

Water-Data Report 2012

0209782609 WHITE OAK CREEK AT MOUTH NEAR GREEN LEVEL, NC

Cape Fear Basin
Haw Subbasin

LOCATION.--Lat 35°45'37", long 78°55'13" referenced to North American Datum of 1983, Wake County, NC, Hydrologic Unit 03030002, on left bank on Secondary Road 1603, 1.8 mi south-southwest of Green Level.

DRAINAGE AREA.--11.9 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1999 to current year. Prior to September 2003 published as "White Oak Creek at Green Level, NC" (0209782520).

GAGE.--Water-stage recorder. Datum of gage is 236.14 ft above North American Vertical Datum of 1988. Satellite telemetry at streamgage.

REMARKS.--Records poor. No flow occurs at times most years.

0209782609 WHITE OAK CREEK AT MOUTH NEAR GREEN LEVEL, NC—Continued

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

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	13	1.3	1.6	4.4	2.6	5.9	12	4.0	2.4	0.00	0.81	0.19
2	3.0	0.52	0.99	5.1	e2.6	5.5	3.6	4.2	31	0.00	0.88	0.30
3	1.6	0.34	0.73	5.1	2.6	60	2.5	4.1	19	0.00	5.0	32
4	1.2	114	0.61	3.9	2.1	40	2.8	3.9	15	0.00	1.1	1.4
5	0.86	17	0.68	3.9	9.8	16	12	24	11	0.00	0.73	1.0
6	0.72	2.2	1.2	4.3	7.0	8.6	6.5	120	8.7	0.00	0.55	0.81
7	0.65	0.74	2.0	3.8	4.1	6.7	3.2	10	7.4	2.0	0.58	1.4
8	0.58	0.50	9.2	4.1	3.0	7.6	3.1	4.0	6.1	4.8	0.67	2.6
9	0.51	1.9	2.1	4.6	2.6	11	2.8	16	5.2	2.1	0.55	53
10	0.50	3.6	2.2	5.9	2.3	11	3.0	29	4.6	0.81	1.6	1.3
11	0.56	4.3	2.2	7.6	2.2	7.6	2.4	3.4	5.5	32	19	0.98
12	0.72	3.8	2.1	15	1.9	7.1	2.6	2.1	39	29	43	0.74
13	0.82	3.4	2.4	5.8	1.7	10	3.0	1.8	31	11	1.3	0.57
14	0.92	3.0	3.3	4.3	1.7	6.2	3.2	4.7	15	6.9	0.93	0.46
15	0.78	2.4	3.9	3.7	1.6	3.8	3.0	115	10	5.3	0.69	0.37
16	0.62	1.8	5.8	3.4	1.8	5.5	2.9	12	6.8	3.5	0.67	0.66
17	0.56	3.5	17	3.3	8.4	8.7	2.8	4.1	5.4	2.1	0.60	1.2
18	0.69	3.4	8.2	5.6	3.6	24	4.0	2.7	4.6	0.92	0.46	23
19	98	1.5	4.3	5.3	4.4	16	3.3	2.0	3.7	0.23	1.2	50
20	29	1.2	e5.5	4.1	43	103	2.7	1.3	3.1	0.00	1.6	1.3
21	6.8	0.97	6.7	19	6.1	327	2.4	1.1	2.6	0.00	1.2	0.92
22	2.6	0.91	7.8	21	2.0	51	11	0.93	3.7	11	0.91	0.78
23	1.3	1.7	7.3	6.5	4.7	18	7.5	2.5	3.6	9.9	1.3	0.67
24	0.65	1.8	6.5	4.8	2.0	33	2.0	2.8	2.8	26	0.87	0.56
25	0.50	1.2	5.5	3.9	6.1	59	1.9	2.0	1.8	3.9	1.2	0.47
26	0.40	0.92	4.8	3.4	0.82	15	2.9	1.0	0.95	1.2	1.2	0.39
27	1.2	0.87	13	10	1.1	8.0	5.2	0.59	0.43	0.93	0.75	0.33
28	1.2	0.88	13	7.2	3.6	7.5	4.3	0.62	0.14	0.94	0.55	0.32
29	7.8	73	5.6	4.0	1.6	e6.0	4.0	0.55	0.00	34	0.42	49
30	2.0	5.8	5.0	3.3	---	4.4	3.6	0.69	0.00	1.4	0.32	82
31	0.51	---	4.6	3.0	---	7.9	---	2.8	---	1.0	0.25	---
Total	180.25	258.45	155.81	189.3	137.02	901.0	126.2	383.88	250.52	190.93	90.89	308.72
Mean	5.81	8.62	5.03	6.11	4.72	29.1	4.21	12.4	8.35	6.16	2.93	10.3
Max	98	114	17	21	43	327	12	120	39	34	43	82
Min	0.40	0.34	0.61	3.0	0.82	3.8	1.9	0.55	0.00	0.00	0.25	0.19
Cfsm	0.49	0.72	0.42	0.51	0.40	2.44	0.35	1.04	0.70	0.52	0.25	0.86
In.	0.56	0.81	0.49	0.59	0.43	2.82	0.39	1.20	0.78	0.60	0.28	0.97

