

## Water-Data Report 2011

**0209799150 B. EVERETT JORDAN LAKE ABOVE U.S. HIGHWAY 64 AT WILSONVILLE, NC**

 Cape Fear Basin  
 Haw Subbasin

LOCATION.--Lat 35°44'30", long 79°01'09" referenced to North American Datum of 1983, Chatham County, NC, Hydrologic Unit 03030002, 0.2 mi above bridge on U.S. Highway 64, and 1.1 mi west of Wilsonville.

**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--Water years 1991 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)
10-06-2010	1015	Surface water	Regular	--	--	--	--	--
10-06-2010	1020	Surface water	Regular	764	25	7.7	88	7.5
10-06-2010	1025	Surface water	Regular	764	--	7.6	86	7.5
10-06-2010	1030	Surface water	Regular	764	--	7.7	87	7.5
12-10-2010	1015	Surface water	Regular	--	--	--	--	--
12-10-2010	1016	QC sample - Surface water	Replicate	--	--	--	--	--
12-10-2010	1020	Surface water	Regular	769	25	10.3	86	7.3
12-10-2010	1021	QC sample - Surface water	Replicate	--	25	--	--	--
12-10-2010	1025	Surface water	Regular	769	--	10.2	85	7.3
12-10-2010	1030	Surface water	Regular	769	--	10.0	83	7.5
02-23-2011	1300	Surface water	Regular	--	--	--	--	--
02-23-2011	1305	Surface water	Regular	768	25	12.4	106	8.2
02-23-2011	1310	Surface water	Regular	768	--	12.0	101	8.0
02-23-2011	1315	Surface water	Regular	768	--	11.1	93	7.9
04-07-2011	0930	Surface water	Regular	--	--	--	--	--
04-07-2011	0935	Surface water	Regular	765	25	9.1	88	7.4
04-07-2011	0940	Surface water	Regular	765	--	8.9	86	7.3
04-07-2011	0945	Surface water	Regular	765	--	8.6	82	7.3
06-21-2011	1015	Surface water	Regular	--	--	--	--	--
06-21-2011	1020	Surface water	Regular	761	15	8.5	110	8.5
06-21-2011	1025	Surface water	Regular	761	--	1.5	19	7.3
06-21-2011	1030	Surface water	Regular	761	--	.2	2	7.2
08-11-2011	1030	Surface water	Regular	--	--	--	--	--
08-11-2011	1035	Surface water	Regular	749	--	5.6	75	7.8
08-11-2011	1040	Surface water	Regular	749	--	.1	.0	6.9

**0209799150 B. EVERETT JORDAN LAKE ABOVE U.S. HIGHWAY 64 AT WILSONVILLE, 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	Specific conduc-		Trans-		Dissolved		Magnesium, water, filtered, mg/L (00925)	Potassium, water, filtered, mg/L (00935)
		conductance, water, unfiltered, µS/cm at 25 °C (00095)	temperature, water, °C (00010)	transparency, water, in situ, Secchi disc, m (00078)	Sampling depth, m (00098)	solids dried at 180 °C, water, filtered, mg/L (70300)	Hardness, water, mg/L as CaCO <sub>3</sub> (00900)		
10-06-2010	1015	--	--	.90	1.8	--	--	--	--
10-06-2010	1020	165	22.0	--	1.0	110	31.9	7.95	2.93
10-06-2010	1025	165	22.0	--	4.0	--	--	--	--
10-06-2010	1030	166	21.9	--	8.0	--	--	--	--
12-10-2010	1015	--	--	.90	1.8	--	--	--	--
12-10-2010	1016	--	--	.90	1.8	--	--	--	--
12-10-2010	1020	173	8.2	--	1.0	95	33.6	8.48	3.02
12-10-2010	1021	--	--	--	1.0	111	31.9	7.97	2.91
12-10-2010	1025	173	8.1	--	4.0	--	--	--	--
12-10-2010	1030	173	8.1	--	8.0	--	--	--	--
02-23-2011	1300	--	--	.70	1.4	--	--	--	--
02-23-2011	1305	184	8.9	--	1.0	108	33.2	8.37	2.98
02-23-2011	1310	186	8.4	--	4.0	--	--	--	--
02-23-2011	1315	187	8.2	--	8.0	--	--	--	--
04-07-2011	0930	--	--	.70	1.4	--	--	--	--
04-07-2011	0935	202	13.8	--	1.0	119	33.7	8.35	3.13
04-07-2011	0940	202	13.6	--	4.0	--	--	--	--
04-07-2011	0945	201	13.6	--	8.0	--	--	--	--
06-21-2011	1015	--	--	1.20	2.4	--	--	--	--
06-21-2011	1020	217	28.5	--	1.0	112	37.5	9.43	3.40
06-21-2011	1025	207	25.9	--	5.0	--	--	--	--
06-21-2011	1030	218	20.1	--	10.0	--	--	--	--
08-11-2011	1030	--	--	.70	1.4	--	--	--	--
08-11-2011	1035	218	29.8	--	1.0	128	36.2	8.76	3.48
08-11-2011	1040	251	23.5	--	8.0	--	--	--	--

