

Water-Data Report 2012

0209741955 NORTHEAST CREEK AT SECONDARY ROAD 1100 NEAR GENLEE, NC

Cape Fear Basin
Haw Subbasin

LOCATION.--Lat 35°52'20", long 78°54'47" referenced to North American Datum of 1983, Durham County, NC, Hydrologic Unit 03030002, on left bank, downstream side of bridge on Secondary Road 1100, 1.3 mi west of Genlee, and 1.6 mi downstream of Burdens Creek.

DRAINAGE AREA.--21.1 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1982 to January 1994, August 1995 to current year.

GAGE.--Water-stage recorder. Datum of gage is 229.01 ft above National Geodetic Vertical Datum of 1929. Satellite telemetry at streamgage.

REMARKS.--No estimated daily discharges. Records poor. Maximum discharge for period of record from rating curve extended above 2,000 ft³/s, by logarithmic plotting.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	17	26	31	15	14	18	29	10	29	7.5	13	10
2	13	20	23	14	13	16	18	10	50	7.2	13	10
3	12	16	19	14	12	131	14	9.4	13	7.7	12	20
4	11	342	17	13	12	138	13	9.3	10	7.3	12	41
5	10	169	16	14	27	46	29	17	9.0	7.7	11	17
6	9.5	27	16	13	20	24	23	176	8.3	7.9	11	13
7	9.7	19	33	12	16	19	16	27	8.3	8.8	17	28
8	9.2	16	130	13	14	17	12	15	8.0	7.9	18	15
9	8.8	15	30	20	13	34	12	17	7.0	8.1	17	22
10	9.1	15	20	19	13	26	11	24	6.9	9.7	13	14
11	9.4	16	16	28	12	18	11	13	33	40	13	12
12	12	17	15	70	12	17	11	10	108	27	20	11
13	11	17	14	27	13	14	11	9.9	211	11	14	11
14	11	20	13	17	12	15	9.2	22	35	8.6	12	11
15	11	20	13	16	12	14	9.2	86	13	8.0	12	9.7
16	10	21	13	14	12	14	11	23	9.3	8.3	10	16
17	11	48	95	13	19	20	10	14	8.8	8.2	11	15
18	12	45	35	18	16	123	14	11	8.8	7.8	9.8	46
19	180	25	19	17	28	55	13	9.0	8.6	7.7	38	340
20	92	21	19	15	129	284	12	8.9	8.1	9.3	40	56
21	22	21	22	54	40	480	11	9.0	8.5	21	20	13
22	15	20	49	65	25	102	61	9.4	8.7	86	13	9.8
23	12	30	63	27	30	36	50	134	8.1	21	13	9.2
24	12	27	25	21	26	120	18	31	7.8	15	11	8.8
25	12	20	18	17	24	811	12	15	8.3	12	23	8.4
26	12	19	15	15	18	118	16	12	7.2	11	16	8.0
27	13	19	46	36	19	34	19	9.9	6.7	11	13	8.3
28	15	20	72	32	27	22	11	9.7	6.6	51	12	9.2
29	69	176	26	18	19	18	10	9.3	7.3	198	11	34
30	45	122	20	16	---	16	10	11	6.7	28	11	58
31	21	---	16	15	---	18	---	10	---	16	11	---
Total	716.7	1,389	959	698	647	2,818	506.4	781.8	669.0	685.7	470.8	884.4
Mean	23.1	46.3	30.9	22.5	22.3	90.9	16.9	25.2	22.3	22.1	15.2	29.5
Max	180	342	130	70	129	811	61	176	211	198	40	340
Min	8.8	15	13	12	12	14	9.2	8.9	6.6	7.2	9.8	8.0
Cfsm	1.10	2.19	1.47	1.07	1.06	4.31	0.80	1.20	1.06	1.05	0.72	1.40
In.	1.26	2.45	1.69	1.23	1.14	4.97	0.89	1.38	1.18	1.21	0.83	1.56

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2012^a, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	19.4	28.5	34.4	45.9	48.4	57.1	33.4	20.4	13.8	16.6	16.8	32.7
Max	83.8	109	86.7	134	111	128	84.5	59.1	44.4	48.6	66.7	247
(WY)	(2003)	(2007)	(2003)	(1998)	(1998)	(1998)	(1993)	(1990)	(1992)	(1989)	(1986)	(1999)
Min	3.27	3.89	4.31	11.1	10.8	8.18	4.00	4.57	4.55	3.33	3.50	2.49
(WY)	(1986)	(1985)	(2002)	(2008)	(1991)	(1985)	(1985)	(2002)	(1987)	(1983)	(1983)	(1983)

