

Water-Data Report 2007

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.--Records good except those for estimated daily discharges, which are poor. 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, 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 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1,350	1,730	2,200	14,700	2,310	2,340	2,410	2,070	1,320	2,110	1,040	721
2	1,350	1,680	2,470	30,000	2,300	15,600	2,410	2,030	1,560	1,580	986	1,000
3	1,350	1,760	2,500	9,780	2,270	18,800	2,400	1,940	1,710	1,310	945	844
4	1,270	1,650	2,350	6,870	2,200	6,700	2,330	1,910	2,640	1,240	844	628
5	1,240	1,570	2,270	6,410	2,160	5,150	2,270	2,020	2,230	1,190	880	561
6	1,840	1,550	2,230	6,790	2,100	4,340	2,150	2,050	1,630	1,500	852	524
7	2,140	1,600	2,190	4,860	2,090	3,560	2,110	2,010	1,480	1,430	788	479
8	1,660	3,170	2,160	12,900	2,140	2,920	2,110	1,940	1,410	1,190	771	455
9	1,690	4,940	2,100	13,000	2,050	2,750	2,100	1,910	1,340	1,120	762	422
10	1,540	2,960	2,080	7,210	2,030	2,650	2,070	1,920	1,310	e1,080	757	424
11	1,360	2,350	1,850	5,450	1,990	2,600	2,130	1,900	1,270	e1,150	674	428
12	1,660	2,570	1,820	4,130	1,990	2,540	3,610	1,900	1,810	e1,460	612	427
13	1,600	2,490	1,790	3,530	2,010	2,470	3,020	2,060	1,440	e1,220	655	418
14	1,320	2,130	1,830	3,010	5,950	2,410	2,380	1,850	1,410	e1,050	686	511
15	1,250	2,040	1,820	2,840	4,720	2,310	4,680	1,750	1,380	1,020	630	9,300
16	1,240	9,370	1,780	2,730	2,850	5,240	9,170	1,730	1,420	988	585	2,720
17	1,430	17,500	1,750	2,590	2,570	10,100	5,200	1,810	1,760	1,310	620	1,410
18	2,610	5,270	1,750	2,470	2,410	5,430	4,140	1,770	1,390	1,490	611	1,060
19	2,260	4,700	1,730	2,480	2,330	4,310	3,620	1,720	1,300	1,360	530	889
20	1,750	4,090	1,680	2,420	2,130	4,030	2,790	1,620	1,530	1,120	534	823
21	1,770	3,650	1,650	2,410	2,150	3,840	2,640	1,590	1,390	988	548	791
22	1,670	4,470	1,750	3,140	2,180	3,470	2,470	1,550	1,260	974	707	762
23	1,540	4,170	5,050	3,020	2,120	3,300	2,410	1,520	1,150	895	735	768
24	1,460	3,320	4,940	2,870	2,010	2,880	2,320	1,510	1,120	907	711	746
25	1,430	2,670	4,800	2,670	2,220	2,730	2,280	1,530	1,940	1,210	685	749
26	1,420	2,550	11,400	2,580	3,060	2,650	2,250	1,460	1,780	1,500	633	717
27	1,450	2,390	6,490	2,520	2,710	2,580	2,250	1,460	1,580	1,320	664	663
28	2,900	2,320	4,830	2,410	2,410	2,480	2,420	1,440	1,290	1,720	620	666
29	3,820	2,240	4,010	2,320	---	2,610	2,220	1,390	1,570	1,320	754	630
30	2,250	2,220	2,960	2,250	---	2,590	2,120	1,380	1,660	1,250	576	568
31	1,860	---	2,760	2,310	---	2,480	---	1,360	---	1,110	633	---
Total	53,480	105,120	90,990	172,670	69,460	137,860	86,480	54,100	46,080	39,112	22,028	31,104
Mean	1,725	3,504	2,935	5,570	2,481	4,447	2,883	1,745	1,536	1,262	711	1,037
Max	3,820	17,500	11,400	30,000	5,950	18,800	9,170	2,070	2,640	2,110	1,040	9,300
Min	1,240	1,550	1,650	2,250	1,990	2,310	2,070	1,360	1,120	895	530	418

