

Water-Data Report 2010

## 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 mi<sup>2</sup>.

### **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 National Geodetic Vertical Datum of 1929. Prior to May 1, 1964, nonrecording gage on downstream side of bridge at same site and datum. Satellite telemetry at streamgage.

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 ft<sup>3</sup>/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 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 ft<sup>3</sup>/s. The flood of August 1940 reached a stage of about 24 ft; estimated discharge, 31,000 ft<sup>3</sup>/s, from information by local residents and rating curve extended as explained above. A discharge of 24 ft<sup>3</sup>/s was measured September 18, 1956.

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**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010**  
**DAILY MEAN VALUES**

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	107	276	118	241	282	231	307	162	159	98	141	87
2	104	195	467	221	367	235	290	161	204	93	106	85
3	101	157	577	210	420	233	279	227	185	89	100	83
4	92	139	278	e195	363	222	267	191	175	89	92	79
5	95	129	251	e186	627	212	257	165	181	86	136	79
6	94	120	217	e178	921	207	251	157	140	82	142	80
7	94	115	193	e171	520	203	243	150	129	80	96	79
8	86	111	188	e166	433	204	277	147	122	78	84	83
9	85	107	1,010	e162	384	203	361	139	124	96	80	89
10	85	121	446	e158	357	205	250	139	128	100	78	78
11	84	646	302	e156	317	211	235	144	117	81	119	87
12	86	470	248	e154	302	271	223	150	125	141	269	91
13	91	304	334	e152	289	646	217	144	136	367	118	79
14	98	226	305	e151	271	371	210	140	136	230	105	75
15	128	190	263	e150	273	305	207	173	131	106	181	72
16	108	169	229	e149	257	274	202	171	129	95	160	70
17	95	156	209	678	245	258	198	361	148	110	126	72
18	87	157	212	368	237	247	192	216	115	124	251	69
19	85	199	243	280	e227	236	188	184	112	150	213	68
20	85	175	206	252	e230	226	188	164	205	108	204	67
21	84	159	200	280	e240	232	221	154	123	90	147	66
22	82	151	196	316	e280	802	190	164	126	83	150	67
23	84	156	196	281	e305	463	184	169	114	83	124	68
24	165	147	203	795	e310	365	182	150	110	76	113	65
25	123	141	1,350	3,070	e280	328	231	160	110	72	131	63
26	103	136	795	738	257	345	190	152	108	69	115	116
27	116	129	462	502	250	296	180	140	100	175	122	182
28	260	124	359	405	241	375	177	136	182	179	106	250
29	155	122	301	350	---	479	167	133	113	147	100	111
30	133	123	266	361	---	377	164	130	100	102	95	119
31	138	---	256	303	---	333	---	129	---	94	91	---
<b>Total</b>	3,333	5,550	10,880	11,779	9,485	9,595	6,728	5,102	4,087	3,573	4,095	2,679
<b>Mean</b>	108	185	351	380	339	310	224	165	136	115	132	89.3
<b>Max</b>	260	646	1,350	3,070	921	802	361	361	205	367	269	250
<b>Min</b>	82	107	118	149	227	203	164	129	100	69	78	63
<b>Cfsm</b>	0.84	1.45	2.74	2.97	2.65	2.42	1.75	1.29	1.06	0.90	1.03	0.70
<b>In.</b>	0.97	1.61	3.16	3.42	2.76	2.79	1.96	1.48	1.19	1.04	1.19	0.78

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2010, BY WATER YEAR (WY)

