

Water-Data Report 2010

02118000 SOUTH YADKIN RIVER NEAR MOCKSVILLE, NC

Upper Pee Dee Basin
South Yadkin Subbasin

LOCATION.--Lat 35°50'42", long 80°39'32" referenced to North American Datum of 1983, Rowan County, NC, Hydrologic Unit 03040102, on right bank 90 ft downstream of Secondary Road 1972 bridge, 1 mi upstream from Little Creek, 4 mi downstream of Fifth Creek, 4.5 mi upstream from Hunting Creek, and 6.5 mi southwest of Mocksville.

DRAINAGE AREA.--306 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1938 to current year.

REVISED RECORDS.--WDR NC-80-1: Drainage area. WDR-US-2009: 2003 (maximum discharge), 2004 (maximum discharge), 2007 (maximum discharge).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 663.62 ft above National Geodetic Vertical Datum of 1929. Satellite telemetry at streamgage.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Minimum discharge for period of record also occurred August 15, 2002.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of October 3, 1929, reached a stage of 22.6 ft, from floodmark established by local resident (discharge, about 22,000 ft³/s).

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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	154	1,250	262	481	534	415	580	303	397	168	180	147
2	148	1,100	432	446	626	414	526	299	457	161	191	142
3	148	471	1,500	414	1,290	433	491	306	492	154	188	136
4	147	346	807	390	1,320	413	467	336	330	151	180	130
5	146	289	538	380	1,820	396	446	308	301	147	172	124
6	155	259	500	363	4,930	383	433	283	287	143	256	122
7	156	242	428	350	4,250	382	416	270	272	137	256	122
8	148	232	390	349	1,370	375	434	259	255	133	186	122
9	140	225	1,550	324	968	372	1,220	248	247	129	166	127
10	190	223	1,690	295	852	370	656	241	248	136	158	133
11	158	2,030	713	318	726	372	504	244	252	151	151	123
12	149	4,200	526	353	659	422	458	262	236	143	154	129
13	159	2,600	514	312	630	1,040	431	269	240	251	144	142
14	176	749	685	301	590	874	410	258	248	267	136	129
15	208	532	543	301	562	604	396	307	256	247	136	118
16	206	438	468	299	564	512	387	429	320	176	283	113
17	183	384	419	1,080	523	469	374	2,070	276	165	220	106
18	171	346	403	1,170	501	449	357	1,890	238	228	181	105
19	161	355	e470	633	485	431	342	760	220	308	663	105
20	156	343	458	510	471	413	340	538	213	211	1,000	104
21	156	312	431	484	461	405	351	448	205	181	379	103
22	155	292	420	601	474	560	366	423	197	176	271	102
23	153	364	408	530	497	765	341	496	193	163	234	104
24	159	392	409	604	486	551	331	417	186	156	204	103
25	161	342	1,570	5,000	480	489	393	371	201	149	196	101
26	152	316	3,810	7,810	451	493	436	364	190	190	202	129
27	156	302	2,310	1,820	438	482	356	325	182	378	186	438
28	280	287	841	822	430	491	344	370	174	272	172	663
29	308	273	638	669	---	1,430	324	687	173	319	165	435
30	227	267	539	647	---	1,020	310	397	173	229	160	300
31	199	---	505	608	---	702	---	436	---	182	153	---
Total	5,365	19,761	25,177	28,664	27,388	16,927	13,220	14,614	7,659	6,001	7,323	4,957
Mean	173	659	812	925	978	546	441	471	255	194	236	165
Max	308	4,200	3,810	7,810	4,930	1,430	1,220	2,070	492	378	1,000	663
Min	140	223	262	295	430	370	310	241	173	129	136	101
Cfsm	0.57	2.15	2.65	3.02	3.20	1.78	1.44	1.54	0.83	0.63	0.77	0.54
In.	0.65	2.40	3.06	3.48	3.33	2.06	1.61	1.78	0.93	0.73	0.89	0.60

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2010, BY WATER YEAR (WY)

