02197000 SAVANNAH RIVER AT AUGUSTA, GA

LOCATION.--Lat 33°22'25'', long 81°56'35'', Richmond County, Hydrologic Unit 03060106, at New Savannah Bluff lock and dam, 0.2 mi upstream from Butler Creek, 12.0 mi downstream from Augusta, and at mile 187.4.

DRAINAGE AREA.--7,508 mi^2, including that of Butler Creek.

PERIOD OF RECORD.--October 1883 to December 1891, January 1896 to December 1906, January 1925 to current year. Monthly discharges only for some periods, published in WSP 1303. Gage-height records collected at site of Fifth Street gage from 1875 to 1952 and at New Savannah Bluff lock and dam sites since 1937 are contained in reports of National Weather Service.

REVISED RECORDS.--WSP 1303: 1927-39 (monthly runoff). WSP 1433: 1888, 1896-99, 1902-03, 1906-07, and 1932 (M). WRD SC-77-1: 1975. WRD SC-94-1: Peaks outside period of record, 1796, 1840, 1852, 1864, 1865, 1908.

GAGE.--Data collection platform. Datum of gage is 95.58 ft above NGVD of 1929 (U.S. Army Corps of Engineers bench mark). Prior to October 1, 2001, at datum 1.0 ft higher. Oct. 1, 1883 to Dec. 31, 1891, Jan. 1, 1896, to Dec. 31, 1906, Jan. 1, 1925, to Sept. 30, 1932, nonrecording or recording gage at Fifth Street Bridge at datum 102.06 ft above NGVD of 1929 (levels by Southeastern Engineering Co.). Oct. 1, 1932, to Sept. 30, 1936, recording gage at Thirteenth Street bridge at datum 104.56 ft above NGVD OF 1929 (levels by U.S. Army Corps of Engineers). Oct. 1, 1936, to Nov. 10, 1948, recording gage at site 0.2 mi downstream from present site and at present datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. Flow regulated by Thurmond Lake (see sta 02194500), Hartwell Lake, Richard B. Russell Lake, and by other powerplants above station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 307,000 ft^3/s, Aug. 27, 1908, gage height, 38.8 ft, at site and datum at Fifth Street gage. Stages and discharges for other floods at site and datum at Fifth Street gage are as follows: 280,000 ft^3/s, Jan. 17, 1796, gage height (determined by analysis of historical documents), 38 ft; 260,000 ft^3/s, May 28, 1840, gage height, 37.5 ft; 230,000 ft^3/s, Aug. 29, 1852, gage height, 36.8 ft; 160,000 ft^3/s, Jan. 1, 1864, gage height, 34.0 ft; 220,000 ft^3/s, Jan. 11, 1865, gage height, 36.4 ft. Stages for the 1840, 1852, 1864, and 1865 floods were obtained from the City of Augusta, Georgia, gage records that were copied in the log books of the National Weather Service. These floods and floods recorded by the National Weather Service beginning in 1876 are stored in the USGS peak flow database. Other historical documents indicated floods of unknown magnitude occurred in 1722 and 1741.

