Water-Data Report 2013

0209791010 B. EVERETT JORDAN LAKE, WHITE OAK CREEK ARM BELOW STATE ROAD 1008 AT BELLS, NC

Cape Fear Basin
Haw Subbasin

LOCATION.--Lat 35°44′56″, long 79°00′34″ referenced to North American Datum of 1983, Chatham County, NC, Hydrologic Unit 03030002, 1.25 mi upstream from U.S. Highway 64, 800 ft downstream from State Road 1008, at Bells.

DRAINAGE AREA.--26.57 mi^2.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 2012 to October 2013.

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.

0209791010 B. EVERETT JORDAN LAKE, WHITE OAK CREEK ARM BELOW STATE ROAD 1008 AT BELLS, NC—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Part 1 of 6

[%, 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)
10-11-2012	**1020**	Surface water	Regular	--	--	--	--	--
10-11-2012	**1025**	Surface water	Regular	764	7.8	86	7.5	193
10-11-2012	**1030**	Surface water	Regular	764	6.0	65	7.2	181
10-24-2012	**1040**	Surface water	Regular	--	--	--	--	--
10-24-2012	**1045**	Surface water	Regular	761	9.7	105	8.2	192
10-24-2012	**1050**	Surface water	Regular	761	6.0	64	7.4	193
11-07-2012	**1030**	Surface water	Regular	--	--	--	--	--
11-07-2012	**1035**	Surface water	Regular	752	9.4	91	7.6	192
11-07-2012	**1040**	Surface water	Regular	752	9.8	94	7.7	190
04-03-2013	**1015**	Surface water	Regular	--	--	--	--	--
04-03-2013	**1020**	Surface water	Regular	762	12.6	119	8.6	169
04-03-2013	**1025**	Surface water	Regular	762	9.2	83	8.0	176
04-16-2013	**1025**	Surface water	Regular	--	--	--	--	--
04-16-2013	**1030**	Surface water	Regular	763	10.9	116	8.8	182
04-16-2013	**1035**	Surface water	Regular	763	4.0	39	7.7	180
04-30-2013	**1020**	Surface water	Regular	--	--	--	--	--
04-30-2013	**1025**	Surface water	Regular	758	7.7	83	7.3	180
04-30-2013	**1030**	Surface water	Regular	758	.8	8	7.2	194
05-14-2013	**1045**	Surface water	Regular	--	--	--	--	--
05-14-2013	**1050**	Surface water	Regular	763	10.0	111	8.2	180
05-14-2013	**1055**	Surface water	Regular	763	.9	9	7.0	175
05-28-2013	**1340**	Surface water	Regular	--	--	--	--	--
05-28-2013	**1345**	Surface water	Regular	764	10.4	125	8.8	174
05-28-2013	**1350**	Surface water	Regular	764	.4	4	7.2	185
06-11-2013	**1100**	Surface water	Regular	--	--	--	--	--
06-11-2013	**1105**	Surface water	Regular	755	7.0	85	7.4	168
06-11-2013	**1110**	Surface water	Regular	755	3.1	37	7.1	159
06-25-2013	**1200**	Surface water	Regular	--	--	--	--	--
06-25-2013	**1205**	Surface water	Regular	760	8.4	107	8.2	157
06-25-2013	**1210**	Surface water	Regular	760	.4	5	7.0	167
07-09-2013	**1200**	Surface water	Regular	--	--	--	--	--
07-09-2013	**1205**	Surface water	Regular	761	8.9	116	8.5	141
07-09-2013	**1210**	Surface water	Regular	761	.3	4	6.9	124
07-23-2013	**1230**	Surface water	Regular	--	--	--	--	--
07-23-2013	**1235**	Surface water	Regular	753	7.5	100	7.5	129
07-23-2013	**1240**	Surface water	Regular	753	.3	4	6.7	143
07-29-2013	***1050***	*QC sample - Surface water*	*Other QA*	*759*	*7.7*	*100*	*7.4*	*128*
08-06-2013	**1125**	Surface water	Regular	--	--	--	--	--
08-06-2013	**1130**	Surface water	Regular	767	7.6	97	7.3	129
08-06-2013	**1135**	Surface water	Regular	767	.4	4	6.8	143

0209791010 B. EVERETT JORDAN LAKE, WHITE OAK CREEK ARM BELOW STATE ROAD 1008 AT BELLS, NC—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
Part 2 of 6