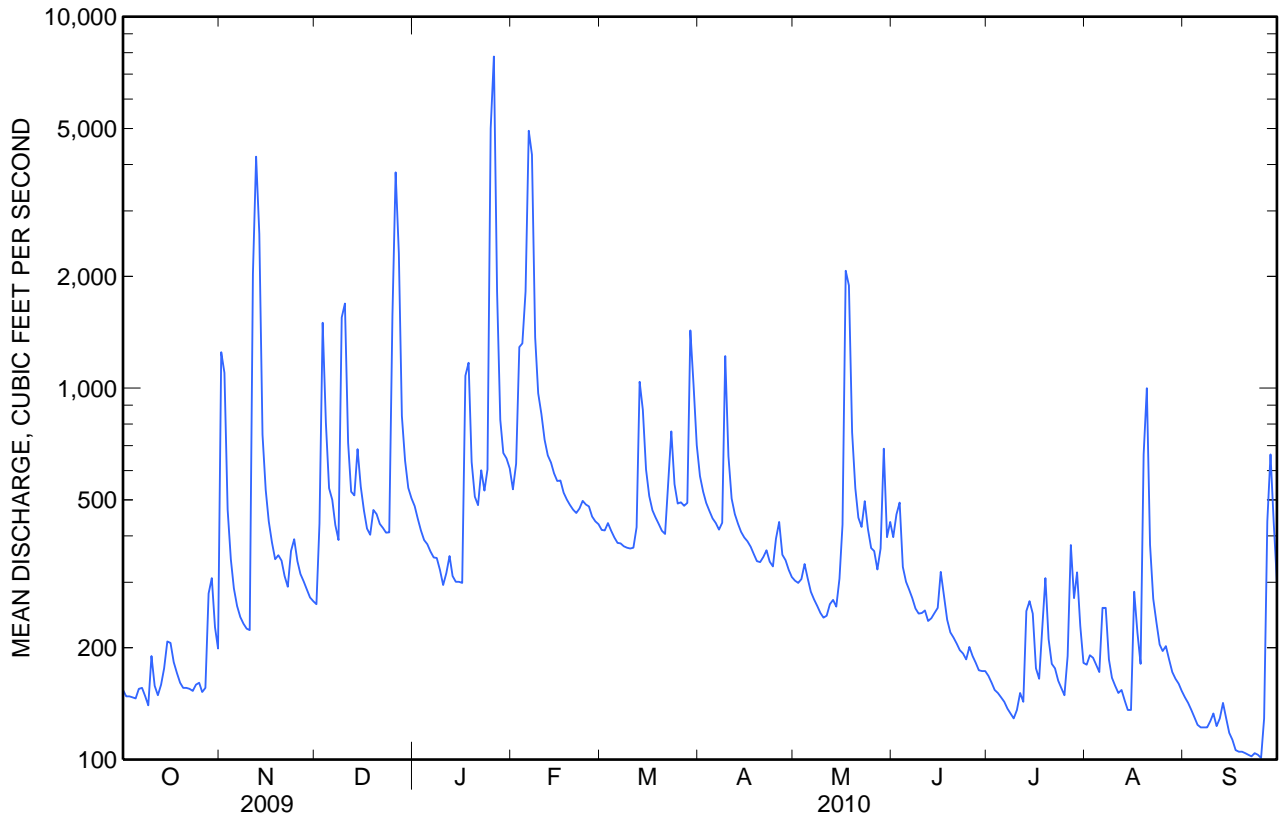
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	239	259	338	418	478	531	458	354	295	224	218	224
Max	1,246	791	812	1,088	1,458	1,485	1,110	886	889	628	706	880
(WY)	(1965)	(1958)	(2010)	(1978)	(1960)	(1975)	(1958)	(1984)	(2003)	(1941)	(1970)	(1979)
Min	41.0	63.2	102	97.7	141	167	114	91.4	37.6	24.6	14.8	34.5
(WY)	(2002)	(2002)	(1956)	(1956)	(2001)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)

