

Water-Data Report 2008

02116500 YADKIN RIVER AT YADKIN COLLEGE, NC

Upper Pee Dee Basin
Upper Yadkin Subbasin

LOCATION.--Lat 35°51'24", long 80°23'13" referenced to North American Datum of 1983, Davie County, NC, Hydrologic Unit 03040101, on right bank downstream of bridge on U.S. Highway 64, 1.5 mi south of Yadkin College, 6.2 mi downstream of Reedy Creek, and 295 mi upstream from mouth of Pee Dee River in Winyah Bay.

DRAINAGE AREA.--2,280 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--July 1928 to current year.

REVISED RECORDS.--WSP 822: Drainage area. WSP 852: 1935-37(m).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 638.45 ft above NGVD of 1929. Prior to July 26, 1957, at site on left bank 100 ft downstream at same datum. July 27, 1957, to Sept. 19, 1984, at site 20 ft downstream on bridge pier near left bank, at same datum. U.S. Army Corps of Engineers satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records good. Diurnal fluctuation and occasional regulation during low flow caused by small hydroelectric plant 10 mi upstream with little storage capacity. Since August 1962, some regulation by W. Kerr Scott Reservoir (station 02111391). Prior to regulation, maximum discharge: 80,200 ft³/s, August 15, 1940; gage height: 33.75 ft; minimum observed discharge: 177 ft³/s, October 12, 1954; gage height: -0.42 ft. Minimum discharge for period of record, and current water year, result of regulation.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 1916, reached a stage of 36.3 ft, from floodmarks; discharge, 94,300 ft³/s.

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

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	589	1,310	971	3,750	2,160	1,390	2,010	2,210	961	931	990	1,950
2	582	1,210	965	2,520	3,990	1,390	1,900	2,000	942	748	725	1,500
3	568	1,130	970	2,060	2,760	1,390	1,750	1,700	878	574	876	1,400
4	796	1,090	974	1,820	2,130	1,390	2,770	1,600	886	491	624	891
5	742	1,070	951	1,730	3,260	3,080	5,690	1,540	877	485	519	688
6	632	1,050	957	1,720	2,620	2,590	6,430	1,510	811	664	421	777
7	616	995	939	1,680	2,200	3,320	7,520	1,400	748	1,170	375	646
8	618	990	937	1,610	2,220	4,280	3,990	1,360	699	1,050	350	499
9	594	964	951	1,590	1,960	3,480	3,980	5,940	675	871	335	461
10	573	958	958	1,570	1,810	2,740	2,820	3,610	679	1,280	341	868
11	549	980	958	1,640	1,650	3,080	2,230	1,860	692	1,130	319	1,520
12	537	985	996	1,680	1,570	2,390	2,040	1,910	784	912	306	1,310
13	464	947	940	1,560	1,760	2,130	2,040	1,730	760	753	321	1,010
14	488	967	967	1,480	2,040	2,040	1,870	1,450	677	690	399	989
15	500	1,130	968	1,410	2,290	1,990	1,760	1,380	885	1,170	310	949
16	532	1,170	1,320	1,400	2,410	2,270	1,680	1,470	928	818	470	1,340
17	509	1,030	1,470	1,420	1,620	1,970	1,600	1,480	807	628	412	1,960
18	529	977	1,310	1,700	1,660	1,730	1,550	1,410	634	528	510	1,410
19	624	971	1,100	1,620	1,680	1,820	1,520	1,430	548	494	407	1,110
20	736	941	1,030	1,560	1,640	2,410	1,710	1,330	516	435	329	936
21	618	970	1,080	1,460	1,540	2,970	2,000	1,240	505	419	295	717
22	580	1,020	1,110	1,330	1,540	2,350	1,900	1,180	479	452	282	672
23	584	1,020	1,210	1,380	1,490	2,110	1,710	1,140	697	901	248	643
24	616	964	1,620	1,410	1,440	1,990	1,590	1,100	740	784	241	613
25	1,060	936	2,090	1,360	1,480	1,920	1,530	1,100	647	661	252	537
26	10,100	990	1,750	1,290	1,540	1,860	1,490	1,060	516	592	289	642
27	13,100	1,050	1,850	1,310	1,660	1,810	1,580	1,010	531	437	4,300	2,320
28	4,310	1,110	1,600	1,310	1,590	1,800	3,190	1,060	646	463	8,230	4,170
29	2,160	1,080	2,780	1,290	1,450	1,750	3,600	1,110	674	404	2,730	2,230
30	1,660	995	3,810	1,330	---	1,730	2,670	1,120	847	388	2,410	1,520
31	1,390	---	6,350	1,320	---	1,740	---	1,050	---	474	2,180	---
Total	47,956	31,000	45,882	50,310	57,160	68,910	78,120	50,490	21,669	21,797	30,796	36,278
Mean	1,547	1,033	1,480	1,623	1,971	2,223	2,604	1,629	722	703	993	1,209
Max	13,100	1,310	6,350	3,750	3,990	4,280	7,520	5,940	961	1,280	8,230	4,170
Min	464	936	937	1,290	1,440	1,390	1,490	1,010	479	388	241	461

