

## Water-Data Report 2012

**0209684980 CANE CREEK RESERVOIR AT DAM NEAR WHITE CROSS, NC**

 Cape Fear Basin  
 Haw Subbasin

LOCATION.--Lat 35°57'00", long 79°14'28" referenced to North American Datum of 1983, Orange County, NC, Hydrologic Unit 03030002, above dam, 0.7 mi above North Carolina Highway 54, and 3.6 mi northwest of White Cross.

DRAINAGE AREA.--31.4 mi<sup>2</sup>.

**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--Water years 1989 to current year.

REMARKS.--Station operated to define water quality as part of a regional surface-water quality assessment. 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 October 1, 2005, samples for chlorophyll were analyzed using a high-performance liquid chromatography method.

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

Part 1 of 6

[%, percent; ANC, acid neutralizing capacity; CaCO<sub>3</sub>, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO<sub>2</sub>, silicon dioxide; 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; M, presence verified but not quantified]

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)
10-19-2011	1145	Surface water	Regular	--	--	--	--	--	--
10-19-2011	1150	Surface water	Regular	742	8.6	96	7.5	77	19.7
10-19-2011	1155	Surface water	Regular	742	.1	.0	7.0	152	11.0
04-10-2012	0930	Surface water	Regular	--	--	--	--	--	--
04-10-2012	0935	Surface water	Regular	748	9.8	105	7.8	77	18.0
04-10-2012	0940	Surface water	Regular	748	.6	6	6.4	85	9.6
06-11-2012	0930	Surface water	Regular	--	--	--	--	--	--
06-11-2012	0935	Surface water	Regular	756	8.0	99	7.5	78	25.8
06-11-2012	0940	Surface water	Regular	756	M	.0	6.8	109	10.2
08-06-2012	1030	Surface water	Regular	--	--	--	--	--	--
08-06-2012	1035	Surface water	Regular	754	8.1	106	8.4	73	29.4
08-06-2012	1040	Surface water	Regular	754	.1	.0	7.1	115	10.5

**0209684980 CANE CREEK RESERVOIR AT DAM NEAR WHITE CROSS, NC—Continued**

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

Part 2 of 6

[%, percent; ANC, acid neutralizing capacity; CaCO<sub>3</sub>, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO<sub>2</sub>, silicon dioxide; 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; M, presence verified but not quantified]

Date	Sample start time	Turbidity, water, unfiltered, broad band light source (400-680 nm), detectors at multiple angles including 90 +/- 30 situ, degrees, ratiometric correction, NTRU				Depth to 1 percent of surface light, meters	Sampling depth, m (00098)	Dissolved solids dried at 180°C, water, filtered, mg/L (70300)				Calcium, water, filtered, mg/L (00915)	Magne- sium, water, filtered, mg/L (00925)	Potassium, water, filtered, mg/L (00935)
		Trans- parency, water, in	Trans- parency, water, in	Trans- parency, water, in	Trans- parency, water, in			Trans- parency, water, in	Trans- parency, water, in	Trans- parency, water, in	Trans- parency, water, in			
10-19-2011	1145	1.20	--	--	2.6	2.4	--	--	--	--	--	--	--	
10-19-2011	1150	--	5.4	--	1.0	64	5.94	2.45	2.10					
10-19-2011	1155	--	--	--	10.0	--	--	--	--					
04-10-2012	0930	.60	--	1.2	1.2	--	--	--	--					
04-10-2012	0935	--	19	--	1.0	48	6.31	2.60	2.40					
04-10-2012	0940	--	--	--	13.0	--	--	--	--					
06-11-2012	0930	1.50	--	3.2	3.0	--	--	--	--					
06-11-2012	0935	--	3.4	--	1.0	63	5.93	2.57	2.49					
06-11-2012	0940	--	--	--	12.0	--	--	--	--					
08-06-2012	1030	1.70	--	3.7	3.4	--	--	--	--					
08-06-2012	1035	--	4.1	--	1.0	48	5.87	2.61	2.14					
08-06-2012	1040	--	--	--	13.0	--	--	--	--					

**0209684980 CANE CREEK RESERVOIR AT DAM NEAR WHITE CROSS, NC—Continued**

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

Part 3 of 6

[%, percent; ANC, acid neutralizing capacity; CaCO<sub>3</sub>, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO<sub>2</sub>, silicon dioxide; 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; M, presence verified but not quantified]