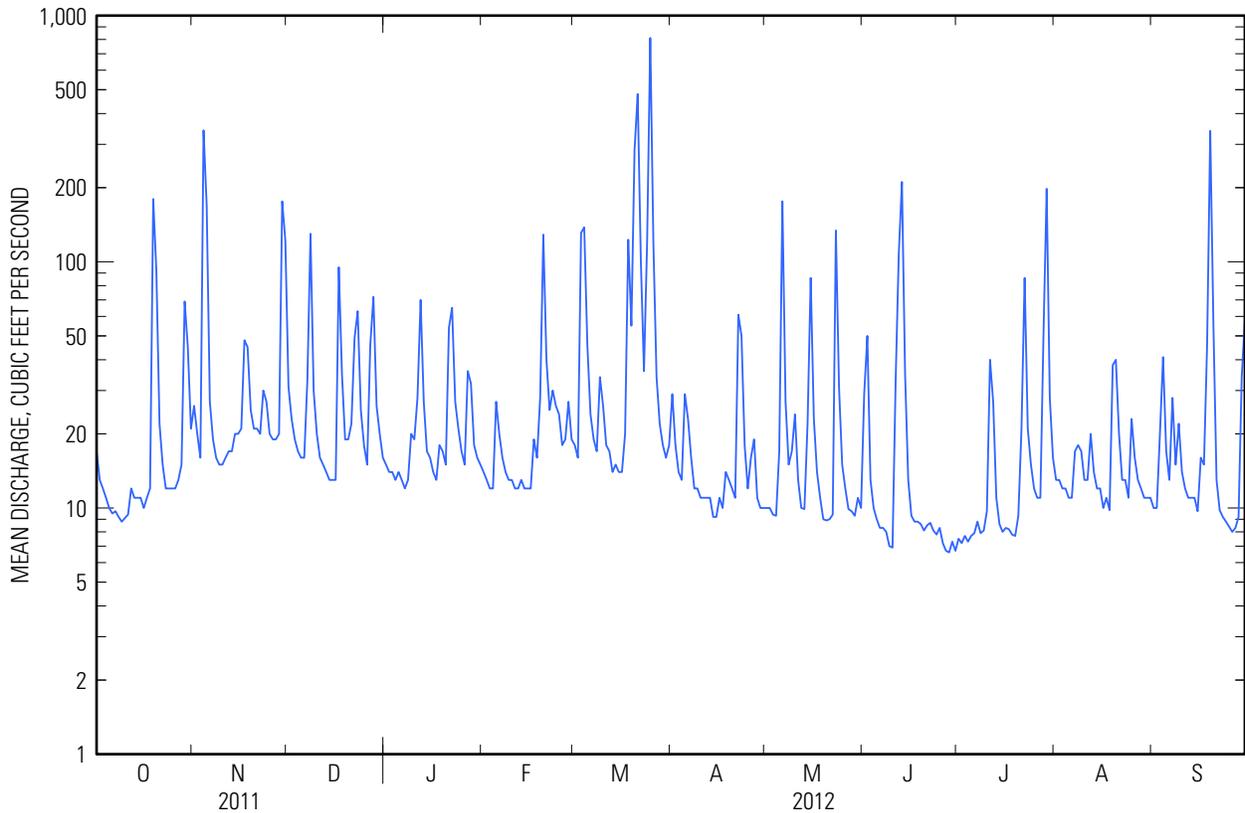
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SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 1983 - 2012 ^a	
Annual total	10,662.4		11,225.8			
Annual mean	29.2		30.7		30.8	
Highest annual mean					49.1	1996
Lowest annual mean					12.4	2002
Highest daily mean	520	May 28	811	Mar 25	3,350	Sep 6, 1996
Lowest daily mean	7.5	Jul 17	6.6	Jun 28	0.74	Jul 16, 1991
Annual seven-day minimum	8.3	Jun 21	7.0	Jun 26	1.5	Oct 7, 1985
Maximum peak flow			1,340	Mar 25	^b 5,140 Sep 6, 1996	
Maximum peak stage			10.67	Mar 25	13.92	Sep 6, 1996
Instantaneous low flow			2.7	Jul 2	0.76	Oct 7, 1985
Annual runoff (cfsm)	1.38		1.45		1.46	
Annual runoff (inches)	18.80		19.79		19.81	
10 percent exceeds	48		52		56	
50 percent exceeds	14		15		10	
90 percent exceeds	9.0		8.8		4.4	

^a See Period of Record.

