

Water-Data Report 2007

0208524090 MOUNTAIN CREEK AT SECONDARY ROAD 1617 NEAR BAHAMA, NC

Neuse Basin
Upper Neuse Subbasin

LOCATION.--Lat 36°08'59", long 78°53'48" referenced to North American Datum of 1983, Durham County, NC, Hydrologic Unit 03020201, on right bank at bridge on Secondary Road 1617 and 1.6 mi southwest of Bahama.

DRAINAGE AREA.--8 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1994 to current year.

GAGE.--Water-stage recorder. Datum of gage is 360.95 ft above NGVD of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Maximum gage height for period of record from floodmarks. Maximum gage height for period of record occurred September 6, 1996, discharge not determined. No flow occurred on many days during the period.

0208524090 MOUNTAIN CREEK AT SECONDARY ROAD 1617 NEAR BAHAMA, NC—Continued

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

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0.84	1.7	7.9	12	3.7	4.6	5.1	2.3	0.72	0.20	0.07	0.00
2	0.80	1.6	6.4	10	7.4	106	5.2	2.1	0.68	0.15	0.05	0.00
3	0.76	1.3	5.2	6.2	6.0	17	4.3	1.9	2.0	0.12	0.04	0.00
4	0.74	1.2	5.0	5.3	4.4	9.2	4.0	1.9	1.6	0.11	0.04	0.00
5	0.66	1.2	4.3	5.5	3.7	6.9	3.3	2.0	1.1	0.10	0.03	0.00
6	3.4	1.2	4.1	47	3.3	5.8	2.9	2.1	0.98	0.10	0.02	0.00
7	2.6	19	4.0	17	3.6	5.5	3.0	1.6	0.85	0.10	0.02	0.00
8	2.2	36	3.6	50	3.4	5.1	2.8	1.5	0.72	0.10	0.01	0.00
9	1.4	10	3.3	17	3.2	4.0	2.6	4.1	0.55	0.08	0.01	0.00
10	1.1	6.1	3.1	9.7	3.1	4.2	2.5	5.5	0.57	0.19	0.01	0.00
11	0.91	4.5	3.2	7.3	2.6	4.1	3.2	2.7	0.51	0.35	0.03	0.00
12	0.84	59	3.0	6.6	2.7	3.6	24	39	0.51	0.31	0.02	0.00
13	0.72	18	3.1	6.0	3.5	3.6	7.9	14	0.48	0.17	0.01	0.00
14	0.70	9.4	3.2	5.5	23	3.5	5.1	5.4	0.96	0.13	0.01	0.00
15	0.59	6.9	3.1	5.2	8.3	3.6	233	3.7	0.62	0.14	0.00	0.00
16	0.52	37	3.1	4.9	5.9	36	67	3.1	0.57	0.10	0.00	0.00
17	0.96	16	3.1	3.8	4.9	23	15	3.0	0.50	0.09	0.03	0.00
18	7.1	8.7	2.8	4.2	4.6	9.3	9.8	2.7	0.42	0.21	0.02	0.00
19	2.5	6.8	2.8	5.2	3.8	6.7	7.9	2.3	0.38	0.11	0.04	0.00
20	1.4	5.7	2.5	4.3	3.9	5.9	6.7	1.9	0.33	0.09	0.02	0.00
21	1.1	15	2.5	5.1	3.9	5.2	5.7	1.7	0.28	0.09	0.02	0.00
22	1.1	148	6.6	25	4.9	4.9	5.0	1.5	0.25	0.08	0.01	0.00
23	1.3	33	13	11	3.5	4.7	4.4	1.3	0.20	0.06	0.02	0.00
24	1.0	16	6.4	7.5	3.1	4.3	4.1	1.1	0.20	0.06	0.02	0.00
25	0.90	11	64	6.1	9.2	3.9	3.9	1.2	0.61	0.06	0.03	0.00
26	0.91	8.8	27	5.3	13	3.6	3.7	1.3	0.31	0.06	0.02	0.00
27	1.2	7.5	11	4.8	6.7	7.9	3.6	1.2	0.24	0.06	0.01	0.00
28	18	6.6	7.5	4.6	5.2	23	3.1	1.1	0.18	0.07	0.00	0.00
29	5.0	6.2	5.8	3.7	---	8.7	2.8	1.1	0.24	0.07	0.00	0.00
30	2.8	5.9	4.8	3.8	---	6.6	2.6	e0.90	0.33	0.06	0.00	0.00
31	2.0	---	4.4	3.6	---	5.4	---	0.77	---	0.06	0.00	---
Total	66.05	509.3	229.8	313.2	154.5	345.8	454.2	115.97	17.89	3.68	0.61	0.00
Mean	2.13	17.0	7.41	10.1	5.52	11.2	15.1	3.74	0.60	0.12	0.02	0.00
Max	18	148	64	50	23	106	233	39	2.0	0.35	0.07	0.00
Min	0.52	1.2	2.5	3.6	2.6	3.5	2.5	0.77	0.18	0.06	0.00	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2007, BY WATER YEAR (WY)

