

Water-Data Report 2010

0214266000 MCDOWELL CREEK NEAR CHARLOTTE, NC

Santee Basin
Upper Catawba Subbasin

LOCATION.--Lat 35°23'22.97", long 80°55'15.60" 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 streamgage.

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 2009 TO SEPTEMBER 2010
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	3.9	291	18	25	61	19	32	12	106	9.7	11	5.8
2	3.7	39	241	20	169	27	26	11	30	6.4	7.4	5.3
3	3.3	20	334	17	181	37	22	16	25	5.2	7.8	5.1
4	3.0	14	58	16	93	23	19	13	15	5.8	6.4	4.5
5	8.0	12	34	15	632	21	18	12	13	4.8	69	4.2
6	5.2	11	24	13	331	17	18	12	13	5.0	93	4.4
7	3.7	9.2	20	13	98	17	16	11	19	4.6	35	4.2
8	3.6	8.8	31	12	59	17	18	11	12	3.8	14	4.0
9	2.9	8.0	516	11	98	14	31	9.5	11	5.5	10	4.1
10	4.2	96	93	10	74	10	15	10	21	22	8.7	3.3
11	3.2	819	36	13	43	15	14	11	17	5.3	8.1	4.0
12	7.5	331	25	10	34	49	13	11	9.4	125	7.8	4.0
13	8.9	102	41	9.7	47	298	13	8.6	35	65	7.8	3.4
14	14	52	27	9.1	38	73	13	8.2	53	81	6.5	3.4
15	11	34	19	8.9	43	32	12	12	26	19	15	3.1
16	6.4	27	16	8.7	33	21	12	11	12	13	11	3.8
17	4.7	21	14	452	26	17	12	155	11	85	7.4	2.8
18	4.4	27	28	84	23	16	12	56	9.7	50	7.8	3.0
19	3.4	25	244	37	21	14	11	36	8.0	23	347	3.3
20	4.0	20	96	23	20	12	13	17	8.1	13	60	2.6
21	3.3	16	44	63	19	15	16	14	8.6	13	21	3.2
22	3.7	17	27	61	84	37	12	13	7.2	12	15	3.2
23	3.3	147	22	26	41	16	11	10	7.7	14	11	2.4
24	50	36	19	135	62	13	11	12	11	15	9.3	3.2
25	12	21	e579	935	46	13	47	13	10	13	12	2.0
26	6.6	49	e172	119	29	13	15	8.3	7.5	15	9.5	7.7
27	39	75	67	65	25	11	35	7.9	6.4	31	8.6	81
28	182	22	39	56	22	110	55	21	5.1	40	8.1	43
29	26	15	28	48	---	735	17	37	5.4	16	6.3	22
30	14	17	23	64	---	86	14	11	24	8.8	6.7	43
31	12	---	42	62	---	45	---	28	---	8.4	6.1	---
Total	460.9	2,382.0	2,977	2,441.4	2,452	1,843	573	618.5	547.1	738.3	854.3	289.0
Mean	14.9	79.4	96.0	78.8	87.6	59.5	19.1	20.0	18.2	23.8	27.6	9.63
Max	182	819	579	935	632	735	55	155	106	125	347	81
Min	2.9	8.0	14	8.7	19	10	11	7.9	5.1	3.8	6.1	2.0
Cfsm	0.57	3.02	3.65	2.99	3.33	2.26	0.73	0.76	0.69	0.91	1.05	0.37
In.	0.65	3.37	4.21	3.45	3.47	2.61	0.81	0.87	0.77	1.04	1.21	0.41

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2010, BY WATER YEAR (WY)

