

Water-Data Report 2007

**0208524975 LITTLE RIVER BELOW LITTLE RIVER TRIBUTARY AT FAIRTOSH, NC**

Neuse Basin  
Upper Neuse Subbasin

LOCATION.--Lat 36°06'48", long 78°51'35" referenced to North American Datum of 1983, Durham County, NC, Hydrologic Unit 03020201, 125 ft downstream of the mouth of Little River tributary and 0.5 mi downstream of Little River dam.

DRAINAGE AREA.--98.9 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--October 1995 to current year.

REVISED RECORDS.--WDR-US-2006: 2005(M), 2005.

GAGE.--Water-stage recorder. Elevation of gage is 270 ft above NGVD of 1929, from topographic map. Satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records are good except for the period August 4, 2007 to September 30, 2007, which are poor due to the effects of beaver dams on the gage height-discharge relationship. Flow regulated by releases from the Little River Reservoir. Maximum discharge for period of record from extension of rating curve based on contracted-opening measurement of peak flow. Maximum gage height for period of record from floodmarks. Instantaneous low flow for the period of record not determined due to the effects of beaver dams on the gage height-discharge relationship.

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**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**  
**DAILY MEAN VALUES**

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	6.0	4.7	42	65	32	37	49	7.8	4.6	3.5	3.0	1.7
2	6.0	4.9	38	146	54	771	41	7.9	2.6	3.1	2.7	1.7
3	6.0	4.8	38	92	65	259	32	8.0	5.0	3.0	2.7	1.7
4	6.1	5.0	27	56	52	138	29	7.8	3.3	3.0	2.9	1.5
5	6.1	4.8	25	41	38	82	19	7.7	3.3	3.2	3.1	1.3
6	7.7	5.2	21	455	34	43	15	7.9	4.0	3.2	3.1	1.4
7	6.0	19	21	220	30	30	23	8.1	3.0	3.3	3.3	1.5
8	6.3	8.9	15	613	23	23	12	8.2	3.1	3.3	2.8	1.6
9	5.9	4.4	14	262	24	18	12	8.7	3.1	3.3	2.5	1.8
10	5.9	3.9	15	150	23	19	12	8.4	3.1	5.0	2.6	1.7
11	5.4	4.1	14	91	22	16	13	8.3	3.1	5.1	2.6	1.7
12	2.6	20	16	81	18	18	110	179	3.1	3.3	2.9	1.7
13	2.8	4.8	15	68	11	14	161	160	3.3	2.9	3.0	1.6
14	2.7	7.1	16	65	224	22	83	52	3.2	2.8	2.8	2.5
15	2.8	4.0	16	58	218	25	1,480	23	3.1	2.9	2.7	1.7
16	2.9	243	12	51	108	228	1,170	17	3.4	2.9	2.7	1.6
17	5.0	332	9.9	42	59	392	232	14	3.1	3.0	3.6	1.6
18	6.4	127	12	44	42	183	142	8.7	3.1	4.1	2.1	1.9
19	3.3	68	13	48	23	109	95	8.2	3.1	3.0	2.0	1.7
20	4.7	45	12	37	19	71	70	8.3	3.1	2.9	2.0	1.6
21	4.9	43	13	42	15	55	57	8.1	3.0	2.8	2.1	1.8
22	4.6	2,610	20	181	24	47	42	8.1	3.0	2.6	1.7	1.7
23	4.7	835	48	207	16	38	40	7.8	3.2	2.6	1.6	1.7
24	4.5	257	63	125	10	38	27	7.7	3.3	2.7	1.6	1.2
25	4.5	142	498	84	13	35	22	7.7	3.4	2.6	1.5	0.76
26	4.5	87	513	59	112	23	22	7.7	3.4	2.5	1.5	0.72
27	5.8	56	185	53	98	31	17	7.7	3.3	2.8	1.6	0.79
28	10	46	108	48	56	102	21	7.7	3.3	2.8	1.6	0.74
29	3.9	40	49	34	---	94	17	7.7	3.4	2.8	1.5	0.75
30	3.8	34	48	29	---	75	10	7.7	4.1	2.8	1.5	0.78
31	4.0	---	49	27	---	66	---	7.7	---	2.9	1.7	---
<b>Total</b>	155.8	5,070.6	1,985.9	3,574	1,463	3,102	4,075	644.6	100.1	96.7	73.0	44.44
<b>Mean</b>	5.03	169	64.1	115	52.2	100	136	20.8	3.34	3.12	2.35	1.48
<b>Max</b>	10	2,610	513	613	224	771	1,480	179	5.0	5.1	3.6	2.5
<b>Min</b>	2.6	3.9	9.9	27	10	14	10	7.7	2.6	2.5	1.5	0.72

