

Water-Data Report 2008

02146300 IRWIN CREEK NEAR CHARLOTTE, NC

Santee Basin
Lower Catawba Subbasin

LOCATION.--Lat 35°11'52", long 80°54'16" referenced to North American Datum of 1983, Mecklenburg County, NC, Hydrologic Unit 03050103, on left bank, 2,200 ft upstream from Southern Railway bridge, 0.7 mi upstream from Taggart Creek, and 4.2 mi southwest of city hall, Charlotte.

DRAINAGE AREA.--30.7 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--May 1962 to current year. Prior to October 1963, published as "Sugar (Irwin) Creek at Charlotte".

REVISED RECORDS.--WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 590.87 ft above North American Vertical Datum of 1988. Radio telemetry at station.

REMARKS.--Records good, except those for estimated daily discharges which are poor. Maximum discharge for period of record from rating curve extended above 7,500 ft³/s on basis of step-backwater computation. Minimum discharge for period of record also occurred July 14, 1986.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of April 6, 1936, reached a stage of about 17.3 ft at site 400 ft downstream, from information by plant employee. Peak may have been affected by failure of Lakewood Dam, 5 mi upstream. Flood of January 6, 1962, reached a stage of 14.32 ft, from floodmarks; discharge, 4,120 ft³/s. Flood of April 11, 1962, reached a stage of 15.18 ft, from floodmarks; discharge, 4,740 ft³/s, on basis of slope-area measurement of peak flow.

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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	5.9	10	7.9	17	279	12	22	14	12	9.2	26	29
2	6.0	12	8.0	12	33	12	13	13	12	8.3	11	12
3	5.0	9.5	7.2	10	18	11	47	e12	10	8.7	9.6	12
4	18	17	12	10	16	299	68	12	9.8	189	8.4	12
5	7.5	32	9.6	12	14	110	168	13	12	52	6.6	12
6	5.5	32	11	11	16	24	42	12	9.4	17	9.9	11
7	5.9	32	9.1	11	15	96	22	11	9.8	12	8.9	11
8	5.8	23	9.1	9.3	13	41	17	12	12	286	8.0	17
9	4.4	7.9	10	9.2	12	20	22	14	9.5	58	8.4	e9.8
10	5.5	7.0	10	18	12	17	19	9.8	9.0	57	7.1	346
11	5.9	11	12	24	12	15	15	36	27	26	6.9	111
12	4.8	7.0	7.3	13	12	14	29	15	18	13	7.0	25
13	5.4	7.2	6.6	10	52	13	15	12	9.3	49	20	15
14	5.1	8.3	7.0	9.8	23	14	15	9.4	9.1	13	9.3	13
15	5.3	22	57	9.5	13	353	15	10	8.3	9.2	23	11
16	7.8	9.0	128	10	12	77	11	37	8.7	8.1	35	106
17	5.8	6.7	13	146	12	25	12	11	7.6	8.7	25	41
18	4.8	6.2	10	27	22	18	12	14	8.6	8.4	8.5	15
19	28	5.5	8.5	44	12	111	12	15	7.4	7.5	7.9	14
20	6.8	9.8	8.4	26	11	59	13	12	11	7.6	6.3	12
21	5.7	11	35	14	14	23	12	11	115	7.3	6.2	12
22	5.4	19	12	16	41	19	12	9.6	154	54	6.5	11
23	7.8	9.0	46	15	14	16	12	8.9	229	80	7.3	10
24	45	8.2	16	12	12	15	11	11	16	10	6.6	10
25	113	8.5	11	9.6	12	13	12	9.0	13	7.8	34	8.0
26	107	17	84	11	85	14	69	9.1	31	9.2	1,040	187
27	21	13	18	12	20	13	58	11	55	7.4	1,740	124
28	11	13	e62	12	14	13	181	124	12	7.9	47	19
29	8.9	10	79	9.9	13	16	32	26	10	9.7	21	14
30	8.3	9.6	222	13	---	13	15	13	9.0	7.0	44	11
31	6.7	---	58	9.6	---	26	---	13	---	115	19	---
Total	489.0	393.4	994.7	572.9	834	1,522	1,003	539.8	864.5	1,163.0	3,224.4	1,240.8
Mean	15.8	13.1	32.1	18.5	28.8	49.1	33.4	17.4	28.8	37.5	104	41.4
Max	113	32	222	146	279	353	181	124	229	286	1,740	346
Min	4.4	5.5	6.6	9.2	11	11	11	8.9	7.4	7.0	6.2	8.0
Cfsm	0.51	0.43	1.05	0.60	0.94	1.60	1.09	0.57	0.94	1.22	3.39	1.35
In.	0.59	0.48	1.21	0.69	1.01	1.84	1.22	0.65	1.05	1.41	3.91	1.50

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	36.2	36.1	40.2	54.6	59.9	68.5	43.6	39.7	38.0	35.7	36.6	33.5
Max	157	137	107	123	124	161	139	204	134	215	118	135
(WY)	(1991)	(1986)	(1984)	(1993)	(1979)	(1993)	(2003)	(1975)	(2003)	(1997)	(1995)	(1975)
Min	7.35	9.32	10.2	13.4	20.1	18.5	14.9	14.0	6.95	6.67	7.97	6.00
(WY)	(2001)	(1982)	(1966)	(1981)	(2002)	(1985)	(1981)	(1986)	(1986)	(1986)	(1987)	(1983)

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SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1962 - 2008	
Annual total	11,719.6		12,841.5			
Annual mean	32.1		35.1		43.4	
Highest annual mean					85.4	
Lowest annual mean					21.0	
Highest daily mean	1,450	Mar 2	1,740	Aug 27	5,010	Jul 23, 1997
Lowest daily mean	4.4	Oct 9	4.4	Oct 9	3.1	Sep 25, 1983
Annual seven-day minimum	5.2	Oct 9	5.2	Oct 9	3.5	Oct 5, 1993
Maximum peak flow			5,150	Aug 27	^a 11,600	Jul 23, 1997
Maximum peak stage			14.55	Aug 27	20.38	Jul 23, 1997
Instantaneous low flow			3.0	Oct 11	^a 2.8	Jul 13, 1986
Annual runoff (cfs)	1.05		1.14		1.41	
Annual runoff (inches)	14.20		15.56		19.22	
10 percent exceeds	60		58		78	
50 percent exceeds	14		12		17	
90 percent exceeds	6.8		7.2		8.6	

^aSee Remarks.