

Water-Data Report 2012

**0208480275 WEST FORK ENO RIVER RESERVOIR AT DAM NEAR CEDAR GROVE, NC**

Neuse Basin  
Upper Neuse Subbasin

LOCATION.--Lat 36°08'57.40", long 79°10'15.78" referenced to North American Datum of 1983, Orange County, NC, Hydrologic Unit 03020201, at dam, 1.7 mi south of Cedar Grove and 5.7 mi northwest of Hillsborough.

DRAINAGE AREA.--9.44 mi<sup>2</sup>.

**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--Water years 2010 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.

**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)	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)
10-14-2011	1000	Surface water	Regular	--	--	--	--	--
10-14-2011	1005	Surface water	Regular	742	15	6.4	72	7.1
10-14-2011	1010	Surface water	Regular	742	--	.1	1	7.6
04-11-2012	0900	Surface water	Regular	--	--	--	--	--
04-11-2012	0901	<i>QC sample - Surface water</i>	<i>Replicate</i>	--	--	--	--	--
04-11-2012	0905	Surface water	Regular	755	--	8.1	85	7.3
04-11-2012	0906	<i>QC sample - Surface water</i>	<i>Duplicate</i>	--	--	--	--	--
04-11-2012	0910	Surface water	Regular	755	--	.1	1	7.4
06-12-2012	0945	Surface water	Regular	--	--	--	--	--
06-12-2012	0950	Surface water	Regular	746	--	7.5	93	7.4
06-12-2012	0955	Surface water	Regular	746	--	M	.0	7.3
08-24-2012	0930	Surface water	Regular	--	--	--	--	--
08-24-2012	0935	Surface water	Regular	750	--	7.5	95	8.3
08-24-2012	0940	Surface water	Regular	750	--	.3	3	7.4

## 0208480275 WEST FORK ENO RIVER RESERVOIR AT DAM NEAR CEDAR GROVE, 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	Specific conductance, water, unfiltered, µS/cm at 25°C (00095)	Temperature, water, °C (00010)	Transparency, water, in situ, Secchi disc, m (00078)	Turbidity, water, unfiltered, broadband 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)	Dissolved solids dried at 180°C, water, filtered, mg/L (70300)	Calcium, water, filtered, mg/L (00915)
10-14-2011	1000	--	--	2.10	--	4.6	4.2	--	--
10-14-2011	1005	75	19.7	--	1.9	--	1.0	56	4.69
10-14-2011	1010	41	10.3	--	--	--	11.0	--	--
04-11-2012	0900	--	--	1.50	--	3.2	3.0	--	--
04-11-2012	0901	--	--	--	--	--	3.0	--	--
04-11-2012	0905	85	17.8	--	3.7	--	1.0	69	5.61
04-11-2012	0906	--	--	--	--	--	1.0	65	5.71
04-11-2012	0910	149	9.3	--	--	--	12.0	--	--
06-12-2012	0945	--	--	2.50	--	5.0	5.0	--	--
06-12-2012	0950	83	25.0	--	1.7	--	1.0	51	5.39
06-12-2012	0955	207	10.0	--	--	--	12.0	--	--
08-24-2012	0930	--	--	2.60	--	5.2	5.2	--	--
08-24-2012	0935	86	26.7	--	2.1	--	1.0	63	5.73
08-24-2012	0940	343	10.3	--	--	--	11.0	--	--

## 0208480275 WEST FORK ENO RIVER RESERVOIR AT DAM NEAR CEDAR GROVE, 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	Magnesium, 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 <sub>3</sub> (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 <sub>2</sub> (00955)
10-14-2011	1000	--	--	--	--	--	--	--	--
10-14-2011	1005	2.61	.86	5.90	24.1	29.3	4.53	.06	4.23
10-14-2011	1010	--	--	--	--	--	--	--	--
04-11-2012	0900	--	--	--	--	--	--	--	--
04-11-2012	0901	--	--	--	--	--	--	--	--
04-11-2012	0905	2.73	2.36	6.77	20.0	24.4	5.49	< .04	6.20
04-11-2012	0906	2.79	2.27	6.96	22.4	27.4	5.48	< .04	5.93
04-11-2012	0910	--	--	--	--	--	--	--	--
06-12-2012	0945	--	--	--	--	--	--	--	--
06-12-2012	0950	2.69	1.77	6.47	22.0	26.9	5.24	.08	4.41
06-12-2012	0955	--	--	--	--	--	--	--	--
08-24-2012	0930	--	--	--	--	--	--	--	--
08-24-2012	0935	2.87	.77	7.38	24.5	29.8	5.24	.07	5.51
08-24-2012	0940	--	--	--	--	--	--	--	--

