

Water-Data Report 2007

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

GAGE.--Water-stage recorder. Elevation 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 September 12.

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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	142	160	363	1,470	200	300	194	149	104	96	95	83
2	138	166	300	575	201	948	191	147	102	92	84	57
3	135	152	256	410	192	366	186	154	109	94	78	49
4	133	148	233	350	187	288	185	197	107	88	74	46
5	130	146	219	379	184	255	179	178	99	84	76	40
6	129	144	210	420	181	236	176	175	96	81	72	37
7	124	221	201	507	184	225	173	159	94	82	68	35
8	133	604	190	1,540	180	218	171	153	97	81	63	32
9	137	297	185	703	177	208	169	152	93	75	64	30
10	125	244	181	502	175	203	169	157	89	73	59	27
11	123	222	178	405	172	198	172	158	88	73	54	29
12	125	214	174	360	172	191	181	155	91	73	64	28
13	118	196	174	331	183	188	165	152	94	67	65	28
14	116	188	170	308	200	186	164	142	121	70	53	128
15	113	197	166	294	175	183	215	138	198	66	48	135
16	115	709	162	280	171	666	179	136	118	82	45	70
17	408	399	157	263	169	454	170	133	104	75	43	59
18	337	303	156	255	167	322	172	129	96	73	43	55
19	216	267	154	251	163	282	183	126	95	75	40	53
20	228	240	151	240	165	263	199	125	108	80	38	51
21	190	224	151	243	169	258	176	122	89	73	36	53
22	178	223	719	276	163	240	171	120	85	64	54	58
23	167	208	522	244	157	231	167	118	83	61	46	53
24	160	196	319	234	157	223	166	120	91	79	53	48
25	156	188	464	228	209	216	165	116	87	112	50	45
26	153	182	426	221	194	210	164	115	98	179	48	44
27	173	178	327	219	175	205	164	111	108	126	49	42
28	234	174	286	215	168	201	157	108	116	118	58	40
29	183	174	263	204	---	211	156	107	156	118	73	36
30	172	236	246	203	---	200	151	104	120	132	53	35
31	164	---	395	198	---	195	---	103	---	133	59	---
Total	5,155	7,200	8,098	12,328	4,990	8,570	5,230	4,259	3,136	2,775	1,805	1,526
Mean	166	240	261	398	178	276	174	137	105	89.5	58.2	50.9
Max	408	709	719	1,540	209	948	215	197	198	179	95	135
Min	113	144	151	198	157	183	151	103	83	61	36	27
Cfsm	1.32	1.90	2.07	3.16	1.41	2.19	1.38	1.09	0.83	0.71	0.46	0.40
In.	1.52	2.13	2.39	3.64	1.47	2.53	1.54	1.26	0.93	0.82	0.53	0.45

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 2007, BY WATER YEAR (WY)

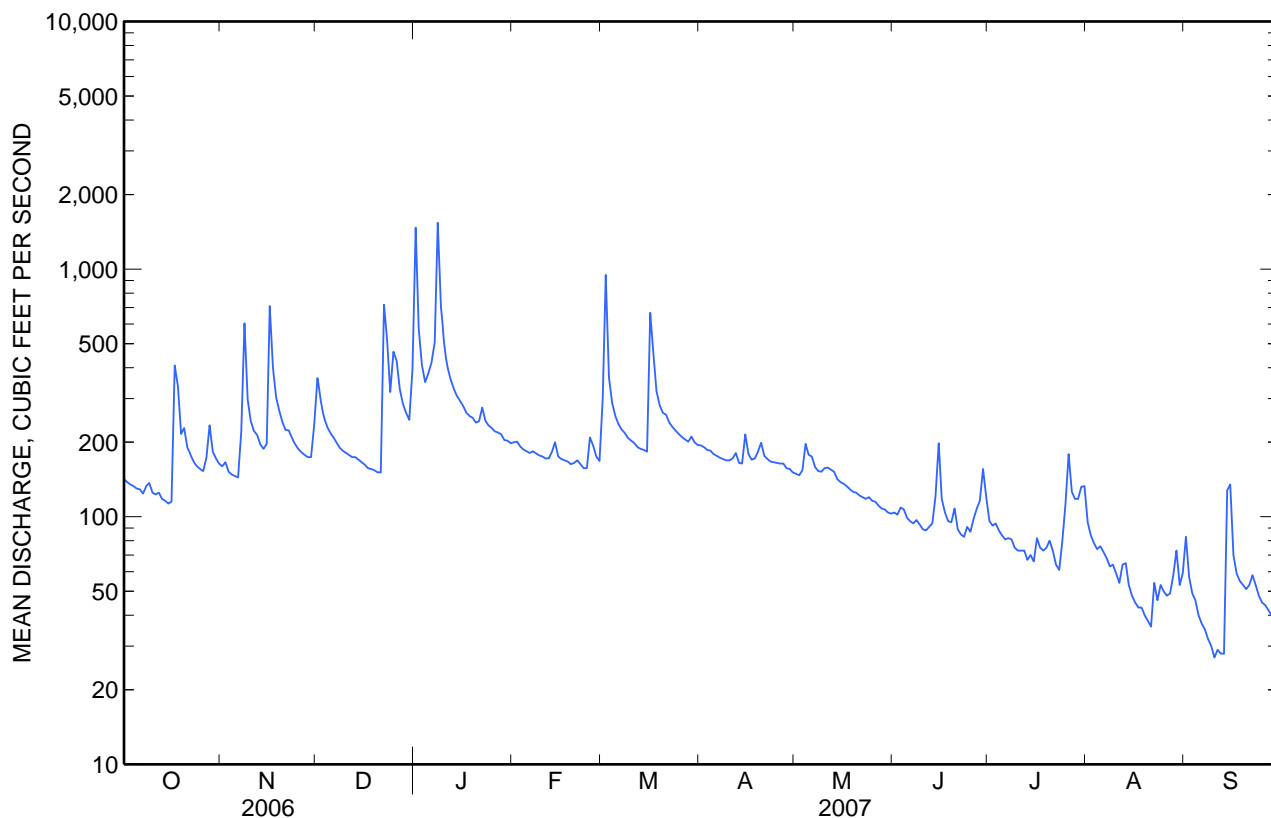
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	184	213	228	270	309	328	306	233	203	177	200	214
Max	550	606	573	620	739	622	688	524	652	548	543	1,418
(WY)	(1996)	(1986)	(1984)	(1995)	(1998)	(1990)	(1983)	(2003)	(1992)	(2005)	(2003)	(2004)
Min	52.4	63.8	77.6	107	110	130	138	76.2	65.1	49.8	32.3	43.3
(WY)	(2001)	(2002)	(1989)	(1981)	(2001)	(1988)	(1986)	(2001)	(2001)	(2002)	(2002)	(1999)

