

NEUSE RIVER BASIN

02085500 FLAT RIVER AT BAHAMA, NC

LOCATION.--Lat 36°10'57", long 78°52'44", Durham County, Hydrologic Unit 03020201, on right bank 0.5 mi upstream from Lake Michie, 1.2 mi upstream from bridge on Secondary Road 1616, 1.2 mi north of Bahama, and 1.5 mi upstream from Dial Creek.

DRAINAGE AREA.--149 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1925 to current year.

REVISED RECORDS.--WSP 1333: 1926, 1928(M), 1938, 1946. WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 346.85 ft above sea level. Prior to Oct. 22, 1925, nonrecording gage at present site at 346.27 ft. Satellite telemetry at station.

REMARKS.--Records good except for estimated daily discharges, which are poor. Prior to December 1962, some diurnal fluctuation and infrequent regulation at low flow caused by small mill 5 mi upstream. Maximum discharge for period of record from rating curve extended above 18,000 ft³/s, on basis of slope-conveyance measurement of peak flow; maximum gage height, 17.26 ft, from high-water mark inside gage shelter. Minimum discharge for current water year also occurred on Sept. 20.

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	16	e7.9	e8.5	18	38	54	1570	36	36	11	62	21
2	15	e8.0	e8.0	17	32	49	1580	35	426	9.9	42	13
3	14	e7.9	e7.3	15	28	47	459	34	101	9.0	32	11
4	12	e7.7	e7.9	15	29	109	313	32	54	9.6	26	9.7
5	11	e7.6	e7.2	15	28	270	220	31	38	12	21	8.6
6	11	e8.0	e6.5	15	30	215	174	29	35	19	19	7.9
7	9.8	e8.0	e5.9	15	33	120	148	27	40	16	18	7.1
8	9.9	e8.0	e6.6	17	29	89	126	25	81	12	16	6.6
9	9.1	e8.0	e6.1	18	26	76	109	25	51	11	14	6.3
10	9.1	e8.5	e6.0	20	26	66	96	25	35	43	13	6.4
11	8.3	e8.5	e5.9	18	25	60	86	24	28	42	15	7.3
12	8.6	e8.5	e5.8	17	25	56	79	24	25	21	62	6.0
13	8.6	e11	e5.7	16	28	55	76	22	26	14	42	5.7
14	8.8	e17	e5.9	16	48	55	72	20	33	12	24	5.4
15	9.5	e25	e6.0	17	67	55	66	19	62	9.6	18	4.5
16	9.8	e22	e8.0	17	63	149	61	27	43	8.5	14	4.0
17	10	e14	415	16	894	120	58	43	40	7.6	12	3.8
18	9.9	e11	162	17	367	88	59	49	29	6.8	11	3.7
19	9.4	e13	67	20	161	69	59	40	22	5.6	16	3.4
20	9.6	e13	49	332	105	62	53	32	19	5.4	16	3.7
21	9.6	e11	42	297	82	2150	50	28	17	5.4	14	27
22	9.0	e12	34	116	70	1290	47	26	16	5.0	13	36
23	8.7	e16	29	73	64	399	46	26	25	4.6	12	17
24	e8.5	e32	25	56	74	223	44	24	26	4.8	11	14
25	e8.2	e52	22	49	74	155	50	22	24	4.7	9.5	49
26	e8.0	e60	20	40	85	116	68	40	20	5.8	8.4	26
27	e8.2	e28	20	35	80	93	53	89	16	1070	7.9	16
28	e8.0	e15	20	32	63	79	45	47	14	211	7.6	12
29	e7.9	e11	20	30	---	483	40	34	13	88	6.8	9.5
30	e7.8	e9.0	20	29	---	4190	37	29	11	302	6.3	7.9
31	e7.7	---	18	34	---	657	---	24	---	121	51	---
TOTAL	301.0	468.6	1070.3	1442	2674	11699	5944	988	1406	2107.3	640.5	359.5
MEAN	9.71	15.6	34.5	46.5	95.5	377	198	31.9	46.9	68.0	20.7	12.0
MAX	16	60	415	332	894	4190	1580	89	426	1070	62	49
MIN	7.7	7.6	5.7	15	25	47	37	19	11	4.6	6.3	3.4
CFSM	.07	.10	.23	.31	.64	2.53	1.33	.21	.31	.46	.14	.08
IN.	.08	.12	.27	.36	.67	2.92	1.48	.25	.35	.53	.16	.09

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 2001, BY WATER YEAR (WY)

	64.7	94.3	130	224	273	289	222	112	78.6	85.0	73.8	86.3
MEAN	64.7	94.3	130	224	273	289	222	112	78.6	85.0	73.8	86.3
MAX	561	489	421	761	758	948	612	573	551	798	431	984
(WY)	1972	1986	1973	1936	1998	1998	1936	1978	1938	1975	1939	1996
MIN	1.24	.71	1.81	4.29	44.4	72.4	31.1	22.2	7.85	4.59	2.93	.71
(WY)	1942	1934	1934	1934	1931	1967	1942	1927	1986	1991	1977	1968

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1925 - 2001	
ANNUAL TOTAL	43591.9		29100.2			
ANNUAL MEAN	119		79.7		144	
HIGHEST ANNUAL MEAN					285	
LOWEST ANNUAL MEAN					53.5	
HIGHEST DAILY MEAN	2760	Mar 17	4190	Mar 30	21800	Sep 6 1996
LOWEST DAILY MEAN	5.7	Dec 13	3.4	Sep 19	.27	Sep 24 1968
ANNUAL SEVEN-DAY MINIMUM	5.9	Dec 9	4.1	Sep 14	.28	Sep 24 1968
MAXIMUM PEAK FLOW			6570	Mar 30	33800*	Sep 6 1996
MAXIMUM PEAK STAGE			8.04	Mar 30	17.26*	Sep 6 1996
INSTANTANEOUS LOW FLOW			3.3*	Sep 19	.23	Sep 26 1968
ANNUAL RUNOFF (CFSM)	.80		.54		.97	
ANNUAL RUNOFF (INCHES)	10.88		7.27		13.12	
10 PERCENT EXCEEDS	285		109		280	
50 PERCENT EXCEEDS	48		22		49	
90 PERCENT EXCEEDS	8.5		7.3		7.1	

e Estimated.
* See REMARKS.

02085500 FLAT RIVER AT BAHAMA, NC--Continued

