

Water-Data Report 2010

0208650112 FLAT RIVER TRIBUTARY NEAR WILLARDVILLE, NC

Neuse Basin
Upper Neuse Subbasin

LOCATION.--Lat 36°07'55", long 78°50'00" referenced to North American Datum of 1983, Durham County, NC, Hydrologic Unit 03020201, on left bank at culvert on Secondary Road 1680, 1.5 mi southeast of Willardville.

DRAINAGE AREA.--1.14 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--March 1988 to September 1990, October 1994 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 270 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. No flow occurs many days most years. Maximum discharge for period of record, from rating curve extended above 70 ft³/s, on basis of computation of flow through culvert with road overflow. Maximum gage height for period of record from floodmarks.

0208650112 FLAT RIVER TRIBUTARY NEAR WILLARDVILLE, NC—Continued

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

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0.02	0.62	0.61	0.88	0.83	0.72	0.69	0.16	0.50	0.13	0.08	0.00
2	0.03	0.23	37	0.71	1.2	0.74	0.61	0.14	0.37	0.08	0.04	0.00
3	0.03	0.15	15	0.62	7.0	0.84	0.53	0.13	0.31	0.05	0.03	0.00
4	0.02	0.12	2.1	0.58	4.2	0.70	0.50	0.12	0.24	0.05	0.02	0.00
5	0.02	0.17	2.8	0.54	31	0.62	0.44	0.12	0.19	0.02	0.22	0.00
6	0.02	0.22	1.7	0.52	21	0.60	0.41	0.09	0.17	0.00	0.27	0.00
7	0.05	0.22	1.1	0.48	3.4	0.60	0.37	0.06	0.13	0.00	0.06	0.00
8	0.02	0.23	0.85	0.49	1.9	0.60	0.35	0.06	0.13	0.00	0.05	0.00
9	0.02	0.22	15	0.43	1.8	0.58	0.40	0.05	0.15	0.00	0.04	0.00
10	0.03	0.22	3.0	0.40	2.0	0.56	0.33	0.05	0.20	0.00	0.03	0.00
11	0.04	19	1.3	0.40	1.4	0.60	0.32	0.07	0.15	0.00	0.03	0.00
12	0.06	16	0.90	0.42	1.2	0.80	0.30	0.08	0.15	0.00	0.03	0.00
13	0.15	9.6	2.0	0.39	1.2	2.1	0.29	0.08	0.19	0.00	0.03	0.00
14	0.10	1.8	1.7	0.39	1.0	2.0	0.28	0.07	0.17	0.05	0.03	0.00
15	0.18	0.90	1.1	0.39	1.00	1.4	0.30	0.05	0.11	0.00	0.03	0.00
16	0.12	0.62	0.81	0.38	0.98	0.91	0.28	0.20	1.3	0.00	0.02	0.00
17	0.12	0.50	0.66	8.3	0.86	0.81	0.27	2.9	0.45	0.15	0.01	0.00
18	0.11	0.55	0.67	3.6	0.79	0.73	0.24	3.0	0.17	1.0	0.04	0.00
19	0.08	1.4	8.1	1.5	0.72	0.65	0.24	0.58	0.12	0.79	0.10	0.00
20	0.09	1.2	3.2	1.1	0.71	0.60	0.24	0.33	0.09	0.04	0.05	0.00
21	0.13	0.75	2.0	1.2	0.69	0.57	0.29	0.23	0.06	0.02	0.04	0.00
22	0.13	0.57	1.4	5.2	1.00	0.56	0.29	1.0	0.05	0.01	0.02	0.00
23	0.15	12	1.1	1.7	1.1	0.53	0.24	2.4	0.04	0.01	0.02	0.00
24	0.17	4.1	0.91	1.2	1.1	0.49	0.25	0.69	0.04	0.00	0.02	0.00
25	0.05	1.6	17	44	1.2	0.49	0.32	0.42	0.08	0.00	0.03	0.00
26	0.04	1.1	7.6	3.7	0.99	0.49	0.24	0.28	0.10	0.01	0.01	0.00
27	0.09	0.86	2.2	1.5	0.87	0.41	0.21	0.21	0.11	0.40	0.00	0.00
28	0.27	0.69	1.4	1.2	0.80	0.43	0.18	27	0.08	0.12	0.00	0.01
29	0.14	0.61	1.0	0.93	---	3.4	0.18	32	0.06	0.03	0.00	0.09
30	0.20	0.61	0.83	1.1	---	1.4	0.18	1.4	0.09	0.04	0.00	3.2
31	0.27	---	0.94	0.90	---	0.87	---	0.61	---	0.02	0.00	---
Total	2.95	76.86	135.98	85.15	91.94	26.80	9.77	74.58	6.00	3.02	1.35	3.30
Mean	0.10	2.56	4.39	2.75	3.28	0.86	0.33	2.41	0.20	0.10	0.04	0.11
Max	0.27	19	37	44	31	3.4	0.69	32	1.3	1.0	0.27	3.2
Min	0.02	0.12	0.61	0.38	0.69	0.41	0.18	0.05	0.04	0.00	0.00	0.00
Cfsm	0.08	2.25	3.85	2.41	2.88	0.76	0.29	2.11	0.18	0.09	0.04	0.10
In.	0.10	2.51	4.44	2.78	3.00	0.87	0.32	2.43	0.20	0.10	0.04	0.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2010 ^a, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	0.46	0.62	0.96	1.39	1.72	2.15	1.37	0.75	0.44	0.23	0.13	1.05
Max	4.01	2.56	4.39	3.17	5.41	8.30	5.04	2.41	4.07	1.26	0.52	8.60
(WY)	(2003)	(2010)	(2010)	(1998)	(1998)	(1998)	(2003)	(2010)	(1995)	(1989)	(2008)	(1996)
Min	0.00	0.00	0.01	0.01	0.27	0.15	0.06	0.01	0.04	0.00	0.00	0.00
(WY)	(2008)	(2008)	(1989)	(2008)	(2002)	(2006)	(1995)	(2002)	(2008)	(1988)	(2007)	(1990)

