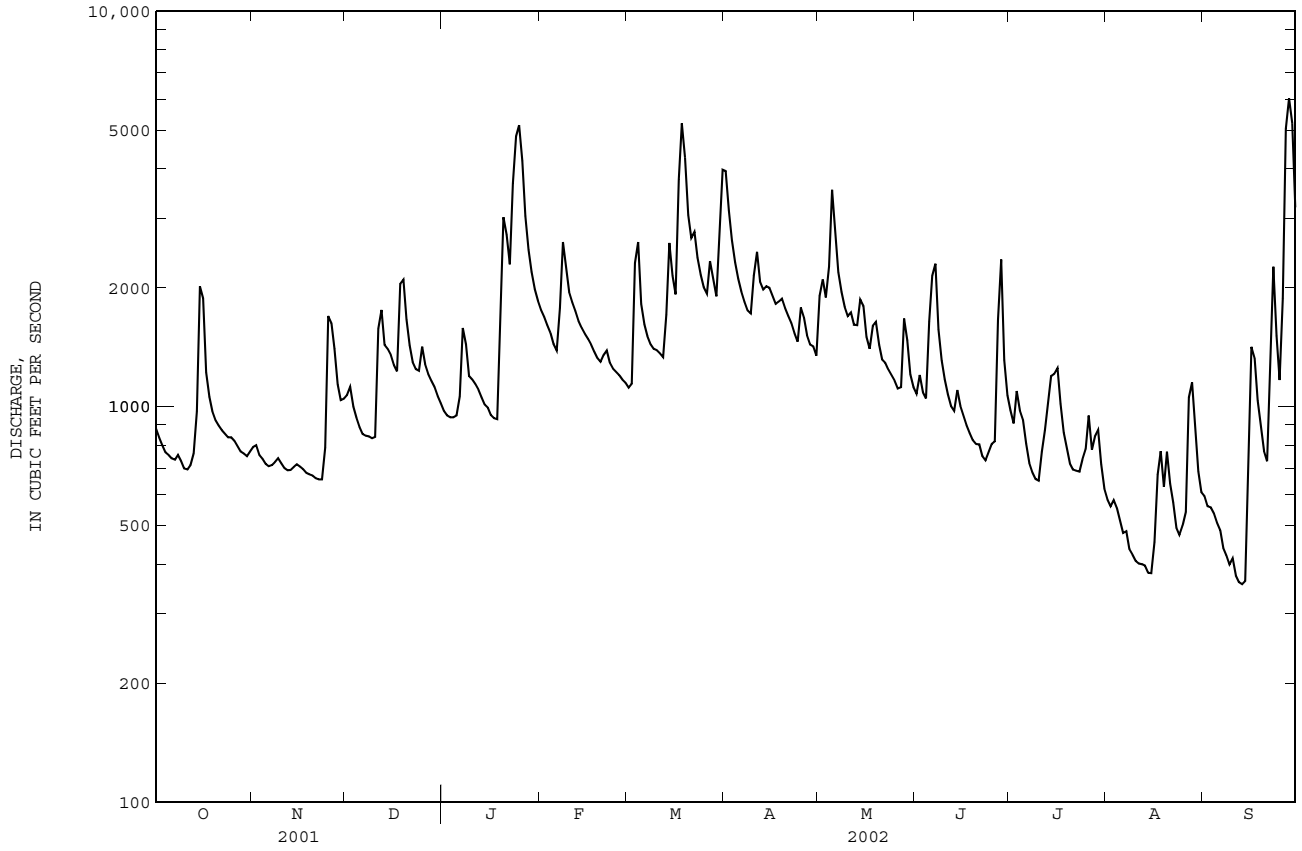
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	881	792	1070	976	1760	1120	3950	1910	1080	979	582	594
2	836	800	1120	951	1690	1140	3140	2100	1200	908	560	561
3	800	755	1000	e941	1610	2310	2640	1890	1090	1100	580	557
4	767	739	940	e941	1540	2610	2320	2260	1050	978	555	537
5	755	717	889	e951	1440	1820	2110	3540	1640	928	516	509
6	740	708	854	1060	1390	1620	1960	2820	2150	806	480	488
7	735	712	845	1580	1780	1510	1840	2190	2300	720	485	440
8	756	726	842	1440	2610	1440	1750	1950	1570	683	436	420
9	729	741	833	1200	2240	1400	1720	1790	1310	657	423	399
10	698	719	839	1170	1950	1390	2150	1700	1170	650	408	414
11	694	700	1580	1140	1840	1370	2470	1730	1080	769	401	374
12	712	691	1760	1110	1750	1340	2070	1610	1000	871	400	360
13	763	692	1430	1060	1650	1710	1980	1610	977	1030	397	356
14	974	705	1400	1010	1580	2600	2020	1870	1100	1200	380	363
15	2020	716	1350	995	1530	2140	2000	1800	1000	1210	380	765
16	1880	706	1270	953	1490	1920	1900	1500	949	1250	455	1420
17	1220	695	1230	936	1440	3760	1820	1400	898	1020	674	1330
18	1060	681	2040	930	1380	5210	1850	1600	857	860	772	1040
19	973	674	2100	1550	1330	4260	1880	1640	824	786	627	894
20	924	670	1670	3020	1300	3050	1780	1440	805	718	770	772
21	897	659	1430	2720	1350	2670	1700	1320	803	694	639	728
22	873	655	1300	2290	1390	2770	1630	1290	751	689	573	1320
23	855	655	1240	3670	1290	2380	1530	1240	732	685	494	2260
24	837	788	1230	4840	1250	2160	1460	1200	767	736	474	1510
25	837	1700	1420	5160	1220	2010	1780	1160	805	781	501	1170
26	821	1630	1280	4190	1200	1930	1680	1110	818	951	542	1880
27	794	1400	1210	3040	1170	2340	1510	1120	1660	778	1060	5050
28	771	1140	1160	2490	1150	2120	1440	1670	2360	841	1150	6030
29	762	1040	1120	2190	---	1900	1420	1470	1310	873	870	5220
30	750	1050	1060	1980	---	2710	1350	1210	1070	716	687	3190
31	770	---	1020	1850	---	3980	---	1120	---	621	608	---
TOTAL	27884	25056	38532	58334	43320	70690	58850	52260	35126	26488	17879	40951
MEAN	899.5	835.2	1243	1882	1547	2280	1962	1686	1171	854.5	576.7	1365
MAX	2020	1700	2100	5160	2610	5210	3950	3540	2360	1250	1150	6030
MIN	694	655	833	930	1150	1120	1350	1110	732	621	380	356
CFSM	0.68	0.63	0.93	1.41	1.16	1.71	1.47	1.27	0.88	0.64	0.43	1.02
IN.	0.78	0.70	1.08	1.63	1.21	1.97	1.64	1.46	0.98	0.74	0.50	1.14

