



Water-Data Report 2012

**0208113400 CASHIE RIVER AT SANS SOUCI FERRY, NC**

Roanoke Basin  
Lower Roanoke Subbasin

LOCATION.--Lat 35°54'43.79", long 76°49'03.99" referenced to North American Datum of 1983, Bertie County, NC, Hydrologic Unit 03010107, on pier at Sans Souci ferry near State Road 1500 and 9.5 mi southeast of Windsor.

DRAINAGE AREA.--293 mi<sup>2</sup>.

**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--Water years 2006, 2007, August 2012.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: June to November 2006, March 2007.

pH: June to November 2006, March 2007.

WATER TEMPERATURE: June to November 2006, March 2007.

DISSOLVED OXYGEN: June to November 2006, March 2007.

DISSOLVED OXYGEN, PERCENT SATURATION: June to November 2006, March 2007.

INSTRUMENTATION.--Water-quality monitor with satellite telemetry June to November 2006, March 2007.

REMARKS.--Station operated in 2012 to define water quality in the Albemarle Sound as part of the National Monitoring Network for U.S. Coastal Waters and their Tributaries. Water-quality samples were collected through a zone equal to double the secchi depth using the depth-integration sampling technique. In water years 2006-07, station operated in cooperation with the U.S. Army Corps of Engineers. Dissolved oxygen, percent saturation, was computed using a barometric pressure of 760 mm of Hg.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 187 microsiemens, September 1, 2006; minimum recorded, 34 microsiemens, September 4, 2006.

pH: Maximum recorded, 7.1 standard units, August 30, 2006; minimum recorded, 5.0 standard units, September 3, 4, 5, 6, 2006.

WATER TEMPERATURE: Maximum recorded, 33.7°C, July 19, 2006; minimum recorded, 11.8°C, March 22, 2007.

DISSOLVED OXYGEN: Maximum recorded, 9.1 mg/L, August 28, 2006; minimum recorded, 0.0 mg/L, July 13, 14, 18, 19, 2006.

DISSOLVED OXYGEN, PERCENT SATURATION: Maximum recorded, 121%, August 28, 2006; minimum recorded, 0%, July 13, 14, 18, 19, 2006.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 119 microsiemens, October 8; minimum recorded, 63 microsiemens, October 1.

pH: Maximum recorded, 7.0 standard units, October 5, 8; minimum recorded, 5.8 standard units, March 20.

WATER TEMPERATURE: Maximum recorded, 25.2°C, October 2; minimum recorded, 11.8°C, March 22.

DISSOLVED OXYGEN: Maximum recorded, 8.8 mg/L, March 20; minimum recorded, 1.1 mg/L, October 5, 11.

DISSOLVED OXYGEN, PERCENT SATURATION: Maximum recorded, 88%, March 20, 26; minimum recorded, 12%, October 11.

**WATER-QUALITY DATA**

**WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**

Part 1 of 5

[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; <, less than]

Date	Sample start time	Medium name	Sample type	Barometric pressure, mm Hg (00025)	Temperature, air, °C (00020)	Depth to bottom from water surface, at sampling location, meters (82903)	Dissolved oxygen, water, unfiltered, mg/L (00300)	pH, water, unfiltered, field, standard units (00400)	Specific conductance, water, unfiltered, µS/cm at 25°C (00095)
08-06-2012	1200	Surface water	Regular	763	30.4	6.50	7.6	6.7	105

## 0208113400 CASHIE RIVER AT SANS SOUCI FERRY, NC—Continued

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

Part 2 of 5

[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; <, less than]

Date	Sample start time	Temperature, water, °C (00010)	Trans- parency, water, in situ, Secchi disc, m (00078)	Photosynthetically active radiation (average flux density on a horizontal surface during measurement interval), micromoles of photons per square meter per second		Sampling depth, m (00098)	Dissolved solids dried at 180°C, water, filtered, mg/L (70300)	Suspended solids, water, unfiltered, mg/L (00530)	Calcium, water, filtered, mg/L (00915)	Magnesium, water, filtered, mg/L (00925)	Potassium, water, filtered, mg/L (00935)
08-06-2012	1200	30.4	0.80	2,070	1.6	84	< 15	7.16	2.64	2.46	

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

Part 3 of 5

[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; <, less than]

Date	Sample start time	Sodium, water, filtered, mg/L (00930)	Alkalinity, water, filtered, fixed endpoint titration, laboratory, mg/L as CaCO <sub>3</sub> (29801)	Alkalinity, water, filtered, inflection-point, incremental titration method, field, mg/L as CaCO <sub>3</sub> (39086)	Chloride, water, filtered, mg/L (00940)	Fluoride, water, filtered, mg/L (00950)	Silica, water, filtered, mg/L as SiO <sub>2</sub> (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)
08-06-2012	1200	8.32	26.7	32.1	9.10	0.09	5.53	6.18	0.76	< .010

## 0208113400 CASHIE RIVER AT SANS SOUCI FERRY, NC—Continued

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

Part 4 of 5

[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; <, less than]

Date	Sample start time	Nitrate plus nitrite, water, filtered, mg/L as N (00631)	Nitrite, water, filtered, mg/L as N (00613)	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)	Aluminum, water, filtered, µg/L (01106)	Cobalt, water, filtered, µg/L (01035)	Copper, water, filtered, µg/L (01040)
08-06-2012	1200	< .040	< .001	0.010	0.071	11.8	30.2	0.879	< .80

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

Part 5 of 5

[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; <, less than]

Date	Sample start time	Iron, water, filtered, µg/L (01046)	Lead, water, filtered, µg/L (01049)	Manganese, water, filtered, µg/L (01056)	Molybdenum, water, filtered, µg/L (01060)	Nickel, water, filtered, µg/L (01065)	Zinc, water, filtered, µg/L (01090)
08-06-2012	1200	311	0.062	102	0.223	0.51	< 1.4