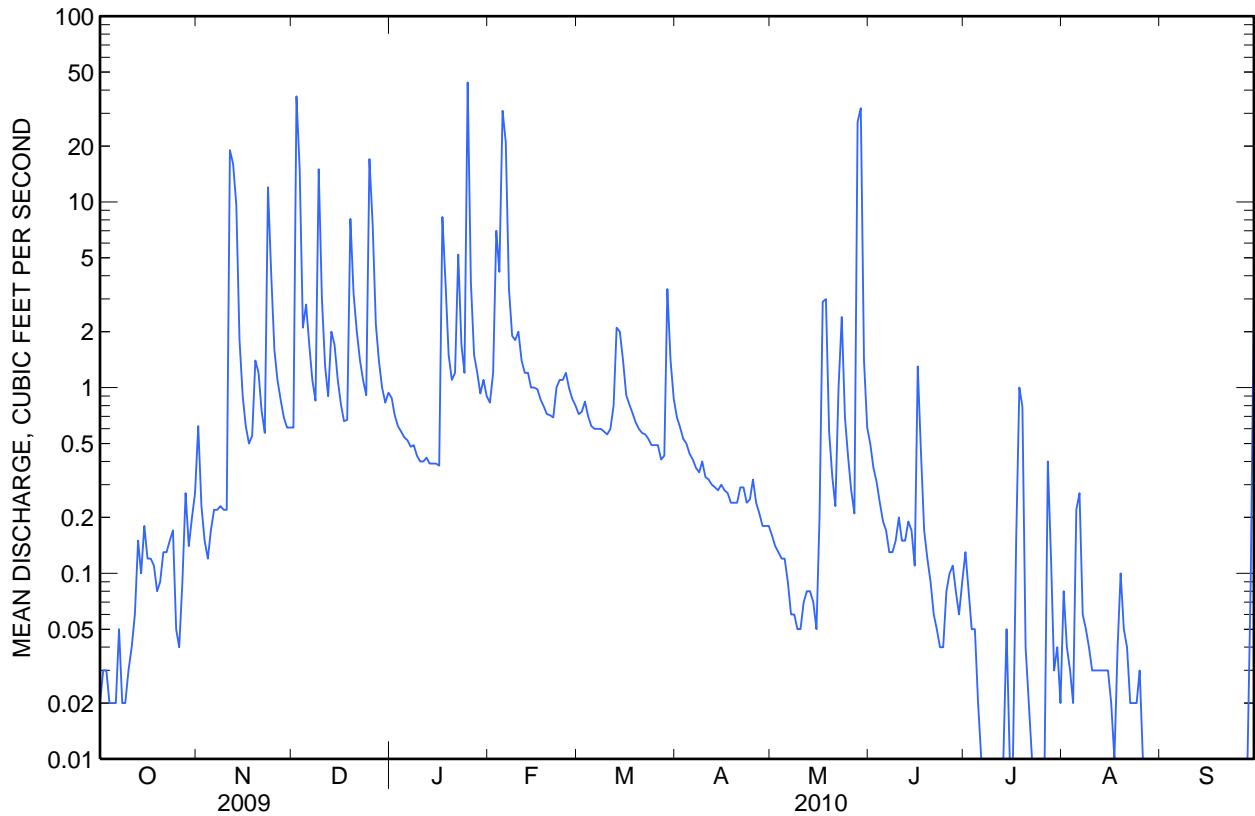
0208650112 FLAT RIVER TRIBUTARY NEAR WILLARDVILLE, NC—Continued

