



Water-Data Report 2010

03550000 VALLEY RIVER AT TOMOTLA, NC

Middle Tennessee-Hiwassee Basin
Hiwassee Subbasin

LOCATION.--Lat 35°08'20", long 83°58'50" referenced to North American Datum of 1983, Cherokee County, NC, Hydrologic Unit 06020002, on right bank at site of former bridge on Secondary Road 1473 at Tomotla, 600 ft upstream from bridge on U.S. Highways 19 and 74, 0.2 mi upstream from Rogers Creek, 4.7 mi northeast of Murphy, and at river mile 6.6.

DRAINAGE AREA.--104 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--June 1904 to December 1909, January 1914 to April 1917, October 1918 to current year.

REVISED RECORDS.--WSP 503: 1905-9, 1915-17. WSP 823: Drainage area. WSP 1306: 1917(M), 1920(M), 1922(M), 1925(M), 1930(M), 1933(M). WSP 1626: 1907(M). WDR NC-97-1: 1979-1994(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,556.46 ft above National Geodetic Vertical Datum of 1929 (levels by Tennessee Valley Authority). Prior to May 11, 1934, nonrecording gage at same site and datum. Satellite telemetry at streamgage.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Maximum discharge for period of record, from flood profile by Tennessee Valley Authority, from rating curve extended above 5,800 ft³/s on basis of slope-conveyance study. Minimum discharge for period of record occurred several days in August and September 1925.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of September 1898 reached a stage of 21.2 ft, from floodmark by Tennessee Valley Authority; discharge, about 20,000 ft³/s.

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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	242	590	298	375	577	271	224	243	430	96	76	50
2	220	480	500	342	720	289	217	230	234	90	62	49
3	203	403	592	318	713	271	209	1,130	236	88	60	47
4	184	349	458	303	633	256	202	674	210	85	58	46
5	340	312	398	291	2,030	247	196	472	200	81	56	44
6	236	285	345	278	2,000	240	191	383	181	79	64	43
7	284	266	316	272	1,260	234	186	329	183	77	64	42
8	237	254	317	264	918	230	537	294	158	74	54	42
9	220	240	2,240	250	781	227	523	265	279	75	52	43
10	317	549	1,050	244	669	227	375	251	230	89	51	41
11	248	2,340	697	235	578	241	319	247	190	74	51	75
12	325	1,090	552	233	529	335	289	233	169	153	68	120
13	301	714	603	224	485	433	266	213	158	140	69	57
14	322	553	547	220	447	434	249	198	146	115	143	50
15	669	463	506	217	454	422	237	192	137	89	99	48
16	712	405	451	213	405	369	224	229	136	82	117	46
17	486	363	414	338	375	332	214	237	134	78	103	49
18	385	481	739	330	353	308	203	203	124	82	87	46
19	325	391	892	286	337	287	195	184	138	90	126	43
20	288	352	684	e278	325	269	201	172	121	99	96	42
21	258	327	565	e508	315	263	203	196	111	82	273	40
22	238	322	496	515	393	319	186	191	106	79	147	40
23	249	302	453	422	356	277	180	169	106	74	96	39
24	309	285	424	730	335	262	259	164	99	69	79	38
25	249	271	689	1,560	317	254	699	181	162	66	72	37
26	231	259	600	852	301	261	424	157	163	67	67	57
27	416	247	509	612	292	240	347	149	129	68	64	175
28	570	238	452	500	282	254	310	195	112	65	62	122
29	427	230	405	460	---	263	279	165	105	72	59	69
30	355	341	372	834	---	245	258	154	105	64	57	128
31	418	---	414	694	---	233	---	201	---	66	53	---
Total	10,264	13,702	17,978	13,198	17,180	8,793	8,402	8,301	4,992	2,608	2,585	1,768
Mean	331	457	580	426	614	284	280	268	166	84.1	83.4	58.9
Max	712	2,340	2,240	1,560	2,030	434	699	1,130	430	153	273	175
Min	184	230	298	213	282	227	180	149	99	64	51	37
Cfsm	3.18	4.39	5.58	4.09	5.90	2.73	2.69	2.57	1.60	0.81	0.80	0.57
In.	3.67	4.90	6.43	4.72	6.15	3.15	3.01	2.97	1.79	0.93	0.92	0.63

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 2010 ^a, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	99.8	162	290	391	443	446	359	263	188	166	133	104
Max	442	685	1,045	936	1,022	1,379	835	755	607	443	563	434
(WY)	(1907)	(1930)	(1933)	(1974)	(1957)	(1917)	(1936)	(1929)	(1989)	(1949)	(1920)	(1928)
Min	25.2	38.6	57.4	69.9	92.7	155	135	88.9	44.8	42.4	24.6	21.3
(WY)	(1955)	(1934)	(1934)	(1981)	(1941)	(1988)	(1986)	(1941)	(1988)	(1988)	(1925)	(1925)

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SUMMARY STATISTICS

	Calendar Year 2009		Water Year 2010		Water Years 1904 - 2010 ^a	
Annual total	119,071		109,771			
Annual mean	326		301		253	
Highest annual mean					379	1922
Lowest annual mean					111	1988
Highest daily mean	3,430	Jan 7	2,340	Nov 11	8,190	Feb 16, 1995
Lowest daily mean	73	Jul 27	37	Sep 25	12	Aug 27, 1925
Annual seven-day minimum	83	Jul 21	40	Sep 19	13	Aug 24, 1925
Maximum peak flow			3,800	Dec 9	^b 18,000	Nov 19, 1906
Maximum peak stage			10.11	Dec 9	20.50	Nov 19, 1906
Instantaneous low flow			37	Sep 25	^b 12	Aug 27, 1925
Annual runoff (cfsm)	3.14		2.89		2.43	
Annual runoff (inches)	42.59		39.26		33.03	
10 percent exceeds	566		573		490	
50 percent exceeds	249		243		176	
90 percent exceeds	116		63		58	

^a See Period of Record.

^b See Remarks.