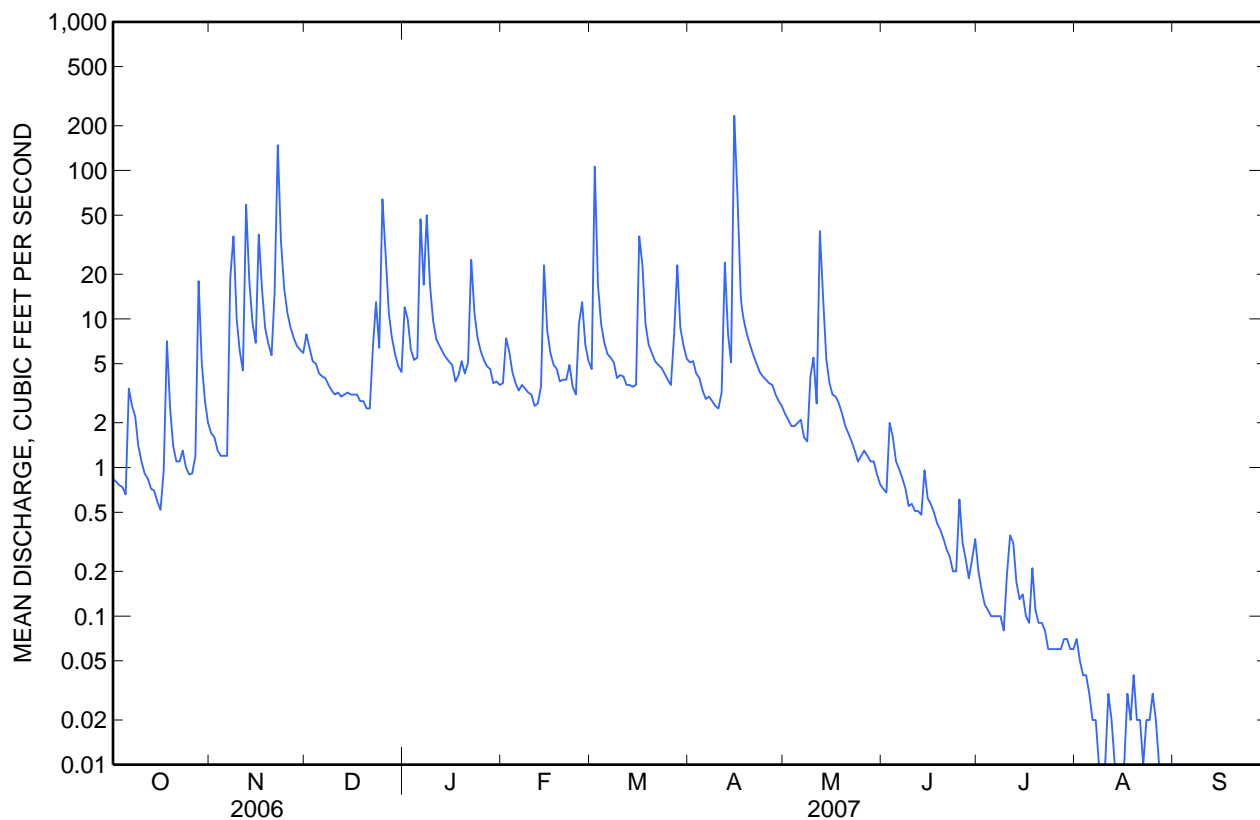
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	4.62	4.76	6.26	9.52	10.9	14.6	10.1	4.10	5.81	3.00	2.48	10.6
Max	32.9	17.0	20.7	27.3	36.2	49.9	30.0	15.1	29.7	9.12	10.6	74.0
(WY)	(2003)	(2007)	(2003)	(1998)	(1998)	(1998)	(2003)	(2003)	(1995)	(2006)	(2004)	(1996)
Min	0.03	0.06	0.26	1.51	1.55	1.12	1.14	0.19	0.29	0.10	0.01	0.00
(WY)	(1999)	(1999)	(2002)	(2001)	(2002)	(2006)	(2002)	(2002)	(1999)	(2002)	(1999)	(2007)

