Water-Data Report 2013

02112250 YADKIN RIVER AT ELKIN, NC

Upper Pee Dee Basin
Upper Yadkin Subbasin

LOCATION.--Lat 36°14'25.51", long 80°50'56.98" referenced to North American Datum of 1983, Yadkin County, NC, Hydrologic Unit 03040101, on right bank at upstream side of bridge on U.S. Highway 21 Business (South Bridge Street) at Elkin, 0.2 miles downstream from Elkin River, and 362 miles upstream from mouth of Pee Dee River in Winyah Bay. Prior to January 5, 2011, at site 800 ft downstream.

DRAINAGE AREA.--866 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--April 1964 to current year.

REVISED RECORDS.--WDR NC-80-1: Drainage area. WDR-US-2011: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 865.68 ft above North American Vertical Datum of 1988. Prior to January 5, 2011, at site 800 ft downstream at datum 866.03 ft above North Geodetic Vertical Datum of 1929. Prior to August 28, 1964, nonrecording gage on upstream side of bridge at same datum. U.S. Army Corps of Engineers satellite telemetry at streamgage.

REMARKS.--No estimated daily discharges. Records good. Considerable regulation by W. Kerr Scott Reservoir (station 02111391). Maximum gage height for period of record, from graph based on hourly gage-height readings and floodmark.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 1916 reached a stage of 36.0 ft, from information by North Carolina State Highway Commission. Flood of August 1940 reached a stage of 37.5 ft. A discharge of 172 ft^3/s was measured on September 19, 1956.

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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	788	674	561	1,450	3,850	2,170	1,300	1,610	1,630	1,780	3,850	2,350
2	1,410	671	567	1,380	3,020	2,060	1,360	1,510	1,720	4,690	2,780	2,570
3	1,560	667	564	767	2,830	1,990	1,220	1,480	1,770	3,440	2,530	2,300
4	1,760	680	562	769	2,670	1,930	1,320	1,400	1,590	7,010	2,480	1,860
5	1,030	672	565	759	2,590	1,390	1,980	1,400	1,500	11,700	2,390	1,760
6	949	659	563	755	2,480	2,310	1,770	7,010	5,080	5,260	2,420	1,610
7	1,050	668	568	738	1,490	2,150	1,640	7,090	2,860	6,640	2,780	1,590
8	995	633	588	763	1,910	2,020	1,350	6,720	4,010	7,820	2,640	1,570
9	933	614	591	763	1,770	1,340	1,440	5,690	2,720	6,840	2,480	1,540
10	894	620	590	759	1,670	1,340	1,350	5,160	3,920	6,430	2,570	1,490
11	716	624	599	776	1,660	1,310	1,250	3,480	4,130	6,480	3,420	1,460
12	701	628	573	789	1,430	2,750	2,030	3,350	3,910	6,380	3,780	1,530
13	692	748	566	765	1,450	2,150	2,430	3,390	3,680	5,750	3,380	1,550
14	687	679	565	1,210	1,440	2,240	2,100	3,790	3,190	5,030	2,920	1,420
15	872	604	572	8,030	1,370	2,180	1,700	1,940	1,960	5,040	2,300	1,360
16	996	597	611	6,430	1,170	2,350	1,770	1,910	2,050	4,610	1,980	1,270
17	919	589	724	6,170	1,250	2,210	1,690	1,830	1,700	4,030	2,120	1,320
18	763	588	647	8,160	1,230	1,540	1,640	1,780	1,680	2,890	2,440	1,320
19	746	585	592	5,590	1,230	1,760	1,680	2,440	1,760	2,700	2,990	1,300
20	716	580	607	5,050	1,220	1,530	1,880	2,450	1,760	2,570	3,200	1,310
21	709	579	922	4,720	1,170	1,450	2,380	3,380	1,770	2,560	3,070	1,400
22	704	576	689	4,500	1,190	1,370	2,250	3,960	1,450	2,990	2,530	1,720
23	693	577	632	4,310	1,220	1,200	1,790	3,560	1,380	4,200	2,230	1,500
24	692	573	810	3,590	1,200	1,450	1,680	5,160	1,360	3,280	2,070	1,450
25	686	572	948	1,770	1,160	1,990	1,410	3,480	1,420	2,550	2,000	1,320
26	691	567	3,640	1,710	2,800	1,850	1,480	2,470	1,470	2,400	1,960	1,340
27	693	576	2,050	1,650	2,660	1,510	1,410	1,920	1,460	8,410	1,810	1,280
28	694	582	1,790	1,600	2,380	1,440	1,290	1,880	1,380	5,460	1,770	1,150
29	676	566	1,660	1,310	---	1,400	1,760	1,930	1,280	5,940	1,750	1,150
30	669	560	1,550	1,730	---	1,260	2,290	1,820	1,260	5,830	2,240	1,200
31	678	---	1,480	6,340	---	1,300	---	1,650	---	5,240	2,400	---
Total	26,762	18,508	27,946	85,103	51,510	54,940	50,640	96,640	66,850	155,950	79,280	45,990
Mean	863	617	901	2,745	1,840	1,772	1,688	3,117	2,228	5,031	2,557	1,533
Max	1,760	748	3,640	8,160	3,850	2,750	2,430	7,090	5,080	11,700	3,850	2,570
Min	669	560	561	738	1,160	1,200	1,220	1,400	1,260	1,780	1,750	1,150

