

CAPE FEAR RIVER BASIN

02105769 CAPE FEAR RIVER AT LOCK 1 NEAR KELLY, NC

LOCATION.--Lat 34°24'15", long 78°17'38", Bladen County, Hydrologic Unit 03030005, on right bank near upstream end of Lock 1, 1.3 mi upstream from Natmore Creek, 2.0 mi upstream from bridge on State Highway 11, 4.6 mi southeast of Kelly, and at river mile 67.

DRAINAGE AREA.--5,255 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1969 to current year.

REVISED RECORDS.--WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder with concrete lock and dam control. Datum of gage is 2.90 ft below sea level (U.S. Army Corps of Engineers bench mark). Satellite telemetry at station.

REMARKS.--Records good. Slight regulation at high flow December 1972 to August 1981, caused by storage in B. Everett Jordan Lake. Flow regulated since September 1981 by B. Everett Jordan Lake (station 02098197). Slight diurnal fluctuation and some regulation for short periods at low flow caused by power plants upstream from station. The City of Wilmington diverted an average of 24.9 ft³/s for municipal water supply, most of which was returned downstream of station as treated effluent. Prior to regulation, maximum discharge: 57,000 ft³/s, March 3, 1979; gage height: 24.92 ft, from floodmarks. Minimum discharge prior to regulation, 406 ft³/s, July 1, 1981.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6630	891	2620	1760	1110	3320	15900	1530	1700	2410	1470	2140
2	6510	1020	2330	1680	1280	3240	16900	1270	3170	1940	1210	2940
3	6390	1050	2190	1630	1490	3200	16400	1150	8410	1730	1010	2770
4	6140	991	2110	1730	1680	3440	16600	1090	8660	1590	995	2320
5	5590	1030	2090	1780	1890	3840	17400	1090	7140	1530	962	1920
6	3250	1050	1840	1750	1960	5710	18000	1090	6780	4700	963	1690
7	2000	1110	1680	1650	1610	6730	18500	1030	6050	6010	733	1550
8	1650	1040	1610	1640	979	6930	18500	962	5200	4630	677	1450
9	1480	1060	1700	1580	1060	6270	17800	772	2650	3460	819	1330
10	1370	1220	1690	1460	1550	5540	15400	786	1440	2700	838	1300
11	1380	1240	1710	1440	1550	5010	11400	812	988	2410	819	1580
12	1310	1230	1850	1460	1550	4610	7800	867	883	2310	1850	1710
13	1280	1130	1840	1610	1700	4090	5990	1000	1010	2010	5800	1580
14	1330	1110	1720	1640	1790	2880	4040	1020	1440	1700	6410	1480
15	1340	1290	1690	1680	2060	2370	3140	940	3880	1420	5320	1340
16	1270	1500	1710	1710	2160	2820	2840	828	7370	1180	5500	1190
17	1230	1630	1770	1660	2600	3190	2560	828	7520	920	4990	1090
18	1220	1600	1830	1440	3200	3500	2170	944	7120	780	3640	970
19	1150	1620	1780	1450	4820	3630	1880	1060	5830	820	4280	960
20	1200	1840	2780	1650	6380	3330	1620	1120	3950	1060	4500	1070
21	1210	2190	3240	1870	4820	5590	1550	1170	3460	1280	4590	1030
22	1200	2210	2660	2100	3480	10200	1600	1090	3540	1200	4460	1010
23	1180	2040	2180	2140	5640	12100	1520	1050	3550	994	3380	993
24	1100	1900	1910	2530	6910	12300	1260	982	4030	907	2520	1070
25	1090	1890	1680	2360	6110	12000	1200	911	4340	924	2000	1500
26	1020	2660	1680	1920	5430	11600	1520	938	4390	955	1550	1850
27	1080	3580	1760	1830	4900	11700	1670	957	3470	1070	1390	2020
28	1120	3760	1850	1730	4070	11300	1840	991	3660	1950	1440	1980
29	1120	3250	1860	1810	---	10700	1940	1220	3680	2520	1700	1780
30	1100	2960	1810	1470	---	9260	1860	1450	3200	2130	1780	1600
31	1000	---	1820	1060	---	12300	---	1660	---	1730	1730	---
TOTAL	65940	51092	60990	53220	83779	202700	230800	32608	128511	60970	79326	47213
MEAN	2127	1703	1967	1717	2992	6539	7693	1052	4284	1967	2559	1574
MAX	6630	3760	3240	2530	6910	12300	18500	1660	8660	6010	6410	2940
MIN	1000	891	1610	1060	979	2370	1200	772	883	780	677	960

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 2001,* BY WATER YEAR (WY)

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
MEAN	3626	3330	4597	8444	9875	11120	7953	4109	3744	3070	2933	3838								
MAX	15080	11390	11050	17180	27780	23830	17730	12110	15070	10860	7883	22580								
(WY)	2000	1996	1984	1998	1998	1998	1993	1989	1982	1995	1984	1996								
MIN	1023	1118	1783	1717	2992	3629	1667	1052	1044	1039	1024	985								
(WY)	1999	1999	1999	2001	2001	1988	1986	2001	1999	1998	1999	1990								

SUMMARY STATISTICS

	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1982 - 2001*	
ANNUAL TOTAL	1613720		1097149			
ANNUAL MEAN	4409		3006		5530	
HIGHEST ANNUAL MEAN					8529	
LOWEST ANNUAL MEAN					2865	
HIGHEST DAILY MEAN	18400	Feb 4	18500	Apr 7	47600	Sep 11 1996
LOWEST DAILY MEAN	647	May 17	677	Aug 8	445	Oct 9 1981
ANNUAL SEVEN-DAY MINIMUM	802	May 15	830	Aug 5	463	Oct 4 1981
MAXIMUM PEAK FLOW			18700		48300	
MAXIMUM PEAK STAGE			20.13		24.29	
INSTANTANEOUS LOW FLOW			635		380	
10 PERCENT EXCEEDS	10300		6380		14900	
50 PERCENT EXCEEDS	2480		1730		2810	
90 PERCENT EXCEEDS	1100		995		1070	

* Regulated period only (1982-2001). See REMARKS.

02105769 CAPE FEAR RIVER AT LOCK 1 NEAR KELLY, NC--Continued

