

Water-Data Report 2007

**02146211 IRWIN CREEK AT STATESVILLE AVENUE AT CHARLOTTE, NC**

Santee Basin  
Lower Catawba Subbasin

LOCATION.--Lat 35°15'43", long 80°50'13" referenced to North American Datum of 1983, Mecklenburg County, NC, Hydrologic Unit 03050103, on left bank, at upstream side of new bridge on U.S. Highway 21 (Statesville Ave) 1,000 ft upstream of Kennedy Branch, 0.2 mi upstream of Interstate Highway 77 and 2.5 mi north of Trade and Tryon Streets intersection, downtown Charlotte.

DRAINAGE AREA.--5.97 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1969-80, October 1981 to September 1994, November 1997 to September 2001, June 2004 to current water year.

REVISED RECORDS.--WDR NC-84-1: 1982.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 656.04 ft above North American Vertical Datum of 1988, from levels. Radio telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. A 140-acre solid-waste landfill, used 1940 to 1970, is located just upstream from station. No flow for parts of August 1, 3, 4, 1987, occurred as a result of upstream construction; minimum discharge not affected by construction: 0.12 ft<sup>3</sup>/s, August 30, 31, 1987. Minimum discharge for current water year also occurred September 30.

## 02146211 IRWIN CREEK AT STATESVILLE AVENUE AT CHARLOTTE, NC—Continued

**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	1.4	1.7	5.9	22	14	116	2.6	2.0	1.1	3.0	0.70	2.2
2	1.3	1.6	2.6	5.1	7.0	328	2.7	2.0	1.1	1.2	0.61	0.69
3	1.3	1.5	2.3	3.5	3.5	12	2.4	1.9	5.1	1.00	0.52	0.44
4	1.4	1.4	2.2	3.1	2.8	6.3	2.4	2.1	1.4	0.93	0.50	0.41
5	1.4	1.4	2.1	26	2.6	4.9	2.2	2.4	1.2	0.86	0.47	0.41
6	2.3	1.6	2.1	12	2.5	4.2	2.1	2.1	1.1	0.82	0.54	0.40
7	1.5	29	2.1	37	2.5	3.8	2.1	1.8	1.1	0.82	0.44	0.51
8	11	19	1.9	86	2.4	3.5	2.0	1.7	1.2	0.87	0.41	0.57
9	2.3	3.4	1.9	8.3	2.3	3.3	2.1	1.8	1.0	11	0.39	0.37
10	1.7	2.4	1.9	4.9	2.3	3.2	2.1	1.8	0.94	3.0	0.35	0.35
11	1.5	16	1.9	3.9	2.5	3.1	12	1.7	0.96	5.6	0.34	0.37
12	1.9	31	1.9	3.5	2.6	2.9	31	2.4	2.5	1.3	0.35	0.38
13	1.4	3.7	1.9	3.3	46	2.9	3.4	1.9	1.4	0.85	0.35	0.57
14	1.3	2.8	1.9	3.1	29	2.9	11	1.6	21	0.83	0.35	8.8
15	1.3	7.0	2.0	2.9	5.1	2.8	102	1.6	3.4	25	0.25	2.4
16	1.3	114	1.9	2.9	4.1	23	11	1.6	1.7	2.1	0.26	0.55
17	72	7.5	1.8	2.5	3.4	5.0	4.3	1.5	1.3	1.2	0.26	0.41
18	13	4.1	1.8	4.1	3.0	3.3	3.4	1.4	1.2	3.6	0.28	0.40
19	3.0	3.3	1.8	3.1	2.6	3.0	9.3	1.4	1.1	0.96	0.26	0.40
20	2.2	e2.6	1.8	2.6	2.6	2.9	6.2	1.4	1.0	0.86	0.22	0.38
21	1.8	e56	1.9	17	2.6	2.8	3.2	1.4	0.96	0.81	0.35	0.34
22	1.7	268	35	15	2.5	2.8	2.7	1.3	0.93	0.71	1.0	0.36
23	1.6	17	7.2	4.2	2.3	2.8	2.5	1.4	0.90	0.74	12	0.34
24	1.5	6.3	3.2	3.3	2.3	3.0	2.4	1.4	24	0.73	6.4	0.36
25	1.5	4.3	68	2.9	36	2.8	2.3	1.3	51	0.72	0.48	0.37
26	1.5	3.5	9.4	2.7	6.9	2.5	2.2	1.3	19	0.76	101	0.36
27	13	3.1	4.3	2.7	3.8	2.5	7.0	1.2	3.4	69	9.4	0.38
28	17	2.9	3.3	2.6	3.1	2.5	2.4	1.2	1.4	11	1.3	0.23
29	2.4	2.6	2.9	2.4	---	3.4	2.2	1.2	1.1	1.5	0.81	0.19
30	2.0	3.8	2.6	2.4	---	2.4	2.0	1.2	8.2	2.1	0.72	0.21
31	1.8	---	6.1	2.3	---	2.4	---	1.2	---	0.93	0.67	---
<b>Total</b>	170.3	622.5	187.6	297.3	202.3	566.9	245.2	50.2	161.69	154.80	141.98	24.15
<b>Mean</b>	5.49	20.8	6.05	9.59	7.22	18.3	8.17	1.62	5.39	4.99	4.58	0.81
<b>Max</b>	72	268	68	86	46	328	102	2.4	51	69	101	8.8
<b>Min</b>	1.3	1.4	1.8	2.3	2.3	2.4	2.0	1.2	0.90	0.71	0.22	0.19
<b>In.</b>	1.06	3.88	1.17	1.85	1.26	3.53	1.53	0.31	1.01	0.96	0.88	0.15