SUMMARY STATISTICS

	Calendar Year 2009		Water Year 2010		Water Years 1987 - 2010 ^a	
Annual total	443.53		517.70			
Annual mean	1.22		1.42		0.95	
Highest annual mean					2.00 2003	
Lowest annual mean					0.16 2002	
Highest daily mean	37	Dec 2	44	Jan 25	225	Sep 6, 1996
Lowest daily mean	0.00	Aug 9	0.00	Jul 6	0.00	Jun 22, 1988
Annual seven-day minimum	0.00	Sep 10	0.00	Jul 6	0.00	Jul 2, 1988
Maximum peak flow			822	May 28	^b 1,410	Sep 6, 1996
Maximum peak stage			7.24	May 28	^b 7.77	Sep 6, 1996
Instantaneous low flow			^b 0.00	Jul 3	^b 0.00	Jun 15, 1988
Annual runoff (cfsm)	1.07		1.24		0.835	
Annual runoff (inches)	14.47		16.89		11.35	
10 percent exceeds	2.0		2.0		1.6	
50 percent exceeds	0.34		0.28		0.20	
90 percent exceeds	0.02		0.00		0.00	

^a See Period of Record.

^b See Remarks.



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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 2009 TO SEPTEMBER 2010

Part 1 of 18

[% , percent; N, nitrogen; P, phosphorus; 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; E, estimated]

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)
11-11-2009	0915	Surface water	Regular	754	18	9.5	92	5.9	48
12-03-2009	1100	Surface water	Regular	748	10	9.7	92	5.7	41
02-18-2010	1015	Surface water	Regular	752	.77	11.9	94	5.3	54
05-04-2010	1030	Surface water	Regular	749	.15	7.9	86	6.3	82
05-04-2010	1035	<i>QC sample - Surface water</i>	<i>Replicate</i>	--	--	--	--	--	--
06-24-2010	0745	Surface water	Regular	751	.06	7.5	88	6.5	81
08-27-2010	1145	Surface water	Regular	752	.01	6.6	77	5.8	86

WATER-QUALITY DATA

WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

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[% , percent; N, nitrogen; P, phosphorus; 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; E, estimated]

