

02146211 IRWIN CREEK AT STATESVILLE AVENUE AT CHARLOTTE, NC

LOCATION.--Lat 35°15'43", long 80°50'13", Mecklenburg County, Hydrologic Unit 03050103, on left bank on upstream side of bridge on Statesville Avenue (U.S. Highway 21), 1,000 ft upstream from Kennedy Branch, 0.2 mi upstream from Interstate Highway 77, and 2.5 mi north of Trade and Tryon Street intersection in downtown Charlotte.

DRAINAGE AREA.--5.97 mi².

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 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 Aug. 1,3,4, 1987, occurred as a result of upstream construction; minimum discharge not affected by construction: 0.12 ft³/s, Aug. 30,31, 1987. Maximum discharge and gage-height for period June to September 2004 also occurred Sept. 8, 2004. Minimum discharge for period June to September 2004 also occurred June 13, July 14, 2004. Minimum discharge for current water year also occurred Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	1.2	2.6	6.7	1.3
2	---	---	---	---	---	---	---	---	0.95	1.6	1.8	1.1
3	---	---	---	---	---	---	---	---	0.89	1.9	1.1	1.2
4	---	---	---	---	---	---	---	---	1.6	2.0	0.98	1.2
5	---	---	---	---	---	---	---	---	0.93	3.6	2.0	1.2
6	---	---	---	---	---	---	---	---	0.88	1.6	1.0	2.1
7	---	---	---	---	---	---	---	---	0.88	1.3	0.83	214
8	---	---	---	---	---	---	---	---	0.88	1.3	0.84	211
9	---	---	---	---	---	---	---	---	1.0	1.2	0.82	6.6
10	---	---	---	---	---	---	---	---	0.89	1.2	0.83	2.6
11	---	---	---	---	---	---	---	---	0.85	2.3	4.6	1.9
12	---	---	---	---	---	---	---	---	0.77	1.4	109	1.6
13	---	---	---	---	---	---	---	---	4.4	1.2	32	1.4
14	---	---	---	---	---	---	---	---	43	0.91	32	1.3
15	---	---	---	---	---	---	---	---	6.9	0.89	3.4	1.2
16	---	---	---	---	---	---	---	---	5.9	0.83	1.8	1.3
17	---	---	---	---	---	---	---	---	1.4	26	1.4	51
18	---	---	---	---	---	---	---	---	1.2	11	1.3	4.2
19	---	---	---	---	---	---	---	---	1.0	1.5	1.2	1.9
20	---	---	---	---	---	---	---	---	0.97	1.1	1.3	1.5
21	---	---	---	---	---	---	---	---	95	1.1	1.2	1.4
22	---	---	---	---	---	---	---	---	4.3	1.1	1.6	1.3
23	---	---	---	---	---	---	---	---	17	1.00	1.2	1.4
24	---	---	---	---	---	---	---	---	6.0	0.96	1.1	1.4
25	---	---	---	---	---	---	---	---	99	1.1	0.99	1.3
26	---	---	---	---	---	---	---	---	28	1.2	0.98	1.2
27	---	---	---	---	---	---	---	---	4.2	51	1.00	90
28	---	---	---	---	---	---	---	---	2.4	2.2	1.2	225
29	---	---	---	---	---	---	---	---	1.9	6.1	7.0	6.1
30	---	---	---	---	---	---	---	---	1.7	1.8	13	2.7
31	---	---	---	---	---	---	---	---	---	1.3	8.4	---
TOTAL	---	---	---	---	---	---	---	---	335.99	134.29	242.57	841.4
MEAN	---	---	---	---	---	---	---	---	11.2	4.33	7.82	28.0
MAX	---	---	---	---	---	---	---	---	99	51	109	225
MIN	---	---	---	---	---	---	---	---	0.77	0.83	0.82	1.1
IN.	---	---	---	---	---	---	---	---	2.09	0.84	1.51	5.24

