

## Water-Data Report 2011

**0208524845 LITTLE RIVER RESERVOIR AT DAM NEAR BAHAMA, NC**

 Neuse Basin  
 Upper Neuse Subbasin

LOCATION.--Lat 36°06'54", long 78°52'09" referenced to North American Datum of 1983, Durham County, NC, Hydrologic Unit 03020201, at dam 7.5 mi below U.S. Highway 501 and 4.0 mi south of Bahama.

DRAINAGE AREA.--97.7 mi<sup>2</sup>.

**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 2010 TO SEPTEMBER 2011**

Part 1 of 6

[%, percent; ANC, acid neutralizing capacity; CaCO<sub>3</sub>, calcium carbonate; N, nitrogen; P, phosphorus; SiO<sub>2</sub>, silicon dioxide; m, meters; mg/L, milligrams per liter; mm Hg, millimeters of mercury; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than]

Date	Sample start time	Medium name	Sample type	Barometric pressure, mm Hg (00025)	Color, water, filtered, platinum cobalt units (00080)	Dissolved oxygen, water, unfiltered, mg/L (00300)	Dissolved oxygen, water, unfiltered, % saturation (00301)	pH, water, unfiltered, field, standard units (00400)	Specific conductance, water, unfiltered, µS/cm at 25 °C (00095)
10-18-2010	1215	Surface water	Regular	--	--	--	--	--	--
10-18-2010	1220	Surface water	Regular	756	40	5.4	59	6.8	71
10-18-2010	1225	Surface water	Regular	756	--	.2	2	6.6	97
10-18-2010	1230	Surface water	Regular	756	--	.2	2	6.6	120
04-20-2011	1145	Surface water	Regular	--	--	--	--	--	--
04-20-2011	1150	Surface water	Regular	756	40	8.8	94	7.3	82
04-20-2011	1155	Surface water	Regular	756	--	5.2	46	7.3	80
04-20-2011	1200	Surface water	Regular	756	--	2.3	20	7.6	84
06-29-2011	1100	Surface water	Regular	--	--	--	--	--	--
06-29-2011	1105	Surface water	Regular	754	15	7.5	97	7.7	86
06-29-2011	1110	Surface water	Regular	754	--	.2	2	6.5	82
06-29-2011	1115	Surface water	Regular	754	--	.3	2	6.9	110
08-18-2011	1215	Surface water	Regular	--	--	--	--	--	--
08-18-2011	1220	Surface water	Regular	757	--	7.4	96	7.5	88
08-18-2011	1225	Surface water	Regular	757	--	.0	.0	7.3	148

## 0208524845 LITTLE RIVER RESERVOIR AT DAM NEAR BAHAMA, NC—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

Part 2 of 6

[%, percent; ANC, acid neutralizing capacity; CaCO<sub>3</sub>, calcium carbonate; N, nitrogen; P, phosphorus; SiO<sub>2</sub>, silicon dioxide; m, meters; mg/L, milligrams per liter; mm Hg, millimeters of mercury; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than]

Date	Sample start time	Temperature, water, °C (00010)	Trans-parency, water, in situ, Secchi disc, m (00078)	Sampling depth, m (00098)	Dissolved solids					
					dried at 180 °C, water, filtered, mg/L (70300)	Hardness, water, mg/L as CaCO <sub>3</sub> (00900)	Calcium, water, filtered, mg/L (00915)	Magnesium, water, filtered, mg/L (00925)	Potassium, water, filtered, mg/L (00935)	Sodium, water, filtered, mg/L (00930)
10-18-2010	1215	--	1.30	2.6	--	--	--	--	--	--
10-18-2010	1220	19.6	--	1.0	55	21.4	5.09	2.12	2.02	3.92
10-18-2010	1225	13.5	--	10.0	--	--	--	--	--	--
10-18-2010	1230	8.2	--	20.0	--	--	--	--	--	--
04-20-2011	1145	--	1.20	2.4	--	--	--	--	--	--
04-20-2011	1150	18.0	--	1.0	58	24.9	5.83	2.52	1.78	5.38
04-20-2011	1155	10.2	--	11.0	--	--	--	--	--	--
04-20-2011	1200	8.5	--	22.0	--	--	--	--	--	--
06-29-2011	1100	--	1.80	3.6	--	--	--	--	--	--
06-29-2011	1105	28.3	--	1.0	60	25.7	6.06	2.56	1.72	5.14
06-29-2011	1110	11.1	--	11.0	--	--	--	--	--	--
06-29-2011	1115	9.5	--	22.0	--	--	--	--	--	--
08-18-2011	1215	--	1.20	2.4	--	--	--	--	--	--
08-18-2011	1220	28.8	--	1.0	57	27.3	6.34	2.78	1.92	5.43
08-18-2011	1225	9.4	--	21.0	--	--	--	--	--	--