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SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1981 - 2007	
Annual total	71,848		65,072			
Annual mean	197		178		238	
Highest annual mean					351	1984
Lowest annual mean					103	2002
Highest daily mean	1,490	Sep 5	1,540	Jan 8	15,100	Sep 8, 2004
Lowest daily mean	72	Aug 1	27	Sep 10	14	Sep 12, 2002
Annual seven-day minimum	78	Jul 27	30	Sep 7	17	Aug 9, 2002
Maximum peak flow			2,600	Jan 1	^a 23,000	Sep 8, 2004
Maximum peak stage			6.28	Jan 1	17.55	Sep 8, 2004
Instantaneous low flow			^a 26	Sep 10	11	Sep 12, 2002
Annual runoff (cfsm)	1.56		1.41		1.89	
Annual runoff (inches)	21.21		19.21		25.70	
10 percent exceeds	301		295		412	
50 percent exceeds	164		162		175	
90 percent exceeds	95		54		75	

^a See Remarks.



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CLIMATOLOGICAL RECORDS

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 2006 TO SEPTEMBER 2007
DAILY SUM VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0.00	0.08	0.30	0.26	0.07	2.21	0.08	0.00	0.00	0.00	0.00	0.00
2	0.00	0.18	0.00	0.00	0.02	0.15	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.12	0.00	0.22	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.23	0.00	0.00	0.00	0.00
6	0.03	0.00	0.00	0.02	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
7	0.00	2.07	0.00	1.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.17	0.05	0.00	0.35	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.80	0.00	0.00	0.00	0.00
11	0.06	0.24	0.00	0.00	0.00	0.00	0.24	0.01	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.00
13	0.00	0.00	0.03	0.00	0.52	0.00	0.00	0.00	0.14	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.01	0.00	0.10	0.00	0.77	0.00	0.00	1.66
15	0.00	0.99	0.00	0.00	0.00	0.07	0.52	0.00	0.01	0.00	0.00	0.00
16	0.19	0.58	0.00	0.00	0.00	1.87	0.00	0.00	0.00	1.12	0.00	0.00
17	2.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00
18	0.01	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00
19	0.28	0.00	0.00	0.00	0.00	0.00	0.33	0.00	0.02	0.00	0.00	0.00
20	0.01	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.01	0.00	0.00	0.00
21	0.00	0.01	0.06	0.53	0.03	0.05	0.00	0.00	0.00	0.00	0.00	0.00
22	0.02	0.15	2.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.07	0.00
24	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.00
25	0.00	0.00	0.98	0.00	0.61	0.00	0.00	0.00	0.00	0.87	0.00	0.00
26	0.00	0.00	0.04	0.00	0.00	0.00	0.02	0.00	0.00	0.10	0.00	0.00
27	0.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.27	0.00	0.00
28	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.08	0.41	0.00
29	0.00	0.09	0.00	0.00	---	0.08	0.00	0.00	0.01	0.01	0.00	0.00
30	0.00	0.71	0.03	0.00	---	0.00	0.00	0.00	0.01	0.00	0.00	0.00
31	0.00	---	2.35	0.00	---	0.00	---	0.00	---	0.00	0.00	---
Total	3.82	5.15	6.56	3.59	1.26	4.56	1.37	1.70	1.97	2.71	0.72	1.66

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