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2012, BY WATER YEAR (WY)

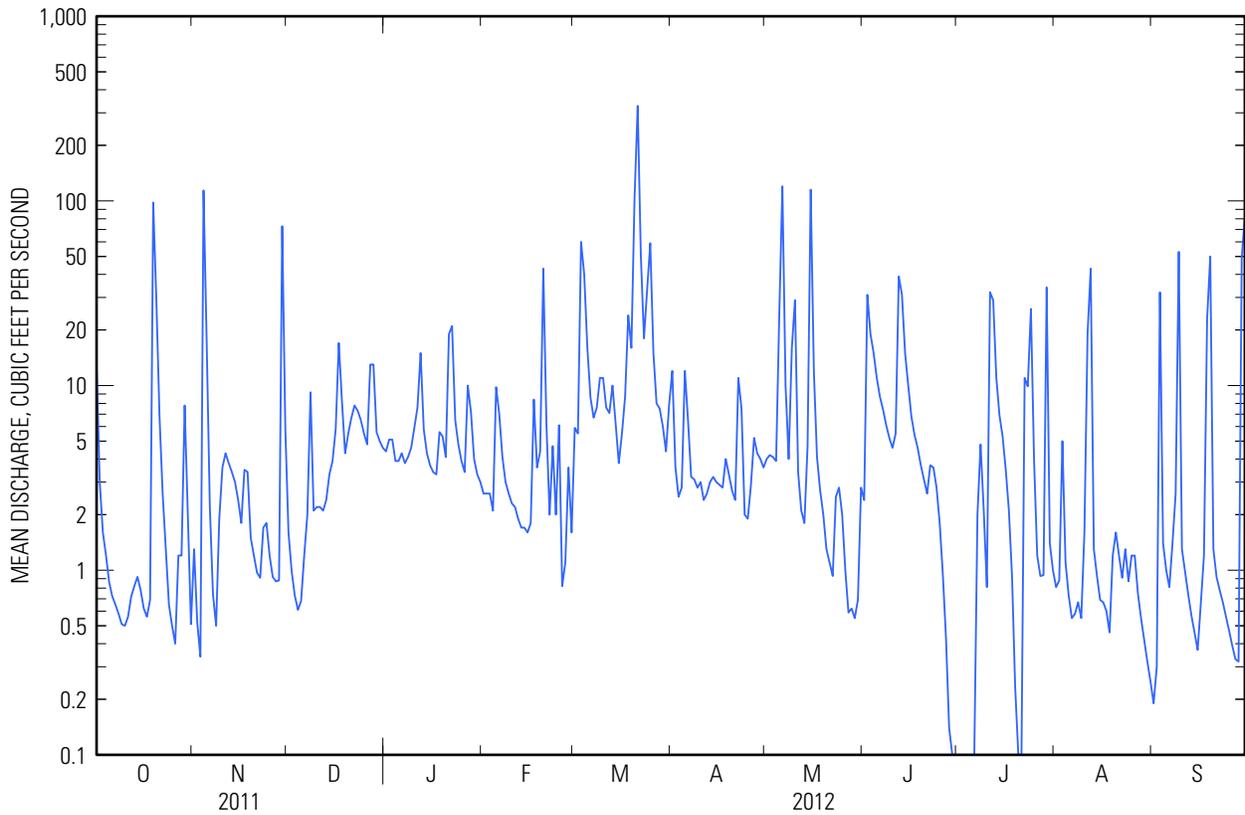
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	4.99	11.7	14.9	13.4	16.9	24.0	14.2	5.94	9.69	3.29	7.59	9.28
Max	23.8	51.8	43.7	28.6	51.4	56.4	44.8	12.9	53.0	7.89	30.2	28.6
(WY)	(2003)	(2007)	(2010)	(2000)	(2003)	(2003)	(2003)	(2009)	(2006)	(2008)	(2004)	(2008)
Min	0.77	0.21	2.35	3.26	3.91	4.06	4.21	0.20	0.00	0.01	0.00	0.01
(WY)	(2002)	(2002)	(2001)	(2001)	(2009)	(2006)	(2012)	(2002)	(2002)	(2002)	(2007)	(2007)

