



Water-Data Report 2007

0208703650 FALLS LAKE AT NORTH CAROLINA HIGHWAY 50 NEAR SANDY PLAIN, NC

Neuse Basin
Upper Neuse Subbasin

LOCATION.--Lat 36°00'55", long 78°41'28" referenced to North American Datum of 1983, Wake County, NC, Hydrologic Unit 03020201, at bridge on North Carolina Highway 50, 3.3 mi south of Sandy Plain.

DRAINAGE AREA.--620 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1989 to 1995, 2005 to current year.

REMARKS.--Station operated to define water quality as part of a regional surface-water quality assessment. A GC/FID scan for trace organic compounds was performed on samples collected in October 1994 and May 1995. Results may be obtained from the USGS Water Science Center, Raleigh, NC. 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. Prior to October 1, 2005, samples for chlorophyll *a* were analyzed using a high-performance liquid chromatography method.

**WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**

Part 1 of 4

[Remark codes: <, less than; E, estimated.]

Date	Time	Sample type	Color, water, fltrd, Pt-Co units (00080)	Sam-pling depth, meters (00098)	Trans-parency Secchi disc, meters (00078)	Baro-metric pres-sure, mm Hg (00025)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of sat-uration (00301)	pH, water, unfltrd field, std units (00400)	Specif-ic conduc-tance, wat unf 25 degC μS/cm (00095)	Temper-ature, water, deg C (00010)	Hard-ness, water, mg/L as CaCO3 (00900)
Oct												
11...	1145	Environmental	25	1.0	.80	754	7.4	83	6.9	96	20.9	26
11...	1150	Environmental	--	3.0	--	754	6.3	70	6.7	101	20.4	--
11...	1155	Environmental	--	6.0	--	754	5.3	59	6.5	103	20.0	--
Apr												
24...	1145	Environmental	40	1.0	.70	760	9.7	102	7.0	90	17.9	25
24...	1150	Environmental	--	3.0	--	760	9.5	100	6.8	90	17.7	--
24...	1155	Environmental	--	6.0	--	760	7.1	71	6.2	92	15.4	--
Jun												
13...	1145	Environmental	30	1.0	1.00	759	7.5	96	7.2	96	27.4	28
13...	1146	Replicate	25	1.0	1.00	759	8.0	102	7.4	96	27.6	27
13...	1150	Environmental	--	2.0	--	759	6.5	82	6.9	96	27.3	--
13...	1155	Environmental	--	4.0	--	759	.7	9	6.3	100	25.4	--
Aug												
13...	1130	Environmental	150	1.0	1.20	760	6.4	85	7.3	106	30.0	29
13...	1135	Environmental	--	2.0	--	760	5.7	75	7.0	107	29.5	--
13...	1140	Environmental	--	3.0	--	760	4.3	57	6.9	108	29.4	--

0208703650 FALLS LAKE AT NORTH CAROLINA HIGHWAY 50 NEAR SANDY PLAIN, NC—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 2 of 4

[Remark codes: <, less than; E, estimated.]

Date	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf incrm. titr., field, mg/L as CaCO3 (00419)	Bicar- bonate, wat unf incrm. titr., field, mg/L (00450)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)
Oct													
11...	6.38	2.50	2.55	7.15	26	32	6.91	.11	8.31	6.75	81	.67	.043
11...	--	--	--	--	--	--	--	--	--	--	--	.61	.072
11...	--	--	--	--	--	--	--	--	--	--	--	.76	.105
Apr													
24...	6.09	2.37	2.04	6.63	20	25	6.53	E.08	4.66	6.47	72	.65	<.020
24...	--	--	--	--	--	--	--	--	--	--	--	.62	<.020
24...	--	--	--	--	--	--	--	--	--	--	--	.64	E.019
Jun													
13...	6.75	2.67	2.15	6.77	22	27	6.57	.10	4.27	6.64	66	.79	<.020
13...	6.60	2.61	2.10	6.76	23	28	6.77	E.09	4.29	6.79	64	.60	<.020
13...	--	--	--	--	--	--	--	--	--	--	--	.58	<.020
13...	--	--	--	--	--	--	--	--	--	--	--	.71	.058
Aug													
13...	7.15	2.73	2.35	7.95	26	32	8.00	.10	6.93	6.55	70	.68	<.020
13...	--	--	--	--	--	--	--	--	--	--	--	.68	<.020
13...	--	--	--	--	--	--	--	--	--	6.55	--	.66	E.016

0208703650 FALLS LAKE AT NORTH CAROLINA HIGHWAY 50 NEAR SANDY PLAIN, NC—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 3 of 4

[Remark codes: <, less than; E, estimated.]

