

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 NGVD of 1929. U.S. Army Corps of Engineers satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records poor. Flow regulated by Lake Michie (station 02086490). An average of 46.5 ft³/s was diverted above station from Lake Michie and Little River Lake. About 11.6 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. No flow occurs many times most years.

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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	0.04	0.02	0.03	0.05	0.05	47	0.05	0.08	0.02	0.00	0.25
2	0.04	0.04	0.02	0.03	0.05	0.11	68	0.05	0.12	0.02	0.00	0.03
3	0.03	0.04	0.02	0.06	0.05	0.10	54	0.05	0.15	0.02	0.00	0.02
4	0.03	0.04	0.03	0.06	0.06	0.07	34	0.10	0.20	0.02	0.00	0.01
5	0.03	0.04	0.03	0.04	0.05	0.06	23	0.08	0.17	0.01	0.00	0.01
6	0.06	0.04	0.03	0.10	0.06	0.06	14	0.06	0.16	0.01	0.00	0.00
7	0.09	0.04	0.03	0.06	0.17	0.06	5.3	0.07	0.04	0.01	0.00	0.00
8	0.09	0.04	0.03	0.05	0.11	0.06	2.3	0.06	0.03	0.01	0.00	0.00
9	0.10	0.04	0.03	0.05	0.08	0.06	2.5	0.06	0.03	0.01	0.01	0.00
10	0.11	0.04	0.06	0.04	0.07	0.05	5.2	0.05	0.04	0.02	0.01	0.00
11	0.09	0.04	0.21	0.04	0.07	0.04	4.0	0.06	0.02	0.05	0.01	0.01
12	0.07	0.03	0.05	0.04	0.06	0.06	3.6	0.06	0.01	0.03	0.01	0.02
13	0.08	0.03	0.04	0.05	0.06	0.06	2.5	0.07	0.02	0.02	0.01	0.00
14	0.17	0.03	0.04	0.04	0.06	0.06	1.1	0.08	0.03	0.03	0.01	0.03
15	0.07	0.03	0.05	0.04	0.06	0.05	0.11	0.06	0.05	0.04	0.00	0.03
16	0.05	0.03	0.05	0.04	0.06	0.05	0.05	0.06	0.03	0.04	0.00	0.03
17	0.08	0.03	0.05	0.03	0.06	0.09	0.04	0.06	0.02	0.03	0.00	0.02
18	0.09	0.03	0.06	0.03	0.05	0.09	0.04	0.06	0.03	0.02	0.00	0.00
19	0.10	0.03	0.05	0.23	0.05	0.07	0.04	0.05	0.04	0.02	0.00	0.00
20	0.13	0.03	0.04	0.23	0.06	1.6	0.04	0.05	0.03	0.02	0.00	0.00
21	0.12	0.03	0.04	0.07	0.06	46	0.04	0.06	0.03	0.02	0.00	0.00
22	0.12	0.02	0.04	0.05	0.06	95	0.04	0.06	0.02	0.01	0.00	0.00
23	0.13	0.03	0.04	0.14	0.06	64	0.04	0.05	0.02	0.08	0.00	0.00
24	0.04	0.04	0.06	0.08	0.06	45	0.04	0.05	0.02	0.05	0.00	0.00
25	0.05	0.04	0.05	0.08	0.05	38	0.04	0.05	0.02	0.02	0.04	0.03
26	0.05	0.03	0.05	0.06	0.05	31	0.04	0.08	0.06	0.03	0.07	0.04
27	0.05	0.02	0.05	0.06	0.05	52	0.04	0.07	0.05	0.01	0.03	0.03
28	0.05	0.02	0.04	0.05	0.05	115	0.05	0.07	0.08	0.01	0.03	0.03
29	0.05	0.02	0.04	0.05	---	77	0.04	0.08	0.05	0.00	0.00	0.04
30	0.05	0.02	0.03	0.05	---	51	0.04	0.08	0.02	0.00	0.19	0.03
31	0.05	---	0.03	0.05	---	50	---	0.07	---	0.00	0.31	---
TOTAL	15.27	0.98	1.41	2.03	1.78	666.85	267.23	1.96	1.67	0.68	0.73	0.66
MEAN	0.493	0.033	0.045	0.065	0.064	21.51	8.908	0.063	0.056	0.022	0.024	0.022
MAX	13	0.04	0.21	0.23	0.17	115	68	0.10	0.20	0.08	0.31	0.25
MIN	0.03	0.02	0.02	0.03	0.05	0.04	0.04	0.05	0.01	0.00	0.00	0.00
CFSM	0.00	0.00	0.00	0.00	0.00	0.13	0.05	0.00	0.00	0.00	0.00	0.00
IN.	0.00	0.00	0.00	0.00	0.00	0.15	0.06	0.00	0.00	0.00	0.00	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 2002,[®] BY WATER YEAR (WY)

MEAN	57.17	93.20	129.9	235.9	296.5	310.6	256.3	114.2	81.45	81.72	81.68	68.63
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	0.046	0.033	0.045	0.065	0.064	21.5	8.91	0.063	0.056	0.022	0.024	0.022
(WY)	1988	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1927 - 2002 [®]
ANNUAL TOTAL	29760.60	961.25	
ANNUAL MEAN	81.54	2.634	148.4
HIGHEST ANNUAL MEAN			259
LOWEST ANNUAL MEAN			2.63
HIGHEST DAILY MEAN	5260 Mar 30	115 Mar 28	10500 Oct 2 1929
LOWEST DAILY MEAN	0.02 Jul 14	0.00 Jul 29	0.00 Sep 4 1938
ANNUAL SEVEN-DAY MINIMUM	0.02 Nov 27	0.00 Jul 29	0.00 Sep 4 1938
MAXIMUM PEAK FLOW		129 Mar 28	19700 Jul 26 1938
MAXIMUM PEAK STAGE		1.88 Mar 28	19.50 Jul 26 1938
INSTANTANEOUS LOW FLOW		0.00* Jul 29	0.00* Sep 4 1938
ANNUAL RUNOFF (CFSM)	0.49	0.016	0.88
ANNUAL RUNOFF (INCHES)	6.59	0.21	12.00
10 PERCENT EXCEEDS	92	0.17	306
50 PERCENT EXCEEDS	23	0.04	57
90 PERCENT EXCEEDS	0.03	0.01	0.35

[®] See PERIOD OF RECORD.

* See REMARKS.

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

