

Water-Data Report 2008

0214266000 MCDOWELL CREEK NEAR CHARLOTTE, NC

Santee Basin
Upper Catawba Subbasin

LOCATION.--Lat 35°23'23", long 80°55'16" referenced to North American Datum of 1983, Mecklenburg County, NC, Hydrologic Unit 03050101, on right bank at downstream side of bridge at Secondary Road 2074, 2.1 mi downstream of Torrence Creek, 2.8 mi south of Hicks Crossroads, 12.1 mi northwest of city hall, Charlotte.

DRAINAGE AREA.--26.3 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--November 1996 to current year. Streamflow data for November 1996 to September 1997 previously published in U.S. Geological Survey Open-File Report 98-67.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 644.87 ft, above North American Vertical Datum of 1988. Radio telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Minimum discharge for current water year and period of record affected by regulation of unknown origin.

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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	2.4	2.3	2.5	17	165	7.9	16	13	6.8	7.4	16	17
2	2.4	2.7	2.0	9.8	34	7.5	9.6	10	9.1	5.2	12	12
3	1.4	1.8	2.4	7.3	17	6.5	13	8.8	8.1	4.5	15	11
4	1.4	1.7	2.5	6.1	12	75	30	8.8	8.3	15	6.9	9.7
5	2.4	2.2	1.9	6.0	10	144	182	8.7	6.5	21	4.7	9.8
6	2.9	1.7	2.1	5.2	8.4	23	82	6.9	4.7	37	5.0	7.8
7	1.6	2.2	2.6	4.5	8.2	119	31	6.7	4.5	13	3.4	8.6
8	1.4	1.6	1.9	4.1	6.9	55	20	6.8	3.6	29	3.7	12
9	1.6	1.9	1.9	4.6	7.3	22	15	30	4.5	26	3.3	18
10	2.5	1.8	2.1	6.2	6.5	15	14	20	3.8	55	3.4	112
11	2.1	2.1	2.6	13	6.1	12	12	39	3.4	28	4.8	138
12	2.6	2.3	1.9	6.2	6.4	9.8	14	26	3.4	10	2.8	27
13	2.2	2.7	2.0	5.1	18	8.0	12	11	2.7	7.7	3.1	16
14	3.4	1.7	2.0	4.4	24	7.5	10	9.6	3.5	8.1	2.7	13
15	3.1	5.7	2.4	3.8	9.7	74	9.3	8.0	6.7	7.7	2.8	9.9
16	3.3	2.8	39	3.8	7.9	56	7.9	14	3.7	5.9	2.9	132
17	2.2	2.7	5.6	73	7.1	18	7.8	9.6	2.4	5.8	3.6	41
18	2.2	2.0	3.8	27	17	13	7.6	60	2.8	4.4	e3.0	18
19	4.8	1.9	3.4	16	8.1	28	8.0	39	2.0	4.2	e1.9	11
20	3.4	1.8	3.2	15	7.1	41	7.1	76	2.7	4.7	2.3	9.2
21	3.5	2.5	6.1	9.3	6.9	15	6.7	50	2.6	3.6	1.7	9.1
22	2.2	4.8	4.4	7.6	8.6	11	6.3	19	2.9	18	1.7	7.5
23	2.0	2.5	16	7.7	6.6	8.8	6.0	12	79	100	1.8	7.8
24	5.6	1.8	9.2	6.7	5.6	8.4	5.9	8.9	8.8	14	2.2	7.5
25	50	1.9	4.4	5.4	5.3	8.6	6.4	7.3	4.8	6.8	30	7.1
26	43	4.4	33	5.4	42	6.8	5.5	7.2	4.6	5.7	245	61
27	11	3.6	9.9	5.5	26	6.4	38	7.3	6.2	5.4	2,050	92
28	4.0	2.4	27	4.6	11	7.6	117	52	10	4.6	200	19
29	3.3	2.1	36	4.9	8.9	15	39	25	26	79	43	9.7
30	2.3	2.0	124	5.2	---	8.9	16	11	64	73	22	7.3
31	2.1	---	72	3.9	---	15	---	8.9	---	33	19	---
Total	178.3	73.6	429.8	304.3	507.6	853.7	755.1	620.5	302.1	642.7	2,719.7	861.0
Mean	5.75	2.45	13.9	9.82	17.5	27.5	25.2	20.0	10.1	20.7	87.7	28.7
Max	50	5.7	124	73	165	144	182	76	79	100	2,050	138
Min	1.4	1.6	1.9	3.8	5.3	6.4	5.5	6.7	2.0	3.6	1.7	7.1
Cfsm	0.22	0.09	0.53	0.37	0.67	1.05	0.96	0.76	0.38	0.79	3.34	1.09
In.	0.25	0.10	0.61	0.43	0.72	1.21	1.07	0.88	0.43	0.91	3.85	1.22

