

Water-Data Report 2007

**02144000 LONG CREEK NEAR BESSEMER CITY, NC**

Santee Basin  
South Fork Catawba Subbasin

LOCATION.--Lat 35°18'23", long 81°14'05" referenced to North American Datum of 1983, Gaston County, NC, Hydrologic Unit 03050102, on right bank 700 ft upstream from bridge on Secondary Road 1456, 3.3 mi northeast of Bessemer City, and 8.2 mi upstream from mouth.

DRAINAGE AREA.--31.8 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--October 1952 to current year. Monthly discharge only for some periods, published in WSP 1723.

REVISED RECORDS.--WSP 1723: 1959-60 (M). WSP 1904: 1959-60. WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 706.1 ft above NGVD of 1929. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Bessemer City diverts water upstream from gaging station for water supply and returns treated effluent to South Fork Catawba River downstream of mouth of Long Creek causing some diurnal fluctuation; a daily average of 1.57 ft<sup>3</sup>/s was diverted during the year. Minimum discharge for current water year also occurred September 13, 30.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 1916 reached a stage of 26 ft, from high-water mark on left bank 1,500 ft upstream, from information by local resident.

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**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**  
**DAILY MEAN VALUES**

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	7.5	12	21	468	26	170	21	18	6.3	4.5	2.5	0.61
2	7.1	11	18	84	33	988	24	17	6.3	4.1	1.9	0.53
3	5.4	11	18	46	26	98	20	14	9.3	4.3	1.4	0.52
4	7.2	12	18	37	24	56	20	16	8.9	4.0	1.2	0.45
5	5.2	12	17	43	22	42	18	20	6.8	3.4	1.2	0.41
6	5.7	12	18	52	21	37	16	22	6.2	3.1	1.2	0.36
7	5.5	12	19	51	23	34	15	17	5.5	3.7	1.1	0.35
8	7.7	22	15	292	21	30	16	15	5.3	3.3	1.3	0.36
9	7.8	17	15	69	20	29	18	15	5.3	3.1	1.8	0.32
10	5.4	15	15	45	20	28	17	17	4.6	2.9	0.83	0.31
11	5.0	12	15	39	19	28	18	18	19	4.1	0.70	0.25
12	10	19	16	34	20	26	34	e35	38	3.3	0.68	0.20
13	6.0	17	16	31	22	25	21	e22	9.2	2.4	0.72	0.21
14	5.7	15	16	30	39	25	21	e15	11	3.7	0.63	0.32
15	5.9	12	15	28	25	25	108	15	14	2.9	0.55	0.74
16	5.9	117	15	28	22	40	52	12	9.3	2.9	0.54	0.53
17	47	43	15	24	23	34	32	12	8.2	2.6	0.50	0.36
18	43	30	15	25	22	27	28	12	7.3	2.9	0.52	0.43
19	16	24	15	27	21	25	28	12	6.0	2.5	0.84	0.41
20	31	21	15	25	20	25	42	11	5.8	2.1	0.57	0.42
21	17	22	15	28	20	24	30	10	5.3	2.1	0.40	0.45
22	12	197	24	56	19	24	27	9.6	5.0	1.9	0.33	0.51
23	11	75	26	35	18	24	25	9.7	4.5	1.7	0.42	0.53
24	8.9	40	21	29	17	22	24	9.6	e4.6	2.1	0.48	0.39
25	8.9	31	92	27	57	22	22	9.1	e25	2.9	0.45	0.37
26	10	27	57	25	46	22	19	8.9	8.0	2.5	0.50	0.35
27	14	25	34	25	31	20	21	8.3	5.9	2.0	0.56	0.31
28	40	23	26	25	27	20	20	7.6	5.1	1.9	0.54	0.27
29	21	21	24	23	---	21	19	7.5	4.6	2.5	0.49	0.22
30	16	21	23	22	---	20	20	7.2	4.4	3.2	0.60	0.21
31	11	---	24	21	---	21	---	6.5	---	4.5	1.8	---
<b>Total</b>	409.8	928	693	1,794	704	2,032	796	429.0	264.7	93.1	27.25	11.70
<b>Mean</b>	13.2	30.9	22.4	57.9	25.1	65.5	26.5	13.8	8.82	3.00	0.88	0.39
<b>Max</b>	47	197	92	468	57	988	108	35	38	4.5	2.5	0.74
<b>Min</b>	5.0	11	15	21	17	20	15	6.5	4.4	1.7	0.33	0.20
<b>Cfsm</b>	0.42	0.97	0.70	1.82	0.79	2.06	0.83	0.44	0.28	0.09	0.03	0.01
<b>In.</b>	0.48	1.09	0.81	2.10	0.82	2.38	0.93	0.50	0.31	0.11	0.03	0.01

