

Water-Data Report 2010

**0209768310 B. EVERETT JORDAN LAKE AT BUOY 12 AT FARRINGTON, NC**

Cape Fear Basin  
Haw Subbasin

LOCATION.--Lat 35°47'56", long 79°00'21" referenced to North American Datum of 1983, Chatham County, NC, Hydrologic Unit 03030002, .02 mi above Secondary Road 1008, and 0.2 mi east of Farrington.

**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--Water years 1992 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.

## 0209768310 B. EVERETT JORDAN LAKE AT BUOY 12 AT FARRINGTON, NC—Continued

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

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; <, 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)
10-20-2009	0930	Surface water	Regular	--	--	--	--	--	
10-20-2009	0931	<i>QC sample - Surface water</i>	<i>Replicate</i>	--	--	--	--	--	
10-20-2009	0935	Surface water	Regular	765	62	10.1	99	8.1	
10-20-2009	0936	<i>QC sample - Surface water</i>	<i>Replicate</i>	--	62	--	--	--	
10-20-2009	0940	Surface water	Regular	765	--	8.9	86	7.7	
10-20-2009	0945	Surface water	Regular	765	--	8.4	82	7.6	
10-20-2009	1025	<i>QC sample - Artificial</i>	<i>Blank</i>	--	--	--	--	--	
12-17-2009	1530	Surface water	Regular	--	--	--	--	--	
12-17-2009	1535	Surface water	Regular	770	125	10.2	86	6.9	
12-17-2009	1540	Surface water	Regular	770	--	10.1	84	6.9	
12-17-2009	1545	Surface water	Regular	770	--	9.3	78	6.8	
02-17-2010	1015	Surface water	Regular	--	--	--	--	--	
02-17-2010	1020	Surface water	Regular	757	100	11.6	90	7.6	
02-17-2010	1025	Surface water	Regular	757	--	11.5	89	7.7	
02-17-2010	1030	Surface water	Regular	757	--	11.4	89	7.8	
04-13-2010	0945	Surface water	Regular	--	--	--	--	--	
04-13-2010	0950	Surface water	Regular	771	75	9.1	99	7.8	
04-13-2010	0955	Surface water	Regular	771	--	8.4	92	7.6	
04-13-2010	1000	Surface water	Regular	771	--	4.7	49	7.2	
06-02-2010	0945	Surface water	Regular	--	--	--	--	--	
06-02-2010	0950	Surface water	Regular	759	50	8.0	99	7.7	
06-02-2010	0955	Surface water	Regular	759	--	6.6	81	7.3	
06-02-2010	1000	Surface water	Regular	759	--	4.1	50	7.1	
08-17-2010	0930	Surface water	Regular	--	--	--	--	--	
08-17-2010	0935	Surface water	Regular	763	30	5.7	76	7.7	
08-17-2010	0940	Surface water	Regular	763	--	5.0	66	7.5	
08-17-2010	0945	Surface water	Regular	763	--	2.7	35	7.3	

## 0209768310 B. EVERETT JORDAN LAKE AT BUOY 12 AT FARRINGTON, NC—Continued

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

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; <, less than; E, estimated]

Date	Temperature, water, °C (00010)	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 <sub>3</sub> (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)	
10-20-2009	--	.50	--	1.0	--	--	--	--	--	--
10-20-2009	--	.50	--	1.0	--	--	--	--	--	--
10-20-2009	14.5	--	--	1.0	146	33.7	8.49	3.04	4.73	27.8
10-20-2009	--	--	--	1.0	136	34.0	8.58	3.06	4.78	28.0
10-20-2009	14.2	--	--	2.0	--	--	--	--	--	--
10-20-2009	14.0	--	--	3.0	--	--	--	--	--	--
10-20-2009	--	--	--	--	--	< .18	< .04	< .016	< .06	< .10
12-17-2009	--	.50	--	1.0	--	--	--	--	--	--
12-17-2009	8.4	--	--	1.0	94	24.4	6.17	2.17	3.10	10.7
12-17-2009	8.1	--	--	2.0	--	--	--	--	--	--
12-17-2009	7.9	--	--	4.0	--	--	--	--	--	--
02-17-2010	--	.50	--	1.0	--	--	--	--	--	--
02-17-2010	4.3	--	--	1.0	94	24.1	6.18	2.11	2.18	13.0
02-17-2010	4.3	--	--	3.0	--	--	--	--	--	--
02-17-2010	4.3	--	--	6.0	--	--	--	--	--	--
04-13-2010	--	.60	--	1.2	--	--	--	--	--	--
04-13-2010	20.5	--	--	1.0	96	31.5	8.17	2.68	2.88	17.7
04-13-2010	20.3	--	--	2.0	--	--	--	--	--	--
04-13-2010	18.5	--	--	4.0	--	--	--	--	--	--
06-02-2010	--	.50	1.0	1.0	--	--	--	--	--	--
06-02-2010	26.0	--	--	1.0	94	31.8	8.00	2.87	3.08	17.3
06-02-2010	25.6	--	--	2.0	--	--	--	--	--	--
06-02-2010	25.0	--	--	4.0	--	--	--	--	--	--
08-17-2010	--	.50	1.0	1.0	--	--	--	--	--	--
08-17-2010	30.1	--	--	1.0	111	34.2	8.65	3.06	3.77	21.3
08-17-2010	29.9	--	--	2.0	--	--	--	--	--	--
08-17-2010	29.7	--	--	4.0	--	--	--	--	--	--

