

Water-Data Report 2008

02112120 ROARING RIVER NEAR ROARING RIVER, NC

Upper Pee Dee Basin
Upper Yadkin Subbasin

LOCATION.--Lat 36°15'01", long 81°02'40" referenced to North American Datum of 1983, Wilkes County, NC, Hydrologic Unit 03040101, on left bank at downstream end of old bridge pier, 800 ft upstream from bridge on Secondary Road 1990, 3.8 mi northwest of Roaring River, and 4.1 mi upstream from mouth.

DRAINAGE AREA.--128 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.-- April 1964 to current year. Occasional low-flow measurements water years 1925, 1947, 1949-56, 1963.

REVISED RECORDS.--WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 964.85 ft above NGVD of 1929. Prior to May 1, 1964, nonrecording gage on downstream side of bridge at same site and datum. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Maximum discharge for period of record and current water year, from rating curve extended above 2,400 ft³/s on basis of slope-area measurement of peak flow at gage heights 22.54, 14.40, and 10.83 ft. Minimum discharge for period of record and current water year also occurred August 13. 23-25, 2008.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1916 reached a stage of about 28 ft; estimated discharge, 45,000 ft³/s. The flood of August 1940 reached a stage of about 24 ft; estimated discharge, 31,000 ft³/s, from information by local residents and rating curve extended as explained above. A discharge of 24 ft³/s was measured September 18, 1956.

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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	33	79	58	170	196	83	105	143	62	39	25	52
2	34	73	57	130	185	80	101	129	59	32	25	46
3	34	70	58	e110	126	78	101	119	56	30	26	41
4	34	66	56	e103	128	88	141	114	58	29	22	38
5	36	65	57	e97	149	216	131	105	55	43	19	36
6	36	64	56	93	144	131	404	106	51	77	18	34
7	36	61	55	89	214	172	247	98	49	68	18	33
8	34	61	55	86	156	269	187	107	52	72	19	32
9	32	61	57	84	131	211	161	139	48	51	19	117
10	38	61	57	86	114	167	146	98	51	54	16	201
11	30	59	57	97	103	146	136	97	45	51	15	165
12	28	61	56	90	101	132	134	112	43	42	13	94
13	30	61	55	86	114	120	122	94	43	38	16	76
14	31	64	55	81	104	114	116	91	49	52	30	62
15	31	70	56	77	96	118	111	93	70	39	25	53
16	30	62	104	74	93	132	105	106	47	33	26	97
17	32	59	74	83	92	108	103	92	41	31	19	83
18	33	59	63	89	124	103	100	87	37	29	17	61
19	36	59	61	89	104	130	104	87	36	28	16	52
20	41	59	60	85	97	318	201	82	36	28	15	50
21	37	58	73	e80	93	189	154	80	36	25	14	47
22	34	59	71	e77	92	161	125	75	38	24	14	46
23	39	56	219	e74	90	142	115	73	44	24	13	42
24	92	55	192	71	86	130	108	75	38	29	13	41
25	606	56	114	69	85	121	103	72	32	25	13	39
26	1,050	69	106	e68	95	116	105	70	31	23	23	56
27	401	87	101	e67	98	111	116	68	32	23	1,310	765
28	158	65	119	66	85	108	283	72	44	22	242	292
29	110	61	261	67	82	107	239	79	36	22	134	149
30	93	59	227	69	---	105	168	69	61	23	77	107
31	85	---	271	64	---	104	---	67	---	22	59	---
Total	3,374	1,899	2,961	2,671	3,377	4,310	4,472	2,899	1,380	1,128	2,311	3,007
Mean	109	63.3	95.5	86.2	116	139	149	93.5	46.0	36.4	74.5	100
Max	1,050	87	271	170	214	318	404	143	70	77	1,310	765
Min	28	55	55	64	82	78	100	67	31	22	13	32
Cfs/m	0.85	0.49	0.75	0.67	0.91	1.09	1.16	0.73	0.36	0.28	0.58	0.78
In.	0.98	0.55	0.86	0.78	0.98	1.25	1.30	0.84	0.40	0.33	0.67	0.87

