



Water-Data Report 2010

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 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 2010.

REMARKS.--Station operated to define water quality as part of a regional surface-water quality assessment. Samples for nutrient, chlorophyll *a*, and pheophytin *a* analyses were collected through a sampling zone equal to double the secchi disk depth using the depth-integration sampling technique.

**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)
04-09-2010	0945	Surface water	Regular	--	--	--	--	--	--
04-09-2010	0946	<i>QC sample - Surface water</i>	<i>Replicate</i>	--	--	--	--	--	--
04-09-2010	0950	Surface water	Regular	746	62	8.2	91	7.0	58
04-09-2010	0951	<i>QC sample - Surface water</i>	<i>Replicate</i>	746	62	--	--	--	--
04-09-2010	0955	Surface water	Regular	746	--	4.2	35	6.0	55
04-09-2010	1000	Surface water	Regular	746	--	.3	2	6.2	73
04-09-2010	1051	<i>QC sample - Artificial</i>	<i>Blank</i>	--	--	--	--	--	--
06-11-2010	0930	Surface water	Regular	--	--	--	--	--	--
06-11-2010	0935	Surface water	Regular	752	62	7.7	100	7.7	62
06-11-2010	0940	Surface water	Regular	752	--	.1	1	6.5	79
06-11-2010	0945	Surface water	Regular	752	--	.1	1	7.2	145
08-05-2010	1130	Surface water	Regular	--	--	--	--	--	--
08-05-2010	1135	Surface water	Regular	744	25	7.4	98	6.7	62
08-05-2010	1140	Surface water	Regular	744	--	6.5	59	6.5	98
08-05-2010	1145	Surface water	Regular	744	--	.3	2	6.8	218

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

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Part 2 of 6

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Date	Temperature, water, °C (00010)	Trans- parency, water, in situ, Secchi disc, m (00078)	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)
04-09-2010	--	.80	1.6	--	--	--	--	--	--	--
04-09-2010	--	.80	1.6	--	--	--	--	--	--	--
04-09-2010	19.2	--	1.0	40	17.1	3.93	1.77	1.93	2.95	14.6
04-09-2010	--	--	1.0	62	16.9	3.87	1.76	1.89	2.91	16.0
04-09-2010	7.5	--	6.0	--	--	--	--	--	--	--
04-09-2010	7.1	--	12.0	--	--	--	--	--	--	--
04-09-2010	--	--	--	--	< .18	< .04	< .016	< .06	< .10	--
06-11-2010	--	1.00	2.0	--	--	--	--	--	--	--
06-11-2010	27.9	--	1.0	49	20.0	4.53	2.11	1.68	3.39	18.3
06-11-2010	8.9	--	6.0	--	--	--	--	--	--	--
06-11-2010	7.8	--	11.0	--	--	--	--	--	--	--
08-05-2010	--	1.80	3.6	--	--	--	--	--	--	--
08-05-2010	28.7	--	1.0	37	20.6	4.63	2.20	.88	3.45	18.2
08-05-2010	10.2	--	6.0	--	--	--	--	--	--	--
08-05-2010	8.7	--	12.0	--	--	--	--	--	--	--

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

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Part 3 of 6

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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)
04-09-2010	--	--	--	--	--	.61	.060	.101	.003
04-09-2010	--	--	--	--	--	.61	.060	.100	.003
04-09-2010	17.7	3.14	E .04	6.14	4.47	--	--	--	--
04-09-2010	19.5	3.12	< .08	6.17	4.46	--	--	--	--
04-09-2010	--	--	--	--	--	.64	.183	.137	.003
04-09-2010	--	--	--	--	--	.98	.412	.148	.005
04-09-2010	--	E .11	< .08	< .06	< .18	< .10	< .020	< .016	< .002
06-11-2010	--	--	--	--	--	.70	< .020	< .016	E .001
06-11-2010	22.3	3.01	E .07	5.80	3.39	--	--	--	--
06-11-2010	--	--	--	--	--	1.0	.457	< .016	E .002
06-11-2010	--	--	--	--	--	2.4	1.61	< .016	.004
08-05-2010	--	--	--	--	--	.51	.030	< .016	< .002
08-05-2010	22.2	2.87	E .08	5.63	2.82	--	--	--	--
08-05-2010	--	--	--	--	--	1.5	.785	< .016	.003
08-05-2010	--	--	--	--	--	4.3	3.15	< .016	E .002

