

Water-Data Report 2007

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 bridge on Secondary Road 1972, 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.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 663.62 ft above NGVD of 1929. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. The City of Statesville diverted an average of 0.76 ft³/s, during the months of August and September 2007, for water supply and waste treatment dilution. Minimum discharge for period of record also occurred August 15, 2002. Minimum discharge for current water year also occurred September 13.

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 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	93	144	210	2,650	225	293	242	200	106	222	87	42
2	87	136	208	3,720	238	2,320	239	194	104	134	79	39
3	83	131	195	1,870	229	2,960	233	188	122	116	72	36
4	81	125	187	652	216	858	226	190	189	110	68	33
5	80	119	181	534	209	543	217	204	158	104	66	31
6	77	119	177	678	205	431	211	203	128	99	67	29
7	79	152	176	549	207	374	209	193	115	98	61	27
8	81	439	170	1,460	211	342	205	181	110	94	58	26
9	87	488	164	1,350	203	318	207	180	109	89	56	26
10	86	284	167	705	200	299	207	180	106	91	53	25
11	82	221	167	511	196	287	216	177	99	102	50	24
12	79	256	164	426	195	272	329	175	106	173	48	23
13	109	200	164	379	213	261	273	179	108	113	47	23
14	89	177	164	349	553	256	233	166	109	96	45	43
15	79	166	163	325	396	250	629	158	101	92	e43	614
16	78	1,570	162	310	287	739	1,100	154	111	89	e41	238
17	110	1,530	159	285	258	941	526	157	139	86	e40	119
18	284	570	156	270	246	519	376	152	108	96	e40	90
19	220	379	154	274	232	389	324	145	96	83	e38	79
20	158	306	152	264	226	341	298	143	91	86	e36	74
21	155	268	150	255	231	315	279	137	94	99	e35	71
22	136	581	172	362	233	314	261	133	88	110	38	71
23	121	538	266	342	217	292	248	132	83	85	41	70
24	111	366	299	291	205	277	239	133	83	82	44	66
25	104	298	547	270	258	266	234	131	147	147	41	63
26	102	263	1,280	255	370	255	227	126	131	143	38	61
27	110	242	614	247	313	247	225	121	111	103	41	54
28	267	228	394	249	266	247	232	118	141	98	38	50
29	302	219	317	236	---	258	217	114	252	104	40	47
30	200	212	279	226	---	261	207	111	210	91	45	44
31	161	---	261	226	---	245	---	108	---	88	53	---
Total	3,891	10,727	8,019	20,520	7,038	15,970	8,869	4,883	3,655	3,323	1,549	2,238
Mean	126	358	259	662	251	515	296	158	122	107	50.0	74.6
Max	302	1,570	1,280	3,720	553	2,960	1,100	204	252	222	87	614
Min	77	119	150	226	195	245	205	108	83	82	35	23
Cfsm	0.41	1.17	0.85	2.16	0.82	1.68	0.97	0.51	0.40	0.35	0.16	0.24
In.	0.47	1.30	0.97	2.49	0.86	1.94	1.08	0.59	0.44	0.40	0.19	0.27

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2007, BY WATER YEAR (WY)

