

Water-Data Report 2008

02137727 CATAWBA RIVER NEAR PLEASANT GARDENS, NC

Santee Basin
Upper Catawba Subbasin

LOCATION.--Lat 35°41'09", long 82°03'37" referenced to North American Datum of 1983, McDowell County, NC, Hydrologic Unit 03050101, on right bank 18 ft downstream of bridge on Secondary Road 1221, 0.8 mi upstream from Buck Creek, 0.8 mi southeast of Pleasant Gardens, and at river mile 297.

DRAINAGE AREA.--126 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1980 to current year. Occasional low-flow measurements, water years 1963, 1970-73, 1975.

GAGE.--Water-stage recorder. Datum of gage is 1,233.82 ft above North American Vertical Datum of 1988 (levels by North Carolina Floodplain Mapping Program). Satellite and telephone telemetry at station.

REMARKS.--No estimated daily discharges. Records good. Maximum discharge for period of record from rating curve extended above 10,000 ft³/s on basis of contracted-opening measurement of peak flow. Minimum discharge for current water year also occurred August 12, 13, 21, 22, 23, 24, 25.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	36	63	71	150	279	117	133	117	65	26	20	280
2	37	62	71	123	239	111	128	116	62	24	18	206
3	38	61	72	107	169	108	125	112	60	23	20	160
4	61	60	71	101	169	543	136	108	60	26	21	133
5	102	60	69	97	175	653	180	104	56	33	18	115
6	73	62	68	95	163	308	430	99	53	33	16	102
7	57	62	68	91	162	363	256	96	50	36	15	91
8	51	63	67	89	143	373	210	94	55	54	14	84
9	53	63	68	86	131	286	187	96	48	64	13	87
10	75	64	67	92	120	237	172	94	45	52	13	94
11	53	63	64	170	112	207	162	94	70	41	13	203
12	49	64	63	136	111	186	158	92	50	34	13	135
13	48	65	63	117	117	169	146	85	47	63	13	117
14	48	65	63	110	109	157	138	84	50	59	15	101
15	48	84	66	100	103	171	133	85	62	40	17	89
16	48	76	144	95	101	208	128	110	47	32	16	96
17	49	67	91	112	104	166	125	91	41	29	19	93
18	50	65	75	116	227	155	123	83	36	26	17	83
19	55	65	70	118	162	189	122	84	35	25	15	76
20	57	66	69	108	140	279	124	81	35	24	14	72
21	50	65	93	95	129	215	124	80	35	23	13	70
22	51	75	93	98	124	192	127	75	36	21	13	68
23	71	74	243	96	121	173	124	72	36	23	12	64
24	101	67	179	94	113	160	120	72	33	23	12	62
25	122	66	117	86	110	151	117	71	30	20	13	58
26	103	78	115	88	150	144	119	68	28	23	760	95
27	81	89	111	86	151	140	120	66	27	24	2,560	279
28	70	75	133	84	126	135	137	77	27	22	461	169
29	65	70	226	84	119	150	130	94	30	21	299	131
30	63	69	188	87	---	142	118	74	29	23	189	112
31	63	---	212	83	---	134	---	71	---	22	147	---
Total	1,928	2,028	3,170	3,194	4,179	6,722	4,552	2,745	1,338	989	4,799	3,525
Mean	62.2	67.6	102	103	144	217	152	88.5	44.6	31.9	155	118
Max	122	89	243	170	279	653	430	117	70	64	2,560	280
Min	36	60	63	83	101	108	117	66	27	20	12	58
Cfsm	0.49	0.54	0.81	0.82	1.14	1.72	1.20	0.70	0.35	0.25	1.23	0.93
In.	0.57	0.60	0.94	0.94	1.23	1.98	1.34	0.81	0.40	0.29	1.42	1.04