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SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 2000 - 2012	
Annual total	2,395.48		3,172.97			
Annual mean	6.56		8.67		11.3	
Highest annual mean					25.3	2003
Lowest annual mean					5.51	2002
Highest daily mean	128	Apr 10	327	Mar 21	1,240	Jun 14, 2006
Lowest daily mean	0.00	Jun 22	0.00	Jun 29	0.00	May 28, 2002
Annual seven-day minimum	0.00	Jul 16	0.00	Jun 29	0.00	May 28, 2002
Maximum peak flow			900	Mar 21	5,920	Jun 14, 2006
Maximum peak stage			9.88	Mar 21	13.50	Jun 14, 2006
Instantaneous low flow			^a 0.00	Jun 29	^a 0.00	May 28, 2002
Annual runoff (cfsm)	0.552		0.729		0.948	
Annual runoff (inches)	7.49		9.92		12.88	
10 percent exceeds	16		17		23	
50 percent exceeds	1.8		3.0		2.7	
90 percent exceeds	0.10		0.55		0.01	

^a See Remarks



0209782609 WHITE OAK CREEK AT MOUTH NEAR GREEN LEVEL, NC—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1999 to current year. Prior to September 2003 published as "White Oak Creek at Green Level, NC" (0209782520).

REMARKS.--Station operated to define water quality as part of a regional surface-water quality assessment.

WATER-QUALITY DATA

WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 1 of 6

[%, percent; ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO₂, silicon dioxide; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than]

Date	Sample start time	Medium name	Sample type	Barometric pressure, mm Hg (00025)	Discharge, instantaneous, ft ³ /s (00061)	Dissolved oxygen, water, unfiltered, mg/L (00300)	Dissolved oxygen, water, unfiltered, % saturation (00301)	pH, water, unfiltered, field, standard units (00400)	Specific conductance, water, unfiltered, µS/cm at 25°C (00095)
10-25-2011	0930	Surface water	Regular	760	0.59	8.4	78	6.7	97
12-19-2011	1405	QC sample - Artificial	Blank	--	--	--	--	--	--
12-19-2011	1406	QC sample - Artificial	Blank	--	--	--	--	--	--
12-29-2011	1130	Surface water	Regular	760	5.5	11.4	91	7.1	103
02-01-2012	0900	Surface water	Regular	762	2.6	10.4	86	7.2	100
04-17-2012	1045	Surface water	Regular	764	2.9	5.5	58	7.0	108
08-21-2012	0900	Surface water	Regular	752	6.5	7.0	82	6.6	92

WATER-QUALITY DATA

WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 2 of 6

[%, percent; ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO₂, silicon dioxide; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than]

