

CAPE FEAR RIVER BASIN

02097314 NEW HOPE CREEK NEAR BLANDS, NC

LOCATION.--Lat 35°53'05", long 78°57'58", Durham County, Hydrologic Unit 03030002, on right bank 15 ft downstream of bridge on Secondary Road 1107, 0.5 mi southwest of Blands, and 2 mi downstream of Third Fork Creek.

DRAINAGE AREA.--75.9 mi².

PERIOD OF RECORD.--October 1982 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 230 ft above sea level, from topographic map. Satellite telemetry at station.

REMARKS.--Records poor. Considerable diurnal fluctuation at low flow. An average of 59.1 ft³/s was diverted from the Neuse River Basin for Durham municipal water supply; 21.0 ft³/s was returned to the Cape Fear River Basin, and about 12.7 ft³/s was returned to the Neuse River Basin. Maximum discharge for period of record 12,700 ft³/s, from rating curve extended above 3,500 ft³/s, by logarithmic plotting. Maximum gage height for period of record occurred as a result of backwater from B. Everett Jordan Lake; maximum gage height unaffected by backwater, 14.05 ft, Sept. 6, 1996. Minimum discharge for period of record not determined due to regulation. Minimum discharge unregulated, 4.2 ft³/s, Apr. 28, 29, May 1, 2, and July 10, 1985. Minimum discharge for current water year due to regulation.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	11	22	16	33	54	e2000	23	69	17	e35	32
2	25	11	20	16	31	90	e1000	23	492	17	21	33
3	23	11	18	17	28	42	e450	23	501	16	20	23
4	22	11	17	16	26	197	e230	22	125	15	17	20
5	22	11	17	16	27	306	e120	21	36	26	16	18
6	22	12	16	16	30	247	e95	20	26	24	16	17
7	20	12	16	16	30	155	e80	19	22	16	15	16
8	18	12	16	16	28	79	e75	19	21	19	15	15
9	18	12	15	17	27	59	e70	19	18	49	16	15
10	17	13	14	18	25	49	e65	19	16	26	16	46
11	17	13	14	19	25	42	e60	19	15	20	45	24
12	16	12	15	17	26	39	e55	20	15	17	344	18
13	16	13	15	15	37	40	e50	32	15	17	366	16
14	15	14	15	15	50	41	e45	23	102	15	86	15
15	15	17	15	16	e50	43	e40	19	249	14	37	14
16	15	17	16	16	e45	e45	37	109	67	15	26	14
17	15	16	e90	16	e200	e50	33	82	33	14	21	14
18	15	15	e260	17	326	e40	37	41	21	14	19	14
19	15	15	e100	18	379	e38	34	28	16	28	22	13
20	14	17	89	47	301	33	31	23	14	20	25	9.0
21	13	21	62	119	157	344	28	21	13	16	21	33
22	13	22	44	120	88	603	e25	21	18	15	19	27
23	13	20	31	89	120	447	e22	55	211	15	18	17
24	13	18	25	62	83	268	e20	34	168	16	24	23
25	14	20	22	46	66	118	e30	23	117	22	23	145
26	13	55	20	37	88	67	88	44	66	18	18	55
27	12	62	19	31	87	53	39	89	32	133	17	24
28	12	45	19	27	60	43	29	28	28	318	22	18
29	12	33	18	26	---	128	25	33	22	76	23	16
30	12	25	17	28	---	e800	24	23	19	81	23	15
31	12	---	16	35	---	e1600	---	26	---	e50	37	---
TOTAL	504	586	1093	980	2473	6160	4937	1001	2567	1159	1423	759.0
MEAN	16.3	19.5	35.3	31.6	88.3	199	165	32.3	85.6	37.4	45.9	25.3
MAX	25	62	260	120	379	1600	2000	109	501	318	366	145
MIN	12	11	14	15	25	33	20	19	13	14	15	9.0
CFSM	.21	.26	.46	.42	1.16	2.62	2.17	.43	1.13	.49	.60	.33
IN.	.25	.29	.54	.48	1.21	3.02	2.42	.49	1.26	.57	.70	.37

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2001, BY WATER YEAR (WY)

	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)
1983	46.2	122	12.8	1990	74.0	371	16.1	1986	79.0	264	17.0	1984
1984	162	509	31.6	1991	205	463	62.3	1998	162	509	31.6	2001
1985	207	493	42.0	1998	207	493	42.0	1998	207	493	42.0	1986
1986	145	618	13.5	1987	145	618	13.5	1987	145	618	13.5	1985
1987	92.0	411	29.4	1997	92.0	411	29.4	1997	92.0	411	29.4	1985
1988	46.8	154	14.3	1995	46.8	154	14.3	1995	46.8	154	14.3	1994
1989	46.2	156	12.9	1995	46.2	156	12.9	1995	46.2	156	12.9	1993
1990	42.2	97.8	14.5	1986	42.2	97.8	14.5	1986	42.2	97.8	14.5	1997
1991	68.3	507	10.8	1999	68.3	507	10.8	1999	68.3	507	10.8	1984

SUMMARY STATISTICS FOR 2000 CALENDAR YEAR FOR 2001 WATER YEAR WATER YEARS 1983 - 2001

ANNUAL TOTAL	28395	23642.0	
ANNUAL MEAN	77.6	64.8	
HIGHEST ANNUAL MEAN			101
LOWEST ANNUAL MEAN			156
HIGHEST DAILY MEAN	1320	Jul 24	6300
LOWEST DAILY MEAN	11	Nov 1	.39
ANNUAL SEVEN-DAY MINIMUM	11	Oct 30	4.8
MAXIMUM PEAK FLOW			NOT DETERMINED
MAXIMUM PEAK STAGE			NOT DETERMINED
INSTANTANEOUS LOW FLOW			18.74*
ANNUAL RUNOFF (CFSM)	1.02		4.7* Sep 20
ANNUAL RUNOFF (INCHES)	13.92		NOT DETERMINED
10 PERCENT EXCEEDS	220		1.32
50 PERCENT EXCEEDS	30		18.00
90 PERCENT EXCEEDS	15		118
			219
			34
			13

e Estimated.
* See REMARKS.

02097314 NEW HOPE CREEK NEAR BLANDS, NC--Continued

