Water-Data Report 2006

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 downstream bridge on U.S. Highway 401, 1,860 ft downstream of Southern Railway bridge, 0.5 mi north of Lillington, 1 mile downstream of Neal Creek, and at mile 178.

DRAINAGE AREA.--3,464 mi^2.

SURFACE-WATER RECORDS

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

REVISED RECords: WSP 1002: 1930(M). WSP 1032: 1942(m). WSP 1303: 1944(M). WSP 1333: 1945. WSP 1383:

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

REMARKS.--Records good 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 Sept. 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 ft^3/s, Sept. 19, 1945, from rating curve extended above 76,000 ft^3/s; gage height: 33.19 ft, from floodmark; minimum discharge: 11 ft^3/s, Oct. 14, 15, 1954; gage height: -0.17 ft. Minimum discharge for period of record also occurred on Aug. 7, 2002. Minimum discharge for current water year also occurred Oct. 27, Nov. 9, 19.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	426	360	2,530	1,530	1,470	1,280	830	3,370	590	5,810	1,530	3,310
2	430	353	1,950	1,400	1,560	1,220	732	2,640	592	5,490	1,290	1,810
3	430	299	1,090	1,420	1,490	1,190	734	1,110	634	4,300	960	1,040
4	427	279	771	1,620	1,380	1,140	925	946	674	2,210	970	690
5	434	294	1,130	2,200	2,190	1,120	1,070	827	623	2,060	850	615
6	403	303	4,070	2,420	1,620	1,120	1,000	966	e610	2,150	804	596
7	518	286	4,950	2,290	1,470	1,110	907	1,080	e640	3,510	803	544
8	780	264	2,900	2,190	2,070	1,070	854	1,900	615	6,170	826	576
9	719	264	3,140	2,190	1,960	901	768	1,550	609	6,090	669	696
10	773	273	3,020	2,050	1,160	887	693	1,460	572	4,210	691	700
11	797	281	3,080	1,970	1,070	828	661	1,280	558	1,610	686	659
12	634	270	2,740	2,350	1,120	793	648	1,220	1,240	851	583	699
13	490	261	2,970	2,470	1,140	749	644	1,100	1,090	732	523	729
14	457	259	2,750	2,610	1,160	703	601	1,050	13,300	703	614	834
15	475	261	2,960	2,690	1,230	771	592	1,870	22,800	677	608	1,880
16	501	266	9,960	2,580	1,170	733	624	1,880	8,840	704	726	4,390
17	473	299	13,400	2,270	1,090	685	605	1,330	5,770	916	701	4,370
18	334	286	8,470	2,270	1,030	655	603	1,130	5,650	924	620	1,850
19	298	259	7,130	2,360	996	630	666	1,260	5,220	910	645	740
20	332	282	6,690	2,390	959	605	893	1,160	5,000	1,050	563	717
21	336	380	5,940	1,930	943	817	702	1,120	4,830	1,050	579	662
22	665	593	5,230	2,050	1,000	1,250	685	1,080	4,350	755	587	651
23	436	515	2,620	2,200	1,330	1,910	788	1,240	1,470	824	744	662
24	341	e1,040	2,340	2,740	1,680	2,010	2,040	1,220	3,040	1,180	612	654
25	285	834	2,290	2,830	1,870	1,730	1,840	1,160	4,620	1,170	614	654
26	256	709	2,290	2,630	1,670	1,560	1,710	1,080	3,530	1,630	590	564
27	341	644	2,300	2,300	1,460	1,450	3,050	681	2,440	3,690	528	528
28	399	724	1,480	1,570	1,340	1,380	12,700	607	2,350	3,690	536	520
29	423	773	1,630	1,430	---	1,190	11,800	598	4,610	3,590	521	553
30	475	2,020	1,680	1,370	---	1,070	6,880	562	5,430	3,530	656	552
31	443	---	1,770	1,370	---	1,030	---	543	---	1,750	1,610	---
Total	14,531	13,931	115,271	65,690	38,628	33,587	57,245	39,020	112,297	73,936	23,239	33,445
Mean	469	464	3,718	2,119	1,380	1,083	1,908	1,259	3,743	2,385	750	1,115
Max	797	2,020	13,400	2,830	2,190	2,010	12,700	3,370	22,800	6,170	1,610	4,390
Min	256	259	771	1,370	943	605	592	543	558	677	521	520
Cfsm	0.14	0.13	1.07	0.61	0.40	0.31	0.55	0.36	1.08	0.69	0.22	0.32
In.	0.16	0.15	1.24	0.71	0.41	0.36	0.61	0.42	1.21	0.79	0.25	0.36

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 2006,[a] BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	1,952	1,958	2,863	4,798	5,840	7,021	4,937	2,484	2,315	1,751	1,749	2,054
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	469	464	612	707	1,380	1,083	969	642	551	360	274	568
(WY)	(2006)	(2006)	(2002)	(2001)	(2006)	(2006)	(1985)	(2002)	(1999)	(2002)	(2002)	(2005)