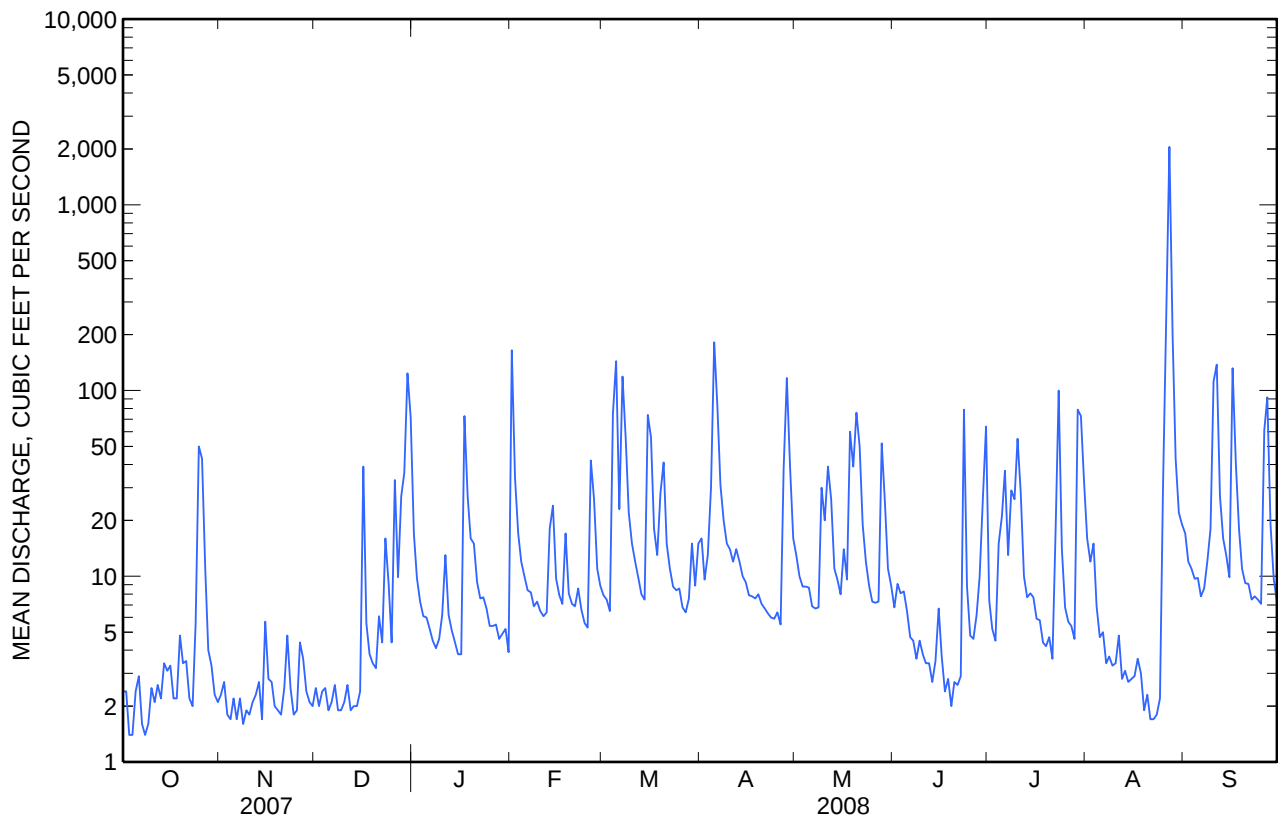
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	16.4	20.8	27.9	30.9	34.6	41.2	34.5	23.3	18.5	17.4	15.7	19.0
Max	37.3	67.2	66.9	94.0	73.3	106	154	125	69.0	42.7	87.7	54.0
(WY)	(2006)	(2007)	(2003)	(1998)	(1998)	(2003)	(2003)	(2003)	(2003)	(2003)	(2008)	(2004)
Min	3.63	2.45	6.40	9.82	15.4	12.1	8.61	8.83	5.20	4.68	2.50	3.12
(WY)	(2001)	(2008)	(2002)	(2008)	(2001)	(1999)	(2002)	(2007)	(2000)	(1999)	(1999)	(2005)