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 2007 <sup>a</sup>, BY WATER YEAR (WY)**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Mean</b>	4.84	6.59	6.85	10.5	12.4	13.4	7.36	5.70	6.61	3.82	4.89	5.22
<b>Max</b>	23.8	27.8	21.3	22.9	38.8	30.6	16.0	16.5	24.9	8.15	19.1	28.0
<b>(WY)</b>	(1991)	(1986)	(1984)	(1993)	(1995)	(1993)	(1998)	(1990)	(1982)	(1984)	(2006)	(2004)
<b>Min</b>	0.88	1.08	1.64	2.99	2.42	2.58	2.47	1.62	0.89	0.93	0.39	0.47
<b>(WY)</b>	(2001)	(1982)	(2001)	(2001)	(2006)	(2006)	(2006)	(2007)	(1986)	(1986)	(1987)	(1983)

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SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1981 - 2007 <sup>a</sup>	
<b>Annual total</b>	3,108.76		2,824.92			
<b>Annual mean</b>	8.52		7.74		7.04	
<b>Highest annual mean</b>					10.7	1984
<b>Lowest annual mean</b>					3.25	2001
<b>Highest daily mean</b>	268	Nov 22	328	Mar 2	388	Nov 21, 1985
<b>Lowest daily mean</b>	0.77	Jul 17	0.19	Sep 29	0.16	Aug 1, 1986
<b>Annual seven-day minimum</b>	0.88	Jul 15	0.27	Aug 14	0.25	Aug 20, 2001
<b>Maximum peak flow</b>			1,770	Mar 2	1,770	Mar 2, 2007
<b>Maximum peak stage</b>			8.13	Mar 2	8.13	Mar 2, 2007
<b>Instantaneous low flow</b>			<sup>b</sup> 0.16	Sep 29	<sup>b</sup> 0.00	Aug 1, 1987
<b>Annual runoff (inches)</b>	19.37		17.60		16.03	
<b>10 percent exceeds</b>	13		12		13	
<b>50 percent exceeds</b>	1.9		2.2		2.3	
<b>90 percent exceeds</b>	1.0		0.44		0.70	

<sup>a</sup> See Period of Record.

<sup>b</sup> See Remarks.