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 2004,[@] BY WATER YEAR (WY)

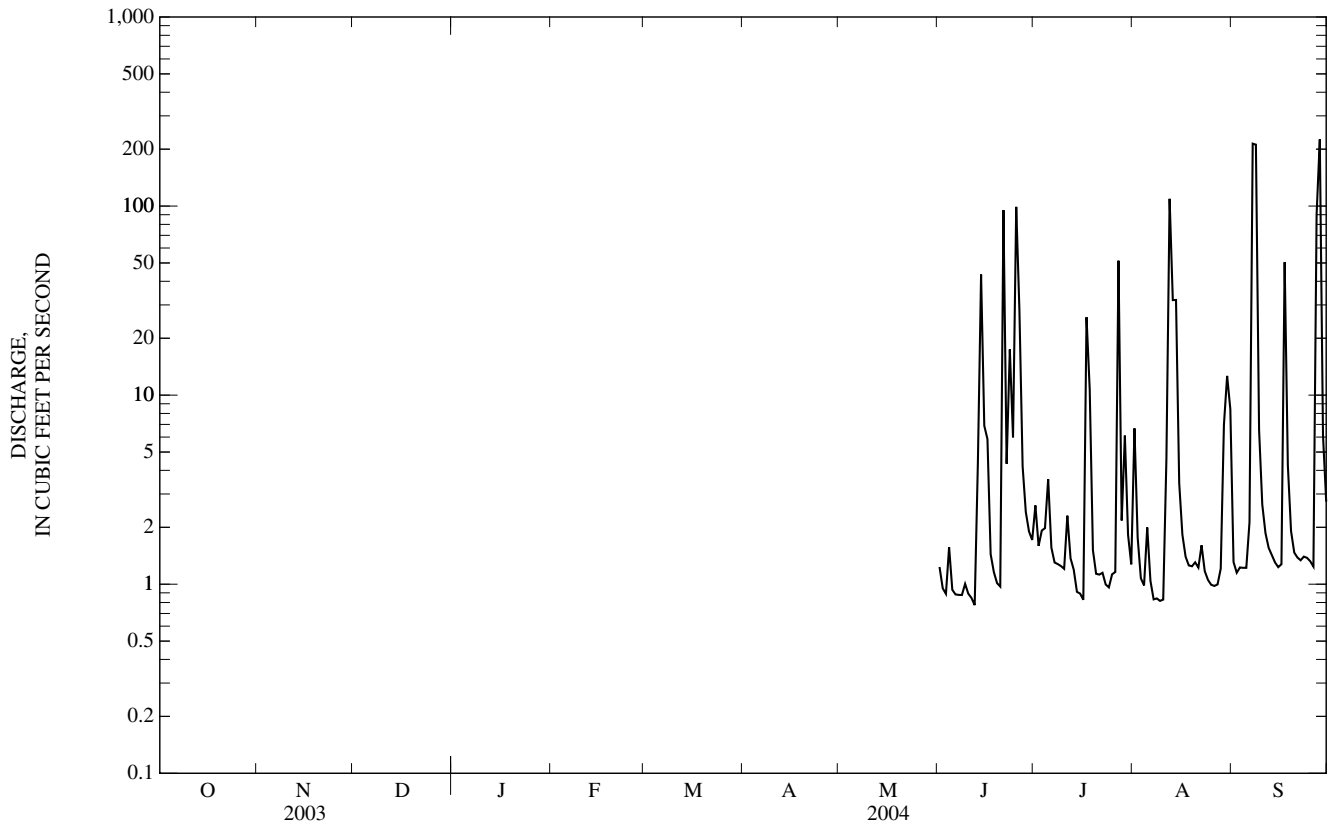
MEAN	4.87	6.09	6.81	11.2	13.6	13.7	7.57	6.21	6.17	3.59	4.17	5.24
MAX	23.8	27.8	21.3	22.9	38.8	30.6	16.0	16.5	24.9	8.15	11.3	28.0
(WY)	(1991)	(1986)	(1984)	(1993)	(1995)	(1993)	(1998)	(1990)	(1982)	(1984)	(1985)	(2004)
MIN	0.88	1.08	1.64	2.99	4.06	2.99	2.71	1.94	0.89	0.93	0.39	0.47
(WY)	(2001)	(1982)	(2001)	(2001)	(2001)	(1985)	(1986)	(1986)	(1986)	(1986)	(1987)	(1983)

