

02097314 NEW HOPE CREEK NEAR BLANDS, NC

LOCATION.--Lat 35°53'06", long 78°57'55", 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 poor. Considerable diurnal fluctuation at low flow. An average of 41.4 ft³/s was diverted from the Neuse River Basin for Durham municipal water supply; 16.1 ft³/s was returned to the Cape Fear River Basin, and about 13.2 ft³/s was returned to the Neuse River Basin. 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. Minimum discharge for current water year occurred on several days.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	e40	e32	e30	63	74	148	e38	21	26	116	460
2	17	29	28	29	58	80	161	132	18	20	127	113
3	16	25	26	28	89	140	77	492	16	86	132	53
4	16	23	26	28	185	165	e52	551	19	72	115	39
5	15	22	73	30	196	156	e44	185	46	32	51	31
6	15	22	63	40	e150	58	37	65	21	22	221	32
7	15	22	40	45	178	58	33	43	18	19	77	114
8	15	16	35	41	240	50	32	34	18	18	32	273
9	20	16	31	e40	e190	43	31	28	26	17	25	328
10	22	19	31	e40	e140	69	28	26	18	15	22	201
11	21	21	130	35	107	39	26	24	16	89	22	89
12	25	21	266	34	98	35	35	22	33	47	21	51
13	19	21	203	33	138	32	133	21	22	85	128	38
14	e18	20	209	32	132	29	118	20	18	31	342	33
15	60	20	e330	31	116	77	94	18	17	20	510	37
16	47	19	283	30	115	184	56	17	16	17	398	39
17	29	20	182	29	128	232	41	18	45	16	123	83
18	22	20	155	33	121	154	35	17	23	173	60	430
19	19	e30	123	44	113	175	32	17	20	76	42	296
20	18	107	95	44	105	101	29	16	17	27	33	81
21	18	91	71	40	92	69	28	16	16	20	28	47
22	e18	58	59	37	78	e56	26	15	15	20	121	37
23	e16	41	50	36	68	45	24	102	16	197	50	31
24	e16	34	48	33	e60	40	22	48	118	82	31	27
25	15	30	50	32	53	38	21	27	39	29	26	25
26	15	e28	45	32	47	35	22	21	49	24	24	23
27	16	e25	40	32	51	33	40	19	65	25	24	25
28	e20	23	36	34	78	32	29	19	25	147	22	72
29	e100	e29	35	42	79	31	22	17	115	100	20	99
30	e96	35	34	52	---	29	20	18	65	321	162	49
31	e66	---	32	63	---	32	---	30	---	146	652	---
TOTAL	843	927	2,861	1,129	3,268	2,391	1,496	2,116	971	2,019	3,757	3,256
MEAN	27.2	30.9	92.3	36.4	113	77.1	49.9	68.3	32.4	65.1	121	109
MAX	100	107	330	63	240	232	161	551	118	321	652	460
MIN	15	16	26	28	47	29	20	15	15	15	20	23
CFSM	0.36	0.41	1.22	0.48	1.48	1.02	0.66	0.90	0.43	0.86	1.60	1.43
IN.	0.41	0.45	1.40	0.55	1.60	1.17	0.73	1.04	0.48	0.99	1.84	1.60

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2004, BY WATER YEAR (WY)

MEAN	52.7	72.0	83.0	150	195	202	154	88.6	45.5	47.3	46.6	68.0
MAX	231	371	264	509	463	493	618	411	154	156	121	507
(WY)	(2003)	(1986)	(1984)	(1991)	(1998)	(1998)	(1987)	(1997)	(1995)	(1995)	(2004)	(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)

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SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1983 - 2004	
ANNUAL TOTAL	52,882		25,034		99.9	
ANNUAL MEAN	145		68.4		180	
HIGHEST ANNUAL MEAN					38.3	2003
LOWEST ANNUAL MEAN					6,300	Sep 6, 1996
HIGHEST DAILY MEAN	6,000	Apr 11	652	Aug 31	4.1	Dec 20, 2001
LOWEST DAILY MEAN	14	Sep 13	15	Oct 5	18.96*	Apr 15, 2003
ANNUAL SEVEN-DAY MINIMUM	15	Sep 11	16	Oct 2	NOT DETERMINED	
MAXIMUM PEAK FLOW			757	Aug 31		
MAXIMUM PEAK STAGE			9.29	Aug 31		
INSTANTANEOUS LOW FLOW			11*	Oct 8		
ANNUAL RUNOFF (CFSM)	1.91		0.901		1.32	
ANNUAL RUNOFF (INCHES)	25.92		12.27		17.88	
10 PERCENT EXCEEDS	292		154		220	
50 PERCENT EXCEEDS	50		35		34	
90 PERCENT EXCEEDS	19		18		13	

* See REMARKS.

e Estimated.

