



Water-Data Report 2010

0209801100 B. EVERETT JORDAN LAKE AT BELLS LANDING NEAR GRIFFINS CROSSROADS, NC

Cape Fear Basin
Haw Subbasin

LOCATION.--Lat 35°43'39", long 79°02'34" referenced to North American Datum of 1983, Chatham County, NC, Hydrologic Unit 03030002, at Bells Landing and 2.0 mi southeast of Griffins Crossroads.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1991-95, 1999 to current year.

REMARKS.--Station operated to define water quality as part of a regional surface-water quality assessment. A GC/FID scan for trace organic compounds was performed on samples collected in November 1994 and May 1995. Results may be obtained from the USGS Water Science Center, Raleigh. 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.

0209801100 B. EVERETT JORDAN LAKE AT BELLS LANDING NEAR GRIFFINS CROSSROADS, NC—Continued

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)	Temperature, water, °C (00010)
10-21-2009	1215	Surface water	Regular	--	--	--	--	--	--	--
10-21-2009	1220	Surface water	Regular	768	50	11.5	119	8.3	176	17.4
10-21-2009	1225	Surface water	Regular	768	--	10.4	107	7.7	176	17.1
10-21-2009	1230	Surface water	Regular	768	--	8.1	82	7.2	175	16.7
12-17-2009	1215	Surface water	Regular	--	--	--	--	--	--	--
12-17-2009	1220	Surface water	Regular	771	60	10.1	87	7.0	154	9.4
12-17-2009	1225	Surface water	Regular	771	--	10.1	87	6.9	154	9.4
12-17-2009	1230	Surface water	Regular	771	--	10.1	87	6.8	154	9.4
02-18-2010	0930	Surface water	Regular	--	--	--	--	--	--	--
02-18-2010	0935	Surface water	Regular	759	88	11.7	91	7.7	117	4.7
02-18-2010	0940	Surface water	Regular	759	--	11.6	91	7.7	117	4.6
02-18-2010	0945	Surface water	Regular	759	--	11.6	90	7.5	118	4.7
04-14-2010	1200	Surface water	Regular	--	--	--	--	--	--	--
04-14-2010	1205	Surface water	Regular	774	40	8.4	88	7.2	123	18.6
04-14-2010	1210	Surface water	Regular	774	--	7.9	83	7.1	123	18.5
04-14-2010	1215	Surface water	Regular	774	--	4.1	40	6.6	125	15.6
06-03-2010	0930	Surface water	Regular	--	--	--	--	--	--	--
06-03-2010	0935	Surface water	Regular	757	25	8.1	101	7.9	138	26.6
06-03-2010	0940	Surface water	Regular	757	--	8.1	102	7.9	142	26.2
06-03-2010	0945	Surface water	Regular	757	--	1.0	11	6.9	148	22.7
08-18-2010	0830	Surface water	Regular	--	--	--	--	--	--	--
08-18-2010	0835	Surface water	Regular	762	20	8.2	111	8.6	159	31.6
08-18-2010	0840	Surface water	Regular	762	--	6.8	91	7.8	158	31.1
08-18-2010	0845	Surface water	Regular	762	--	.6	7	6.8	157	29.5

