

Water-Data Report 2010

0209699999 B. EVERETT JORDAN LAKE, HAW RIVER ARM NEAR HANKS CHAPEL, NC

Cape Fear Basin
Haw Subbasin

LOCATION.--Lat 35°42'19", long 79°05'04" referenced to North American Datum of 1983, Chatham County, NC, Hydrologic Unit 03030002, 2.2 mi below bridge on U.S. Highway 64, and 2.2 mi east of Hanks Chapel.

DRAINAGE AREA.--1,303 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1991 to current year. Prior to October 1993, published as "Haw River at U.S. Highway 64 near Pittsboro, NC" (station 0209699980). October 1993 to September 2006, published as "B. Everett Jordan Lake, Haw River arm, above B. Everett Jordan dam" (station 0209719700).

REMARKS.--Station operated to define water quality as part of a regional surface-water quality assessment. Samples for nutrient, pheophytin *a* and chlorophyll *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.

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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	0915	Surface water	Regular	--	--	--	--	--	--	--
10-21-2009	0920	Surface water	Regular	767	20	11.7	121	8.2	272	17.1
10-21-2009	0925	Surface water	Regular	767	--	12.1	125	8.3	285	17.0
10-21-2009	0930	Surface water	Regular	767	--	11.3	112	7.8	406	15.1
12-17-2009	0945	Surface water	Regular	--	--	--	--	--	--	--
12-17-2009	0950	Surface water	Regular	770	125	13.2	106	6.9	95	6.5
12-17-2009	0955	Surface water	Regular	770	--	13.2	106	6.8	96	6.5
12-17-2009	1000	Surface water	Regular	770	--	13.1	106	6.7	95	6.5
02-23-2010	1315	Surface water	Regular	--	--	--	--	--	--	--
02-23-2010	1320	Surface water	Regular	755	75	11.8	98	7.7	153	6.9
02-23-2010	1325	Surface water	Regular	755	--	11.7	96	7.8	153	6.6
02-23-2010	1330	Surface water	Regular	755	--	11.7	96	7.8	153	6.6
04-13-2010	1300	Surface water	Regular	--	--	--	--	--	--	--
04-13-2010	1305	Surface water	Regular	769	50	9.0	98	7.9	160	19.8
04-13-2010	1310	Surface water	Regular	769	--	8.5	89	7.3	134	17.9
04-13-2010	1315	Surface water	Regular	769	--	8.4	88	7.3	132	17.8
06-02-2010	1300	Surface water	Regular	--	--	--	--	--	--	--
06-02-2010	1305	Surface water	Regular	758	80	8.5	106	7.7	106	26.1
06-02-2010	1310	Surface water	Regular	759	--	8.0	99	7.5	103	25.6
06-02-2010	1315	Surface water	Regular	758	--	7.6	92	7.4	101	25.0
08-17-2010	1215	Surface water	Regular	--	--	--	--	--	--	--
08-17-2010	1220	Surface water	Regular	763	30	12.4	169	9.1	305	31.6
08-17-2010	1225	Surface water	Regular	763	--	9.8	131	8.9	343	31.0
08-17-2010	1230	Surface water	Regular	763	--	6.3	84	7.9	369	30.0