Date	Temperature, water, °C (00010)	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)	Nitrate, water, filtered, mg/L as N (00618)	Nitrite, water, filtered, mg/L as N (00613)	Orthophosphate, water, filtered, mg/L as P (00671)	Phosphorus, water, unfiltered, mg/L as P (00665)	Aluminum, water, unfiltered, recoverable, μg/L (01105)
11-11-2009	13.3	1.4	E .014	.034	.031	.003	.011	.233	3,310
12-03-2009	12.5	.48	< .020	.016	E .014	E .002	E .005	.047	--
02-18-2010	4.8	.18	< .020	.027	< .027	< .002	.009	.013	--
05-04-2010	18.7	.19	E .016	.119	E .118	E .001	.011	.015	--
05-04-2010	--	.19	E .018	.119	E .117	E .001	.010	.016	--
06-24-2010	22.3	.14	E .015	.118	< .118	< .002	.012	.022	--
08-27-2010	22.2	.28	E .018	.033	< .033	< .002	.014	.036	--

0208650112 FLAT RIVER TRIBUTARY NEAR WILLARDVILLE, NC—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

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[%, percent; N, nitrogen; P, phosphorus; 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; E, estimated]

Date	Cadmium, water, unfiltered, μg/L (01027)	Chromium, water, unfiltered, recoverable, μg/L (01034)	Cobalt, water, unfiltered, recoverable, micrograms per liter (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, micrograms per liter (01062)	Nickel, water, unfiltered, recoverable, μg/L (01067)
11-11-2009	.08	4.2	5.5	8.5	6,410	6.31	568	.034	< .1	3.3
12-03-2009	--	--	--	--	--	--	--	--	--	--
02-18-2010	--	--	--	--	--	--	--	--	--	--
05-04-2010	--	--	--	--	--	--	--	--	--	--
05-04-2010	--	--	--	--	--	--	--	--	--	--
06-24-2010	--	--	--	--	--	--	--	--	--	--
08-27-2010	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

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[%, percent; N, nitrogen; P, phosphorus; 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; E, estimated]

Date	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)	1-Naphthol, water, filtered (0.7 micron glass fiber filter), recoverable, μg/L (49295)	2,4-D methyl ester, water, filtered, recoverable, μg/L (50470)	2,4-D plus 2,4-D methyl ester, sum on a molar basis, micrograms per liter as 2,4-D (66496)	2,4-D, water, filtered, recoverable, μg/L (39732)	2,4-DB, water, filtered (0.7 micron glass fiber filter), recoverable, μg/L (38746)	2,6-Diethyl aniline, water, filtered (0.7 micron glass fiber filter), recoverable, μg/L (82660)
11-11-2009	.03	15.3	1.2	.19	< .04	< .200	< .06	< .06	< .02	< .006
12-03-2009	--	--	--	--	--	--	--	--	--	--
02-18-2010	--	--	--	--	--	--	--	--	--	--
05-04-2010	--	--	--	--	--	--	--	--	--	--
05-04-2010	--	--	--	--	--	--	--	--	--	--
06-24-2010	--	--	--	--	--	--	--	--	--	--
08-27-2010	--	--	--	--	--	--	--	--	--	--

0208650112 FLAT RIVER TRIBUTARY NEAR WILLARDVILLE, NC—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

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[%, percent; N, nitrogen; P, phosphorus; 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; E, estimated]

Date	2-Chloro-2',6'-diethyl acetanilide, water, filtered, recoverable, μg/L (61618)	2-Chloro-4-isopropyl amino-6-triazine, water, filtered, recoverable, μg/L (04040)	2-Chloro-6-ethyl amino-4-s-triazine, water, filtered, recoverable, μg/L (04038)	2-Ethyl-6-methyl aniline, water, filtered, recoverable, μg/L (61620)	2-Hydroxy-4-iso propyl amino-6-ethyl amino-s-triazine, water, filtered, recoverable, μg/L (50355)	3,4-Dichloro aniline, water, filtered, recoverable, μg/L (61625)	3,5-Di chloro aniline, water, filtered, recoverable, μg/L (61627)	3-Hydroxy carbo furan, water, filtered (0.7 micron glass fiber filter), recoverable, μg/L (49308)	4-Chloro-2-methyl phenol, water, filtered, recoverable, μg/L (61633)	Acetochlor, water, filtered, recoverable, μg/L (49260)
	11-11-2009	< .010	< .014	< .06	< .010	< .060	< .004	< .003	< .040	< .003
12-03-2009	--	--	--	--	--	--	--	--	--	--
02-18-2010	--	--	--	--	--	--	--	--	--	--
05-04-2010	--	--	--	--	--	--	--	--	--	--
05-04-2010	--	--	--	--	--	--	--	--	--	--
06-24-2010	--	--	--	--	--	--	--	--	--	--
08-27-2010	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

