

Water-Data Report 2010

**02146381 SUGAR CREEK AT NORTH CAROLINA HIGHWAY 51 NEAR PINEVILLE, NC**

Santee Basin  
Lower Catawba Subbasin

LOCATION.--Lat 35°05'27", long 80°53'58" referenced to North American Datum of 1983, Mecklenburg County, NC, Hydrologic Unit 03050103, on right bank on upstream side of bridge at North Carolina Highway 51, 0.3 mi upstream from McCullough Branch, and 0.6 mi northwest of city hall, Pineville.

DRAINAGE AREA.--65.3 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--October 1994 to current year. Occasional discharge measurements, water years 1978-94.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 520.95 ft 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 13.6 ft<sup>3</sup>/s of treated effluent from Irwin Creek wastewater treatment plant was discharged into the stream above the gage. Maximum discharge for period of record from rating curve extended above 9,710 ft<sup>3</sup>/s. Minimum discharge for current water year also occurred October 4, 9, 14. Peak stage for current water year from crest-stage gage.

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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	23	164	e34	e50	e91	70	99	52	1,540	94	145	41
2	22	63	e293	e39	e283	80	87	50	417	51	48	39
3	21	46	e283	e38	e259	169	79	67	416	49	54	38
4	21	37	e71	e37	e95	86	74	67	118	46	48	38
5	106	36	e53	e36	1,910	73	72	51	94	43	59	36
6	47	34	e47	e35	1,270	68	69	48	91	43	120	36
7	26	29	e39	e35	215	66	67	48	128	44	696	39
8	25	29	e77	e35	152	64	70	44	68	45	81	39
9	21	28	e615	e34	131	65	116	44	60	42	65	36
10	24	e202	e135	e34	117	67	64	44	57	41	105	38
11	21	e1,302	e62	e33	102	79	61	58	80	42	52	37
12	32	e559	e49	e33	96	147	60	56	55	609	48	41
13	51	e139	e88	e33	122	781	59	47	64	273	47	36
14	41	e68	e61	e33	107	281	63	49	115	94	44	40
15	66	e47	e44	e34	138	126	61	46	55	64	247	35
16	47	e38	e41	e27	108	97	60	47	57	57	111	35
17	37	e34	e35	e458	83	84	59	237	53	106	53	37
18	30	e33	e144	e124	77	81	58	131	48	92	48	34
19	25	e37	e325	e61	73	78	56	90	46	61	854	34
20	28	e31	e89	e48	71	71	57	58	44	61	296	36
21	26	e30	e51	e188	68	77	74	55	45	46	80	35
22	29	e26	e46	e198	286	187	59	73	46	46	63	36
23	29	e195	e44	e69	132	83	54	53	46	44	56	34
24	39	e63	e32	e162	109	70	53	52	45	77	50	36
25	36	e37	e759	e2,145	110	68	181	64	44	71	46	35
26	26	e33	e251	e232	78	69	68	51	42	45	50	98
27	53	e36	e85	e89	72	68	67	48	44	52	54	410
28	152	e30	e62	e70	72	66	140	53	46	270	43	306
29	49	e27	e53	e58	---	1,150	60	326	44	56	41	171
30	42	e29	e44	e72	---	185	56	78	253	46	41	184
31	44	---	e87	e112	---	119	---	259	---	47	41	---
<b>Total</b>	1,239	3,462	4,099	4,652	6,427	4,775	2,203	2,446	4,261	2,757	3,786	2,090
<b>Mean</b>	40.0	115	132	150	230	154	73.4	78.9	142	88.9	122	69.7
<b>Max</b>	152	1,300	759	2,140	1,910	1,150	181	326	1,540	609	854	410
<b>Min</b>	21	26	32	27	68	64	53	44	42	41	41	34
<b>Cfsm</b>	0.61	1.77	2.02	2.30	3.52	2.36	1.12	1.21	2.18	1.36	1.87	1.07
<b>In.</b>	0.71	1.97	2.34	2.65	3.66	2.72	1.26	1.39	2.43	1.57	2.16	1.19

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2010, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Mean</b>	69.6	80.5	86.5	105	113	131	103	81.5	96.1	91.0	94.2	79.1
<b>Max</b>	154	264	174	237	232	296	321	380	271	315	257	208
<b>(WY)</b>	(1996)	(2007)	(2003)	(1998)	(1995)	(2003)	(2003)	(2003)	(2003)	(1997)	(2008)	(2004)
<b>Min</b>	25.7	24.1	40.6	39.9	49.7	44.2	41.0	34.2	32.7	43.0	24.8	27.2
<b>(WY)</b>	(2001)	(2008)	(2001)	(2004)	(2002)	(2006)	(2002)	(2000)	(2002)	(2001)	(2001)	(2005)

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SUMMARY STATISTICS

	Calendar Year 2009		Water Year 2010		Water Years 1995 - 2010	
<b>Annual total</b>	34,622		42,197			
<b>Annual mean</b>	94.9		116		94.1	
<b>Highest annual mean</b>					186	2003
<b>Lowest annual mean</b>					57.3	2001
<b>Highest daily mean</b>	2,060	Jun 5	2,140	Jan 25	4,790	Jul 23, 1997
<b>Lowest daily mean</b>	21	Sep 7	21	Oct 3	17	Nov 11, 2007
<b>Annual seven-day minimum</b>	23	Sep 3	28	Oct 6	20	Aug 19, 2008
<b>Maximum peak flow</b>			5,210	Jan 25	<sup>a</sup> 9,890	Jul 23, 1997
<b>Maximum peak stage</b>			<sup>a</sup> 14.14	Jan 25	18.68	Jul 23, 1997
<b>Instantaneous low flow</b>			<sup>a</sup> 16	Oct 3	13	Aug 24, 2008
<b>Annual runoff (cfsm)</b>	1.45		1.77		1.44	
<b>Annual runoff (inches)</b>	19.72		24.04		19.58	
<b>10 percent exceeds</b>	162		207		156	
<b>50 percent exceeds</b>	41		57		43	
<b>90 percent exceeds</b>	27		34		26	

<sup>a</sup> See Remarks.

