

Water-Data Report 2008

02146507 LITTLE SUGAR CREEK AT ARCHDALE DRIVE AT CHARLOTTE, NC

Santee Basin
Lower Catawba Subbasin

LOCATION.--Lat 35°08'53", long 80°51'28" referenced to North American Datum of 1983, Mecklenburg County, NC, Hydrologic Unit 03050103, on left bank downstream of bridge on Archdale Drive (Secondary Road 3657) in Charlotte, 0.7 mi downstream of Little Hope Creek, and 5.0 mi south of city hall, Charlotte.

DRAINAGE AREA.--42.6 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--January 1978 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 563.69, above North American Vertical Datum of 1988. Radio telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. A daily average of 18.9 ft³/s of treated sewage effluent was discharged into the stream 0.4 mi upstream from gage. Minimum discharge for all years affected by regulation. Minimum discharge for current water year also occurred October 16, June 6, 19, July 4, 31, September 26.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of September 22, 1975, reached a stage of about 12.7 ft, from floodmarks, discharge, 7,360 ft³/s.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	21	23	23	36	543	27	51	33	23	19	46	47
2	21	23	23	31	50	27	38	30	22	18	25	31
3	21	23	23	30	33	27	74	27	21	18	22	31
4	30	22	23	29	32	658	78	27	21	27	22	31
5	25	23	23	28	31	352	163	27	19	42	22	30
6	21	23	24	28	27	55	55	26	21	137	21	30
7	20	23	24	28	33	189	41	24	27	35	21	28
8	21	23	25	28	27	74	38	25	32	594	22	30
9	21	23	25	29	23	45	37	28	21	99	20	32
10	21	23	26	58	23	40	36	28	23	56	22	661
11	21	23	28	51	22	39	36	63	55	45	21	164
12	20	23	26	30	25	38	76	33	61	29	20	43
13	20	24	27	27	119	36	40	28	26	527	91	37
14	20	23	24	26	60	35	36	27	26	92	36	32
15	20	43	73	26	30	656	35	28	26	33	49	31
16	20	27	236	39	27	123	34	56	24	29	52	260
17	20	24	28	267	26	55	34	29	25	26	70	77
18	21	23	26	53	49	44	35	30	23	24	29	37
19	104	24	25	75	27	217	34	34	22	25	23	32
20	25	24	25	50	e26	95	37	29	109	23	21	31
21	21	23	61	32	31	49	37	30	310	23	21	30
22	21	30	29	37	84	44	33	25	267	69	21	31
23	21	24	55	41	32	38	29	24	395	208	21	28
24	109	23	34	31	27	37	26	26	34	36	22	29
25	239	24	26	25	26	36	26	25	24	27	104	29
26	197	43	170	25	145	35	189	21	21	26	1,620	330
27	50	33	40	28	38	35	278	20	74	26	4,980	199
28	32	25	114	28	29	34	483	220	22	25	99	46
29	24	24	114	26	28	34	70	50	20	27	72	38
30	24	23	357	37	---	34	37	25	19	23	74	35
31	24	---	85	28	---	59	---	23	---	95	40	---
Total	1,275	759	1,842	1,307	1,673	3,267	2,216	1,121	1,813	2,483	7,729	2,490
Mean	41.1	25.3	59.4	42.2	57.7	105	73.9	36.2	60.4	80.1	249	83.0
Max	239	43	357	267	543	658	483	220	395	594	4,980	661
Min	20	22	23	25	22	27	26	20	19	18	20	28
Cfsm	0.97	0.59	1.39	0.99	1.35	2.47	1.73	0.85	1.42	1.88	5.85	1.95
In.	1.11	0.66	1.61	1.14	1.46	2.85	1.94	0.98	1.58	2.17	6.75	2.17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	68.5	71.9	71.0	100	104	117	87.1	73.6	78.1	75.3	82.7	69.2
Max	258	212	164	207	194	245	257	322	256	310	249	233
(WY)	(1991)	(2007)	(1984)	(1978)	(1979)	(1993)	(2003)	(2003)	(2003)	(1997)	(2008)	(2004)
Min	25.1	22.6	32.8	31.6	44.4	40.0	30.8	33.8	20.5	27.2	29.5	21.7
(WY)	(2001)	(1982)	(1981)	(1981)	(2002)	(1985)	(1981)	(1986)	(1986)	(1986)	(1987)	(1986)

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SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1978 - 2008	
Annual total	23,068		27,975			
Annual mean	63.2		76.4		83.1	
Highest annual mean					154	2003
Lowest annual mean					51.7	1981
Highest daily mean	2,000	Mar 2	4,980	Aug 27	6,160	Jul 23, 1997
Lowest daily mean	20	Sep 29	18	Jul 2	15	Sep 20, 1981
Annual seven-day minimum	20	Oct 11	20	Oct 11	15	May 28, 1994
Maximum peak flow			13,500	Aug 27	13,600	Jul 23, 1997
Maximum peak stage			14.99	Aug 27	15.06	Jul 23, 1997
Instantaneous low flow			^a 11	Oct 15	^a 2.1	Aug 15, 2002
Annual runoff (cfsm)	1.48		1.79		1.95	
Annual runoff (inches)	20.14		24.43		26.52	
10 percent exceeds	105		110		146	
50 percent exceeds	38		29		38	
90 percent exceeds	22		21		25	

^aSee Remarks.