Date	Sample start time	Temperature, water, °C (00010)	Turbidity, water, unfiltered, broad band light source (400-680 nm), detectors at multiple angles including 90 +/- 30 degrees, ratiometric correction, NTRU (63676)	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)	ANC, water, unfiltered, inflection-point, incremental titration method, field, mg/L as CaCO ₃ (00419)
10-25-2011	0930	12.0	16	66	6.29	2.25	3.82	6.94	21.4
12-19-2011	1405	--	--	--	< .022	< .011	< .03	< .06	--
12-19-2011	1406	--	--	--	< .022	< .011	< .03	< .06	--
12-29-2011	1130	5.6	--	64	6.72	2.34	3.70	8.27	--
02-01-2012	0900	7.3	--	56	6.58	2.33	3.10	8.22	22.6
04-17-2012	1045	17.6	12	85	7.66	2.81	3.04	9.28	19.8
08-21-2012	0900	22.5	18	74	7.24	2.31	3.21	7.34	24.5

0209782609 WHITE OAK CREEK AT MOUTH NEAR GREEN LEVEL, NC—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 3 of 6

[%, percent; ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO₂, silicon dioxide; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than]

Date	Sample start time	Bi-carbonate, water, unfiltered, inflection-point, incremental titration method, field, mg/L (00450)	Chloride, water, filtered, mg/L (00940)	Fluoride, water, filtered, mg/L (00950)	Silica, water, filtered, mg/L as SiO ₂ (00955)	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)
10-25-2011	0930	24.0	9.11	0.12	7.03	7.03	0.47	< .010	< .01
12-19-2011	1405	--	< .06	< .04	< .018	< .09	< .07	.013	< .01
12-19-2011	1406	--	< .06	< .04	< .018	< .09	< .07	.014	< .01
12-29-2011	1130	--	11.7	.08	6.56	7.69	.55	.016	.05
02-01-2012	0900	27.6	10.5	.07	6.43	7.88	.45	.024	.05
04-17-2012	1045	24.2	9.37	.09	7.29	5.49	.50	.036	.07
08-21-2012	0900	29.8	7.02	.11	5.67	3.48	.73	.020	.03

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

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[%, percent; ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO₂, silicon dioxide; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than]

Date	Sample start time	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)	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)
10-25-2011	0930	0.006	0.045	238	0.019	1.4	0.47	1.8	1,280
12-19-2011	1405	< .004	< .004	< 3.8	< .016	< .30	< .02	< .70	< 4.6
12-19-2011	1406	< .004	< .004	< 3.8	< .016	< .30	< .02	< .70	< 4.6
12-29-2011	1130	.013	.056	--	--	--	--	--	--
02-01-2012	0900	.009	.044	--	--	--	--	--	--
04-17-2012	1045	.008	.051	161	.017	.31	.79	1.1	1,800
08-21-2012	0900	.012	.067	--	--	--	--	--	--

0209782609 WHITE OAK CREEK AT MOUTH NEAR GREEN LEVEL, NC—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 5 of 6

[%, percent; ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO₂, silicon dioxide; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than]

Date	Sample start time	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)	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)
10-25-2011	0930	0.65	97.1	< .005	0.17	0.87	< .015	< 3.0	0.87	0.087
12-19-2011	1405	< .04	< .4	< .005	< .05	< .19	< .015	< 3.0	< .28	< .050
12-19-2011	1406	< .04	< .4	< .005	< .05	< .19	< .015	< 3.0	< .28	< .050
12-29-2011	1130	--	--	--	--	--	--	--	--	--
02-01-2012	0900	--	--	--	--	--	--	--	--	--
04-17-2012	1045	.69	244	< .005	.19	.80	< .015	< 3.0	.72	.171
08-21-2012	0900	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 6 of 6

[%, percent; ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO₂, silicon dioxide; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than]

Date	Sample start time	Organic carbon, water, unfiltered, mg/L (00680)	Suspended sediment concentration, mg/L (80154)
10-25-2011	0930	9.7	19
12-19-2011	1405	< .5	--
12-19-2011	1406	< .5	--
12-29-2011	1130	9.5	20
02-01-2012	0900	8.7	9
04-17-2012	1045	11.4	7
08-21-2012	0900	11.1	10