

## 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.--No estimated daily discharges. Daily discharges above 2,500 ft<sup>3</sup>/s are fair, daily discharges below 2,500 ft<sup>3</sup>/s 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 27.2 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 for period of record not determined due to fish lockage. Minimum discharge for current water year also occurred Sept. 7.

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10,800	1,570	6,260	3,310	5,150	6,830	14,100	1,830	946	2,290	6,670	911
2	11,300	1,530	6,770	3,420	5,530	10,600	13,600	1,850	1,060	2,000	7,030	887
3	10,800	1,470	6,570	3,360	5,500	12,100	11,100	1,950	1,680	1,830	6,170	850
4	10,800	1,460	6,180	3,180	5,410	12,400	8,740	1,960	2,770	1,710	4,290	843
5	9,760	1,480	5,930	2,990	6,090	11,900	10,500	1,920	3,780	1,560	2,920	831
6	7,410	1,480	5,770	2,960	6,800	9,900	12,100	2,280	3,510	1,360	2,130	812
7	5,360	1,490	5,650	2,920	6,190	8,040	11,200	2,240	2,760	1,230	1,590	818
8	3,750	1,480	5,500	2,830	5,290	7,260	8,110	1,940	2,300	1,280	1,330	865
9	2,820	1,550	4,470	2,770	5,910	6,270	6,200	1,900	2,880	1,470	1,380	886
10	2,280	1,540	3,660	2,690	6,250	7,570	8,420	2,070	3,780	1,800	1,790	865
11	1,880	1,440	3,760	2,590	6,100	8,560	11,400	2,060	3,760	1,800	2,490	842
12	1,700	1,440	6,240	2,570	5,860	8,130	10,300	1,790	4,850	1,590	2,940	872
13	1,640	2,170	8,770	2,460	4,760	6,950	10,300	1,440	4,690	1,370	3,660	936
14	1,750	3,470	7,440	2,610	3,780	6,080	9,840	1,280	3,590	1,970	3,510	1,220
15	2,810	3,700	6,330	6,850	3,520	5,650	10,800	1,250	3,210	2,350	2,960	1,430
16	3,810	4,290	6,270	14,500	3,410	5,110	12,600	1,290	2,890	2,100	2,390	1,280
17	3,110	6,720	6,090	17,200	3,440	5,600	11,700	1,320	2,550	1,690	1,840	1,080
18	2,410	6,640	5,930	16,600	3,100	10,400	8,340	1,320	1,890	1,390	1,470	985
19	2,100	5,660	6,550	12,200	2,610	15,200	5,410	1,160	1,380	1,400	1,600	942
20	1,890	5,240	7,050	12,400	2,370	16,600	3,890	1,220	1,230	1,600	1,960	911
21	1,690	3,770	7,000	14,200	2,210	15,400	3,340	1,600	1,160	1,530	2,030	1,030
22	1,650	2,570	6,690	14,800	2,190	12,800	2,980	1,770	1,010	1,490	1,780	1,640
23	2,150	2,540	6,470	11,400	2,210	12,200	2,780	1,670	929	1,420	1,580	1,700
24	2,210	3,020	5,940	6,300	2,520	12,300	2,670	1,340	945	1,850	1,480	1,320
25	1,740	3,510	3,920	4,690	3,730	10,400	2,570	1,610	978	2,290	1,450	1,130
26	1,620	3,920	3,170	3,860	5,660	8,770	2,410	1,950	1,000	1,730	1,310	996
27	1,570	3,970	3,660	3,280	6,430	8,320	2,150	1,930	997	1,330	1,150	971
28	1,550	4,250	3,740	3,100	6,060	7,640	2,000	1,650	1,100	1,110	1,100	971
29	1,560	4,850	3,450	3,500	---	8,070	1,890	1,240	1,930	1,620	1,010	902
30	1,560	5,730	3,210	3,950	---	11,900	1,750	982	2,570	5,400	952	930
31	1,560	---	3,200	4,510	---	14,100	---	961	---	6,630	945	---
TOTAL	117,040	93,950	171,640	194,000	128,080	303,050	223,190	50,773	68,125	60,190	74,907	30,656
MEAN	3,775	3,132	5,537	6,258	4,574	9,776	7,440	1,638	2,271	1,942	2,416	1,022
MAX	11,300	6,720	8,770	17,200	6,800	16,600	14,100	2,280	4,850	6,630	7,030	1,700
MIN	1,550	1,440	3,170	2,460	2,190	5,110	1,750	961	929	1,110	945	812

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 2005,\* BY WATER YEAR (WY)

MEAN	3,569	3,430	4,783	7,827	9,248	10,910	8,115	4,014	3,795	3,124	3,345	3,996
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)

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SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1982 - 2005*	
ANNUAL TOTAL	1,664,490		1,515,601		5,493	
ANNUAL MEAN	4,548		4,152		10,740	
HIGHEST ANNUAL MEAN					1,833	
LOWEST ANNUAL MEAN					47,600	
HIGHEST DAILY MEAN	21,200	Sep 13	17,200	Jan 17	1,833	2002
LOWEST DAILY MEAN	1,080	Aug 12	812	Sep 6	179	Aug 10, 2002
ANNUAL SEVEN-DAY MINIMUM	1,280	Jul 16	844	Sep 3	350	Aug 7, 2002
MAXIMUM PEAK FLOW			17,600	Jan 17	48,300	Sep 11, 1996
MAXIMUM PEAK STAGE			19.82	Jan 18	24.29	Sep 11, 1996
INSTANTANEOUS LOW FLOW			807*	Sep 6	NOT DETERMINED*	
10 PERCENT EXCEEDS	8,870		10,300		14,500	
50 PERCENT EXCEEDS	3,190		2,760		2,830	
90 PERCENT EXCEEDS	1,560		1,090		1,050	

\* Regulated period only (1982-2005). See REMARKS.

