

Water-Data Report 2008

0213903612 CATAWBA RIVER AT CALVIN, NC

Santee Basin
Upper Catawba Subbasin

LOCATION.--Lat 35°44'22", long 81°43'45" referenced to North American Datum of 1983, Burke County, NC, Hydrologic Unit 03050101, 0.5 mi upstream from Canoe Creek, and 0.5 mi north of Calvin.

DRAINAGE AREA.--508 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--July 1991 to current year.

REVISED RECORDS.--WDR NC-04-1: 1994 (maximum discharge), 1995 (maximum discharge), 1996 (maximum discharge), 2003 (maximum discharge).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,002.40 ft above NGVD of 1929 (levels by City of Morganton). Satellite telemetry at station.

REMARKS.--Records good, except those for estimated daily discharges, which are poor. City of Morganton diverted about 13.0 ft³/s from Catawba River for municipal water supply. Considerable regulation, at times, caused by Lake James, 6.5 mi upstream. Maximum discharge for period of record from rating curve extended above 26,000 ft³/s, by logarithmic plotting, maximum gage-height, 26.30 ft, from high-water mark at gage. Minimum discharge for period of record and current water year affected by regulation.

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

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	916	102	464	212	363	174	771	e485	151	146	110	2,060
2	919	149	461	243	373	171	593	e450	165	139	104	1,360
3	908	264	455	177	257	165	893	e425	73	136	103	1,600
4	279	250	444	172	234	195	841	e395	367	156	210	668
5	291	545	454	195	228	786	909	e375	355	146	221	335
6	149	124	446	176	189	2,430	744	e350	318	147	220	148
7	134	354	810	163	202	1,390	992	e330	154	130	211	139
8	112	350	553	156	231	1,590	906	e315	113	155	211	161
9	123	438	414	145	193	2,270	916	298	314	162	125	165
10	119	268	452	152	182	1,810	1,060	198	329	214	129	223
11	125	511	484	216	170	1,290	1,100	166	333	217	277	280
12	119	806	179	221	180	866	963	169	344	192	293	238
13	134	812	180	163	184	853	416	164	264	212	301	198
14	108	808	173	193	170	997	543	155	190	224	314	173
15	126	821	191	159	176	1,000	459	168	128	288	366	203
16	118	825	194	159	172	897	370	177	193	317	223	335
17	123	812	164	171	171	862	367	172	259	208	258	337
18	798	584	140	176	177	784	332	159	115	178	261	347
19	196	578	141	184	225	796	187	293	102	362	235	341
20	173	581	139	180	177	914	254	352	209	356	227	166
21	423	457	152	166	171	745	324	360	111	98	230	105
22	825	546	173	163	168	722	519	356	96	95	220	182
23	831	467	241	163	170	694	219	567	202	100	102	160
24	575	457	265	124	127	655	367	334	234	97	98	145
25	192	458	201	194	205	645	675	173	221	94	97	190
26	174	555	165	160	159	472	467	147	252	95	134	120
27	153	393	207	159	240	469	402	161	369	105	2,340	179
28	137	140	186	149	182	452	573	174	122	134	1,030	373
29	130	135	365	157	180	477	498	164	120	222	1,900	411
30	128	457	274	155	---	391	504	372	146	111	2,260	517
31	268	---	321	153	---	974	---	186	---	99	2,140	---
Total	9,806	14,047	9,488	5,356	5,856	26,936	18,164	8,590	6,349	5,335	14,950	11,859
Mean	316	468	306	173	202	869	605	277	212	172	482	395
Max	919	825	810	243	373	2,430	1,100	567	369	362	2,340	2,060
Min	108	102	139	124	127	165	187	147	73	94	97	105

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	627	699	875	1,127	1,019	1,054	1,014	735	772	689	809	860
Max	1,943	1,615	1,700	2,438	2,659	2,093	2,259	1,627	2,103	2,127	2,078	5,505
(WY)	(1996)	(1993)	(1993)	(1995)	(1998)	(1993)	(2003)	(2003)	(1992)	(2005)	(1994)	(2004)
Min	227	294	298	173	202	345	437	277	212	172	278	200
(WY)	(2003)	(2001)	(1999)	(2008)	(2008)	(2006)	(1999)	(2008)	(2008)	(2008)	(2002)	(2002)

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SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1991 - 2008	
Annual total	211,316		136,736			
Annual mean	579		374		856	
Highest annual mean					1,241	2005
Lowest annual mean					374	2008
Highest daily mean	3,420	Jan 8	2,430	Mar 6	34,700	Sep 9, 2004
Lowest daily mean	102	Nov 1	73	Jun 3	36	Sep 12, 2002
Annual seven-day minimum	120	Oct 8	98	Jul 21	98	Jul 21, 2008
Maximum peak flow			3,460	Aug 27	^a 52,600	Sep 9, 2004
Maximum peak stage			4.69	Aug 27	^a 26.30	Sep 9, 2004
Instantaneous low flow			^a 41	Aug 11	^a 2.1	Sep 12, 2002
10 percent exceeds	984		825		1,700	
50 percent exceeds	439		221		617	
90 percent exceeds	173		125		251	

^aSee Remarks.