[%, 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	Tempera-ture, water, °C (00010)	Trans-parency, water, in situ, Secchi disc, m (00078)	Turbidity, water, unfiltered, broad band light source (400-680 nm), detectors at multiple angles including 90 +/- 30 degrees, ratiometric correction, NTRU (63676)	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)
10-11-2012	**1020**	--	0.70	--	1.4	1.4	0.88	0.038	0.01
10-11-2012	**1025**	20.5	--	7.2	--	1.0	--	--	--
10-11-2012	**1030**	19.7	--	--	--	6.0	.93	< .010	< .01
10-24-2012	**1040**	--	.70	--	1.5	1.4	.78	.050	< .01
10-24-2012	**1045**	19.3	--	6.4	--	1.0	--	--	--
10-24-2012	**1050**	18.8	--	--	--	6.0	.87	.080	< .01
11-07-2012	**1030**	--	.60	--	1.1	1.2	.90	< .010	< .01
11-07-2012	**1035**	13.3	--	7.3	--	1.0	--	--	--
11-07-2012	**1040**	12.8	--	--	--	6.0	.80	< .010	< .01
04-03-2013	**1015**	--	.70	--	1.9	1.4	2.7	.014	< .01
04-03-2013	**1020**	12.9	--	12	--	1.0	--	--	--
04-03-2013	**1025**	10.8	--	--	--	6.0	.95	.018	.04
04-16-2013	**1025**	--	.60	--	1.6	1.2	1.1	< .010	< .01
04-16-2013	**1030**	18.6	--	8.8	--	1.0	--	--	--
04-16-2013	**1035**	13.9	--	--	--	6.0	.97	.051	< .01
04-30-2013	**1020**	--	1.10	--	2.7	2.2	.77	.110	.02
04-30-2013	**1025**	18.8	--	4.6	--	1.0	--	--	--
04-30-2013	**1030**	16.1	--	--	--	7.0	1.0	.353	.02
05-14-2013	**1045**	--	1.00	--	2.6	2.0	.80	.038	.04
05-14-2013	**1050**	20.6	--	4.4	--	1.0	--	--	--
05-14-2013	**1055**	17.5	--	--	--	6.0	.83	.131	.04
05-28-2013	**1340**	--	.80	--	2.2	1.6	.78	< .010	< .01
05-28-2013	**1345**	24.9	--	5.7	--	1.0	--	--	--
05-28-2013	**1350**	20.7	--	--	--	6.0	.72	.145	.06
06-11-2013	**1100**	--	1.10	--	2.4	2.2	.68	< .010	< .01
06-11-2013	**1105**	25.3	--	5.8	--	1.0	--	--	--
06-11-2013	**1110**	24.6	--	--	--	7.0	.74	.055	.01
06-25-2013	**1200**	--	.60	--	2.3	1.2	.77	< .010	< .01
06-25-2013	**1205**	27.8	--	5.3	--	1.0	--	--	--
06-25-2013	**1210**	25.2	--	--	--	6.0	.89	.143	< .01
07-09-2013	**1200**	--	.70	--	2.3	1.4	.77	.010	< .01
07-09-2013	**1205**	28.8	--	6.3	--	1.0	--	--	--
07-09-2013	**1210**	25.3	--	--	--	8.0	1.1	.386	< .01
07-23-2013	**1230**	--	.70	--	1.4	1.4	.70	< .010	< .01
07-23-2013	**1235**	29.5	--	5.8	--	1.0	--	--	--
07-23-2013	**1240**	26.8	--	--	--	6.0	.82	.098	< .01
07-29-2013	***1050***	*29.0*	--	--	--	*.20*	--	--	--
08-06-2013	**1125**	--	1.00	--	2.3	2.0	.63	< .010	< .01
08-06-2013	**1130**	28.6	--	4.8	--	1.0	--	--	--
08-06-2013	**1135**	27.3	--	--	--	6.0	.70	.101	< .01

0209791010 B. EVERETT JORDAN LAKE, WHITE OAK CREEK ARM BELOW STATE ROAD 1008 AT BELLS, NC—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
Part 3 of 6