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 2008^a, BY WATER YEAR (WY)

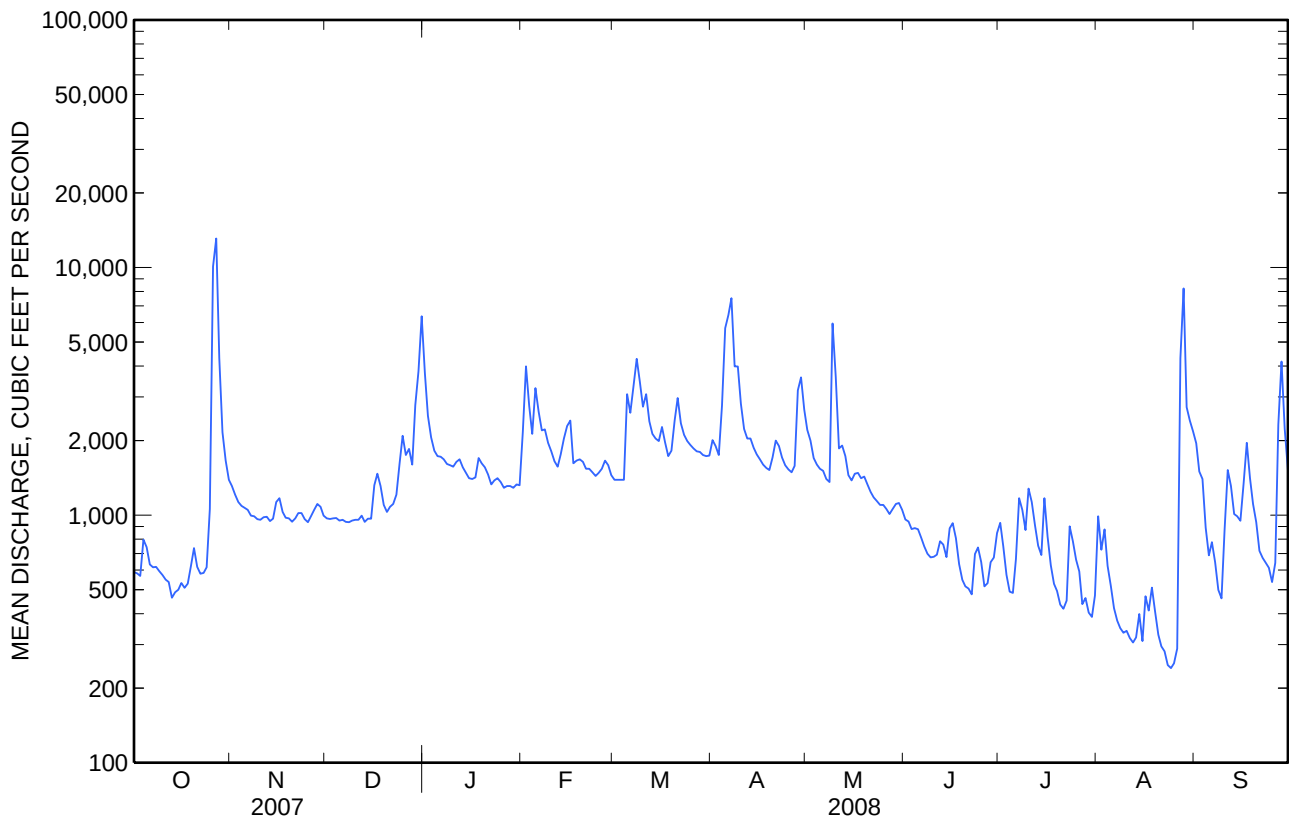
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	2,388	2,456	2,843	3,465	3,597	4,391	3,932	3,195	2,829	2,287	2,210	2,122
Max	7,491	5,844	5,784	7,580	7,632	10,380	9,419	6,276	7,755	5,158	7,191	7,314
(WY)	(1991)	(1993)	(1974)	(1978)	(1990)	(1975)	(1987)	(1984)	(1972)	(2003)	(1970)	(1979)
Min	747	792	1,160	1,354	1,444	1,798	1,519	1,053	581	703	445	867
(WY)	(2002)	(2002)	(2001)	(1981)	(2001)	(1981)	(2002)	(2002)	(2002)	(2008)	(2002)	(2001)