0209799150 B. EVERETT JORDAN LAKE ABOVE U.S. HIGHWAY 64 AT WILSONVILLE, 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	Bi-		ANC, water, carbonate, unfiltered, water, inflection-point, unfiltered, inflection-point, incremental titration method, field, mg/L as CaCO <sub>3</sub> (00419)		Chloride, water, filtered, mg/L (00940)		Fluoride, water, filtered, mg/L (00950)		Silica, water, filtered, mg/L as SiO <sub>2</sub> (00955)		Ammonia plus organic nitrogen, water, unfiltered, mg/L as N (00625)	
		Sodium, water, filtered, mg/L (00930)	method, field, mg/L as CaCO <sub>3</sub> (00450)	titration method, field, mg/L (00450)	water, filtered, mg/L (00940)	water, filtered, mg/L (00950)	water, filtered, mg/L as SiO <sub>2</sub> (00945)	water, filtered, mg/L as N (00625)					
10-06-2010	1015	--	--	--	--	--	--	--	--	--	--	.71	
10-06-2010	1020	18.9	37.6	45.9	17.8	.17	4.08	12.5	--	--	--		
10-06-2010	1025	--	--	--	--	--	--	--	--	--	--	.66	
10-06-2010	1030	--	--	--	--	--	--	--	--	--	--	.70	
12-10-2010	1015	--	--	--	--	--	--	--	--	--	--	.74	
12-10-2010	1016	--	--	--	--	--	--	--	--	--	--	.70	
12-10-2010	1020	21.3	36.2	44.1	19.1	.18	4.56	15.8	--	--	--		
12-10-2010	1021	19.8	32.1	39.2	18.7	.18	4.55	15.8	--	--	--		
12-10-2010	1025	--	--	--	--	--	--	--	--	--	--	.71	
12-10-2010	1030	--	--	--	--	--	--	--	--	--	--	.73	
02-23-2011	1300	--	--	--	--	--	--	--	--	--	--	.78	
02-23-2011	1305	22.0	35.2	42.9	20.0	.20	2.57	17.9	--	--	--		
02-23-2011	1310	--	--	--	--	--	--	--	--	--	--	.70	
02-23-2011	1315	--	--	--	--	--	--	--	--	--	--	.74	
04-07-2011	0930	--	--	--	--	--	--	--	--	--	--	.78	
04-07-2011	0935	23.9	37.6	45.9	22.5	.18	.41	19.5	--	--	--		
04-07-2011	0940	--	--	--	--	--	--	--	--	--	--	.79	
04-07-2011	0945	--	--	--	--	--	--	--	--	--	--	.85	
06-21-2011	1015	--	--	--	--	--	--	--	--	--	--	.62	
06-21-2011	1020	25.0	40.4	47.9	24.0	.21	1.67	18.4	--	--	--		
06-21-2011	1025	--	--	--	--	--	--	--	--	--	--	.69	
06-21-2011	1030	--	--	--	--	--	--	--	--	--	--	1.7	
08-11-2011	1030	--	--	--	--	--	--	--	--	--	--	.89	
08-11-2011	1035	25.0	43.5	52.6	23.9	.19	2.75	16.5	--	--	--		
08-11-2011	1040	--	--	--	--	--	--	--	--	--	--	2.7	

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

Part 4 of 6

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Date	Sample start time	Ammonia, water, filtered, mg/L as N (00608)		Nitrate plus nitrite, water, filtered, mg/L as N (00631)		Orthophosphate, water, filtered, mg/L as P (00671)		Phosphorus, water, unfiltered, mg/L as P (00665)		Aluminum, water, recoverable, µg/L (01105)		Cadmium, water, unfiltered, µg/L (01027)		Chromium, water, unfiltered, µg/L (01034)	
		Nitrite, water, filtered, mg/L as N (00613)	Nitrate, 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, recoverable, µg/L (01105)	Cadmium, water, unfiltered, µg/L (01027)	Chromium, water, unfiltered, µg/L (01034)							
10-06-2010	1015	.122	.023	.006	< .004	.038	--	--	--	--	--	--	--	--	
10-06-2010	1020	--	--	--	--	--	57	< .05	.23						
10-06-2010	1025	.120	.024	.005	< .004	.037	--	--	--						
10-06-2010	1030	.113	.026	.005	< .004	.037	--	--	--						
12-10-2010	1015	.085	.081	.013	.005	.038	--	--	--						
12-10-2010	1016	.080	.080	.013	.005	.040	--	--	--						
12-10-2010	1020	--	--	--	--	--	--	--	--						
12-10-2010	1021	--	--	--	--	--	--	--	--						
12-10-2010	1025	.073	.085	.014	.005	.039	--	--	--						
12-10-2010	1030	.086	.087	.012	.005	.038	--	--	--						
02-23-2011	1300	< .010	.131	.003	< .004	.045	--	--	--						
02-23-2011	1305	--	--	--	--	--	--	--	--						
02-23-2011	1310	< .010	.115	.003	< .004	.042	--	--	--						
02-23-2011	1315	< .010	.111	.003	< .004	.048	--	--	--						
04-07-2011	0930	.132	.130	.005	< .004	.038	--	--	--						
04-07-2011	0935	--	--	--	--	--	175	< .05	< .21						
04-07-2011	0940	.143	.130	.004	< .004	.045	--	--	--						
04-07-2011	0945	.150	.130	.005	< .004	.045	--	--	--						
06-21-2011	1015	.025	< .008	< .001	< .004	.025	--	--	--						
06-21-2011	1020	--	--	--	--	--	--	--	--						
06-21-2011	1025	.143	.013	.003	< .004	.027	--	--	--						
06-21-2011	1030	.826	< .008	< .001	.135	.334	--	--	--						
08-11-2011	1030	.010	< .008	--	< .004	.047	--	--	--						
08-11-2011	1035	--	--	--	--	--	--	--	--						
08-11-2011	1040	1.73	< .008	--	.270	.429	--	--	--						