0209699999 B. EVERETT JORDAN LAKE, HAW RIVER ARM NEAR HANKS CHAPEL, 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	.80	--	1.6	--	--	--	--	--	--	--	--
10-21-2009	--	--	1.0	156	37.4	9.24	3.49	5.21	37.7	49.7	--
10-21-2009	--	--	2.0	--	--	--	--	--	--	--	--
10-21-2009	--	--	3.0	--	--	--	--	--	--	--	--
12-17-2009	.50	--	1.0	--	--	--	--	--	--	--	--
12-17-2009	--	--	1.0	81	26.3	6.23	2.60	2.43	6.84	21.6	--
12-17-2009	--	--	2.0	--	--	--	--	--	--	--	--
12-17-2009	--	--	4.0	--	--	--	--	--	--	--	--
02-23-2010	.70	--	1.4	--	--	--	--	--	--	--	--
02-23-2010	--	--	1.0	98	30.9	7.60	2.89	2.40	16.8	23.9	--
02-23-2010	--	--	2.0	--	--	--	--	--	--	--	--
02-23-2010	--	--	3.0	--	--	--	--	--	--	--	--
04-13-2010	.80	--	1.6	--	--	--	--	--	--	--	--
04-13-2010	--	--	1.0	102	33.7	8.38	3.10	2.93	15.6	31.3	--
04-13-2010	--	--	2.0	--	--	--	--	--	--	--	--
04-13-2010	--	--	4.0	--	--	--	--	--	--	--	--
06-02-2010	.50	1.0	1.0	--	--	--	--	--	--	--	--
06-02-2010	--	--	1.0	77	28.2	6.57	2.85	2.51	9.10	24.3	--
06-02-2010	--	--	2.0	--	--	--	--	--	--	--	--
06-02-2010	--	--	3.0	--	--	--	--	--	--	--	--
08-17-2010	.60	1.2	1.2	--	--	--	--	--	--	--	--
08-17-2010	--	--	1.0	187	38.8	9.42	3.70	5.27	41.8	46.1	--
08-17-2010	--	--	2.0	--	--	--	--	--	--	--	--
08-17-2010	--	--	3.0	--	--	--	--	--	--	--	--

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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	--	--	--	--	--	.88	E .015	.511	.004
10-21-2009	58.9	29.9	.27	3.77	25.5	--	--	--	--
10-21-2009	--	--	--	--	--	.83	E .014	.549	.005
10-21-2009	--	--	--	--	--	.78	E .011	.988	.005
12-17-2009	--	--	--	--	--	.55	.051	.588	.006
12-17-2009	26.4	7.32	E .06	12.3	9.50	--	--	--	--
12-17-2009	--	--	--	--	--	.54	.046	.592	.006
12-17-2009	--	--	--	--	--	.54	.047	.585	.006
02-23-2010	--	--	--	--	--	.37	.037	.930	.010
02-23-2010	29.1	20.0	.09	13.3	13.0	--	--	--	--
02-23-2010	--	--	--	--	--	.39	.037	.930	.010
02-23-2010	--	--	--	--	--	.41	.042	.931	.009
04-13-2010	--	--	--	--	--	.55	< .020	.477	.005
04-13-2010	38.2	15.9	.13	6.21	13.8	--	--	--	--
04-13-2010	--	--	--	--	--	.46	< .020	.178	.004
04-13-2010	--	--	--	--	--	.43	< .020	.292	.003
06-02-2010	--	--	--	--	--	.71	< .020	.429	.010
06-02-2010	29.6	8.41	.14	9.93	7.83	--	--	--	--
06-02-2010	--	--	--	--	--	.57	.030	.477	.008
06-02-2010	--	--	--	--	--	.55	.040	.485	.009
08-17-2010	--	--	--	--	--	1.2	< .020	.765	.015
08-17-2010	49.1	32.7	.26	5.57	29.8	--	--	--	--
08-17-2010	--	--	--	--	--	1.0	< .020	.957	.015
08-17-2010	--	--	--	--	--	.80	.081	2.18	.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	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	E .005	.073	36.5	15.1	--	--	--	--	--
10-21-2009	--	--	--	--	71	E .03	E .23	.44	E 1.3
10-21-2009	E .005	.069	--	--	--	--	--	--	--
10-21-2009	.013	.080	--	--	--	--	--	--	--
12-17-2009	.022	.080	E .8	E 1.2	--	--	--	--	--
12-17-2009	--	--	--	--	--	--	--	--	--
12-17-2009	.022	.084	--	--	--	--	--	--	--
12-17-2009	.023	.084	--	--	--	--	--	--	--
02-23-2010	.017	.064	E 2.1	E .9	--	--	--	--	--
02-23-2010	--	--	--	--	--	--	--	--	--
02-23-2010	.019	.064	--	--	--	--	--	--	--
02-23-2010	.017	.064	--	--	--	--	--	--	--
04-13-2010	.012	.070	13.4	6.3	--	--	--	--	--
04-13-2010	--	--	--	--	214	< .04	.78	.48	3.8
04-13-2010	.012	.064	--	--	--	--	--	--	--
04-13-2010	.012	.059	--	--	--	--	--	--	--
06-02-2010	.026	.126	16.4	7.7	--	--	--	--	--
06-02-2010	--	--	--	--	--	--	--	--	--
06-02-2010	.043	.124	--	--	--	--	--	--	--
06-02-2010	.043	.127	--	--	--	--	--	--	--
08-17-2010	E .006	.115	54.9	20.0	--	--	--	--	--
08-17-2010	--	--	--	--	--	--	--	--	--
08-17-2010	E .006	.104	--	--	--	--	--	--	--
08-17-2010	.040	.116	--	--	--	--	--	--	--

