

Water-Data Report 2010

02146750 MCALPINE CREEK BELOW MCMULLEN CREEK NEAR PINEVILLE, NC

Santee Basin
Lower Catawba Subbasin

LOCATION.--Lat 35°03'59.39", long 80°52'11.46" 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 ft 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 streamgage.

REMARKS.--No estimated daily discharges. Records fair. 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.

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 2009 TO SEPTEMBER 2010
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	4.2	664	29	58	122	41	40	18	1,420	627	65	3.1
2	3.3	67	466	44	429	51	37	18	713	47	19	2.9
3	2.8	28	1,340	38	502	154	34	39	1,100	28	16	2.3
4	2.6	18	143	35	138	82	32	37	96	21	19	1.9
5	62	13	67	32	1,920	53	30	21	54	16	53	1.5
6	37	9.8	52	31	2,000	45	29	18	44	14	574	1.0
7	14	8.4	38	32	206	42	28	14	123	11	103	1.2
8	7.4	8.0	88	28	108	41	29	12	31	11	27	1.2
9	4.9	7.9	1,650	28	95	40	64	10	22	8.4	16	0.90
10	4.5	258	439	26	88	41	31	9.7	19	7.4	12	0.82
11	3.7	2,530	78	31	64	53	25	16	95	6.4	9.0	0.97
12	10	1,370	49	29	54	158	24	25	23	606	7.2	1.2
13	24	248	89	27	82	1,200	23	14	48	2,190	6.4	1.9
14	23	69	72	26	78	201	22	12	191	170	6.6	1.0
15	36	41	45	26	126	93	22	11	42	33	180	0.86
16	28	29	36	26	101	65	22	13	54	42	45	0.94
17	15	23	31	1,200	61	55	21	224	34	70	20	0.69
18	11	21	191	308	53	48	19	81	21	33	14	0.44
19	8.0	24	935	91	46	45	18	29	14	26	153	0.60
20	5.7	19	132	66	44	40	19	19	11	25	253	0.55
21	5.1	16	66	299	40	45	27	19	9.8	13	33	0.58
22	5.1	18	46	655	229	109	22	32	8.0	13	14	0.44
23	4.2	580	38	114	101	51	18	26	7.1	8.2	10	0.34
24	6.2	97	34	180	90	39	18	20	6.7	70	8.4	0.48
25	25	44	1,410	4,570	98	37	88	40	5.7	51	7.8	0.45
26	9.4	31	1,500	508	58	36	32	20	5.5	12	7.0	24
27	64	26	140	116	49	34	37	14	41	240	7.7	239
28	421	21	76	86	45	32	86	16	35	1,180	5.9	78
29	35	19	54	69	---	446	27	174	9.3	78	4.8	107
30	16	19	45	83	---	82	20	37	403	29	3.9	209
31	14	---	106	109	---	49	---	634	---	17	3.1	---
Total	912.1	6,327.1	9,485	8,971	7,027	3,508	944	1,672.7	4,686.1	5,703.4	1,703.8	685.26
Mean	29.4	211	306	289	251	113	31.5	54.0	156	184	55.0	22.8
Max	421	2,530	1,650	4,570	2,000	1,200	88	634	1,420	2,190	574	239
Min	2.6	7.9	29	26	40	32	18	9.7	5.5	6.4	3.1	0.34
Cfsm	0.32	2.28	3.31	3.13	2.72	1.22	0.34	0.58	1.69	1.99	0.59	0.25
In.	0.37	2.55	3.82	3.61	2.83	1.41	0.38	0.67	1.89	2.30	0.69	0.28

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2010, BY WATER YEAR (WY)

