

Water-Data Report 2007

0208732885 MARSH CREEK NEAR NEW HOPE, NC

Neuse Basin
Upper Neuse Subbasin

LOCATION.--Lat 35°49'01", long 78°35'35" referenced to North American Datum of 1983, Wake County, NC, Hydrologic Unit 03020201, at right upstream wingwall, on bridge at Stoneybrook Road, 0.2 mi downstream of U.S. Highway 401, and 2.9 mi southwest of New Hope.

DRAINAGE AREA.--6.84 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--January 1984 to current year.

REVISED RECORDS.--WDR NC-96-1: 1995(M).

GAGE.--Water-stage recorder. Datum of gage is 196.63 ft above NGVD of 1929. Satellite and telephone telemetry at station.

REMARKS.--Records fair except those below 1.50 ft³/s and those for estimated daily discharges, which are poor. Maximum discharge for period of record from rating curve extension above 1,300 ft³/s, on basis of indirect measurement of peak flow. Minimum discharge for period of record, no flow, also occurred August 5, 1999 and October 1-3, 2005. Minimum discharge for the current water year also occurred September 14.

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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	2.5	e2.6	14	10	12	3.6	2.4	2.0	0.87	2.9	0.52	e0.28
2	1.3	e2.5	5.8	4.8	7.3	36	2.2	1.8	0.90	1.9	0.53	e0.27
3	0.88	e2.4	5.1	3.8	4.0	5.5	2.1	1.8	89	1.2	0.57	e0.26
4	0.72	e2.3	8.0	3.4	3.4	4.3	2.3	1.7	17	0.99	0.51	e0.25
5	0.73	e2.2	3.9	5.1	2.9	3.7	2.1	1.8	4.2	1.0	0.49	e0.21
6	34	e2.1	3.4	64	2.7	3.2	1.7	2.2	6.5	1.3	2.5	e0.18
7	14	143	3.2	13	e2.6	2.9	3.6	e2.0	2.9	0.98	1.0	e0.21
8	6.0	29	2.8	23	e2.4	3.0	2.0	e1.8	2.2	0.84	0.64	e0.23
9	3.6	6.0	2.8	6.9	2.3	2.9	2.0	e2.5	1.9	0.78	3.1	e0.20
10	2.3	3.5	2.8	4.7	2.3	2.8	2.0	e3.6	3.0	1.5	9.3	e0.17
11	1.8	3.0	2.7	4.2	2.1	2.7	3.1	e2.0	1.3	26	4.2	e0.12
12	7.0	94	2.6	3.9	2.3	2.5	24	20	1.3	15	2.4	e0.09
13	2.6	10	2.6	3.4	5.7	2.6	5.0	6.1	1.4	3.3	1.6	0.06
14	1.8	5.0	2.6	3.4	15	2.6	3.5	3.4	1.3	2.4	1.0	25
15	1.4	3.8	2.6	e3.3	4.5	2.5	53	2.5	1.2	1.6	0.70	15
16	1.4	93	2.6	e3.1	3.6	105	16	1.8	1.1	1.2	0.47	3.4
17	23	11	2.6	2.8	3.3	16	4.3	2.0	13	24	1.2	2.1
18	18	5.4	2.6	7.7	2.9	5.3	3.4	1.5	3.7	80	0.77	1.2
19	4.4	4.2	2.7	5.2	2.6	3.8	2.8	1.3	2.4	4.6	0.42	1.2
20	7.9	3.4	2.5	3.5	2.5	3.4	2.4	1.1	3.5	2.9	0.46	8.3
21	3.1	21	2.5	14	2.7	e3.4	2.1	1.1	1.8	1.8	0.70	3.9
22	3.7	196	47	43	2.6	e3.1	1.8	1.1	1.3	1.2	1.1	1.9
23	2.8	14	20	6.1	2.8	2.7	1.7	1.1	1.7	0.92	0.70	0.85
24	1.9	7.0	5.2	e5.9	2.4	2.6	1.7	1.1	1.0	0.81	0.66	0.59
25	1.8	4.9	153	e4.7	21	2.5	1.9	1.2	2.8	0.76	0.64	0.58
26	1.7	3.8	18	3.4	8.5	2.2	1.9	1.2	1.3	0.79	1.0	0.62
27	12	3.5	6.7	3.0	4.1	2.3	11	1.2	1.3	5.5	0.59	0.59
28	28	3.1	4.7	2.9	3.5	2.4	3.8	1.1	1.1	3.6	0.42	0.55
29	4.8	2.9	4.0	2.7	---	5.5	3.1	1.5	16	1.5	e0.35	0.39
30	3.2	3.3	3.6	2.6	---	3.3	2.4	1.1	8.5	1.2	e0.31	0.35
31	2.7	---	3.4	2.3	---	2.8	---	0.89	---	0.91	e0.29	---
Mean	6.48	22.9	11.2	8.70	4.79	7.97	5.71	2.44	6.52	6.24	1.26	2.30
Max	34	196	153	64	21	105	53	20	89	80	9.3	25
Min	0.72	2.1	2.5	2.3	2.1	2.2	1.7	0.89	0.87	0.76	0.29	0.06
In.	1.09	3.74	1.88	1.47	0.73	1.34	0.93	0.41	1.06	1.05	0.21	0.38

