



Water-Data Report 2007

**0208718195 FALLS LAKE ABOVE DAM AT FALLS, NC**

Neuse Basin  
Upper Neuse Subbasin

LOCATION.--Lat 35°56'29", long 78°35'01" referenced to North American Datum of 1983, Wake County, NC, Hydrologic Unit 03020201, 0.05 mi above dam, 0.5 mi northwest of Falls.

DRAINAGE AREA.--771 mi<sup>2</sup>.

**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	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 (00095)	Temper-ature, deg C (00010)	Hard-ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes-ium, water, fltrd, mg/L (00925)
<b>Oct</b>													
12...	0900	30	1.0	1.10	750	4.4	51	6.8	119	21.6	31	7.63	3.00
12...	0905	--	6.0	--	750	4.2	48	6.6	120	21.5	--	--	--
12...	0910	--	12.0	--	750	.2	2	6.5	155	20.6	--	--	--
<b>Apr</b>													
25...	0900	30	1.0	.90	759	9.1	101	7.4	91	20.1	24	5.75	2.33
25...	0905	--	6.0	--	759	5.6	56	6.1	91	15.5	--	--	--
25...	0910	--	12.0	--	759	3.0	30	5.9	94	14.8	--	--	--
<b>Jun</b>													
12...	1030	20	1.0	1.60	759	8.6	111	7.6	89	28.1	24	5.70	2.41
12...	1035	--	5.0	--	759	.1	1	6.1	93	21.4	--	--	--
12...	1040	--	10.0	--	759	.2	2	6.2	105	15.5	--	--	--
<b>Aug</b>													
14...	1300	25	1.0	1.20	749	7.2	98	7.4	78	30.4	24	5.17	2.77
14...	1305	--	4.0	--	749	.1	2	6.2	75	27.9	--	--	--
14...	1310	--	9.0	--	749	.2	2	6.4	107	16.8	--	--	--

## 0208718195 FALLS LAKE ABOVE DAM AT FALLS, NC—Continued

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

Part 2 of 4

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

Date	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)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)
<b>Oct</b>													
12...	2.77	8.54	35	42	8.76	.13	7.07	5.28	77	.80	.182	E.008	<.002
12...	--	--	--	--	--	--	--	--	--	.72	.194	<.016	<.002
12...	--	--	--	--	--	--	--	--	--	4.1	2.63	<.016	.002
<b>Apr</b>													
25...	2.04	6.49	20	24	6.55	E.07	4.63	6.49	75	.69	<.020	<.016	<.002
25...	--	--	--	--	--	--	--	--	--	.57	.055	E.014	E.001
25...	--	--	--	--	--	--	--	--	--	.67	.202	.041	.002
<b>Jun</b>													
12...	1.97	6.16	22	27	6.41	E.08	3.46	6.47	61	.46	<.020	<.016	<.002
12...	--	--	--	--	--	--	--	--	--	.50	.036	<.016	<.002
12...	--	--	--	--	--	--	--	--	--	1.1	.654	<.016	E.001
<b>Aug</b>													
14...	2.15	6.60	21	25	6.77	E.07	4.46	6.05	63	.47	<.020	<.016	<.002
14...	--	--	--	--	--	--	--	--	--	.60	<.020	<.016	<.002
14...	--	--	--	--	--	--	--	.93	--	1.1	.525	<.016	.003

## 0208718195 FALLS LAKE ABOVE DAM AT FALLS, NC—Continued

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

Part 3 of 4

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

Date	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)	Copper, water, unfltrd recover-able, µg/L (01042)	Iron, water, unfltrd recover-able, µg/L (01045)
<b>Oct</b>													
12...	E.004	.023	--	8.7	17.1	5.0	20	.68	<.02	E.58	.138	<1.2	208
12...	E.003	.022	--	--	--	--	--	--	--	--	--	--	222
12...	<.006	.141	--	--	--	--	--	--	--	--	--	--	8,740
<b>Apr</b>													
25...	<.006	.043	--	8.8	31.8	9.3	71	.34	<.02	<.60	.21	1.4	186
25...	<.006	.040	--	--	--	--	--	--	--	--	--	--	253
25...	E.004	.044	--	--	--	--	--	--	--	--	--	--	557
<b>Jun</b>													
12...	E.003	.019	--	7.5	8.4	2.9	--	--	--	--	--	--	60
12...	E.003	.028	--	--	--	--	--	--	--	--	--	--	1,130
12...	.006	.036	--	--	--	--	--	--	--	--	--	--	3,220
<b>Aug</b>													
14...	E.004	.020	5.9	7.5	10.2	3.9	--	--	--	--	--	--	67
14...	E.004	.040	--	--	--	--	--	--	--	--	--	--	158
14...	E.004	.031	7.8	--	--	--	--	--	--	--	--	--	5,690

## 0208718195 FALLS LAKE ABOVE DAM AT FALLS, NC—Continued

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

Part 4 of 4

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

Date	Lead,	Mangan-		Mercury	Molyb-	Nickel,		Silver,	Zinc,
	water,	ese,	Mercury	water,	denum,	water,	Selen-	water,	water,
	unfltrd	water,	water,	unfltrd	water,	unfltrd	ium,	unfltrd	unfltrd
	recover	recover	water,	recover	recover	recover	water,	recover	recover
	-able,	-able,	fltrd,	-able,	-able,	-able,	unfltrd	-able,	-able,
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	(01051)	(01055)	(71890)	(71900)	(01062)	(01067)	(01147)	(01077)	(01092)
<b>Oct</b>									
12...	E.04	533	--	E.006	.5	.46	.17	<.02	E2
12...	--	564	--	--	--	--	--	--	--
12...	--	7,280	--	--	--	--	--	--	--
<b>Apr</b>									
25...	.16	61.8	--	.097	.3	.69	.14	<.02	2.6
25...	--	75.0	--	--	--	--	--	--	--
25...	--	389	--	--	--	--	--	--	--
<b>Jun</b>									
12...	--	28.4	--	--	--	--	--	--	--
12...	--	857	--	--	--	--	--	--	--
12...	--	1,750	--	--	--	--	--	--	--
<b>Aug</b>									
14...	--	44.2	<.010	<.010	--	--	--	--	--
14...	--	664	--	--	--	--	--	--	--
14...	--	1,730	<.010	<.010	--	--	--	--	--