

Water-Data Report 2013

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

**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.--No estimated daily discharges. Records good. Maximum discharge for period of record, from flood profile by Tennessee Valley Authority, from rating curve extended above 5,800 ft<sup>3</sup>/s on basis of slope-conveyance study. Minimum discharge for period of record occurred several days in August and September 1925. Minimum discharge for current water year also occurred December 5, 7, 8, 9, 10.

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 ft<sup>3</sup>/s.

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**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013**  
**DAILY MEAN VALUES**

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	118	70	58	354	1,040	445	579	575	162	218	182	235
2	765	69	58	433	778	401	487	480	328	215	168	171
3	232	68	58	363	664	359	426	425	251	557	160	212
4	157	67	57	302	567	329	546	446	195	851	155	163
5	127	66	60	262	507	457	545	676	188	791	149	146
6	111	69	60	238	461	520	478	779	341	940	148	137
7	110	75	57	213	433	438	429	630	264	913	152	131
8	103	71	57	195	430	404	389	524	301	685	162	126
9	98	67	57	183	388	373	355	462	245	563	199	131
10	91	66	178	173	408	350	330	412	331	542	206	138
11	87	65	167	174	579	406	319	389	453	464	202	121
12	83	67	114	265	508	556	834	377	330	389	184	137
13	80	86	98	238	515	474	568	331	369	333	249	185
14	77	72	90	2,240	464	421	474	309	372	302	198	127
15	205	69	85	3,970	430	383	423	291	284	280	168	119
16	123	67	197	4,930	401	354	375	276	246	254	158	116
17	104	66	410	2,500	368	328	358	263	231	238	160	112
18	101	65	286	2,010	345	343	345	293	262	227	229	111
19	95	64	213	1,170	382	373	425	360	252	230	375	109
20	88	64	360	857	346	317	400	303	238	257	267	107
21	83	63	450	686	329	301	357	271	352	229	231	339
22	78	62	292	566	602	286	330	289	398	230	224	254
23	76	62	225	490	583	284	310	270	286	223	209	168
24	74	61	540	442	525	446	307	242	308	280	192	146
25	73	59	470	446	470	452	296	222	264	230	183	422
26	71	59	710	449	704	402	272	210	250	220	168	332
27	71	65	537	388	625	361	304	201	395	295	161	245
28	74	63	387	362	516	337	982	192	327	213	153	203
29	76	59	401	345	---	318	1,290	183	276	190	148	180
30	73	59	322	1,690	---	311	762	175	236	177	145	165
31	72	---	280	2,240	---	587	---	168	---	181	144	---
<b>Total</b>	3,776	1,985	7,334	29,174	14,368	12,116	14,295	11,024	8,735	11,717	5,829	5,288
<b>Mean</b>	122	66.2	237	941	513	391	476	356	291	378	188	176
<b>Max</b>	765	86	710	4,930	1,040	587	1,290	779	453	940	375	422
<b>Min</b>	71	59	57	173	329	284	272	168	162	177	144	107
<b>Cfsm</b>	1.17	0.64	2.27	9.05	4.93	3.76	4.58	3.42	2.80	3.63	1.81	1.69
<b>In.</b>	1.35	0.71	2.62	10.44	5.14	4.33	5.11	3.94	3.12	4.19	2.08	1.89

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 2013<sup>a</sup>, BY WATER YEAR (WY)**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Mean</b>	99.2	161	290	395	440	447	360	262	188	167	133	104
<b>Max</b>	442	685	1,045	941	1,022	1,379	835	755	607	443	563	434
<b>(WY)</b>	(1907)	(1930)	(1933)	(2013)	(1957)	(1917)	(1936)	(1929)	(1989)	(1949)	(1920)	(1928)
<b>Min</b>	25.2	38.6	57.4	69.9	92.7	155	135	88.9	44.8	42.4	24.6	21.3
<b>(WY)</b>	(1955)	(1934)	(1934)	(1981)	(1941)	(1988)	(1986)	(1941)	(1988)	(1988)	(1925)	(1925)

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SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1904 - 2013 <sup>a</sup>	
<b>Annual total</b>	70,894		125,641			
<b>Annual mean</b>	194		344		253	
<b>Highest annual mean</b>					379 1922	
<b>Lowest annual mean</b>					111 1988	
<b>Highest daily mean</b>	1,370	Mar 3	4,930	Jan 16	8,190	Feb 16, 1995
<b>Lowest daily mean</b>	46	Sep 16	57	Dec 4	12	Aug 27, 1925
<b>Annual seven-day minimum</b>	49	Sep 11	58	Dec 3	13	Aug 24, 1925
<b>Maximum peak flow</b>			7,070	Jan 16	<sup>b</sup> 18,000	Nov 19, 1906
<b>Maximum peak stage</b>			14.08	Jan 16	20.50	Nov 19, 1906
<b>Instantaneous low flow</b>			<sup>b</sup> 56	Dec 4	<sup>b</sup> 12	Aug 27, 1925
<b>Annual runoff (cfsm)</b>	1.86		3.31		2.43	
<b>Annual runoff (inches)</b>	25.36		44.94		33.03	
<b>10 percent exceeds</b>	410		567		490	
<b>50 percent exceeds</b>	129		267		176	
<b>90 percent exceeds</b>	60		71		58	

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

<sup>b</sup> See Remarks.

