

Water-Data Report 2010

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 streamgage.

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.

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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	223	387	218	386	401	319	333	219	190	109	91	93
2	204	330	720	360	518	322	320	219	178	106	93	90
3	193	285	735	336	524	317	310	291	196	101	90	88
4	178	254	440	321	482	302	296	241	188	99	85	84
5	211	234	369	306	900	289	287	218	182	96	143	81
6	183	217	320	292	947	281	282	215	166	92	171	81
7	174	205	292	284	658	278	274	208	157	87	97	80
8	158	198	291	278	565	276	304	201	149	82	84	82
9	154	188	1,030	260	525	275	328	191	143	80	80	86
10	150	262	594	253	495	277	276	189	141	82	78	81
11	147	1,670	437	248	447	295	269	194	137	78	110	82
12	145	843	373	250	428	371	264	191	135	89	87	96
13	150	523	394	242	412	514	257	182	134	108	82	81
14	217	404	362	239	386	402	251	181	126	92	496	77
15	240	341	334	236	382	355	246	197	125	80	281	75
16	209	303	307	234	368	328	243	199	142	94	237	73
17	208	280	289	1,030	350	311	241	254	142	102	217	74
18	188	327	311	608	339	300	235	241	121	110	170	74
19	175	390	337	482	334	289	233	206	115	101	238	72
20	168	328	301	426	333	279	233	183	114	102	205	69
21	159	297	285	452	338	309	241	191	107	118	177	67
22	153	289	284	451	396	1,300	230	207	121	83	220	68
23	153	343	290	404	431	628	231	192	134	82	161	70
24	311	302	301	1,040	426	486	235	178	113	74	137	67
25	233	286	2,560	2,700	391	427	331	203	117	72	130	64
26	201	271	1,270	942	364	399	256	183	123	106	119	100
27	243	252	738	670	347	361	246	175	123	164	120	166
28	473	240	582	554	333	412	239	174	145	127	111	206
29	324	233	484	494	---	418	228	168	124	111	107	109
30	273	229	428	502	---	375	227	166	110	85	103	131
31	264	---	408	429	---	351	---	186	---	78	98	---
Total	6,462	10,711	16,084	15,709	12,820	11,846	7,946	6,243	4,198	2,990	4,618	2,667
Mean	208	357	519	507	458	382	265	201	140	96.5	149	88.9
Max	473	1,670	2,560	2,700	947	1,300	333	291	196	164	496	206
Min	145	188	218	234	333	275	227	166	107	72	78	64
Cfsm	1.65	2.83	4.12	4.02	3.63	3.03	2.10	1.60	1.11	0.77	1.18	0.71
In.	1.91	3.16	4.75	4.64	3.78	3.50	2.35	1.84	1.24	0.88	1.36	0.79

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 2010, BY WATER YEAR (WY)

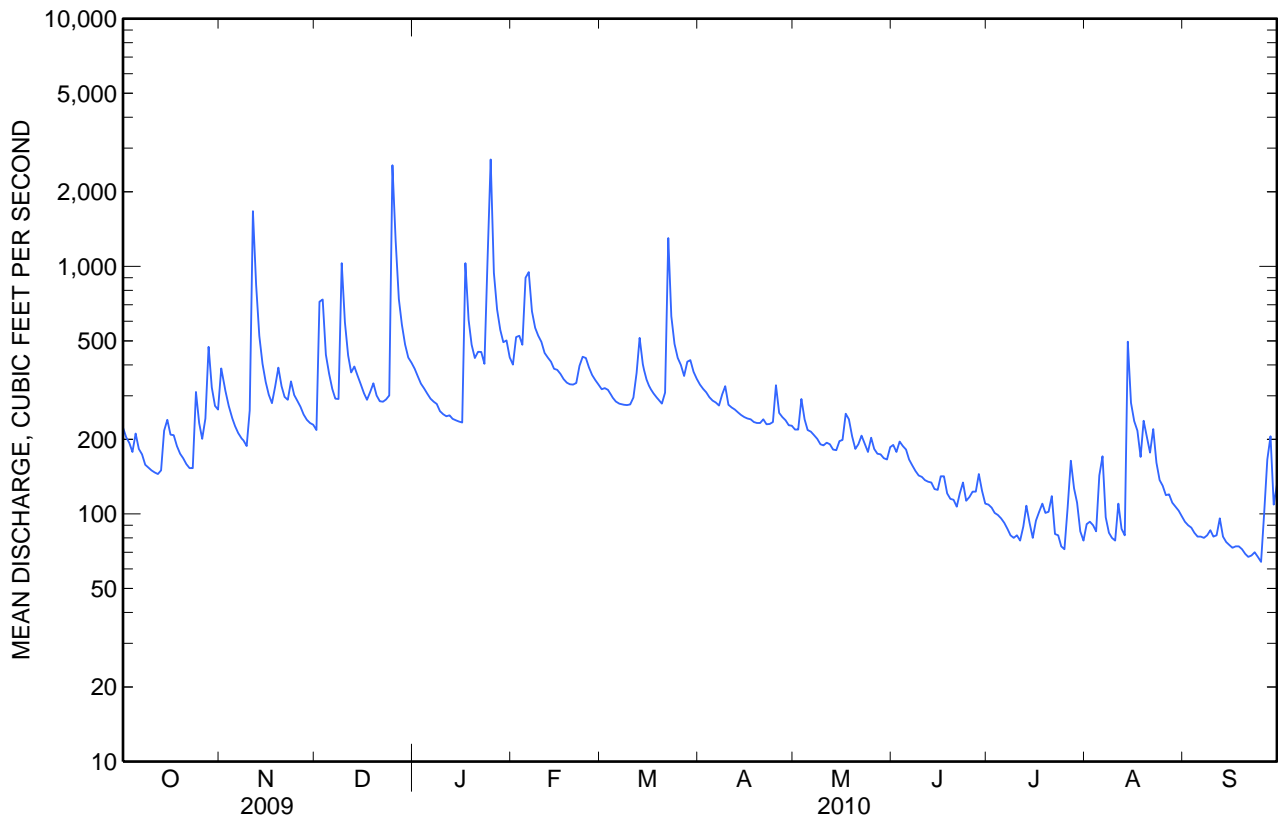
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	177	208	232	269	301	323	298	231	197	167	193	210
Max	550	606	573	620	739	622	688	524	652	548	543	1,418
(WY)	(1996)	(1986)	(1984)	(1995)	(1998)	(1990)	(1983)	(2003)	(1992)	(2005)	(2003)	(2004)
Min	52.4	63.8	77.6	103	93.7	130	138	76.2	44.6	31.9	32.3	43.3
(WY)	(2001)	(2002)	(1989)	(2008)	(2009)	(1988)	(1986)	(2001)	(2008)	(2008)	(2002)	(1999)

