

Water-Data Report 2007

02146750 MCALPINE CREEK BELOW MCMULLEN CREEK NEAR PINEVILLE, NC

Santee Basin
Lower Catawba Subbasin

LOCATION.--Lat 35°04'00", long 80°52'12" referenced to North American Datum of 1983, Mecklenburg County, NC, Hydrologic Unit 03050103, on right bank, 150 ft downstream of McMullen Creek, 735 ft upstream from effluent outfall, and 2.1 mi south of Pineville.

DRAINAGE AREA.--92.4 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--April 1974 to current year.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 515.51 above North American Vertical Datum of 1988. Prior to October 1, 1977, at present site at datum of 516.51 ft above North American Vertical Datum of 1988. Radio telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Records for periods of heavy overbank flow may be affected by variable backwater not adequately defined. Maximum stage for period of record from high-water mark in gage house. Maximum discharge for period of record from rating curve extended above 11,600 ft³/s. Minimum discharge for current water year and period of record also occurred September 30, 2007.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1964, about 12.9 ft. (at datum of 516.51 ft), April 1, 1973, from information by wastewater treatment plant operator.

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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	9.4	20	94	137	306	349	29	21	7.6	33	e9.2	14
2	9.2	18	52	81	312	3,650	59	20	7.4	16	e6.4	13
3	9.0	16	35	47	86	406	30	20	54	11	e4.7	e8.0
4	8.9	16	32	40	54	101	27	20	26	9.4	e3.7	e3.3
5	9.1	14	29	379	44	69	27	24	13	8.1	e3.2	e3.0
6	8.8	15	28	493	40	55	23	28	9.3	10	e13	e2.9
7	7.8	143	28	296	38	49	24	21	8.1	167	e30	e2.6
8	205	439	26	1,090	36	44	22	18	9.0	128	e8.7	e2.4
9	53	54	26	191	35	41	22	19	7.2	117	e3.0	e2.4
10	21	31	27	80	34	41	23	32	8.5	131	e2.2	e2.3
11	15	28	27	58	32	39	27	20	18	20	e2.0	e2.0
12	27	680	27	49	32	36	138	18	24	25	e1.9	e1.4
13	18	67	27	45	161	35	37	21	21	13	e1.8	1.4
14	12	39	26	43	1,290	34	27	18	70	8.7	2.9	e1.5
15	9.6	32	25	40	117	33	1,110	16	45	32	e2.2	33
16	9.3	1,840	25	38	71	96	267	15	19	53	e1.8	14
17	426	487	23	34	54	68	55	14	13	17	e1.9	e2.4
18	1,060	66	23	53	47	38	39	13	11	19	1.9	e1.8
19	61	47	23	56	41	34	64	12	8.2	13	1.9	e1.4
20	33	38	24	38	39	33	306	12	8.9	e10	e1.8	e1.0
21	23	321	24	63	42	32	53	12	9.3	e8.1	e1.8	e1.2
22	18	5,350	463	544	38	32	37	11	8.4	e6.6	e2.4	e1.1
23	17	1,620	484	88	35	e32	32	11	6.4	e5.4	29	e0.90
24	14	142	68	57	33	e31	29	10	14	e4.3	31	e0.90
25	12	81	794	47	241	e30	28	9.8	462	e4.0	10	e1.0
26	14	59	501	41	181	29	26	9.3	270	e3.6	e3.0	e0.82
27	115	49	85	38	54	28	39	9.0	34	e58	9.3	e0.73
28	763	43	54	38	43	27	30	9.0	18	360	e7.7	e0.74
29	62	38	43	35	---	31	24	8.9	13	e52	e2.7	e0.87
30	30	38	39	32	---	30	23	8.5	154	e18	e3.7	e0.91
31	23	---	49	32	---	26	---	9.3	---	e15	21	---
Total	3,103.1	11,831	3,231	4,303	3,536	5,579	2,677	489.8	1,377.3	1,376.2	225.8	122.97
Mean	100	394	104	139	126	180	89.2	15.8	45.9	44.4	7.28	4.10
Max	1,060	5,350	794	1,090	1,290	3,650	1,110	32	462	360	31	33
Min	7.8	14	23	32	32	26	22	8.5	6.4	3.6	1.8	0.73
Cfsm	1.08	4.27	1.13	1.50	1.37	1.95	0.97	0.17	0.50	0.48	0.08	0.04
In.	1.25	4.76	1.30	1.73	1.42	2.25	1.08	0.20	0.55	0.55	0.09	0.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2007, BY WATER YEAR (WY)

