

Water-Data Report 2007

**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 mi<sup>2</sup>.

**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). Satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records good. 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. Minimum discharge for current water year also occurred September 8-11, 13-14.

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 ft<sup>3</sup>/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 2006 TO SEPTEMBER 2007**  
**DAILY MEAN VALUES**

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	79	80	146	1,150	97	117	108	80	52	39	64	41
2	72	164	127	402	98	453	118	77	66	35	54	26
3	68	118	110	276	90	274	102	87	50	37	53	22
4	66	100	100	219	82	206	105	145	47	35	44	20
5	63	89	93	211	82	166	95	149	45	33	35	18
6	70	81	89	280	96	146	92	140	44	30	33	17
7	62	92	84	233	92	131	92	112	42	29	30	16
8	60	366	79	509	80	121	88	101	41	46	28	15
9	63	252	89	388	75	113	87	95	56	31	26	15
10	59	187	92	300	74	107	84	90	43	58	25	15
11	57	166	77	241	74	102	84	86	39	60	23	15
12	67	237	73	213	74	96	95	82	40	49	22	17
13	57	184	72	193	79	92	82	79	41	38	21	16
14	54	160	70	175	96	91	80	72	45	35	20	116
15	53	147	68	162	74	90	131	69	65	32	19	129
16	53	325	66	156	68	515	159	67	67	29	18	41
17	155	252	64	138	72	440	130	73	48	28	18	31
18	167	206	63	129	72	308	125	65	42	35	16	28
19	106	176	62	125	70	240	128	62	40	32	16	25
20	116	154	62	117	73	207	149	60	51	29	16	24
21	98	134	61	119	87	215	128	57	41	29	16	23
22	88	128	130	206	93	183	120	55	37	26	19	23
23	80	121	174	156	77	168	111	53	35	25	19	22
24	74	110	112	142	72	154	107	57	35	27	31	21
25	69	103	106	133	97	142	103	52	48	37	31	20
26	67	97	111	122	99	132	99	50	59	134	24	20
27	74	92	103	118	87	126	100	49	88	49	23	19
28	150	89	93	115	84	121	91	47	87	116	34	19
29	123	86	88	102	---	119	90	54	51	92	28	18
30	99	98	86	106	---	113	83	45	41	90	23	17
31	88	---	112	94	---	108	---	43	---	85	40	---
<b>Total</b>	2,557	4,594	2,862	7,030	2,314	5,596	3,166	2,353	1,486	1,450	869	849
<b>Mean</b>	82.5	153	92.3	227	82.6	181	106	75.9	49.5	46.8	28.0	28.3
<b>Max</b>	167	366	174	1,150	99	515	159	149	88	134	64	129
<b>Min</b>	53	80	61	94	68	90	80	43	35	25	16	15

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 2007<sup>a</sup>, BY WATER YEAR (WY)**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Mean</b>	74.9	95.7	133	210	255	299	242	157	111	97.9	86.5	69.2
<b>Max</b>	367	229	407	636	563	848	574	404	272	280	444	486
<b>(WY)</b>	(1965)	(1950)	(1962)	(1937)	(1957)	(1963)	(1936)	(2003)	(1950)	(1949)	(1940)	(2004)
<b>Min</b>	19.3	28.9	39.8	46.4	60.9	129	76.1	58.6	43.3	29.8	22.8	20.5
<b>(WY)</b>	(1953)	(1940)	(1940)	(1940)	(1941)	(1970)	(1942)	(1941)	(1953)	(1952)	(1956)	(1998)

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SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1934 - 2007 <sup>a</sup>	
<b>Annual total</b>	50,278		35,126			
<b>Annual mean</b>	138		96.2		152	
<b>Highest annual mean</b>					232	1936
<b>Lowest annual mean</b>					92.1	1941
<b>Highest daily mean</b>	1,290	Jan 18	1,150	Jan 1	8,010	Mar 12, 1963
<b>Lowest daily mean</b>	35	Aug 10	15	Sep 8	8.5	Sep 2, 1953
<b>Annual seven-day minimum</b>	40	Jul 31	16	Sep 7	9.8	Aug 28, 1953
<b>Maximum peak flow</b>			2,740	Jan 1	14,400	Mar 26, 1965
<b>Maximum peak stage</b>			8.21	Jan 1	17.21	Jan 14, 1995
<b>Instantaneous low flow</b>			<sup>b</sup> 14	Sep 7	<sup>b</sup> 1.8	Oct 9, 2004
<b>10 percent exceeds</b>	238		167		297	
<b>50 percent exceeds</b>	105		80		96	
<b>90 percent exceeds</b>	55		24		35	

<sup>a</sup> See Period of Record.

<sup>b</sup> See Remarks.

