

## 02086500 FLAT RIVER AT DAM NEAR BAHAMA, NC

LOCATION.--Lat 36°08'55", long 78°49'44", 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 mi<sup>2</sup>.

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.--Records fair except those for estimated daily discharges, which are poor. Flow regulated by Lake Michie (station 02086490). An average of 47.9 ft<sup>3</sup>/s was diverted above station from Lake Michie and Little River Lake. About 13.0 ft<sup>3</sup>/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 ft<sup>3</sup>/s.

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	39	154	56	230	951	207	92	39	0.09	0.03	0.02
2	40	39	124	54	158	411	291	174	40	0.08	0.02	0.01
3	40	39	106	52	143	249	431	97	39	0.07	0.02	0.01
4	39	39	87	51	395	183	247	62	38	0.06	0.02	0.01
5	38	39	74	53	299	159	170	47	37	0.03	0.02	0.02
6	38	53	68	53	197	144	147	56	37	0.04	0.02	0.03
7	38	53	70	51	147	131	148	54	37	0.09	0.02	0.03
8	38	45	68	49	123	196	277	56	37	0.05	0.02	0.02
9	38	40	68	47	115	366	224	49	37	0.02	0.04	0.02
10	38	39	4,080	46	117	227	161	44	37	0.02	0.02	0.02
11	38	39	1,710	45	122	171	128	42	37	0.02	0.04	0.02
12	38	42	511	44	103	151	109	42	37	0.02	0.02	0.03
13	38	1,330	299	47	88	137	118	42	37	0.02	0.02	0.03
14	38	410	207	2,640	86	e133	162	42	37	0.03	0.02	0.02
15	37	192	150	1,480	98	e123	136	41	37	0.03	0.02	0.02
16	37	125	122	454	117	82	100	42	38	0.02	0.02	0.02
17	37	94	108	273	104	656	85	42	38	0.02	0.02	0.02
18	37	77	98	183	87	923	80	42	38	0.02	0.02	0.02
19	37	65	92	138	70	433	76	43	38	0.02	0.02	0.02
20	38	58	81	112	66	285	73	44	37	0.01	0.02	0.02
21	38	51	71	e111	66	202	71	43	36	0.01	0.02	0.02
22	38	47	66	121	69	151	65	43	0.55	0.12	0.02	0.02
23	38	57	78	107	69	177	68	43	0.31	0.05	0.02	0.02
24	38	157	129	e97	84	318	67	43	0.16	0.02	0.02	0.01
25	38	362	139	e83	192	258	60	44	0.15	0.02	0.02	0.01
26	38	256	101	79	184	153	55	43	0.15	0.02	0.02	0.02
27	38	142	81	84	133	123	53	42	0.15	0.03	0.02	0.02
28	38	470	68	70	520	1,130	49	42	0.22	0.02	0.02	0.01
29	38	430	61	61	---	1,120	50	41	0.12	0.04	0.02	0.01
30	38	219	60	e83	---	448	53	40	0.08	0.02	0.02	0.02
31	39	---	58	303	---	270	---	39	---	0.03	0.02	---
TOTAL	1,181	5,048	9,189	7,127	4,182	10,461	3,961	1,616	789.89	1.14	0.67	0.57
MEAN	38.1	168	296	230	149	337	132	52.1	26.3	0.04	0.02	0.02
MAX	40	1,330	4,080	2,640	520	1,130	431	174	40	0.12	0.04	0.03
MIN	37	39	58	44	66	82	49	39	0.08	0.01	0.02	0.01
CFSM	0.23	1.00	1.76	1.37	0.89	2.01	0.79	0.31	0.16	0.00	0.00	0.00
IN.	0.26	1.12	2.03	1.58	0.93	2.32	0.88	0.36	0.17	0.00	0.00	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 2005, <sup>@</sup> BY WATER YEAR (WY)

MEAN	63.7	99.1	145	212	284	316	270	120	79.7	88.2	87.7	74.8
MAX	530	496	444	759	614	1,041	856	476	491	795	481	714
(WY)	(1930)	(1986)	(2003)	(1937)	(1948)	(1993)	(2003)	(2003)	(1938)	(1938)	(1939)	(1945)
MIN	0.05	0.03	0.05	0.07	0.06	21.5	8.91	0.06	0.06	0.01	0.02	0.02
(WY)	(1988)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2004)	(2005)	(2005)

02086500 FLAT RIVER AT DAM NEAR BAHAMA, NC—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1927 - 2005 <sup>@</sup>	
ANNUAL TOTAL	42,790.46		43,557.27			
ANNUAL MEAN	117		119		152	
HIGHEST ANNUAL MEAN					406	2003
LOWEST ANNUAL MEAN					2.63	2002
HIGHEST DAILY MEAN	4,080	Dec 10	4,080	Dec 10	10,500	Oct 2, 1929
LOWEST DAILY MEAN	0.01	Jul 6	0.01	Jul 20	0.00	Sep 4, 1938
ANNUAL SEVEN-DAY MINIMUM	0.01	Jul 6	0.01	Sep 23	0.00	Sep 4, 1938
MAXIMUM PEAK FLOW			7,810	Dec 10	19,700	Jul 26, 1938
MAXIMUM PEAK STAGE			13.53	Dec 10	19.50	Jul 26, 1938
INSTANTANEOUS LOW FLOW			0.01	Jul 10	0.00*	Sep 4, 1938
ANNUAL RUNOFF (CFSM)	0.696		0.710		0.908	
ANNUAL RUNOFF (INCHES)	9.48		9.64		12.33	
10 PERCENT EXCEEDS	218		237		309	
50 PERCENT EXCEEDS	55		44		58	
90 PERCENT EXCEEDS	0.03		0.02		0.36	

<sup>@</sup> See PERIOD OF RECORD.

\* See REMARKS.

e Estimated.

