

Water-Data Report 2007

02111000 YADKIN RIVER AT PATTERSON, NC

Upper Pee Dee Basin
Upper Yadkin Subbasin

LOCATION.--Lat 35°59'27", long 81°33'30" referenced to North American Datum of 1983, Caldwell County, NC, Hydrologic Unit 03040101, on left bank 200 ft upstream from bridge on Secondary Highway 268, 0.4 mi upstream from Warrior Creek, 0.5 mi south of Patterson, 2.0 mi downstream of Walnut Branch, and at river mile 416.

DRAINAGE AREA.--28.8 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1303.

REVISED RECORDS.--WSP 1303: 1940(m), 1947-48(M). WSP 1553: 1948(P). WDR NC-80-1: 1975(P), drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,211.47 ft above NGVD of 1929. Prior to Feb. 9, 1940, nonrecording gage at present site, at datum 1,212.47 ft. Feb. 9, 1940, to Oct. 20, 1970, recording gage at present site, at datum 1,212.47 ft. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Maximum discharge, for period of record, from rating curve extended above 1,400 ft³/s on basis of computation of peak flow over dam 1 mi upstream at gage heights 4.58, 6.60, 7.70, and 12.70 ft.

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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	17	23	114	336	35	65	40	29	27	19	15	11
2	17	27	83	158	34	238	38	28	36	18	14	11
3	16	22	61	105	33	93	37	28	24	17	13	10
4	16	22	51	83	32	66	36	32	21	16	13	9.6
5	26	21	45	93	e32	55	34	30	19	16	12	9.4
6	26	20	41	92	e32	49	33	30	18	16	12	9.4
7	18	33	38	101	32	45	33	27	17	15	11	9.3
8	19	106	35	247	31	42	33	26	20	14	11	9.2
9	18	53	33	151	30	40	32	27	18	13	11	8.9
10	17	40	32	107	30	38	32	26	16	24	10	8.5
11	17	36	31	85	29	37	34	39	16	28	10	8.9
12	17	39	30	74	29	35	38	41	17	17	14	8.9
13	16	32	30	67	31	34	31	30	17	15	12	8.5
14	16	30	28	61	35	34	31	27	42	15	9.5	36
15	16	32	28	56	30	34	55	25	66	14	9.2	22
16	16	231	27	52	29	225	46	25	26	15	8.8	12
17	63	108	26	48	29	132	39	25	22	15	8.7	11
18	36	69	25	46	29	83	38	23	20	18	8.1	10
19	25	54	25	45	e28	66	38	23	19	14	7.8	9.9
20	29	45	24	42	28	59	38	22	19	13	8.0	9.6
21	23	40	24	47	31	58	35	22	17	13	7.8	10
22	22	40	185	53	29	52	34	21	16	12	7.8	10
23	21	39	159	45	27	48	33	21	16	12	7.6	9.7
24	20	34	87	42	27	46	33	21	17	29	9.4	9.2
25	20	32	110	41	42	44	33	20	21	45	9.0	9.1
26	20	31	106	39	36	42	33	20	24	39	13	9.1
27	26	29	79	38	32	41	34	20	17	22	17	9.0
28	55	28	65	38	31	39	31	19	19	20	15	8.6
29	30	28	56	35	---	48	30	18	19	19	16	7.9
30	26	34	51	35	---	41	30	18	30	17	13	8.0
31	24	---	82	34	---	39	---	18	---	16	16	---
Total	728	1,378	1,811	2,496	873	1,968	1,062	781	676	576	349.7	323.7
Mean	23.5	45.9	58.4	80.5	31.2	63.5	35.4	25.2	22.5	18.6	11.3	10.8
Max	63	231	185	336	42	238	55	41	66	45	17	36
Min	16	20	24	34	27	34	30	18	16	12	7.6	7.9
Cfsm	0.82	1.59	2.03	2.80	1.08	2.20	1.23	0.87	0.78	0.65	0.39	0.37
In.	0.94	1.78	2.34	3.22	1.13	2.54	1.37	1.01	0.87	0.74	0.45	0.42

