

Water-Data Report 2010

03443000 FRENCH BROAD RIVER AT BLANTYRE, NC

French Broad-Holston Basin
Upper French Broad Subbasin

LOCATION.--Lat 35°17'57", long 82°37'26" referenced to North American Datum of 1983, Transylvania County, NC, Hydrologic Unit 06010105, on left bank 40 ft upstream from bridge on Secondary Road 1503, 700 ft east of railroad at Blantyre, 3.5 mi downstream of Little River, and at river mile 183.7.

DRAINAGE AREA.--296 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1920 to current year. Monthly discharge only for some periods, published in WSP 1306.

REVISED RECORDS.--WSP 923: 1921-23, maximum discharge; 1929, maximum discharge; 1933, maximum discharge; 1935-36, maximum discharge; 1938, maximum discharge; 1940, maximum discharge; 1921-23, daily discharges; 1929, daily discharges; 1933, daily discharges; 1938, daily discharges; 1940, daily discharges.

GAGE.--Water-stage recorder. Datum of gage is 2,060.32 ft above National Geodetic Vertical Datum of 1929 (levels by Tennessee Valley Authority). Prior to July 5, 1930, nonrecording gage at same site and datum. Satellite and telephone telemetry at streamgage.

REMARKS.--No estimated daily discharges. Records good. Considerable diurnal fluctuation at low flow caused by power plant about 8 mi upstream from station. Maximum gage height for period of record, 25.81 ft, from floodmarks.

EXTREMES OUTSIDE PERIOD OF RECORD.--Since at least 1791, maximum stage 27.1 ft, July 16, 1916, from floodmarks (from studies by Tennessee Valley Authority).

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1,040	2,270	1,170	1,750	1,740	1,280	1,240	953	1,290	618	413	402
2	975	1,960	1,980	1,640	1,890	1,290	1,180	977	1,210	577	407	382
3	936	1,610	3,610	1,540	2,070	1,290	1,130	1,370	1,160	552	387	367
4	868	1,440	3,010	1,480	1,860	1,230	1,090	1,590	1,050	526	387	349
5	1,090	1,330	1,940	1,420	2,590	1,190	1,050	1,230	953	499	367	335
6	1,100	1,240	1,660	1,380	3,920	1,150	1,020	1,110	853	474	409	326
7	920	1,160	1,530	1,340	3,770	1,130	979	1,230	781	456	532	319
8	832	1,090	1,490	1,320	2,730	1,120	1,000	1,050	718	439	403	315
9	775	1,040	3,230	1,250	2,230	1,130	1,290	946	685	430	398	318
10	852	1,220	3,650	1,210	2,160	1,150	1,040	899	691	448	425	311
11	802	3,740	2,600	1,170	1,950	1,230	967	902	665	425	380	319
12	802	4,850	1,900	1,160	1,830	1,570	936	907	722	461	449	545
13	942	3,590	2,020	1,120	1,770	2,020	907	860	654	514	496	393
14	948	2,070	2,140	1,090	1,670	1,720	881	809	612	466	1,090	322
15	1,180	1,690	1,850	1,070	1,640	1,500	856	802	647	421	1,010	305
16	1,280	1,530	1,680	1,060	1,590	1,380	839	1,080	1,140	429	925	293
17	1,100	1,430	1,570	2,630	1,510	1,310	821	1,220	1,100	436	638	285
18	990	2,050	1,570	2,780	1,460	1,260	795	1,140	762	428	621	281
19	895	2,800	1,740	1,850	1,420	1,190	770	960	667	448	761	275
20	832	2,250	1,570	1,610	1,390	1,130	764	862	635	414	680	269
21	785	1,810	1,450	1,730	1,380	1,130	801	923	586	383	830	262
22	747	1,660	1,400	2,080	1,500	2,210	757	1,090	556	384	1,730	262
23	749	1,800	1,360	1,770	1,590	1,770	729	904	658	426	906	298
24	2,130	1,620	1,350	2,240	1,540	1,470	746	820	672	445	672	272
25	1,970	1,510	3,410	5,790	1,470	1,370	2,070	819	621	385	642	256
26	1,370	1,430	5,450	6,130	1,400	1,320	1,860	781	1,080	371	584	339
27	1,310	1,360	4,650	4,180	1,360	1,220	1,330	742	864	477	664	726
28	2,440	1,300	2,910	2,670	1,330	1,330	1,150	708	865	603	561	840
29	2,000	1,240	2,070	2,110	---	1,700	1,060	711	690	515	496	528
30	1,550	1,210	1,840	2,080	---	1,440	998	674	706	437	458	586
31	1,540	---	1,780	1,880	---	1,320	---	919	---	386	428	---
Total	35,750	55,300	69,580	62,530	52,760	42,550	31,056	29,988	24,293	14,273	19,149	11,080
Mean	1,153	1,843	2,245	2,017	1,884	1,373	1,035	967	810	460	618	369
Max	2,440	4,850	5,450	6,130	3,920	2,210	2,070	1,590	1,290	618	1,730	840
Min	747	1,040	1,170	1,060	1,330	1,120	729	674	556	371	367	256
Cfsm	3.90	6.23	7.58	6.81	6.37	4.64	3.50	3.27	2.74	1.56	2.09	1.25
In.	4.49	6.95	8.74	7.86	6.63	5.35	3.90	3.77	3.05	1.79	2.41	1.39

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 2010, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	748	842	1,037	1,197	1,251	1,358	1,264	1,035	861	721	751	717
Max	3,504	2,486	2,245	2,783	2,735	3,169	2,509	2,339	1,872	2,214	2,363	3,779
(WY)	(1965)	(1980)	(2010)	(1937)	(1998)	(1979)	(1936)	(1973)	(1989)	(1949)	(1994)	(2004)
Min	157	235	301	260	414	550	473	434	270	213	191	169
(WY)	(1955)	(1955)	(1956)	(1956)	(2009)	(1988)	(1986)	(1988)	(2008)	(2008)	(1925)	(1954)

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SUMMARY STATISTICS

	Calendar Year 2009		Water Year 2010		Water Years 1921 - 2010	
Annual total	379,200		448,309			
Annual mean	1,039		1,228		981	
Highest annual mean					1,564	1949
Lowest annual mean					534	1988
Highest daily mean	8,870	Sep 22	6,130	Jan 26	22,700	Oct 5, 1964
Lowest daily mean	249	Sep 7	256	Sep 25	120	Aug 12, 2008
Annual seven-day minimum	271	Sep 2	271	Sep 19	130	Aug 6, 2008
Maximum peak flow			6,690	Jan 26	30,000	Oct 5, 1964
Maximum peak stage			19.03	Jan 26	^a 25.81	Sep 9, 2004
Instantaneous low flow			254	Sep 26	118	Aug 12, 2008
Annual runoff (cfsm)	3.51		4.15		3.31	
Annual runoff (inches)	47.66		56.34		45.01	
10 percent exceeds	1,990		2,070		1,700	
50 percent exceeds	766		1,090		796	
90 percent exceeds	330		405		347	

^a See Remarks.