Date	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Organic carbon, water, fltrd, mg/L (00681)	Organic carbon, water, unfltrd mg/L (00680)	Chlorophyll a phyton, fluoro, µg/L (70953)	Pheophytin a, phyton, µg/L (62360)	Aluminum, water, unfltrd recover-able, µg/L (01105)	Arsenic water, unfltrd µg/L (01002)	Cadmium water, unfltrd µg/L (01027)	Chromium, water, unfltrd recover-able, µg/L (01034)	Cobalt water, unfltrd recover-able, µg/L (01037)
Oct													
11...	.017	E.001	E.003	.034	--	10.3	26.1	8.9	39	.71	<.02	E.59	.155
11...	.016	E.001	E.004	.034	--	--	--	--	--	--	--	--	--
11...	.020	E.001	E.003	.041	--	--	--	--	--	--	--	--	--
Apr													
24...	<.016	<.002	<.006	.059	--	9.2	20.3	10.4	144	.40	.02	<.60	.27
24...	<.016	<.002	E.003	.056	--	--	--	--	--	--	--	--	--
24...	E.013	<.002	E.003	.057	--	--	--	--	--	--	--	--	--
Jun													
13...	<.016	<.002	E.003	.036	--	9.1	22.7	10.0	--	--	--	--	--
13...	<.016	<.002	E.003	.038	--	8.7	22.7	10.0	--	--	--	--	--
13...	<.016	<.002	E.003	.038	--	--	--	--	--	--	--	--	--
13...	<.016	<.002	E.003	.061	--	--	--	--	--	--	--	--	--
Aug													
13...	<.016	E.001	.007	.042	6.5	9.7	29.3	9.3	--	--	--	--	--
13...	<.016	<.002	E.005	.042	--	--	--	--	--	--	--	--	--
13...	<.016	<.002	E.005	.042	8.3	--	--	--	--	--	--	--	--

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WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 4 of 4

[Remark codes: <, less than; E, estimated.]

Date	Copper, water, unfltrd recover- able, µg/L (01042)	Iron, water, unfltrd recover- able, µg/L (01045)	Lead, water, unfltrd recover- able, µg/L (01051)	Mangan- ese, water, unfltrd recover- able, µg/L (01055)	Mercury water, unfltrd recover- able, µg/L (71890)	Mercury water, unfltrd recover- able, µg/L (71900)	Molyb- denum, water, unfltrd recover- able, µg/L (01062)	Nickel, water, unfltrd recover- able, µg/L (01067)	Selen- ium, water, unfltrd recover- able, µg/L (01147)	Silver, water, unfltrd recover- able, µg/L (01077)	Zinc, water, unfltrd recover- able, µg/L (01092)	Data base number
Oct												
11...	E.7	172	.11	184	--	<.010	.6	.49	.18	<.02	3	01
11...	--	197	--	146	--	--	--	--	--	--	--	01
11...	--	303	--	176	--	--	--	--	--	--	--	01
Apr												
24...	1.7	335	.32	86.9	--	.019	.3	.69	.15	<.02	2.7	01
24...	--	335	--	81.7	--	--	--	--	--	--	--	01
24...	--	399	--	114	--	--	--	--	--	--	--	01
Jun												
13...	--	100	--	77.9	--	--	--	--	--	--	--	01
13...	--	100	--	77.7	--	--	--	--	--	--	--	04
13...	--	122	--	115	--	--	--	--	--	--	--	01
13...	--	696	--	1,610	--	--	--	--	--	--	--	01
Aug												
13...	--	161	--	180	<.010	.118	--	--	--	--	--	01
13...	--	163	--	196	--	--	--	--	--	--	--	01
13...	--	209	--	272	.021	.015	--	--	--	--	--	01