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

SUMMARY STATISTICS	FOR 2004 WATER YEAR		WATER YEARS 1981 - 2004 [@]	
ANNUAL MEAN			7.09	
HIGHEST ANNUAL MEAN			10.7	1984
LOWEST ANNUAL MEAN			3.25	2001
HIGHEST DAILY MEAN	225	Sep 28	388	Nov 21, 1985
LOWEST DAILY MEAN	0.77	Jun 12	0.16	Aug 1, 1986
ANNUAL SEVEN-DAY MINIMUM	0.88	Jun 6	0.25	Aug 20, 2001
MAXIMUM PEAK FLOW	1,250*	Sep 7	1,430	Jun 18, 1982
MAXIMUM PEAK STAGE	7.12*	Sep 7	7.58	Jun 18, 1982
INSTANTANEOUS LOW FLOW	0.72*	Jun 12	0.00*	Aug 1, 1987
ANNUAL RUNOFF (INCHES)			16.13	
10 PERCENT EXCEEDS			13	
50 PERCENT EXCEEDS			2.4	
90 PERCENT EXCEEDS			0.70	

[@] See PERIOD OF RECORD.

* See REMARKS.



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

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	1.4	2.2	1.6	e2.2	7.7	8.3	7.7	14	1.3	1.4	0.67
2	2.0	2.5	1.6	1.6	2.1	4.2	8.9	3.4	43	1.2	1.0	0.51
3	5.7	1.6	1.5	1.7	23	3.4	5.0	3.1	4.0	1.1	14	0.45
4	2.0	21	1.4	1.7	5.0	2.9	4.5	3.1	2.3	1.1	2.1	0.44
5	1.6	3.0	1.4	1.8	3.0	2.7	4.3	3.4	1.8	1.1	1.0	0.46
6	1.6	1.7	6.8	1.7	2.4	2.4	4.1	3.3	1.6	1.1	0.88	0.47
7	2.1	1.5	3.2	1.7	2.3	2.7	4.7	3.3	2.4	5.7	0.88	0.54
8	2.1	1.4	1.9	1.7	2.3	36	4.9	2.7	3.0	1.4	62	0.42
9	2.2	1.3	5.2	1.6	2.3	5.6	4.1	2.7	5.9	1.1	12	0.49
10	1.7	1.2	66	1.7	2.3	3.7	3.7	63	12	1.1	3.0	0.72
11	2.2	1.2	5.6	1.7	2.1	3.1	3.7	10	3.3	3.4	1.7	0.51
12	1.9	12	3.0	1.7	2.1	2.8	36	3.1	1.8	2.0	1.2	0.54
13	5.3	2.7	2.3	1.7	2.3	2.7	34	2.3	1.8	3.2	2.9	0.62
14	1.5	1.6	2.0	36	7.1	3.4	35	2.0	1.6	1.2	2.8	0.67
15	1.4	1.6	1.9	3.6	2.8	2.4	7.8	1.4	1.5	0.98	1.1	0.62
16	1.1	1.6	e1.7	2.5	3.1	24	5.2	1.2	1.2	0.92	0.91	5.9
17	1.2	1.3	1.7	2.1	2.4	25	4.6	1.5	1.2	0.94	1.2	0.72
18	1.6	1.2	1.6	e1.9	2.0	5.8	4.3	1.6	1.2	0.97	0.93	0.59
19	1.8	1.2	1.6	e2.0	1.9	3.9	4.1	1.6	1.1	0.94	0.94	0.63
20	1.9	1.5	e1.5	e2.0	2.8	3.4	4.2	5.3	1.1	0.93	0.94	0.65
21	1.7	1.5	e1.5	1.9	12	3.1	4.3	1.8	0.95	0.91	0.96	0.54
22	1.6	1.6	e1.5	e1.9	4.7	13	8.8	1.6	0.87	1.9	1.0	0.57
23	1.5	2.7	15	e1.7	2.7	55	4.7	1.5	0.96	0.89	0.92	0.56
24	1.9	11	3.3	e1.7	17	8.1	3.5	1.6	1.0	0.67	1.8	0.59
