

02105769 CAPE FEAR RIVER AT LOCK 1 NEAR KELLY, NC

LOCATION.--Lat 34°24'16", long 78°17'37", 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 mi<sup>2</sup>.

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 22.7 ft<sup>3</sup>/s for municipal water supply, most of which was returned downstream of station as treated effluent. Prior to regulation, maximum discharge: 57,000 ft<sup>3</sup>/s, March 3, 1979; gage height: 24.92 ft, from floodmarks. Minimum discharge prior to regulation, 406 ft<sup>3</sup>/s, July 1, 1981. Minimum discharge not determined due to fish lockage.

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	e660	5,400	1,890	12,200	2,480	18,800	18,700	11,100	21,400	3,200	9,760	2,660
2	e650	7,620	1,760	11,200	4,160	20,000	17,200	6,160	20,100	4,140	9,840	3,290
3	e650	7,730	1,430	11,100	5,320	20,800	16,400	4,310	18,500	8,460	10,500	4,610
4	e680	7,140	1,420	12,500	4,870	21,600	16,000	3,650	15,000	13,700	12,900	7,280
5	691	6,460	1,660	12,000	5,160	22,500	15,400	3,220	10,500	16,600	13,300	8,040
6	697	4,440	2,610	10,600	5,340	23,200	13,200	3,240	7,330	17,300	14,200	7,140
7	e640	3,380	7,320	9,260	5,590	23,400	10,100	4,730	6,930	17,100	16,100	7,270
8	e640	4,440	10,600	7,930	7,110	23,400	8,980	6,440	9,490	15,600	18,000	7,260
9	e630	5,460	9,670	5,990	9,390	23,700	10,100	8,620	9,230	11,200	19,200	5,860
10	e620	5,690	9,630	4,900	9,530	23,500	14,700	8,630	10,100	7,150	20,100	7,120
11	e660	5,450	11,700	4,250	8,570	22,800	19,100	5,910	11,600	6,880	21,300	7,510
12	1,940	5,050	12,600	3,580	9,220	22,100	22,700	3,830	11,800	7,390	22,800	5,000
13	10,900	6,100	12,600	3,190	10,800	21,100	29,800	2,770	11,900	7,010	25,300	3,060
14	14,300	8,630	12,700	3,030	11,000	19,500	38,500	2,230	12,000	7,350	27,200	2,500
15	15,100	11,800	14,000	2,870	10,300	16,700	42,800	1,860	11,900	9,120	25,800	2,270
16	11,700	13,800	15,300	2,640	7,910	12,300	42,100	1,690	11,600	9,430	23,300	2,120
17	9,710	12,500	14,300	2,640	6,550	10,600	36,200	1,810	11,700	10,000	21,300	1,980
18	11,600	10,400	13,500	2,710	6,550	12,800	30,100	1,790	11,900	12,700	19,500	2,100
19	13,800	13,200	14,700	2,590	6,570	14,100	26,200	1,920	12,400	13,700	16,100	2,630
20	14,200	15,100	15,300	2,530	7,510	15,800	23,800	2,910	13,200	12,200	12,000	3,880
21	13,600	15,900	12,900	2,440	9,250	18,200	22,500	5,200	14,600	10,200	10,200	7,610
22	12,900	16,200	10,100	2,220	10,600	20,700	21,600	6,260	15,700	8,590	9,020	8,670
23	12,200	15,800	9,390	2,160	10,400	23,200	21,100	6,970	15,200	7,040	6,560	8,760
24	7,980	13,900	8,640	2,110	13,500	25,900	20,600	9,660	11,300	5,750	4,930	8,770
25	3,960	11,300	8,210	1,990	16,300	27,700	20,300	12,900	6,330	4,810	4,250	10,300
26	2,560	8,300	9,690	1,940	17,700	27,700	19,900	14,600	4,040	5,480	4,090	13,100
27	1,980	4,920	13,100	2,030	18,300	26,400	19,200	17,500	3,030	5,870	4,350	14,400
28	1,520	3,040	15,100	2,050	18,300	24,600	18,300	20,300	2,770	5,220	4,170	14,200
29	1,190	2,280	15,200	2,060	---	22,800	17,700	22,500	2,720	4,480	3,500	12,800
30	1,460	2,000	13,900	2,090	---	21,400	16,300	23,700	3,220	4,960	3,120	10,500
31	2,270	---	12,900	2,060	---	20,200	---	22,900	---	7,490	2,850	---
TOTAL	172,088	253,430	313,820	150,860	258,280	647,500	649,580	249,310	327,490	280,120	415,540	202,690
MEAN	5,551	8,448	10,120	4,866	9,224	20,890	21,650	8,042	10,920	9,036	13,400	6,756
MAX	15,100	16,200	15,300	12,500	18,300	27,700	42,800	23,700	21,400	17,300	27,200	14,400
MIN	620	2,000	1,420	1,940	2,480	10,600	8,980	1,690	2,720	3,200	2,850	1,980

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 2003,\* BY WATER YEAR (WY)

MEAN	3,600	3,459	4,689	8,113	9,555	11,200	8,347	4,145	3,940	3,238	3,310	3,854
MAX	15,080	11,390	11,050	17,180	27,780	23,830	21,650	12,110	15,070	10,860	13,400	22,580
(WY)	(2000)	(1996)	(1984)	(1998)	(1998)	(1998)	(2003)	(1989)	(1982)	(1995)	(2003)	(1996)
MIN	1,023	1,062	1,111	1,717	2,992	3,016	1,667	968	874	802	776	985
(WY)	(1999)	(2002)	(2002)	(2001)	(2001)	(2002)	(1986)	(2002)	(2002)	(2002)	(2002)	(1990)

CAPE FEAR RIVER BASIN

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SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1982 - 2003*	
ANNUAL TOTAL	1,307,283		3,920,708		5,599	
ANNUAL MEAN	3,582		10,740		10,740	
HIGHEST ANNUAL MEAN					1,833	
LOWEST ANNUAL MEAN					47,600	
HIGHEST DAILY MEAN	16,200	Nov 22	42,800	Apr 15	47,600	Sep 11, 1996
LOWEST DAILY MEAN	179	Aug 10	620	Oct 10	179	Aug 10, 2002
ANNUAL SEVEN-DAY MINIMUM	350	Aug 7	654	Oct 5	350	Aug 7, 2002
MAXIMUM PEAK FLOW			43,600	Apr 15	48,300	Sep 11, 1996
MAXIMUM PEAK STAGE			23.72	Apr 15	24.29	Sep 11, 1996
INSTANTANEOUS LOW FLOW			NOT DETERMINED*		NOT DETERMINED*	
10 PERCENT EXCEEDS	11,700		21,400		15,100	
50 PERCENT EXCEEDS	1,500		9,690		2,800	
90 PERCENT EXCEEDS	656		2,110		1,040	

e Estimated.

\* Regulated period only (1982-2003). See REMARKS.

