

Water-Data Report 2007

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. Minimum discharge for current water year also occurred September 29.

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 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	11	11	41	123	93	526	21	16	11	30	8.6	21
2	12	13	21	33	47	1,450	20	14	9.8	12	8.1	19
3	11	10	19	e21	e22	61	17	14	52	11	9.3	7.4
4	12	11	20	22	e20	38	16	17	15	9.3	9.3	7.6
5	9.3	11	16	131	e19	31	14	24	11	8.7	8.3	11
6	16	12	17	75	e16	28	14	18	9.6	10	9.9	7.4
7	12	168	15	168	19	26	14	14	10	10	12	8.1
8	97	114	e17	345	e18	24	14	14	11	7.9	9.0	8.0
9	16	23	e16	51	19	23	15	15	13	99	8.8	7.3
10	13	20	e17	34	17	22	14	16	8.4	40	11	7.5
11	14	66	14	e27	19	22	e61	14	25	25	9.6	5.1
12	18	177	16	25	18	20	158	21	36	21	8.7	5.8
13	10	23	15	24	228	20	22	17	21	11	9.4	6.1
14	11	20	15	23	168	19	26	14	60	11	7.5	96
15	11	40	15	25	35	21	424	15	21	95	7.6	43
16	12	595	15	22	27	142	62	13	14	26	7.8	8.8
17	363	44	14	19	25	33	29	15	11	15	e6.7	7.6
18	72	28	15	35	22	23	25	13	9.9	47	e7.6	7.1
19	19	23	14	24	21	21	60	11	11	12	6.8	7.0
20	15	22	15	19	22	20	61	13	11	11	6.9	6.3
21	12	299	15	79	19	19	22	13	11	9.3	8.0	6.6
22	13	1,210	185	101	20	20	20	12	9.0	8.4	10	6.3
23	12	85	47	27	20	19	21	13	10	8.7	34	7.3
24	11	40	23	23	18	18	18	12	40	8.5	48	8.1
25	11	29	332	22	174	18	17	13	146	7.6	8.9	5.7
26	12	24	57	e16	44	17	17	11	37	8.7	132	6.4
27	74	23	32	19	28	18	61	11	26	179	60	4.9
28	102	24	e21	19	23	18	19	12	10	131	12	5.7
29	16	22	21	e17	---	26	16	11	10	14	9.5	6.1
30	14	26	22	e12	---	17	15	11	18	18	11	5.2
31	14	---	48	18	---	16	---	11	---	14	23	---
Total	1,045.3	3,213	1,150	1,599	1,221	2,776	1,313	438	687.7	919.1	529.3	359.4
Mean	33.7	107	37.1	51.6	43.6	89.5	43.8	14.1	22.9	29.6	17.1	12.0
Max	363	1,210	332	345	228	1,450	424	24	146	179	132	96
Min	9.3	10	14	12	16	16	14	11	8.4	7.6	6.7	4.9
Cfsm	1.10	3.49	1.21	1.68	1.42	2.92	1.43	0.46	0.75	0.97	0.56	0.39
In.	1.27	3.89	1.39	1.94	1.48	3.36	1.59	0.53	0.83	1.11	0.64	0.44

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	36.6	36.6	40.4	55.4	60.6	68.9	43.8	40.2	38.2	35.6	33.9	33.3
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 2006		Water Year 2007		Water Years 1962 - 2007	
Annual total			15,250.8			
Annual mean			41.8		43.9	
Highest annual mean					85.4 2003	
Lowest annual mean					24.0 1981	
Highest daily mean	1,210	Nov 22	1,450	Mar 2	5,010	Jul 23, 1997
Lowest daily mean	7.0	Jul 20	4.9	Sep 27	3.1	Sep 25, 1983
Annual seven-day minimum	8.2	Jul 15	6.0	Sep 24	3.5	Oct 5, 1993
Maximum peak flow			5,190 Mar 2		^a 11,600 Jul 23, 1997	
Maximum peak stage			14.60 Mar 2		20.38 Jul 23, 1997	
Instantaneous low flow			^a 3.4 Aug 20		^a 2.8 Jul 13, 1986	
Annual runoff (cfsm)			1.36		1.43	
Annual runoff (inches)			18.48		19.42	
10 percent exceeds			73		79	
50 percent exceeds			17		18	
90 percent exceeds			8.4		8.6	

^a See Remarks.

