

Water-Data Report 2010

**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 mi<sup>2</sup>.

**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 streamgage.

REMARKS.--Records good except those for estimated daily discharges, which are poor. A daily average of 19.9 ft<sup>3</sup>/s of treated sewage effluent was discharged into the stream 0.4 mi upstream from gage. Minimum discharge for all years 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 ft<sup>3</sup>/s.

## 02146507 LITTLE SUGAR CREEK AT ARCHDALE DRIVE AT CHARLOTTE, NC—Continued

**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010**  
**DAILY MEAN VALUES**

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	25	407	49	48	80	47	48	34	1,660	52	78	37
2	24	38	481	44	289	69	46	34	443	33	29	37
3	24	31	138	43	131	94	44	53	e150	30	32	36
4	23	29	54	44	70	46	43	40	45	28	29	34
5	102	27	53	42	1,640	e43	43	34	42	27	77	34
6	32	27	46	42	243	39	41	34	50	27	109	33
7	27	27	43	42	94	38	40	33	53	27	264	35
8	24	27	169	42	72	38	56	32	33	27	32	35
9	25	27	620	41	68	39	63	31	33	26	29	33
10	25	351	76	40	62	42	39	31	61	28	29	32
11	24	1,480	53	40	57	61	38	45	43	32	26	36
12	41	322	48	40	54	333	39	36	33	1,110	26	36
13	33	79	89	39	80	345	39	32	225	75	26	34
14	50	51	53	39	59	124	37	32	68	36	25	36
15	47	42	48	38	108	60	37	31	84	29	72	34
16	34	39	45	39	59	52	36	31	48	47	33	33
17	34	38	44	632	48	49	33	167	35	51	26	33
18	27	42	253	69	44	47	33	69	33	40	26	33
19	25	43	201	51	44	46	33	38	32	31	1,170	32
20	25	38	62	47	43	44	35	35	31	27	99	32
21	25	36	50	214	42	68	53	37	30	26	52	32
22	25	44	46	101	217	106	39	47	30	26	43	33
23	25	215	44	54	67	51	37	33	30	26	40	33
24	40	51	42	415	72	e48	38	41	30	87	40	32
25	28	43	1,170	2,580	71	45	126	39	29	32	39	32
26	24	40	113	94	51	44	39	34	28	28	50	106
27	e125	47	65	64	50	41	71	32	28	585	43	241
28	181	38	54	56	48	91	66	60	30	135	38	128
29	33	37	49	51	---	577	35	151	28	35	37	156
30	28	43	47	71	---	67	34	36	545	28	37	137
31	34	---	88	103	---	53	---	289	---	77	38	---
<b>Total</b>	1,239	3,759	4,393	5,265	3,963	2,847	1,361	1,671	4,010	2,868	2,694	1,615
<b>Mean</b>	40.0	125	142	170	142	91.8	45.4	53.9	134	92.5	86.9	53.8
<b>Max</b>	181	1,480	1,170	2,580	1,640	577	126	289	1,660	1,110	1,170	241
<b>Min</b>	23	27	42	38	42	38	33	31	28	26	25	32
<b>Cfsm</b>	0.94	2.94	3.33	3.99	3.32	2.16	1.06	1.27	3.14	2.17	2.04	1.26
<b>In.</b>	1.08	3.28	3.84	4.60	3.46	2.49	1.19	1.46	3.50	2.50	2.35	1.41

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 2010, BY WATER YEAR (WY)**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Mean</b>	66.8	72.7	72.9	101	103	116	84.7	75.4	80.4	76.6	82.5	67.7
<b>Max</b>	258	212	164	207	194	245	257	322	256	310	249	233
<b>(WY)</b>	(1991)	(2007)	(1984)	(1978)	(1979)	(1993)	(2003)	(2003)	(2003)	(1997)	(2008)	(2004)
<b>Min</b>	25.1	22.6	32.8	31.6	44.4	40.0	30.8	33.8	20.5	27.2	29.5	21.7
<b>(WY)</b>	(2001)	(1982)	(1981)	(1981)	(2002)	(1985)	(1981)	(1986)	(1986)	(1986)	(1987)	(1986)

02146507 LITTLE SUGAR CREEK AT ARCHDALE DRIVE AT CHARLOTTE, NC—Continued

SUMMARY STATISTICS

	Calendar Year 2009		Water Year 2010		Water Years 1978 - 2010	
<b>Annual total</b>	31,750		35,685			
<b>Annual mean</b>	87.0		97.8		83.3	
<b>Highest annual mean</b>					154	2003
<b>Lowest annual mean</b>					51.7	1981
<b>Highest daily mean</b>	1,810	May 5	2,580	Jan 25	6,160	Jul 23, 1997
<b>Lowest daily mean</b>	18	Feb 1	23	Oct 4	15	Sep 20, 1981
<b>Annual seven-day minimum</b>	23	Sep 1	27	Oct 17	15	May 28, 1994
<b>Maximum peak flow</b>			10,900	Jan 25	13,600	Jul 23, 1997
<b>Maximum peak stage</b>			13.68	Jan 25	15.06	Jul 23, 1997
<b>Instantaneous low flow</b>			<sup>a</sup> 7.9	Jul 26	<sup>a</sup> 2.1	Aug 15, 2002
<b>Annual runoff (cfsm)</b>	2.04		2.30		1.96	
<b>Annual runoff (inches)</b>	27.73		31.16		26.56	
<b>10 percent exceeds</b>	132		150		145	
<b>50 percent exceeds</b>	35		42		38	
<b>90 percent exceeds</b>	25		28		25	

<sup>a</sup> See Remarks.