0209699999 B. EVERETT JORDAN LAKE, HAW RIVER ARM NEAR HANKS CHAPEL, 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	Iron,	Lead,	Manganes	Mercury,	Molybdenu	Nickel,	Silver,	Zinc,	Arsenic,	Selenium,
	water, unfiltered, recover- able, μg/L (01045)	water, unfiltered, recover- able, μg/L (01051)	e, water, unfiltered, recover- able, μg/L (01055)	water, unfiltered, recover- able, μg/L (71900)	m, water, unfiltered, recoverabl e, microgram s per liter (01062)	water, unfiltered, recover- able, μg/L (01067)	water, unfiltered, recover- able, μg/L (01077)	water, unfiltered, recover- able, μg/L (01092)	water, unfiltered, μg/L (01002)	water, unfiltered, μg/L (01147)
10-21-2009	--	--	--	--	--	--	--	--	--	--
10-21-2009	188	.21	64.5	E .008	2.6	1.5	< .02	4.2	.67	.18
10-21-2009	199	--	63.1	--	--	--	--	--	--	--
10-21-2009	277	--	61.6	--	--	--	--	--	--	--
12-17-2009	--	--	--	--	--	--	--	--	--	--
12-17-2009	862	--	46.6	--	--	--	--	--	--	--
12-17-2009	864	--	47.3	--	--	--	--	--	--	--
12-17-2009	847	--	42.1	--	--	--	--	--	--	--
02-23-2010	--	--	--	--	--	--	--	--	--	--
02-23-2010	714	--	36.0	--	--	--	--	--	--	--
02-23-2010	734	--	44.5	--	--	--	--	--	--	--
02-23-2010	739	--	44.6	--	--	--	--	--	--	--
04-13-2010	--	--	--	--	--	--	--	--	--	--
04-13-2010	651	.78	98.8	.018	.9	1.1	< .02	6.8	.47	.16
04-13-2010	629	--	72.8	--	--	--	--	--	--	--
04-13-2010	656	--	57.5	--	--	--	--	--	--	--
06-02-2010	--	--	--	--	--	--	--	--	--	--
06-02-2010	748	--	121	--	--	--	--	--	--	--
06-02-2010	984	--	121	--	--	--	--	--	--	--
06-02-2010	1,090	--	145	--	--	--	--	--	--	--
08-17-2010	--	--	--	--	--	--	--	--	--	--
08-17-2010	183	--	44.5	--	--	--	--	--	--	--
08-17-2010	195	--	44.8	--	--	--	--	--	--	--
08-17-2010	347	--	80.8	--	--	--	--	--	--	--

**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	7.5
10-21-2009	--
10-21-2009	--
12-17-2009	--
12-17-2009	7.4
12-17-2009	--
12-17-2009	--
02-23-2010	--
02-23-2010	4.7
02-23-2010	--
02-23-2010	--
04-13-2010	--
04-13-2010	6.1
04-13-2010	--
04-13-2010	--
06-02-2010	--
06-02-2010	8.0
06-02-2010	--
06-02-2010	--
08-17-2010	--
08-17-2010	8.1
08-17-2010	--
08-17-2010	--