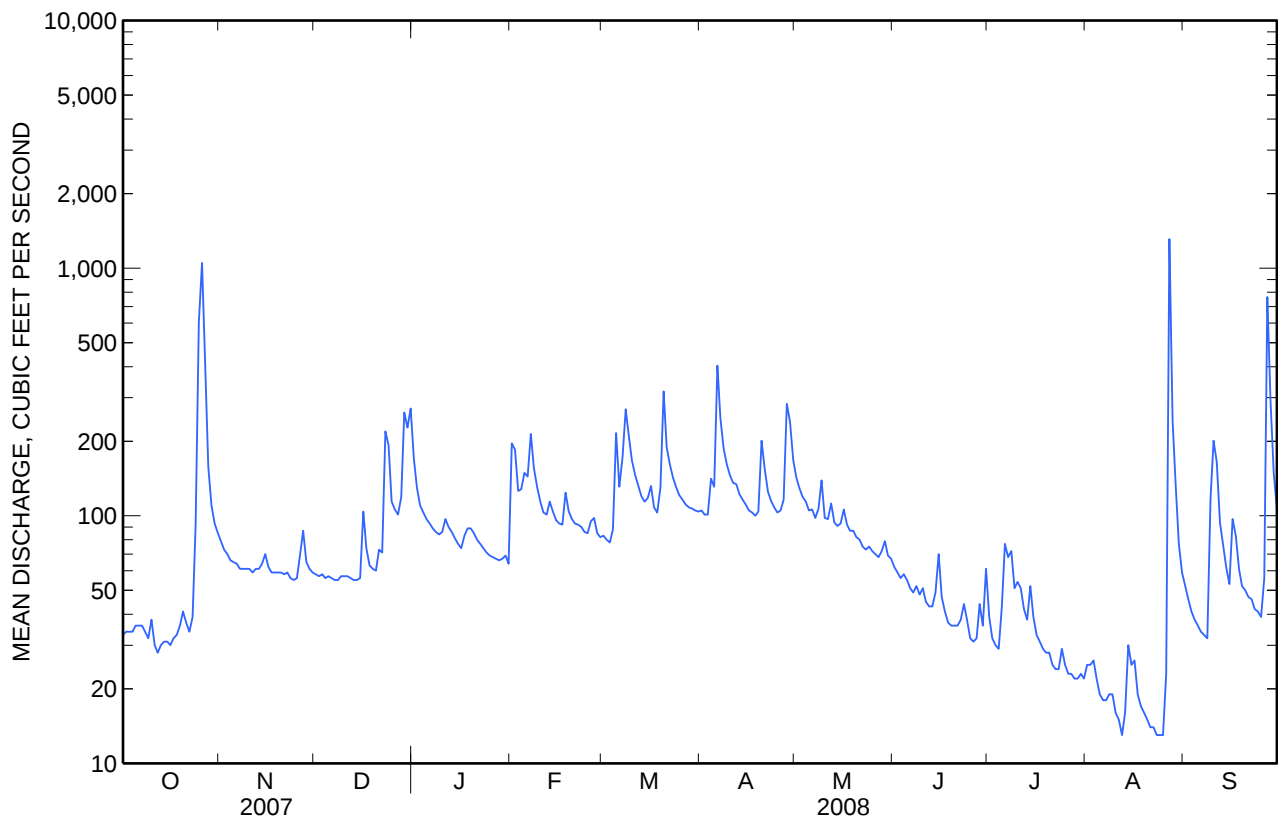
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	144	155	171	197	209	248	243	196	182	148	141	140
Max	422	426	389	406	413	610	637	430	453	349	461	449
(WY)	(1977)	(1978)	(1997)	(1996)	(1990)	(1993)	(1980)	(1991)	(2003)	(1989)	(1994)	(2004)
Min	42.0	46.9	59.2	70.2	67.4	95.0	97.9	66.2	39.5	36.4	23.6	46.3
(WY)	(2001)	(2002)	(2001)	(2001)	(2001)	(2006)	(2006)	(2002)	(2002)	(2008)	(2002)	(2007)

