

Water-Data Report 2007

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 mi².

SURFACE-WATER RECORDS

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

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 station.

REMARKS.--No estimated daily discharges. Records are good. A daily average of 14.8 ft³/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 ft³/s. Minimum discharge for period of record also occurred August 31, 2001. Minimum discharge for current water year also occurred September 18.

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

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	30	34	91	240	154	361	43	42	30	53	31	29
2	31	33	59	111	146	3,220	50	39	28	35	29	46
3	31	31	48	70	71	230	41	39	79	25	29	29
4	30	32	47	65	59	133	38	40	40	23	27	26
5	30	30	45	196	54	107	36	61	29	23	28	27
6	31	31	42	254	53	91	36	54	28	24	33	25
7	32	181	42	213	51	87	35	39	27	26	34	24
8	163	340	40	809	50	82	35	37	28	22	29	23
9	67	69	39	149	49	78	36	40	29	53	27	25
10	35	46	39	96	47	70	37	54	26	216	28	24
11	33	39	40	78	46	67	40	37	64	35	29	23
12	44	508	40	70	47	64	266	36	76	44	27	25
13	32	75	40	64	95	64	58	51	55	26	28	23
14	29	53	39	61	678	61	42	35	51	26	27	40
15	28	44	38	59	92	62	771	35	75	39	26	159
16	29	1,480	36	60	70	241	171	36	32	103	27	29
17	477	146	36	53	63	111	84	36	28	30	27	26
18	456	80	38	69	58	65	68	35	27	80	26	23
19	67	61	38	70	57	56	70	32	27	29	26	27
20	52	55	37	54	63	53	209	32	27	26	27	26
21	39	224	39	61	60	49	65	32	28	24	27	24
22	37	3,310	296	298	56	47	55	33	26	22	29	25
23	38	454	163	80	54	47	52	33	26	22	45	23
24	34	138	61	64	49	45	48	34	32	23	65	24
25	35	95	676	59	250	44	45	32	306	22	30	23
26	35	78	199	55	139	42	44	32	114	24	25	25
27	87	71	97	54	70	43	113	30	46	25	153	23
28	262	63	77	51	58	41	57	30	31	304	33	23
29	54	57	70	50	---	47	43	32	25	40	26	22
30	40	55	64	50	---	47	41	30	42	39	27	21
31	37	---	88	48	---	43	---	28	---	40	45	---
Total	2,425	7,913	2,704	3,711	2,739	5,798	2,729	1,156	1,482	1,523	1,070	912
Mean	78.2	264	87.2	120	97.8	187	91.0	37.3	49.4	49.1	34.5	30.4
Max	477	3,310	676	809	678	3,220	771	61	306	304	153	159
Min	28	30	36	48	46	41	35	28	25	22	25	21
Cfsm	1.20	4.04	1.34	1.83	1.50	2.86	1.39	0.57	0.76	0.75	0.53	0.47
In.	1.38	4.51	1.54	2.11	1.56	3.30	1.55	0.66	0.84	0.87	0.61	0.52

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	76.7	84.4	84.7	107	113	127	111	81.2	93.4	94.6	82.9	80.6
Max	154	264	174	237	232	296	321	380	271	315	181	208
(WY)	(1996)	(2007)	(2003)	(1998)	(1995)	(2003)	(2003)	(2003)	(2003)	(1997)	(2006)	(2004)
Min	25.7	33.5	40.6	39.9	49.7	44.2	41.0	34.2	32.7	43.0	24.8	27.2
(WY)	(2001)	(2002)	(2001)	(2004)	(2002)	(2006)	(2002)	(2000)	(2002)	(2001)	(2001)	(2005)

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SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1995 - 2007	
Annual total	37,571		34,162			
Annual mean	103		93.6		94.5	
Highest annual mean					186	2003
Lowest annual mean					57.3	2001
Highest daily mean	3,310	Nov 22	3,310	Nov 22	4,790	Jul 23, 1997
Lowest daily mean	24	Jun 7	21	Sep 30	18	Aug 1, 2001
Annual seven-day minimum	26	Jul 15	23	Sep 24	21	Sep 7, 2002
Maximum peak flow			5,110	Mar 2	^a 9,890	Jul 23, 1997
Maximum peak stage			14.95	Mar 2	18.68	Jul 23, 1997
Instantaneous low flow			^a 18	Jul 25	^a 15	Aug 10, 1997
Annual runoff (cfsm)	1.58		1.43		1.45	
Annual runoff (inches)	21.40		19.46		19.66	
10 percent exceeds	151		153		155	
50 percent exceeds	41		42		43	
90 percent exceeds	30		26		27	

^a See Remarks.