## 0208480275 WEST FORK ENO RIVER RESERVOIR AT DAM NEAR CEDAR GROVE, 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	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)	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, unfiltered, recoverable, µg/L (01105)
10-14-2011	1000	--	0.46	0.033	0.02	< .004	0.013	3.7	--
10-14-2011	1005	3.16	--	--	--	--	--	--	12.2
10-14-2011	1010	--	6.3	4.72	.04	< .004	.047	--	--
04-11-2012	0900	--	.69	.094	.13	< .004	.028	4.0	--
04-11-2012	0901	--	.70	.097	.13	< .004	.026	3.3	--
04-11-2012	0905	4.74	--	--	--	--	--	--	75.2
04-11-2012	0906	4.76	--	--	--	--	--	--	79.8
04-11-2012	0910	--	1.2	.570	.07	< .004	.033	--	--
06-12-2012	0945	--	.56	.038	.02	< .004	.016	4.0	--
06-12-2012	0950	3.87	--	--	--	--	--	--	--
06-12-2012	0955	--	5.2	3.17	.02	.029	.510	--	--
08-24-2012	0930	--	.50	.017	< .01	< .004	.017	3.1	--
08-24-2012	0935	2.94	--	--	--	--	--	--	--
08-24-2012	0940	--	4.0	3.04	.02	.008	.114	--	--

## 0208480275 WEST FORK ENO RIVER RESERVOIR AT DAM NEAR CEDAR GROVE, 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	Cadmium, water, unfiltered, µg/L (01027)	Chromium, water, unfiltered, recoverable, µg/L (01034)	Cobalt, water, unfiltered, recoverable, µg/L (01037)	Copper, water, unfiltered, recoverable, µg/L (01042)	Iron, water, unfiltered, recoverable, µg/L (01045)	Lead, water, unfiltered, recoverable, µg/L (01051)	Manganese, water, unfiltered, recoverable, µg/L (01055)	Mercury, water, unfiltered, recoverable, µg/L (71900)	Molybdenum, water, unfiltered, recoverable, µg/L (01062)
10-14-2011	1000	--	--	--	--	--	--	--	--	--
10-14-2011	1005	< .016	< .30	.10	.72	187	< .04	89.6	< .005	.05
10-14-2011	1010	--	--	--	--	38,800	--	9,230	--	--
04-11-2012	0900	--	--	--	--	--	--	--	--	--
04-11-2012	0901	--	--	--	--	--	--	--	--	--
04-11-2012	0905	< .016	< .30	.57	1.1	854	.25	492	< .005	.09
04-11-2012	0906	< .016	< .30	.56	1.1	872	.24	492	< .005	.09
04-11-2012	0910	--	--	--	--	2,050	--	1,800	--	--
06-12-2012	0945	--	--	--	--	--	--	--	--	--
06-12-2012	0950	--	--	--	--	518	--	40.5	--	--
06-12-2012	0955	--	--	--	--	28,400	--	4,500	--	--
08-24-2012	0930	--	--	--	--	--	--	--	--	--
08-24-2012	0935	--	--	--	--	154	--	30.7	--	--
08-24-2012	0940	--	--	--	--	21,000	--	5,820	--	--

## 0208480275 WEST FORK ENO RIVER RESERVOIR AT DAM NEAR CEDAR GROVE, NC—Continued

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

Part 6 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	Nickel, water, unfiltered, recoverable, µg/L (01067)	Silver, water, unfiltered, recoverable, µg/L (01077)	Zinc, water, unfiltered, recoverable, µg/L (01092)	Arsenic, water, unfiltered, µg/L (01002)	Selenium, water, unfiltered, µg/L (01147)	Organic carbon, water, unfiltered, mg/L (00680)
10-14-2011	1000	--	--	--	--	--	--
10-14-2011	1005	< .19	< .015	3.0	.30	.138	6.8
10-14-2011	1010	--	--	--	--	--	--
04-11-2012	0900	--	--	--	--	--	--
04-11-2012	0901	--	--	--	--	--	--
04-11-2012	0905	.42	< .015	< 3.0	.49	.170	10.6
04-11-2012	0906	.43	< .015	< 3.0	.45	.172	10.3
04-11-2012	0910	--	--	--	--	--	--
06-12-2012	0945	--	--	--	--	--	--
06-12-2012	0950	--	--	--	--	--	8.6
06-12-2012	0955	--	--	--	--	--	--
08-24-2012	0930	--	--	--	--	--	--
08-24-2012	0935	--	--	--	--	--	7.0
08-24-2012	0940	--	--	--	--	--	--