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SUMMARY STATISTICS

	Calendar Year 2009		Water Year 2010		Water Years 1981 - 2010	
Annual total	89,688		102,294			
Annual mean	246		280		233	
Highest annual mean					351	1984
Lowest annual mean					103	2002
Highest daily mean	2,560	Dec 25	2,700	Jan 25	15,100	Sep 8, 2004
Lowest daily mean	66	Aug 10	64	Sep 25	12	Aug 23, 2008
Annual seven-day minimum	75	Sep 2	68	Sep 19	13	Aug 19, 2008
Maximum peak flow			5,230	Dec 25	^a 23,000	Sep 8, 2004
Maximum peak stage			9.01	Dec 25	17.55	Sep 8, 2004
Instantaneous low flow			63	Sep 25	11	Sep 12, 2002
Annual runoff (cfsm)	1.95		2.22		1.85	
Annual runoff (inches)	26.48		30.20		25.17	
10 percent exceeds	409		477		408	
50 percent exceeds	178		234		171	
90 percent exceeds	87		86		72	

^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.

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	0.12	0.00	0.00	---	0.00	0.00	0.00	0.87	0.00	0.01	0.00
2	0.00	0.00	2.03	0.00	---	0.14	0.00	0.00	0.01	0.00	0.03	0.00
3	0.00	0.00	0.01	0.00	---	0.00	0.00	0.87	0.00	0.00	0.00	0.00
4	0.04	0.00	0.00	0.00	---	0.00	0.00	0.00	0.19	0.00	0.06	0.00
5	0.29	0.00	0.07	0.00	---	0.00	0.00	0.00	0.01	0.00	0.73	0.00
6	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.04	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	1.02	0.00	---	0.00	0.70	0.00	0.00	0.00	0.00	0.03
9	0.01	0.00	0.70	0.00	---	0.00	0.00	0.00	0.00	0.05	0.00	0.00
10	0.00	1.59	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.02	0.01
11	0.00	1.15	0.00	0.00	0.00	0.39	0.00	0.12	0.01	0.00	0.00	0.19
12	0.14	0.00	0.00	0.00	0.00	0.97	0.00	0.00	0.00	0.44	0.01	0.01
13	0.00	0.00	0.43	0.00	0.16	0.17	0.00	0.00	0.06	0.00	0.73	0.00
14	0.72	0.00	0.00	0.00	0.00	0.00	0.00	0.61	0.01	0.00	2.17	0.00
15	0.07	0.00	0.00	0.00	0.04	0.01	0.00	0.01	0.09	0.00	0.93	0.00
16	0.07	0.00	0.00	0.27	0.00	0.00	0.00	0.39	0.07	0.74	0.00	0.00
17	0.07	0.09	0.00	1.67	0.00	0.00	0.00	0.54	0.00	0.16	0.02	0.04
18	0.00	0.71	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.50	0.00
19	0.00	0.18	---	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.35	0.00
20	0.00	0.00	---	0.00	0.00	0.00	0.15	0.00	0.00	1.77	0.00	0.00
21	0.00	0.00	---	0.43	0.00	0.98	0.05	0.18	0.00	0.00	0.28	0.00
22	0.00	0.43	---	0.03	0.25	0.37	0.00	0.05	0.00	0.04	0.00	0.00
23	0.21	0.12	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.50	0.01	---	3.18	0.00	0.00	0.44	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	---	0.05	0.00	0.02	0.52	0.04	1.17	0.11	0.01	0.00
26	0.00	0.00	---	0.00	0.00	0.00	0.00	0.16	0.00	0.52	0.01	1.10
27	1.10	0.00	---	0.00	0.00	0.00	0.05	0.00	0.52	0.87	0.00	1.18
28	0.05	0.00	0.00	0.00	0.00	0.72	0.00	0.14	0.41	0.38	0.00	0.02
29	0.00	0.00	0.00	0.00	---	0.01	0.00	0.00	0.00	0.00	0.00	0.53
30	0.01	0.03	0.00	---	---	0.00	0.00	0.00	0.00	0.00	0.00	0.11
31	0.34	---	0.12	---	---	0.00	---	0.68	---	0.21	0.00	---
Total	3.62	4.43	---	---	---	3.78	1.91	3.79	3.46	5.77	5.86	3.22

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