

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 2007 TO SEPTEMBER 2008**

Part 1 of 4

[Remark codes: <, less than; E, estimated. Medium codes: WS, surface water; WSQ, surface water quality assurance]

Date	Time	Medium code	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 (00095)	Temper-ature, water, deg C (00010)	Hard-ness, water, mg/L as CaCO3 (00900)
Oct													
30...	0945	WS	9	50	1.0	.60	769	2.3	24	6.9	86	17.8	24
30...	0946	WSQ	7	--	--	.60	--	--	--	--	--	--	--
30...	0947	WSQ	7	--	--	.60	--	--	--	--	--	--	--
30...	0950	WS	9	--	4.0	--	769	.6	7	6.9	92	17.5	--
30...	0955	WS	9	--	8.0	--	769	.2	2	6.8	93	10.7	--
Apr													
24...	1030	WS	9	--	2.0	1.00	--	--	--	--	--	--	--
24...	1035	WS	9	50	1.0	--	761	9.4	101	6.8	62	18.7	17
24...	1040	WS	9	--	6.0	--	761	5.1	48	6.4	67	12.1	--
24...	1045	WS	9	--	12.0	--	761	1.9	17	6.8	78	9.5	--
Jun													
03...	1045	WS	9	--	2.0	1.00	--	--	--	--	--	--	--
03...	1050	WS	9	50	1.0	--	758	5.9	72	6.8	67	25.1	19
03...	1055	WS	9	--	6.0	--	758	.2	2	6.2	69	14.9	--
03...	1100	WS	9	--	12.0	--	758	.3	2	6.4	83	10.0	--
Aug													
26...	0945	WS	9	--	2.8	1.40	--	--	--	--	--	--	--
26...	0950	WS	9	25	1.0	--	756	7.9	101	7.4	77	27.2	24
26...	0955	WS	9	--	5.0	--	756	.2	3	6.5	88	23.7	--
26...	1000	WS	9	--	10.0	--	756	.3	2	6.5	88	10.3	--

02086490 LAKE MICHIE AT DAM NEAR BAHAMA, NC—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

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 infl pt titr., field, mg/L as CaCO3 (00419)	Bicar- bonate, wat unf infl pt titr., field, mg/L (00450)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L as SiO2 (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...	5.70	2.38	1.99	5.00	27	33	5.20	E.06	10.2	3.03	44	1.0	.358
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--	1.0	.383
30...	--	--	--	--	--	--	--	--	--	3.22	--	1.3	.780
Apr													
24...	--	--	--	--	--	--	--	--	--	--	--	.56	<.020
24...	3.95	1.77	1.63	3.91	12	15	4.46	<.12	8.50	7.16	68	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	.59	.092
24...	--	--	--	--	--	--	--	--	--	8.29	--	.51	.022
Jun													
03...	--	--	--	--	--	--	--	--	--	--	--	.58	.046
03...	4.45	1.96	1.78	4.06	13	16	4.44	E.07	6.89	5.73	67	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	.61	.107
03...	--	--	--	--	--	--	--	--	--	8.10	--	.56	.083
Aug													
26...	--	--	--	--	--	--	--	--	--	--	--	.56	<.020
26...	5.58	2.40	1.98	4.78	20.6	25.1	4.98	E.08	7.20	4.45	60	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	.52	.036
26...	--	--	--	--	--	--	--	--	--	7.16	--	.77	.386

02086490 LAKE MICHIE AT DAM NEAR BAHAMA, NC—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 3 of 4

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

Date	Nitrate + nitrite water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, unfltrd mg/L as P (00665)	Organic carbon, water, fltrd, mg/L (00681)	Organic carbon, water, unfltrd mg/L (00680)	Chloro- phyll a phyto- plank- ton, fluoro, µg/L (70953)	Pheo- phytin a, phyto- plank- ton, µg/L (62360)	Alum- inum, water, unfltrd recover- able, µg/L (01105)	Arsenic water, unfltrd µg/L (01002)	Cadmium water, unfltrd µg/L (01027)	Chrom- ium, water, unfltrd recover- able, µg/L (01034)	Cobalt water, unfltrd recover- able, µg/L (01037)
Oct													
30...	.019	.004	E.003	.055	6.2	9.2	19.1	8.9	106	.77	<.01	<.40	1.6
30...	--	--	--	--	--	--	21.1	9.0	--	--	--	--	--
30...	--	--	--	--	--	--	22.2	10.1	--	--	--	--	--
30...	.019	.005	E.003	.057	--	--	--	--	--	--	--	--	--
30...	<.016	.004	.019	.065	8.1	--	--	--	--	--	--	--	--
Apr													
24...	.122	.004	E.005	.040	--	--	11.0	5.5	--	--	--	--	--
24...	--	--	--	--	8.0	9.9	--	--	147	E.45	.02	.48	.10
24...	.234	.002	.010	.044	--	--	--	--	--	--	--	--	--
24...	.531	E.001	.008	.039	7.2	--	--	--	--	--	--	--	--
Jun													
03...	.029	E.002	E.004	.029	--	--	6.0	3.7	--	--	--	--	--
03...	--	--	--	--	9.3	9.4	--	--	--	--	--	--	--
03...	.219	.005	.010	.040	--	--	--	--	--	--	--	--	--
03...	.461	.004	.013	.044	8.6	--	--	--	--	--	--	--	--
Aug													
26...	<.016	E.001	E.005	.018	--	--	11.2	2.7	--	--	--	--	--
26...	--	--	--	--	7.5	9.5	--	--	--	--	--	--	--
26...	<.016	E.001	E.005	.028	--	--	--	--	--	--	--	--	--
26...	<.016	.002	.023	.052	8.2	--	--	--	--	--	--	--	--

02086490 LAKE MICHIE AT DAM NEAR BAHAMA, NC—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

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 (01055)	Mercury water, unfltrd recover- able, µg/L (01055)	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...	E.80	687	.26	1,380	.011	.023	.1	.23	.13	<.02	E1.7	01
30...	--	--	--	--	--	--	--	--	--	--	--	04
30...	--	--	--	--	--	--	--	--	--	--	--	04
30...	--	733	--	1,530	--	--	--	--	--	--	--	01
30...	--	5,890	--	1,680	E.007	E.008	--	--	--	--	--	01
Apr												
24...	--	--	--	--	--	--	--	--	--	--	--	01
24...	2.0	451	.31	21.4	E.006	.018	E.1	.60	.16	<.02	2.1	01
24...	--	632	--	44.9	--	--	--	--	--	--	--	01
24...	--	638	--	346	<.010	E.008	--	--	--	--	--	01
Jun												
03...	--	--	--	--	--	--	--	--	--	--	--	01
03...	--	518	--	27.0	<.010	<.010	--	--	--	--	--	01
03...	--	962	--	287	--	--	--	--	--	--	--	01
03...	--	1,040	--	657	<.010	<.010	--	--	--	--	--	01
Aug												
26...	--	--	--	--	--	--	--	--	--	--	--	01
26...	--	74	--	26.5	<.010	<.010	--	--	--	--	--	01
26...	--	207	--	744	--	--	--	--	--	--	--	01
26...	--	2,020	--	1,060	<.010	<.010	--	--	--	--	--	01