

Water-Data Report 2008

03453000 IVY RIVER NEAR MARSHALL, NC

French Broad-Holston Basin
Upper French Broad Subbasin

LOCATION.--Lat 35°46'11", long 82°37'15" referenced to North American Datum of 1983, Madison County, NC, Hydrologic Unit 06010105, on right bank 0.2 mi downstream from bridge on U.S. Highways 25/70, 1.9 mi upstream from mouth, and 4.0 mi southeast of Marshall.

DRAINAGE AREA.--158 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1933 to September 1973. July 1, 1994 to current year. Monthly discharge only for some periods, published in WSP 1306.

REVISED RECORDS.--WSP 803: 1934(M), 1935(M). WSP 1910: 1936(P), 1937(M), 1940(M), 1946(M), 1957(P). WDR NC-04-1: 1994-2003(M).

GAGE.--Water-stage recorder. Datum of gage is 1,700.41 ft above NGVD of 1929 (levels by Tennessee Valley Authority). Satellitetelemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Considerable low flow regulation, at times, caused by small power plant at Ivy Dam, 0.4 mi upstream. Minimum discharge for period of record and current water year affected by regulation.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June, 1876, reached a stage of 16.0 ft, from studies by Tennessee Valley Authority (discharge 14,000 ft³/s). An outstanding but lesser flood occurred in July, 1916 (stage and discharge unknown).

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	17	30	36	101	118	127	88	81	59	40	27	39
2	17	30	36	81	115	123	83	77	55	30	22	43
3	18	29	41	e71	90	110	80	73	50	26	25	31
4	18	29	41	66	192	689	86	72	48	24	20	26
5	20	28	37	e64	292	784	104	66	44	33	16	22
6	23	38	38	62	198	350	234	62	41	28	19	20
7	21	35	36	58	176	277	181	58	38	25	15	19
8	19	31	35	54	133	251	152	57	36	25	13	18
9	18	30	42	52	110	199	133	64	34	34	12	24
10	19	30	48	60	93	173	118	67	37	59	11	39
11	18	29	41	195	80	153	107	61	46	66	9.8	31
12	17	29	38	137	75	138	109	73	37	35	8.8	30
13	18	29	39	103	74	123	98	70	32	27	15	26
14	18	31	37	85	68	113	90	64	78	57	12	24
15	18	96	36	72	63	146	84	63	93	36	11	20
16	17	60	65	64	60	258	78	84	44	27	9.4	20
17	17	44	54	68	64	202	74	71	35	24	8.7	23
18	18	39	44	73	233	175	70	68	31	21	9.8	22
19	21	38	43	64	143	172	70	104	30	20	8.8	20
20	31	41	42	e60	117	251	96	78	29	18	7.3	18
21	22	37	52	e57	102	196	78	73	29	17	6.2	17
22	20	39	58	e55	91	174	74	65	33	18	5.5	17
23	21	40	85	e53	84	152	71	60	30	17	5.2	16
24	124	36	108	51	76	135	68	56	27	16	5.0	15
25	74	35	72	e48	77	120	66	53	24	15	4.9	14
26	55	37	69	e46	120	109	65	49	25	19	70	15
27	42	45	68	45	152	101	65	49	52	26	275	41
28	37	42	72	43	119	94	110	70	56	19	120	34
29	34	39	135	44	108	105	104	111	41	40	83	27
30	32	38	117	48	---	103	87	73	76	24	44	23
31	31	---	146	44	---	92	---	65	---	20	32	---
Total	875	1,134	1,811	2,124	3,423	6,195	2,923	2,137	1,290	886	931.4	734
Mean	28.2	37.8	58.4	68.5	118	200	97.4	68.9	43.0	28.6	30.0	24.5
Max	124	96	146	195	292	784	234	111	93	66	275	43
Min	17	28	35	43	60	92	65	49	24	15	4.9	14

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 2008^a, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	74.0	94.6	131	207	252	297	239	155	109	96.6	85.5	68.4
Max	367	229	407	636	563	848	574	404	272	280	444	486
(WY)	(1965)	(1950)	(1962)	(1937)	(1957)	(1963)	(1936)	(2003)	(1950)	(1949)	(1940)	(2004)
Min	19.3	28.9	39.8	46.4	60.9	129	76.1	58.6	43.0	28.6	22.8	20.5
(WY)	(1953)	(1940)	(1940)	(1940)	(1941)	(1970)	(1942)	(1941)	(2008)	(2008)	(1956)	(1998)

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SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1934 - 2008 ^a	
Annual total	28,933		24,463.4			
Annual mean	79.3		66.8		150	
Highest annual mean					232	
Lowest annual mean					66.8	
Highest daily mean	1,150	Jan 1	784	Mar 5	8,010	Mar 12, 1963
Lowest daily mean	15	Sep 8	4.9	Aug 25	4.9	Aug 25, 2008
Annual seven-day minimum	16	Sep 7	6.1	Aug 19	6.1	Aug 19, 2008
Maximum peak flow			1,990	Mar 4	14,400	Mar 26, 1965
Maximum peak stage			7.10	Mar 4	17.21	Jan 14, 1995
Instantaneous low flow			^b 3.5	Aug 25	^b 1.8	Oct 9, 2004
10 percent exceeds	145		129		294	
50 percent exceeds	52		46		95	
90 percent exceeds	19		18		34	

^aSee Period of Record.^bSee Remarks.