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Water-Data Report 2012

**0209771550 B. EVERETT JORDAN LAKE AT BUOY 9 NEAR FARRINGTON, NC**

Cape Fear Basin  
Haw Subbasin

LOCATION.--Lat 35°46'30", long 79°01'38" referenced to North American Datum of 1927, Chatham County, NC, Hydrologic Unit 03030002, 2.6 mi upstream from U.S. Highway 64, and 2.6 mi southwest of Farrington.

DRAINAGE AREA.--250 mi<sup>2</sup>.

**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--Water years 1989-92, April to November 2012.

REMARKS.--Samples for near-surface nutrient and chlorophyll-a analyses were collected through a zone equal to double the secchi disk depth using the depth-integration sampling technique. Prior to April 2012, samples for chlorophyll were analyzed using a high-performance liquid chromatography method.

## 0209771550 B. EVERETT JORDAN LAKE AT BUOY 9 NEAR FARRINGTON, NC—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**

Part 1 of 3

[%, percent; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; m, meters; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °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)	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)
04-04-2012	1015	Surface water	Regular	--	--	--	--	--	--
04-04-2012	1020	Surface water	Regular	756	8.7	96	7.5	195	19.8
04-04-2012	1025	Surface water	Regular	756	2.6	27	7.1	198	18.2
04-16-2012	1100	Surface water	Regular	--	--	--	--	--	--
04-16-2012	1105	Surface water	Regular	766	8.8	94	7.7	196	19.0
04-16-2012	1110	Surface water	Regular	766	8.1	85	7.6	197	18.5
05-10-2012	1015	Surface water	Regular	--	--	--	--	--	--
05-10-2012	1020	Surface water	Regular	756	6.9	80	7.4	198	22.2
05-10-2012	1025	Surface water	Regular	756	.5	6	6.8	198	19.5
05-21-2012	1030	Surface water	Regular	--	--	--	--	--	--
05-21-2012	1035	Surface water	Regular	761	7.6	88	7.6	195	22.5
05-21-2012	1040	Surface water	Regular	761	3.5	41	7.2	195	22.8
06-06-2012	1015	Surface water	Regular	--	--	--	--	--	--
06-06-2012	1020	Surface water	Regular	759	6.1	74	7.3	192	24.7
06-06-2012	1025	Surface water	Regular	759	3.2	38	7.0	195	24.5
06-21-2012	0915	Surface water	Regular	--	--	--	--	--	--
06-21-2012	0920	Surface water	Regular	760	10.1	128	8.9	199	27.7
06-21-2012	0925	Surface water	Regular	760	.2	3	6.8	206	24.9
07-05-2012	0945	Surface water	Regular	--	--	--	--	--	--
07-05-2012	0950	Surface water	Regular	758	8.4	111	9.0	198	29.5
07-05-2012	0955	Surface water	Regular	758	.1	2	7.1	209	26.6
07-18-2012	0930	Surface water	Regular	--	--	--	--	--	--
07-18-2012	0935	Surface water	Regular	756	7.1	93	8.3	199	29.4
07-18-2012	0940	Surface water	Regular	752	6.1	81	7.8	199	29.2
08-02-2012	0945	Surface water	Regular	--	--	--	--	--	--
08-02-2012	0950	Surface water	Regular	755	6.7	89	8.3	202	30.0
08-02-2012	0955	Surface water	Regular	755	4.0	53	7.7	202	29.7
08-15-2012	0945	Surface water	Regular	--	--	--	--	--	--
08-15-2012	0950	Surface water	Regular	755	8.9	116	8.6	197	28.8
08-15-2012	0955	Surface water	Regular	754	.8	11	7.5	214	27.9
08-30-2012	0945	Surface water	Regular	--	--	--	--	--	--
08-30-2012	0950	Surface water	Regular	761	8.2	104	8.6	206	27.2
08-30-2012	0955	Surface water	Regular	761	1.7	21	7.1	207	26.2
09-12-2012	0930	Surface water	Regular	--	--	--	--	--	--
09-12-2012	0935	Surface water	Regular	765	6.0	74	7.3	206	26.2
09-12-2012	0940	Surface water	Regular	765	5.8	71	7.1	208	26.1
09-26-2012	0940	Surface water	Regular	--	--	--	--	--	--
09-26-2012	0945	Surface water	Regular	762	8.9	105	8.2	203	23.9
09-26-2012	0950	Surface water	Regular	762	5.2	62	7.2	205	23.5

## 0209771550 B. EVERETT JORDAN LAKE AT BUOY 9 NEAR FARRINGTON, NC—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**

Part 2 of 3

[%, percent; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; m, meters; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than]

