

Water-Data Report 2007

**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 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

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

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

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 14.0 ft<sup>3</sup>/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 ft<sup>3</sup>/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.

## 0213903612 CATAWBA RIVER AT CALVIN, NC—Continued

**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**  
**DAILY MEAN VALUES**

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	543	327	1,330	3,110	751	420	677	e232	373	449	452	230
2	515	489	1,290	2,570	741	1,970	713	e234	338	455	445	204
3	551	484	1,250	2,690	818	891	557	241	e410	459	529	166
4	361	470	1,080	2,570	814	701	693	e254	e450	323	675	169
5	391	460	1,040	2,490	801	1,030	889	264	e400	256	517	172
6	317	394	872	2,590	803	1,070	693	263	e600	282	291	167
7	368	373	1,050	2,600	925	977	695	239	613	277	702	175
8	366	1,030	1,020	3,420	714	951	693	e239	627	342	566	176
9	384	829	767	2,760	714	899	652	230	385	436	620	178
10	378	757	768	2,580	632	823	661	e252	231	446	942	168
11	460	719	686	2,480	631	903	664	e270	607	270	796	141
12	456	726	669	2,420	637	891	663	e375	628	254	530	163
13	455	997	671	1,950	625	880	659	296	298	285	497	166
14	502	1,210	674	1,160	481	995	659	689	314	328	514	326
15	485	805	767	1,560	630	1,560	828	226	375	252	503	408
16	460	862	781	1,650	535	1,190	814	222	356	271	496	267
17	593	1,660	763	1,410	302	1,890	716	224	285	270	512	218
18	732	1,500	752	1,400	297	2,450	451	702	472	266	407	204
19	558	1,480	750	1,370	302	1,730	446	340	457	258	273	199
20	673	1,430	750	1,360	290	820	457	e240	468	275	524	199
21	868	1,410	757	1,380	299	766	439	e238	451	315	961	198
22	708	764	1,190	1,630	295	752	431	e235	450	245	964	200
23	703	702	1,460	1,600	297	561	347	645	328	250	950	204
24	673	703	1,060	1,830	291	706	407	647	307	262	935	278
25	670	1,240	1,100	1,420	328	730	378	e260	453	281	387	249
26	582	1,410	1,510	1,110	510	744	375	e360	454	459	354	259
27	589	1,300	1,420	916	486	717	378	e355	408	479	159	256
28	628	1,180	1,310	918	393	718	374	e350	377	318	189	267
29	576	1,180	1,290	738	---	707	411	e223	629	268	232	875
30	648	1,060	1,260	749	---	807	231	e207	335	465	191	891
31	604	---	1,320	1,430	---	721	---	e205	---	233	200	---
<b>Total</b>	16,797	27,951	31,407	57,861	15,342	30,970	17,051	9,757	12,879	10,029	16,313	7,773
<b>Mean</b>	542	932	1,013	1,866	548	999	568	315	429	324	526	259
<b>Max</b>	868	1,660	1,510	3,420	925	2,450	889	702	629	479	964	891
<b>Min</b>	317	327	669	738	290	420	231	205	231	233	159	141

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2007, BY WATER YEAR (WY)**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Mean</b>	646	713	910	1,187	1,072	1,066	1,039	763	807	720	829	888
<b>Max</b>	1,943	1,615	1,700	2,438	2,659	2,093	2,259	1,627	2,103	2,127	2,078	5,505
<b>(WY)</b>	(1996)	(1993)	(1993)	(1995)	(1998)	(1993)	(2003)	(2003)	(1992)	(2005)	(1994)	(2004)
<b>Min</b>	227	294	298	327	291	345	437	315	350	324	278	200
<b>(WY)</b>	(2003)	(2001)	(1999)	(2002)	(2002)	(2006)	(1999)	(2007)	(2006)	(2007)	(2002)	(2002)

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SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1991 - 2007	
<b>Annual total</b>	261,628		254,130			
<b>Annual mean</b>	717		696		887	
<b>Highest annual mean</b>					1,241	2005
<b>Lowest annual mean</b>					376	2002
<b>Highest daily mean</b>	2,780	Sep 5	3,420	Jan 8	34,700	Sep 9, 2004
<b>Lowest daily mean</b>	181	Jun 20	141	Sep 11	36	Sep 12, 2002
<b>Annual seven-day minimum</b>	218	Jun 17	167	Sep 7	112	Oct 10, 1993
<b>Maximum peak flow</b>			5,010	Mar 2	<sup>a</sup> 52,600	Sep 9, 2004
<b>Maximum peak stage</b>			5.82	Mar 2	<sup>a</sup> 26.30	Sep 9, 2004
<b>Instantaneous low flow</b>			<sup>a</sup> 35	Sep 11	<sup>a</sup> 2.1	Sep 12, 2002
<b>10 percent exceeds</b>	1,360		1,390		1,740	
<b>50 percent exceeds</b>	576		557		645	
<b>90 percent exceeds</b>	293		234		270	

<sup>a</sup> See Remarks.