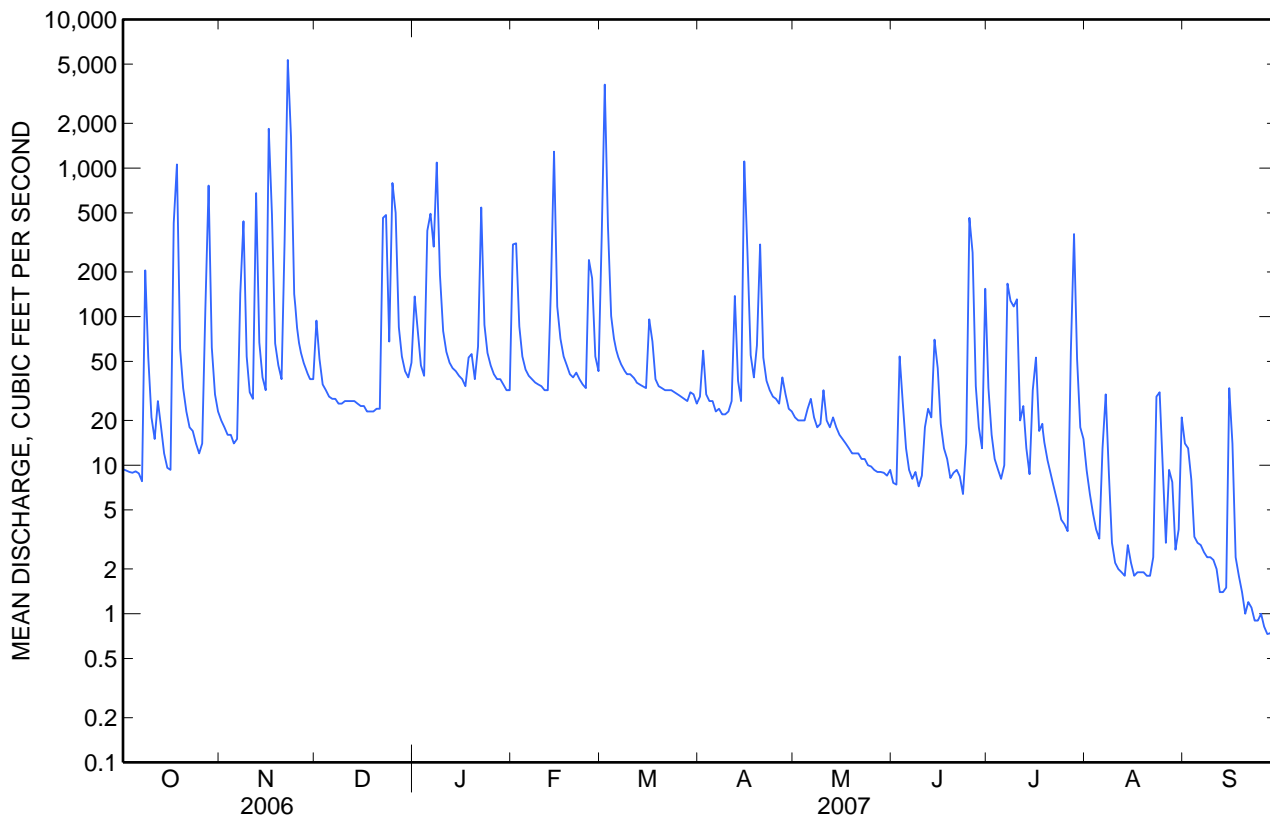
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	95.6	107	124	205	198	232	127	94.3	87.0	91.3	102	88.0
Max	540	414	497	550	506	544	439	428	466	400	597	510
(WY)	(1991)	(1986)	(1984)	(1978)	(1984)	(1980)	(2003)	(2003)	(2003)	(1997)	(1994)	(1987)
Min	6.82	8.44	24.0	18.6	39.0	35.3	21.9	13.8	7.43	7.07	7.28	4.10
(WY)	(1979)	(2002)	(1981)	(1981)	(1978)	(2006)	(1981)	(2004)	(1986)	(1977)	(2007)	(2007)