Date	Sample start time	Bi-				Ammonia plus organic nitrogen			
		ANC, water, unfiltered, inflection-point, incremental	carbonate, water, unfiltered, inflection-point, incremental	Sodium, water, filtered, mg/L as CaCO <sub>3</sub>	titration method, field, mg/L as CaCO <sub>3</sub>	Chloride, water, filtered, mg/L as Cl	Fluoride, water, filtered, mg/L as F	Silica, water, filtered, mg/L as SiO <sub>2</sub>	Sulfate, water, filtered, mg/L as SO <sub>4</sub>
10-19-2011	1145	--	--	--	--	--	--	--	0.63
10-19-2011	1150	4.12	21.8	26.6	5.93	< .04	6.33	2.91	--
10-19-2011	1155	--	--	--	--	--	--	--	2.9
04-10-2012	0930	--	--	--	--	--	--	--	1.2
04-10-2012	0935	4.67	22.0	26.9	6.15	< .04	7.27	3.62	--
04-10-2012	0940	--	--	--	--	--	--	--	.68
06-11-2012	0930	--	--	--	--	--	--	--	.77
06-11-2012	0935	4.55	16.6	20.2	6.11	.07	6.20	3.24	--
06-11-2012	0940	--	--	--	--	--	--	--	1.2
08-06-2012	1030	--	--	--	--	--	--	--	1.0
08-06-2012	1035	4.41	22.4	27.4	6.10	.06	5.73	2.71	--
08-06-2012	1040	--	--	--	--	--	--	--	2.2

**0209684980 CANE CREEK RESERVOIR AT DAM NEAR WHITE CROSS, NC—Continued**
**WATER-QUALITY DATA  
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**

Part 4 of 6

[%, percent; ANC, acid neutralizing capacity; CaCO<sub>3</sub>, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO<sub>2</sub>, silicon dioxide; 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; M, presence verified but not quantified]

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)	Chloro-phyll a, phyto-plankton, chromato-graphic method, µg/L (70953)	Aluminum, water, unfiltered, recoverable, µg/L (01105)	Chromium, water, Cadmium, water, unfiltered, recoverable, µg/L (01027)
10-19-2011	1145	<.010	<.01	<.004	0.021	17.0	--	--
10-19-2011	1150	--	--	--	--	13.8	<.016	<.30
10-19-2011	1155	2.10	.01	.124	.167	--	--	--
04-10-2012	0930	.012	.04	<.004	.035	27.7	--	--
04-10-2012	0935	--	--	--	--	51.4	<.016	<.30
04-10-2012	0940	.225	.35	<.004	.019	--	--	--
06-11-2012	0930	.026	.01	<.004	.018	8.3	--	--
06-11-2012	0935	--	--	--	--	--	--	--
06-11-2012	0940	.729	<.01	.016	.040	--	--	--
08-06-2012	1030	.011	<.01	<.004	.056	51.8	--	--
08-06-2012	1035	--	--	--	--	--	--	--
08-06-2012	1040	1.41	<.01	.059	.092	--	--	--

**0209684980 CANE CREEK RESERVOIR AT DAM NEAR WHITE CROSS, NC—Continued**

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

Part 5 of 6

[%, percent; ANC, acid neutralizing capacity; CaCO<sub>3</sub>, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO<sub>2</sub>, silicon dioxide; 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; M, presence verified but not quantified]

Date	Sample start time	Cobalt, water, unfiltered, recover- able, µg/L (01037)	Copper, water, unfiltered, recover- able, µg/L (01042)	Iron, water, unfiltered, recover- able, µg/L (01045)	Lead, water, unfiltered, recover- able, µg/L (01051)	Manga- nese, water, unfiltered, recover- able, µg/L (01055)	Mercury, water, unfiltered, recover- able, µg/L (71900)	Molyb- denu- mer, water, unfiltered, recover- able, µg/L (01062)	Nickel, water, unfiltered, recover- able, µg/L (01067)	Silver, water, unfiltered, recover- able, µg/L (01077)
10-19-2011	1145	--	--	--	--	--	--	--	--	--
10-19-2011	1150	.30	<.70	130	<.04	621	.011	.07	<.19	<.015
10-19-2011	1155	--	--	13,400	--	3,880	--	--	--	--
04-10-2012	0930	--	--	--	--	--	--	--	--	--
04-10-2012	0935	.20	4.0	202	.07	71.8	<.005	.10	<.19	<.015
04-10-2012	0940	--	--	359	--	983	--	--	--	--
06-11-2012	0930	--	--	--	--	--	--	--	--	--
06-11-2012	0935	--	--	164	--	26.8	--	--	--	--
06-11-2012	0940	--	--	3,190	--	2,300	--	--	--	--
08-06-2012	1030	--	--	--	--	--	--	--	--	--
08-06-2012	1035	--	--	106	--	36.9	--	--	--	--
08-06-2012	1040	--	--	6,940	--	2,780	--	--	--	--

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

Part 6 of 6

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Date	Sample start time	Zinc, water, unfiltered, recover- able, µg/L (01092)	Arsenic, water, unfiltered, recover- able, µg/L (01002)	Selenium, water, unfiltered, recover- able, µg/L (01147)	Organic carbon, water, unfiltered, recover- able, mg/L (00680)
10-19-2011	1145	--	--	--	--
10-19-2011	1150	<3.0	.52	.167	8.0
10-19-2011	1155	--	--	--	--
04-10-2012	0930	--	--	--	--
04-10-2012	0935	<3.0	.35	.166	13.1
04-10-2012	0940	--	--	--	--
06-11-2012	0930	--	--	--	--
06-11-2012	0935	--	--	--	9.4
06-11-2012	0940	--	--	--	--
08-06-2012	1030	--	--	--	--
08-06-2012	1035	--	--	--	8.6
08-06-2012	1040	--	--	--	--