^b See Remarks.



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WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1983-86, 1988-95, 1999, 2001, 2004-12.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1982 to September 1985.

WATER TEMPERATURE: October 1982 to September 1985.

INSTRUMENTATION.--Water-quality monitor from October 1982 to September 1985.

REMARKS.--Station operated to define water quality as part of a regional surface-water quality assessment. Sample for October 1994 and April 1995 were collected by the North Carolina Department of Environment, Health, and Natural Resources. A GC/FID scan for trace organic compounds was performed on these samples by the U.S. Geological Survey Water Quality Lab. Results may be obtained from the USGS Water Science Center, Raleigh, NC. Instantaneous discharge is not available for April and August 1994.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 872 microsiemens, October 15, 1984; minimum, 29 microsiemens, January 11, April 5, 1984.

WATER TEMPERATURE: Maximum, 29.0°C, August 23, 1983; minimum, 0.0°C, December 28, 1983, January 2, 22, 23, 1984.

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 1 of 5

[% , percent; N, nitrogen; P, phosphorus; SiO₂, silicon dioxide; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than]

Date	Sample start time	Medium name	Sample type	Barometric pressure, mm Hg (00025)	Discharge, instantaneous, ft ³ /s (00061)	Dissolved oxygen, unfiltered, mg/L (00300)	Dissolved oxygen, unfiltered, % saturation (00301)	pH, water, unfiltered, field, standard units (00400)	Specific conductance, water, unfiltered, µS/cm at 25°C (00095)
09-19-2012	1345	Surface water	Regular	760	474	3.6	41	6.2	85

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 2 of 5

[% , percent; N, nitrogen; P, phosphorus; SiO₂, silicon dioxide; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than]

Date	Sample start time	Temperature, water, °C (00010)	Dissolved solids dried at 180°C, water, filtered, mg/L (70300)	Calcium, water, filtered, mg/L (00915)	Magnesium, water, filtered, mg/L (00925)	Potassium, water, filtered, mg/L (00935)	Sodium, water, filtered, mg/L (00930)	Chloride, water, filtered, mg/L (00940)	Fluoride, water, filtered, mg/L (00950)	Silica, water, filtered, mg/L as SiO ₂ (00955)
09-19-2012	1345	21.7	59	5.08	1.61	3.05	6.61	5.78	0.08	4.91

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WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 3 of 5

[%, percent; N, nitrogen; P, phosphorus; SiO₂, silicon dioxide; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than]

Date	Sample start time	Sulfate, water, filtered, mg/L (00945)	Ammonia plus organic nitrogen, water, unfiltered, mg/L as N (00625)	Ammonia, water, filtered, mg/L as N (00608)	Nitrate plus nitrite, water, filtered, mg/L as N (00631)	Orthophosphate, water, filtered, mg/L as P (00671)	Phosphorus, water, unfiltered, mg/L as P (00665)	Aluminum, water, unfiltered, recoverable, µg/L (01105)	Cadmium, water, unfiltered, µg/L (01027)
09-19-2012	1345	5.15	0.83	0.024	0.13	0.036	0.177	1,230	0.019

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 4 of 5

[%, percent; N, nitrogen; P, phosphorus; SiO₂, silicon dioxide; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than]

Date	Sample start time	Chromium, water, unfiltered, recoverable, µg/L (01034)	Cobalt, water, unfiltered, recoverable, µg/L (01037)	Copper, water, unfiltered, recoverable, µg/L (01042)	Iron, water, unfiltered, recoverable, µg/L (01045)	Lead, water, unfiltered, recoverable, µg/L (01051)	Manganese, water, unfiltered, recoverable, µg/L (01055)	Mercury, water, unfiltered, recoverable, µg/L (71900)	Molybdenum, water, unfiltered, recoverable, µg/L (01062)	Nickel, water, unfiltered, recoverable, µg/L (01067)
09-19-2012	1345	1.7	0.85	7.3	1,660	1.80	73.5	0.008	1.67	1.8

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 5 of 5

[%, percent; N, nitrogen; P, phosphorus; SiO₂, silicon dioxide; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than]

Date	Sample start time	Silver, water, unfiltered, recoverable, µg/L (01077)	Zinc, water, unfiltered, recoverable, µg/L (01092)	Arsenic, water, unfiltered, µg/L (01002)	Selenium, water, unfiltered, µg/L (01147)	Organic carbon, water, unfiltered, mg/L (00680)
09-19-2012	1345	< .015	11.1	0.89	0.115	10.7