03465500 NOLICHUCKY RIVER AT EMBREEVILLE, TN

French Broad-Holston Basin
Nolichucky Subbasin

LOCATION.--Lat 36°10′35″, long 82°27′27″ referenced to North American Datum of 1927, Washington County, TN, Hydrologic Unit 06010108, on left bank, at Embreeville, 1,000 ft upstream from bridge on State Highway 81, 3 mi northwest of Erwin, 5.2 mi downstream from North Indian Creek, and at mile 89.0.

DRAINAGE AREA.--805 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--September 1900 to May 1901 (published as "near Chucky Valley"), October 1919 to current year. Monthly discharge only October 1919 to June 1920, published in WSP 1306.

REVISED RECORDS.--WSP 803: 1935(M). WSP 823: Drainage area. WSP 1336: 192I-24, 193I(M).

GAGE.--Data collection platform. Datum of gage is 1,519.30 ft above NGVD of 1929. Sept. 1, 1900 to May 21, 1901, nonrecording gage at site 3 mi downstream at different datum, destroyed by flood of May 21, 1901. July 1, 1920 to Sept. 30, 1931, nonrecording gage at bridge 2,000 ft downstream at datum 6.33 ft lower.

REMARKS.--Records good.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 21, 1901, reached a stage of 24 ft, discharge, 120,000 ft^3/s, present site and datum, from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 9,500 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 16	0015	21,900	7.81
Jan 18	0030	22,000	7.85
Jan 31	0500	27,900	9.06
Apr 12	1430	11,100	5.44
May 6	1030	*37,200	*10.87
Jun 10	1645	9,590	5.07
Jul 4	0215	28,600	9.19
Jul 5	0900	17,300	6.85
Jul 8	0830	10,300	5.21

Minimum discharge, 531 ft^3/s, Dec. 9, 10, 15, 16.

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 03465500, accessed at http://wdr.water.usgs.gov/wy2013/pdfs/03465500.2013.pdf

