

## 02085500 FLAT RIVER AT BAHAMA, NC

LOCATION.--Lat 36°10'58", long 78°52'43", 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 also occurred June 26, July 22, 2002.

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.35	156	48	186	298	917	381	242	125	1,040	49	177
2	2.5	100	44	387	190	1,760	259	128	107	3,010	56	68
3	1.8	77	43	248	138	685	205	105	97	2,240	47	41
4	0.86	65	42	232	128	347	174	98	123	438	44	69
5	0.60	58	305	158	172	280	157	89	324	240	69	444
6	0.52	415	400	127	118	670	144	96	148	166	63	103
7	0.33	256	428	108	683	547	3,110	100	438	127	66	56
8	0.25	122	267	98	648	286	1,740	86	2,000	105	63	45
9	0.25	85	255	94	273	222	4,830	76	1,620	92	117	42
10	0.36	69	217	87	199	183	2,630	70	450	138	2,060	39
11	6,470	61	508	78	205	151	2,060	66	240	105	341	35
12	1,820	402	672	71	154	134	663	65	175	93	158	33
13	198	884	1,170	67	119	125	392	59	303	82	100	32
14	102	272	1,610	66	103	187	279	55	187	122	94	34
15	69	154	410	64	102	167	225	56	136	119	78	35
16	405	112	243	61	135	533	193	140	1,170	80	61	33
17	335	1,110	172	61	163	759	168	96	991	138	55	30
18	124	915	132	61	145	331	146	95	383	91	51	54
19	74	288	115	61	421	227	145	791	264	65	45	1,090
20	54	176	139	57	361	5,680	148	312	198	57	42	221
21	48	131	194	57	241	2,850	132	171	150	51	40	106
22	73	109	125	56	961	577	123	2,430	118	52	38	70
23	108	90	101	56	1,260	356	111	2,510	101	364	35	1,310
24	65	77	225	52	384	267	99	988	90	211	34	412
25	50	69	1,840	53	244	211	94	588	82	102	32	173
26	44	63	586	52	185	181	103	1,720	77	66	30	116
27	41	59	274	54	526	160	511	554	69	54	29	93
28	127	55	192	50	1,480	143	214	315	107	48	27	81
29	688	52	152	53	---	151	132	222	99	42	26	72
30	816	50	125	169	---	1,380	119	180	75	42	24	64
31	327	---	110	872	---	1,080	---	148	---	44	42	---
TOTAL												
12045.8												
2	6,532	11,144	3,896	10,036	21,547	19,687	12,651	10,447	9,624	4,016	5,178	
MEAN	389	218	359	126	358	695	656	408	348	310	130	173
MAX	6,470	1,110	1,840	872	1,480	5,680	4,830	2,510	2,000	3,010	2,060	1,310
MIN	0.25	50	42	50	102	125	94	55	69	42	24	30
CFSM	2.61	1.46	2.41	0.84	2.41	4.66	4.40	2.74	2.34	2.08	0.87	1.16
IN.	3.01	1.63	2.78	0.97	2.51	5.38	4.92	3.16	2.61	2.40	1.00	1.29

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 2003, BY WATER YEAR (WY)

MEAN	68.1	94.8	131	221	271	291	226	115	81.1	86.9	73.6	86.7
MAX	561	489	421	761	758	948	656	573	551	798	431	984
(WY)	(1972)	(1986)	(1973)	(1936)	(1998)	(1998)	(2003)	(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)

02085500 FLAT RIVER AT BAHAMA, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1925 - 2003	
ANNUAL TOTAL	38,412.44		126,803.82		145	
ANNUAL MEAN	105		347		347	
HIGHEST ANNUAL MEAN					2003	
LOWEST ANNUAL MEAN					2002	
HIGHEST DAILY MEAN	6,470	Oct 11	6,470	Oct 11	21,800	Sep 6, 1996
LOWEST DAILY MEAN	0.17	Jun 25	0.25	Oct 8	0.17	Jun 25, 2002
ANNUAL SEVEN-DAY MINIMUM	0.24	Jun 19	0.45	Oct 4	0.24	Jun 19, 2002
MAXIMUM PEAK FLOW			13,800	Oct 11	33,800*	Sep 6, 1996
MAXIMUM PEAK STAGE			11.07	Oct 11	17.26*	Sep 6, 1996
INSTANTANEOUS LOW FLOW			0.22	Oct 10	0.15*	Jun 25, 2002
ANNUAL RUNOFF (CFSM)	0.71		2.33		0.97	
ANNUAL RUNOFF (INCHES)	9.59		31.66		13.22	
10 PERCENT EXCEEDS	206		877		283	
50 PERCENT EXCEEDS	26		127		49	
90 PERCENT EXCEEDS	0.40		43		6.9	

\* See REMARKS.

