

02102500 CAPE FEAR RIVER AT LILLINGTON, NC

Cape Fear Basin
Upper Cape Fear Subbasin

LOCATION.--Lat 35°24'22", long 78°48'48" referenced to North American Datum of 1983, Harnett County, NC, Hydrologic Unit 03030004, on right bank 60 ft downstream of bridge on U.S. Highway 401, 1,860 ft downstream of Southern Railway bridge, 0.5 mi north of Lillington, 1 mi downstream of Neal Creek, and at river mile 178.

DRAINAGE AREA.--3,464 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--December 1923 to current year.

REVISED RECORDS.--WSP 1002: 1930, maximum discharge. WSP 1032: 1942, minimum discharge. WSP 1303: 1944, maximum discharge. WSP 1333: 1945, maximum discharge. WSP 1383: 1924-29, maximum and minimum discharges; 1924-29, daily discharges; 1936, daily discharges. WSP 1703: 1929, daily discharges. WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 104.62 ft above NGVD of 1929. December 6, 1923 to October 7, 1927, nonrecording gage and October 8, 1927 to December 2, 1975, water-stage recorder at site 60 ft upstream at bridge pier at same datum. Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Some regulation at high flows, December 1972 to August 1981, caused by temporary storage in B. Everett Jordan Lake. Flow regulated since September 1981 by B. Everett Jordan Lake (station 02098197). Diurnal fluctuation and slight regulation at low flow caused by power plants upstream from station. Fluctuation and regulation by Buckhorn Reservoir, 13 mi upstream from station, ended in December 1962. Prior to regulation, maximum discharge: 150,000 ft³/s, September 19, 1945, from rating curve extended above 76,000 ft³/s; gage height: 33.19 ft, from floodmark; minimum discharge: 11 ft³/s, October 14, 15, 1954; gage height: -0.17 ft. Minimum discharge for period of record also occurred on August 7, 2002. Minimum discharge for current water year also occurred October 8.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	323	469	4,410	9,210	7,790	3,850	6,890	670	3,400	633	540	629
2	318	426	2,120	8,350	9,310	3,730	6,500	661	4,190	596	524	628
3	331	385	11,800	5,840	11,600	4,050	6,000	637	4,870	644	605	618
4	331	716	12,800	3,940	14,100	5,840	5,740	651	4,100	665	589	596
5	335	632	10,600	1,900	10,000	5,740	5,470	615	1,880	612	587	593
6	355	508	10,200	1,680	29,700	4,370	4,680	599	1,490	576	680	610
7	321	416	9,390	1,620	22,400	3,620	3,980	567	1,240	618	542	556
8	e300	386	8,020	1,610	27,100	3,020	3,010	567	1,140	631	597	570
9	e280	323	6,410	1,550	20,100	2,320	2,620	588	888	686	563	601
10	271	292	12,000	1,490	12,000	2,080	2,340	580	782	666	596	554
11	322	1,860	10,900	1,510	13,100	2,080	2,230	503	751	663	587	560
12	333	9,000	10,500	1,390	13,500	1,740	2,180	512	679	633	596	574
13	291	11,100	9,600	1,030	12,800	4,130	1,680	577	752	645	607	562
14	312	14,500	10,400	975	12,500	6,930	1,590	578	701	557	581	557
15	335	11,900	12,900	1,160	12,300	6,580	1,440	577	668	530	762	572
16	327	9,400	9,110	1,150	12,100	6,400	1,020	585	737	604	826	576
17	314	8,760	3,550	2,110	11,800	5,760	908	704	938	722	656	553
18	276	10,300	3,150	10,400	11,600	5,020	854	960	1,180	964	527	565
19	275	9,940	4,070	8,420	10,800	2,590	807	4,900	1,220	691	573	560
20	306	7,310	6,620	8,210	7,510	2,350	814	6,520	1,160	719	954	567
21	323	4,670	6,100	6,330	7,320	2,240	815	5,590	1,050	733	750	566
22	304	3,300	7,540	7,950	6,930	2,170	825	4,350	947	700	748	524
23	311	3,420	7,040	10,700	4,550	2,100	776	2,500	655	625	834	502
24	320	5,160	5,900	6,470	4,930	2,090	818	2,730	629	575	1,100	496
25	342	5,980	3,470	9,370	3,040	2,020	995	3,350	550	594	1,740	501
26	322	3,510	10,500	15,500	2,720	1,980	1,200	3,910	585	601	1,060	524
27	318	2,840	14,900	16,500	2,280	1,530	1,180	3,480	631	675	620	760
28	327	2,500	10,100	12,900	3,970	1,480	1,210	3,240	596	1,610	527	653
29	331	2,500	10,400	8,880	---	2,810	1,160	3,530	646	1,320	680	851
30	302	2,760	9,600	6,390	---	6,830	789	3,230	674	1,060	628	7,030
31	375	---	9,300	6,070	---	7,410	---	3,050	---	628	576	---
Total	9,831	135,263	263,400	180,605	317,850	114,860	70,521	61,511	39,729	22,176	21,755	24,008
Mean	317	4,509	8,497	5,826	11,350	3,705	2,351	1,984	1,324	715	702	800
Max	375	14,500	14,900	16,500	29,700	7,410	6,890	6,520	4,870	1,610	1,740	7,030
Min	271	292	2,120	975	2,280	1,480	776	503	550	530	524	496
Cfsm	0.09	1.30	2.45	1.68	3.28	1.07	0.68	0.57	0.38	0.21	0.20	0.23
In.	0.11	1.45	2.83	1.94	3.41	1.23	0.76	0.66	0.43	0.24	0.23	0.26

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 2010^a, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	1,772	2,133	3,064	4,671	5,630	6,760	4,778	2,337	2,185	1,597	1,611	1,986
Max	6,442	7,919	8,595	11,750	16,440	15,710	14,780	7,784	12,510	5,694	7,075	13,920
(WY)	(1990)	(1986)	(1984)	(1998)	(1998)	(1993)	(2003)	(1989)	(1982)	(1995)	(2003)	(1996)
Min	317	295	528	707	1,011	1,083	969	642	551	360	274	366
(WY)	(2010)	(2008)	(2008)	(2001)	(2008)	(2006)	(1985)	(2002)	(1999)	(2002)	(2002)	(2007)

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SUMMARY STATISTICS

	Calendar Year 2009		Water Year 2010		Water Years 1982 - 2010 ^a	
Annual total	1,072,319		1,261,509			
Annual mean	2,938		3,456		3,197	
Highest annual mean					7,146	2003
Lowest annual mean					1,013	2002
Highest daily mean	20,600	Mar 2	29,700	Feb 6	41,400	Sep 6, 1996
Lowest daily mean	271	Oct 10	271	Oct 10	155	Aug 6, 2002
Annual seven-day minimum	301	Oct 8	301	Oct 8	206	Oct 9, 2007
Maximum peak flow			33,500	Feb 6	51,800	Sep 7, 1996
Maximum peak stage			14.94	Feb 6	18.97	Sep 7, 1996
Instantaneous low flow			^b 244	Oct 9	^b 141	Aug 6, 2002
Annual runoff (cfsm)	0.848		0.998		0.923	
Annual runoff (inches)	11.52		13.55		12.54	
10 percent exceeds	9,090		10,200		9,130	
50 percent exceeds	1,050		1,160		1,210	
90 percent exceeds	335		422		573	

^a Regulated period only (1981-2010). See Remarks.

^b See Remarks.

