

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 NGVD of 1929 (U.S. Army Corps of Engineers bench mark). Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. 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 24.0 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. Minimum discharge for period of record and current water year, due to fish lockage.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1330	901	1130	976	6600	1420	5730	925	921	1260	768	1400
2	1160	810	1160	975	5270	1530	8320	932	933	951	727	1500
3	1110	931	1080	1070	3720	2690	9710	962	944	892	870	5170
4	1000	961	1040	1180	2640	3180	8150	949	902	849	825	5590
5	867	948	1000	1470	2030	3150	6880	1130	797	818	699	2870
6	1000	933	950	1680	1770	3630	6280	1190	740	753	528	1490
7	1230	921	903	2320	2150	4490	5100	1120	801	723	430	969
8	1470	943	902	2910	3010	5020	3670	948	926	679	361	882
9	1530	1010	954	2850	4380	5020	3060	988	864	507	284	730
10	1550	1010	982	2600	6320	3220	2770	893	888	487	179	706
11	1470	1030	1070	2610	6500	2110	2330	992	823	708	230	646
12	1270	1030	1100	2350	6270	1760	2120	1030	696	734	442	559
13	1130	1000	1320	2190	6210	1910	2290	939	687	704	526	510
14	1050	1010	1460	2080	6340	2170	2150	915	762	706	522	648
15	1050	1050	1580	2050	5530	2180	1940	929	921	764	408	759
16	1100	1030	1540	1960	4480	2530	1620	825	913	669	535	970
17	1180	959	1350	1830	3290	3160	1550	821	916	619	612	1140
18	1100	950	1210	1660	2530	2800	1410	932	810	622	638	1200
19	1030	955	1120	1530	2200	2270	1310	970	788	582	668	1130
20	1060	970	1170	1630	1940	2050	1400	990	818	682	575	990
21	1040	935	1110	4510	1980	2850	1340	930	791	662	529	915
22	1050	896	1050	8400	1940	3720	1260	e900	926	e680	552	937
23	1070	884	1030	8040	1900	3950	1060	e800	969	e700	830	970
24	1010	1070	1050	8570	1830	3900	893	e800	884	e640	560	930
25	1030	1580	1050	13000	1540	3550	861	e820	770	e760	552	830
26	1030	1720	1050	15300	1460	2980	850	e900	744	1090	614	747
27	1010	1580	1040	14900	1350	2630	967	e1000	787	1450	719	620
28	970	1410	1010	11700	1270	2640	985	e1100	918	1280	1860	804
29	942	1260	1020	8880	---	3370	925	e1080	1130	1010	3160	793
30	946	1160	1010	8240	---	3690	801	e1100	1450	946	2250	683
31	964	---	990	7580	---	3940	---	e1200	---	925	1590	---
TOTAL	34749	31847	34431	147041	96450	93510	87732	30010	26219	24852	24043	38088
MEAN	1121	1062	1111	4743	3445	3016	2924	968.1	874.0	801.7	775.6	1270
MAX	1550	1720	1580	15300	6600	5020	9710	1200	1450	1450	3160	5590
MIN	867	810	902	975	1270	1420	801	800	687	487	179	510

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 2002,* BY WATER YEAR (WY)

MEAN	3507	3222	4431	8268	9571	10740	7714	3959	3608	2962	2830	3715
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	1062	1111	1717	2992	3016	1667	968	874	802	776	985
(WY)	1999	2002	2002	2001	2001	2002	1986	2002	2002	2002	2002	1990

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1982 - 2002*	
ANNUAL TOTAL	1020154		668972			
ANNUAL MEAN	2795		1833		5354	
HIGHEST ANNUAL MEAN					8529	
LOWEST ANNUAL MEAN					1833	
HIGHEST DAILY MEAN	18500	Apr 7	15300	Jan 26	47600	Sep 11 1996
LOWEST DAILY MEAN	677	Aug 8	179	Aug 10	179	Aug 10 2002
ANNUAL SEVEN-DAY MINIMUM	830	Aug 5	350	Aug 7	350	Aug 7 2002
MAXIMUM PEAK FLOW			15600	Jan 26	48300	Sep 11 1996
MAXIMUM PEAK STAGE			19.43	Jan 26	24.29	Sep 11 1996
INSTANTANEOUS LOW FLOW			157*	Aug 10	157*	Aug 10 2002
10 PERCENT EXCEEDS	6070		3790		14500	
50 PERCENT EXCEEDS	1550		1040		2640	
90 PERCENT EXCEEDS	949		683		1030	

e Estimated.

* Regulated period only (1982-2002). See REMARKS.

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