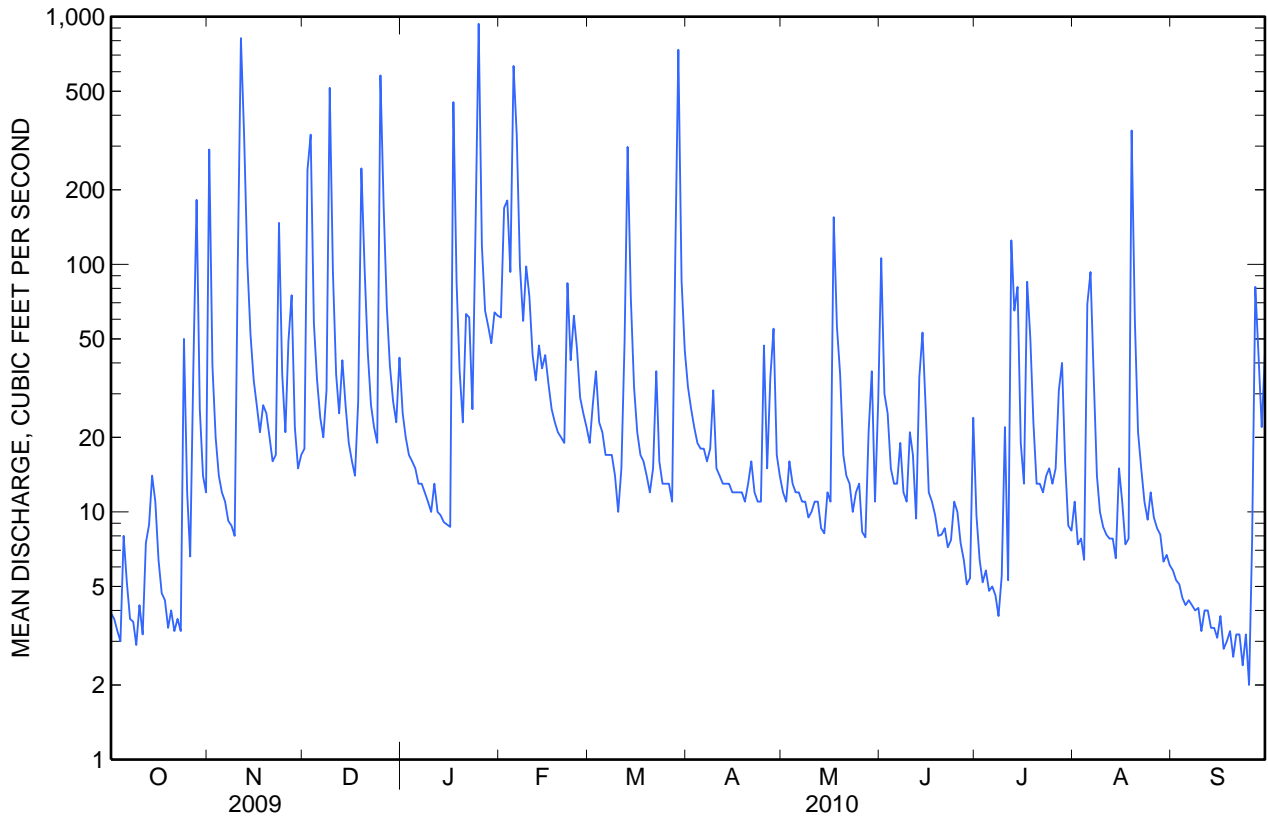
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	15.5	25.2	34.5	35.0	37.5	45.7	33.3	22.9	19.9	17.5	16.3	17.9
Max	37.3	79.4	96.0	94.0	87.6	106	154	125	69.0	42.7	87.7	54.0
(WY)	(2006)	(2010)	(2010)	(1998)	(2010)	(2003)	(2003)	(2003)	(2003)	(2003)	(2008)	(2004)
Min	3.63	2.45	6.40	9.82	15.4	12.1	8.61	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 2009		Water Year 2010		Water Years 1997 - 2010	
Annual total	14,305.0		16,176.5			
Annual mean	39.2		44.3		26.8	
Highest annual mean					62.4	2003
Lowest annual mean					10.6	1999
Highest daily mean	819	Nov 11	935	Jan 25	2,050	Aug 27, 2008
Lowest daily mean	2.4	Sep 6	2.0	Sep 25	0.59	Sep 25, 1999
Annual seven-day minimum	3.3	Sep 3	2.8	Sep 19	0.99	Sep 20, 1999
Maximum peak flow			1,780	Jan 25	4,260	Aug 27, 2008
Maximum peak stage			12.57	Jan 25	15.20	Aug 27, 2008
Instantaneous low flow			^a 1.4	Sep 25	^a 0.29	Sep 23, 1999
Annual runoff (cfsm)	1.49		1.69		1.02	
Annual runoff (inches)	20.23		22.88		13.85	
10 percent exceeds	78		84		47	
50 percent exceeds	12		15		10	
90 percent exceeds	4.7		4.4		3.5	