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SUMMARY STATISTICS

	Calendar Year 2009		Water Year 2010		Water Years 1939 - 2010	
Annual total	152,214		177,056			
Annual mean	417		485		336	
Highest annual mean					592	1960
Lowest annual mean					87.0	2002
Highest daily mean	5,430	May 28	7,810	Jan 26	11,800	Mar 21, 2003
Lowest daily mean	124	Feb 6	101	Sep 25	3.0	Aug 13, 2002
Annual seven-day minimum	146	Feb 5	103	Sep 19	3.3	Aug 9, 2002
Maximum peak flow			10,500	Jan 26	13,000	Mar 21, 2003
Maximum peak stage			18.04	Jan 26	20.28	Mar 21, 2003
Instantaneous low flow			99	Sep 25	^a 2.8	Aug 14, 2002
Annual runoff (cfsm)	1.36		1.59		1.10	
Annual runoff (inches)	18.50		21.52		14.90	
10 percent exceeds	696		762		576	
50 percent exceeds	231		336		232	
90 percent exceeds	152		147		108	

^a See Remarks.



02118000 SOUTH YADKIN RIVER NEAR MOCKSVILLE, NC—Continued**CLIMATOLOGICAL RECORDS**

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

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

REMARKS.--Frozen precipitation collected in December, January, February and March is not reflected in daily or monthly totals.

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	2.28	0.00	0.01	---	0.00	0.00	0.00	0.07	0.00	0.13	0.00
2	0.00	0.00	1.25	0.00	---	---	0.00	0.00	1.56	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	---	---	0.00	0.34	0.01	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.20	0.00	0.16	0.00	---	0.00	0.00	0.00	0.00	0.00	0.76	0.00
6	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.00
8	0.00	0.00	0.57	0.01	0.00	0.00	1.80	0.00	0.01	0.00	0.05	0.02
9	0.00	0.00	0.70	0.00	0.23	0.00	0.01	0.00	0.00	0.16	0.13	0.01
10	0.44	0.77	0.00	0.00	0.02	0.01	0.00	0.00	0.00	0.01	0.00	0.00
11	0.00	2.39	0.00	0.00	0.00	0.18	0.00	0.04	0.00	0.00	0.00	0.10
12	0.28	0.45	0.00	0.00	0.20	0.93	0.00	0.00	0.05	0.34	0.47	0.02
13	0.00	0.01	0.45	0.00	0.00	0.12	0.00	0.00	0.54	0.88	0.00	0.00
14	0.58	0.00	0.01	0.00	0.00	0.01	0.00	0.16	0.24	0.01	0.00	0.00
15	0.04	0.00	0.02	0.00	0.10	0.00	0.00	0.01	0.24	0.00	0.01	0.00
16	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.89	0.10	0.05	0.00	0.00
17	0.03	0.00	0.00	1.39	0.00	0.00	0.00	2.16	0.00	0.27	0.00	0.00
18	0.00	0.16	---	0.01	0.00	0.00	0.00	0.15	0.00	0.00	0.60	0.00
19	0.00	0.02	---	0.00	0.00	0.00	0.00	0.10	0.00	0.00	2.69	0.00
20	0.00	0.01	---	0.00	0.00	0.00	0.02	0.01	0.00	0.02	0.26	0.00
21	0.00	0.00	---	0.50	0.00	0.20	0.17	0.07	0.00	0.00	0.00	0.00
22	0.00	0.21	---	0.01	0.36	0.33	0.00	0.27	0.00	0.09	0.00	0.00
23	0.00	0.32	0.00	0.00	0.01	0.00	0.00	0.00	0.03	0.06	0.00	0.00
24	0.58	0.00	0.00	2.10	0.08	0.00	0.20	0.11	0.15	0.00	0.11	0.00
25	0.00	0.00	1.68	0.38	0.01	0.01	0.42	0.12	0.01	0.60	0.00	0.82
26	0.00	0.16	0.01	0.00	0.00	0.18	0.00	0.01	0.00	2.70	0.00	1.62
27	1.01	---	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.55	0.00	1.13
28	0.11	---	0.00	0.00	0.00	1.30	0.00	0.50	0.00	0.00	0.00	0.12
29	0.00	---	0.00	---	---	0.52	0.00	0.02	0.01	0.00	0.00	0.29
30	0.00	---	0.05	---	---	0.01	0.00	0.00	0.00	0.00	0.00	0.49
31	0.72	---	0.12	---	---	0.00	---	0.82	---	0.03	0.00	---
Total	4.00	---	---	---	---	---	2.75	5.78	3.02	5.77	5.32	4.62

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