0209799150 B. EVERETT JORDAN LAKE ABOVE U.S. HIGHWAY 64 AT WILSONVILLE, 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	Cobalt, water, unfiltered, recoverable, microgram s per liter (01037)	Copper, water, unfiltered, recoverable, µg/L (01042)	Iron, water, unfiltered, recoverable, µg/L (01045)	Lead, water, unfiltered, recoverable, µg/L (01051)	Manga- nese, water, unfiltered, recoverable, µg/L (01055)	Mercury, water, unfiltered, recoverable, µg/L (71900)	Molybdenum, water, unfiltered, recoverable, microgram s per liter (01062)	Nickel, water, unfiltered, recoverable, µg/L (01067)	Silver, water, unfiltered, recoverable, µg/L (01077)
10-06-2010	1015	--	--	--	--	--	--	--	--	--
10-06-2010	1020	.10	<.70	158	.14	137	<.005	1.9	.30	<.01
10-06-2010	1025	--	--	164	--	138	--	--	--	--
10-06-2010	1030	--	--	155	--	130	--	--	--	--
12-10-2010	1015	--	--	--	--	--	--	--	--	--
12-10-2010	1016	--	--	--	--	--	--	--	--	--
12-10-2010	1020	--	--	176	--	108	--	--	--	--
12-10-2010	1021	--	--	178	--	109	--	--	--	--
12-10-2010	1025	--	--	178	--	108	--	--	--	--
12-10-2010	1030	--	--	200	--	114	--	--	--	--
02-23-2011	1300	--	--	--	--	--	--	--	--	--
02-23-2011	1305	--	--	172	--	65.2	--	--	--	--
02-23-2011	1310	--	--	211	--	69.9	--	--	--	--
02-23-2011	1315	--	--	202	--	72.9	--	--	--	--
04-07-2011	0930	--	--	--	--	--	--	--	--	--
04-07-2011	0935	.18	1.0	267	.31	99.0	<.005	1.4	.76	<.01
04-07-2011	0940	--	--	290	--	106	--	--	--	--
04-07-2011	0945	--	--	329	--	122	--	--	--	--
06-21-2011	1015	--	--	--	--	--	--	--	--	--
06-21-2011	1020	--	--	63	--	74.3	--	--	--	--
06-21-2011	1025	--	--	91	--	260	--	--	--	--
06-21-2011	1030	--	--	3,820	--	3,040	--	--	--	--
08-11-2011	1030	--	--	--	--	--	--	--	--	--
08-11-2011	1035	--	--	88	--	111	--	--	--	--
08-11-2011	1040	--	--	3,630	--	3,960	--	--	--	--

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**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	Zinc, water, unfiltered, recover- able, µg/L (01092)	Arsenic, water, unfiltered, µg/L (01002)	Selenium, water, unfiltered, µg/L (01147)	Organic carbon, water, unfiltered, mg/L (00680)
10-06-2010	1015	--	--	--	--
10-06-2010	1020	2.8	.76	.19	7.9
10-06-2010	1025	--	--	--	--
10-06-2010	1030	--	--	--	--
12-10-2010	1015	--	--	--	--
12-10-2010	1016	--	--	--	--
12-10-2010	1020	--	--	--	9.2
12-10-2010	1021	--	--	--	9.0
12-10-2010	1025	--	--	--	--
12-10-2010	1030	--	--	--	--
02-23-2011	1300	--	--	--	--
02-23-2011	1305	--	--	--	8.8
02-23-2011	1310	--	--	--	--
02-23-2011	1315	--	--	--	--
04-07-2011	0930	--	--	--	--
04-07-2011	0935	< 2.4	.71	.16	8.6
04-07-2011	0940	--	--	--	--
04-07-2011	0945	--	--	--	--
06-21-2011	1015	--	--	--	--
06-21-2011	1020	--	--	--	9.2
06-21-2011	1025	--	--	--	--
06-21-2011	1030	--	--	--	--
08-11-2011	1030	--	--	--	--
08-11-2011	1035	--	--	--	10.0
08-11-2011	1040	--	--	--	--