^a See 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. Frozen precipitation collected during December 2009, January and February 2010 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010
DAILY SUM VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0.00	0.92	0.00	0.00	---	0.00	0.00	0.00	1.41	0.00	0.11	0.00
2	0.00	0.00	1.60	0.00	---	0.27	0.00	0.00	0.14	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	---	0.00	0.00	0.22	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.34	0.00	0.04	0.00	2.01	0.00	0.00	0.00	0.00	0.00	0.62	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.00	0.47	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00
8	0.00	0.00	0.90	0.01	0.00	0.00	0.22	0.00	0.00	0.00	0.00	0.00
9	0.01	0.00	0.60	0.00	0.34	0.00	0.00	0.00	0.00	0.49	0.00	0.00
10	0.01	1.38	0.00	0.00	0.03	0.04	0.00	0.00	0.00	0.01	0.00	0.00
11	0.00	2.11	0.00	0.00	0.00	0.19	0.00	0.15	0.00	0.00	0.00	0.07
12	0.31	0.33	0.03	0.00	---	1.02	0.00	0.00	0.00	1.49	0.00	0.00
13	0.00	0.00	0.26	0.00	---	0.19	0.00	0.00	0.75	0.98	0.00	0.00
14	0.35	0.00	0.00	0.00	---	0.03	0.00	0.12	0.00	0.00	0.07	0.00
15	0.12	0.00	0.01	0.00	0.12	0.00	0.00	0.00	0.12	0.00	0.07	0.00
16	0.00	0.00	0.00	0.35	0.00	0.00	0.00	0.56	0.00	0.02	0.00	0.00
17	0.06	0.00	0.00	1.32	0.00	0.00	0.00	0.85	0.00	1.31	0.01	0.00
18	0.00	0.15	---	0.00	0.00	0.00	0.00	0.35	0.00	0.09	0.05	0.00
19	0.00	0.03	---	0.00	0.00	0.00	0.00	0.03	0.00	0.00	1.94	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.46	0.00	0.44	0.04	0.00	0.00	0.00	0.00	0.00
22	0.00	0.48	0.00	0.02	0.47	0.18	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.34	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
24	0.55	0.00	0.02	1.80	0.12	0.00	0.35	0.15	0.01	0.00	0.00	0.00
25	0.00	0.00	1.95	0.27	0.00	0.01	0.37	0.01	0.00	0.05	0.06	0.00
26	0.00	0.56	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00	1.03
27	1.32	0.00	0.00	0.00	0.00	0.00	0.42	0.00	0.00	0.42	0.00	0.93
28	0.04	0.00	0.00	0.00	0.00	2.36	0.00	0.98	0.00	0.36	0.00	0.02
29	0.00	0.00	0.00	---	---	0.36	0.00	0.02	0.00	0.00	0.00	0.50
30	0.00	0.09	0.09	---	---	0.00	0.00	0.00	0.03	0.00	0.00	0.15
31	0.36	---	0.11	---	---	0.00	---	0.59	---	0.02	0.00	---
Total	3.47	6.39	---	---	---	5.20	1.56	4.03	2.84	5.24	3.40	2.70

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