

## SANTEE RIVER BASIN

02171645 REDIVERSION CANAL AT SANTEE RIVER NEAR ST. STEPHENS, SC

LOCATION.--Lat 33°25'26'', long 79°51'40'', Berkeley County, Hydrologic Unit 03050112, on right bank, 0.2 mi downstream from St. Stephens Powerhouse, 3.8 mi upstream from Santee River, and 1.0 mi north of St. Stephens.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1986 to current year.

GAGE.--Data collection platform and acoustic velocity meter. Datum of gage is NGVD of 1929.

REMARKS.--Records fair. Flow is regulated by the St. Stephens Powerhouse and affected during low-flow by astronomical tides. The astronomical tides occur at primary harmonic periods of 12.42 hours for semi-diurnal tides and 24.84 hours for diurnal tides. Computed 24-hour daily mean discharge for this site may be affected by aliasing due to tides and, thus, may contain spurious fluctuations or oscillations that are not indicative of net downstream discharge. Water is diverted above station from Lake Moultrie for generation of power and for navigation, then discharged into the West Branch Cooper River (see station 02172002). During periods of incomplete gage-height or velocity record, values of daily mean discharge from St. Stephens Powerhouse were obtained and used to estimate daily discharges. Discharge records for the 1987-2000 water years are computed by utilization of the One-Dimensional unsteady flow simulation model (BRANCH) and are poor.

Discharge, cubic feet per second  
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	141	54	6150	25700	95	23800	24000	23500	23800	20800	9700	13600
2	461	50	3910	26000	772	23800	23300	23000	23600	20900	7720	7840
3	446	35	4450	25700	745	23800	23100	23100	23300	21300	7700	5470
4	584	558	4120	25700	111	23800	22900	23100	23100	20600	8560	4760
5	140	37	6090	25900	1160	23600	22800	23300	22900	e22700	15500	4810
6	e0	143	6000	24400	231	23300	22500	23100	22900	e22700	20600	4600
7	257	669	6430	19500	680	22900	22600	23200	22700	e22700	21700	5170
8	112	747	6200	18700	87	23300	22000	23100	22400	e22700	22800	5210
9	10	79	7660	15300	68	23800	22200	23000	22200	e22700	23000	4230
10	18	50	9680	9960	3960	23700	22500	23000	22600	e22300	22900	5300
11	460	92	11800	10300	7770	23400	22800	23000	23100	e20600	22900	6170
12	94	68	13700	9660	7180	23800	23100	22700	22800	e22600	22500	6780
13	99	2290	15000	7420	7550	23600	24200	22600	22400	e22600	22400	6890
14	39	217	16700	5070	9790	23300	24600	22700	22500	e22600	22600	6880
15	54	101	16700	5570	12200	22500	25000	22700	22800	e22700	22700	6800
16	88	73	22100	4700	11500	23100	25000	22600	22800	e22700	22600	5080
17	70	35	22400	5090	13000	23200	24600	22300	22200	e9800	22800	4940
18	55	1850	22600	5100	12800	22900	24600	22300	22400	e22700	22600	5140
19	82	1670	18600	4740	16100	22900	24800	22100	22200	e22700	22600	4720
20	92	5440	18800	4850	17800	24200	24800	18800	22300	e22800	22700	4660
21	427	7920	19000	835	18500	23600	24500	16900	21900	e22800	22500	4700
22	76	7780	18800	102	19500	23700	24200	16400	22000	e19300	23000	e5500
23	18	7990	20100	5810	21500	24100	24100	17500	22000	e16400	22600	e3580
24	9	8240	18500	2880	21900	24700	24300	22700	22800	e22700	21700	2850
25	e0	8280	20900	125	22600	24300	24300	22900	22600	e22800	21700	3150
26	116	6140	22700	34	23600	24100	24300	22700	22700	e21900	22100	3110
27	48	6070	25200	101	23600	24100	24500	22800	22700	19900	22400	3430
28	66	6560	25400	56	23900	24000	24400	23000	22600	18000	22200	3910
29	502	7820	25600	66	---	24600	24100	23500	22600	12700	22000	3020
30	66	6000	25900	542	---	25100	23800	23700	21600	10400	15300	2950
31	53	---	25800	1230	---	24200	---	24200	---	10000	15300	---
TOTAL	4683	87058	486990	291141	298699	735200	713900	689500	678500	628100	617380	155250
MEAN	151	2902	15710	9392	10670	23720	23800	22240	22620	20260	19920	5175
MAX	584	8280	25900	26000	23900	25100	25000	24200	23800	22800	23000	13600
MIN	0	35	3910	34	68	22500	22000	16400	21600	9800	7700	2850

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2003, BY WATER YEAR (WY)

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
MEAN	5438	6337	10940	12710	13050	15330	12470	8017	5127	4205	5768	4480					
MAX	16820	21590	24130	22410	23980	23900	24150	23930	22620	20260	23380	13080					
(WY)	1996	1996	1993	1998	1998	1987	1998	1991	2003	2003	1991	1995					
MIN	30.2	98.1	17.9	90.0	151	266	276	172	18.8	1.00	6.84	4.83					
(WY)	1994	2001	2001	2001	2001	2002	2002	2001	1988	1988	2000	2000					

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SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1987 - 2003	
ANNUAL TOTAL	634712		5386401		8639	
ANNUAL MEAN	1739		14760		14760	
HIGHEST ANNUAL MEAN					2003	
LOWEST ANNUAL MEAN					185	
HIGHEST DAILY MEAN	25900	Dec 30	26000	Jan 2	31200	Nov 17 1989
LOWEST DAILY MEAN	0	a Feb 5	0	a Oct 6	-155	Jun 25 1993
ANNUAL SEVEN-DAY MINIMUM	0.57	Sep 19	48	Oct 22	0.00	Oct 1 1986
MAXIMUM PEAK FLOW			28500	Dec 30	31200	Nov 17 1988
MAXIMUM PEAK STAGE			b 30.59	Mar 27	b 30.59	Mar 27 2003
10 PERCENT EXCEEDS	6030		24100		22700	
50 PERCENT EXCEEDS	88		20900		5950	
90 PERCENT EXCEEDS	14		100		0.00	

a Also occurred many days, several months.  
 b Caused by backwater from Santee River.

e Estimated

