

Water-Data Report 2010

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.

0209799150 B. EVERETT JORDAN LAKE ABOVE U.S. HIGHWAY 64 AT WILSONVILLE, 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)
10-21-2009	1300	Surface water	Regular	--	--	--	--	--	--
10-21-2009	1301	<i>QC sample - Surface water</i>	<i>Replicate</i>	--	--	--	--	--	--
10-21-2009	1302	<i>QC sample - Surface water</i>	<i>Replicate</i>	--	--	--	--	--	--
10-21-2009	1305	Surface water	Regular	768	50	10.3	106	7.7	181
10-21-2009	1310	Surface water	Regular	768	--	7.7	78	7.1	186
10-21-2009	1315	Surface water	Regular	768	--	7.7	78	7.1	187
12-17-2009	1300	Surface water	Regular	--	--	--	--	--	--
12-17-2009	1305	Surface water	Regular	770	70	11.1	95	7.1	163
12-17-2009	1310	Surface water	Regular	770	--	10.9	94	7.1	162
12-17-2009	1315	Surface water	Regular	770	--	10.9	93	6.8	161
02-18-2010	1015	Surface water	Regular	--	--	--	--	--	--
02-18-2010	1020	Surface water	Regular	759	75	12.1	95	7.6	117
02-18-2010	1025	Surface water	Regular	759	--	12.0	94	7.7	116
02-18-2010	1030	Surface water	Regular	759	--	11.9	93	8.0	117
04-14-2010	1315	Surface water	Regular	--	--	--	--	--	--
04-14-2010	1320	Surface water	Regular	773	40	7.9	83	7.1	129
04-14-2010	1325	Surface water	Regular	773	--	7.3	76	6.9	127
04-14-2010	1330	Surface water	Regular	773	--	3.6	35	6.5	126
06-03-2010	1030	Surface water	Regular	--	--	--	--	--	--
06-03-2010	1035	Surface water	Regular	757	25	7.6	94	7.7	147
06-03-2010	1040	Surface water	Regular	757	--	1.1	13	6.9	152
06-03-2010	1045	Surface water	Regular	757	--	.2	2	7.0	162
08-18-2010	0930	Surface water	Regular	--	--	--	--	--	--
08-18-2010	0935	Surface water	Regular	767	25	5.6	74	7.4	161
08-18-2010	0940	Surface water	Regular	767	--	.3	4	6.8	164
08-18-2010	0945	Surface water	Regular	767	--	.2	2	6.9	202

0209799150 B. EVERETT JORDAN LAKE ABOVE U.S. HIGHWAY 64 AT WILSONVILLE, 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)	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)	
10-21-2009	--	.90	--	1.8	--	--	--	--	--	--
10-21-2009	--	.90	--	1.8	--	--	--	--	--	--
10-21-2009	--	.90	--	1.8	--	--	--	--	--	--
10-21-2009	17.1	--	--	1.0	115	31.9	7.88	2.97	3.83	19.5
10-21-2009	16.3	--	--	3.0	--	--	--	--	--	--
10-21-2009	16.2	--	--	7.0	--	--	--	--	--	--
12-17-2009	--	.70	--	1.4	--	--	--	--	--	--
12-17-2009	9.2	--	--	1.0	119	29.2	7.28	2.69	3.90	18.2
12-17-2009	9.1	--	--	2.0	--	--	--	--	--	--
12-17-2009	9.0	--	--	8.0	--	--	--	--	--	--
02-18-2010	--	.70	--	1.4	--	--	--	--	--	--
02-18-2010	4.7	--	--	1.0	90	23.2	5.79	2.12	2.78	11.8
02-18-2010	4.6	--	--	4.0	--	--	--	--	--	--
02-18-2010	4.5	--	--	9.0	--	--	--	--	--	--
04-14-2010	--	.80	--	1.6	--	--	--	--	--	--
04-14-2010	18.6	--	--	1.0	85	24.9	6.32	2.21	2.38	12.9
04-14-2010	18.3	--	--	4.0	--	--	--	--	--	--
04-14-2010	14.8	--	--	8.0	--	--	--	--	--	--
06-03-2010	--	1.10	2.2	2.2	--	--	--	--	--	--
06-03-2010	25.6	--	--	1.0	84	30.4	7.43	2.88	2.79	14.7
06-03-2010	23.4	--	--	6.0	--	--	--	--	--	--
06-03-2010	21.2	--	--	11.0	--	--	--	--	--	--
08-18-2010	--	1.10	2.2	2.2	--	--	--	--	--	--
08-18-2010	30.1	--	--	1.0	95	32.6	8.00	3.07	3.13	17.7
08-18-2010	29.3	--	--	4.0	--	--	--	--	--	--
08-18-2010	26.3	--	--	8.0	--	--	--	--	--	--

