

NEUSE RIVER BASIN

02086500 FLAT RIVER AT DAM NEAR BAHAMA, NC

LOCATION.--Lat 36°08'55", long 78°49'43", Durham County, Hydrologic Unit 03020201, on right bank 900 ft downstream from Durham municipal dam, 3 mi southeast of Bahama, and 5 mi upstream from confluence with Eno River.

DRAINAGE AREA.--168 mi².

PERIOD OF RECORD.--September 1927 to September 1959, August 1961 to September 1966, October 1982 to September 1990, October 1992 to September 1993, October 2000 to current year.

GAGE.--Water-stage recorder. Datum of gage is 256.6 ft above sea level. U.S. Army Corps of Engineers satellite telemetry at station.

REMARKS.--Records good except those discharges below 5.0 ft³/s and those for estimated daily discharges, which are fair. Flow regulated by Lake Michie (station 02086490). An average of 13.3 ft³/s was diverted above station. About 12.7 ft³/s of treated effluent was returned to tributaries downstream. No flow also occurred on Sept. 4-14, 1938 (result of construction work upstream), Sept. 26-30, 1965, and Oct. 1-3, 5, 1988. Minimum discharge for current water year occurred several days in July.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 6, 1996, reached a stage of 23.48 ft, present datum, from floodmarks; discharge, 20,900 ft³/s.

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	36	38	34	e18	.11	60	1620	38	39	28	93	40
2	36	39	34	18	.08	52	2250	38	373	39	56	1.4
3	36	38	17	e31	.07	28	865	38	160	38	41	.17
4	33	37	e.29	e31	.07	64	658	38	71	38	33	.49
5	33	37	e.22	e31	.09	276	564	39	45	38	26	23
6	33	37	.19	31	.08	275	457	39	39	39	20	39
7	35	37	.19	31	.07	152	352	39	38	39	19	23
8	36	37	.19	31	.07	97	253	39	40	39	17	.08
9	37	37	.19	31	.07	73	175	39	46	35	14	.06
10	37	37	.19	e31	.08	58	120	39	40	.09	13	.05
11	37	37	.19	31	e.07	51	92	39	39	.04	22	.06
12	38	37	.19	31	.08	45	81	39	39	.03	63	14
13	38	37	.19	31	.10	45	78	39	39	.03	66	39
14	38	37	.23	31	.10	42	70	25	40	.02	44	11
15	39	37	.24	31	.09	30	63	.34	40	.03	34	17
16	39	37	.24	31	.11	54	58	.44	40	.04	25	26
17	33	34	.58	31	.71	111	54	.40	40	.04	.11	.08
18	30	35	.42	e31	46	70	52	.27	40	.05	.47	11
19	30	16	.36	e31	181	39	50	.26	40	.04	5.1	39
20	31	.35	e.35	e32	139	28	47	.24	40	.03	12	38
21	31	.30	e.35	e31	99	e2300	44	.25	40	.03	12	19
22	31	16	e15	e32	67	1770	42	.28	40	.03	9.9	.05
23	30	35	e36	31	66	594	40	.28	40	.02	19	19
24	37	35	e35	30	66	283	39	.23	39	.04	24	39
25	41	35	e35	30	77	179	45	.23	39	.03	.07	20
26	41	34	e35	29	82	126	54	1.0	39	.05	.05	25
27	41	34	35	29	89	96	52	.40	39	773	.08	20
28	41	34	34	29	76	78	44	.34	39	424	.15	.07
29	41	34	e33	29	---	301	39	14	39	150	.22	18
30	41	34	e32	30	---	5260	38	39	39	337	.63	39
31	39	---	e32	17	---	1060	---	39	---	198	35	---
TOTAL	1119	972.65	411.80	912	990.05	13697	8396	624.96	1681	2215.64	704.78	521.51
MEAN	36.1	32.4	13.3	29.4	35.4	442	280	20.2	56.0	71.5	22.7	17.4
MAX	41	39	36	32	181	5260	2250	39	373	773	93	40
MIN	30	.30	.19	17	.07	28	38	.23	38	.02	.05	.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 2001,[®] BY WATER YEAR (WY)

	MEAN	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	58.3	95.0	132	240	302	316	261	116	83.0	83.3	83.2	69.9
MAX	530	496	421	759	1140	1041	681	385	528	795	481	714
(WY)	1930	1986	1949	1937	1998	1993	1936	1989	1995	1938	1939	1945
MIN	.046	.042	.16	.27	9.19	62.6	13.8	.31	.20	.15	.043	.031
(WY)	1988	1988	1966	1966	1934	1931	1985	1986	1986	1966	1988	1990

SUMMARY STATISTICS

FOR 2001 WATER YEAR

WATER YEARS 1927 - 2001[®]

ANNUAL TOTAL	32246.39		
ANNUAL MEAN	88.3	151	
HIGHEST ANNUAL MEAN		259	1936
LOWEST ANNUAL MEAN		47.4	1988
HIGHEST DAILY MEAN	5260	Mar 30	10500
LOWEST DAILY MEAN	.02	Jul 14	.00
ANNUAL SEVEN-DAY MINIMUM	.03	Jul 19	.00
MAXIMUM PEAK FLOW	7540	Mar 30	19700
MAXIMUM PEAK STAGE	13.34	Mar 30	19.50
INSTANTANEOUS LOW FLOW	.02*	Jul 14	.00*
10 PERCENT EXCEEDS	92		309
50 PERCENT EXCEEDS	35		58
90 PERCENT EXCEEDS	.09		.80

e Estimated.

[®] See PERIOD OF RECORD.

* See REMARKS.

02086500 FLAT RIVER AT DAM NEAR BAHAMA, NC--Continued

