

Water-Data Report 2008

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.--Records good except those for estimated daily discharges, which are poor. 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. Maximum gage height for current water year from observed reading from wire-weight gage.

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.

02112250 YADKIN RIVER AT ELKIN, NC—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	292	401	332	1,060	911	546	705	955	416	258	278	1,140
2	287	379	345	931	1,070	532	664	723	381	203	239	1,050
3	289	364	343	841	782	521	649	688	357	185	356	745
4	290	363	328	797	751	550	755	682	354	195	242	688
5	296	342	328	820	920	1,060	776	661	329	208	212	593
6	302	338	330	794	805	2,000	1,610	597	308	308	204	567
7	308	325	327	769	914	1,020	1,350	580	297	535	195	559
8	292	324	330	753	804	1,220	2,310	591	298	346	197	550
9	273	324	339	741	726	1,210	1,250	877	287	311	205	788
10	273	334	332	691	673	1,870	833	584	316	332	204	692
11	263	333	327	738	622	1,210	774	553	289	341	201	766
12	246	343	322	696	613	1,050	772	604	268	225	186	705
13	257	343	326	652	671	1,010	746	541	258	196	223	733
14	269	357	327	629	1,060	991	708	521	290	537	295	711
15	269	370	331	606	1,560	970	698	535	374	229	280	687
16	260	354	507	549	613	820	648	584	305	189	278	769
17	266	331	461	588	600	709	636	558	254	184	248	768
18	277	339	363	637	665	874	624	530	227	189	224	727
19	265	340	348	623	662	890	621	536	218	200	210	614
20	272	334	344	597	641	1,300	838	518	216	211	e200	565
21	290	325	405	519	636	1,120	783	516	216	219	199	554
22	258	337	428	570	598	1,030	685	504	255	213	200	542
23	269	333	644	567	547	973	652	494	288	211	200	496
24	384	317	1,040	549	576	929	627	453	259	316	199	479
25	1,680	328	612	506	566	897	581	451	213	245	e203	468
26	3,020	366	542	536	606	881	600	429	197	208	e205	501
27	1,900	457	521	532	634	866	696	416	202	221	e2,600	958
28	786	377	549	520	560	741	796	438	268	212	e1,380	801
29	572	343	1,160	515	542	725	930	474	242	207	1,580	710
30	471	338	988	528	---	717	1,000	440	288	234	1,520	652
31	428	---	1,250	509	---	708	---	425	---	233	1,410	---
Total	15,604	10,459	15,129	20,363	21,328	29,940	25,317	17,458	8,470	7,901	14,373	20,578
Mean	503	349	488	657	735	966	844	563	282	255	464	686
Max	3,020	457	1,250	1,060	1,560	2,000	2,310	955	416	537	2,600	1,140
Min	246	317	322	506	542	521	581	416	197	184	186	468

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	1,065	1,118	1,227	1,433	1,535	1,812	1,777	1,433	1,327	1,060	1,083	996
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)

02112250 YADKIN RIVER AT ELKIN, NC—Continued

SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1964 - 2008	
Annual total	301,179		206,920			
Annual mean	825		565		1,324	
Highest annual mean					1,951	1973
Lowest annual mean					508	2002
Highest daily mean	7,000	Jan 1	3,020	Oct 26	21,500	Aug 10, 1970
Lowest daily mean	246	Sep 10	184	Jul 17	184	Jul 17, 2008
Annual seven-day minimum	255	Sep 7	199	Aug 6	199	Aug 6, 2008
Maximum peak flow			8,380	Aug 27	29,100	Aug 17, 1994
Maximum peak stage			^a 10.75	Aug 27	^a 24.88	Apr 10, 1983
Instantaneous low flow			154	Jul 13	154	Jul 13, 2008
10 percent exceeds	1,260		978		2,230	
50 percent exceeds	595		520		1,030	
90 percent exceeds	299		217		546	

^aSee Remarks.