



Water-Data Report 2007

02086490 LAKE MICHIE AT DAM NEAR BAHAMA, NC

Neuse Basin
Upper Neuse Subbasin

LOCATION.--Lat 36°09'03", long 78°49'48" referenced to North American Datum of 1983, Durham County, NC, Hydrologic Unit 03020201, at dam, 3.0 mi southeast of Bahama.

DRAINAGE AREA.--167 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1989 to current year.

REMARKS.--Station operated to define water quality as part of a regional surface-water quality assessment. Samples for nutrient, chlorophyll *a*, and pheophytin *a* analyses were collected through a sampling zone equal to double the secchi disk depth using the depth-integration sampling technique. Prior to October 1, 2005, samples for chlorophyll *a* were analyzed using a high-performance liquid chromatography method.

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 1 of 4

[Remark codes: <, less than; E, estimated.]

Date	Time	Sample type	Color, water, fltrd, Pt-Co units (00080)	Sam-pling depth, meters (00098)	Trans-parency Secchi disc, meters (00078)	Baro-metric pres-sure, mm Hg (00025)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of sat-uration (00301)	pH, water, unfltrd field, std units (00400)	Specif-ic conduc-tance, wat unf 25 degC μS/cm (00095)	Temper-ature, water, deg C (00010)	Hard-ness, water, mg/L as CaCO3 (00900)
Oct												
30...	0945	Environmental	40	1.0	1.00	760	6.2	62	6.6	71	15.3	22
30...	0950	Environmental	--	5.0	--	760	5.4	54	6.6	72	14.9	--
30...	0955	Environmental	--	10.0	--	760	.1	.0	6.3	112	12.7	--
Apr												
05...	0930	Environmental	50	1.0	.90	752	8.7	95	6.2	66	19.0	22
05...	0935	Environmental	--	6.0	--	752	5.9	53	5.5	59	9.7	--
05...	0940	Environmental	--	12.0	--	752	5.8	49	5.8	63	7.5	--
Jun												
26...	1115	Environmental	25	1.0	1.20	764	7.7	99	7.6	73	28.1	22
26...	1120	Environmental	--	5.0	--	764	.2	2	6.5	81	21.2	--
26...	1125	Environmental	--	11.0	--	764	.3	3	6.0	71	9.3	--
27...	0805	Blank	--	--	--	--	--	--	--	--	--	--
Aug												
28...	0930	Environmental	30	1.0	.70	759	--	--	--	81	29.4	24
28...	0935	Environmental	--	4.0	--	759	--	--	--	106	23.4	--
28...	0940	Environmental	--	8.0	--	759	--	--	--	77	9.8	--

02086490 LAKE MICHIE AT DAM NEAR BAHAMA, NC—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 2 of 4

[Remark codes: <, less than; E, estimated.]

Date	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf incrm. titr., field, mg/L as CaCO3 (00419)	Bicar- bonate, wat unf incrm. titr., field, mg/L (00450)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)
Oct													
30...	5.25	2.20	2.33	4.42	21	26	4.96	.10	9.10	4.53	57	.66	.124
30...	--	--	--	--	--	--	--	--	--	--	--	.58	.139
30...	--	--	--	--	--	--	--	--	--	--	--	1.1	.750
Apr													
05...	5.09	2.20	1.53	5.04	17	21	5.30	.12	9.35	5.29	70	.54	<.020
05...	--	--	--	--	--	--	--	--	--	--	--	.45	.033
05...	--	--	--	--	--	--	--	--	--	--	--	.50	E.013
Jun													
26...	5.18	2.24	1.67	4.83	21	25	5.05	E.07	8.87	3.74	57	.56	<.020
26...	--	--	--	--	--	--	--	--	--	--	--	.50	.090
26...	--	--	--	--	--	--	--	--	--	--	--	.62	.122
27...	<.02	<.014	--	<.20	--	--	--	--	<.02	--	--	--	<.020
Aug													
28...	5.42	2.53	1.82	5.38	22	27	5.44	E.08	10.3	3.44	55	.85	<.020
28...	--	--	--	--	--	--	--	--	--	--	--	.81	.154
28...	--	--	--	--	--	--	--	--	--	4.88	--	.76	.286

02086490 LAKE MICHIE AT DAM NEAR BAHAMA, NC—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 3 of 4

[Remark codes: <, less than; E, estimated.]

