

Water-Data Report 2007

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 bridge on U.S. Highway 21 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 station.

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. Minimum discharge for period of record also occurred August 10, 15, September 12, 13, 2002.

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 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	618	685	1,190	7,000	1,010	1,240	1,090	938	660	625	437	371
2	648	724	1,320	2,920	1,010	6,570	1,130	842	627	591	380	384
3	559	692	1,230	4,030	993	3,580	1,100	821	849	570	339	324
4	554	663	1,190	3,820	982	2,930	1,090	863	842	556	352	301
5	553	662	1,160	3,710	969	2,460	997	868	666	554	348	283
6	568	658	1,150	2,150	960	1,870	978	940	642	595	331	267
7	538	807	1,150	2,350	936	1,250	977	906	616	511	312	256
8	592	2,290	1,130	5,530	911	1,190	974	890	601	493	319	253
9	588	1,390	1,070	4,290	899	1,160	967	890	590	474	277	256
10	530	1,140	816	3,280	875	1,140	931	880	562	471	282	246
11	518	1,020	803	2,110	867	1,130	954	838	564	581	327	255
12	537	1,170	790	1,620	873	1,110	1,130	897	590	484	366	263
13	518	1,030	798	1,160	918	1,060	973	845	569	440	355	257
14	500	989	797	1,080	1,520	972	948	809	577	435	337	1,560
15	503	978	780	1,040	1,020	944	1,370	806	629	378	321	1,050
16	504	3,880	771	1,010	1,070	2,390	2,280	802	654	384	315	477
17	732	1,750	766	969	1,050	2,660	2,230	809	610	424	313	377
18	898	2,470	758	945	1,030	2,270	2,030	794	565	636	311	347
19	568	2,420	683	939	871	2,280	1,200	744	551	414	313	335
20	594	2,240	680	1,010	874	2,200	1,120	732	606	404	300	329
21	641	1,100	679	1,030	891	1,870	1,070	719	559	431	298	327
22	595	1,090	1,360	1,260	900	1,770	1,050	709	525	365	331	342
23	573	1,160	3,140	1,310	867	1,360	1,030	704	517	345	320	362
24	606	1,060	1,940	1,210	860	1,270	1,020	716	520	482	314	339
25	606	1,080	3,350	1,190	979	1,230	1,010	693	670	546	339	319
26	601	1,060	3,740	1,170	1,070	1,200	992	688	694	594	281	313
27	656	1,030	2,870	1,050	1,050	1,110	1,060	689	557	493	449	306
28	1,230	1,020	2,500	1,020	1,020	1,100	1,000	670	612	451	343	302
29	875	1,010	1,470	1,000	---	1,140	972	649	633	421	359	287
30	743	1,010	1,350	1,080	---	1,120	952	637	884	425	422	291
31	703	---	1,110	1,070	---	1,090	---	634	---	456	406	---
Total	19,449	38,278	42,541	63,353	27,275	54,666	34,625	24,422	18,741	15,029	10,497	11,379
Mean	627	1,276	1,372	2,044	974	1,763	1,154	788	625	485	339	379
Max	1,230	3,880	3,740	7,000	1,520	6,570	2,280	940	884	636	449	1,560
Min	500	658	679	939	860	944	931	634	517	345	277	246

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	1,078	1,136	1,244	1,451	1,554	1,832	1,798	1,453	1,351	1,078	1,097	1,003
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	327	331	244	379
(WY)	(2001)	(2002)	(2001)	(2001)	(2001)	(1988)	(2002)	(2002)	(2002)	(2002)	(2002)	(2007)

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SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1964 - 2007	
Annual total	338,333		360,255			
Annual mean	927		987		1,342	
Highest annual mean					1,951	1973
Lowest annual mean					508	2002
Highest daily mean	4,560	Jun 27	7,000	Jan 1	21,500	Aug 10, 1970
Lowest daily mean	380	Aug 29	246	Sep 10	193	Sep 13, 2002
Annual seven-day minimum	414	Aug 23	255	Sep 7	211	Sep 8, 2002
Maximum peak flow			11,000	Jan 1	29,100	Aug 17, 1994
Maximum peak stage			13.13	Jan 1	^a 24.88	Apr 10, 1983
Instantaneous low flow			232	Sep 11	^a 187	Aug 9, 2002
10 percent exceeds	1,460		1,810		2,250	
50 percent exceeds	778		821		1,040	
90 percent exceeds	494		333		560	

^a See Remarks.