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2007, BY WATER YEAR (WY)

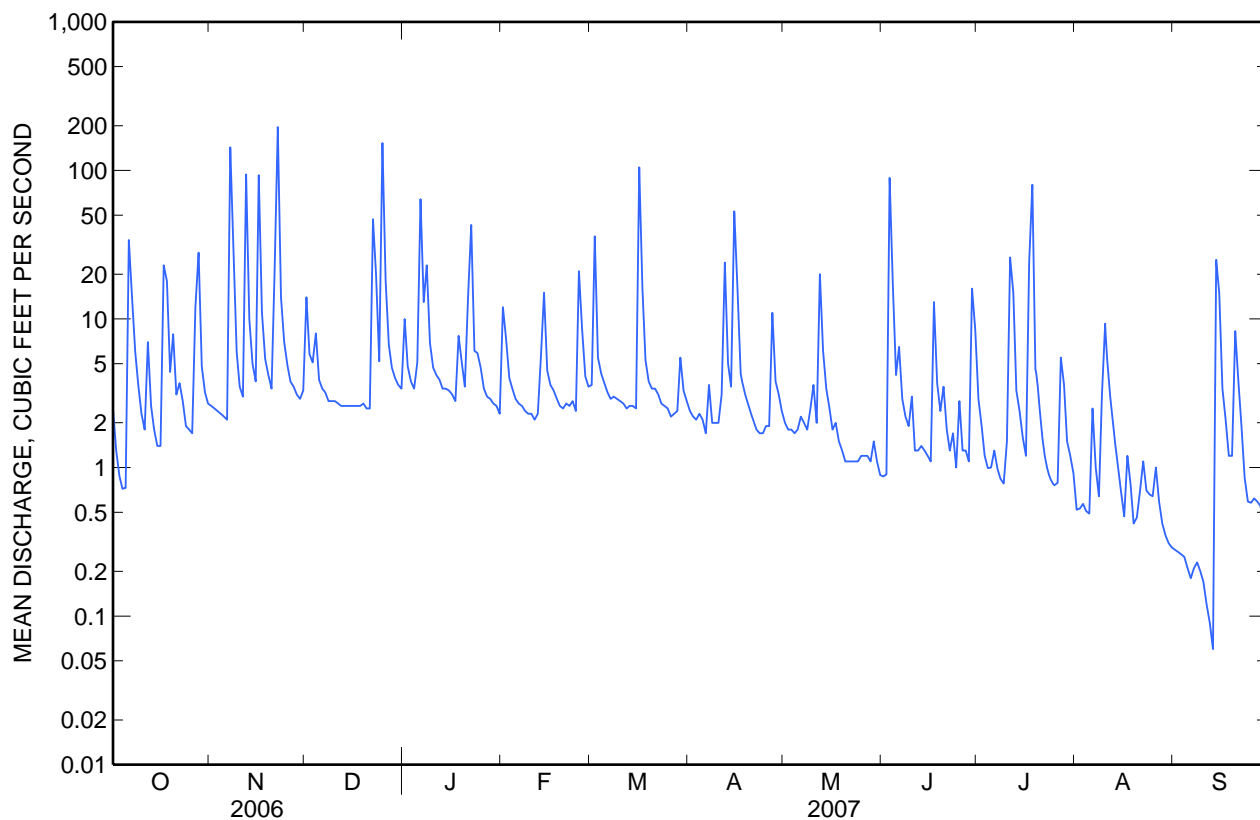
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	7.66	8.43	7.58	11.6	10.8	12.9	9.38	7.67	9.38	8.81	10.2	10.4
Max	28.2	22.9	16.2	30.3	22.0	31.9	21.5	25.9	32.1	25.0	38.0	67.4
(WY)	(2003)	(2007)	(2003)	(1998)	(1998)	(1998)	(2003)	(1984)	(2006)	(1997)	(1986)	(1999)
Min	1.39	1.72	2.02	3.62	2.77	3.23	2.08	2.05	1.29	2.44	1.26	0.64
(WY)	(2001)	(1992)	(1995)	(2001)	(1991)	(2006)	(1986)	(2002)	(1993)	(1987)	(2007)	(2005)

