

Water-Data Report 2010

02112250 YADKIN RIVER AT ELKIN, NC

Upper Pee Dee Basin
Upper Yadkin Subbasin

LOCATION.--Lat 36°14'28", long 80°50'48" referenced to North American Datum of 1983, Yadkin County, NC, Hydrologic Unit 03040101, on right bank at downstream side of U.S. Highway 21 bridge at Elkin, 0.3 mi downstream of Elkin River, and 362 mi upstream from mouth of Pee Dee River in Winyah Bay.

DRAINAGE AREA.--869 mi².

SURFACE-WATER RECORDS

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

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 866.03 ft above NGVD 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 ft³/s was measured on September 19, 1956.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1,360	2,040	799	1,480	1,690	1,520	2,490	1,070	787	751	910	645
2	607	1,560	1,750	1,410	1,940	1,890	1,830	1,090	1,450	723	810	635
3	579	1,340	3,810	1,340	2,580	1,560	1,760	1,190	1,400	609	781	624
4	553	1,250	2,840	1,310	2,740	1,500	1,730	1,490	1,010	593	738	609
5	564	930	3,130	1,600	3,830	2,030	1,690	1,490	1,020	473	719	599
6	718	858	2,680	1,580	6,620	2,060	1,670	1,390	914	449	959	600
7	1,110	838	1,340	1,430	4,060	2,040	1,620	919	1,010	436	731	590
8	859	826	1,280	1,400	4,030	1,860	1,540	964	1,010	426	996	589
9	665	809	4,690	1,310	3,680	1,160	1,980	1,220	1,000	503	985	633
10	854	862	2,560	1,300	2,010	1,500	2,040	970	827	595	966	596
11	465	4,110	3,330	1,170	1,390	1,480	1,860	968	768	498	665	612
12	432	2,860	2,970	1,230	1,390	1,460	1,430	1,010	845	635	945	687
13	466	1,880	2,550	1,150	2,220	3,010	1,390	986	890	874	667	611
14	470	2,910	2,060	1,160	2,090	2,090	1,370	1,200	915	1,910	622	579
15	601	2,760	2,310	1,200	1,720	1,760	1,560	1,250	925	1,360	1,980	563
16	523	2,390	2,080	1,480	1,680	2,650	1,520	1,160	888	911	1,380	555
17	599	1,190	1,630	3,710	1,650	986	1,350	2,000	932	798	1,270	530
18	586	1,050	1,580	2,520	1,740	1,210	1,330	2,000	867	759	1,330	529
19	564	1,190	1,510	2,170	1,580	2,290	1,310	1,840	929	838	1,640	520
20	560	1,130	1,370	3,640	1,570	2,270	1,300	1,660	778	884	1,210	513
21	559	1,310	1,340	2,290	1,590	2,260	1,450	894	768	846	1,370	493
22	557	1,320	1,090	2,170	1,680	4,190	1,350	918	860	792	1,550	468
23	560	1,380	1,050	2,380	1,810	3,160	1,400	1,010	779	806	1,440	468
24	696	1,320	1,070	3,130	1,820	2,710	1,370	1,260	833	670	1,290	469
25	762	1,140	5,300	13,700	1,850	2,600	1,410	1,220	691	624	829	457
26	637	1,450	4,620	4,020	2,220	3,220	1,340	1,040	666	551	767	557
27	639	1,370	3,210	5,650	1,630	2,790	1,410	1,000	633	655	753	1,050
28	1,210	941	4,370	6,100	1,560	1,930	1,420	1,020	784	1,020	724	1,260
29	1,120	930	4,150	4,210	---	2,760	1,240	1,060	713	842	979	681
30	1,230	923	3,980	3,030	---	2,800	1,210	998	738	769	706	740
31	1,220	---	2,630	2,580	---	2,620	---	965	---	748	659	---
Total	22,325	44,867	79,079	82,850	64,370	67,366	46,370	37,252	26,630	23,348	31,371	18,462
Mean	720	1,496	2,551	2,673	2,299	2,173	1,546	1,202	888	753	1,012	615
Max	1,360	4,110	5,300	13,700	6,620	4,190	2,490	2,000	1,450	1,910	1,980	1,260
Min	432	809	799	1,150	1,390	986	1,210	894	633	426	622	457

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2010, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	1,048	1,121	1,257	1,455	1,532	1,803	1,759	1,442	1,331	1,049	1,076	988
Max	2,911	3,871	2,591	3,129	2,978	3,885	4,510	2,887	3,139	2,632	3,323	2,994
(WY)	(1991)	(1978)	(1974)	(1978)	(1990)	(1975)	(1980)	(1973)	(2003)	(2003)	(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 2009		Water Year 2010		Water Years 1964 - 2010	
Annual total	473,045		544,290			
Annual mean	1,296		1,491		1,320	
Highest annual mean					1,951	1973
Lowest annual mean					508	2002
Highest daily mean	6,980	May 26	13,700	Jan 25	21,500	Aug 10, 1970
Lowest daily mean	432	Oct 12	426	Jul 8	184	Jul 17, 2008
Annual seven-day minimum	508	Oct 11	483	Jul 5	199	Aug 6, 2008
Maximum peak flow			18,700	Jan 25	29,100	Aug 17, 1994
Maximum peak stage			18.84	Jan 25	^a 24.88	Apr 10, 1983
Instantaneous low flow			414	Oct 12	154	Jul 13, 2008
10 percent exceeds	2,550		2,760		2,220	
50 percent exceeds	927		1,220		1,020	
90 percent exceeds	598		592		548	

^a See Remarks.