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SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1997 - 2008	
Annual total	7,099.0		8,248.4			
Annual mean	19.4		22.5		25.1	
Highest annual mean					62.4	2003
Lowest annual mean					10.6	1999
Highest daily mean	1,020	Mar 2	2,050	Aug 27	2,050	Aug 27, 2008
Lowest daily mean	1.4	Sep 29	1.4	Oct 3	0.59	Sep 25, 1999
Annual seven-day minimum	1.8	Oct 3	1.8	Oct 3	0.99	Sep 20, 1999
Maximum peak flow			4,260	Aug 27	4,260	Aug 27, 2008
Maximum peak stage			15.20	Aug 27	15.20	Aug 27, 2008
Instantaneous low flow			^a 0.71	Aug 23	^a 0.29	Sep 23, 1999
Annual runoff (cfsm)	0.740		0.857		0.953	
Annual runoff (inches)	10.04		11.67		12.95	
10 percent exceeds	33		41		43	
50 percent exceeds	7.3		7.3		10	
90 percent exceeds	2.1		2.1		3.4	

^aSee Remarks.

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CLIMATOLOGICAL RECORDS

PERIOD OF RECORD.--November 1996 to current year. Records for period November 1996 to September 1998 published in USGS OFR 98-67, and 99-273.

INSTRUMENTATION.--Tipping-bucket raingage and electronic datalogger. Radio telemetry at station.

REMARKS.—Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY SUM VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0.00	0.00	0.00	0.00	1.06	0.00	0.16	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.36	0.00	0.11	0.00	0.00	0.00
4	0.01	0.00	0.00	0.00	0.02	1.35	0.53	0.00	0.00	1.16	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.33	0.00	0.00	0.26	0.00	0.02
6	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.00	0.00	0.41	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.84	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.22	0.00	0.02
9	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.57	0.00	0.08	0.00	0.00
10	0.00	0.00	0.00	0.28	0.00	0.00	0.00	0.00	0.00	0.22	0.00	1.62
11	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.03
12	0.00	0.00	0.00	0.00	0.14	0.00	0.15	0.00	0.00	0.00	0.00	0.03
13	0.00	0.00	0.00	0.00	0.38	0.00	0.06	0.00	0.00	0.00	0.26	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.25	0.01	0.00	0.00
15	0.00	0.29	0.69	0.00	0.00	0.83	0.00	0.05	0.01	0.00	0.00	0.00
16	0.00	0.00	0.08	0.00	0.00	0.01	0.00	0.24	0.00	0.00	0.03	1.15
17	0.00	0.00	0.00	0.86	0.22	0.00	0.00	0.00	0.00	0.00	0.05	0.04
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.90	0.00	0.00	0.00	0.00
19	0.23	0.00	0.00	0.25	0.00	0.40	0.04	0.01	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.06	0.00	1.37	0.00	0.00	0.00	0.00
21	0.00	0.00	0.22	0.00	0.14	0.00	0.00	0.00	0.03	0.00	0.00	0.00
22	0.00	0.19	0.00	0.06	0.09	0.00	0.00	0.00	1.66	1.54	0.00	0.00
23	0.00	0.00	0.36	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00
24	0.66	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00
25	0.91	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.45	0.02
26	0.53	0.09	0.41	0.00	0.65	0.00	0.09	0.00	0.06	0.08	3.20	1.18
27	0.01	0.00	0.00	0.00	0.00	0.00	0.32	0.12	0.66	0.00	3.65	0.38
28	0.00	0.00	0.64	0.00	0.00	0.13	0.82	0.77	0.02	0.71	0.01	0.00
29	0.00	0.00	0.05	0.00	0.00	0.18	0.00	0.01	0.01	0.05	0.00	0.00
30	0.00	0.00	1.20	0.02	---	0.00	0.00	0.00	0.00	0.15	0.00	0.00
31	0.00	---	0.00	0.07	---	0.12	---	0.00	---	0.40	0.54	---
Total	2.37	0.67	3.65	1.75	2.70	4.03	3.06	4.59	2.82	5.29	9.28	4.49

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