## 0209768310 B. EVERETT JORDAN LAKE AT BUOY 12 AT FARRINGTON, NC—Continued

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

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; <, less than; E, estimated]

Date	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)	Nitrate plus nitrite, water, filtered, mg/L as N (00631)
10-20-2009	--	--	--	--	--	--	1.1	< .020	.024
10-20-2009	--	--	--	--	--	--	1.1	< .020	.025
10-20-2009	41.0	50.0	20.6	.28	3.48	24.4	--	--	--
10-20-2009	43.1	50.7	20.5	.30	3.53	23.8	--	--	--
10-20-2009	--	--	--	--	--	--	1.1	.029	.044
10-20-2009	--	--	--	--	--	--	1.1	E .014	.029
10-20-2009	--	--	< .12	< .08	< .06	< .18	E .08	< .020	< .016
12-17-2009	--	--	--	--	--	--	.89	.062	.310
12-17-2009	20.4	24.9	10.1	.10	7.59	12.3	--	--	--
12-17-2009	--	--	--	--	--	--	.81	.062	.318
12-17-2009	--	--	--	--	--	--	.83	.068	.297
02-17-2010	--	--	--	--	--	--	.57	E .015	.462
02-17-2010	16.7	20.3	18.7	.09	6.81	10.5	--	--	--
02-17-2010	--	--	--	--	--	--	.59	E .015	.458
02-17-2010	--	--	--	--	--	--	.61	E .013	.455
04-13-2010	--	--	--	--	--	--	.83	.027	.197
04-13-2010	24.5	29.8	20.0	.14	.64	15.8	--	--	--
04-13-2010	--	--	--	--	--	--	.65	.044	.338
04-13-2010	--	--	--	--	--	--	.79	.150	.216
06-02-2010	--	--	--	--	--	--	.73	< .020	E .012
06-02-2010	33.0	40.2	16.7	.18	3.02	14.1	--	--	--
06-02-2010	--	--	--	--	--	--	.78	E .018	.033
06-02-2010	--	--	--	--	--	--	.88	< .020	E .010
08-17-2010	--	--	--	--	--	--	.95	< .020	< .016
08-17-2010	34.2	41.7	19.1	.17	4.72	14.6	--	--	--
08-17-2010	--	--	--	--	--	--	1.0	< .020	E .009
08-17-2010	--	--	--	--	--	--	1.1	.044	.019

## 0209768310 B. EVERETT JORDAN LAKE AT BUOY 12 AT FARRINGTON, NC—Continued

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

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; <, less than; E, estimated]

Date	Nitrite, water, filtered, mg/L as N (00613)	Orthophos- phate, water, filtered, mg/L as P (00671)	Phosphorus, water, unfiltered, mg/L as P (00665)	Chloro- phyll a, phytoplank ton, chromatog raphic- fluorometri c method, μg/L (70953)	Pheo- phytin a, phyto- plankton, μg/L (62360)	Aluminum, water, unfiltered, recover- able, μg/L (01105)	Cadmium, water, unfiltered, μg/L (01027)	Chromium, water, unfiltered, recover- able, μg/L (01034)	Cobalt, water, unfiltered, recoverabl e, microgram s per liter (01037)
10-20-2009	.006	< .008	.090	54.0	29.4	--	--	--	--
10-20-2009	.005	< .008	.094	62.1	28.6	--	--	--	--
10-20-2009	--	--	--	--	--	135	< .04	< .42	.27
10-20-2009	--	--	--	--	--	143	E .02	< .42	.28
10-20-2009	.004	< .008	.109	--	--	--	--	--	--
10-20-2009	.004	E .005	.098	--	--	--	--	--	--
10-20-2009	< .002	< .008	< .008	--	--	--	--	--	--
12-17-2009	.006	.012	.090	10.0	11.6	--	--	--	--
12-17-2009	--	--	--	--	--	--	--	--	--
12-17-2009	.006	.012	.086	--	--	--	--	--	--
12-17-2009	.006	.012	.084	--	--	--	--	--	--
02-17-2010	.004	.008	.076	13.4	E 5.0	--	--	--	--
02-17-2010	--	--	--	--	--	--	--	--	--
02-17-2010	.004	.009	.083	--	--	--	--	--	--
02-17-2010	.004	.008	.082	--	--	--	--	--	--
04-13-2010	.009	E .004	.070	27.4	10.0	--	--	--	--
04-13-2010	--	--	--	--	--	217	< .04	E .29	.31
04-13-2010	.009	< .008	.054	--	--	--	--	--	--
04-13-2010	.009	< .008	.060	--	--	--	--	--	--
06-02-2010	.004	E .004	.073	28.2	12.1	--	--	--	--
06-02-2010	--	--	--	--	--	--	--	--	--
06-02-2010	.009	E .004	.071	--	--	--	--	--	--
06-02-2010	.004	E .005	.080	--	--	--	--	--	--
08-17-2010	E .002	E .005	.066	40.7	13.6	--	--	--	--
08-17-2010	--	--	--	--	--	--	--	--	--
08-17-2010	.005	E .006	.071	--	--	--	--	--	--
08-17-2010	.018	E .005	.072	--	--	--	--	--	--