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SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1984 - 2007	
Annual mean	10.1		7.20		9.47	
Highest annual mean					16.3	2003
Lowest annual mean					5.18	1985
Highest daily mean	688	Jun 14	196	Nov 22	890	Sep 6, 1996
Lowest daily mean	0.11	Aug 29	0.06	Sep 13	0.00	Aug 3, 1999
Annual seven-day minimum	1.2	Sep 17	0.15	Sep 7	0.00	Sep 28, 2005
Maximum peak flow			683	Dec 25	^a 3,900	Sep 6, 1996
Maximum peak stage			8.36	Dec 25	13.33	Sep 6, 1996
Instantaneous low flow			^a 0.00	Sep 13	^a 0.00	Aug 3, 1999
Annual runoff (inches)	19.96		14.30		18.81	
10 percent exceeds	18		14		18	
50 percent exceeds	2.8		2.6		3.3	
90 percent exceeds	1.2		0.68		1.2	

^a See Remarks.



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CLIMATOLOGICAL RECORDS

PERIOD OF RECORD.--September 1985 to current year. Records from September 1985 to September 1999 are unpublished and available from the USGS Water Science Center, Raleigh, NC.

INSTRUMENTATION.--Tipping-bucket raingage. Satellite telemetry at station.

REMARKS.--Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY SUM VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0.00	0.00	0.39	0.20	0.45	0.22	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.02	0.45	0.01	0.00	0.06	0.00	0.00	0.00
3	0.00	0.00	0.16	0.00	0.00	0.00	0.02	0.00	1.09	0.00	0.00	0.00
4	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00
5	0.00	0.00	0.00	0.48	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
6	0.66	0.00	0.00	0.38	0.00	0.00	0.00	0.00	0.15	0.00	0.19	0.00
7	0.07	2.12	0.00	0.22	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00
8	0.05	0.07	0.00	0.24	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
9	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.06	0.00	0.20	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.16	0.40	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.61	0.00	0.00
12	0.30	1.48	0.00	0.00	0.00	0.00	0.12	0.67	0.01	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.37	0.00	0.00	0.00	0.18	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	1.04
15	0.00	0.00	0.00	0.00	0.00	0.00	1.05	0.00	0.00	0.00	0.00	0.18
16	0.00	1.39	0.00	0.00	0.00	1.74	0.00	0.01	0.00	0.00	0.00	0.00
17	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	1.06	0.12	0.00
18	0.09	0.00	0.00	0.24	0.00	0.00	0.00	0.00	0.00	0.94	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00
20	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.40
21	0.00	0.94	0.00	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00
22	0.08	1.44	1.08	0.14	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00
23	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
25	0.00	0.00	1.56	0.00	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.00
27	0.57	0.00	0.00	0.00	0.00	0.03	0.30	0.00	0.00	0.36	0.00	0.00
28	0.26	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.02	0.00	0.00
29	0.00	0.00	0.00	0.00	---	0.20	0.00	0.14	0.19	0.00	0.00	0.00
30	0.00	0.05	0.00	0.00	---	0.00	0.00	0.00	0.00	0.01	0.00	0.00
31	0.00	---	0.01	0.00	---	0.00	---	0.00	---	0.00	0.00	---
Total	3.06	7.49	3.23	2.50	1.66	2.65	1.91	0.86	2.10	3.16	1.25	1.62