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2007, BY WATER YEAR (WY)**

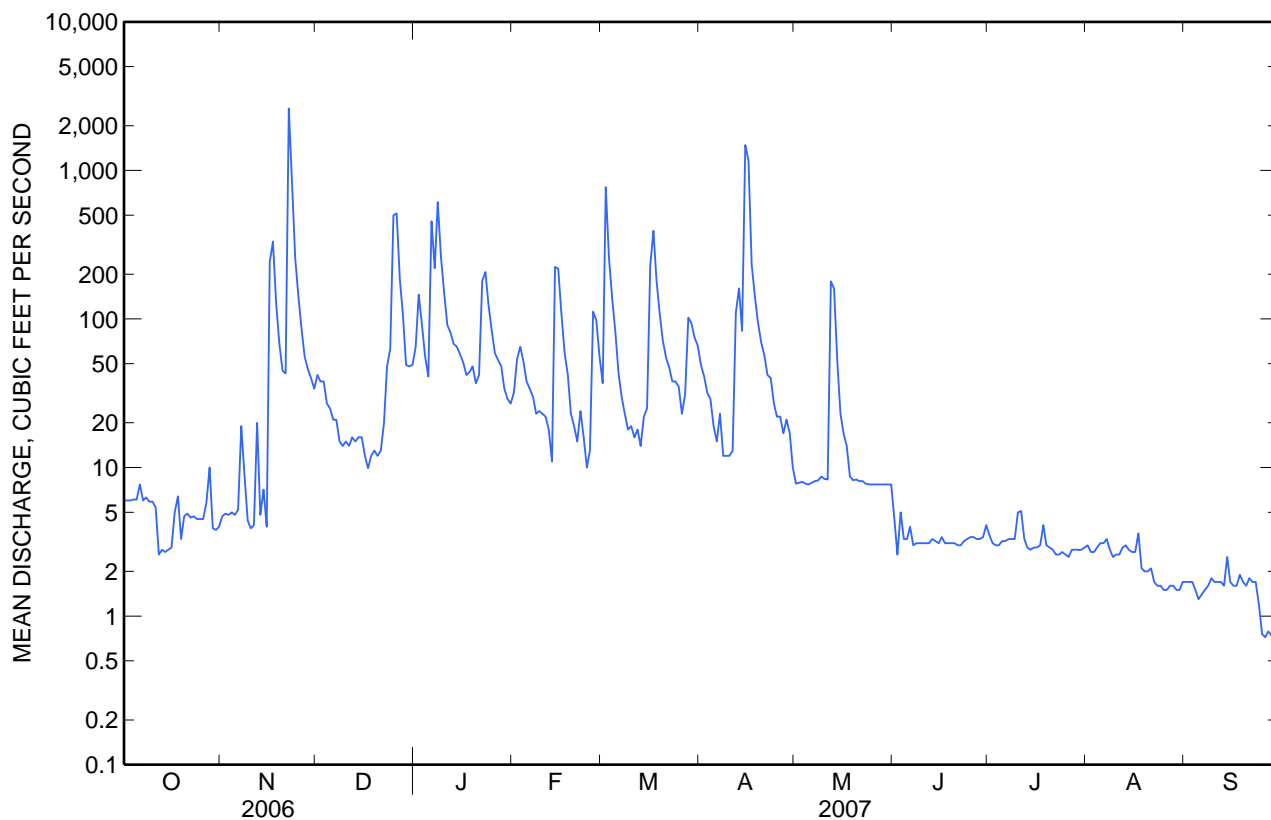
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Mean</b>	26.0	49.0	78.1	85.8	127	181	133	43.5	26.4	21.9	19.8	100
<b>Max</b>	178	169	290	333	509	705	510	260	162	146	132	538
<b>(WY)</b>	(2003)	(2007)	(2003)	(1998)	(1998)	(1998)	(2003)	(2003)	(2003)	(2003)	(2003)	(1996)
<b>Min</b>	2.02	2.03	1.07	1.15	2.99	4.46	6.09	5.69	1.30	1.16	1.57	0.95
<b>(WY)</b>	(1998)	(2001)	(2001)	(2001)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)

