

Water-Data Report 2007

**0212393300 WEST BRANCH ROCKY RIVER BELOW MOUTH OF SOUTH PRONG RIVER NEAR CORNELIUS,
NC**

Upper Pee Dee Basin
Rocky Subbasin

LOCATION.--Lat 35°28'04", long 80°47'25" referenced to North American Datum of 1983, Mecklenburg County, NC, Hydrologic Unit 03040105, on downstream side of box culvert on River Ford Road, 30 ft downstream of mouth of South Prong River, and 4.0 mi southwest of Cornelius.

DRAINAGE AREA.--20.8 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--July 2004 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 636.42 ft above North American Vertical Datum of 1988. Prior to October 1, 2005, at same site, at datum of 638.42 ft above North American Vertical Datum of 1988. Satellite telemetry at station.

REMARKS.--Records fair, except those for estimated discharge, which are poor. Maximum gage height for period of record, 12.59 ft, at datum then in use. Minimum discharge for period of record and current water year also occurred September 28-30.

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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	1.7	2.0	9.4	24	12	160	11	8.9	3.8	1.5	0.53	0.92
2	1.7	1.9	8.5	15	15	686	10	7.8	3.6	0.81	0.52	0.71
3	1.4	1.9	7.9	11	9.8	45	8.2	6.7	7.7	0.76	0.54	0.58
4	1.3	1.9	7.6	11	8.1	28	7.8	8.1	4.9	0.67	0.53	0.51
5	1.4	1.9	7.5	18	7.2	20	7.5	7.9	4.0	0.60	0.52	0.40
6	1.3	2.0	7.2	23	6.7	17	8.2	7.2	e3.6	0.58	0.48	0.37
7	1.2	15	7.1	55	6.7	16	7.4	6.4	e3.4	0.56	0.47	0.37
8	1.8	23	6.8	209	5.6	15	7.4	6.3	e2.6	0.55	0.48	0.36
9	1.9	4.5	7.2	37	5.2	14	7.3	6.3	2.1	0.59	0.44	0.34
10	1.7	2.6	7.1	24	5.0	14	7.2	6.2	2.8	2.5	0.34	0.31
11	7.3	2.9	6.8	19	4.9	13	11	6.3	2.7	2.1	0.25	0.26
12	18	18	6.9	17	4.8	12	22	6.6	2.4	0.94	0.23	0.27
13	3.5	3.8	6.7	15	23	12	9.0	6.8	2.2	0.72	0.23	0.29
14	2.8	2.5	6.6	14	79	13	9.6	6.5	2.5	0.67	0.22	0.68
15	2.3	3.8	6.3	13	18	12	99	6.4	2.4	0.73	0.33	0.56
16	2.2	264	6.0	12	12	51	31	6.2	2.4	0.69	0.41	0.33
17	52	19	5.8	10	10	26	20	6.4	2.1	0.61	0.29	0.30
18	19	8.2	5.7	11	8.6	19	17	6.0	1.9	1.0	0.30	0.30
19	3.6	5.8	5.6	10	8.5	16	16	5.9	1.8	0.86	0.27	0.30
20	6.2	4.4	5.2	9.6	6.9	15	18	5.8	1.8	1.0	0.27	0.29
21	2.4	12	5.2	15	9.8	15	13	5.4	1.6	0.95	0.25	0.26
22	2.3	261	16	36	6.0	15	12	5.2	1.6	0.65	0.38	0.26
23	2.2	36	12	16	5.1	14	10	5.1	1.5	0.63	0.33	0.23
24	1.9	18	8.2	13	4.7	14	9.8	5.2	5.7	0.68	0.31	0.21
25	1.9	14	86	12	48	13	8.7	5.0	9.3	0.68	0.29	0.18
26	1.9	12	31	11	26	13	7.7	4.7	1.1	0.59	0.47	0.17
27	5.0	11	18	10	12	12	13	4.5	0.82	0.58	0.41	0.17
28	8.5	9.8	14	9.7	8.1	12	7.9	4.3	1.0	0.68	0.31	0.16
29	2.7	9.0	12	8.5	---	11	6.8	e4.2	0.88	0.57	0.31	0.13
30	2.6	8.6	11	8.4	---	9.9	6.9	e4.0	1.0	0.63	10	0.14
31	2.1	---	13	7.9	---	9.9	---	e3.9	---	0.61	4.2	---
Total	165.8	780.5	364.3	705.1	376.7	1,342.8	430.4	186.2	85.20	25.69	24.91	10.36
Mean	5.35	26.0	11.8	22.7	13.5	43.3	14.3	6.01	2.84	0.83	0.80	0.35
Max	52	264	86	209	79	686	99	8.9	9.3	2.5	10	0.92
Min	1.2	1.9	5.2	7.9	4.7	9.9	6.8	3.9	0.82	0.55	0.22	0.13
Cfsm	0.26	1.25	0.56	1.09	0.65	2.08	0.69	0.29	0.14	0.04	0.04	0.02
In.	0.30	1.40	0.65	1.26	0.67	2.40	0.77	0.33	0.15	0.05	0.04	0.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2004 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	8.80	16.5	21.4	21.5	14.4	29.7	15.6	7.03	5.07	4.22	3.43	15.5
Max	10.6	26.0	28.0	28.0	17.7	43.3	21.6	7.91	6.95	6.78	6.71	53.4
(WY)	(2006)	(2007)	(2005)	(2006)	(2005)	(2007)	(2005)	(2005)	(2005)	(2004)	(2005)	(2004)
Min	5.35	6.60	11.8	13.7	12.2	10.4	10.8	6.01	2.84	0.83	0.80	0.35
(WY)	(2007)	(2006)	(2007)	(2005)	(2006)	(2006)	(2006)	(2007)	(2007)	(2007)	(2007)	(2007)

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SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 2004 - 2007	
Annual total	3,936.3		4,497.96			
Annual mean	10.8		12.3		12.5	
Highest annual mean					14.5	2005
Lowest annual mean					10.7	2006
Highest daily mean	264	Nov 16	686	Mar 2	1,040	Sep 28, 2004
Lowest daily mean	1.0	Aug 29	0.13	Sep 29	0.13	Sep 29, 2007
Annual seven-day minimum	1.3	Aug 24	0.17	Sep 24	0.17	Sep 24, 2007
Maximum peak flow			2,150	Mar 2	2,350	Sep 28, 2004
Maximum peak stage			13.96	Mar 2	^a 12.59	Sep 28, 2004
Instantaneous low flow			^a 0.10	Aug 13	^a 0.10	Aug 13, 2007
Annual runoff (cfsm)	0.518		0.592		0.601	
Annual runoff (inches)	7.04		8.04		8.16	
10 percent exceeds	18		18		20	
50 percent exceeds	6.3		5.9		7.1	
90 percent exceeds	1.8		0.35		1.2	

^a See Remarks.

