



Water-Data Report 2010

02146470 LITTLE HOPE CREEK AT SENECA PLACE AT CHARLOTTE, NC

Santee Basin
Lower Catawba Subbasin

LOCATION.--Lat 35°09'52", long 80°51'11" referenced to North American Datum of 1983, Mecklenburg County, NC, Hydrologic Unit 03050103, on right bank at downstream side of bridge on Seneca Place, 0.8 mi upstream from mouth, and 4 mi south of city hall in Charlotte.

DRAINAGE AREA.--2.63 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--December 1982 to September 1990, October 1994 to current year. Annual maximums only, water years 1967-1970.

REVISED RECORDS.--WDR NC-85-1: 1984 (P). WDR NC-88-1: Drainage area.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 597.32 ft above North American Vertical Datum of 1988, from levels. Radio telemetry at streamgage.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. No flow occurred periodically in 1986, 1987, 1988, 2001, 2002, 2007, 2008. Maximum discharge for period of record and current water year from rating curve extended above 1,700 ft³/s.

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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	0.25	20	1.2	1.5	3.6	1.4	1.5	0.88	94	0.64	3.4	0.50
2	0.26	0.66	34	1.4	20	4.3	1.4	0.82	11	0.48	0.45	0.31
3	0.26	0.46	4.2	1.3	5.0	3.5	1.4	2.0	1.8	0.52	0.49	0.23
4	0.24	0.41	1.6	1.3	2.5	1.5	1.4	0.88	0.94	0.48	0.34	0.25
5	5.9	0.39	1.8	1.2	107	1.3	1.4	0.79	0.84	0.44	2.3	0.31
6	0.37	0.38	1.3	1.6	8.8	1.3	1.3	0.77	3.5	0.42	4.2	0.34
7	0.27	0.37	1.2	1.5	3.0	1.3	1.3	0.74	1.4	0.42	1.8	0.35
8	0.21	0.38	18	1.6	2.3	1.3	3.4	0.72	0.68	0.36	0.34	0.27
9	0.20	0.37	34	1.7	2.2	1.3	1.7	0.77	0.63	0.32	0.29	0.23
10	0.20	24	2.5	1.5	1.9	1.6	1.2	0.79	2.4	0.31	0.26	0.23
11	0.20	87	1.7	1.2	1.8	2.3	1.2	1.9	0.81	1.7	0.28	0.34
12	1.7	10	1.5	1.6	1.8	26	1.2	e1.2	0.60	72	0.30	0.19
13	0.34	2.2	4.7	1.7	3.3	8.0	1.1	e0.95	9.0	1.4	0.33	0.19
14	2.1	1.1	1.6	1.8	1.7	4.7	1.1	0.70	0.99	0.49	0.33	0.23
15	1.4	0.93	1.4	1.1	5.4	1.8	1.1	0.64	0.59	0.41	0.37	0.21
16	0.46	0.81	1.3	2.1	1.8	1.6	1.1	0.61	0.55	0.47	0.21	0.21
17	0.83	0.75	1.2	41	1.6	1.5	1.1	9.4	0.53	1.4	0.34	0.25
18	0.32	1.4	21	2.6	1.5	1.4	1.0	1.1	0.50	0.64	0.24	0.18
19	0.29	0.78	9.2	1.8	1.4	1.4	1.0	0.75	0.48	0.55	14	0.26
20	0.30	0.67	3.1	1.6	1.4	1.3	1.2	0.68	0.47	0.53	0.89	0.14
21	0.30	0.67	1.7	e18	1.3	4.4	1.7	0.99	0.44	0.67	0.39	0.13
22	0.25	2.9	1.5	3.9	12	3.5	0.98	0.82	0.51	0.73	0.30	0.14
23	0.29	11	1.4	2.0	2.2	1.5	0.94	0.63	0.48	0.56	0.27	0.13
24	2.0	1.2	1.4	63	3.0	1.4	1.6	1.00	0.52	5.3	0.27	0.12
25	0.31	0.99	78	93	2.0	1.4	5.5	0.84	0.53	0.85	0.27	0.14
26	0.30	0.92	4.3	3.0	1.6	1.5	1.0	0.61	0.31	0.58	0.22	8.2
27	18	1.1	2.3	2.3	1.6	1.4	5.3	0.54	0.31	5.6	0.34	12
28	3.1	0.96	1.9	1.9	1.5	15	1.5	8.6	0.34	0.91	0.23	5.8
29	0.40	0.95	1.6	1.7	---	33	0.96	5.3	0.46	0.34	0.27	8.1
30	0.47	1.7	1.6	3.2	---	2.4	0.91	0.63	10	0.28	0.35	2.7
31	1.5	---	4.1	6.0	---	1.8	---	15	---	8.3	0.47	---
Total	43.02	175.45	246.3	269.1	203.2	136.1	47.49	62.05	145.61	108.10	34.54	42.68
Mean	1.39	5.85	7.95	8.68	7.26	4.39	1.58	2.00	4.85	3.49	1.11	1.42
Max	18	87	78	93	107	33	5.5	15	94	72	14	12
Min	0.20	0.37	1.2	1.1	1.3	1.3	0.91	0.54	0.31	0.28	0.21	0.12
Cfsm	0.53	2.22	3.02	3.30	2.76	1.67	0.60	0.76	1.85	1.33	0.42	0.54
In.	0.61	2.48	3.48	3.81	2.87	1.93	0.67	0.88	2.06	1.53	0.49	0.60

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2010^a, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	2.03	2.85	3.09	3.85	4.47	4.38	3.12	2.96	3.04	2.95	3.27	2.29
Max	5.05	10.5	10.5	9.46	8.96	9.67	10.9	15.5	12.6	13.8	11.0	8.17
(WY)	(1990)	(1986)	(1984)	(1998)	(1990)	(2003)	(2003)	(2003)	(2003)	(1997)	(2006)	(1989)
Min	0.26	0.35	1.09	0.85	0.91	1.03	0.66	0.50	0.22	0.31	0.19	0.30
(WY)	(2001)	(2008)	(2001)	(2004)	(2002)	(1985)	(2002)	(2008)	(1986)	(1986)	(1987)	(2007)

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SUMMARY STATISTICS

	Calendar Year 2009		Water Year 2010		Water Years 1983 - 2010 ^a	
Annual total	1,425.90		1,513.64			
Annual mean	3.91		4.15		3.19	
Highest annual mean					6.32	2003
Lowest annual mean					1.66	2001
Highest daily mean	138	Aug 16	107	Feb 5	282	Jul 23, 1997
Lowest daily mean	0.15	Jul 19	0.12	Sep 24	0.00	Jul 14, 1986
Annual seven-day minimum	0.21	Jul 15	0.15	Sep 19	0.00	Jul 14, 1986
Maximum peak flow			^b 1,910	Jun 1	^b 2,590	Jun 7, 2003
Maximum peak stage			8.86	Jun 1	9.89	Jun 7, 2003
Instantaneous low flow			0.07	Sep 26	^b 0.00	Jul 14, 1986
Annual runoff (cfsm)	1.49		1.58		1.21	
Annual runoff (inches)	20.17		21.41		16.48	
10 percent exceeds	7.6		8.0		5.8	
50 percent exceeds	0.79		1.2		0.84	
90 percent exceeds	0.26		0.27		0.23	

^a See Period of Record.

^b See Remarks.