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SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1964 - 2008	
Annual total	44,703		33,789			
Annual mean	122		92.3		181	
Highest annual mean					269	1993
Lowest annual mean					69.8	2002
Highest daily mean	1,820	Jan 1	1,310	Aug 27	7,460	Aug 17, 1994
Lowest daily mean	28	Sep 13	13	Aug 12	13	Aug 12, 2008
Annual seven-day minimum	30	Aug 18	14	Aug 19	14	Aug 19, 2008
Maximum peak flow			^a 4,010	Aug 27	^a 26,600	Oct 17, 1975
Maximum peak stage			7.51	Aug 27	22.54	Oct 17, 1975
Instantaneous low flow			^a 13	Aug 12	^a 13	Aug 12, 2008
Annual runoff (cfsm)	0.957		0.721		1.42	
Annual runoff (inches)	12.99		9.82		19.26	
10 percent exceeds	209		155		300	
50 percent exceeds	79		70		139	
90 percent exceeds	35		28		69	

^aSee Remarks.

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PERIOD OF RECORD.--October 2002 to current year.

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

REMARKS.--Gage is operated in cooperation with Yadkin, Inc., the North Carolina Department of Environment and Natural Resources, and the 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 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	1.11	0.01	0.04	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	1.09	0.00
3	0.00	0.00	0.01	0.00	0.15	0.00	0.57	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.32	0.56	0.24	0.00	0.00	0.13	0.00	0.00
5	0.01	0.00	0.02	0.00	0.00	0.00	0.20	0.00	0.00	0.36	0.00	0.00
6	0.00	0.00	0.00	0.00	0.32	0.00	0.40	0.00	0.00	0.30	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.69	0.01	0.00	0.00	0.49	0.03	0.00
8	0.00	0.00	0.00	0.01	0.00	0.25	0.00	1.30	0.00	0.01	0.00	0.35
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.23	0.00	0.90
10	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00	0.46	0.00	0.04
11	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.22	0.00	0.00	0.00	0.08
12	0.00	0.01	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.03
13	0.00	0.06	0.00	0.00	0.24	0.00	0.00	0.00	0.04	0.69	0.48	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00
15	0.00	0.23	0.50	0.00	0.00	0.52	0.00	0.11	0.00	0.00	0.26	0.00
16	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	1.20
17	0.00	0.00	0.00	0.07	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.37	0.01	0.00	0.00	0.12	0.00	0.00	0.00	0.00
19	0.17	0.00	0.00	0.00	0.00	0.89	0.54	0.01	0.00	0.00	0.00	0.00
20	0.00	0.00	0.07	0.00	0.00	0.00	0.35	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.26	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00
22	0.03	0.03	0.06	0.00	0.00	0.00	0.00	0.00	0.03	0.01	0.00	0.00
23	0.09	0.00	0.94	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.00	0.00
24	1.54	0.00	0.01	0.00	0.01	0.00	0.00	0.13	0.00	0.00	0.00	0.00
25	2.76	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.01
26	1.39	0.42	0.17	0.00	0.39	0.00	0.54	0.00	0.00	0.00	1.32	1.47
27	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.03	0.00	3.35	0.47
28	0.00	0.00	0.96	0.00	0.00	0.00	0.34	0.14	0.01	0.10	0.10	0.00
29	0.00	0.00	0.02	0.07	0.00	0.09	0.00	0.00	0.09	0.00	0.00	0.00
30	0.00	0.00	0.71	0.07	---	0.03	0.00	0.00	0.00	0.04	0.00	0.11
31	0.00	---	0.00	0.03	---	0.05	---	0.00	---	0.03	0.00	---
Total	5.99	0.88	3.85	1.21	2.72	3.09	3.81	2.25	0.33	3.22	6.67	4.66

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