

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

LOCATION.--Lat 33°25'39'' (revised), long 79°54'54'' (revised), 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.

REVISED RECORDS.--WRD SC-2004-1: Latitude and longitude.

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

REMARKS.--Records good except for Dec. 10 to April 2, which are fair, and estimated daily discharges, which are poor. 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 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2520	e2340	e9250	5530	175	6530	2070	122	118	8780	63	19500
2	2980	e2800	e5860	5440	44	6410	3430	2300	128	10300	5280	540
3	2560	e2710	e5990	5970	116	6450	2730	3580	103	9140	6020	198
4	2910	e2140	e5950	5510	970	13400	2630	5330	104	9270	8580	1050
5	3010	e2590	e6290	5260	254	13600	3440	5650	97	8890	5950	149
6	2480	e2490	e7280	5330	247	13200	1780	6020	100	9150	311	85
7	2210	e2580	e6150	10100	1070	12100	1520	5840	759	5700	72	10500
8	1690	e2570	e5960	6150	6420	8610	1370	5540	72	3330	41	23100
9	1940	e2340	e2440	5680	10400	8140	1630	3140	1300	2880	55	23300
10	1880	e2360	e5340	9610	10800	7320	289	3110	200	2210	144	23500
11	1980	e1910	6250	11100	13400	8170	1440	916	136	3220	99	24000
12	1710	e2740	10800	5300	14000	7040	1540	632	170	3310	12000	24900
13	1990	1930	6180	5750	14500	4230	1430	302	62	2800	22400	24900
14	2160	4160	5680	3800	14200	4610	1560	105	104	2910	8900	24700
15	2020	3440	6390	5970	16800	4450	1480	2560	143	2740	367	24800
16	1860	2550	10500	6010	18000	4270	1300	647	323	1210	972	25500
17	2050	198	13100	5790	20200	3190	989	117	731	1200	162	25200
18	1760	1870	11300	4340	20300	3760	755	128	97	168	136	24600
19	1990	e3270	13800	4900	20100	3210	712	809	725	623	134	24300
20	2470	e4590	12800	7490	17400	2950	899	137	66	118	510	23800
21	2880	e6150	12100	9720	10100	3100	1490	423	78	1920	66	23300
22	3310	e5120	5410	4210	6750	5180	1300	121	899	1290	46	23200
23	2970	e6930	5670	5650	8070	3220	836	87	1300	145	37	23100
24	3240	e5720	4710	5140	6720	3330	262	62	2060	1060	16	23000
25	2890	e9110	11000	5740	6710	3230	239	40	2940	171	20	22800
26	2950	e9020	11000	4630	6690	2910	134	341	2900	99	57	22600
27	3230	e8400	11200	e5000	6740	1850	158	60	2850	129	81	23000
28	3000	e8600	12200	5280	9090	2100	113	49	6090	118	2500	23500
29	3150	e8930	11400	2950	7430	2160	445	113	6240	107	15500	23300
30	3590	e9040	11300	197	---	2040	142	115	9240	75	20500	23500
31	3160	---	5790	1440	---	1970	---	152	---	761	20100	---
TOTAL	78540	128598	259090	174987	267696	172730	38113	48548	40135	93824	131119	579922
MEAN	2534	4287	8358	5645	9231	5572	1270	1566	1338	3027	4230	19330
MAX	3590	9110	13800	11100	20300	13600	3440	6020	9240	10300	22400	25500
MIN	1690	198	2440	197	44	1850	113	40	62	75	16	85

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2004, BY WATER YEAR (WY)

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
MEAN	5277	6223	10790	12320	12830	14790	11850	7659	4917	4139	5683	5305						
MAX	16820	21590	24130	22410	23980	23900	24150	23930	22620	20260	23380	19330						
(WY)	1996	1996	1993	1998	1998	1987	1998	1991	2003	2003	1991	2004						
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						

SANTEE RIVER BASIN

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

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1987 - 2004	
ANNUAL TOTAL	5273898		2013302		8465	
ANNUAL MEAN	14450		5501		14760	
HIGHEST ANNUAL MEAN					2003	
LOWEST ANNUAL MEAN					185	
HIGHEST DAILY MEAN	26000	Jan 2	25500	Sep 16	31200	Nov 17 1989
LOWEST DAILY MEAN	34	Jan 26	16	Aug 24	-155	Jun 25 1993
ANNUAL SEVEN-DAY MINIMUM	303	Jan 26	46	Aug 21	0.00	Oct 1 1986
MAXIMUM PEAK FLOW			27800		31200	
MAXIMUM PEAK STAGE			25.97		a 30.59	
10 PERCENT EXCEEDS	23800		14100		22700	
50 PERCENT EXCEEDS	18700		3000		5570	
90 PERCENT EXCEEDS	2290		116		2.0	

a Caused by backwater from the Santee River.

e Estimated