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 2007^a, BY WATER YEAR (WY)

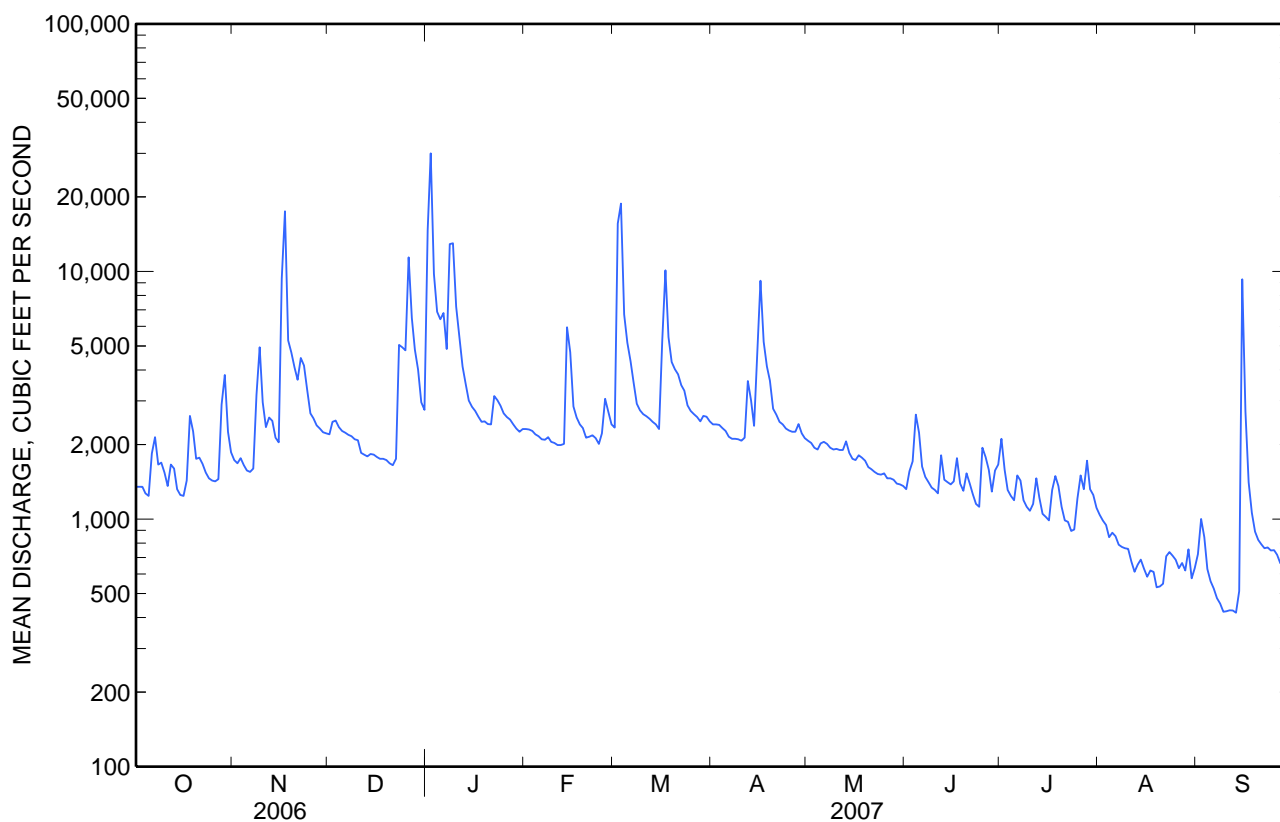
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	2,407	2,488	2,874	3,506	3,634	4,440	3,961	3,230	2,876	2,322	2,237	2,143
Max	7,491	5,844	5,784	7,580	7,632	10,380	9,419	6,276	7,755	5,158	7,191	7,314
(WY)	(1991)	(1993)	(1974)	(1978)	(1990)	(1975)	(1987)	(1984)	(1972)	(2003)	(1970)	(1979)
Min	747	792	1,160	1,354	1,444	1,798	1,519	1,053	581	749	445	867
(WY)	(2002)	(2002)	(2001)	(1981)	(2001)	(1981)	(2002)	(2002)	(2002)	(1986)	(2002)	(2001)