[%, 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	Orthophosphate, water, filtered, mg/L as P (00671)	Phosphorus, water, unfiltered, mg/L as P (00665)	Chlorophyll a, phytoplankton, chromatographic-fluorometric 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	**1020**	< .004	0.041	34.0	--	--	--	--
10-11-2012	**1025**	--	--	--	< 4.0	147	.80	121
10-11-2012	**1030**	< .004	.046	--	14.5	303	25.7	162
10-24-2012	**1040**	< .004	.037	33.7	--	--	--	--
10-24-2012	**1045**	--	--	--	< 4.0	116	1.13	109
10-24-2012	**1050**	< .004	.056	--	12.4	315	98.8	276
11-07-2012	**1030**	< .004	.044	33.5	--	--	--	--
11-07-2012	**1035**	--	--	--	4.9	184	1.20	112
11-07-2012	**1040**	< .004	.044	--	< 4.0	186	1.17	110
04-03-2013	**1015**	< .004	.045	29.7	--	--	--	--
04-03-2013	**1020**	--	--	--	33.3	170	2.77	57.9
04-03-2013	**1025**	< .004	.054	--	23.1	181	3.00	91.7
04-16-2013	**1025**	< .004	.044	32.5	--	--	--	--
04-16-2013	**1030**	--	--	--	19.7	83.8	2.65	37.0
04-16-2013	**1035**	< .004	.057	--	25.7	205	34.4	143
04-30-2013	**1020**	< .004	.034	12.5	--	--	--	--
04-30-2013	**1025**	--	--	--	8.4	81.2	.75	60.2
04-30-2013	**1030**	< .004	.044	--	19.1	216	395	579
05-14-2013	**1045**	< .004	.039	15.7	--	--	--	--
05-14-2013	**1050**	--	--	--	16.6	141	.79	74.9
05-14-2013	**1055**	< .004	.042	--	28.4	216	2.00	164
05-28-2013	**1340**	< .004	.039	12.5	--	--	--	--
05-28-2013	**1345**	--	--	--	15.2	112	.83	80.3
05-28-2013	**1350**	< .004	.036	--	11.6	177	72.1	318
06-11-2013	**1100**	< .004	.042	19.9	--	--	--	--
06-11-2013	**1105**	--	--	--	24.7	107	.63	110
06-11-2013	**1110**	< .004	.059	--	246	642	222	386
06-25-2013	**1200**	< .004	.043	18.8	--	--	--	--
06-25-2013	**1205**	--	--	--	23.5	123	.77	75.1
06-25-2013	**1210**	< .004	.059	--	233	760	859	775
07-09-2013	**1200**	< .004	.051	20.5	--	--	--	--
07-09-2013	**1205**	--	--	--	24.2	99.5	1.25	45.3
07-09-2013	**1210**	.008	.073	--	442	953	1,350	1,350
07-23-2013	**1230**	< .004	.047	27.1	--	--	--	--
07-23-2013	**1235**	--	--	--	47.4	145	1.56	93.9
07-23-2013	**1240**	< .004	.064	--	88.4	745	908	931
07-29-2013	***1050***	--	--	*21.3*	--	--	--	--
08-06-2013	**1125**	< .004	.037	19.0	--	--	--	--
08-06-2013	**1130**	--	--	--	11.0	83.9	.62	67.6
08-06-2013	**1135**	< .004	.049	--	33.3	164	544	629

0209791010 B. EVERETT JORDAN LAKE, WHITE OAK CREEK ARM BELOW STATE ROAD 1008 AT BELLS, NC—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
Part 4 of 6

[%, 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)
08-20-2013	**1100**	Surface water	Regular	--	--	--	--	--
08-20-2013	**1105**	Surface water	Regular	770	5.6	68	7.2	123
08-20-2013	**1110**	Surface water	Regular	770	3.0	36	6.9	124
09-03-2013	**1125**	Surface water	Regular	--	--	--	--	--
09-03-2013	**1130**	Surface water	Regular	763	8.8	112	8.4	134
09-03-2013	**1135**	Surface water	Regular	763	.3	4	6.8	140
09-17-2013	**1200**	Surface water	Regular	--	--	--	--	--
09-17-2013	**1205**	Surface water	Regular	772	5.9	72	7.3	129
09-17-2013	**1210**	Surface water	Regular	772	2.9	35	7.0	133