03465500 NOLICHUCKY RIVER AT EMBREEVILLE, 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	862	902	574	1,720	6,730	2,240	3,910	2,730	1,310	1,540	2,490	1,250
2	1,380	950	567	2,290	4,400	2,050	3,490	2,400	1,390	2,850	2,220	1,250
3	2,660	1,100	562	2,330	3,600	1,890	2,840	2,310	1,650	5,380	1,980	1,220
4	1,420	1,430	555	1,930	3,000	1,740	2,690	2,220	1,300	19,500	1,860	1,110
5	1,130	1,530	563	1,650	2,680	2,020	3,220	5,350	1,180	13,700	1,730	1,010
6	995	1,230	562	1,500	2,500	5,930	2,980	25,200	1,290	7,940	1,660	953
7	1,010	1,090	547	1,360	2,360	3,810	2,630	11,100	2,050	7,460	1,640	922
8	1,150	1,000	541	1,230	3,320	2,970	2,370	7,340	2,660	8,190	1,820	910
9	974	917	539	1,150	3,150	2,560	2,180	5,720	2,000	5,270	1,690	899
10	898	859	573	1,110	2,700	2,390	2,020	4,440	5,330	4,860	1,680	876
11	839	831	667	1,110	2,760	2,330	1,900	3,960	4,360	6,550	1,910	849
12	789	832	619	1,270	2,690	5,040	7,820	3,570	2,730	4,350	1,690	904
13	752	989	571	1,170	2,560	4,710	5,620	3,000	2,210	4,340	1,660	1,110
14	720	1,010	548	2,120	2,460	3,410	3,790	2,640	2,830	4,640	1,710	917
15	942	888	540	15,100	2,210	2,850	3,110	2,390	1,970	7,250	1,450	827
16	1,430	828	623	17,500	2,120	2,530	2,730	2,180	1,670	4,580	1,370	804
17	985	787	1,290	12,700	1,940	2,310	2,570	2,030	1,600	4,060	1,310	785
18	869	748	1,270	15,000	1,780	2,170	2,610	2,040	1,750	6,420	1,330	761
19	819	726	1,060	7,240	1,750	2,870	2,580	2,850	1,990	4,190	1,990	783
20	776	713	948	4,990	1,680	2,480	4,090	4,340	1,640	4,020	1,990	790
21	737	694	1,240	3,880	1,550	2,250	3,090	2,840	1,430	3,630	1,670	811
22	712	672	1,260	3,140	1,960	2,060	2,660	5,150	1,290	3,410	1,520	1,160
23	689	655	1,010	2,600	2,110	1,920	2,400	4,680	1,190	4,790	1,430	994
24	671	641	1,340	2,300	2,160	2,310	2,220	3,500	1,190	3,640	1,430	812
25	655	623	2,380	2,070	1,940	3,870	2,100	2,710	1,480	3,080	1,260	795
26	639	607	3,770	2,000	2,030	3,240	1,900	2,250	1,410	2,650	1,190	953
27	631	621	4,990	1,830	3,440	2,670	1,820	1,980	1,360	3,110	1,170	887
28	641	645	2,890	1,710	2,590	2,370	2,390	1,790	1,330	3,700	1,150	790
29	753	610	2,520	1,780	---	2,260	4,440	1,630	1,360	2,820	1,130	748
30	883	582	2,240	3,230	---	2,190	3,330	1,510	1,200	2,360	1,100	729
31	902	---	1,850	17,400	---	2,570	---	1,400	---	2,230	1,120	---
Total	29,313	25,710	39,209	136,410	74,170	86,010	91,500	127,250	56,150	162,510	49,350	27,609
Mean	946	857	1,265	4,400	2,649	2,775	3,050	4,105	1,872	5,242	1,592	920
Max	2,660	1,530	4,990	17,500	6,730	5,930	7,820	25,200	5,330	19,500	2,490	1,250
Min	631	582	539	1,110	1,550	1,740	1,820	1,400	1,180	1,540	1,100	729
Med	862	829	667	2,070	2,480	2,390	2,670	2,730	1,540	4,340	1,660	893
Cfsm	1.17	1.06	1.57	5.47	3.29	3.45	3.79	5.10	2.33	6.51	1.98	1.14
In.	1.35	1.19	1.81	6.30	3.43	3.97	4.23	5.88	2.59	7.51	2.28	1.28

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1920 - 2013, BY WATER YEAR (WY)