Date	Sample start time	Turbidity, water, unfiltered, broad band light source (400-680 nm), Trans- parency, multiple angles water, in situ, including 90 +/- 30 degrees, Secchi disc, m (00078)			Depth to 1 percent of surface light, meters (85328)	Sampling depth, m (00098)	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)	Orthophos- phate, water, filtered, mg/L as P (00671)
		ratiometric correction, NTRU (63676)									
04-04-2012	1015	0.60	--	1.5	1.2	0.90	0.040	0.05	<.004		
04-04-2012	1020	--	9.6	--	1.0	--	--	--	--		
04-04-2012	1025	--	--	--	5.0	.89	.065	.06	<.004		
04-16-2012	1100	.70	--	1.8	1.4	.90	.070	.07	<.004		
04-16-2012	1105	--	13	--	1.0	--	--	--	--		
04-16-2012	1110	--	--	--	5.0	.84	.087	.076	<.004		
05-10-2012	1015	.90	--	2.0	1.8	.78	.033	.02	<.004		
05-10-2012	1020	--	8.5	--	1.0	--	--	--	--		
05-10-2012	1025	--	--	--	5.0	.81	.122	.10	<.004		
05-21-2012	1030	.90	--	2.1	1.8	.72	<.010	<.01	<.004		
05-21-2012	1035	--	6.6	--	1.0	--	--	--	--		
05-21-2012	1040	--	--	--	5.0	.68	.026	.03	<.004		
06-06-2012	1015	.90	--	2.0	1.8	.66	<.010	<.01	<.004		
06-06-2012	1020	--	4.7	--	1.0	--	--	--	--		
06-06-2012	1025	--	--	--	5.0	.76	.020	<.01	<.004		
06-21-2012	0915	.90	--	2.2	1.8	.74	<.010	<.01	<.004		
06-21-2012	0920	--	6.5	--	1.0	--	--	--	--		
06-21-2012	0925	--	--	--	5.0	.94	.062	<.01	<.004		
07-05-2012	0945	.60	--	1.5	1.2	.91	.010	<.01	<.004		
07-05-2012	0950	--	7.8	--	1.0	--	--	--	--		
07-05-2012	0955	--	--	--	5.0	.93	.112	<.01	<.004		
07-18-2012	0930	.70	--	2.8	1.4	.88	<.010	<.01	<.004		
07-18-2012	0935	--	7.5	--	1.0	--	--	--	--		
07-18-2012	0940	--	--	--	4.0	.89	<.010	.01	<.004		
08-02-2012	0945	.80	--	1.8	1.6	.89	<.010	<.01	<.004		
08-02-2012	0950	--	6.7	--	1.0	--	--	--	--		
08-02-2012	0955	--	--	--	4.0	.85	<.010	<.01	<.004		
08-15-2012	0945	.70	--	1.5	1.4	.83	<.010	<.01	<.004		
08-15-2012	0950	--	5.8	--	1.0	--	--	--	--		
08-15-2012	0955	--	--	--	5.0	.99	.166	<.01	<.004		
08-30-2012	0945	.60	--	--	1.2	.95	<.010	<.01	<.004		
08-30-2012	0950	--	7.1	--	1.0	--	--	--	--		
08-30-2012	0955	--	--	--	5.0	.94	.162	.01	<.004		
09-12-2012	0930	.60	--	1.1	1.2	.95	.063	<.01	<.004		
09-12-2012	0935	--	10	--	1.0	--	--	--	--		
09-12-2012	0940	--	--	--	4.0	.98	.077	<.01	<.004		
09-26-2012	0940	.60	--	1.1	1.2	.90	<.010	.01	<.004		
09-26-2012	0945	--	8.6	--	1.0	--	--	--	--		
09-26-2012	0950	--	--	--	5.0	.97	.010	<.01	<.004		

## 0209771550 B. EVERETT JORDAN LAKE AT BUOY 9 NEAR FARRINGTON, NC—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**

Part 3 of 3

[%, percent; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; m, meters; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than]