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
Part 5 of 6

[%, 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	Temperature, water, °C (00010)	Transparency, water, in situ, Secchi disc, m (00078)	Turbidity, water, unfiltered, broad band light source (400-680 nm), detectors at multiple angles including 90 +/- 30 degrees, ratiometric correction, NTRU (63676)	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)
08-20-2013	**1100**	--	0.90	--	2.3	1.8	0.89	0.080	< .01
08-20-2013	**1105**	26.2	--	5.1	--	1.0	--	--	--
08-20-2013	**1110**	25.9	--	--	--	6.0	.78	.121	< .01
09-03-2013	**1125**	--	.80	--	2.0	1.6	.74	< .010	< .01
09-03-2013	**1130**	27.9	--	5.5	--	1.0	--	--	--
09-03-2013	**1135**	25.9	--	--	--	6.0	.91	.231	< .01
09-17-2013	**1200**	--	.90	--	1.9	1.8	.83	.060	< .01
09-17-2013	**1205**	26.0	--	5.9	--	1.0	--	--	--
09-17-2013	**1210**	25.7	--	--	--	6.0	1.1	.254	< .01

0209791010 B. EVERETT JORDAN LAKE, WHITE OAK CREEK ARM BELOW STATE ROAD 1008 AT BELLS, NC—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
Part 6 of 6
[%, 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	Orthophosphate, water, filtered, mg/L as P (00671)	Phosphorus, water, unfiltered, mg/L as P (00665)	Chlorophyll a, phytoplankton, chromatographic-fluorometric 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)
08-20-2013	**1100**	< .004	0.043	33.5	--	--	--	--
08-20-2013	**1105**	--	--	--	8.9	136	.65	152
08-20-2013	**1110**	< .004	.034	--	11.9	145	.70	172
09-03-2013	**1125**	< .004	.042	27.7	--	--	--	--
09-03-2013	**1130**	--	--	--	< 4.0	94.5	.92	65.5
09-03-2013	**1135**	< .004	.048	--	23.4	182	431	493
09-17-2013	**1200**	< .004	.042	28.8	--	--	--	--
09-17-2013	**1205**	--	--	--	6.8	123	.72	162
09-17-2013	**1210**	< .004	.063	--	16.5	318	341	710

WATER-QUALITY DATA
WATER YEAR OCTOBER 2013 TO SEPTEMBER 2014
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)
10-22-2013	**1045**	Surface water	Regular	--	--	--	--	--	--
10-22-2013	**1050**	Surface water	Regular	763	8.7	94	7.5	143	19.2
10-22-2013	**1055**	Surface water	Regular	763	8.3	90	7.5	143	19.2
10-30-2013	**1040**	Surface water	Regular	--	--	--	--	--	--
10-30-2013	**1045**	Surface water	Regular	771	11.0	112	8.6	143	16.9
10-30-2013	**1050**	Surface water	Regular	771	9.4	95	7.9	142	16.5

0209791010 B. EVERETT JORDAN LAKE, WHITE OAK CREEK ARM BELOW STATE ROAD 1008 AT BELLS, NC—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2013 TO SEPTEMBER 2014
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	Trans-parency, water, in situ, Secchi disc, m (00078)	Turbidity, water, unfiltered, broad band light source (400-680 nm), detectors at multiple angles including 90 +/- 30 degrees, ratiometric correction, NTRU (63676)	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)
10-22-2013	**1045**	0.60	--	1.8	1.2	0.78	< .010	0.10	< .004
10-22-2013	**1050**	--	7.2	--	1.0	--	--	--	--
10-22-2013	**1055**	--	--	--	5.0	.79	< .010	.09	< .004
10-30-2013	**1040**	.70	--	2.0	1.4	.80	< .010	< .01	< .004
10-30-2013	**1045**	--	6.0	--	1.0	--	--	--	--
10-30-2013	**1050**	--	--	--	5.0	.81	< .010	.01	< .004

WATER-QUALITY DATA
WATER YEAR OCTOBER 2013 TO SEPTEMBER 2014
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, recover-able, µg/L (01045)	Manga-nese, water, filtered, µg/L (01056)	Manga-nese, water, unfiltered, recover-able, µg/L (01055)
10-22-2013	**1045**	0.042	31.4	--	--	--	--
10-22-2013	**1050**	--	--	214	209	137	137
10-22-2013	**1055**	.044	--	8.1	7.1	.82	.74
10-30-2013	**1040**	.038	35.4	--	--	--	--
10-30-2013	**1045**	--	--	6.0	115	.34	78.6
10-30-2013	**1050**	.037	--	39.7	183	.85	120