Water-Data Report 2013

03421000 COLLINS RIVER NEAR MCMINNVILLE, TN

Upper Cumberland Basin
Collins Subbasin

LOCATION.--Lat 35°42'29.57", long 85°43'54.67" referenced to North American Datum of 1927, Warren County, TN, Hydrologic Unit 05130107, on left bank at downstream side of bridge on U.S. Highway 70S, 1.8 mi downstream from Barren Fork River, 2.5 mi northeast of McMinnville, and at mile 19.5.

DRAINAGE AREA.--640 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1924 to current year. Prior to April 1925 monthly discharge only, published in WSP 1306.

REVISED RECORDS.--WSP 873: 1929, 1932(M), 1934-35, 1936(M), 1937. WSP 1276: 1925-26, 1928(M), 1933, 1936, 1940. WSP 2110: Drainage area.

GAGE.--Data collection platform. Datum of gage is 825.78 ft, Sandy Hook Datum. Prior to Oct. 16, 1926, nonrecording gage on upstream side of bridge at same datum.

REMARKS.--Records fair.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1854 is believed to have been about equal to that of Mar. 23, 1929, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 11,000 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 16	1800	*19,900	*19.41
Jan 31	0800	12,500	14.77
Apr 28	2330	19,400	19.14
May 5	1700	15,300	16.61
Jul 7	0130	15,000	16.41
Jul 11	1600	12,300	14.64

Minimum discharge, 159 ft^3/s, Sept. 21.

Suggested citation: U.S. Geological Survey, 2014, Water-resources data for the United States, Water Year 2013: U.S. Geological Survey Water-Data Report WDR-US-2013, site 03421000, accessed at http://wdr.water.usgs.gov/wy2013/pdfs/03421000.2013.pdf

03421000 COLLINS RIVER NEAR MCMINNVILLE, TN—Continued

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

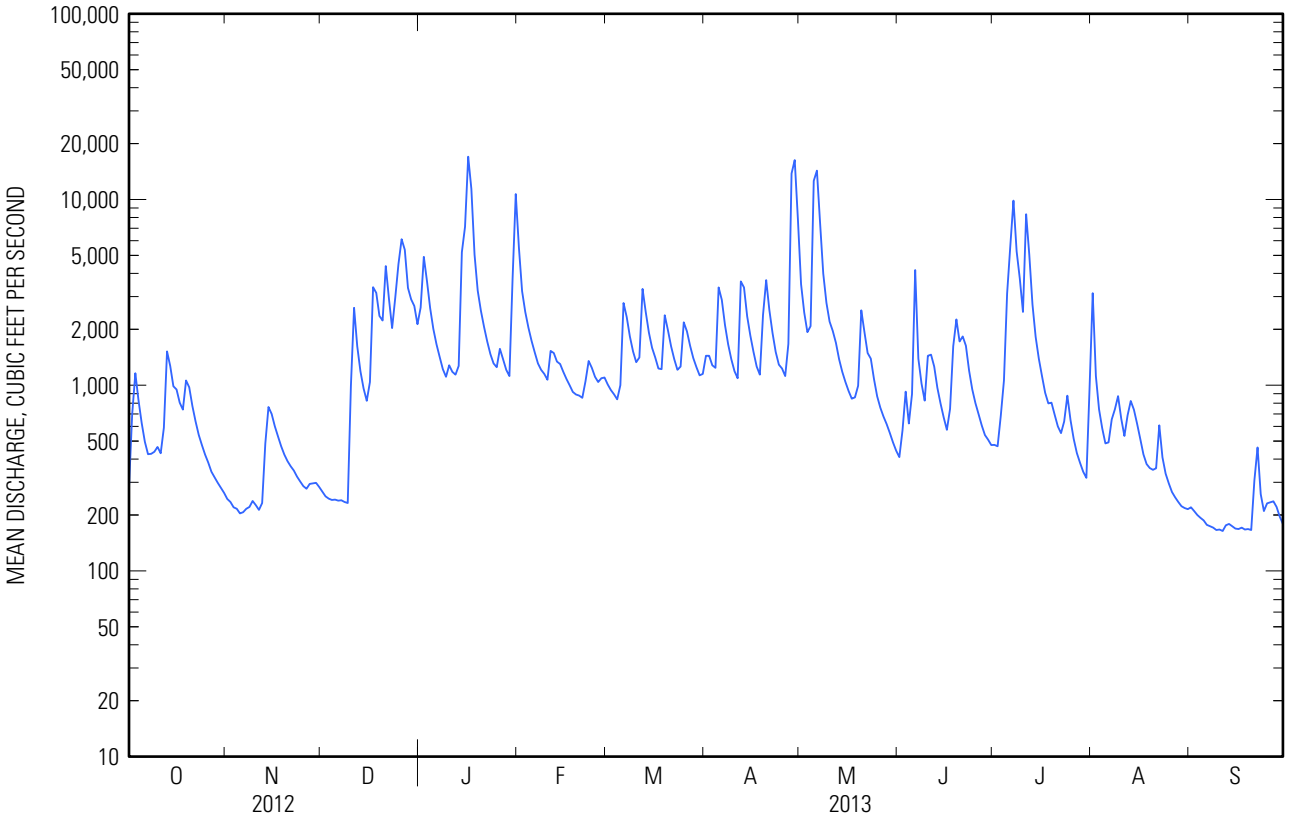
Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	281	244	267	2,620	5,500	1,010	1,440	3,500	410	477	3,130	220
2	697	235	252	4,910	3,210	942	1,440	2,460	571	469	1,120	210
3	1,160	220	245	3,630	2,480	893	1,280	1,930	923	684	741	200
4	829	216	241	2,600	2,040	839	1,240	2,080	622	1,060	586	193
5	626	204	242	2,010	1,730	1,000	3,360	12,600	896	3,120	486	187
6	496	207	239	1,660	1,500	2,770	2,880	14,300	4,170	5,600	492	177
7	425	216	240	1,420	1,310	2,330	2,110	7,480	1,390	9,860	654	174
8	427	221	235	1,220	1,210	1,830	1,660	3,990	1,020	5,260	742	171
9	438	238	232	1,110	1,150	1,520	1,380	2,780	826	3,750	873	166
10	465	226	992	1,280	1,070	1,330	1,190	2,200	1,440	2,480	660	167
11	430	213	2,610	1,180	1,530	1,410	1,090	1,960	1,460	8,330	533	164
12	590	232	1,620	1,140	1,490	3,300	3,620	1,690	1,260	5,020	688	176
13	1,520	485	1,190	1,270	1,340	2,480	3,360	1,380	968	2,720	822	179
14	1,270	763	960	5,200	1,300	1,920	2,350	1,180	797	1,820	738	174
15	987	700	824	7,130	1,180	1,590	1,850	1,040	670	1,390	620	169
16	948	601	1,040	17,000	1,080	1,410	1,510	930	575	1,120	514	168
17	805	530	3,370	11,400	999	1,230	1,260	846	745	910	424	171
18	739	469	3,140	5,050	920	1,220	1,140	860	1,620	798	376	167
19	1,060	423	2,360	3,230	891	2,380	2,390	993	2,260	805	358	168
20	974	390	2,230	2,520	879	1,980	3,680	2,530	1,720	693	350	166
21	772	366	4,380	2,060	855	1,620	2,540	1,930	1,830	600	357	307
22	638	347	2,920	1,720	1,050	1,380	1,910	1,490	1,630	552	608	462
23	540	322	2,030	1,470	1,350	1,210	1,510	1,390	1,200	638	409	259
24	476	303	2,970	1,310	1,240	1,260	1,290	1,080	950	878	334	210
25	423	286	4,490	1,250	1,110	2,180	1,230	872	801	649	296	231
26	383	277	6,110	1,570	1,040	1,950	1,120	757	698	514	266	234
27	342	294	5,360	1,380	1,090	1,630	1,670	678	607	431	249	237
28	319	296	3,340	1,210	1,100	1,400	13,800	617	539	382	235	221
29	298	298	2,900	1,120	---	1,250	16,300	553	509	342	223	196
30	280	283	2,670	3,750	---	1,130	7,850	492	476	317	218	179
31	263	---	2,130	10,700	---	1,150	---	444	---	958	215	---
Total	19,901	10,105	61,829	105,120	41,644	49,544	89,450	77,032	33,583	62,627	18,317	6,103
Mean	642	337	1,994	3,391	1,487	1,598	2,982	2,485	1,119	2,020	591	203
Max	1,520	763	6,110	17,000	5,500	3,300	16,300	14,300	4,170	9,860	3,130	462
Min	263	204	232	1,110	855	839	1,090	444	410	317	215	164
Cfsm	1.00	0.53	3.12	5.30	2.32	2.50	4.66	3.88	1.75	3.16	0.92	0.32
In.	1.16	0.59	3.59	6.11	2.42	2.88	5.20	4.48	1.95	3.64	1.06	0.35