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 2007, BY WATER YEAR (WY)

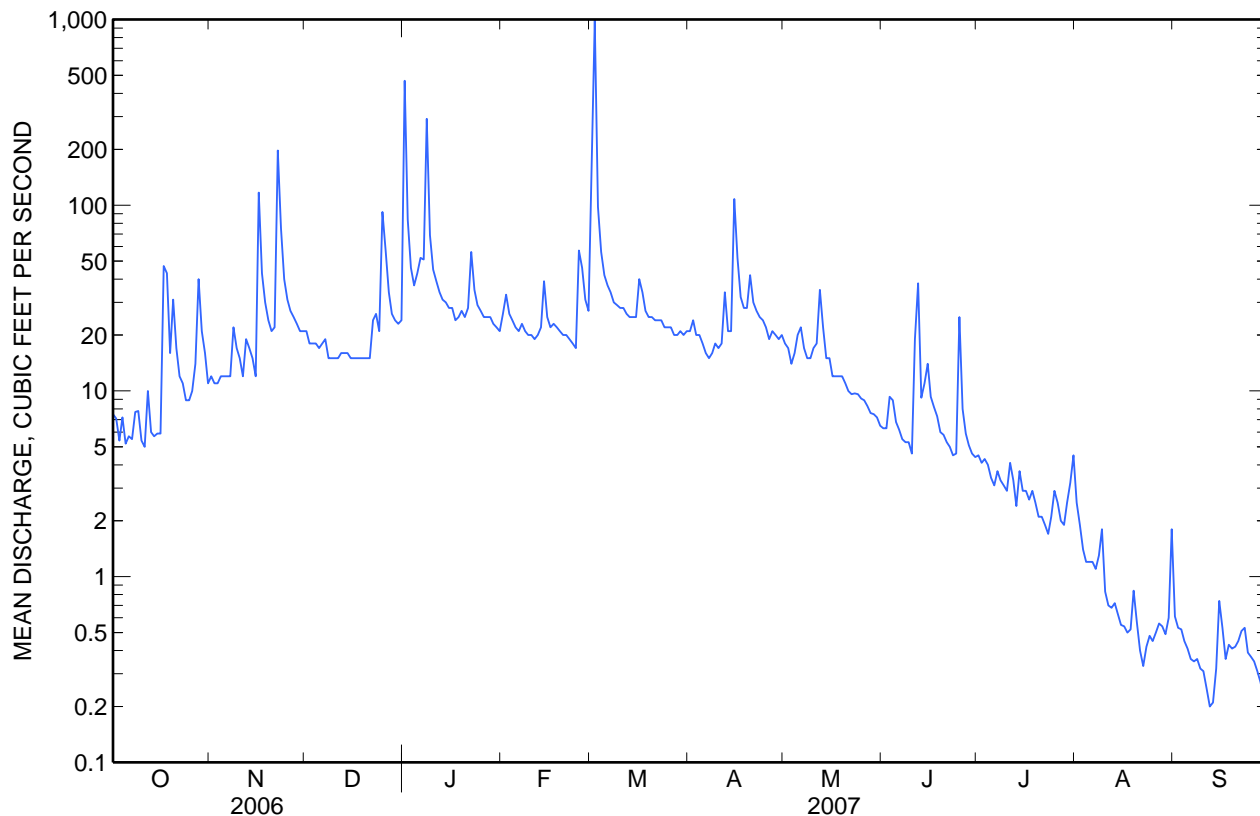
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Mean</b>	24.5	25.2	33.0	47.5	55.1	60.2	46.8	31.8	25.0	18.1	19.8	15.7
<b>Max</b>	147	128	85.2	135	137	146	142	134	79.5	84.8	81.7	68.8
<b>(WY)</b>	(1972)	(1958)	(1977)	(1993)	(1960)	(1993)	(1958)	(2003)	(2003)	(2003)	(1985)	(2004)
<b>Min</b>	1.77	2.67	4.69	8.17	12.0	18.1	12.1	6.26	1.76	0.59	0.30	0.39
<b>(WY)</b>	(2002)	(2002)	(2002)	(1956)	(2002)	(2006)	(2002)	(2001)	(2002)	(2002)	(2002)	(2007)

