

SANTÉE RIVER BASIN

02146600 MCALPINE CREEK AT SARDIS ROAD NEAR CHARLOTTE, NC

LOCATION.--Lat 35°08'14", long 80°46'05", Mecklenburg County, Hydrologic Unit 03050103, near left bank on downstream end of bridge pier at Sardis Road (Secondary Road 3356), 1.7 mi downstream of Irvins Creek, and 7 mi southeast of city hall, Charlotte.

DRAINAGE AREA.--39.6 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1962 to current year.

REVISED RECORDS.--WDR NC-81-1: Drainage area. WDR NC-99-00-1B: Instantaneous low flow period of record.

GAGE.--Water-stage recorder. Datum of gage is 553.39 ft above sea level (levels by City of Charlotte). Radio telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. No flow for part of Nov. 15, 1972, was result of upstream construction. Minimum discharge for current water year and period of record affected by regulation of unknown origin.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 6, 1962, reached a stage of about 14.0 ft, from floodmarks; discharge, 4,150 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.3	3.5	5.1	e4.8	7.4	9.0	34	7.2	132	3.2	2.3	9.3
2	5.2	3.3	5.0	e5.0	6.8	8.6	22	6.9	30	2.6	2.3	2.9
3	6.5	3.4	5.1	e5.1	6.1	21	23	6.6	9.9	15	2.2	130
4	4.8	3.5	4.7	e5.1	6.0	226	18	6.3	7.0	53	1.9	166
5	4.9	6.7	6.2	e5.2	6.1	43	15	6.4	7.7	74	1.8	13
6	5.7	3.6	4.9	e5.1	6.0	19	14	6.1	5.7	7.6	1.7	5.4
7	4.0	3.3	5.0	5.1	6.0	13	13	5.7	5.0	4.5	1.3	3.5
8	3.4	3.3	5.1	19	6.1	11	12	6.9	8.5	7.5	1.2	2.7
9	3.6	10	4.9	9.3	6.3	10	12	6.8	8.2	7.3	.96	11
10	3.8	25	5.2	5.9	11	9.2	11	5.6	11	5.0	1.9	4.7
11	3.6	5.5	5.2	5.5	6.9	8.9	10	5.2	4.9	3.6	7.8	2.5
12	3.7	3.8	5.2	64	20	21	9.8	5.0	3.8	3.3	2.2	1.6
13	3.8	3.8	4.6	29	15	45	36	4.8	80	21	18	1.3
14	3.5	33	8.7	11	37	14	16	4.3	74	5.5	7.3	1.1
15	3.5	7.9	6.7	8.9	13	180	11	4.1	10	2.6	2.0	1.1
16	3.6	5.0	24	7.4	9.8	43	11	4.4	7.5	2.2	1.1	1.2
17	4.1	21	40	6.3	191	21	9.0	5.1	5.8	2.7	4.4	1.2
18	3.6	7.1	10	6.8	22	14	8.1	5.3	3.6	1.9	29	1.0
19	3.5	47	8.9	85	13	12	8.0	9.3	3.3	2.0	3.3	.74
20	3.3	24	9.9	104	10	204	7.8	40	3.1	2.1	1.7	25
21	3.3	9.5	6.4	23	9.3	374	7.7	8.3	3.0	1.7	1.4	8.3
22	3.3	6.1	7.3	12	79	48	7.6	66	48	1.8	2.4	2.5
23	3.2	5.3	5.8	9.2	23	23	7.5	24	34	8.8	.81	1.6
24	3.5	5.2	e5.0	8.2	13	17	14	12	6.7	41	.60	274
25	3.4	165	e5.0	7.2	32	14	132	25	6.7	70	1.2	23
26	3.6	31	e5.1	6.6	19	13	17	103	7.4	29	.82	6.1
27	3.5	9.7	e5.2	6.6	11	11	10	11	6.7	6.0	.37	3.8
28	3.4	6.7	e6.5	6.6	9.7	11	8.7	50	3.4	3.9	.50	2.7
29	3.4	5.7	e6.0	6.4	---	519	7.8	33	4.9	5.3	.22	2.1
30	3.3	5.2	e5.1	16	---	173	7.3	11	3.2	6.2	.46	1.9
31	3.2	---	e4.8	8.9	---	38	---	6.8	---	3.1	5.2	---
TOTAL	121.5	473.1	236.6	508.2	601.5	2173.7	520.3	502.1	545.0	403.4	108.34	711.24
MEAN	3.92	15.8	7.63	16.4	21.5	70.1	17.3	16.2	18.2	13.0	3.49	23.7
MAX	6.5	165	40	104	191	519	132	103	132	74	29	274
MIN	3.2	3.3	4.6	4.8	6.0	8.6	7.3	4.1	3.0	1.7	.22	.74
CFSM	.10	.40	.19	.41	.54	1.77	.44	.41	.46	.33	.09	.60
IN.	.11	.44	.22	.48	.57	2.04	.49	.47	.51	.38	.10	.67

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2001, BY WATER YEAR (WY)

	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)
MEAN	34.0	29.4	38.9	67.7	74.3	82.2	48.6	31.8	29.5	28.6	32.4	24.3
MAX	212	109	128	157	169	200	134	173	123	140	178	162
(WY)	1991	1986	1984	1978	1979	1977	1998	1975	1992	1997	1994	1987
MIN	3.16	4.65	7.55	7.46	16.9	13.6	7.45	8.04	3.60	4.04	3.42	1.46
(WY)	1963	1982	1966	1981	1968	1985	1967	1968	1986	1977	1968	1968

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SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1962 - 2001	
ANNUAL TOTAL	10668.5		6904.98		43.4	
ANNUAL MEAN	29.1		18.9		72.4	
HIGHEST ANNUAL MEAN					1975	
LOWEST ANNUAL MEAN					18.9	
HIGHEST DAILY MEAN	883	Sep 23	519	Mar 29	4490	Aug 27 1995
LOWEST DAILY MEAN	1.6	Sep 17	.22	Aug 29	.22	Aug 29 2001
ANNUAL SEVEN-DAY MINIMUM	2.3	Sep 11	.60	Aug 24	.40	Jul 14 1986
MAXIMUM PEAK FLOW			1770	Mar 29	9040	Aug 27 1995
MAXIMUM PEAK STAGE			7.94	Mar 29	17.79	Aug 27 1995
INSTANTANEOUS LOW FLOW			.11*	Aug 29	.11*	Aug 29 2001
ANNUAL RUNOFF (CFSM)	.74		.48		1.10	
ANNUAL RUNOFF (INCHES)	10.02		6.49		14.90	
10 PERCENT EXCEEDS	58		36		73	
50 PERCENT EXCEEDS	9.0		6.6		13	
90 PERCENT EXCEEDS	3.4		2.2		3.8	

e Estimated.
 * See REMARKS.