25	1.4	5.1	2.2	e1.9	4.3	4.7	3.3	1.3	1.0	0.67	0.93	0.53
26	1.5	2.0	e1.9	1.9	3.0	4.4	3.4	1.3	8.0	0.71	0.73	0.59
27	2.3	11	e1.7	e1.7	5.3	8.8	3.7	1.3	4.3	0.65	0.72	0.60
28	4.4	7.7	e1.7	e1.6	61	124	3.8	1.2	28	2.7	0.79	0.46
29	2.6	2.3	1.7	e3.0	---	13	3.7	1.2	2.8	17	0.82	1.0
30	1.6	1.8	1.7	e1.3	---	7.3	6.4	1.7	1.6	94	0.81	0.39
31	1.6	---	1.6	e3.0	---	17	---	1.3	---	5.0	0.75	---
TOTAL	65.0	109.2	147.9	105.3	185.5	406.2	237.0	141.5	155.28	156.78	123.11	22.45
MEAN	2.10	3.64	4.77	3.40	6.62	13.1	7.90	4.56	5.18	5.06	3.97	0.75
MAX	5.7	21	66	36	61	124	36	63	43	94	62	5.9
MIN	1.1	1.2	1.4	1.6	1.9	2.4	3.3	1.2	0.87	0.65	0.72	0.39
IN.	0.41	0.68	0.92	0.66	1.16	2.53	1.48	0.88	0.97	0.98	0.77	0.14

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 2005,® BY WATER YEAR (WY)

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
MEAN	4.73	5.96	6.70	10.8	13.2	13.7	7.59	6.12	6.12	3.66	4.16	5.00													
MAX	23.8	27.8	21.3	22.9	38.8	30.6	16.0	16.5	24.9	8.15	11.3	28.0													
(WY)	(1991)	(1986)	(1984)	(1993)	(1995)	(1993)	(1998)	(1990)	(1982)	(1984)	(1985)	(2004)													
MIN	0.88	1.08	1.64	2.99	4.06	2.99	2.71	1.94	0.89	0.93	0.39	0.47													
(WY)	(2001)	(1982)	(2001)	(2001)	(2001)	(1985)	(1986)	(1986)	(1986)	(1986)	(1987)	(1983)													

SUMMARY STATISTICS

FOR 2004 CALENDAR YEAR

FOR 2005 WATER YEAR

WATER YEARS 1981 - 2005®

ANNUAL TOTAL									1,855.22																
ANNUAL MEAN									5.08																
HIGHEST ANNUAL MEAN																									
LOWEST ANNUAL MEAN																									
HIGHEST DAILY MEAN																									
LOWEST DAILY MEAN																									
ANNUAL SEVEN-DAY MINIMUM																									
MAXIMUM PEAK FLOW																									
MAXIMUM PEAK STAGE																									
INSTANTANEOUS LOW FLOW																									
ANNUAL RUNOFF (INCHES)																									
10 PERCENT EXCEEDS																									
50 PERCENT EXCEEDS																									
90 PERCENT EXCEEDS																									

® See PERIOD OF RECORD.

* See REMARKS.

e Estimated.

