

Water-Data Report 2010

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 streamgage.

REMARKS.--Records fair, 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 2009 TO SEPTEMBER 2010
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	9.4	233	38	41	67	35	47	33	728	36	43	25
2	9.5	25	375	38	193	57	45	33	161	30	26	24
3	9.1	14	119	38	104	66	43	49	66	27	29	26
4	9.7	13	52	39	63	42	41	36	39	28	26	24
5	55	16	50	36	e627	39	41	33	37	25	36	23
6	11	12	43	34	181	36	40	31	38	26	211	24
7	e8.0	10	39	35	73	36	41	32	43	28	485	25
8	9.2	11	107	34	59	36	48	31	32	27	33	23
9	7.8	11	426	34	53	39	51	31	30	26	64	23
10	8.6	216	72	35	49	40	37	31	39	26	34	25
11	8.3	947	48	35	46	50	36	40	33	28	29	27
12	21	204	43	37	46	234	36	33	30	457	29	22
13	13	55	71	36	60	235	36	30	56	51	29	23
14	27	32	45	35	45	99	39	31	e41	44	32	24
15	23	26	42	35	68	53	36	32	34	31	144	21
16	13	23	41	37	47	46	38	35	29	58	36	24
17	15	23	37	456	42	42	37	131	31	60	28	24
18	10	42	161	66	38	45	37	48	27	40	28	23
19	11	37	152	47	40	44	35	65	29	32	744	23
20	12	34	59	43	36	40	37	35	27	26	69	23
21	13	34	45	118	36	61	44	34	27	26	35	23
22	16	47	41	75	129	74	35	35	28	27	30	24
23	13	140	38	46	51	43	34	32	26	26	30	21
24	22	44	37	258	56	39	37	37	28	27	29	24
25	13	38	858	1,140	50	39	95	34	27	25	28	23
26	14	37	97	73	39	40	36	31	26	27	40	72
27	127	45	54	54	38	43	57	29	28	217	28	161
28	106	36	45	50	38	79	51	51	28	58	28	125
29	19	36	42	47	---	535	35	110	29	28	27	97
30	16	40	40	62	---	72	34	34	232	27	27	76
31	18	---	66	77	---	52	---	123	---	45	27	---
Total	667.6	2,481	3,383	3,191	2,374	2,391	1,259	1,370	2,029	1,639	2,484	1,122
Mean	21.5	82.7	109	103	84.8	77.1	42.0	44.2	67.6	52.9	80.1	37.4
Max	127	947	858	1,140	627	535	95	131	728	457	744	161
Min	7.8	10	37	34	36	35	34	29	26	25	26	21
Cfsm	0.70	2.69	3.55	3.35	2.76	2.51	1.37	1.44	2.20	1.72	2.61	1.22
In.	0.81	3.01	4.10	3.87	2.88	2.90	1.53	1.66	2.46	1.99	3.01	1.36

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2010, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	35.5	36.7	41.6	55.3	59.7	68.8	43.3	40.3	39.0	36.3	37.3	33.3
Max	157	137	109	123	124	161	139	204	134	215	118	135
(WY)	(1991)	(1986)	(2010)	(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 2009		Water Year 2010		Water Years 1962 - 2010	
Annual total	18,295.8		24,390.6			
Annual mean	50.1		66.8		43.8	
Highest annual mean					85.4	2003
Lowest annual mean					21.0	1962
Highest daily mean	947	Nov 11	1,140	Jan 25	5,010	Jul 23, 1997
Lowest daily mean	7.8	Oct 9	7.8	Oct 9	3.1	Sep 25, 1983
Annual seven-day minimum	8.8	Sep 3	11	Oct 6	3.5	Oct 5, 1993
Maximum peak flow			4,790	Jan 25	^a 11,600	Jul 23, 1997
Maximum peak stage			14.08	Jan 25	20.38	Jul 23, 1997
Instantaneous low flow			5.6	Oct 9	^a 2.8	Jul 13, 1986
Annual runoff (cfsm)	1.63		2.18		1.43	
Annual runoff (inches)	22.17		29.55		19.39	
10 percent exceeds	102		113		78	
50 percent exceeds	18		37		18	
90 percent exceeds	10		23		8.7	

^a See Remarks.

