

Water-Data Report 2010

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 National Geodetic Vertical Datum of 1929 (levels by Tennessee Valley Authority).
Satellite telemetry at streamgage.

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 2009 TO SEPTEMBER 2010
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	99	368	97	239	219	156	243	146	97	49	45	21
2	88	268	144	212	358	160	227	138	81	44	38	17
3	80	209	232	e195	411	155	212	338	99	43	32	24
4	72	171	170	e181	359	146	196	288	81	41	29	24
5	92	147	159	e168	739	139	181	229	91	39	47	20
6	78	128	144	e159	898	138	172	194	103	36	67	20
7	77	116	133	e153	594	136	161	168	94	34	38	18
8	71	106	129	e145	445	136	277	150	79	32	30	21
9	63	98	1,260	e140	371	139	400	134	74	59	27	32
10	68	160	516	e135	335	145	291	126	78	98	26	24
11	65	1,370	332	e131	290	163	247	127	76	45	31	27
12	62	600	254	e126	262	256	219	122	71	102	44	104
13	66	372	256	e123	242	676	197	113	101	106	31	40
14	145	276	232	e120	219	481	180	104	84	62	29	28
15	195	221	205	e117	217	409	167	166	72	48	31	25
16	160	187	182	114	199	352	158	137	70	43	32	24
17	138	164	166	307	186	311	151	176	65	48	66	62
18	121	152	169	309	176	280	144	157	61	97	57	43
19	104	140	210	250	168	255	135	134	57	215	63	24
20	95	127	189	228	165	233	132	121	56	104	56	31
21	87	119	179	262	167	222	140	121	53	62	51	23
22	80	113	191	281	199	367	129	129	50	51	158	23
23	76	123	223	251	220	278	125	112	51	45	69	22
24	168	110	259	283	216	244	122	101	48	41	48	21
25	133	105	1,580	1,170	203	228	227	98	48	38	36	20
26	109	100	972	605	186	235	167	93	45	37	33	56
27	128	95	547	424	177	217	194	89	46	36	36	92
28	274	91	399	338	167	223	193	85	51	35	31	152
29	183	88	314	286	---	323	170	90	115	35	30	72
30	153	91	261	276	---	296	157	81	54	35	28	59
31	144	---	249	238	---	266	---	87	---	32	27	---
Total	3,474	6,415	10,353	7,966	8,388	7,765	5,714	4,354	2,151	1,792	1,366	1,169
Mean	112	214	334	257	300	250	190	140	71.7	57.8	44.1	39.0
Max	274	1,370	1,580	1,170	898	676	400	338	115	215	158	152
Min	62	88	97	114	165	136	122	81	45	32	26	17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 2010 ^a, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	73.7	95.8	135	206	250	293	237	157	109	95.4	84.4	68.7
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 2009		Water Year 2010		Water Years 1934 - 2010 ^a	
Annual total	56,318		60,907			
Annual mean	154		167		150	
Highest annual mean					232	1936
Lowest annual mean					66.8	2008
Highest daily mean	1,580	Dec 25	1,580	Dec 25	8,010	Mar 12, 1963
Lowest daily mean	30	Sep 14	17	Sep 2	4.9	Aug 25, 2008
Annual seven-day minimum	38	Sep 3	21	Sep 1	6.1	Aug 19, 2008
Maximum peak flow			3,040	Dec 9	14,400	Mar 26, 1965
Maximum peak stage			8.52	Dec 9	17.21	Jan 14, 1995
Instantaneous low flow			^b 1.3	Aug 31	^b 1.3	Aug 31, 2010
10 percent exceeds	275		300		293	
50 percent exceeds	109		131		95	
90 percent exceeds	51		32		34	

^a See Period of Record.

^b See Remarks.

