



Water-Data Report 2010

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 (annual maximum discharge).

GAGE.--Water-stage recorder. Datum of gage is 196.63 ft above National Geodetic Vertical Datum of 1929. November 7, 2007 to September 30, 2008, at site 0.4 mi downstream at datum 8.00 ft lower. Satellite telemetry at streamgage.

REMARKS.--Records 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.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1.1	23	5.8	6.1	12	2.8	3.8	e1.9	19	4.0	3.8	0.67
2	0.93	2.6	90	4.1	15	4.8	3.4	e1.9	14	2.8	1.9	0.69
3	e0.90	1.6	151	3.4	28	12	3.2	e2.0	8.3	2.2	1.5	0.70
4	e0.85	1.2	8.7	3.1	11	5.1	2.9	e2.0	5.8	2.0	1.3	0.59
5	e1.2	1.1	21	3.0	172	3.8	2.8	e2.2	4.5	1.8	78	0.52
6	e1.5	0.97	8.1	2.8	59	3.3	2.6	e1.8	4.0	1.7	27	0.54
7	e1.0	e0.84	5.5	2.9	9.8	3.0	2.4	e2.0	4.0	1.5	3.6	0.54
8	e0.79	e0.79	9.5	3.4	6.1	2.8	3.1	e1.9	3.0	1.4	1.6	0.51
9	e0.73	e0.75	92	2.8	16	2.9	31	e1.8	2.8	1.5	1.1	e0.49
10	e0.70	e5.8	11	2.8	9.8	3.3	5.4	e1.6	2.9	14	0.85	e0.48
11	e1.8	291	5.3	2.8	5.5	9.2	3.1	e1.8	2.7	2.5	0.72	e0.45
12	e0.82	51	4.1	2.8	4.4	6.5	2.9	e1.8	2.5	1.4	1.8	e1.5
13	e2.6	11	9.7	3.1	7.7	38	e2.6	e1.7	27	1.2	0.77	e0.65
14	e3.3	e4.7	5.8	3.9	5.3	12	e2.5	e1.6	13	1.2	0.73	e0.53
15	e4.1	e4.1	4.3	3.0	4.4	5.6	e2.4	e1.8	5.1	0.93	0.68	e0.45
16	e1.6	e3.3	3.5	3.0	3.7	4.2	e2.4	13	3.7	2.7	0.66	e0.42
17	e1.3	2.5	3.1	97	3.4	3.6	e2.3	75	3.6	19	0.58	e0.42
18	e1.1	8.0	5.0	15	3.2	3.5	e2.2	69	2.5	9.2	28	e0.42
19	e0.96	7.9	48	5.9	3.3	3.2	e2.1	39	2.3	2.7	24	e0.46
20	e1.3	4.1	8.3	4.2	3.1	2.9	e2.0	8.0	2.3	5.6	15	e0.42
21	0.97	3.3	4.7	29	3.1	2.9	e6.0	4.7	2.1	7.2	2.6	e0.38
22	e0.91	3.2	3.9	37	8.7	3.6	e4.3	47	2.1	2.5	9.4	e0.35
23	e0.87	17	3.2	7.2	4.7	3.3	e3.5	116	9.4	19	20	e0.35
24	e1.0	7.3	3.3	5.1	4.6	2.7	e3.0	14	3.8	6.1	55	e0.36
25	e1.6	4.6	30	114	4.8	2.7	e9.0	7.9	2.2	2.6	7.2	e0.37
26	e1.3	3.7	13	11	3.5	3.5	e5.0	5.5	2.2	3.8	2.2	56
27	2.7	3.5	5.4	5.9	3.2	2.7	e3.5	4.4	2.0	7.0	1.3	97
28	3.6	2.9	4.1	4.3	3.0	2.8	e2.5	20	2.0	2.9	1.0	12
29	1.3	3.0	3.4	4.0	---	78	e2.0	84	7.0	12	0.92	86
30	1.1	5.8	3.0	6.5	---	8.9	e2.0	8.7	7.4	31	0.81	256
31	1.3	---	14	6.5	---	4.8	---	6.9	---	3.8	0.78	---
Mean	1.46	16.0	19.0	13.1	14.9	8.01	4.20	17.8	5.77	5.72	9.51	17.3
Max	4.1	291	151	114	172	78	31	116	27	31	78	256
Min	0.70	0.75	3.0	2.8	3.0	2.7	2.0	1.6	2.0	0.93	0.58	0.35
In.	0.25	2.61	3.20	2.21	2.27	1.35	0.68	3.00	0.94	0.96	1.60	2.83