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SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1953 - 2007	
Annual total	7,159.6		8,182.55			
Annual mean	19.6		22.4		33.5	
Highest annual mean					64.0	2003
Lowest annual mean					6.67	2002
Highest daily mean	297	Aug 11	988	Mar 2	2,940	Oct 16, 1971
Lowest daily mean	2.0	Jul 19	0.20	Sep 12	0.05	Aug 14, 2002
Annual seven-day minimum	2.8	Jul 16	0.28	Sep 8	0.10	Aug 8, 2002
Maximum peak flow			1,570	Mar 2	6,500	Oct 16, 1971
Maximum peak stage			6.61	Mar 2	9.10	Oct 16, 1971
Instantaneous low flow			<sup>a</sup> 0.19	Sep 12	0.03	Aug 14, 2002
Annual runoff (cfsm)	0.617		0.705		1.05	
Annual runoff (inches)	8.38		9.57		14.31	
10 percent exceeds	36		36		55	
50 percent exceeds	14		15		20	
90 percent exceeds	4.3		0.53		5.9	

<sup>a</sup> See Remarks.



**02144000 LONG CREEK NEAR BESSEMER CITY, NC—Continued****CLIMATOLOGICAL RECORDS**

PERIOD OF RECORD.--October 2001 to current year.

INSTRUMENTATION.--Tipping-bucket raingage and electronic datalogger. Satellite telemetry at station.

REMARKS.--Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor.

**PRECIPITATION, TOTAL, INCHES**  
**WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**  
**DAILY SUM VALUES**

<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>	0.00	0.00	0.00	0.68	0.45	2.63	0.39	0.00	0.00	0.02	0.00	0.00
<b>2</b>	0.00	0.00	0.00	0.00	0.08	0.72	0.01	0.00	0.04	0.00	0.00	0.00
<b>3</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.46	0.00	0.00	0.00
<b>4</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00
<b>5</b>	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.26	0.00	0.00	0.00	0.00
<b>6</b>	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00
<b>7</b>	0.01	0.50	0.00	0.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>8</b>	0.40	0.23	0.00	0.39	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00
<b>9</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00
<b>10</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>11</b>	0.36	0.29	0.00	0.00	0.00	0.00	0.53	0.00	3.68	0.00	0.00	0.00
<b>12</b>	0.03	0.00	0.00	0.00	0.00	0.00	0.42	---	0.01	0.00	0.00	0.00
<b>13</b>	0.00	0.00	0.00	0.00	0.59	0.00	0.00	---	0.19	0.00	0.00	0.00
<b>14</b>	0.00	0.00	0.00	0.00	0.00	0.00	1.15	---	0.98	0.00	0.00	0.21
<b>15</b>	0.00	0.69	0.00	0.00	0.00	0.00	0.68	0.00	0.01	0.04	0.00	0.00
<b>16</b>	0.01	0.72	0.00	0.00	0.00	0.77	0.00	0.00	0.04	0.00	0.00	0.00
<b>17</b>	2.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.00
<b>18</b>	0.02	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
<b>19</b>	0.12	0.00	0.00	0.08	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00
<b>20</b>	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00
<b>21</b>	0.00	0.82	0.02	0.69	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00
<b>22</b>	0.05	1.07	0.79	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00
<b>23</b>	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>24</b>	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	---	0.14	0.00	0.00
<b>25</b>	0.00	0.00	1.20	0.00	0.93	0.00	0.00	0.00	---	0.00	0.00	0.00
<b>26</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00
<b>27</b>	1.02	0.00	0.00	0.00	0.00	0.00	0.31	0.00	0.00	0.15	0.00	0.00
<b>28</b>	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00
<b>29</b>	0.00	0.00	0.00	0.00	---	0.04	0.00	0.00	0.00	0.40	0.00	0.00
<b>30</b>	0.00	0.03	0.00	0.00	---	0.00	0.00	0.01	0.06	0.02	1.13	0.00
<b>31</b>	0.00	---	0.16	0.00	---	0.00	---	0.00	---	0.00	0.01	---
<b>Total</b>	4.54	4.35	2.18	3.42	2.05	4.16	3.96	---	---	1.05	1.17	0.21

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