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2007, BY WATER YEAR (WY)

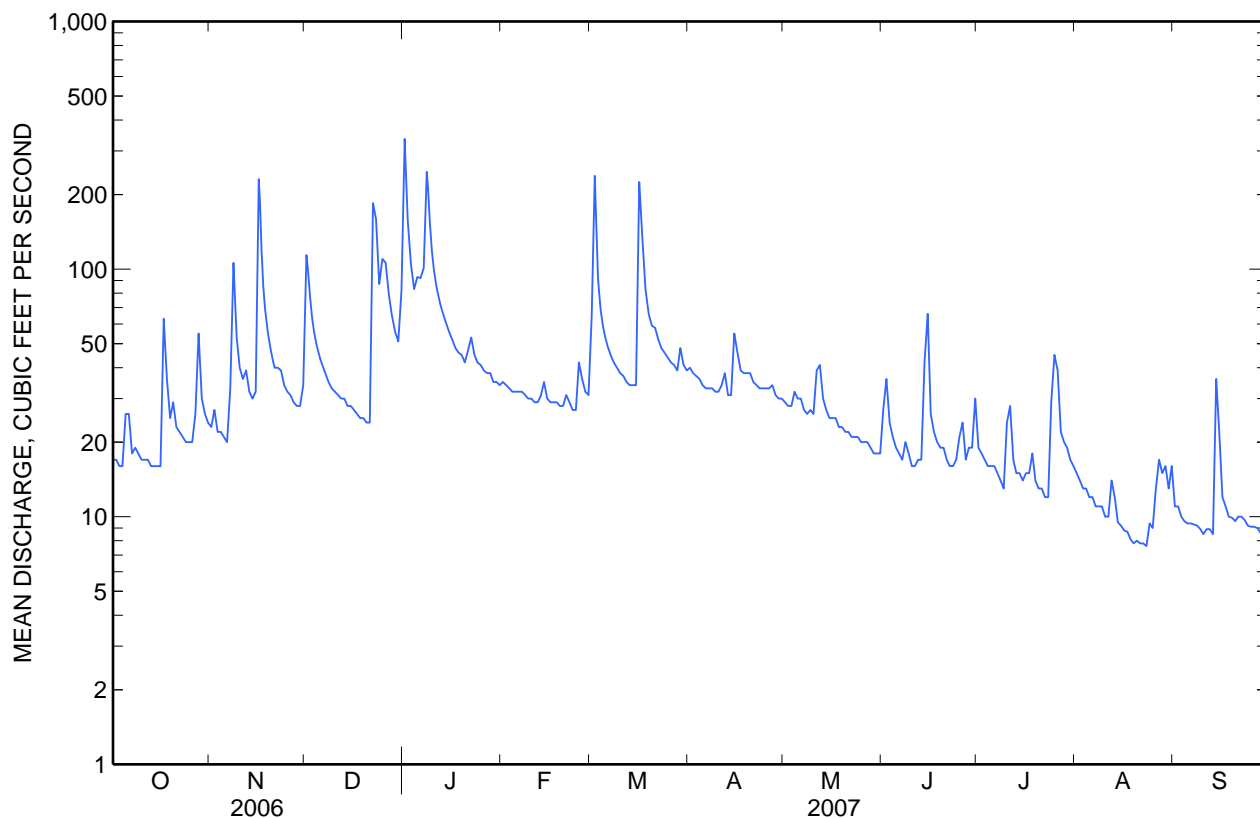
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	35.7	41.5	46.0	51.4	59.9	71.3	68.1	52.7	48.6	40.2	43.5	37.0
Max	149	140	98.8	132	143	160	164	125	132	122	194	168
(WY)	(1991)	(1978)	(1974)	(1946)	(1960)	(1993)	(1980)	(1973)	(2003)	(2003)	(1940)	(2004)
Min	8.45	9.07	11.8	11.4	17.4	23.7	26.5	16.5	13.0	9.04	6.69	6.95
(WY)	(1955)	(1982)	(1956)	(1956)	(2001)	(1988)	(1981)	(2001)	(2002)	(1988)	(2002)	(1954)