Date	Sample start time	Phosphorus, water, unfiltered, mg/L as P (00665)	Chloro-phyll a, phyto-plankton, chromatographic method, µg/L (70953)	Iron, water, filtered, µg/L (01046)	Iron, water, unfiltered, recoverable, µg/L (01045)	Manganese, water, filtered, µg/L (01056)	Manganese, water, unfiltered, recoverable, µg/L (01055)
04-04-2012	1015	0.047	17.0	--	--	--	--
04-04-2012	1020	--	--	19.2	159	2.85	87.6
04-04-2012	1025	.047	--	26.6	193	3.80	118
04-16-2012	1100	.053	17.1	--	--	--	--
04-16-2012	1105	--	--	36.4	254	2.91	132
04-16-2012	1110	.050	--	29.8	270	1.79	139
05-10-2012	1015	.042	18.6	--	--	--	--
05-10-2012	1020	--	--	10.5	142	1.26	154
05-10-2012	1025	.040	--	13.8	207	148	338
05-21-2012	1030	.039	24.4	--	--	--	--
05-21-2012	1035	--	--	7.4	114	1.84	137
05-21-2012	1040	.042	--	4.9	164	1.22	209
06-06-2012	1015	.038	6.3	--	--	--	--
06-06-2012	1020	--	--	4.3	102	2.60	117
06-06-2012	1025	.057	--	13.1	332	202	407
06-21-2012	0915	.037	17.2	--	--	--	--
06-21-2012	0920	--	--	< 3.2	74.1	.78	64.5
06-21-2012	0925	.096	--	4.6	317	728	902
07-05-2012	0945	.039	34.4	--	--	--	--
07-05-2012	0950	--	--	3.2	88.9	.91	114
07-05-2012	0955	.068	--	24.9	286	872	1,010
07-18-2012	0930	.040	36.8	--	--	--	--
07-18-2012	0935	--	--	5.3	77.1	1.77	165
07-18-2012	0940	.042	--	7.8	98.5	25.0	189
08-02-2012	0945	.045	31.8	--	--	--	--
08-02-2012	0950	--	--	< 3.2	87.2	1.27	138
08-02-2012	0955	.039	--	< 3.2	83.8	1.08	129
08-15-2012	0945	.045	29.6	--	--	--	--
08-15-2012	0950	--	--	< 3.2	99.9	1.32	124
08-15-2012	0955	.061	--	6.2	268	100	379
08-30-2012	0945	.050	39.5	--	--	--	--
08-30-2012	0950	--	--	5.1	119	1.23	135
08-30-2012	0955	.044	--	7.1	124	3.58	230
09-12-2012	0930	.054	32.1	--	--	--	--
09-12-2012	0935	--	--	5.4	174	.73	204
09-12-2012	0940	.052	--	6.9	174	2.62	201
09-26-2012	0940	.056	49.3	--	--	--	--
09-26-2012	0945	--	--	5.0	161	.87	150
09-26-2012	0950	.065	--	9.9	281	1.09	191

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**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013**

Part 1 of 3

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Date	Sample start time	Medium name	Sample type	Barometric pressure, mm Hg (00025)	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)
10-11-2012	0910	Surface water	Regular	--	--	--	--	--	--
10-11-2012	0915	Surface water	Regular	763	6.9	75	7.3	197	19.6
10-11-2012	0920	Surface water	Regular	763	7.0	76	7.2	199	19.6
10-24-2012	0920	Surface water	Regular	--	--	--	--	--	--
10-24-2012	0925	Surface water	Regular	761	9.3	100	8.0	194	19.2
10-24-2012	0930	Surface water	Regular	761	5.8	62	7.4	196	18.5
11-07-2012	0910	Surface water	Regular	--	--	--	--	--	--
11-07-2012	0915	Surface water	Regular	753	10.1	95	7.4	196	12.5
11-07-2012	0920	Surface water	Regular	753	10.0	95	6.8	197	12.5

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013**

Part 2 of 3

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Date	Sample start time	Turbidity, water, unfiltered, broad band light source (400-680 nm), detectors at multiple angles including 90 +/- 30 degrees, situ, ratiometric			Depth to 1 percent of surface	Ammonia plus organic nitrogen, water, unfiltered, mg/L as N (00625)			Nitrate plus nitrite, water, filtered, mg/L as N (00631)	Orthophosphate, water, filtered, mg/L as P (00671)
		Transparency, water, in	Secchi disc, m (00078)	correction, NTRU (63676)		unfiltered, mg/L as N (00608)				
10-11-2012	0910	0.60	--	18	1.3	1.2	0.92	0.070	0.01	0.010
10-11-2012	0915	--	--	--	1.0	--	--	--	--	--
10-11-2012	0920	--	--	--	5.0	.96	.073	.01	<.004	<.004
10-24-2012	0920	.60	--	6.9	1.3	1.2	.84	<.010	<.01	<.004
10-24-2012	0925	--	--	--	1.0	--	--	--	--	--
10-24-2012	0930	--	--	--	5.0	.86	<.010	<.01	<.004	<.004
11-07-2012	0910	.60	--	7.6	1.2	1.2	.83	<.010	<.01	<.004
11-07-2012	0915	--	--	--	4.0	.85	<.010	<.01	<.004	<.004
11-07-2012	0920	--	--	--	--	--	--	--	--	--

**0209771550 B. EVERETT JORDAN LAKE AT BUOY 9 NEAR FARRINGTON, NC—Continued**

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013**

Part 3 of 3

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Date	Sample start time	Phosphorus, water, unfiltered, mg/L as P (00665)	Chloro-phyll a, phyto-plankton, chromato-graphic-fluoro-metric method, µg/L (70953)	Iron, water, filtered, µg/L (01046)	Iron, water, unfiltered, recoverable, µg/L (01045)	Manganese, water, filtered, µg/L (01056)	Manganese, water, unfiltered, recoverable, µg/L (01055)
10-11-2012	0910	0.056	31.8	--	--	--	--
10-11-2012	0915	--	--	< 4.0	245	1.50	165
10-11-2012	0920	.057	--	< 4.0	255	1.27	170
10-24-2012	0920	.045	43.0	--	--	--	--
10-24-2012	0925	--	--	< 4.0	129	.99	114
10-24-2012	0930	.051	--	8.3	195	1.46	134
11-07-2012	0910	.050	29.9	--	--	--	--
11-07-2012	0915	--	--	4.2	205	1.29	122
11-07-2012	0920	.052	--	< 4.0	209	1.24	124