**0208524845 LITTLE RIVER RESERVOIR AT DAM NEAR BAHAMA, NC—Continued**
**WATER-QUALITY DATA  
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

Part 3 of 6

[%, percent; ANC, acid neutralizing capacity; CaCO<sub>3</sub>, calcium carbonate; N, nitrogen; P, phosphorus; SiO<sub>2</sub>, silicon dioxide; m, meters; mg/L, milligrams per liter; mm Hg, millimeters of mercury; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than]

Date	Sample start time	ANC, water, unfiltered, inflection- point, incremental titration method, field, mg/L as CaCO <sub>3</sub> (00419)	Bi- carbonate, water, unfiltered, inflection- point, incremental titration method, field, mg/L (00450)	Chloride, water, filtered, mg/L (00940)	Fluoride, water, filtered, mg/L (00950)	Silica, water, filtered, mg/L as SiO <sub>2</sub> (00955)	Sulfate, water, filtered, mg/L (00945)	Ammonia plus organic nitrogen, water, unfiltered, mg/L as N (00625)	Ammonia, water, filtered, mg/L as N (00608)
10-18-2010	1215	--	--	--	--	--	--	.49	.029
10-18-2010	1220	22.0	26.9	4.78	.10	7.20	3.09	--	--
10-18-2010	1225	--	--	--	--	--	--	.85	.384
10-18-2010	1230	--	--	--	--	--	--	1.3	.845
04-20-2011	1145	--	--	--	--	--	--	.51	.028
04-20-2011	1150	19.2	23.4	6.70	.06	7.97	4.76	--	--
04-20-2011	1155	--	--	--	--	--	--	.46	.061
04-20-2011	1200	--	--	--	--	--	--	.46	.108
06-29-2011	1100	--	--	--	--	--	--	.48	<.010
06-29-2011	1105	23.7	28.8	7.28	.06	6.25	4.16	--	--
06-29-2011	1110	--	--	--	--	--	--	.37	.020
06-29-2011	1115	--	--	--	--	--	--	1.3	.741
08-18-2011	1215	--	--	--	--	--	--	.51	.037
08-18-2011	1220	25.3	30.6	7.21	.05	7.02	3.27	--	--
08-18-2011	1225	--	--	--	--	--	--	2.3	1.58

**0208524845 LITTLE RIVER RESERVOIR AT DAM NEAR BAHAMA, NC—Continued**

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

Part 4 of 6

[%, percent; ANC, acid neutralizing capacity; CaCO<sub>3</sub>, calcium carbonate; N, nitrogen; P, phosphorus; SiO<sub>2</sub>, silicon dioxide; m, meters; mg/L, milligrams per liter; mm Hg, millimeters of mercury; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than]

Date	Sample start time	Nitrate plus nitrite, water, filtered, mg/L as N (00631)	Nitrite, water, filtered, mg/L as N (00613)	Orthophosphate, water, filtered, mg/L as P (00671)	Phosphorus, water, unfiltered, mg/L as P (00665)	Aluminum, water, unfiltered, recoverable, µg/L (01105)	Cadmium, water, unfiltered, µg/L (01027)	Chromium, water, unfiltered, recoverable, µg/L (01034)	Cobalt, water, unfiltered, recoverable, micrograms per liter (01037)
10-18-2010	1215	<.008	.001	.005	.024	--	--	--	--
10-18-2010	1220	--	--	--	--	30	<.05	<.21	.24
10-18-2010	1225	<.008	.002	.004	.031	--	--	--	--
10-18-2010	1230	<.008	.003	.129	.160	--	--	--	--
04-20-2011	1145	.225	.004	.007	.029	--	--	--	--
04-20-2011	1150	--	--	--	--	131	<.05	.48	.09
04-20-2011	1155	.305	.003	.012	.036	--	--	--	--
04-20-2011	1200	.368	.004	.011	.029	--	--	--	--
06-29-2011	1100	<.008	<.001	.005	.020	--	--	--	--
06-29-2011	1105	--	--	--	--	--	--	--	--
06-29-2011	1110	.303	.003	.007	.020	--	--	--	--
06-29-2011	1115	.027	.006	.054	.117	--	--	--	--
08-18-2011	1215	<.008	--	<.004	.020	--	--	--	--
08-18-2011	1220	--	--	--	--	--	--	--	--
08-18-2011	1225	<.008	--	.132	.187	--	--	--	--