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2010, BY WATER YEAR (WY)

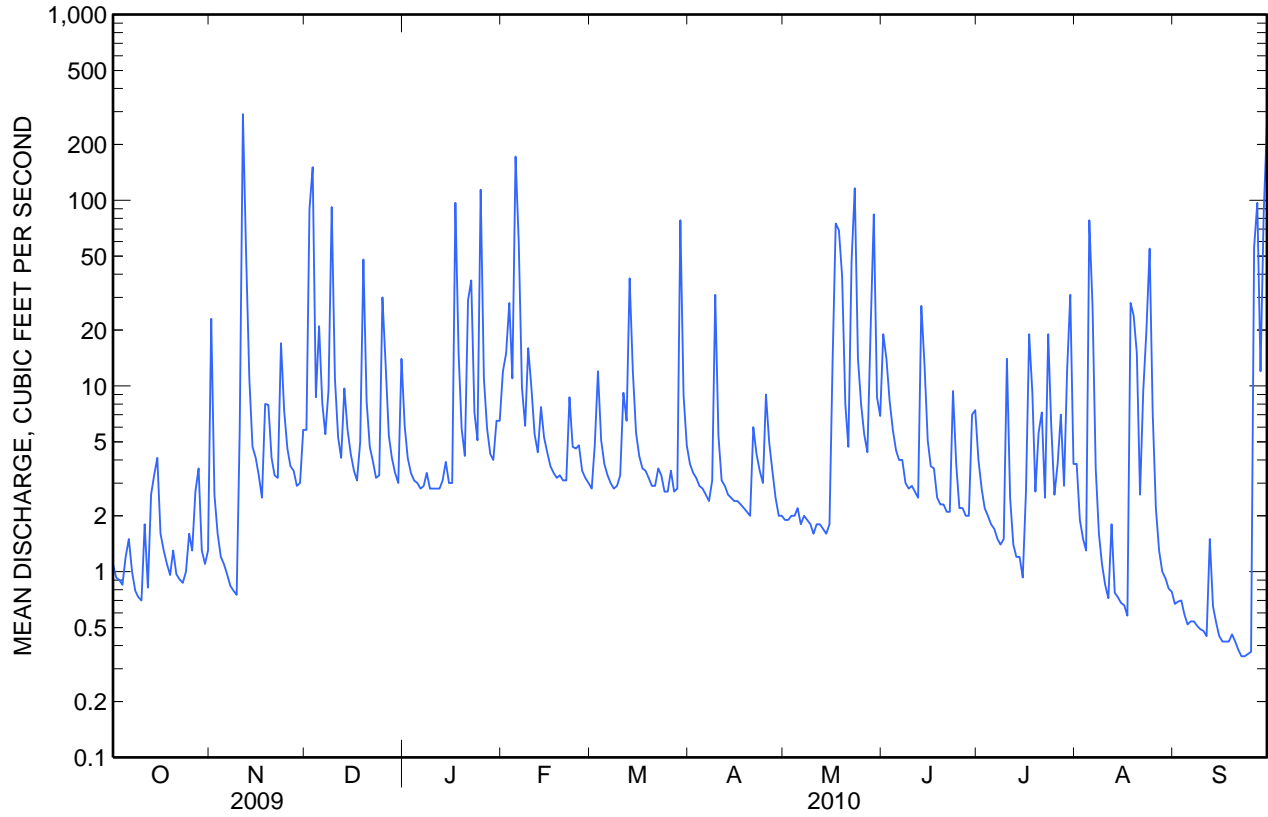
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	7.40	8.42	8.06	11.2	10.6	13.0	9.48	8.23	9.13	8.53	9.80	11.0
Max	28.2	22.9	19.0	30.3	22.0	31.9	22.9	25.9	32.1	25.0	38.0	67.4
(WY)	(2003)	(2007)	(2010)	(1998)	(1998)	(1998)	(2008)	(1984)	(2006)	(1997)	(1986)	(1999)
Min	1.39	1.26	2.02	3.06	2.77	3.23	2.08	2.05	1.29	2.44	1.26	0.64
(WY)	(2001)	(2008)	(1995)	(2008)	(1991)	(2006)	(1986)	(2002)	(1993)	(1987)	(2007)	(2005)