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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)
04-09-2010	E .006	.039	E 3.7	E 1.7	--	--	--	--	--
04-09-2010	E .006	.042	E 3.8	E 2.1	--	--	--	--	--
04-09-2010	--	--	--	--	163	< .04	.42	.89	E 1.2
04-09-2010	--	--	--	--	159	< .04	.43	.88	E 1.2
04-09-2010	.010	.038	--	--	--	--	--	--	--
04-09-2010	.008	.046	--	--	--	--	--	--	--
04-09-2010	< .008	< .008	--	--	< 6	< .04	< .42	< .04	< 1.4
06-11-2010	E .006	.030	11.6	5.2	--	--	--	--	--
06-11-2010	--	--	--	--	--	--	--	--	--
06-11-2010	E .006	.029	--	--	--	--	--	--	--
06-11-2010	.021	.068	--	--	--	--	--	--	--
08-05-2010	E .005	.014	E 4.5	E 3.0	--	--	--	--	--
08-05-2010	--	--	--	--	--	--	--	--	--
08-05-2010	E .004	.039	--	--	--	--	--	--	--
08-05-2010	< .008	.067	--	--	--	--	--	--	--

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Date	Iron,	Lead,	Manganes	Mercury,	Molybdenu	Nickel,	Silver,	Zinc,	Arsenic,	Selenium,
	water,	water,	e, water,	water,	m, water,	water,	water,	water,		
	unfiltered,	unfiltered,	unfiltered,	unfiltered,	unfiltered,	unfiltered,	unfiltered,	unfiltered,	unfiltered,	unfiltered,
	recover-	recover-	recover-	recover-	recoverabl	recover-	recover-	recover-	unfiltered,	unfiltered,
	able,	able,	able,	able,	e,	able,	able,	able,	unfiltered,	unfiltered,
	μg/L	μg/L	μg/L	μg/L	microgram	μg/L	μg/L	μg/L	μg/L	μg/L
	(01045)	(01051)	(01055)	(71900)	s per liter	(01062)	(01067)	(01077)	(01092)	(01002)
	(01045)	(01051)	(01055)	(71900)	(01062)	(01067)	(01077)	(01092)	(01002)	(01147)
04-09-2010	--	--	--	--	--	--	--	--	--	--
04-09-2010	--	--	--	--	--	--	--	--	--	--
04-09-2010	1,500	.57	737	.013	E .1	.49	< .02	E 1.2	.42	.15
04-09-2010	1,490	.54	735	.016	E .1	.51	< .02	E 1.1	.42	.16
04-09-2010	1,590	--	820	--	--	--	--	--	--	--
04-09-2010	3,240	--	1,610	--	--	--	--	--	--	--
04-09-2010	< 9	< .06	< .8	< .010	< .1	< .36	< .02	< 2.0	< .18	< .10
06-11-2010	--	--	--	--	--	--	--	--	--	--
06-11-2010	864	--	134	--	--	--	--	--	--	--
06-11-2010	3,720	--	2,250	--	--	--	--	--	--	--
06-11-2010	14,000	--	4,560	--	--	--	--	--	--	--
08-05-2010	--	--	--	--	--	--	--	--	--	--
08-05-2010	234	--	60.3	--	--	--	--	--	--	--
08-05-2010	5,960	--	5,140	--	--	--	--	--	--	--
08-05-2010	30,400	--	6,710	--	--	--	--	--	--	--

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WATER YEAR OCTOBER
2009 TO SEPTEMBER
2010**

Part 6 of 6

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Date	Organic carbon, water, unfiltered, mg/L (00680)
04-09-2010	--
04-09-2010	--
04-09-2010	8.6
04-09-2010	8.5
04-09-2010	--
04-09-2010	--
04-09-2010	E .5
06-11-2010	--
06-11-2010	8.6
06-11-2010	--
06-11-2010	--
08-05-2010	--
08-05-2010	7.3
08-05-2010	--
08-05-2010	--