## 0208524845 LITTLE RIVER RESERVOIR AT DAM NEAR BAHAMA, NC—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

Part 5 of 6

[%, percent; ANC, acid neutralizing capacity; CaCO<sub>3</sub>, calcium carbonate; N, nitrogen; P, phosphorus; SiO<sub>2</sub>, silicon dioxide; m, meters; mg/L, milligrams per liter; mm Hg, millimeters of mercury; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than]

Date	Sample start time	Copper, water, unfiltered, recover- able, µg/L (01042)	Iron, water, unfiltered, recover- able, µg/L (01045)	Lead, water, unfiltered, recover- able, µg/L (01051)	Manga- nese, water, unfiltered, recover- able, µg/L (01055)	Mercury, water, unfiltered, recover- able, µg/L (71900)	m, water, unfiltered, recover- able, µg/L (01062)	Molybdenum, water, unfiltered, recover- able, µg/L (01067)	Nickel, water, unfiltered, recover- able, µg/L (01077)	Silver, water, unfiltered, recover- able, µg/L (01092)	Zinc, water, unfiltered, recover- able, µg/L (01092)
10-18-2010	1215	--	--	--	--	--	--	--	--	--	--
10-18-2010	1220	.86	313	.07	265	.010	.1	<.12	<.01	<.01	<2.4
10-18-2010	1225	--	5,130	--	2,420	--	--	--	--	--	--
10-18-2010	1230	--	6,320	--	2,530	--	--	--	--	--	--
04-20-2011	1145	--	--	--	--	--	--	--	--	--	--
04-20-2011	1150	1.3	412	.20	23.1	<.005	<.1	.32	<.01	<.01	<2.4
04-20-2011	1155	--	519	--	115	--	--	--	--	--	--
04-20-2011	1200	--	855	--	891	--	--	--	--	--	--
06-29-2011	1100	--	--	--	--	--	--	--	--	--	--
06-29-2011	1105	--	98	--	38.9	--	--	--	--	--	--
06-29-2011	1110	--	412	--	490	--	--	--	--	--	--
06-29-2011	1115	--	6,150	--	2,830	--	--	--	--	--	--
08-18-2011	1215	--	--	--	--	--	--	--	--	--	--
08-18-2011	1220	--	67	--	44.8	--	--	--	--	--	--
08-18-2011	1225	--	13,700	--	4,040	--	--	--	--	--	--

**0208524845 LITTLE RIVER RESERVOIR AT DAM NEAR BAHAMA, NC—Continued**

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

Part 6 of 6

[%, percent; ANC, acid neutralizing capacity; CaCO<sub>3</sub>, calcium carbonate; N, nitrogen; P, phosphorus; SiO<sub>2</sub>, silicon dioxide; m, meters; mg/L, milligrams per liter; mm Hg, millimeters of mercury; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than]

Date	Sample start time	Arsenic, water, unfiltered, µg/L (01002)	Selenium, water, unfiltered, µg/L (01147)	carbon, water, unfiltered, mg/L (00680)	Organic
10-18-2010	1215	--	--	--	
10-18-2010	1220	.77	.14	6.1	
10-18-2010	1225	--	--	--	
10-18-2010	1230	--	--	--	
04-20-2011	1145	--	--	--	
04-20-2011	1150	.50	.09	8.7	
04-20-2011	1155	--	--	--	
04-20-2011	1200	--	--	--	
06-29-2011	1100	--	--	--	
06-29-2011	1105	--	--	9.0	
06-29-2011	1110	--	--	--	
06-29-2011	1115	--	--	--	
08-18-2011	1215	--	--	--	
08-18-2011	1220	--	--	8.2	
08-18-2011	1225	--	--	--	