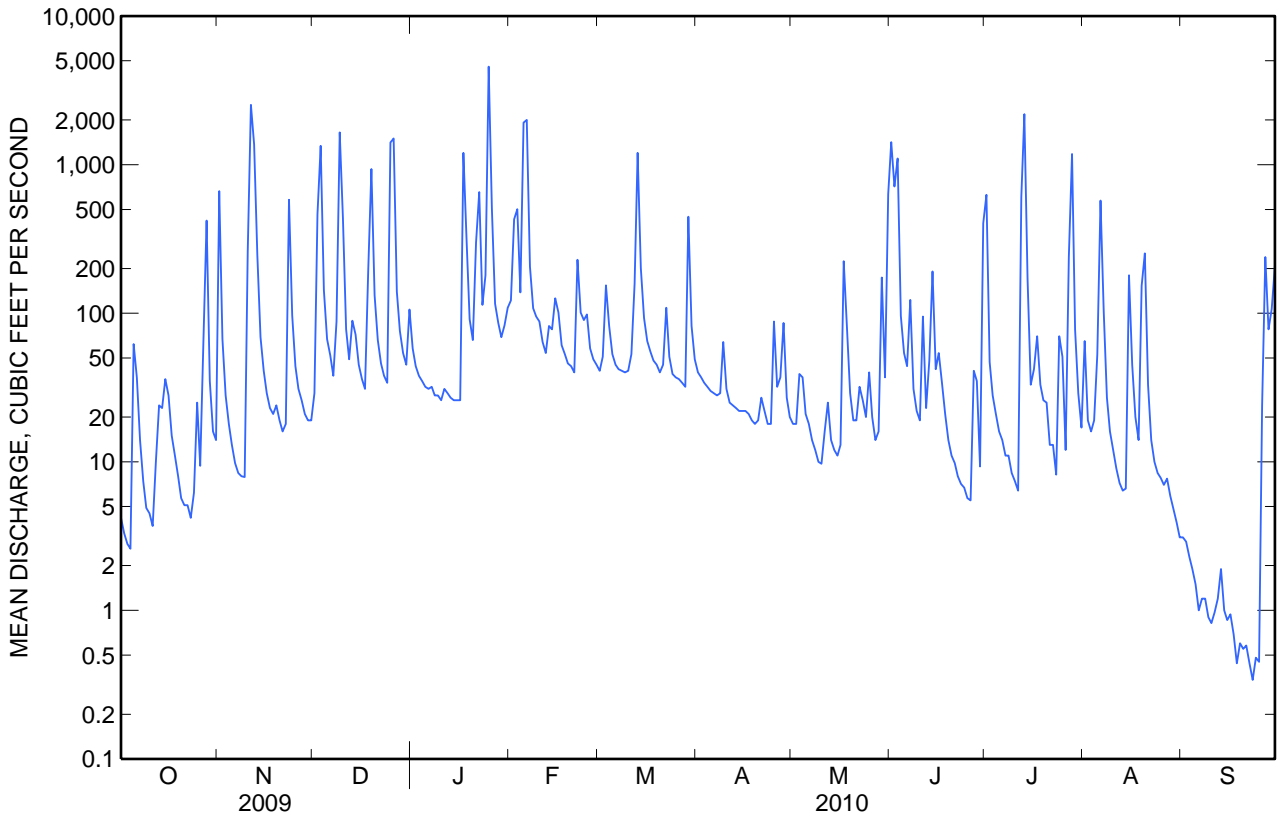
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	89.7	105	128	200	193	227	121	93.6	87.3	93.7	102	83.9
Max	540	414	497	550	506	544	439	428	466	400	597	510
(WY)	(1991)	(1986)	(1984)	(1978)	(1984)	(1980)	(2003)	(2003)	(2003)	(1997)	(1994)	(1987)
Min	6.82	4.46	24.0	18.6	39.0	35.3	21.9	13.8	7.43	7.07	7.28	4.10
(WY)	(1979)	(2008)	(1981)	(1981)	(1978)	(2006)	(1981)	(2004)	(1986)	(1977)	(2007)	(2007)