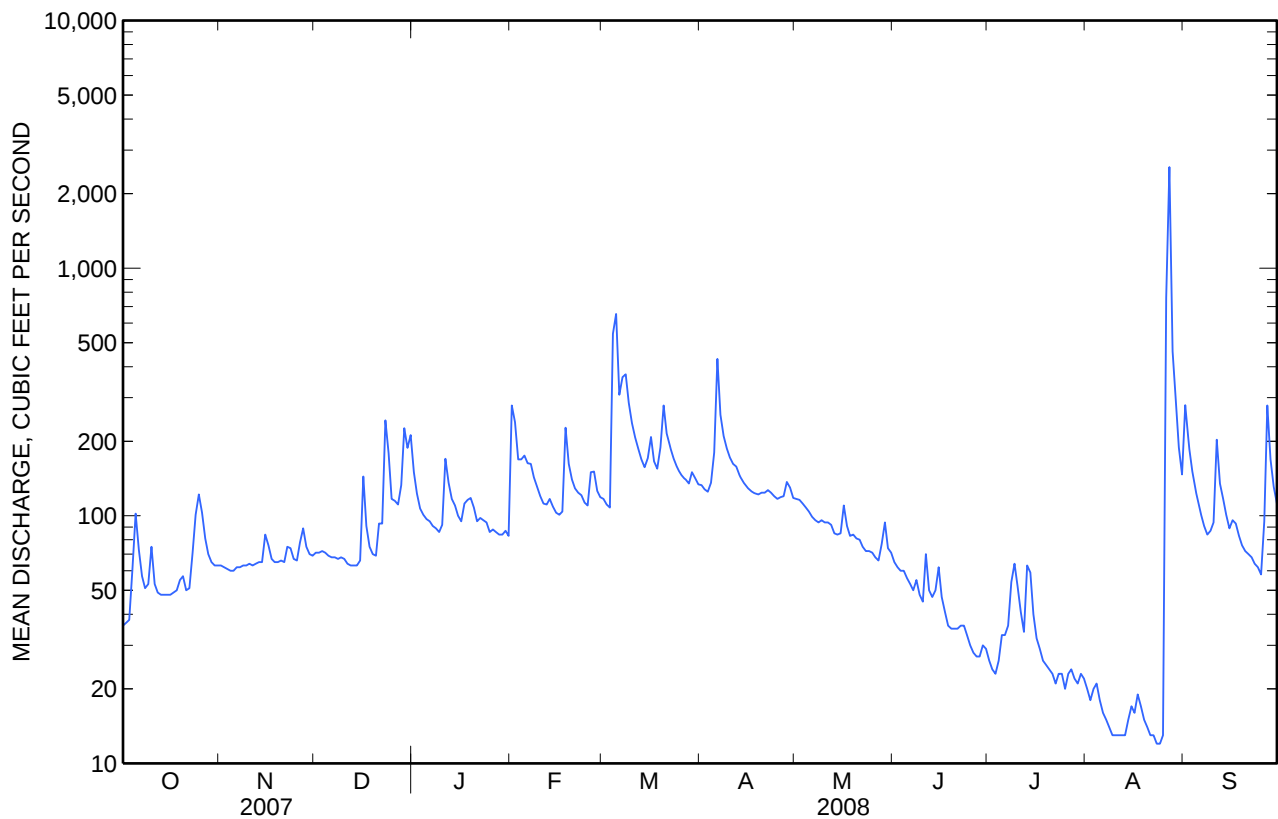
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	180	207	224	264	303	324	301	228	198	171	199	211
Max	550	606	573	620	739	622	688	524	652	548	543	1,418
(WY)	(1996)	(1986)	(1984)	(1995)	(1998)	(1990)	(1983)	(2003)	(1992)	(2005)	(2003)	(2004)
Min	52.4	63.8	77.6	103	110	130	138	76.2	44.6	31.9	32.3	43.3
(WY)	(2001)	(2002)	(1989)	(2008)	(2001)	(1988)	(1986)	(2001)	(2008)	(2008)	(2002)	(1999)

