

## 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 mi<sup>2</sup>.

## 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 NGVD of 1929. Prior to Oct. 22, 1925, nonrecording gage at present site at 346.27 ft. Satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records fair. 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 ft<sup>3</sup>/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 period of record and current water year also occurred June 26, July 22, 2002.

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	7.0	2.6	4.3	5.9	39	20	83	14	5.7	4.8	0.59	581
2	6.4	2.8	4.3	5.7	35	22	91	14	5.1	4.0	0.58	152
3	5.9	2.8	4.1	7.4	32	181	66	14	4.5	2.9	34	55
4	5.3	2.8	4.0	7.8	30	260	55	17	4.1	2.2	25	31
5	5.1	2.8	3.8	7.9	27	106	48	25	3.6	1.9	9.2	18
6	4.8	2.6	4.3	11	26	69	42	25	3.2	1.7	3.5	12
7	4.4	2.6	4.4	49	56	56	38	22	2.8	0.91	1.5	8.5
8	3.8	2.7	4.1	51	163	48	35	18	2.5	0.62	1.1	5.8
9	3.5	2.7	4.2	36	90	43	34	29	2.3	0.45	0.45	4.2
10	3.7	2.9	5.1	30	63	41	36	64	1.8	0.39	0.35	3.3
11	3.7	3.1	16	33	53	41	38	37	1.5	1.2	0.28	3.0
12	3.7	3.3	30	32	46	38	37	29	1.3	0.63	0.27	2.5
13	3.9	3.1	21	28	41	38	34	24	1.1	0.30	0.29	2.2
14	4.7	3.2	14	23	37	39	34	22	1.0	0.33	0.32	3.2
15	6.4	3.2	10	19	34	39	33	32	0.77	0.30	0.29	3.4
16	5.7	3.8	7.9	16	32	36	31	26	0.53	0.27	0.32	3.8
17	4.7	2.5	6.9	14	31	36	29	20	0.44	0.27	0.34	3.5
18	4.1	3.1	7.9	13	29	95	26	18	0.35	0.27	0.85	3.1
19	3.8	3.3	9.9	32	28	226	25	16	0.31	0.34	1.7	2.8
20	4.2	3.3	17	514	26	112	29	16	0.28	0.27	1.1	2.9
21	3.8	3.4	13	151	26	92	31	17	0.27	0.23	0.60	2.9
22	3.8	3.3	9.7	98	25	102	26	15	0.25	0.32	0.36	2.7
23	4.5	3.2	8.1	131	24	76	22	14	0.23	7.9	0.30	4.8
24	5.0	3.9	8.2	379	23	60	18	12	0.18	4.2	0.28	2.2
25	4.4	4.3	7.6	197	22	52	18	11	0.17	2.5	0.53	1.6
26	4.0	4.6	7.4	162	22	49	17	10	12	2.2	2.5	1.6
27	3.6	4.6	7.4	91	21	97	16	8.9	28	1.8	1.5	1.5
28	3.5	4.6	8.2	68	21	127	17	8.0	15	3.4	2.2	0.77
29	2.9	4.4	7.5	56	---	77	15	7.1	10	2.6	1.7	0.40
30	2.5	4.3	6.5	49	---	62	14	6.6	6.2	1.8	2.6	0.40
31	2.5	---	6.2	43	---	57	---	6.2	---	0.97	13	---
TOTAL	135.3	99.8	273.0	2360.7	1102	2397	1038	597.8	115.48	51.97	107.60	920.07
MEAN	4.365	3.327	8.806	76.15	39.36	77.32	34.60	19.28	3.849	1.676	3.471	30.67
MAX	7.0	4.6	30	514	163	260	91	64	28	7.9	34	581
MIN	2.5	2.5	3.8	5.7	21	20	14	6.2	0.17	0.23	0.27	0.40
CFSM	0.03	0.02	0.06	0.51	0.26	0.52	0.23	0.13	0.03	0.01	0.02	0.21
IN.	0.03	0.02	0.07	0.59	0.28	0.60	0.26	0.15	0.03	0.01	0.03	0.23

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 2002, BY WATER YEAR (WY)

	63.90	93.17	128.0	222.3	269.8	285.8	220.0	111.0	77.61	83.95	72.91	85.59
MEAN	63.90	93.17	128.0	222.3	269.8	285.8	220.0	111.0	77.61	83.95	72.91	85.59
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	0.71	1.81	4.29	39.4	72.4	31.1	19.3	3.85	1.68	2.93	0.71
(WY)	1942	1934	1934	1934	2002	1967	1942	2002	2002	2002	1977	1968

## SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1925 - 2002	
ANNUAL TOTAL	27768.4		9198.72			
ANNUAL MEAN	76.08		25.20		142.3	
HIGHEST ANNUAL MEAN					285	
LOWEST ANNUAL MEAN					25.2	
HIGHEST DAILY MEAN	4190	Mar 30	581	Sep 1	21800	Sep 6 1996
LOWEST DAILY MEAN	2.5	Oct 30	0.17	Jun 25	0.17	Jun 25 2002
ANNUAL SEVEN-DAY MINIMUM	2.7	Oct 30	0.24	Jun 19	0.24	Jun 19 2002
MAXIMUM PEAK FLOW			1080	Sep 1	33800*	Sep 6 1996
MAXIMUM PEAK STAGE			3.81	Sep 1	17.26*	Sep 6 1996
INSTANTANEOUS LOW FLOW			0.15*	Jun 25	0.15*	Jun 25 2002
ANNUAL RUNOFF (CFSM)	0.51		0.17		0.96	
ANNUAL RUNOFF (INCHES)	6.93		2.30		12.98	
10 PERCENT EXCEEDS	103		56		278	
50 PERCENT EXCEEDS	19		6.9		48	
90 PERCENT EXCEEDS	3.8		0.53		6.8	

\* See REMARKS.

02085500 FLAT RIVER AT BAHAMA, NC--Continued