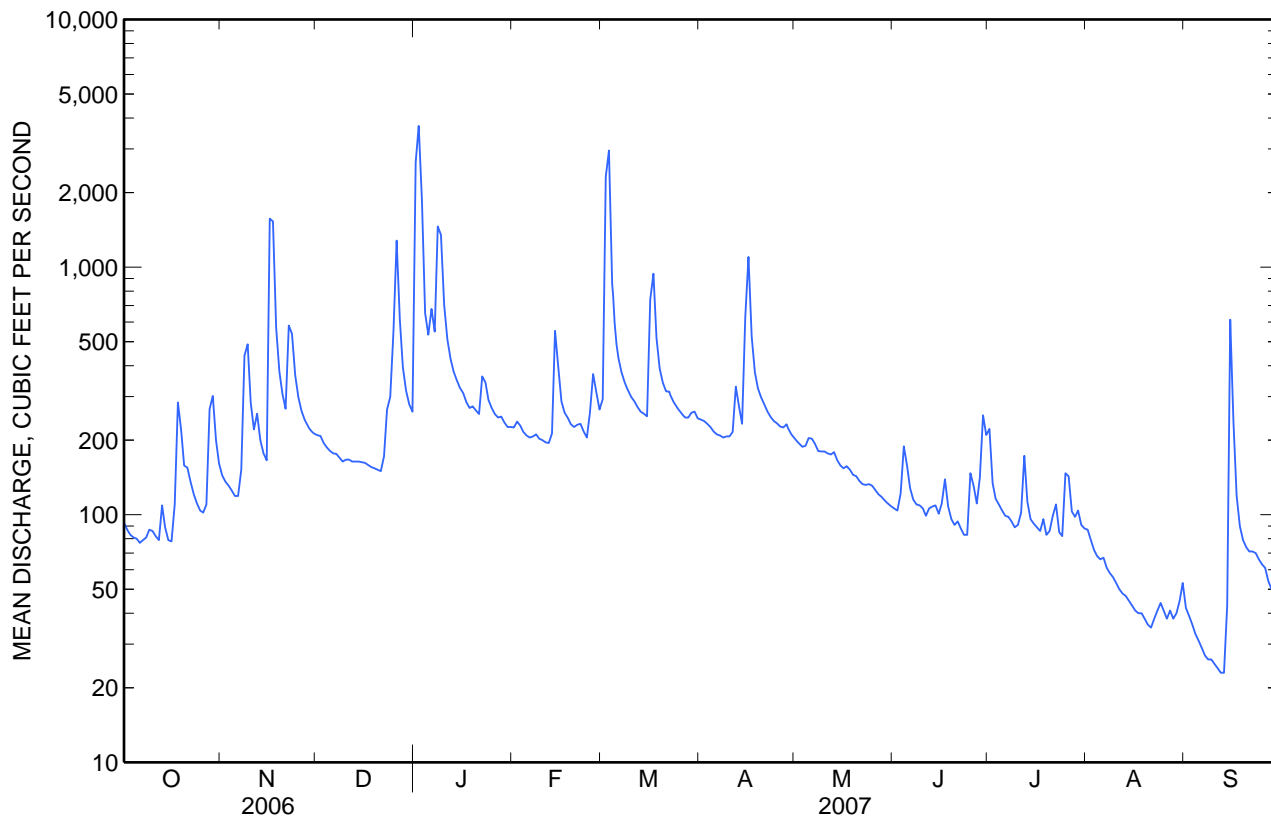
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	245	258	334	416	479	536	463	351	291	227	219	227
Max	1,246	791	738	1,088	1,458	1,485	1,110	885	889	628	706	880
(WY)	(1965)	(1958)	(1962)	(1978)	(1960)	(1975)	(1958)	(1984)	(2003)	(1941)	(1970)	(1979)
Min	41.0	63.2	102	97.7	141	167	114	91.4	37.6	24.6	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 2006		Water Year 2007		Water Years 1939 - 2007	
Annual total	79,112		90,682			
Annual mean	217		248		336	
Highest annual mean					592	1960
Lowest annual mean					87.0	2002
Highest daily mean	2,350	Jan 14	3,720	Jan 2	11,800	Mar 21, 2003
Lowest daily mean	68	Aug 6	23	Sep 12	3.0	Aug 13, 2002
Annual seven-day minimum	75	Aug 1	25	Sep 7	3.3	Aug 9, 2002
Maximum peak flow			3,940	Jan 2	14,900	Mar 21, 2003
Maximum peak stage			12.14	Jan 2	20.28	Mar 21, 2003
Instantaneous low flow			^a 23	Sep 12	^a 2.8	Aug 14, 2002
Annual runoff (cfsm)	0.708		0.812		1.10	
Annual runoff (inches)	9.62		11.02		14.90	
10 percent exceeds	314		395		577	
50 percent exceeds	176		173		232	
90 percent exceeds	91		50		110	

^a 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	2.06	0.22	1.22	0.01	0.00	0.00	0.01	0.00	0.00
2	0.00	---	0.00	0.00	0.03	0.35	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	0.05	0.87	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.22	0.00	0.00	0.00
5	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.05	0.02	0.07	0.04	0.00
6	0.02	0.00	0.00	0.01	0.00	0.00	0.01	0.01	0.01	0.30	0.00	0.00
7	0.01	1.15	0.00	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.22	0.17	0.00	0.35	0.00	0.00	0.00	0.00	0.21	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	0.15	0.03	0.00
11	0.00	0.82	0.00	0.00	0.00	0.00	0.93	0.00	0.80	0.07	0.00	0.00
12	0.00	0.03	0.00	0.00	0.00	0.00	0.22	0.00	0.01	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	1.07	0.00	0.00	0.00	0.65	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.01	0.00	1.11	0.00	0.01	0.00	0.00	1.75
15	0.00	0.26	0.00	0.00	0.00	0.00	0.63	0.00	0.02	0.00	0.00	0.01
16	0.01	1.03	0.00	0.00	0.00	1.85	0.00	0.07	0.00	0.00	0.00	0.00
17	1.68	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.62	0.03	0.00
18	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
19	---	0.00	0.00	0.13	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
20	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.03	0.00	0.00
21	0.00	0.77	0.03	0.57	0.13	0.00	0.00	0.00	0.00	0.01	0.50	0.00
22	0.09	0.61	0.53	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00
23	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.08	0.01	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.72	0.20	0.00	0.00
25	0.00	0.00	1.19	0.00	0.70	0.00	0.00	0.00	0.13	0.03	0.00	0.00
26	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.89	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.19	0.02	0.00	0.00
28	0.15	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.13	0.06	0.00	0.00
29	0.00	0.00	0.00	0.00	---	0.30	0.00	0.00	0.72	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.78	0.00	0.00	0.00
31	---	---	0.13	0.00	---	0.00	---	0.00	---	0.00	0.00	---
Total	---	---	1.90	4.07	2.17	3.75	3.02	0.29	6.50	1.66	0.63	1.76

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