



Water-Data Report 2010

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 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 2009 TO SEPTEMBER 2010

Part 1 of 6

[%, percent; ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; N, nitrogen; P, phosphorus; SiO₂, 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; <, less than; E, estimated]

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)
10-07-2009	1215	Surface water	Regular	--	--	--	--	--	--
10-07-2009	1216	<i>QC sample - Surface water</i>	<i>Replicate</i>	--	--	--	--	--	--
10-07-2009	1217	<i>QC sample - Surface water</i>	<i>Replicate</i>	--	--	--	--	--	--
10-07-2009	1220	Surface water	Regular	750	35	4.1	48	6.6	78
10-07-2009	1225	Surface water	Regular	750	--	.2	2	6.5	99
10-07-2009	1230	Surface water	Regular	750	--	.3	3	6.9	151
04-08-2010	1230	Surface water	Regular	--	--	--	--	--	--
04-08-2010	1235	Surface water	Regular	752	25	9.9	106	7.1	70
04-08-2010	1240	Surface water	Regular	752	--	7.8	65	6.3	60
04-08-2010	1245	Surface water	Regular	752	--	4.7	40	6.7	74
06-16-2010	1045	Surface water	Regular	--	--	--	--	--	--
06-16-2010	1050	Surface water	Regular	759	50	5.7	68	6.8	68
06-16-2010	1055	Surface water	Regular	759	--	.1	1	6.3	76
06-16-2010	1100	Surface water	Regular	759	--	.1	1	6.4	76
08-19-2010	1230	Surface water	Regular	--	--	--	--	--	--
08-19-2010	1235	Surface water	Regular	754	18	7.8	106	8.3	76
08-19-2010	1240	Surface water	Regular	754	--	.2	2	6.5	89
08-19-2010	1245	Surface water	Regular	754	--	.2	2	6.5	410

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

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Part 2 of 6

[%, percent; ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; N, nitrogen; P, phosphorus; SiO₂, 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; <, less than; E, estimated]

Date	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 ₃ (00900)	Calcium, water, filtered, mg/L (00915)	Magne- sium, water, filtered, mg/L (00925)	Potassium, water, filtered, mg/L (00935)	Sodium, water, filtered, mg/L (00930)	ANC, water, unfiltered, inflection- point, incremental titration method, field, mg/L as CaCO ₃ (00419)
10-07-2009	--	.90	1.8	--	--	--	--	--	--	--
10-07-2009	--	.90	1.8	--	--	--	--	--	--	--
10-07-2009	--	.90	1.8	--	--	--	--	--	--	--
10-07-2009	22.1	--	1.0	58	24.3	5.82	2.38	2.06	4.06	24.5
10-07-2009	20.8	--	9.0	--	--	--	--	--	--	--
10-07-2009	9.4	--	19.0	--	--	--	--	--	--	--
04-08-2010	--	1.70	3.4	--	--	--	--	--	--	--
04-08-2010	18.1	--	1.0	57	20.6	4.94	2.01	1.36	4.40	16.5
04-08-2010	6.7	--	11.0	--	--	--	--	--	--	--
04-08-2010	7.3	--	22.0	--	--	--	--	--	--	--
06-16-2010	--	1.20	2.4	--	--	--	--	--	--	--
06-16-2010	23.9	--	1.0	62	20.2	4.78	2.02	1.63	3.91	19.5
06-16-2010	13.8	--	11.0	--	--	--	--	--	--	--
06-16-2010	7.0	--	22.0	--	--	--	--	--	--	--
08-19-2010	--	1.50	3.0	--	--	--	--	--	--	--
08-19-2010	30.9	--	1.0	54	23.6	5.61	2.33	1.79	4.24	18.7
08-19-2010	12.6	--	11.0	--	--	--	--	--	--	--
08-19-2010	7.7	--	22.0	--	--	--	--	--	--	--

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

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Part 3 of 6

[%, percent; ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; N, nitrogen; P, phosphorus; SiO₂, 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; <, less than; E, estimated]

Date	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 ₂ (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)	Nitrate plus nitrite, water, filtered, mg/L as N (00631)	Nitrite, water, filtered, mg/L as N (00613)
10-07-2009	--	--	--	--	--	.49	.036	< .016	< .002
10-07-2009	--	--	--	--	--	--	--	--	--
10-07-2009	--	--	--	--	--	--	--	--	--
10-07-2009	29.8	4.91	E .06	9.19	3.02	--	--	--	--
10-07-2009	--	--	--	--	--	.89	.313	< .016	< .002
10-07-2009	--	--	--	--	--	2.6	1.83	< .016	.005
04-08-2010	--	--	--	--	--	.45	.046	.148	.005
04-08-2010	20.1	5.93	< .08	7.95	4.68	--	--	--	--
04-08-2010	--	--	--	--	--	.35	.023	.385	E .002
04-08-2010	--	--	--	--	--	.49	.134	.374	.004
06-16-2010	--	--	--	--	--	.59	.028	.104	.004
06-16-2010	23.8	4.86	< .08	8.09	3.58	--	--	--	--
06-16-2010	--	--	--	--	--	.59	.100	.282	.004
06-16-2010	--	--	--	--	--	.64	.196	.341	E .001
08-19-2010	--	--	--	--	--	.46	E .016	< .016	< .002
08-19-2010	22.8	5.00	E .05	6.36	3.01	--	--	--	--
08-19-2010	--	--	--	--	--	.79	.274	.172	.003
08-19-2010	--	--	--	--	--	1.6	.852	< .016	.005