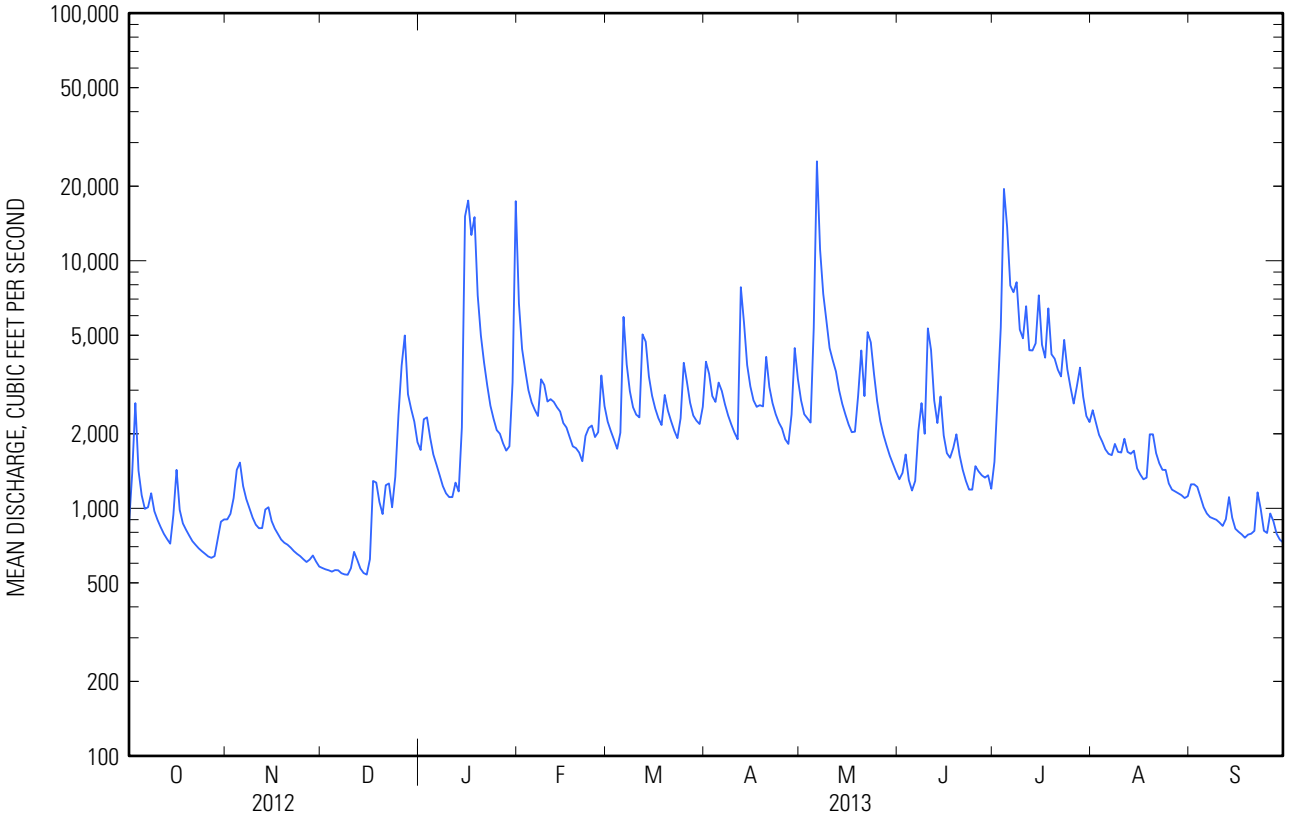
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	792	1,018	1,305	1,724	1,991	2,298	2,029	1,582	1,125	981	908	819
Max	2,630	4,720	3,073	4,400	4,494	5,102	4,169	4,105	3,196	5,242	4,876	6,170
(WY)	(1930)	(1978)	(1962)	(2013)	(1957)	(1963)	(1983)	(2013)	(1992)	(2013)	(1940)	(2004)
Min	246	294	353	382	635	649	699	586	376	351	182	187
(WY)	(1954)	(1940)	(1940)	(1940)	(1941)	(1988)	(1986)	(2001)	(1988)	(1988)	(1925)	(1925)

03465500 NOLICHUCKY RIVER AT EMBREEVILLE, TN—Continued

SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1920 - 2013	
Annual total	512,060		905,191			
Annual mean	1,399		2,480		1,377	
Highest annual mean					2,480	2013
Lowest annual mean					694	1988
Highest daily mean	5,940	Jan 12	25,200	May 6	50,800	Nov 6, 1977
Lowest daily mean	473	Aug 30	539	Dec 9	88	Sep 8, 1925
Annual seven-day minimum	520	Aug 27	553	Dec 3	121	Sep 3, 1925
Maximum peak flow			37,200	May 6	[a]110,000	Nov 6, 1977
Maximum peak stage			10.87	May 6	21.52	Nov 6, 1977
Instantaneous low flow			[c]531	Dec 9	[b]85	Sep 8, 1925
Annual runoff (cfsm)	1.74		3.08		1.71	
Annual runoff (inches)	23.66		41.83		23.25	
10 percent exceeds	2,380		4,500		2,560	
50 percent exceeds	1,200		1,850		1,010	
90 percent exceeds	609		728		394	

[a] From rating curve extended above 48,000 ft³/s on basis of contracted opening and slope-area measurement of peak flow.
[c] Also occurred Dec. 10, 15, 16.
[b] Also occurred Sept. 9, 1925.



03465500 NOLICHUCKY RIVER AT EMBREEVILLE, TN—Continued

CLIMATOLOGICAL RECORDS

PERIOD OF RECORD.--April 2010 to Sept. 2012, temporary precipitation data. October 2012 to current year, permanent precipitation data.

