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Water-Data Report 2009

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

**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 ft<sup>3</sup>/s. Minimum discharge for current water year also occurred July 20.

**02146470 LITTLE HOPE CREEK AT SENECA PLACE AT CHARLOTTE, NC—Continued**

**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**  
**DAILY MEAN VALUES**  
[*e*, estimated]

<b>Day</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>
<b>1</b>	0.31	0.26	0.90	0.48	0.55	57	1.1	0.75	0.54	0.31	0.58	0.35
<b>2</b>	0.29	0.26	0.42	0.48	2.0	17	1.7	2.3	0.56	0.32	1.4	0.29
<b>3</b>	0.27	0.52	0.35	0.48	2.6	3.3	1.7	0.88	0.51	0.31	0.42	0.25
<b>4</b>	0.26	0.80	0.32	15	0.62	1.8	0.98	4.4	31	0.30	0.33	0.26
<b>5</b>	0.26	0.23	0.30	1.1	0.53	1.4	0.95	128	52	0.30	0.97	0.23
<b>6</b>	0.26	0.20	0.29	40	0.53	1.2	1.1	10	3.0	0.36	3.4	0.18
<b>7</b>	0.25	0.31	0.29	12	0.53	1.1	0.86	2.2	1.1	0.30	0.32	0.18
<b>8</b>	8.2	0.20	0.58	1.7	0.56	1.0	0.79	1.6	0.82	0.24	0.29	0.26
<b>9</b>	1.5	0.23	0.29	1.1	0.53	0.95	0.79	1.1	0.71	12	0.25	0.34
<b>10</b>	0.36	0.24	7.7	0.98	0.55	0.86	8.9	1.0	0.66	0.60	0.23	0.71
<b>11</b>	0.30	0.27	28	1.4	1.4	0.85	3.6	1.4	0.79	0.33	0.21	0.24
<b>12</b>	0.27	0.29	14	0.81	1.3	0.79	1.0	0.91	4.7	0.31	0.39	0.22
<b>13</b>	0.29	0.53	0.92	0.79	0.59	2.3	1.0	0.91	1.4	1.9	0.34	0.22
<b>14</b>	0.28	6.4	0.92	0.69	0.94	4.1	6.7	0.84	0.55	0.34	0.23	e0.25
<b>15</b>	0.29	3.0	1.8	0.64	0.64	9.8	1.1	0.79	0.49	0.27	0.33	0.26
<b>16</b>	0.27	0.30	0.60	0.59	3.4	2.6	0.92	0.92	0.49	0.27	138	e0.26
<b>17</b>	2.1	0.24	0.54	0.59	0.69	1.6	0.86	2.2	12	0.24	1.4	e0.23
<b>18</b>	3.1	0.21	0.50	0.63	6.9	1.1	0.86	2.0	0.68	0.20	0.53	e0.21
<b>19</b>	0.28	0.21	0.51	0.65	2.1	2.4	0.86	0.67	0.57	0.15	0.66	3.4
<b>20</b>	0.23	0.23	1.5	0.74	0.72	2.2	9.2	0.58	0.51	0.16	1.9	7.5
<b>21</b>	0.24	0.25	3.3	0.60	0.65	1.0	0.99	0.60	0.47	0.17	0.44	0.39
<b>22</b>	0.23	0.28	0.60	0.59	0.63	1.0	0.86	0.58	0.45	29	2.0	0.31
<b>23</b>	0.23	0.29	0.50	0.59	0.59	0.95	0.86	0.57	0.44	12	0.37	0.32
<b>24</b>	0.25	0.29	0.48	0.74	0.59	0.95	0.86	7.8	0.42	0.91	3.8	0.32
<b>25</b>	1.1	1.2	0.70	0.62	0.59	1.4	0.84	8.5	0.41	0.29	0.36	0.34
<b>26</b>	0.29	0.30	0.49	0.56	0.59	1.9	0.79	0.95	0.41	0.25	0.32	8.6
<b>27</b>	0.22	0.27	0.78	0.59	1.3	5.2	0.78	0.76	0.41	0.24	0.28	2.2
<b>28</b>	0.31	0.29	1.3	2.6	17	29	0.77	4.0	0.39	30	0.61	0.43
<b>29</b>	0.32	0.67	0.86	0.92	---	4.3	0.76	1.0	0.40	13	0.47	0.38
<b>30</b>	0.21	18	0.51	0.59	---	1.7	0.74	0.63	0.35	2.2	0.25	0.26
<b>31</b>	0.24	---	0.48	0.54	---	1.4	---	0.60	---	1.5	0.44	---
<b>Total</b>	23.01	36.77	70.73	89.79	49.62	162.15	53.22	189.44	117.23	108.77	161.52	29.39
<b>Mean</b>	0.74	1.23	2.28	2.90	1.77	5.23	1.77	6.11	3.91	3.51	5.21	0.98
<b>Max</b>	8.2	18	28	40	17	57	9.2	128	52	30	138	8.6
<b>Min</b>	0.21	0.20	0.29	0.48	0.53	0.79	0.74	0.57	0.35	0.15	0.21	0.18
<b>Cfsm</b>	0.28	0.47	0.87	1.10	0.67	1.99	0.67	2.32	1.49	1.33	1.98	0.37
<b>In.</b>	0.33	0.52	1.00	1.27	0.70	2.29	0.75	2.68	1.66	1.54	2.28	0.42

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2009<sup>a</sup>, BY WATER YEAR (WY)**

	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>
<b>Mean</b>	2.06	2.72	2.88	3.64	4.35	4.38	3.19	3.00	2.96	2.93	3.37	2.33
<b>Max</b>	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)
<b>Min</b>	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)

**02146470 LITTLE HOPE CREEK AT SENECA PLACE AT CHARLOTTE, NC—Continued****SUMMARY STATISTICS**

	<b>Calendar Year 2008</b>	<b>Water Year 2009</b>	<b>Water Years 1983 - 2009<sup>a</sup></b>
<b>Annual total</b>	801.05	1,091.64	
<b>Annual mean</b>	2.19	2.99	3.15
<b>Highest annual mean</b>			6.32
<b>Lowest annual mean</b>			1.66
<b>Highest daily mean</b>	104	Aug 27	282
<b>Lowest daily mean</b>	0.10	Jun 5	0.00
<b>Annual seven-day minimum</b>	0.12	Jun 3	0.00
<b>Maximum peak flow</b>		b2,050	b2,590
<b>Maximum peak stage</b>		9.08	9.89
<b>Instantaneous low flow</b>		b0.14	b0.00
<b>Annual runoff (cfsm)</b>	0.832	1.14	1.20
<b>Annual runoff (inches)</b>	11.33	15.44	16.25
<b>10 percent exceeds</b>	4.1	4.3	5.7
<b>50 percent exceeds</b>	0.32	0.60	0.83
<b>90 percent exceeds</b>	0.17	0.25	0.22

<sup>a</sup> See Period of Record.<sup>b</sup> See Remarks.