

Water-Data Report 2008

02146600 MCALPINE CREEK AT SARDIS ROAD NEAR CHARLOTTE, NC

Santee Basin
Lower Catawba Subbasin

LOCATION.--Lat 35°08'16", long 80°46'03" referenced to North American Datum of 1983, Mecklenburg County, NC, Hydrologic Unit 03050103, on right bank on downstream end of bridge pier at Sardis Road (Secondary Road 3356), 1.7 mi downstream of Irvins Creek, and 7 mi southeast of city hall, Charlotte.

DRAINAGE AREA.--39.6 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--April 1962 to current year.

REVISED RECORDS.--WDR NC-81-1: Drainage area. WDR NC-99-1B: Period of record instantaneous low flow.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 552.36 ft above North American Vertical Datum of 1988, from levels. Radio telemetry at station.

REMARKS.--No estimated daily discharges. Records fair. No flow for part of November 15, 1972, result of upstream construction, and August 14, 15, 2002.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of January 6, 1962, reached a stage of about 14.0 ft, from floodmarks; discharge, 4,150 ft³/s.

02146600 MCALPINE CREEK AT SARDIS ROAD NEAR CHARLOTTE, NC—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0.26	1.9	1.1	14	336	9.7	18	18	4.1	1.3	5.8	54
2	0.25	1.5	1.1	7.8	47	10	11	14	5.4	0.96	3.1	14
3	0.21	1.1	1.1	5.9	19	10	19	11	3.8	0.84	2.4	6.3
4	0.28	1.1	1.3	5.0	14	281	31	10	2.8	0.69	1.8	4.5
5	0.80	1.3	1.4	4.1	11	225	99	8.8	2.5	2.1	1.4	5.3
6	0.48	1.0	1.4	3.9	10	32	33	8.0	2.2	162	1.1	6.4
7	0.41	0.80	1.3	4.3	9.4	152	18	7.2	1.7	16	1.8	4.3
8	0.38	0.81	1.3	4.6	7.7	87	14	7.4	1.6	183	9.3	3.6
9	0.43	0.85	1.6	4.9	6.7	32	12	7.5	1.4	66	1.6	3.2
10	0.43	0.97	1.5	8.1	7.2	18	11	6.7	1.2	23	2.5	86
11	0.18	1.2	1.5	17	5.6	15	11	18	45	22	1.5	57
12	0.08	1.0	1.5	7.7	10	15	36	9.9	37	7.6	1.1	12
13	0.04	1.0	1.5	4.9	95	13	16	5.6	4.5	181	53	7.2
14	0.04	1.0	1.6	4.3	61	12	12	5.4	2.6	79	13	4.7
15	0.18	11	6.0	3.6	17	324	9.8	5.4	2.6	13	15	3.4
16	0.26	3.3	170	3.1	12	146	8.9	20	1.8	7.2	29	219
17	0.23	1.7	9.1	164	10	31	8.5	6.9	2.2	4.9	41	70
18	0.12	1.3	4.1	35	51	20	8.2	7.0	1.2	3.0	12	26
19	14	1.4	2.9	35	15	81	8.7	10	0.95	3.3	3.4	9.5
20	2.4	0.90	2.4	31	10	81	12	9.7	4.2	3.1	2.0	6.0
21	0.73	0.86	18	13	10	24	11	11	23	2.8	1.4	4.8
22	0.35	1.1	6.5	13	62	17	8.4	5.1	28	9.0	1.2	5.2
23	0.45	1.5	19	17	20	14	7.9	4.5	88	202	0.94	3.8
24	50	1.2	12	9.5	13	12	7.7	4.3	11	168	0.83	3.2
25	121	1.2	5.7	7.2	11	11	7.5	5.2	4.5	11	8.0	3.0
26	120	4.3	121	6.3	98	11	28	4.8	2.6	8.0	486	195
27	18	4.3	18	6.4	28	11	140	4.4	29	5.8	2,960	179
28	5.6	2.1	33	5.8	14	11	512	137	14	4.2	50	28
29	3.1	1.5	81	5.5	12	9.4	105	23	7.3	3.9	19	13
30	2.4	1.2	221	11	---	8.9	27	7.5	2.4	3.1	35	8.2
31	2.2	---	57	6.7	---	19	---	5.2	---	5.6	74	---
Total	345.29	54.39	805.9	469.6	1,022.6	1,743.0	1,251.6	408.5	338.55	1,203.39	3,838.17	1,045.6
Mean	11.1	1.81	26.0	15.1	35.3	56.2	41.7	13.2	11.3	38.8	124	34.9
Max	121	11	221	164	336	324	512	137	88	202	2,960	219
Min	0.04	0.80	1.1	3.1	5.6	8.9	7.5	4.3	0.95	0.69	0.83	3.0
Cfs/m	0.28	0.05	0.66	0.38	0.89	1.42	1.05	0.33	0.28	0.98	3.13	0.88
In.	0.32	0.05	0.76	0.44	0.96	1.64	1.18	0.38	0.32	1.13	3.61	0.98