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	313	764	1,615	2,103	2,321	2,424	1,803	1,142	616	450	320	306
Max	2,345	4,286	6,783	6,262	6,564	6,279	4,412	5,021	4,216	2,091	1,439	1,328
(WY)	(1976)	(1958)	(1991)	(1974)	(1939)	(1929)	(1994)	(2003)	(1928)	(1989)	(1942)	(2004)
Min	57.3	69.0	107	126	391	619	360	178	85.9	115	76.2	62.9
(WY)	(2008)	(1932)	(1940)	(1940)	(1941)	(1988)	(2012)	(2012)	(1988)	(1944)	(1925)	(1925)

03421000 COLLINS RIVER NEAR MCMINNVILLE, TN—Continued

SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1925 - 2013	
Annual total	369,236		575,255			
Annual mean	1,009		1,576		1,176	
Highest annual mean					2,193	1973
Lowest annual mean					409	1931
Highest daily mean	11,100	Sep 18	17,000	Jan 16	64,100	Dec 23, 1990
Lowest daily mean	85	Jul 3	164	Sep 11	[a]37	Oct 28, 1961
Annual seven-day minimum	88	Jun 29	169	Sep 14	49	Oct 1, 2008
Maximum peak flow			19,900	Jan 16	[b] 75,300	Mar 23, 1929
Maximum peak stage			19.41	Jan 16	39.10	Mar 23, 1929
Instantaneous low flow			159	Sep 21	35	Sep 21, 1930
Annual runoff (cfsm)	1.58		2.46		1.84	
Annual runoff (inches)	21.46		33.44		24.97	
10 percent exceeds	2,450		3,260		2,580	
50 percent exceeds	480		999		531	
90 percent exceeds	152		232		112	

[a] Caused by regulation from highway constuction.
[b] From rating curve extended above 42,000 ft³/s on basis of slope-area measurement of peak flow.