Date	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Organic carbon, water, fltrd, mg/L (00681)	Organic carbon, water, unfltrd mg/L (00680)	Chlorophyll a phyton, fluoro, µg/L (70953)	Pheophytin a, phyton, µg/L (62360)	Aluminum, water, unfltrd recover-able, µg/L (01105)	Arsenic water, unfltrd µg/L (01002)	Cadmium water, unfltrd µg/L (01027)	Chromium, water, unfltrd recover-able, µg/L (01034)	Cobalt water, unfltrd recover-able, µg/L (01037)
Oct													
30...	.020	<.002	<.006	.038	--	8.0	8.3	8.9	28	.53	<.02	E.42	.253
30...	.020	<.002	E.003	.041	--	--	--	--	--	--	--	--	--
30...	<.016	<.002	<.006	.031	--	--	--	--	--	--	--	--	--
Apr													
05...	.083	.005	E.004	.040	--	7.8	20.4	9.3	77	.39	E.01	<.60	.159
05...	.303	E.001	E.006	.034	--	--	--	--	--	--	--	--	--
05...	.503	.002	.014	.062	--	--	--	--	--	--	--	--	--
Jun													
26...	<.016	<.002	E.003	.025	--	8.0	8.8	2.6	--	--	--	--	--
26...	<.016	<.002	E.005	.042	--	--	--	--	--	--	--	--	--
26...	.298	.009	.018	.054	--	--	--	--	--	--	--	--	--
27...	<.016	<.002	<.006	--	--	--	--	--	--	--	--	--	--
Aug													
28...	<.016	<.002	E.004	.033	6.2	9.9	37.6	4.5	--	--	--	--	--
28...	<.016	<.002	E.004	.041	--	--	--	--	--	--	--	--	--
28...	<.016	.002	.036	.075	8.7	--	--	--	--	--	--	--	--

02086490 LAKE MICHIE AT DAM NEAR BAHAMA, NC—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 4 of 4

[Remark codes: <, less than; E, estimated.]

Date	Copper, water, unfltrd recover- able, µg/L (01042)	Iron, water, unfltrd recover- able, µg/L (01045)	Lead, water, unfltrd recover- able, µg/L (01051)	Mangan- ese, water, unfltrd recover- able, µg/L (01055)	Mercury water, unfltrd recover- able, µg/L (71890)	Mercury water, unfltrd recover- able, µg/L (71900)	Molyb- denum, water, unfltrd recover- able, µg/L (01062)	Nickel, water, unfltrd recover- able, µg/L (01067)	Selen- ium, water, unfltrd recover- able, µg/L (01147)	Silver, water, unfltrd recover- able, µg/L (01077)	Zinc, water, unfltrd recover- able, µg/L (01092)	Data base number
Oct												
30...	1.3	379	.12	172	--	<.010	.1	.24	.18	<.02	E2	01
30...	--	739	--	459	--	--	--	--	--	--	--	01
30...	--	4,380	--	2,820	--	--	--	--	--	--	--	01
Apr												
05...	1.6	515	.28	40.1	--	.034	.1	.41	.12	<.02	E2	01
05...	--	596	--	40.7	--	--	--	--	--	--	--	01
05...	--	961	--	149	--	--	--	--	--	--	--	01
Jun												
26...	--	118	--	32.6	--	--	--	--	--	--	--	01
26...	--	1,250	--	550	--	--	--	--	--	--	--	01
26...	--	1,510	--	482	--	--	--	--	--	--	--	01
27...	--	--	--	--	--	<.010	--	--	--	--	--	04
Aug												
28...	--	83	--	45.1	E.007	<.010	--	--	--	--	--	01
28...	--	617	--	1,060	--	--	--	--	--	--	--	01
28...	--	2,840	--	907	E.009	.012	--	--	--	--	--	01