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SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1981 - 2008	
Annual total	51,745		39,169			
Annual mean	142		107		234	
Highest annual mean					351	1984
Lowest annual mean					103	2002
Highest daily mean	1,540	Jan 8	2,560	Aug 27	15,100	Sep 8, 2004
Lowest daily mean	27	Sep 10	12	Aug 23	12	Aug 23, 2008
Annual seven-day minimum	30	Sep 7	13	Aug 19	13	Aug 19, 2008
Maximum peak flow			6,840	Aug 27	^a 23,000	Sep 8, 2004
Maximum peak stage			10.38	Aug 27	17.55	Sep 8, 2004
Instantaneous low flow			^a 12	Aug 11	11	Sep 12, 2002
Annual runoff (cfsm)	1.13		0.849		1.85	
Annual runoff (inches)	15.28		11.56		25.19	
10 percent exceeds	238		176		408	
50 percent exceeds	103		84		171	
90 percent exceeds	49		24		71	

^aSee Remarks.

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PERIOD OF RECORD.--November 2000 to current year.

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

REMARKS.--Gage is operated in cooperation with Duke Energy and the North Carolina Department of Environment and Natural Resources. 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 2007 TO SEPTEMBER 2008
DAILY SUM VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0.00	0.00	0.00	0.00	1.58	0.00	0.00	0.00	0.00	0.00	0.00	0.91
2	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00
3	0.00	0.00	0.01	0.00	0.20	0.00	0.30	0.00	0.00	0.00	0.00	0.00
4	1.50	0.00	0.00	0.00	0.24	2.80	0.29	0.00	0.00	0.36	0.00	0.00
5	0.07	0.00	0.00	0.00	0.01	0.00	1.16	0.00	0.00	0.03	0.00	0.00
6	0.00	0.02	0.00	0.00	0.19	0.00	0.17	0.00	0.00	0.13	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	1.02	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.14	0.00	0.56	0.00	0.00
9	0.04	0.01	0.01	0.00	0.00	0.00	0.00	0.08	0.07	0.34	0.00	0.06
10	0.00	0.00	0.01	0.54	0.00	0.00	0.00	0.00	0.05	0.04	0.00	0.37
11	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.55	0.00	0.00	0.00	0.05
12	0.00	0.00	0.00	0.00	0.02	0.00	0.05	0.00	0.00	0.00	0.00	0.05
13	0.00	0.00	0.00	0.03	0.13	0.00	0.00	0.00	0.00	1.54	0.02	0.00
14	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.00
15	0.00	0.30	0.93	0.00	0.00	0.65	0.00	0.22	0.00	0.00	0.00	0.00
16	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.01	0.39
17	0.00	0.00	0.00	0.13	0.82	0.00	0.00	0.00	0.00	0.00	0.15	0.01
18	0.01	0.00	0.00	0.52	0.01	0.00	0.00	0.04	0.00	0.00	0.00	0.00
19	0.05	0.00	0.00	0.00	0.00	0.81	0.06	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.07	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
21	0.00	0.01	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.25	0.22	0.27	0.00	0.09	0.00	0.00	0.00	0.22	0.36	0.00	0.00
23	0.44	0.00	1.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.52	0.00	0.00	0.00	0.01	0.00	0.00	0.02	0.00	0.00	0.00	0.00
25	0.39	0.09	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.00
26	0.05	0.43	0.19	0.00	0.58	0.00	0.62	0.00	0.00	0.16	6.98	0.95
27	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	1.15	0.27
28	0.00	0.00	0.90	0.00	0.00	0.00	0.55	0.46	0.02	0.14	0.33	0.01
29	0.00	0.00	0.01	0.04	0.01	0.49	0.00	0.00	0.01	0.03	0.00	0.00
30	0.00	0.00	0.74	0.03	---	0.04	0.00	0.01	0.00	0.00	0.00	0.07
31	0.00	---	0.00	0.15	---	0.00	---	0.00	---	0.54	0.59	---
Total	3.32	1.11	4.70	1.76	3.89	6.03	3.24	1.79	0.54	4.23	9.66	3.14

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