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SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1996 - 2007	
<b>Annual total</b>	13,730.3		20,385.14			
<b>Annual mean</b>	37.6		55.8		69.6	
<b>Highest annual mean</b>					224	2003
<b>Lowest annual mean</b>					3.39	2002
<b>Highest daily mean</b>	2,610	Nov 22	2,610	Nov 22	10,300	Sep 6, 1996
<b>Lowest daily mean</b>	2.6	Oct 12	0.72	Sep 26	0.41	Nov 22, 1998
<b>Annual seven-day minimum</b>	3.5	Oct 11	0.82	Sep 24	0.51	Sep 7, 2002
<b>Maximum peak flow</b>			3,660	Nov 22	<sup>a</sup> 16,600	Sep 6, 1996
<b>Maximum peak stage</b>			11.80	Nov 22	17.27	Sep 6, 1996
<b>Instantaneous low flow</b>			0.69	Sep 25	<sup>a</sup> Not Determined	
<b>10 percent exceeds</b>	45		109		117	
<b>50 percent exceeds</b>	6.4		8.2		7.1	
<b>90 percent exceeds</b>	4.9		1.8		2.0	

<sup>a</sup> See Remarks.



## 0208524975 LITTLE RIVER BELOW LITTLE RIVER TRIBUTARY AT FAIRNTOSH, NC—Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1995 to current year.

REMARKS.--Station operated to define the impacts of various land-use development on surface-water quality in the Upper Neuse River basin.

WATER-QUALITY DATA  
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 1 of 2

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

Date	Time	Instan- taneous dis- charge, cfs (00061)	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 µS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Ammonia	Ammonia	Nitrite		
									+ org-N, water, fltrd, mg/L as N (00623)	+ org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	+ nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)
<b>Oct</b> 18...	1230	4.2	752	8.1	84	6.8	81	16.5	.69	.66	.022	.32	.003
<b>Nov</b> 16...	1400	231	744	9.0	93	6.3	80	15.8	.87	.82	E.017	.23	.004
<b>Jan</b> 30...	1230	27	755	11.6	96	6.5	73	6.5	.75	.52	.052	.30	.003
<b>Mar</b> 07...	1515	34	757	10.9	78	6.4	82	1.3	.41	.56	.023	.30	.003
<b>Apr</b> 16...	1530	296	744	10.2	101	6.1	70	14.1	.53	.57	<.020	.19	.002
<b>May</b> 30...	1415	7.7	753	8.4	91	6.6	73	19.0	.48	.52	E.016	.33	.003

## 0208524975 LITTLE RIVER BELOW LITTLE RIVER TRIBUTARY AT FAIRNTOSH, NC—Continued

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

Part 2 of 2

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

Date	Total nitro- gen, water, fltrd, mg/L (00602)	Total nitro- gen, water, unfltrd mg/L (00600)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, fltrd, mg/L (00666)	Phos- phorus, water, unfltrd mg/L (00665)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment dis- charge, tons/d (80155)
<b>Oct</b>							
18...	1.0	.98	.080	.09	.13	8	.09
<b>Nov</b>							
16...	1.1	1.0	.044	.08	.20	36	22
<b>Jan</b>							
30...	1.1	.82	E.006	<.04	E.02	9	.66
<b>Mar</b>							
07...	.71	.85	E.005	<.04	.07	10	.92
<b>Apr</b>							
16...	.72	.76	E.004	<.04	.04	21	17
<b>May</b>							
30...	.81	.85	E.005	<.04	E.03	8	.17