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SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1974 - 2007	
Annual total	38,716.5		37,852.17			
Annual mean	106		104		129	
Highest annual mean					236	2003
Lowest annual mean					51.4	2001
Highest daily mean	5,350	Nov 22	5,350	Nov 22	7,740	Aug 27, 1995
Lowest daily mean	6.4	Jul 18	0.73	Sep 27	0.46	Sep 30, 1983
Annual seven-day minimum	8.4	Jul 9	0.85	Sep 23	0.76	Sep 28, 1983
Maximum peak flow			6,970	Nov 22	^a 12,500	Aug 27, 1995
Maximum peak stage			14.58	Nov 22	^a 19.40	Aug 27, 1995
Instantaneous low flow			^a 0.04	Sep 29	^a 0.04	Sep 29, 2007
Annual runoff (cfsm)	1.15		1.12		1.40	
Annual runoff (inches)	15.59		15.24		19.02	
10 percent exceeds	172		163		258	
50 percent exceeds	27		27		32	
90 percent exceeds	11		2.9		8.5	

^a See Remarks.



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PERIOD OF RECORD.--May 1993 to current year. Records for period May 1993 to September 1998 published in USGS OFR 96-150, 98-67, and 99-273.

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

REMARKS.--Gage is operated as part of Charlotte/Mecklenburg Rainfall Runoff Network (CRN06). Frozen precipitation collected during February 2007 is not reflected in daily or monthly totals.

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

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0.00	0.00	0.17	0.26	---	1.74	0.16	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	---	0.89	0.00	0.00	0.13	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.31	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.91	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00
6	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00
7	0.03	0.89	0.00	0.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	1.02	0.19	0.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.07	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.60	0.00	0.00	0.00	0.00	0.30	0.00	0.25	0.01	0.00	0.00
12	0.01	0.03	0.00	0.00	0.00	0.00	0.03	0.03	0.08	0.00	0.00	0.00
13	0.00	0.00	0.02	0.00	1.10	0.00	0.00	0.00	0.07	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.24	0.00	0.00	0.56
15	0.00	0.78	0.00	0.00	0.00	0.00	1.45	0.00	0.00	0.79	0.00	0.00
16	0.00	0.87	0.00	0.00	0.00	0.32	0.00	0.01	0.00	0.01	0.00	0.00
17	1.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00
18	0.02	0.00	0.00	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.01	0.00	0.00	0.00
20	0.03	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.10	0.00	0.00	0.00
21	0.00	1.90	0.11	0.64	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.04	2.13	1.23	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.00	0.00	0.00
25	0.00	0.00	0.98	0.00	0.64	0.00	0.00	0.00	0.90	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00
27	1.13	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.72	0.00	0.00
28	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
29	0.00	0.00	0.00	0.00	---	0.01	0.00	0.00	0.00	0.01	0.00	0.00
30	0.00	0.06	0.00	0.00	---	0.00	0.00	0.00	0.29	0.01	0.01	0.00
31	0.00	---	0.18	0.00	---	0.00	---	0.00	---	0.00	0.10	---
Total	4.49	7.45	2.69	3.11	---	2.96	3.24	0.38	2.78	1.71	0.16	0.56

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