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SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1995 - 2007	
Annual total	1,912.78		2,211.00			
Annual mean	5.24		6.06		7.19	
Highest annual mean					17.3	2003
Lowest annual mean					1.67	2002
Highest daily mean	207	Jun 25	233	Apr 15	1,000	Sep 6, 1996
Lowest daily mean	0.15	Aug 27	0.00	Aug 15	0.00	Aug 3, 1999
Annual seven-day minimum	0.17	Aug 23	0.00	Aug 28	0.00	Aug 3, 1999
Maximum peak flow			512	Apr 15	^a NOT DETERMINED	
Maximum peak stage			7.66	Apr 15	12.56	Sep 6, 1996
Instantaneous low flow			^a 0.00	Aug 9	^a 0.00	Aug 3, 1999
10 percent exceeds	8.5		10		13	
50 percent exceeds	1.4		2.7		2.1	
90 percent exceeds	0.41		0.01		0.08	

^a See Remarks.



0208524090 MOUNTAIN CREEK AT SECONDARY ROAD 1617 NEAR BAHAMA, NC—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1988-91, 1994 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. For the period February 1988 through June 1989 the inorganic chemical data and trace metal data were analyzed by the city of Durham's Brown Water Treatment Plant Laboratory.

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 1 of 3

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

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unf 25 degC (00095)	Temperature, water, deg C (00010)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	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)
Oct													
18...	1000	8.4	750	9.0	91	6.6	99	15.1	.52	.47	<.020	.12	E.002
Nov													
16...	1145	65	739	8.5	88	6.0	82	15.3	.43	.54	.049	.15	.005
Jan													
30...	1315	3.6	752	13.8	107	6.7	85	4.0	.19	.20	.021	.57	.004
Mar													
07...	1600	5.5	758	10.1	95	6.3	77	12.5	.34	.31	.023	.49	.004
Apr													
16...	1315	40	744	10.0	97	5.4	61	12.9	.45	.59	E.010	.31	.003
May													
30...	1145	.90	753	8.1	92	7.0	105	21.5	.28	.27	<.020	.60	.003

0208524090 MOUNTAIN CREEK AT SECONDARY ROAD 1617 NEAR BAHAMA, NC—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 2 of 3

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

Date	Total nitrogen, water, fltrd, mg/L (00602)	Total nitrogen, water, unfltrd, mg/L (00600)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd, mg/L (00665)	Aluminum, water, recover-able, µg/L (01105)	Arsenic, water, unfltrd, µg/L (01002)	Cadmium, water, unfltrd, µg/L (01027)	Chromium, water, recover-able, µg/L (01034)	Cobalt, water, recover-able, µg/L (01037)	Copper, water, recover-able, µg/L (01042)	Iron, water, recover-able, µg/L (01045)	Lead, water, recover-able, µg/L (01051)
Oct 18...	.65	.59	E.005	<.04	.06	114	.67	E.01	<.60	.321	1.4	927	.45
Nov 16...	.58	.68	.023	E.03	.05	702	.82	.02	.73	1.22	5.8	1,960	2.05
Jan 30...	.76	.77	.009	<.04	<.04	--	--	--	--	--	--	--	--
Mar 07...	.83	.81	E.004	<.04	E.04	--	--	--	--	--	--	--	--
Apr 16...	.77	.90	.013	E.03	.07	--	--	--	--	--	--	--	--
May 30...	.88	.87	.006	<.04	E.03	--	--	--	--	--	--	--	--

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 3 of 3

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

Date	Manganese, water, unfltrd recover-able, µg/L (01055)	Mercury, water, unfltrd recover-able, µg/L (71900)	Molybdenum, water, unfltrd recover-able, µg/L (01062)	Nickel, water, unfltrd recover-able, µg/L (01067)	Selenium, water, unfltrd, µg/L (01147)	Silver, water, unfltrd recover-able, µg/L (01077)	Zinc, water, unfltrd recover-able, µg/L (01092)	Suspended sediment concentration, mg/L (80154)	Suspended sediment discharge, tons/d (80155)
Oct 18...	146	<.010	.1	.35	.09	<.02	E2	8	.18
Nov 16...	460	.010	.1	.60	.16	E.01	6	86	15
Jan 30...	--	--	--	--	--	--	--	6	.06
Mar 07...	--	--	--	--	--	--	--	31	.46
Apr 16...	--	--	--	--	--	--	--	33	3.6
May 30...	--	--	--	--	--	--	--	7	.02