

02097314 NEW HOPE CREEK NEAR BLANDS, NC

LOCATION.--Lat 35°53'06", long 78°57'57", 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. Datum of gage is 215.19 ft above NGVD of 1929. Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Considerable diurnal fluctuation at low flow. An average of 39.9 ft³/s was diverted from the Neuse River Basin for Durham municipal water supply; 15.9 ft³/s was returned to the Cape Fear River Basin, and about 17.4 ft³/s was returned to the Neuse River Basin. Maximum gage height for period of record and current water year 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 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	184	29	117	229	631	396	47	109	95	29	28
2	12	128	29	161	184	417	302	45	66	136	35	21
3	13	69	26	168	144	385	246	41	45	379	41	18
4	13	38	22	174	126	339	207	38	47	348	34	17
5	12	31	60	148	119	290	180	37	46	97	41	99
6	12	116	264	129	107	277	134	82	39	51	148	33
7	12	204	445	110	213	325	118	75	41	40	123	20
8	12	159	322	94	385	340	245	45	142	36	170	20
9	12	94	218	80	263	309	862	38	153	35	344	42
10	12	50	180	70	192	246	e3,000	34	117	33	238	22
11	789	41	175	61	193	206	e6,000	32	101	28	250	17
12	2,860	101	240	55	157	177	e1,000	31	70	40	265	16
13	642	251	289	50	133	109	e500	29	78	29	142	14
14	286	288	657	47	114	98	e360	27	51	161	72	15
15	302	236	494	43	100	84	e300	26	37	109	48	16
16	287	172	286	41	94	136	e260	62	75	49	48	14
17	321	180	191	40	96	230	e220	43	63	49	56	14
18	255	274	148	37	102	312	e200	36	48	40	32	21
19	152	319	121	35	164	290	e210	98	87	31	27	141
20	69	269	134	35	233	477	e220	79	127	28	25	82
21	38	186	182	35	205	e3,000	e180	47	159	26	23	43
22	68	127	162	34	258	e600	e170	183	62	25	23	29
23	91	93	136	34	586	e400	e160	451	42	122	21	112
24	42	59	129	34	440	e350	e140	430	33	114	20	229
25	31	45	317	33	293	e280	e120	347	31	54	19	133
26	27	41	435	33	292	e250	115	421	28	33	19	65
27	25	39	292	33	285	e220	159	270	26	27	18	37
28	55	35	181	33	734	e200	154	182	24	25	17	25
29	178	31	146	33	---	e190	82	134	23	23	16	22
30	264	30	123	45	---	e184	55	88	24	33	15	19
31	249	---	104	116	---	365	---	60	---	34	15	---
TOTAL	7,154	3,890	6,537	2,158	6,441	11,717	16,295	3,558	1,994	2,330	2,374	1,384
MEAN	231	130	211	69.6	230	378	543	115	66.5	75.2	76.6	46.1
MAX	2,860	319	657	174	734	3,000	6,000	451	159	379	344	229
MIN	12	30	22	33	94	84	55	26	23	23	15	14
CFSM	3.04	1.71	2.78	0.92	3.03	4.98	7.16	1.51	0.88	0.99	1.01	0.61
IN.	3.51	1.91	3.20	1.06	3.16	5.74	7.99	1.74	0.98	1.14	1.16	0.68

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2003, BY WATER YEAR (WY)

	53.9	74.0	82.6	155	199	208	159	89.6	46.2	46.5	43.1	66.1
MEAN	53.9	74.0	82.6	155	199	208	159	89.6	46.2	46.5	43.1	66.1
MAX	231	371	264	509	463	493	618	411	154	156	97.8	507
(WY)	(2003)	(1986)	(1984)	(1991)	(1998)	(1998)	(1987)	(1997)	(1995)	(1995)	(1986)	(1999)
MIN	12.8	16.1	17.0	31.6	58.2	42.0	13.5	18.1	13.1	12.9	14.5	10.8
(WY)	(1987)	(1985)	(1989)	(2001)	(2002)	(1985)	(1985)	(2002)	(2002)	(1993)	(1997)	(1984)

CAPE FEAR RIVER BASIN

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SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1983 - 2003	
ANNUAL TOTAL	29,634.0		65,832		101	
ANNUAL MEAN	81.2		180		180	
HIGHEST ANNUAL MEAN					180	2003
LOWEST ANNUAL MEAN					38.3	2002
HIGHEST DAILY MEAN	2,860	Oct 12	6,000	Apr 11	6,300	Sep 6, 1996
LOWEST DAILY MEAN	9.5	Jul 7	12	Oct 2	0.39	Dec 30, 1988
ANNUAL SEVEN-DAY MINIMUM	10	Jul 4	12	Oct 4	4.1	Dec 20, 2001
MAXIMUM PEAK FLOW			NOT DETERMINED		12,700	Sep 6, 1996
MAXIMUM PEAK STAGE			18.96*		18.96*	Apr 15, 2003
INSTANTANEOUS LOW FLOW			7.8*		NOT DETERMINED	
ANNUAL RUNOFF (CFSM)	1.07		2.38		1.34	
ANNUAL RUNOFF (INCHES)	14.52		32.27		18.15	
10 PERCENT EXCEEDS	234		331		223	
50 PERCENT EXCEEDS	28		97		34	
90 PERCENT EXCEEDS	11		23		13	

e Estimated.
 * See REMARKS.