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SUMMARY STATISTICS

	Calendar Year 2009		Water Year 2010		Water Years 1984 - 2010	
Annual mean	9.58		11.0		9.47	
Highest annual mean					16.3	2003
Lowest annual mean					5.18	1985
Highest daily mean	291	Nov 11	291	Nov 11	890	Sep 6, 1996
Lowest daily mean	0.70	Sep 6	0.35	Sep 22	0.00	Aug 3, 1999
Annual seven-day minimum	0.97	Oct 4	0.38	Sep 19	0.00	Sep 28, 2005
Maximum peak flow			1,030	Dec 3	^a 3,900	Sep 6, 1996
Maximum peak stage			8.81	Dec 3	13.33	Sep 6, 1996
Instantaneous low flow			Not Determined		^a 0.00	Aug 3, 1999
Annual runoff (inches)	19.01		21.91		18.81	
10 percent exceeds	19		20		18	
50 percent exceeds	3.3		3.3		3.2	
90 percent exceeds	1.2		0.80		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.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010
DAILY SUM VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0.00	0.49	0.00	0.01	---	0.00	0.02	0.00	0.69	0.00	0.14	0.00
2	0.00	0.01	1.80	0.00	---	0.17	0.01	0.00	0.15	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	---	0.17	0.00	0.02	0.00	0.00	0.00	0.00
4	0.00	0.00	0.03	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
5	0.12	0.00	0.33	0.00	1.84	0.00	0.00	0.00	0.00	0.00	1.38	0.00
6	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.05	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.01	0.00	0.00	0.00
8	0.00	0.00	0.52	0.04	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.78	0.00	0.28	0.00	0.51	0.00	0.00	0.00	0.00	0.00
10	0.00	1.03	0.00	0.00	0.01	0.13	0.00	0.00	0.00	0.14	0.00	0.00
11	0.04	2.35	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.06	0.07
12	0.15	0.15	0.00	0.00	---	0.02	0.00	0.00	0.00	0.00	0.05	0.04
13	0.00	0.02	0.24	0.00	---	0.56	0.00	0.00	0.45	0.00	0.00	0.00
14	0.22	---	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00
15	0.03	---	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.01	---	0.00	0.01	0.00	0.00	0.00	---	0.00	0.35	0.00	0.00
17	0.00	0.00	0.00	1.46	0.00	0.00	0.00	---	0.00	0.21	0.00	0.00
18	0.00	0.23	0.32	0.00	0.00	0.00	0.00	---	0.00	0.00	0.34	0.00
19	0.00	0.13	0.40	0.00	0.00	0.00	0.00	---	0.00	0.00	0.44	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	---	0.00	0.00	0.03	0.00
21	0.00	0.00	0.00	0.81	0.00	0.00	0.27	---	0.00	0.00	0.00	0.00
22	0.00	0.14	0.00	0.00	0.19	0.06	0.00	---	0.00	0.00	0.44	0.00
23	0.00	0.30	0.00	0.00	0.00	0.02	0.00	---	0.42	0.96	1.20	0.00
24	0.08	0.00	0.00	0.03	0.06	0.00	0.04	---	0.00	0.00	1.12	0.00
25	0.00	0.00	0.59	0.99	0.00	0.00	0.33	0.00	0.00	0.02	0.00	0.00
26	0.03	0.01	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	2.24
27	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.00	0.98
28	0.21	0.00	0.00	0.00	0.00	0.02	0.00	0.82	0.00	0.00	0.00	0.04
29	0.00	0.00	0.00	---	---	1.26	0.00	0.15	0.39	0.76	0.00	1.79
30	0.00	0.22	0.06	---	---	0.00	0.00	0.00	0.05	0.01	0.00	1.75
31	0.02	---	0.31	---	---	0.00	---	0.00	---	0.01	0.00	---
Total	1.05	---	5.39	---	---	2.79	1.40	---	2.21	2.73	5.20	6.91

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