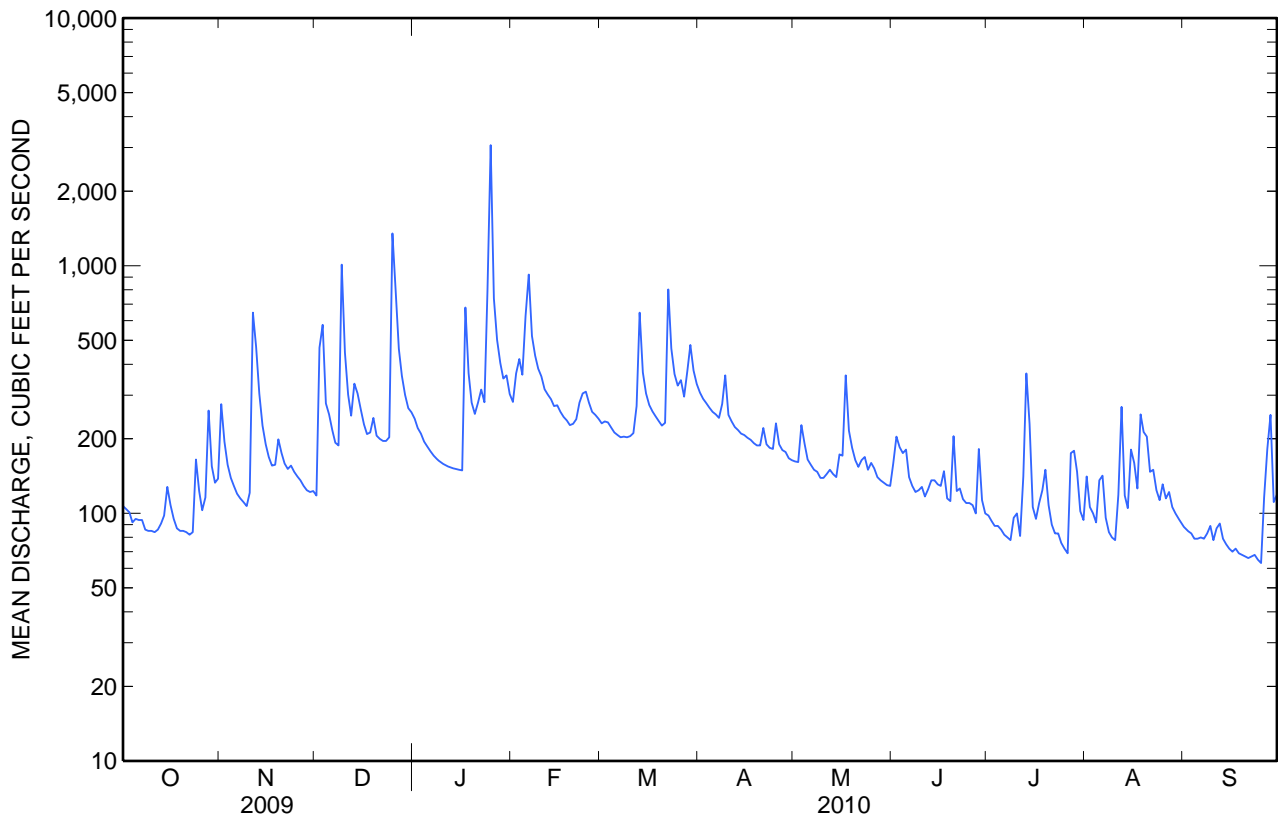
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Mean</b>	142	154	175	202	210	248	242	198	183	147	140	138
<b>Max</b>	422	426	389	406	413	610	637	430	453	349	461	449
<b>(WY)</b>	(1977)	(1978)	(1997)	(1996)	(1990)	(1993)	(1980)	(1991)	(2003)	(1989)	(1994)	(2004)
<b>Min</b>	42.0	46.9	59.2	70.2	67.4	95.0	97.9	66.2	39.5	36.4	23.6	46.3
<b>(WY)</b>	(2001)	(2002)	(2001)	(2001)	(2001)	(2006)	(2006)	(2002)	(2002)	(2008)	(2002)	(2007)

