

Water-Data Report 2007

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. Datum of gage is 563.69, above North American Vertical Datum of 1988. Radio telemetry at station.

REMARKS.--No estimated daily discharges. Records good. A daily average of 21.1 ft³/s of treated sewage effluent was discharged into the stream 0.4 mi upstream from gage. Minimum discharge for period of record and current water year affected by regulation.

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 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	33	31	88	203	219	862	46	42	31	61	30	27
2	33	30	51	66	97	2,000	50	40	30	30	26	35
3	33	30	46	54	61	90	41	41	105	29	26	23
4	33	31	44	52	55	65	41	43	36	28	26	23
5	33	29	44	391	53	58	41	49	32	28	25	22
6	38	28	43	136	52	53	40	45	31	32	27	27
7	34	273	44	224	54	51	40	39	31	239	32	27
8	198	171	43	529	54	50	40	39	30	45	27	24
9	42	41	43	85	51	49	40	82	29	81	27	21
10	37	36	43	65	51	48	41	50	28	45	26	21
11	34	133	43	59	50	47	73	40	51	40	26	21
12	46	442	43	56	51	46	209	42	82	52	25	22
13	34	46	42	54	388	46	44	46	77	31	25	22
14	32	39	43	52	280	46	46	38	155	30	25	154
15	32	43	44	51	54	45	657	38	51	78	25	105
16	32	1,040	42	51	48	151	79	37	32	53	25	24
17	753	65	41	48	45	53	50	36	30	33	25	22
18	123	46	42	72	43	45	47	35	29	85	25	22
19	40	41	42	58	41	45	116	34	29	32	24	22
20	35	38	40	51	41	45	123	34	29	31	24	22
21	32	738	41	153	42	44	48	34	27	30	29	22
22	34	2,480	385	207	41	44	45	34	26	29	27	22
23	31	129	80	62	39	44	44	33	26	28	64	21
24	30	73	51	55	38	43	43	33	118	28	65	22
25	30	60	555	52	294	43	43	31	408	28	26	22
26	29	55	89	50	63	43	43	31	91	29	40	21
27	123	51	59	49	46	44	111	31	47	308	55	22
28	221	49	53	49	43	44	45	30	31	195	26	21
29	38	47	50	47	---	52	42	29	29	106	24	20
30	33	52	48	49	---	42	39	29	73	62	27	20
31	32	---	81	49	---	41	---	31	---	37	87	---
Total	2,308	6,367	2,403	3,179	2,394	4,379	2,367	1,196	1,824	1,963	991	899
Mean	74.5	212	77.5	103	85.5	141	78.9	38.6	60.8	63.3	32.0	30.0
Max	753	2,480	555	529	388	2,000	657	82	408	308	87	154
Min	29	28	40	47	38	41	39	29	26	28	24	20
Cfsm	1.75	4.98	1.82	2.41	2.01	3.32	1.85	0.91	1.43	1.49	0.75	0.70
In.	2.02	5.56	2.10	2.78	2.09	3.82	2.07	1.04	1.59	1.71	0.87	0.79

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	69.5	73.5	71.4	102	105	118	87.5	74.9	78.7	75.1	77.2	68.8
Max	258	212	164	207	194	245	257	322	256	310	227	233
(WY)	(1991)	(2007)	(1984)	(1978)	(1979)	(1993)	(2003)	(2003)	(2003)	(1997)	(1995)	(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 2006		Water Year 2007		Water Years 1978 - 2007	
Annual total	32,324		30,270			
Annual mean	88.6		82.9		83.4	
Highest annual mean					154	2003
Lowest annual mean					51.7	1981
Highest daily mean	2,480	Nov 22	2,480	Nov 22	6,160	Jul 23, 1997
Lowest daily mean	28	Aug 3	20	Sep 29	15	Sep 20, 1981
Annual seven-day minimum	29	Jul 29	21	Sep 24	15	May 28, 1994
Maximum peak flow			7,480	Mar 2	13,600	Jul 23, 1997
Maximum peak stage			11.69	Mar 2	15.06	Jul 23, 1997
Instantaneous low flow			^a 8.7	Jul 27	^a 2.1	Aug 15, 2002
Annual runoff (cfsm)	2.08		1.95		1.96	
Annual runoff (inches)	28.23		26.43		26.59	
10 percent exceeds	129		123		147	
50 percent exceeds	40		43		38	
90 percent exceeds	32		26		26	

^a See Remarks.

