

Water-Data Report 2008

**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 daily discharges, which are poor. Minimum discharge for period of record and current water year also occurred October 7, 2007. Maximum discharge for period of record and current water year from rating curve extended above 2,300 ft³/s by logarithmic plotting.

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

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	0.19	0.84	1.1	5.8	46	6.0	8.1	6.0	2.2	4.2	6.6	5.4
2	0.19	0.89	e1.1	4.2	15	5.4	5.7	5.4	2.1	3.8	2.8	4.4
3	0.17	0.90	e1.1	e3.2	7.3	5.0	7.1	4.9	2.6	4.4	2.9	3.7
4	0.13	0.94	1.2	e3.2	5.3	26	14	4.7	2.6	4.4	2.1	3.2
5	0.13	0.91	1.2	e3.0	4.3	45	74	4.5	1.9	4.5	2.0	2.7
6	0.14	0.91	1.1	2.9	3.5	14	47	4.5	1.8	32	2.0	2.5
7	0.15	0.92	1.1	2.5	3.0	42	25	4.3	1.7	8.8	1.9	2.2
8	0.14	0.93	1.1	2.3	2.9	31	16	4.1	1.7	8.5	1.8	2.1
9	0.13	0.98	1.2	2.1	2.6	17	12	9.4	1.6	14	1.5	2.0
10	0.14	1.3	1.2	2.2	2.6	12	9.9	4.3	1.5	33	1.5	28
11	0.16	1.2	1.4	3.8	2.6	10	8.3	12	1.6	15	1.5	18
12	0.12	0.96	1.3	2.3	2.9	8.6	8.0	7.3	2.4	6.2	1.4	4.3
13	0.17	0.96	1.2	1.9	8.0	7.3	7.0	4.3	1.5	4.9	2.6	3.0
14	0.18	0.97	1.2	1.8	9.7	6.6	6.4	4.1	1.9	4.2	1.9	2.5
15	0.19	2.1	1.5	1.8	5.8	17	6.1	4.3	2.9	3.7	1.7	2.1
16	0.16	1.1	7.5	1.7	4.9	20	5.6	8.5	1.6	3.5	1.5	23
17	0.17	0.94	2.0	15	4.6	10	5.6	5.0	1.5	3.3	2.0	5.3
18	0.21	0.92	1.5	8.9	7.1	8.1	5.3	7.0	1.4	3.1	1.5	3.1
19	0.44	0.95	1.5	5.9	4.8	13	5.2	5.7	1.3	3.0	1.5	2.6
20	0.48	0.95	1.4	5.3	4.5	20	5.2	4.1	1.3	2.9	1.4	1.8
21	0.25	0.97	2.1	3.7	4.4	11	5.0	3.6	1.3	2.8	1.3	1.5
22	0.23	1.3	1.6	4.0	5.3	8.3	4.9	3.2	1.5	3.0	1.2	1.7
23	0.49	1.1	4.0	3.8	4.2	6.9	4.6	3.0	6.3	13	1.2	1.2
24	0.89	0.90	2.8	3.2	3.7	6.0	4.4	3.0	2.0	4.1	1.2	1.7
25	10	1.0	1.8	3.0	3.8	5.6	4.2	2.9	1.6	3.0	2.9	2.5
26	17	1.6	7.1	3.2	15	5.2	4.2	2.7	1.6	3.0	54	13
27	2.7	1.4	3.1	2.9	10	5.0	11	2.7	1.9	2.7	838	16
28	1.2	1.1	7.4	2.5	7.2	4.9	32	9.7	1.9	2.6	60	7.9
29	0.99	1.4	8.1	2.4	6.5	6.6	16	4.2	22	5.6	17	6.4
30	0.96	1.2	32	2.5	---	5.1	7.9	2.7	13	3.0	10	2.7
31	0.88	---	22	2.3	---	8.3	---	2.5	---	12	7.1	---
Total	39.38	32.54	123.9	113.3	207.5	396.9	375.7	154.6	90.2	222.2	1,036.0	176.5
Mean	1.27	1.08	4.00	3.65	7.16	12.8	12.5	4.99	3.01	7.17	33.4	5.88
Max	17	2.1	32	15	46	45	74	12	22	33	838	28
Min	0.12	0.84	1.1	1.7	2.6	4.9	4.2	2.5	1.3	2.6	1.2	1.2
Cfsm	0.06	0.05	0.19	0.18	0.34	0.62	0.60	0.24	0.14	0.34	1.61	0.28
In.	0.07	0.06	0.22	0.20	0.37	0.71	0.67	0.28	0.16	0.40	1.85	0.32

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2004 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	6.92	12.7	17.1	17.0	12.6	25.5	14.8	6.52	4.56	4.81	9.43	13.6
Max	10.6	26.0	28.0	28.0	17.7	43.3	21.6	7.91	6.95	7.17	33.4	53.4
(WY)	(2006)	(2007)	(2005)	(2006)	(2005)	(2007)	(2005)	(2005)	(2005)	(2008)	(2008)	(2004)
Min	1.27	1.08	4.00	3.65	7.16	10.4	10.8	4.99	2.84	0.83	0.80	0.35
(WY)	(2008)	(2008)	(2008)	(2008)	(2008)	(2006)	(2006)	(2008)	(2007)	(2007)	(2007)	(2007)

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SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 2004 - 2008	
Annual total	3,383.18		2,968.72			
Annual mean	9.27		8.11		11.4	
Highest annual mean					14.5	2005
Lowest annual mean					8.11	2008
Highest daily mean	686	Mar 2	838	Aug 27	1,040	Sep 28, 2004
Lowest daily mean	0.12	Oct 12	0.12	Oct 12	0.12	Oct 12, 2007
Annual seven-day minimum	0.14	Oct 4	0.14	Oct 4	0.14	Oct 4, 2007
Maximum peak flow			^a 2,600	Aug 27	^a 2,600	Aug 27, 2008
Maximum peak stage			15.37	Aug 27	15.37	Aug 27, 2008
Instantaneous low flow			^a 0.07	Oct 6	^a 0.07	Oct 6, 2007
Annual runoff (cfs)	0.446		0.390		0.548	
Annual runoff (inches)	6.05		5.31		7.45	
10 percent exceeds	16		13		19	
50 percent exceeds	2.2		3.0		5.8	
90 percent exceeds	0.27		0.95		1.1	

^aSee Remarks.