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 2002, BY WATER YEAR (WY)

MEAN	1750	1987	2387	2902	3311	3732	3380	2636	2153	1730	1736	1521
MAX	8172	5640	5465	6279	7373	7170	6149	5478	4191	5071	4905	3857
(WY)	1965	1980	1962	1998	1998	1975	1983	1973	1989	1949	1994	1950
MIN	450	651	778	715	1547	1235	1191	1066	700	708	577	384
(WY)	1955	1955	1956	1956	2002	1988	1986	1988	1988	1986	2002	1954

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1943 - 2002	
ANNUAL TOTAL	492993		495370			
ANNUAL MEAN	1351		1357		2431	
HIGHEST ANNUAL MEAN					3573	1949
LOWEST ANNUAL MEAN					1229	1988
HIGHEST DAILY MEAN	6460	Mar 30	6030	Sep 28	30800	Oct 5 1964
LOWEST DAILY MEAN	655	Jul 19	356	Sep 13	292	Sep 27 1954
ANNUAL SEVEN-DAY MINIMUM	670	Nov 17	384	Sep 8	313	Sep 24 1954
MAXIMUM PEAK FLOW			6620	Sep 27	54000	Nov 6 1977
MAXIMUM PEAK STAGE			4.04	Sep 27	13.64	Nov 6 1977
INSTANTANEOUS LOW FLOW			313	Aug 7	193*	Sep 13 1954
ANNUAL RUNOFF (CFSM)	1.01		1.02		1.82	
ANNUAL RUNOFF (INCHES)	13.77		13.83		24.79	
10 PERCENT EXCEEDS	2200		2270		4350	
50 PERCENT EXCEEDS	1120		1140		1940	
90 PERCENT EXCEEDS	740		616		883	

e Estimated.
* See REMARKS.

03453500 FRENCH BROAD RIVER AT MARSHALL, NC--Continued