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SUMMARY STATISTICS

	Calendar Year 2009		Water Year 2010		Water Years 1964 - 2010	
<b>Annual total</b>	68,547		76,886			
<b>Annual mean</b>	188		211		182	
<b>Highest annual mean</b>					269	1993
<b>Lowest annual mean</b>					69.8	2002
<b>Highest daily mean</b>	1,800	Jan 7	3,070	Jan 25	7,460	Aug 17, 1994
<b>Lowest daily mean</b>	61	Sep 7	63	Sep 25	13	Aug 12, 2008
<b>Annual seven-day minimum</b>	65	Sep 2	66	Sep 19	14	Aug 19, 2008
<b>Maximum peak flow</b>			<sup>a</sup> 7,530	Jan 25	<sup>a</sup> 26,600	Oct 17, 1975
<b>Maximum peak stage</b>			11.25	Jan 25	22.54	Oct 17, 1975
<b>Instantaneous low flow</b>			61	Sep 25	<sup>a</sup> 13	Aug 12, 2008
<b>Annual runoff (cfsm)</b>	1.47		1.65		1.42	
<b>Annual runoff (inches)</b>	19.92		22.34		19.28	
<b>10 percent exceeds</b>	304		360		301	
<b>50 percent exceeds</b>	142		162		139	
<b>90 percent exceeds</b>	86		85		70	

<sup>a</sup> See Remarks.



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## CLIMATOLOGICAL RECORDS

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.

**PRECIPITATION, TOTAL, INCHES**  
**WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010**  
**DAILY SUM VALUES**

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0.00	0.47	0.00	0.00	---	0.00	0.00	0.00	0.55	0.00	0.01	0.00
2	0.00	0.00	1.97	0.00	---	0.00	0.00	0.00	0.17	0.00	0.01	0.00
3	0.00	0.00	0.01	0.00	---	---	0.00	0.46	0.02	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.43	0.00	0.03	0.00
5	0.16	0.00	0.29	0.00	---	0.00	0.00	0.00	0.00	0.00	0.53	0.00
6	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.79	0.00	0.00	0.00	0.70	0.00	0.00	0.21	0.00	0.10
9	0.00	0.00	0.84	0.00	0.05	0.00	0.00	0.00	0.06	0.23	0.00	0.00
10	0.00	1.12	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.04
11	0.00	1.27	0.00	0.00	0.00	0.26	0.00	0.04	0.00	0.00	0.99	0.29
12	0.17	0.07	0.00	0.00	0.00	1.28	0.00	0.01	0.00	0.49	0.01	0.00
13	0.01	0.00	0.69	0.00	0.02	0.11	0.00	0.00	0.00	0.78	0.00	0.00
14	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.28	0.36	0.01	0.01	0.00
15	0.08	0.00	0.00	0.00	0.10	0.00	0.00	0.02	0.02	0.00	1.83	0.00
16	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.78	0.00	0.00	0.00	0.00
17	0.01	0.00	0.00	1.42	0.00	0.00	0.00	0.65	0.00	0.00	0.59	0.01
18	0.00	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.71	0.51	0.00
19	0.00	0.08	---	0.00	0.00	0.00	0.00	0.00	0.02	0.13	0.13	0.00
20	0.00	0.00	---	0.07	0.00	0.00	0.26	0.00	0.00	0.50	0.00	0.00
21	0.00	0.00	---	0.45	0.00	0.64	0.27	0.04	0.00	0.00	0.08	0.00
22	0.00	0.13	---	0.02	0.06	0.63	0.00	0.04	0.00	0.01	0.04	0.00
23	0.04	0.20	---	0.00	0.01	0.00	0.00	0.00	0.59	0.00	0.00	0.00
24	0.46	0.00	---	2.45	0.01	0.00	0.27	0.05	0.00	0.00	0.01	0.00
25	0.00	0.00	---	0.81	0.00	0.24	0.12	0.00	0.06	0.00	0.15	0.00
26	0.00	0.07	---	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.15	0.75
27	0.99	0.00	---	0.00	0.00	0.00	0.09	0.00	0.15	0.52	0.01	1.28
28	0.09	0.00	---	0.00	0.00	0.89	0.00	0.00	0.27	0.16	0.00	0.01
29	0.00	0.00	---	0.00	---	0.01	0.00	0.00	0.00	0.00	0.00	0.02
30	0.00	0.04	---	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.01
31	0.78	---	---	---	---	0.00	---	0.08	---	0.46	0.00	---
<b>Total</b>	3.14	3.81	---	---	---	---	1.71	2.45	2.70	4.21	5.10	2.51

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