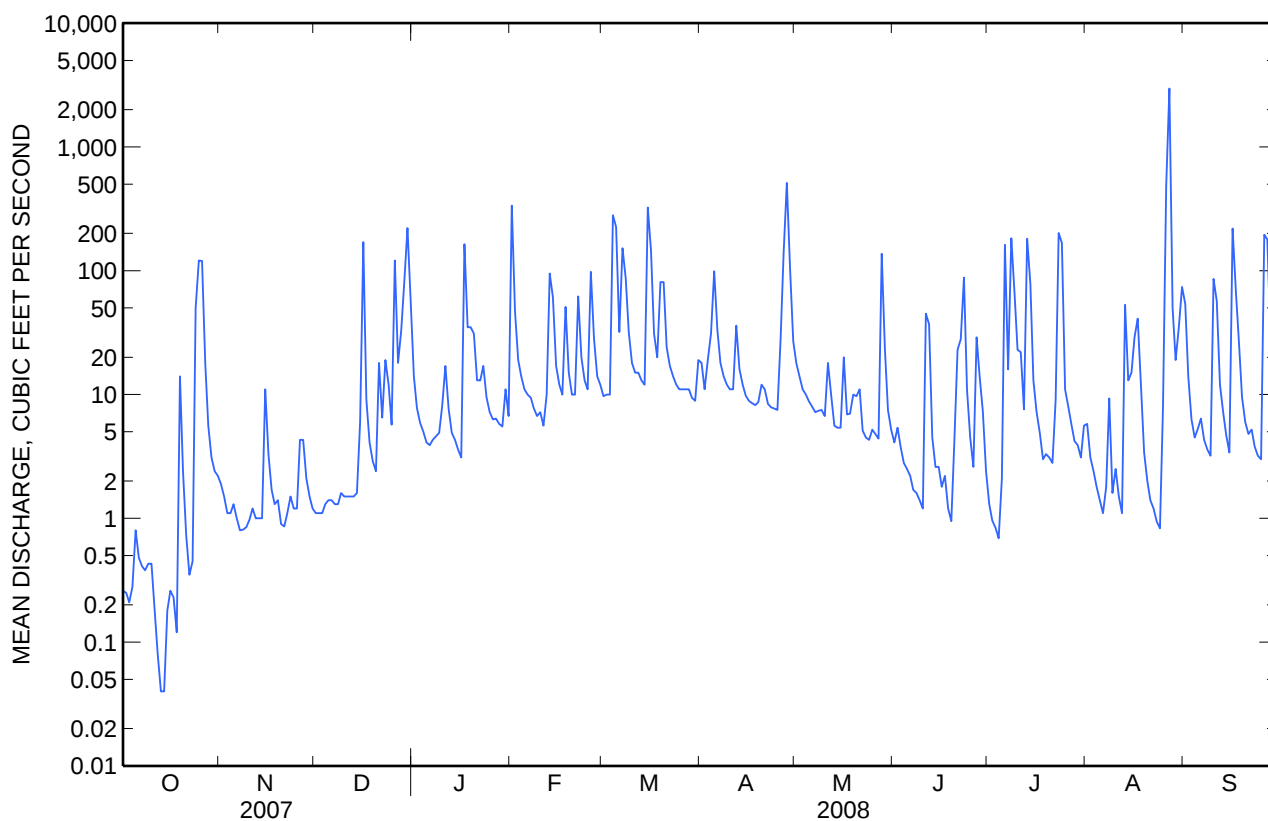
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	32.4	32.1	39.0	61.8	69.3	79.2	49.0	32.2	33.0	30.3	34.9	26.5
Max	212	227	128	157	169	200	182	173	200	140	178	166
(WY)	(1991)	(2007)	(1984)	(1978)	(1979)	(1977)	(2003)	(1975)	(2003)	(1997)	(1994)	(2004)
Min	3.16	1.81	7.55	6.58	13.2	13.6	7.45	6.84	3.60	4.04	3.42	1.46
(WY)	(1963)	(2008)	(1966)	(2004)	(2006)	(1985)	(1967)	(2007)	(1986)	(1977)	(1968)	(1968)