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SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1940 - 2007	
Annual total	13,294		13,022.4			
Annual mean	36.4		35.7		49.6	
Highest annual mean					78.6	2003
Lowest annual mean					21.0	2001
Highest daily mean	231	Nov 16	336	Jan 1	2,130	Aug 13, 1940
Lowest daily mean	11	Aug 4	7.6	Aug 23	3.6	Sep 12, 2002
Annual seven-day minimum	11	Aug 2	8.0	Aug 17	4.1	Sep 7, 2002
Maximum peak flow			567	Jan 1	^a 16,200	Aug 13, 1940
Maximum peak stage			3.45	Jan 1	12.70	Aug 13, 1940
Instantaneous low flow			7.1	Aug 23	3.0	May 15, 1940
Annual runoff (cfsm)	1.26		1.24		1.72	
Annual runoff (inches)	17.17		16.82		23.39	
10 percent exceeds	65		64		87	
50 percent exceeds	29		28		37	
90 percent exceeds	16		10		16	

^a See Remarks.



02111000 YADKIN RIVER AT PATTERSON, NC—Continued**CLIMATOLOGICAL RECORDS**

PERIOD OF RECORD.--October 1999 to current year.

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

REMARKS.--Gage is operated in cooperation with U.S. Army Corps of Engineers, Wilmington District. 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	0.03	0.15	0.59	0.04	1.75	0.10	0.00	0.34	0.00	0.00	0.00
2	0.00	0.08	0.00	0.00	0.00	0.10	0.01	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	0.17	0.24	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.11	0.00	0.00	0.07	0.00
5	0.78	0.00	0.00	0.61	0.00	0.00	0.00	0.09	0.05	0.00	0.00	0.00
6	0.24	0.00	0.00	0.01	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00
7	0.00	1.13	0.00	1.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.07	0.36	0.00	0.29	0.00	0.00	0.00	0.00	0.30	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	1.10	0.00	0.00
11	0.18	0.46	0.00	0.00	0.00	0.00	0.36	0.66	0.00	0.02	0.00	0.00
12	0.01	0.00	0.00	0.00	0.00	0.00	0.02	0.01	0.00	0.00	0.00	0.00
13	0.00	0.00	0.04	0.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	2.15	0.00	0.00	2.41
15	0.00	1.06	0.00	0.00	0.00	0.02	0.96	0.00	0.08	0.00	0.00	0.02
16	0.09	0.64	0.00	0.00	0.00	2.04	0.00	0.01	0.01	0.00	0.00	0.00
17	1.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.43	0.00	0.00
18	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.18	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.00	0.00
20	0.10	0.00	0.00	0.00	0.00	0.13	0.01	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.04	0.67	0.16	0.13	0.00	0.00	0.00	0.00	0.03	0.07
22	0.00	0.29	2.24	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.92	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.67	0.33	0.00	0.00
25	0.00	0.00	0.83	0.00	0.62	0.00	0.01	0.00	0.22	1.50	0.00	0.00
26	0.00	0.00	0.01	0.00	0.00	0.00	0.06	0.00	0.01	0.01	0.01	0.00
27	0.81	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.58	0.00	0.00
28	0.02	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.14	0.23	0.09	0.00
29	0.00	0.03	0.00	0.00	---	0.30	0.00	0.00	0.84	0.19	0.00	0.00
30	0.00	0.17	0.00	0.00	---	0.00	0.00	0.00	0.03	0.00	0.07	0.00
31	0.00	---	1.63	0.00	---	0.00	---	0.06	---	0.00	0.00	---
Total	3.97	4.25	4.95	3.22	1.16	4.57	1.86	1.14	5.08	4.55	1.19	2.50

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