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SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1963 - 2008 ^a	
Annual total	783,732		540,368			
Annual mean	2,147		1,476		2,974	
Highest annual mean					4,524	1973
Lowest annual mean					1,116	2002
Highest daily mean	30,000	Jan 2	13,100	Oct 27	66,000	Jun 22, 1972
Lowest daily mean	418	Sep 13	241	Aug 24	236	Aug 12, 2002
Annual seven-day minimum	436	Sep 7	277	Aug 20	261	Aug 9, 2002
Maximum peak flow			17,300	Oct 26	^a 75,200	Jun 22, 1972
Maximum peak stage			12.74	Oct 26	^a 32.81	Jun 22, 1972
Instantaneous low flow			^a 209	Aug 24	^a 110	Aug 28, 1988
10 percent exceeds	3,610		2,440		5,100	
50 percent exceeds	1,460		1,170		2,230	
90 percent exceeds	618		500		1,150	

^aRegulated period only (1963-2008). See Remarks.



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CLIMATOLOGICAL RECORDS

PERIOD OF RECORD.--October 2001 to current year.

INSTRUMENTATION.--Tipping-bucket raingage and electronic datalogger. Satellite telemetry at station.

REMARKS.--Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record may be poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY SUM VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0.00	0.00	0.00	0.00	1.12	0.00	0.03	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00
3	0.00	0.00	0.00	0.00	0.05	0.00	0.64	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.28	0.86	0.48	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.01	0.30	0.00	0.00	0.02	0.00	0.01
6	0.00	0.00	0.00	0.00	0.01	0.00	0.04	0.00	0.00	0.54	0.00	0.53
7	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.17	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.37	0.00	0.01
10	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.11	0.04	0.48
11	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.20	0.00	0.01	0.00	2.76
12	0.00	0.00	0.00	0.00	0.22	0.00	0.01	0.00	0.00	0.00	0.00	0.01
13	0.00	0.00	0.00	0.00	0.38	0.00	0.00	0.00	0.00	0.00	0.23	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.05	0.00	0.00	0.00
15	0.00	0.50	0.40	0.00	0.00	1.03	0.00	0.01	0.00	0.00	0.00	0.00
16	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.00	0.90
17	0.00	0.00	0.00	0.61	0.06	0.00	0.00	0.00	0.00	0.00	0.10	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.00
19	0.32	0.00	0.00	0.10	0.00	0.26	0.27	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.06	0.02	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.16	0.00	0.02	0.00	0.05	0.00	0.00	0.00	0.00	0.00
22	0.00	0.20	0.00	0.06	0.23	0.00	0.00	0.00	0.06	0.11	0.00	0.00
23	0.15	0.00	0.33	0.01	0.00	0.00	0.00	0.00	0.21	0.49	0.00	0.00
24	0.46	0.00	0.00	0.00	0.06	0.01	0.00	0.01	0.00	0.01	0.00	0.00
25	1.23	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.01
26	1.47	0.06	0.56	0.00	0.51	0.00	0.18	0.00	0.03	0.00	1.41	1.33
27	0.00	0.00	0.00	0.00	0.00	0.00	1.05	0.09	0.01	0.20	3.57	0.41
28	0.00	0.00	0.69	0.00	0.00	0.00	1.61	0.07	0.03	0.00	0.00	0.71
29	0.00	0.00	0.06	0.00	0.00	0.14	0.01	0.01	0.88	0.00	0.00	0.01
30	0.00	0.00	1.12	0.06	---	0.02	0.00	0.01	0.34	0.00	0.00	0.15
31	0.00	---	0.01	0.00	---	0.34	---	0.00	---	0.16	0.00	---
Total	3.63	0.89	3.43	1.02	2.94	3.39	4.70	0.88	1.61	2.19	5.66	7.32

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