## 0209768310 B. EVERETT JORDAN LAKE AT BUOY 12 AT FARRINGTON, NC—Continued

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

Part 5 of 6

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Date	Copper, water, unfiltered, recover- able, μg/L (01042)	Iron, water, unfiltered, recover- able, μg/L (01045)	Lead, water, unfiltered, recover- able, μg/L (01051)	Manganes e, water, unfiltered, recover- able, μg/L (01055)	Mercury, water, unfiltered, recover- able, μg/L (71900)	Molybdenu m, water, unfiltered, recoverabl e, microgram s per liter (01062)	Nickel, water, unfiltered, recover- able, μg/L (01067)	Silver, water, unfiltered, recover- able, μg/L (01077)	Zinc, water, unfiltered, recover- able, μg/L (01092)	Arsenic, water, unfiltered, μg/L (01002)
10-20-2009	--	--	--	--	--	--	--	--	--	--
10-20-2009	--	--	--	--	--	--	--	--	--	--
10-20-2009	E 1.4	292	.38	181	< .010	4.5	.85	< .02	E 1.9	.88
10-20-2009	E .95	325	.40	181	< .010	4.5	.85	E .01	E 2.0	.79
10-20-2009	--	457	--	217	--	--	--	--	--	--
10-20-2009	--	332	--	184	--	--	--	--	--	--
10-20-2009	--	--	--	--	--	--	--	--	--	--
12-17-2009	--	--	--	--	--	--	--	--	--	--
12-17-2009	--	718	--	73.5	--	--	--	--	--	--
12-17-2009	--	701	--	73.3	--	--	--	--	--	--
12-17-2009	--	761	--	78.5	--	--	--	--	--	--
02-17-2010	--	--	--	--	--	--	--	--	--	--
02-17-2010	--	649	--	56.4	--	--	--	--	--	--
02-17-2010	--	660	--	57.7	--	--	--	--	--	--
02-17-2010	--	665	--	58.3	--	--	--	--	--	--
04-13-2010	--	--	--	--	--	--	--	--	--	--
04-13-2010	1.7	453	.54	74.1	.014	1.4	.87	< .02	2.6	.49
04-13-2010	--	460	--	70.5	--	--	--	--	--	--
04-13-2010	--	560	--	136	--	--	--	--	--	--
06-02-2010	--	--	--	--	--	--	--	--	--	--
06-02-2010	--	358	--	128	--	--	--	--	--	--
06-02-2010	--	382	--	136	--	--	--	--	--	--
06-02-2010	--	461	--	176	--	--	--	--	--	--
08-17-2010	--	--	--	--	--	--	--	--	--	--
08-17-2010	--	243	--	164	--	--	--	--	--	--
08-17-2010	--	244	--	167	--	--	--	--	--	--
08-17-2010	--	233	--	177	--	--	--	--	--	--

## 0209768310 B. EVERETT JORDAN LAKE AT BUOY 12 AT FARRINGTON, NC—Continued

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

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; <, less than; E, estimated]

<b>Date</b>	<b>Selenium, water, unfiltered, μg/L (01147)</b>	<b>Organic carbon, water, unfiltered, mg/L (00680)</b>
10-20-2009	--	--
10-20-2009	--	--
10-20-2009	.22	10.3
10-20-2009	.21	10.4
10-20-2009	--	--
10-20-2009	--	--
10-20-2009	--	1.0
12-17-2009	--	--
12-17-2009	--	12.0
12-17-2009	--	--
12-17-2009	--	--
02-17-2010	--	--
02-17-2010	--	9.2
02-17-2010	--	--
02-17-2010	--	--
04-13-2010	--	--
04-13-2010	.13	8.8
04-13-2010	--	--
04-13-2010	--	--
06-02-2010	--	--
06-02-2010	--	9.5
06-02-2010	--	--
06-02-2010	--	--
08-17-2010	--	--
08-17-2010	--	9.0
08-17-2010	--	--
08-17-2010	--	--