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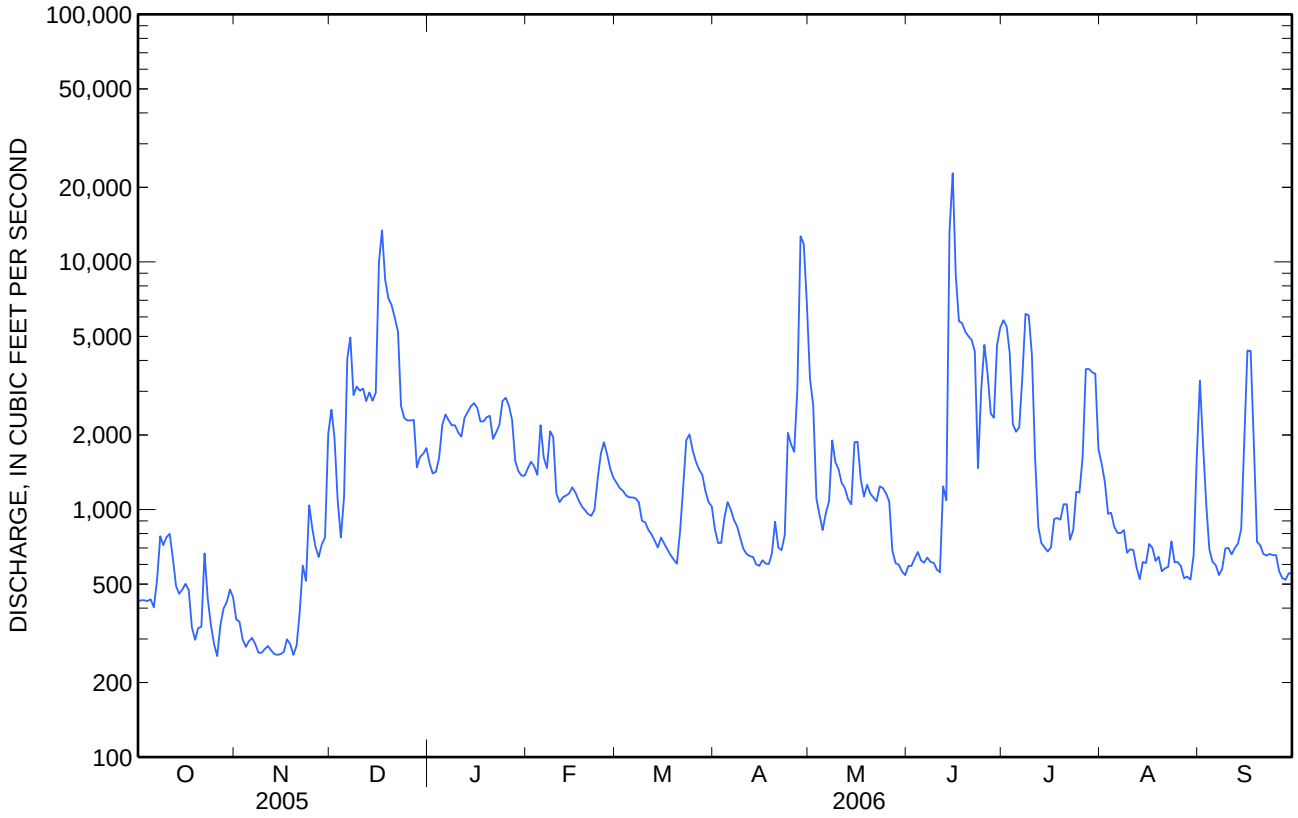
SUMMARY STATISTICS

	Calendar Year 2005		Water Year 2006		Water Years 1982 - 2006 [a]	
Annual total	841,306		620,820			
Annual mean	2,305		1,701		3,296	
Highest annual mean					7,146	2003
Lowest annual mean					1,013	2002
Highest daily mean	17,600	Jan 15	22,800	Jun 15	41,400	Sep 6, 1996
Lowest daily mean	256	Oct 26	256	Oct 26	155	Aug 6, 2002
Annual seven-day minimum	267	Nov 9	267	Nov 9	223	Oct 2, 1981
Maximum peak flow			32,300	Jun 14	51,800	Sep 7, 1996
Maximum peak stage			14.57	Jun 14	18.97	Sep 7, 1996
Instantaneous low flow			[b]253	Oct 26	[a] 141	Aug 6, 2002
Annual runoff (cfsm)	0.665		0.491		0.952	
Annual runoff (inches)	9.03		6.67		12.93	
10 percent exceeds	5,970		3,530		9,470	
50 percent exceeds	1,180		1,040		1,260	
90 percent exceeds	431		432		596	

[a] Regulated period only (1981-2006). See Remarks.
[b] See Remarks.