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	1,027	1,096	1,264	1,463	1,512	1,806	1,751	1,482	1,332	1,120	1,089	990
Max	2,911	3,871	2,591	3,129	2,978	3,885	4,510	3,117	3,139	5,031	3,323	2,994
(WY)	(1991)	(1978)	(1974)	(1978)	(1990)	(1975)	(1980)	(2013)	(2003)	(2013)	(1994)	(2004)
Min	368	346	479	583	567	745	723	510	282	255	244	379
(WY)	(2001)	(2002)	(2001)	(2001)	(2001)	(1988)	(2002)	(2002)	(2008)	(2008)	(2002)	(2007)

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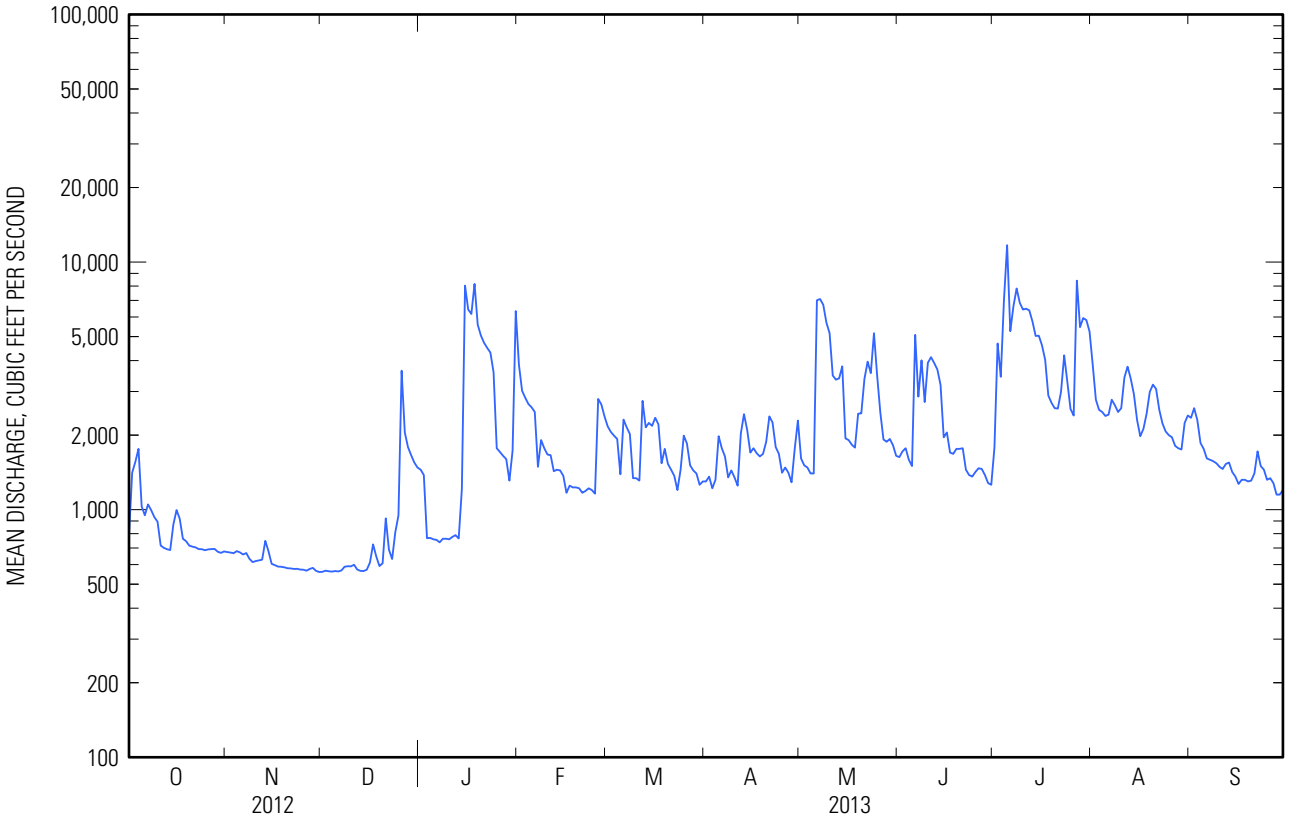
SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1964 - 2013	
Annual total	395,017		760,119			
Annual mean	1,079		2,083		1,330	
Highest annual mean					2,083	2013
Lowest annual mean					508	2002
Highest daily mean	6,380	May 14	11,700	Jul 5	21,500	Aug 10, 1970
Lowest daily mean	560	Nov 30	560	Nov 30	184	Jul 17, 2008
Annual seven-day minimum	563	Nov 30	563	Nov 30	199	Aug 6, 2008
Maximum peak flow			15,700	Jul 5	29,100	Aug 17, 1994
Maximum peak stage			17.09	Jul 5	[a]24.88	Apr 10, 1983
Instantaneous low flow			537	Dec 3	154	Jul 13, 2008
10 percent exceeds	1,850		4,240		2,280	
50 percent exceeds	918		1,600		1,030	
90 percent exceeds	598		622		552	

[a] See Remarks.