0209801100 B. EVERETT JORDAN LAKE AT BELLS LANDING NEAR GRIFFINS CROSSROADS, 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	Trans- parency, water, in situ, Secchi disc, m (00078)	Depth to 1 percent of surface light, meters (85328)	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)
10-21-2009	.90	--	1.8	--	--	--	--	--	--	--	--
10-21-2009	--	--	1.0	100	32.4	7.92	3.07	3.68	18.8	39	--
10-21-2009	--	--	2.0	--	--	--	--	--	--	--	--
10-21-2009	--	--	5.0	--	--	--	--	--	--	--	--
12-17-2009	.80	--	1.6	--	--	--	--	--	--	--	--
12-17-2009	--	--	1.0	105	27.9	6.83	2.64	3.53	16.4	28.9	--
12-17-2009	--	--	3.0	--	--	--	--	--	--	--	--
12-17-2009	--	--	6.0	--	--	--	--	--	--	--	--
02-18-2010	.50	--	1.0	--	--	--	--	--	--	--	--
02-18-2010	--	--	1.0	90	22.5	5.46	2.14	2.66	11.6	18.7	--
02-18-2010	--	--	3.0	--	--	--	--	--	--	--	--
02-18-2010	--	--	6.0	--	--	--	--	--	--	--	--
04-14-2010	.80	--	1.6	--	--	--	--	--	--	--	--
04-14-2010	--	--	1.0	77	24.8	6.20	2.27	2.56	11.9	22.4	--
04-14-2010	--	--	3.0	--	--	--	--	--	--	--	--
04-14-2010	--	--	6.0	--	--	--	--	--	--	--	--
06-03-2010	1.10	2.2	2.2	--	--	--	--	--	--	--	--
06-03-2010	--	--	1.0	85	28.9	6.98	2.79	2.64	13.6	26.5	--
06-03-2010	--	--	3.0	--	--	--	--	--	--	--	--
06-03-2010	--	--	6.0	--	--	--	--	--	--	--	--
08-18-2010	1.10	2.2	2.2	--	--	--	--	--	--	--	--
08-18-2010	--	--	1.0	86	32.4	7.90	3.07	3.06	17.4	28.5	--
08-18-2010	--	--	3.0	--	--	--	--	--	--	--	--
08-18-2010	--	--	5.0	--	--	--	--	--	--	--	--

0209801100 B. EVERETT JORDAN LAKE AT BELLS LANDING NEAR GRIFFINS CROSSROADS, 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)
10-21-2009	--	--	--	--	--	.83	.057	.124	.005
10-21-2009	48	16.6	.18	4.71	14.1	--	--	--	--
10-21-2009	--	--	--	--	--	.81	.082	.122	.005
10-21-2009	--	--	--	--	--	.80	.114	.119	.006
12-17-2009	--	--	--	--	--	.67	E .019	.491	.009
12-17-2009	35.3	15.3	.15	6.50	17.3	--	--	--	--
12-17-2009	--	--	--	--	--	.61	.021	.491	.009
12-17-2009	--	--	--	--	--	.62	.022	.492	.008
02-18-2010	--	--	--	--	--	.63	.024	.453	.004
02-18-2010	22.8	14.3	.09	7.85	11.3	--	--	--	--
02-18-2010	--	--	--	--	--	.57	.020	.445	.004
02-18-2010	--	--	--	--	--	.60	.022	.438	.004
04-14-2010	--	--	--	--	--	.56	.039	.267	.005
04-14-2010	27.4	14.2	.08	3.06	11.7	--	--	--	--
04-14-2010	--	--	--	--	--	.54	.049	.266	.006
04-14-2010	--	--	--	--	--	.54	.123	.264	.007
06-03-2010	--	--	--	--	--	.56	.022	.098	.008
06-03-2010	32.3	14.9	.13	2.44	11.8	--	--	--	--
06-03-2010	--	--	--	--	--	.56	E .020	.102	.008
06-03-2010	--	--	--	--	--	.61	.120	.176	.005
08-18-2010	--	--	--	--	--	.55	E .013	< .016	< .002
08-18-2010	34.8	16.6	.13	3.00	12.4	--	--	--	--
08-18-2010	--	--	--	--	--	.57	E .011	< .016	< .002
08-18-2010	--	--	--	--	--	.61	.063	< .016	< .002

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WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Part 4 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	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)
10-21-2009	< .008	.042	28.6	11.1	--	--	--	--	--
10-21-2009	--	--	--	--	48	< .04	< .42	.14	< 1.4
10-21-2009	< .008	.042	--	--	--	--	--	--	--
10-21-2009	< .008	.041	--	--	--	--	--	--	--
12-17-2009	E .005	.045	10.1	9.9	--	--	--	--	--
12-17-2009	--	--	--	--	--	--	--	--	--
12-17-2009	E .005	.043	--	--	--	--	--	--	--
12-17-2009	E .005	.044	--	--	--	--	--	--	--
02-18-2010	.009	.072	5.6	E 3.6	--	--	--	--	--
02-18-2010	--	--	--	--	--	--	--	--	--
02-18-2010	.008	.073	--	--	--	--	--	--	--
02-18-2010	.009	.071	--	--	--	--	--	--	--
04-14-2010	< .008	.044	10.1	E 4.3	--	--	--	--	--
04-14-2010	--	--	--	--	181	< .04	E .33	.19	8.2
04-14-2010	E .005	.039	--	--	--	--	--	--	--
04-14-2010	E .005	.035	--	--	--	--	--	--	--
06-03-2010	< .008	.026	8.7	E 3.5	--	--	--	--	--
06-03-2010	--	--	--	--	--	--	--	--	--
06-03-2010	< .008	.028	--	--	--	--	--	--	--
06-03-2010	E .005	.028	--	--	--	--	--	--	--
08-18-2010	< .008	.025	12.2	E 2.7	--	--	--	--	--
08-18-2010	--	--	--	--	--	--	--	--	--
08-18-2010	< .008	.026	--	--	--	--	--	--	--
08-18-2010	E .005	.036	--	--	--	--	--	--	--