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4280	4490	4500	4720	4390	5040	7500	4120	4750	4010	4310	4050
2	4280	4470	4660	4730	4370	4970	6930	4180	4870	4030	4180	4170
3	4310	4370	4850	5030	4280	4820	5560	4040	4160	4060	4190	4670
4	4330	4450	4890	4970	4530	6380	4930	4040	4210	4370	4220	4630
5	4190	4520	4640	4580	4840	6440	4440	4740	4160	4380	4160	3960
6	4190	4390	4600	4750	5650	e4540	4810	4600	4200	4460	4180	3890
7	4180	4420	4850	4850	6290	e4110	4540	4050	4250	4250	4270	3870
8	4400	4500	4530	5090	7160	e4230	5030	4170	4080	4180	4340	3910
9	4960	4530	4540	4870	4900	e4270	4340	4090	4020	4080	4440	3980
10	4640	4480	4930	4990	5460	e4190	4200	4070	4020	4350	4340	3880
11	4250	4450	5830	4610	5180	e4280	4290	4070	4050	4330	4080	3860
12	4220	4480	4610	4440	4430	e4720	4350	4060	4050	4280	4100	3730
13	4250	4520	4640	4510	4350	4440	4550	4320	4090	4100	4130	3910
14	4340	4590	4460	4440	4450	4830	4660	4770	4060	4220	3980	4200
15	4360	4490	4410	4750	4470	4430	4790	4090	e4030	4400	3780	5210
16	4780	4440	4470	5050	4430	4640	4260	4050	e4010	4290	3830	4650
17	4840	4450	4590	4910	4390	4810	4630	4110	e4020	4380	4010	4530
18	4740	4380	5110	4620	4470	4570	4830	4250	4120	4320	4270	4550
19	4580	4490	4580	4460	4700	4510	4190	4530	4410	4270	4550	5410
20	4410	4730	4530	4360	4440	4300	4150	4730	4290	4160	4540	6040
21	4400	4490	4660	4520	4550	5040	4470	4220	4070	4140	3890	4580
22	4400	4430	4750	4700	4620	4820	4600	4380	4050	4460	4020	4530
23	4520	4600	4410	4600	4490	5090	4460	4360	4020	4390	3960	4510
24	4480	4760	4640	4600	4410	4400	4070	4550	4020	4240	4310	4200
25	4410	4630	4830	4450	4430	4390	4080	4510	4020	4200	4430	3810
26	4310	4690	5280	4510	4530	4220	4170	4160	4020	4160	4300	3840
27	4400	4970	5200	4580	4610	4310	4210	4100	4020	4270	4210	3960
28	4400	4580	5050	5070	4840	4810	4040	4100	4030	4150	4600	4530
29	4570	4500	4740	4710	---	4420	4080	4090	4030	4230	4170	4330
30	4580	4530	4660	4570	---	4450	4060	4060	4030	4260	4330	4140
31	4510	---	4790	4360	---	4820	---	4130	---	4200	4190	---
TOTAL	137510	135820	147230	145400	133660	145290	139220	131740	124160	131620	130310	129530
MEAN	4436	4527	4749	4690	4774	4687	4641	4250	4139	4246	4204	4318
MAX	4960	4970	5830	5090	7160	6440	7500	4770	4870	4460	4600	6040
MIN	4180	4370	4410	4360	4280	4110	4040	4040	4010	4010	3780	3730
CFSM	0.59	0.60	0.63	0.62	0.64	0.62	0.62	0.57	0.55	0.57	0.56	0.58
IN.	0.68	0.67	0.73	0.72	0.66	0.72	0.69	0.65	0.62	0.65	0.65	0.64

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 2002, BY WATER YEAR (WY)

MEAN	7140	7177	8868	10460	11880	13790	12660	9124	8065	7051	7377	6887
MAX	17740	18610	27270	30250	30600	29090	43850	27050	22830	13200	15820	14480
(WY)	1965	1996	1993	1993	1998	1952	1964	1964	1973	1976	1994	1964
MIN	2728	4017	3751	4084	4774	4687	4371	4037	4139	3627	3889	3332
(WY)	1952	1953	1953	1953	2002	2002	2000	2001	2002	1952	1952	1952