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SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1963 - 2007 ^a	
Annual total	826,809		908,484			
Annual mean	2,265		2,489		3,007	
Highest annual mean					4,524	1973
Lowest annual mean					1,116	2002
Highest daily mean	17,500	Nov 17	30,000	Jan 2	66,000	Jun 22, 1972
Lowest daily mean	880	Aug 28	418	Sep 13	236	Aug 12, 2002
Annual seven-day minimum	1,010	Jun 17	436	Sep 7	261	Aug 9, 2002
Maximum peak flow			33,300	Jan 2	^a 75,200	Jun 22, 1972
Maximum peak stage			20.88	Jan 2	^a 32.81	Jun 22, 1972
Instantaneous low flow			372	Sep 9	^a 110	Aug 28, 1988
10 percent exceeds	3,600		4,390		5,150	
50 percent exceeds	1,820		1,920		2,260	
90 percent exceeds	1,220		729		1,190	

^a Regulated period only (1963-2007). 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 is poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY SUM VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0.00	0.00	0.00	0.45	0.25	0.91	0.01	0.00	0.00	0.01	0.00	0.00
2	0.00	0.01	0.00	0.00	0.01	0.55	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.90	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.19	0.00	0.00	0.00
5	0.00	0.00	0.00	0.38	0.00	0.00	0.00	0.09	0.45	0.09	0.00	0.00
6	0.14	0.00	0.00	0.01	0.00	0.00	0.03	0.01	0.00	0.02	0.00	0.00
7	0.02	0.83	0.00	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.40	0.15	0.00	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	---	0.38	0.00
11	0.00	0.47	0.00	0.00	0.00	0.00	0.89	0.00	0.41	---	0.00	0.00
12	0.00	0.08	0.00	0.00	0.00	0.00	0.57	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.91	0.00	0.00	0.00	0.19	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.97	0.00	0.00	0.00	0.00	1.14
15	0.00	0.01	0.00	0.00	0.00	0.01	1.08	0.00	0.00	0.00	0.00	0.00
16	0.00	1.70	0.00	0.00	0.00	1.37	0.00	0.00	0.00	0.13	0.00	0.00
17	1.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.39	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.06	0.00	0.00
19	0.01	0.00	0.00	0.16	0.00	0.00	0.00	0.00	0.42	0.00	0.00	0.00
20	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00
21	0.00	1.07	0.00	0.62	0.04	0.00	0.00	0.00	0.00	0.00	---	0.00
22	0.15	0.51	0.61	0.01	0.00	0.00	0.00	0.00	0.00	0.00	---	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	---	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.51	0.03	---	0.00
25	0.00	0.00	1.23	0.00	0.76	0.00	0.00	0.00	0.88	0.00	---	0.00
26	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.01	0.00	---	0.00
27	0.59	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.01	---	0.00
28	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.02	---	0.00
29	0.00	0.00	0.00	0.00	---	0.34	0.00	0.00	0.22	0.05	---	0.00
30	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.24	0.06	---	0.00
31	0.00	---	0.02	0.00	---	0.00	---	0.00	---	0.00	0.00	---
Total	3.33	4.83	1.87	2.60	1.98	3.18	3.67	0.18	4.46	---	---	1.14

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