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SUMMARY STATISTICS

	Calendar Year 2009		Water Year 2010		Water Years 1974 - 2010	
Annual total	42,847.0		51,625.46			
Annual mean	117		141		127	
Highest annual mean					236	2003
Lowest annual mean					51.4	2001
Highest daily mean	2,530	Nov 11	4,570	Jan 25	7,740	Aug 27, 1995
Lowest daily mean	1.1	Sep 6	0.34	Sep 23	0.30	Oct 13, 2007
Annual seven-day minimum	1.6	Sep 3	0.49	Sep 18	0.49	Sep 18, 2010
Maximum peak flow			6,240	Jan 25	^a 12,500	Aug 27, 1995
Maximum peak stage			13.86	Jan 25	^a 19.40	Aug 27, 1995
Instantaneous low flow			0.22	Sep 26	0.03	Oct 13, 2007
Annual runoff (cfsm)	1.27		1.53		1.38	
Annual runoff (inches)	17.25		20.78		18.70	
10 percent exceeds	211		250		248	
50 percent exceeds	27		32		31	
90 percent exceeds	5.1		5.0		8.0	

^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. Frozen precipitation collected in January and February 2010 is not reflected in daily or monthly totals.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010
DAILY SUM VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0.00	0.68	0.00	0.00	---	0.00	0.00	0.00	0.11	0.00	0.08	0.00
2	0.00	0.00	1.50	0.00	---	0.34	0.00	0.00	0.74	0.00	0.00	0.00
3	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.07	0.00
4	0.01	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.71	0.00	0.04	0.00	1.90	0.00	0.00	0.00	0.00	0.00	0.30	0.00
6	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.00	0.11	0.00
7	0.02	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	1.06	0.00	0.00	0.00	0.27	0.00	0.00	0.00	0.00	0.00
9	0.05	0.00	0.61	0.00	0.05	0.00	0.03	0.00	0.00	0.00	0.00	0.00
10	0.01	1.28	0.00	0.00	0.00	0.08	0.00	0.00	0.02	0.00	0.00	0.00
11	0.00	2.31	0.00	0.00	0.00	0.13	0.00	0.20	0.00	0.00	0.00	0.08
12	0.32	0.23	0.12	0.00	---	0.75	0.00	0.00	0.00	1.06	0.00	0.02
13	0.00	0.00	0.19	0.00	---	0.02	0.00	0.00	0.21	0.21	0.00	0.00
14	0.41	0.00	0.01	0.00	---	0.13	0.00	0.00	0.00	0.00	0.29	0.00
15	0.15	0.00	0.01	0.00	0.22	0.00	0.00	0.00	0.00	0.00	0.70	0.00
16	0.00	0.00	0.00	0.48	0.00	0.00	0.00	0.71	0.00	0.47	0.00	0.00
17	0.11	0.00	0.00	1.05	0.00	0.00	0.00	0.53	0.16	0.00	0.00	0.00
18	0.00	0.08	1.08	0.00	0.00	0.00	0.00	0.08	0.00	0.13	0.00	0.00
19	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.45	0.00
20	0.00	0.01	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.01	0.00
21	0.00	0.00	0.00	0.84	0.00	0.21	0.01	0.23	0.00	0.00	0.00	0.00
22	0.00	0.38	0.00	0.05	0.55	0.16	0.00	0.12	0.00	0.00	0.00	0.00
23	0.00	0.42	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.11	0.00	0.02	2.34	0.10	0.00	0.18	0.41	0.00	0.20	0.00	0.00
25	0.00	0.01	1.83	0.77	0.00	0.00	0.30	0.00	0.00	0.00	0.00	0.00
26	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.19	0.00	1.38
27	1.15	0.00	0.00	0.00	0.00	0.00	0.53	0.00	0.35	0.05	0.00	0.72
28	0.03	0.00	0.00	0.00	0.00	0.03	0.00	0.61	0.00	0.00	0.00	0.01
29	0.00	0.00	0.00	---	---	0.41	0.00	0.11	0.00	0.00	0.00	0.91
30	0.00	0.07	0.18	---	---	0.00	0.00	0.00	0.31	0.00	0.00	0.06
31	0.47	---	0.07	---	---	0.00	---	1.74	---	0.03	0.00	---
Total	3.59	5.50	6.78	---	---	2.26	1.42	5.19	2.37	2.42	2.01	3.18

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