INSTRUMENTATION.--Tipping bucket rain gage, 8 inch funnel, unheated and unshielded.

REMARKS.--Missing data from Jan. 14 to Jan. 19 and June 2 to June 11 due to rain gage malfunction (plugged funnel).

EXTREMES FOR CURRENT YEAR.--Maximum daily precipitation, 3.21 in., July 3.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY SUM VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0.28	0.00	0.00	0.48	0.01	0.03	0.00	0.00	0.00	0.76	---	0.31
2	0.40	0.00	0.00	0.27	0.00	0.05	0.00	0.00	---	0.02	---	0.00
3	0.00	0.00	0.00	0.00	0.14	0.02	0.00	0.00	---	3.21	0.00	0.83
4	0.00	0.02	0.00	0.00	0.07	0.06	0.86	0.02	---	0.24	0.01	0.00
5	0.00	0.00	0.19	0.01	0.01	1.31	0.03	0.00	---	0.01	0.00	0.01
6	0.11	0.01	0.01	0.05	0.01	0.01	0.00	0.13	---	0.28	0.00	0.00
7	0.29	0.22	0.00	0.00	0.00	0.03	0.00	0.54	---	0.38	0.70	0.00
8	0.02	0.00	0.00	0.00	0.20	0.00	0.00	0.13	---	0.01	0.00	0.00
9	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	---	0.00	0.00	0.01
10	0.00	0.00	0.42	0.00	0.07	0.00	0.00	0.05	---	0.13	0.06	0.00
11	0.00	0.00	0.02	0.00	0.01	0.81	0.21	0.23	---	0.29	0.13	0.00
12	0.00	0.37	0.00	0.00	0.06	0.27	0.90	0.00	0.00	0.02	0.69	1.03
13	0.00	0.11	0.01	0.14	0.27	0.02	0.00	0.00	0.70	0.01	0.11	0.01
14	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.07	0.01	0.00
15	0.48	0.00	0.00	---	0.16	0.00	0.02	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.62	---	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.04	---	0.00	0.00	0.63	0.05	0.68	0.13	0.00	0.00
18	0.43	0.00	0.14	---	0.00	0.57	0.00	0.17	0.68	0.01	0.26	0.10
19	0.00	0.00	0.01	---	0.12	0.33	0.55	0.77	0.00	0.24	0.29	0.00
20	0.00	0.00	0.17	0.01	0.00	0.00	0.00	0.08	0.06	0.01	0.02	0.00
21	0.00	0.00	0.00	0.00	0.21	0.02	0.00	0.55	0.13	0.04	0.00	0.81
22	0.00	0.00	0.00	0.00	0.31	0.00	0.00	0.20	0.00	1.11	0.00	0.08
23	0.00	0.00	0.15	0.00	0.05	0.00	0.00	0.88	0.00	0.33	0.00	0.00
24	0.00	0.01	0.44	0.00	0.00	0.83	0.39	0.03	0.02	0.02	0.00	0.00
25	0.00	0.00	0.04	0.25	0.00	0.25	0.03	0.00	0.06	0.00	0.00	0.27
26	0.00	0.00	0.32	0.18	0.18	0.10	0.00	0.00	0.00	0.48	0.00	0.00
27	0.01	0.09	0.21	0.01	0.15	0.00	0.13	0.00	0.40	---	0.00	0.00
28	0.73	0.00	0.28	0.01	0.02	0.00	0.92	0.00	0.00	---	0.00	0.00
29	0.49	0.01	0.21	0.00	---	0.02	0.00	0.00	0.00	---	0.26	0.00
30	0.26	0.00	0.00	1.57	---	0.00	0.00	0.00	0.36	---	0.00	0.02
31	0.02	---	0.00	0.16	---	0.44	---	0.00	---	---	0.01	---
Total	3.52	0.85	3.28	---	2.06	5.18	4.67	3.83	---	---	---	3.48