0209801100 B. EVERETT JORDAN LAKE AT BELLS LANDING NEAR GRIFFINS CROSSROADS, NC—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Part 5 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; μ S/cm, microsiemens per centimeter; μ g/L, micrograms per liter; <, less than; E, estimated]

Date	Iron,	Lead,	Manganese,	Mercury,	Molybdenum,	Nickel,	Silver,	Zinc,	Arsenic,	Selenium,
	water, unfiltered, recoverable, μ g/L (01045)	water, unfiltered, recoverable, μ g/L (01051)	water, unfiltered, recoverable, μ g/L (01055)	water, unfiltered, recoverable, μ g/L (71900)	water, unfiltered, recoverable, micrograms per liter (01062)	water, unfiltered, recoverable, μ g/L (01067)	water, unfiltered, recoverable, μ g/L (01077)	water, unfiltered, recoverable, μ g/L (01092)	water, unfiltered, μ g/L (01002)	water, unfiltered, μ g/L (01147)
10-21-2009	--	--	--	--	--	--	--	--	--	--
10-21-2009	129	.12	96.5	.011	2.2	.59	< .02	2.1	.80	.18
10-21-2009	153	--	96.9	--	--	--	--	--	--	--
10-21-2009	191	--	130	--	--	--	--	--	--	--
12-17-2009	--	--	--	--	--	--	--	--	--	--
12-17-2009	259	--	89.7	--	--	--	--	--	--	--
12-17-2009	257	--	88.9	--	--	--	--	--	--	--
12-17-2009	257	--	89.3	--	--	--	--	--	--	--
02-18-2010	--	--	--	--	--	--	--	--	--	--
02-18-2010	452	--	44.9	--	--	--	--	--	--	--
02-18-2010	477	--	45.3	--	--	--	--	--	--	--
02-18-2010	454	--	45.4	--	--	--	--	--	--	--
04-14-2010	--	--	--	--	--	--	--	--	--	--
04-14-2010	332	.38	63.1	.014	.6	1.0	< .02	3.7	.37	.14
04-14-2010	316	--	63.8	--	--	--	--	--	--	--
04-14-2010	384	--	110	--	--	--	--	--	--	--
06-03-2010	--	--	--	--	--	--	--	--	--	--
06-03-2010	128	--	63.4	--	--	--	--	--	--	--
06-03-2010	109	--	52.8	--	--	--	--	--	--	--
06-03-2010	221	--	321	--	--	--	--	--	--	--
08-18-2010	--	--	--	--	--	--	--	--	--	--
08-18-2010	46	--	40.9	--	--	--	--	--	--	--
08-18-2010	74	--	56.1	--	--	--	--	--	--	--
08-18-2010	306	--	452	--	--	--	--	--	--	--

0209801100 B. EVERETT JORDAN LAKE AT BELLS LANDING NEAR GRIFFINS CROSSROADS, NC—Continued

**WATER-QUALITY DATA
WATER YEAR OCTOBER
2009 TO SEPTEMBER
2010**

Part 6 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	Organic carbon, water, unfiltered, mg/L (00680)
10-21-2009	--
10-21-2009	8.3
10-21-2009	--
10-21-2009	--
12-17-2009	--
12-17-2009	8.1
12-17-2009	--
12-17-2009	--
02-18-2010	--
02-18-2010	8.1
02-18-2010	--
02-18-2010	--
04-14-2010	--
04-14-2010	7.7
04-14-2010	--
04-14-2010	--
06-03-2010	--
06-03-2010	7.2
06-03-2010	--
06-03-2010	--
08-18-2010	--
08-18-2010	6.9
08-18-2010	--
08-18-2010	--