

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 fair except those for estimated daily discharges, which are poor. Considerable diurnal fluctuation at low flow. An average of 47.9 ft³/s was diverted from the Neuse River Basin for Durham municipal water supply; 16.2 ft³/s was returned to the Cape Fear River Basin, and about 13.0 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 from B. Everett Jordan Lake, 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. Maximum discharge for period of record 12,700 ft³/s, from rating curve extended above 3,500 ft³/s by logarithmic plotting.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	26	96	36	119	239	91	54	21	21	27	15
2	35	26	76	34	95	247	173	54	40	20	19	14
3	61	26	61	e27	86	176	337	37	92	20	17	13
4	84	36	51	32	145	154	145	33	104	20	16	13
5	43	60	45	33	152	69	e76	31	43	21	18	13
6	32	41	42	34	122	57	e74	53	31	20	16	13
7	27	33	47	34	95	52	99	54	27	21	14	13
8	25	29	50	33	78	131	394	35	200	185	13	13
9	23	28	45	33	67	329	402	31	124	79	131	14
10	21	27	124	32	60	274	e234	28	39	24	330	13
11	22	28	300	32	54	105	87	29	40	19	152	13
12	21	36	210	32	50	100	68	27	30	17	32	13
13	98	204	113	33	46	78	134	36	26	16	21	14
14	308	212	80	209	45	67	128	29	25	16	21	13
15	104	88	e62	781	51	60	77	29	25	17	20	14
16	50	51	e57	388	53	73	61	39	23	16	18	14
17	36	41	56	220	50	309	e47	32	21	15	47	14
18	23	37	47	183	47	401	50	26	20	53	33	e14
19	24	35	41	128	44	290	48	24	21	41	21	e15
20	28	33	e28	85	41	116	44	31	54	68	18	14
21	27	33	e27	70	41	80	42	57	24	32	16	69
22	27	32	e27	71	41	65	40	47	21	20	16	26
23	26	55	40	64	41	89	38	33	21	16	20	16
24	25	e83	108	56	55	123	38	27	21	15	28	14
25	28	e103	100	50	146	85	36	32	19	15	19	13
26	28	e63	e73	48	164	65	34	27	19	15	17	13
27	27	e80	e54	46	117	57	34	24	20	15	15	13
28	26	e88	e44	44	120	150	33	22	30	15	15	13
29	26	e139	42	42	---	406	31	21	29	60	15	13
30	26	e199	39	69	---	425	41	21	24	50	15	12
31	26	---	37	128	---	218	---	21	---	25	15	---
TOTAL	1,394	1,972	2,222	3,107	2,225	5,090	3,136	1,044	1,234	987	1,175	474
MEAN	45.0	65.7	71.7	100	79.5	164	105	33.7	41.1	31.8	37.9	15.8
MAX	308	212	300	781	164	425	402	57	200	185	330	69
MIN	21	26	27	27	41	52	31	21	19	15	13	12
CFSM	0.59	0.87	0.94	1.32	1.05	2.16	1.38	0.44	0.54	0.42	0.50	0.21
IN.	0.68	0.97	1.09	1.52	1.09	2.49	1.54	0.51	0.60	0.48	0.58	0.23

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2005, BY WATER YEAR (WY)

	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)																								
	52.3	231	12.8	(1987)	71.7	371	16.1	(1985)	82.5	264	17.0	(1984)	148	509	31.6	(2001)	190	463	58.2	(2002)	201	493	42.0	(1985)	152	618	13.5	(1987)	86.2	411	18.1	(2002)	45.3	154	13.1	(2002)	46.6	156	12.9	(1993)	46.2	121	14.5	(1997)	65.7	507	10.8	(1984)

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SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1983 - 2005	
ANNUAL TOTAL	25,991		24,060		98.4	
ANNUAL MEAN	71.0		65.9		180	
HIGHEST ANNUAL MEAN					38.3	
LOWEST ANNUAL MEAN					2002	
HIGHEST DAILY MEAN	652	Aug 31	781	Jan 15	6,300	Sep 6, 1996
LOWEST DAILY MEAN	15	May 22	12	Sep 30	0.39	Dec 30, 1988
ANNUAL SEVEN-DAY MINIMUM	17	May 16	13	Sep 24	4.1	Dec 20, 2001
MAXIMUM PEAK FLOW			923	Jan 15	12,700*	Sep 6, 1996
MAXIMUM PEAK STAGE			9.55	Jan 15	18.96*	Apr 15, 2003
INSTANTANEOUS LOW FLOW			7.1	Sep 14	NOT DETERMINED	
ANNUAL RUNOFF (CFSM)	0.936		0.868		1.30	
ANNUAL RUNOFF (INCHES)	12.74		11.79		17.62	
10 PERCENT EXCEEDS	151		145		216	
50 PERCENT EXCEEDS	39		37		34	
90 PERCENT EXCEEDS	20		15		13	

* See REMARKS.

e Estimated.