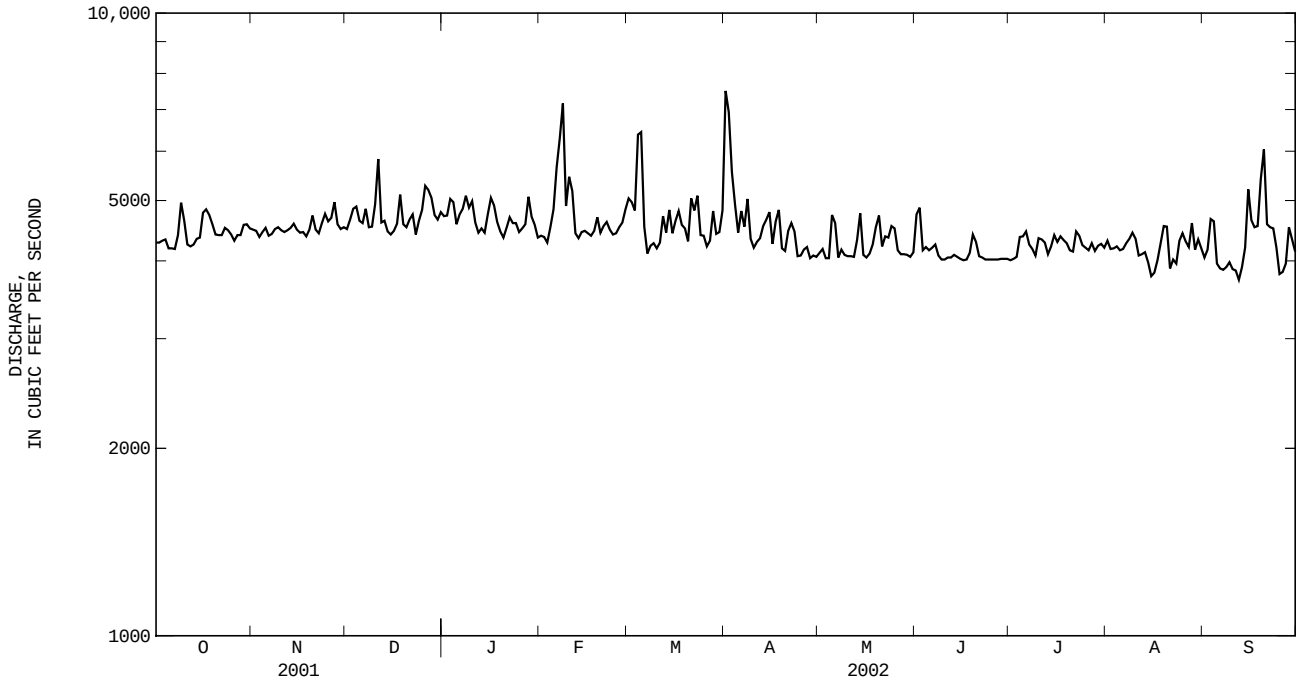
02197000 SAVANNAH RIVER AT AUGUSTA, GA--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1952 - 2002	
ANNUAL TOTAL	1761730		1631490			
ANNUAL MEAN	4827		4470		9191	
HIGHEST ANNUAL MEAN					16580	1964
LOWEST ANNUAL MEAN					4470	2002
HIGHEST DAILY MEAN	14200	Jun 14	7500	Apr 1	84500	Apr 10 1964
LOWEST DAILY MEAN	3710	May 13	3730	Sep 12	1770	Oct 18 1951
ANNUAL SEVEN-DAY MINIMUM	3780	May 22	3870	Sep 6	2090	Oct 20 1951
MAXIMUM PEAK FLOW			8510	Mar 4	87100	Apr 9 1964
MAXIMUM PEAK STAGE			7.14	Mar 4	24.16	Apr 9 1964
ANNUAL RUNOFF (CFSM)	0.64		0.60		1.22	
ANNUAL RUNOFF (INCHES)	8.73		8.08		16.63	
10 PERCENT EXCEEDS	5730		4880		17500	
50 PERCENT EXCEEDS	4510		4420		6830	
90 PERCENT EXCEEDS	4000		4040		4720	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1883-1951, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	6988	6923	9645	13560	16950	17490	13660	8566	7962	8042	8864	7916
MAX	42170	21250	27390	40950	39560	52440	58700	20670	22700	19480	35030	47850
(WY)	1930	1949	1933	1936	1903	1929	1936	1929	1900	1906	1887	1888
MIN	2079	2614	4263	5137	4812	6298	5298	3427	3258	2811	1706	1453
(WY)	1905	1932	1884	1890	1938	1898	1896	1927	1925	1883	1925	1925

SUMMARY STATISTICS	WATER YEARS 1883-1951	
ANNUAL MEAN	10640	
HIGHEST ANNUAL MEAN	16500	1929
LOWEST ANNUAL MEAN	5836	1904
HIGHEST DAILY MEAN	315000	Oct 3 1929
LOWEST DAILY MEAN	1040	Oct 2 1927
ANNUAL SEVEN-DAY MINIMUM	1170	Aug 23 1925
INSTANTANEOUS PEAK FLOW	a350000	Oct 3 1929
INSTANTANEOUS PEAK STAGE	b46.30	Sep 27 1929
INSTANTANEOUS LOW FLOW	c648	Sep 24 1939
ANNUAL RUNOFF (CFSM)	1.42	
ANNUAL RUNOFF (INCHES)	19.25	
10 PERCENT EXCEEDS	19900	
50 PERCENT EXCEEDS	6720	
90 PERCENT EXCEEDS	3180	

a Gage height 45.10 ft, at site and datum then in use.
b At site and datum then in use.
c From rating curve extended below 1,400 ft^3/s.

e Estimated