

Water-Data Report 2010

0214627970 STEWART CREEK AT STATE STREET AT CHARLOTTE, NC

Santee Basin
Lower Catawba Subbasin

LOCATION.--Lat 35°14'25", long 80°52'06" referenced to North American Datum of 1983, Mecklenburg County, NC, Hydrologic Unit 03050103, on right upstream side of culvert at State Street, 0.7 mi northwest of U.S. Interstate 77, 1.1 mi upstream of Irwin Creek and 2.1 miles northwest of city hall, Charlotte.

DRAINAGE AREA.--9.27 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--June 2000 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 630.54 ft above North American Vertical Datum of 1988. Radio telemetry at streamgage.

REMARKS.--No estimated daily discharges. Records good except those above 1,100 ft³/s, which are poor. Maximum discharge for period of record and current water year from rating curve extended above 1,100 ft³/s on basis of culvert computation of peak flow. Minimum discharge for period of record and current water year affected by regulation of unknown origin. Minimum discharge for current water year also occurred October 8, September 23.

0214627970 STEWART CREEK AT STATE STREET AT CHARLOTTE, NC—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	7.7	62	9.9	13	18	9.7	13	8.0	160	7.6	7.0	7.3
2	7.8	13	117	13	51	16	12	8.5	49	7.9	6.6	6.1
3	8.2	8.1	27	14	24	18	12	12	13	6.2	7.2	8.5
4	8.0	9.5	15	14	17	13	10	8.3	9.0	7.1	6.6	6.5
5	16	11	15	12	270	11	11	7.7	8.6	6.0	11	6.3
6	5.4	8.6	13	11	38	10	9.3	7.8	8.6	6.7	248	7.1
7	6.8	7.7	11	11	17	9.4	11	8.4	11	8.3	162	8.1
8	7.1	8.4	37	11	17	10	12	8.1	7.5	6.8	7.9	6.1
9	6.3	7.5	108	10	13	12	11	8.6	6.4	6.5	13	7.9
10	7.1	59	19	11	13	11	8.8	8.7	8.0	6.7	9.0	8.8
11	6.7	233	14	10	13	13	8.0	11	8.1	6.8	8.2	7.7
12	10	54	13	12	13	77	7.2	8.6	6.9	115	9.3	5.9
13	7.2	18	19	10	17	43	8.6	7.5	10	12	8.9	8.6
14	12	15	12	12	12	23	11	8.5	6.5	13	27	8.1
15	9.2	13	13	11	17	14	7.5	9.2	7.4	8.5	78	6.2
16	7.4	12	13	12	13	12	9.0	10	6.0	8.5	11	9.5
17	9.3	11	10	136	12	9.9	8.4	25	6.0	18	8.6	7.8
18	7.4	14	47	18	9.4	12	8.3	11	6.0	9.0	8.2	6.8
19	9.7	12	36	13	12	11	7.3	23	7.1	7.7	256	7.3
20	10	11	17	14	9.3	9.7	8.9	9.4	6.1	5.7	18	7.6
21	11	11	12	32	10	15	10	8.9	6.4	7.0	11	7.9
22	14	15	11	18	33	15	8.3	8.5	7.3	7.3	8.5	7.7
23	11	31	10	13	14	11	7.9	7.9	6.1	7.1	9.4	6.4
24	14	13	10	123	16	9.8	9.4	9.8	7.3	6.4	8.4	8.8
25	11	12	311	339	12	9.1	21	9.2	6.8	6.4	8.4	8.1
26	12	12	24	17	10	12	8.2	7.6	6.9	7.5	11	18
27	55	12	15	15	11	13	13	7.3	8.9	49	8.9	43
28	24	10	13	15	11	59	9.8	16	8.1	9.0	8.7	39
29	12	10	14	14	---	142	8.7	20	9.7	6.3	8.0	22
30	11	11	13	16	---	18	7.5	7.6	47	7.7	8.0	15
31	11	---	20	19	---	13	---	24	---	8.1	8.3	---
Total	355.3	724.8	1,018.9	989	722.7	661.6	298.1	336.1	465.7	395.8	1,010.1	324.1
Mean	11.5	24.2	32.9	31.9	25.8	21.3	9.94	10.8	15.5	12.8	32.6	10.8
Max	55	233	311	339	270	142	21	25	160	115	256	43
Min	5.4	7.5	9.9	10	9.3	9.1	7.2	7.3	6.0	5.7	6.6	5.9
Cfsm	1.24	2.61	3.55	3.44	2.78	2.30	1.07	1.17	1.67	1.38	3.51	1.17
In.	1.43	2.91	4.09	3.97	2.90	2.65	1.20	1.35	1.87	1.59	4.05	1.30

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2010, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	10.9	13.8	15.9	13.6	13.7	22.4	14.9	14.6	16.8	15.9	19.5	14.1
Max	28.0	34.4	32.9	31.9	25.8	49.7	49.0	58.9	49.8	28.9	42.3	34.2
(WY)	(2003)	(2007)	(2010)	(2010)	(2010)	(2003)	(2003)	(2003)	(2003)	(2006)	(2003)	(2004)
Min	6.12	5.68	9.46	7.24	7.74	7.77	7.07	7.00	7.75	8.41	6.37	5.10
(WY)	(2008)	(2008)	(2001)	(2004)	(2006)	(2006)	(2002)	(2007)	(2000)	(2001)	(2001)	(2007)

0214627970 STEWART CREEK AT STATE STREET AT CHARLOTTE, NC—Continued

SUMMARY STATISTICS

	Calendar Year 2009		Water Year 2010		Water Years 2000 - 2010	
Annual total	5,966.1		7,302.2			
Annual mean	16.3		20.0		15.6	
Highest annual mean					32.6	2003
Lowest annual mean					10.6	2002
Highest daily mean	311	Dec 25	339	Jan 25	923	May 22, 2003
Lowest daily mean	5.3	May 20	5.4	Oct 6	2.8	Nov 17, 2007
Annual seven-day minimum	6.4	May 17	6.4	Jun 16	3.7	Sep 26, 2007
Maximum peak flow			^a 3,030	Aug 6	^a 4,020	Jul 23, 2006
Maximum peak stage			8.96	Aug 6	11.84	Jul 23, 2006
Instantaneous low flow			^a 4.0	Oct 6	^a 1.6	Aug 6, 2002
Annual runoff (cfsm)	1.76		2.16		1.68	
Annual runoff (inches)	23.94		29.30		22.82	
10 percent exceeds	25		27		23	
50 percent exceeds	8.9		10		7.7	
90 percent exceeds	6.6		7.0		5.3	

^a See Remarks.

