



Water-Data Report 2010

**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 streamgage.

REMARKS.--Records fair, except those for estimated daily discharges, which are poor. Minimum discharge for period of record also occurred October 7, 2007. Maximum discharge for period of record from rating curve extended above 2,300 ft³/s by logarithmic plotting.

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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	1.3	94	7.5	13	17	27	37	11	39	5.1	8.9	3.3
2	1.3	8.8	187	12	48	29	33	9.8	18	3.2	5.2	3.1
3	0.88	5.3	71	11	78	30	30	11	18	3.2	4.6	2.8
4	1.2	5.1	26	10	51	27	28	9.5	12	2.9	4.2	2.6
5	2.4	6.4	20	10	754	26	27	8.2	10	2.6	113	2.5
6	1.4	5.2	15	9.4	178	26	25	7.7	9.5	2.5	41	2.5
7	1.6	5.6	13	9.5	51	26	24	7.1	14	2.7	9.5	2.4
8	1.7	4.6	17	9.2	41	26	27	6.6	6.7	2.6	5.9	2.3
9	2.4	4.3	280	9.0	49	25	31	5.9	6.4	10	4.8	2.4
10	3.9	18	37	9.0	45	25	22	5.7	26	13	4.2	2.3
11	3.9	430	23	9.2	37	28	21	6.3	14	4.2	3.7	2.4
12	7.2	83	18	8.7	34	61	21	6.3	6.5	95	3.3	2.6
13	4.7	29	21	8.5	35	179	20	5.9	6.1	20	2.9	2.3
14	3.8	19	17	8.3	31	45	19	5.6	14	12	2.5	2.3
15	2.9	15	14	7.8	33	34	19	5.7	13	3.9	5.2	2.2
16	1.6	12	12	7.5	31	e28	18	24	6.9	3.1	3.8	2.3
17	1.3	11	11	228	29	e25	17	169	5.9	174	2.8	2.5
18	1.2	11	14	34	28	23	16	38	5.1	46	3.0	2.5
19	1.1	9.6	50	24	27	21	16	27	4.7	16	252	2.4
20	1.1	7.7	34	21	27	20	15	14	4.5	12	69	2.3
21	1.3	6.9	24	29	26	20	17	11	4.1	9.7	19	2.9
22	1.5	6.6	20	29	39	33	14	10	3.9	8.7	13	2.2
23	1.8	35	17	21	31	24	14	8.7	3.8	8.0	9.2	1.8
24	11	14	16	86	34	22	14	8.2	4.0	7.3	7.7	2.2
25	2.6	10	558	658	32	21	26	8.1	4.0	11	6.7	2.1
26	1.8	14	72	40	29	21	14	6.8	3.6	12	5.7	7.3
27	15	18	33	25	28	20	16	6.1	3.3	17	4.9	25
28	45	10	24	20	27	111	16	24	3.7	26	4.5	14
29	3.3	8.6	21	18	---	332	12	26	3.8	9.9	4.1	8.9
30	1.9	7.9	16	19	---	56	11	10	39	5.8	3.7	15
31	2.8	---	20	17	---	44	---	47	---	4.7	3.5	---
Total	134.88	915.6	1,708.5	1,421.1	1,870	1,435	620	550.2	313.5	554.1	631.5	131.4
Mean	4.35	30.5	55.1	45.8	66.8	46.3	20.7	17.7	10.4	17.9	20.4	4.38
Max	45	430	558	658	754	332	37	169	39	174	252	25
Min	0.88	4.3	7.5	7.5	17	20	11	5.6	3.3	2.5	2.5	1.8
Cfsm	0.21	1.47	2.65	2.20	3.21	2.23	0.99	0.85	0.50	0.86	0.98	0.21
In.	0.24	1.64	3.06	2.54	3.34	2.57	1.11	0.98	0.56	0.99	1.13	0.24

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2004 - 2010, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	5.78	14.9	24.5	21.5	20.9	32.4	17.0	8.97	8.18	6.53	9.96	10.6
Max	10.6	30.5	55.1	45.8	66.8	46.3	21.8	17.7	20.4	17.9	33.4	53.4
(WY)	(2006)	(2010)	(2010)	(2010)	(2010)	(2009)	(2009)	(2010)	(2009)	(2010)	(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 2009		Water Year 2010		Water Years 2004 - 2010	
Annual total	6,701.01		10,285.78			
Annual mean	18.4		28.2		14.6	
Highest annual mean					28.2	2010
Lowest annual mean					8.11	2008
Highest daily mean	558	Dec 25	754	Feb 5	1,040	Sep 28, 2004
Lowest daily mean	0.20	Sep 2	0.88	Oct 3	0.12	Oct 12, 2007
Annual seven-day minimum	0.49	Sep 1	1.3	Oct 16	0.14	Oct 4, 2007
Maximum peak flow			2,270	Jan 25	^a 2,600	Aug 27, 2008
Maximum peak stage			14.35	Jan 25	15.37	Aug 27, 2008
Instantaneous low flow			0.53	Oct 2	^a 0.07	Oct 6, 2007
Annual runoff (cfsm)	0.883		1.35		0.701	
Annual runoff (inches)	11.98		18.40		9.52	
10 percent exceeds	32		42		26	
50 percent exceeds	6.9		12		6.5	
90 percent exceeds	1.1		2.5		1.1	

^a See Remarks.