02146600 MCALPINE CREEK AT SARDIS ROAD NEAR CHARLOTTE, NC—Continued

SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1962 - 2008	
Annual total	9,931.08		12,526.59			
Annual mean	27.2		34.2		43.3	
Highest annual mean					90.5	2003
Lowest annual mean					18.9	2001
Highest daily mean	1,490	Mar 2	2,960	Aug 27	4,490	Aug 27, 1995
Lowest daily mean	0.04	Oct 13	0.04	Oct 13	0.01	Aug 14, 2002
Annual seven-day minimum	0.14	Oct 12	0.14	Oct 12	0.08	Aug 8, 2002
Maximum peak flow			6,370	Aug 27	9,040	Aug 27, 1995
Maximum peak stage			16.34	Aug 27	17.79	Aug 27, 1995
Instantaneous low flow			0.02	Oct 14	^a 0.00	Nov 15, 1972
Annual runoff (cfs)	0.687		0.864		1.09	
Annual runoff (inches)	9.33		11.77		14.84	
10 percent exceeds	46		76		74	
50 percent exceeds	6.8		7.5		13	
90 percent exceeds	0.54		1.0		3.5	

^aSee Remarks.

02146600 MCALPINE CREEK AT SARDIS ROAD NEAR CHARLOTTE, NC—Continued**CLIMATOLOGICAL RECORDS**

PERIOD OF RECORD.--November 1992 to current year. Records for period November 1992 to September 1998 published in USGS OFR 96-150, 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	1.18	0.00	0.06	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.01	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00
4	0.11	0.00	0.00	0.00	0.00	1.28	0.30	0.00	0.00	0.00	0.00	0.00
5	0.01	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.59	0.00	0.00
6	0.00	0.00	0.00	0.00	0.05	0.00	0.01	0.00	0.00	0.40	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.59	0.00	0.00	0.00	0.01	0.31	0.00
8	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.05	0.00	1.24	0.01	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.10	0.00	0.00
10	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.00	0.00	0.13	0.11	0.36
11	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.17	0.85	0.06	0.00	0.01
12	0.00	0.00	0.00	0.00	0.16	0.00	0.23	0.00	0.01	0.00	0.00	0.01
13	0.00	0.00	0.00	0.00	0.55	0.00	0.00	0.00	0.00	1.31	0.85	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.07	0.00	0.00
15	0.00	0.34	1.01	0.00	0.00	0.89	0.01	0.06	0.00	0.00	0.01	0.00
16	0.00	0.00	0.37	0.00	0.00	0.01	0.00	0.13	0.00	0.00	0.00	0.62
17	0.00	0.00	0.00	0.98	0.13	0.00	0.00	0.00	0.00	0.00	0.84	0.10
18	0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.11	0.00	0.00	0.00	0.00
19	0.53	0.00	0.01	0.26	0.00	0.56	0.07	0.01	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.30	0.38	0.00	0.00	0.00
21	0.00	0.00	0.30	0.00	0.32	0.00	0.00	0.01	0.18	0.00	0.00	0.00
22	0.00	0.03	0.00	0.14	0.17	0.00	0.00	0.00	0.17	0.38	0.00	0.00
23	0.06	0.00	0.32	0.02	0.00	0.00	0.00	0.00	0.08	1.06	0.00	0.00
24	1.09	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00
25	0.98	0.13	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.00
26	0.52	0.12	0.62	0.00	0.43	0.00	0.79	0.00	0.00	0.05	3.02	1.58
27	0.00	0.00	0.00	0.00	0.00	0.00	0.59	0.00	0.30	0.00	2.88	0.35
28	0.00	0.00	0.49	0.00	0.00	0.00	1.46	1.36	0.02	0.02	0.00	0.00
29	0.00	0.00	0.02	0.01	0.00	0.00	0.00	0.01	0.00	0.07	0.00	0.00
30	0.00	0.00	1.07	0.12	---	0.00	0.00	0.00	0.00	0.00	0.00	0.01
31	0.00	---	0.00	0.02	---	0.26	---	0.00	---	0.00	1.22	---
Total	3.30	0.62	4.24	1.87	3.15	3.64	4.04	2.27	2.13	5.49	9.44	3.04

02146600 MCALPINE CREEK AT SARDIS ROAD NEAR CHARLOTTE, NC—Continued