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WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Part 4 of 6

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Date	Orthophosphate, water, filtered, mg/L as P (00671)	Phosphorus, water, unfiltered, mg/L as P (00665)	Chlorophyll a, phytoplankton, chromatographic method, μg/L (70953)	Pheophytin a, phytoplankton, μg/L (62360)	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)	Copper, water, unfiltered, recoverable, μg/L (01042)
10-07-2009	E .005	.024	9.4	5.1	--	--	--	--	--
10-07-2009	--	--	10.3	5.9	--	--	--	--	--
10-07-2009	--	--	11.6	6.6	--	--	--	--	--
10-07-2009	--	--	--	--	23	< .04	< .42	.17	< 1.4
10-07-2009	E .004	.043	--	--	--	--	--	--	--
10-07-2009	.091	.162	--	--	--	--	--	--	--
04-08-2010	E .006	.030	E 2.7	E 1.0	--	--	--	--	--
04-08-2010	--	--	--	--	160	.05	< .42	.11	E 1.2
04-08-2010	.009	.030	--	--	--	--	--	--	--
04-08-2010	.015	.056	--	--	--	--	--	--	--
06-16-2010	E .006	.031	10.4	5.2	--	--	--	--	--
06-16-2010	--	--	--	--	--	--	--	--	--
06-16-2010	.010	.033	--	--	--	--	--	--	--
06-16-2010	.015	.062	--	--	--	--	--	--	--
08-19-2010	E .005	.018	7.3	E 1.8	--	--	--	--	--
08-19-2010	--	--	--	--	--	--	--	--	--
08-19-2010	.025	.053	--	--	--	--	--	--	--
08-19-2010	.185	.271	--	--	--	--	--	--	--

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

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Part 5 of 6

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Date	Iron,	Lead,	Manganese,	Mercury,	Molybdenum,	Nickel,	Silver,	Zinc,	Arsenic,	Selenium,
	water, unfiltered, recoverable, μg/L (01045)	water, unfiltered, recoverable, μg/L (01051)	water, unfiltered, recoverable, μg/L (01055)	water, unfiltered, recoverable, μg/L (71900)	water, unfiltered, recoverable, micrograms per liter (01062)	water, unfiltered, recoverable, μg/L (01067)	water, unfiltered, recoverable, μg/L (01077)	water, unfiltered, recoverable, μg/L (01092)	water, unfiltered, μg/L (01002)	water, unfiltered, μg/L (01147)
10-07-2009	--	--	--	--	--	--	--	--	--	--
10-07-2009	--	--	--	--	--	--	--	--	--	--
10-07-2009	--	--	--	--	--	--	--	--	--	--
10-07-2009	209	.08	386	< .010	.1	E .24	< .02	E 1.0	.75	.14
10-07-2009	455	--	4,190	--	--	--	--	--	--	--
10-07-2009	15,800	--	5,090	--	--	--	--	--	--	--
04-08-2010	--	--	--	--	--	--	--	--	--	--
04-08-2010	392	.19	17.3	E .010	E .1	E .32	< .02	E 1.1	.40	.11
04-08-2010	448	--	73.2	--	--	--	--	--	--	--
04-08-2010	800	--	378	--	--	--	--	--	--	--
06-16-2010	--	--	--	--	--	--	--	--	--	--
06-16-2010	282	--	45.8	--	--	--	--	--	--	--
06-16-2010	509	--	492	--	--	--	--	--	--	--
06-16-2010	1,520	--	2,040	--	--	--	--	--	--	--
08-19-2010	--	--	--	--	--	--	--	--	--	--
08-19-2010	42	--	20.6	--	--	--	--	--	--	--
08-19-2010	2,640	--	1,760	--	--	--	--	--	--	--
08-19-2010	7,660	--	2,620	--	--	--	--	--	--	--

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WATER YEAR OCTOBER
2009 TO SEPTEMBER
2010**

Part 6 of 6

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Date	Organic carbon, water, unfiltered, mg/L (00680)
10-07-2009	--
10-07-2009	--
10-07-2009	--
10-07-2009	7.7
10-07-2009	--
10-07-2009	--
04-08-2010	--
04-08-2010	6.1
04-08-2010	--
04-08-2010	--
06-16-2010	--
06-16-2010	8.4
06-16-2010	--
06-16-2010	--
08-19-2010	--
08-19-2010	6.5
08-19-2010	--
08-19-2010	--