0209799150 B. EVERETT JORDAN LAKE ABOVE U.S. HIGHWAY 64 AT WILSONVILLE, 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	ANC, water, unfiltered, inflection- point, incremental titration method, field, mg/L as CaCO ₃ (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 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)
10-21-2009	--	--	--	--	--	--	.80	.079	.126
10-21-2009	--	--	--	--	--	--	--	--	--
10-21-2009	--	--	--	--	--	--	--	--	--
10-21-2009	40.0	48.8	17.1	.20	4.71	17.5	--	--	--
10-21-2009	--	--	--	--	--	--	.76	.080	.129
10-21-2009	--	--	--	--	--	--	.82	.089	.124
12-17-2009	--	--	--	--	--	--	.84	.039	.309
12-17-2009	31.7	38.7	15.8	.18	5.44	18.8	--	--	--
12-17-2009	--	--	--	--	--	--	.76	.039	.314
12-17-2009	--	--	--	--	--	--	.77	.039	.311
02-18-2010	--	--	--	--	--	--	.62	< .020	.408
02-18-2010	18.5	22.6	13.3	.09	6.75	12.7	--	--	--
02-18-2010	--	--	--	--	--	--	.61	< .020	.404
02-18-2010	--	--	--	--	--	--	.61	< .020	.398
04-14-2010	--	--	--	--	--	--	.56	.079	.221
04-14-2010	20.8	25.4	15.3	.10	2.07	12.3	--	--	--
04-14-2010	--	--	--	--	--	--	.58	.076	.228
04-14-2010	--	--	--	--	--	--	.64	.208	.260
06-03-2010	--	--	--	--	--	--	.62	.025	.106
06-03-2010	28.1	34.3	15.6	.15	2.14	12.8	--	--	--
06-03-2010	--	--	--	--	--	--	.58	.075	.172
06-03-2010	--	--	--	--	--	--	1.2	.455	.017
08-18-2010	--	--	--	--	--	--	.62	E .013	E .009
08-18-2010	31.1	38.0	16.9	.18	3.31	12.4	--	--	--
08-18-2010	--	--	--	--	--	--	.99	.410	< .016
08-18-2010	--	--	--	--	--	--	2.7	1.97	< .016

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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	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)
10-21-2009	E .002	< .008	.045	30.1	13.8	--	--	--	--
10-21-2009	--	--	--	26.0	13.7	--	--	--	--
10-21-2009	--	--	--	24.8	13.3	--	--	--	--
10-21-2009	--	--	--	--	--	62	< .04	< .42	.12
10-21-2009	E .002	< .008	.049	--	--	--	--	--	--
10-21-2009	E .002	< .008	.055	--	--	--	--	--	--
12-17-2009	.011	E .005	.056	12.1	12.0	--	--	--	--
12-17-2009	--	--	--	--	--	--	--	--	--
12-17-2009	.010	E .005	.055	--	--	--	--	--	--
12-17-2009	.011	E .005	.056	--	--	--	--	--	--
02-18-2010	.003	E .007	.056	18.5	10.3	--	--	--	--
02-18-2010	--	--	--	--	--	--	--	--	--
02-18-2010	.003	< .008	.059	--	--	--	--	--	--
02-18-2010	.003	E .007	.057	--	--	--	--	--	--
04-14-2010	.005	< .008	.041	7.2	E 3.7	--	--	--	--
04-14-2010	--	--	--	--	--	167	< .04	E .28	.17
04-14-2010	.005	< .008	.042	--	--	--	--	--	--
04-14-2010	.007	E .008	.046	--	--	--	--	--	--
06-03-2010	.007	< .008	.035	9.5	E 4.0	--	--	--	--
06-03-2010	--	--	--	--	--	--	--	--	--
06-03-2010	.006	< .008	.033	--	--	--	--	--	--
06-03-2010	.003	.016	.123	--	--	--	--	--	--
08-18-2010	.002	E .004	.032	17.9	6.6	--	--	--	--
08-18-2010	--	--	--	--	--	--	--	--	--
08-18-2010	< .002	E .005	.049	--	--	--	--	--	--
08-18-2010	E .001	.246	.348	--	--	--	--	--	--

0209799150 B. EVERETT JORDAN LAKE ABOVE U.S. HIGHWAY 64 AT WILSONVILLE, 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; μS/cm, microsiemens per centimeter; μg/L, micrograms per liter; <, less than; E, estimated]

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)
10-21-2009	--	--	--	--	--	--	--	--	--	--
10-21-2009	--	--	--	--	--	--	--	--	--	--
10-21-2009	--	--	--	--	--	--	--	--	--	--
10-21-2009	< 1.4	174	.17	135	< .010	2.6	.54	< .02	< 2.0	.75
10-21-2009	--	228	--	171	--	--	--	--	--	--
10-21-2009	--	305	--	218	--	--	--	--	--	--
12-17-2009	--	--	--	--	--	--	--	--	--	--
12-17-2009	--	274	--	88.1	--	--	--	--	--	--
12-17-2009	--	289	--	89.4	--	--	--	--	--	--
12-17-2009	--	308	--	96.0	--	--	--	--	--	--
02-18-2010	--	--	--	--	--	--	--	--	--	--
02-18-2010	--	386	--	42.1	--	--	--	--	--	--
02-18-2010	--	378	--	41.6	--	--	--	--	--	--
02-18-2010	--	374	--	41.5	--	--	--	--	--	--
04-14-2010	--	--	--	--	--	--	--	--	--	--
04-14-2010	1.6	332	.36	64.5	E .010	.8	.79	< .02	E 1.4	.39
04-14-2010	--	340	--	62.1	--	--	--	--	--	--
04-14-2010	--	442	--	238	--	--	--	--	--	--
06-03-2010	--	--	--	--	--	--	--	--	--	--
06-03-2010	--	116	--	68.2	--	--	--	--	--	--
06-03-2010	--	174	--	140	--	--	--	--	--	--
06-03-2010	--	1,400	--	2,200	--	--	--	--	--	--
08-18-2010	--	--	--	--	--	--	--	--	--	--
08-18-2010	--	63	--	83.8	--	--	--	--	--	--
08-18-2010	--	413	--	1,830	--	--	--	--	--	--
08-18-2010	--	4,900	--	4,280	--	--	--	--	--	--

0209799150 B. EVERETT JORDAN LAKE ABOVE U.S. HIGHWAY 64 AT WILSONVILLE, 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	Selenium, water, unfiltered, μg/L (01147)	Organic carbon, water, unfiltered, mg/L (00680)
10-21-2009	--	--
10-21-2009	--	--
10-21-2009	--	--
10-21-2009	.19	7.9
10-21-2009	--	--
10-21-2009	--	--
12-17-2009	--	--
12-17-2009	--	9.2
12-17-2009	--	--
12-17-2009	--	--
02-18-2010	--	--
02-18-2010	--	9.2
02-18-2010	--	--
02-18-2010	--	--
04-14-2010	--	--
04-14-2010	.14	8.1
04-14-2010	--	--
04-14-2010	--	--
06-03-2010	--	--
06-03-2010	--	7.1
06-03-2010	--	--
06-03-2010	--	--
08-18-2010	--	--
08-18-2010	--	7.1
08-18-2010	--	--
08-18-2010	--	--