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[%, percent; N, nitrogen; P, phosphorus; 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; E, estimated]

Date	Aci fluor fen, water, filtered (0.7 micron glass fiber filter), recoverable, μg/L (49315)	Alachlor, water, filtered, recoverable, μg/L (46342)	Aldicarb sulfone, water, filtered (0.7 micron glass fiber filter), recoverable, μg/L (49313)	Aldicarb sulfoxide, water, filtered (0.7 micron glass fiber filter), recoverable, μg/L (49314)	Aldicarb, water, filtered (0.7 micron glass fiber filter), recoverable, μg/L (49312)	alpha-Endo sulfan, water, filtered, recoverable, μg/L (34362)	alpha-HCH, water, filtered, recoverable, μg/L (34253)	Atrazine, water, filtered, recoverable, μg/L (39632)	Azinphos-methyl oxygen analog, water, filtered, recoverable, μg/L (61635)	Azinphos-methyl, water, filtered (0.7 micron glass fiber filter), recoverable, μg/L (82686)
	11-11-2009	< .040	< .008	< .08	< .060	< .12	< .006	< .004	< .007	< .04
12-03-2009	--	--	--	--	--	--	--	--	--	--
02-18-2010	--	--	--	--	--	--	--	--	--	--
05-04-2010	--	--	--	--	--	--	--	--	--	--
05-04-2010	--	--	--	--	--	--	--	--	--	--
06-24-2010	--	--	--	--	--	--	--	--	--	--
08-27-2010	--	--	--	--	--	--	--	--	--	--

0208650112 FLAT RIVER TRIBUTARY NEAR WILLARDVILLE, NC—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

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[%, percent; N, nitrogen; P, phosphorus; 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; E, estimated]

Date	Bendio carb, water, filtered, recoverable, μg/L (50299)	Ben fluralin, water, filtered (0.7 micron glass fiber filter), recoverable, μg/L (82673)	Benomyl, water, filtered, recoverable, μg/L (50300)	Ben sulfuron-methyl, water, filtered, recoverable, μg/L (61693)	Bentazon, water, filtered (0.7 micron glass fiber filter), recoverable, μg/L (38711)	Bromacil, water, filtered, recoverable, μg/L (04029)	Brom oxynil, water, filtered (0.7 micron glass fiber filter), recoverable, μg/L (49311)	Butylate, water, filtered, recoverable, μg/L (04028)	Carbaryl, water, filtered (0.7 micron glass fiber filter), recoverable, μg/L (49310)	Carbo furan, water, filtered (0.7 micron glass fiber filter), recoverable, μg/L (49309)
	11-11-2009	< .04	< .014	< .060	< .06	< .06	< .06	< .12	< .004	< .04
12-03-2009	--	--	--	--	--	--	--	--	--	--
02-18-2010	--	--	--	--	--	--	--	--	--	--
05-04-2010	--	--	--	--	--	--	--	--	--	--
05-04-2010	--	--	--	--	--	--	--	--	--	--
06-24-2010	--	--	--	--	--	--	--	--	--	--
08-27-2010	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

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[%, percent; N, nitrogen; P, phosphorus; 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; E, estimated]

Date	Chlor amben methyl ester, water, filtered, recoverable, μg/L (61188)	Chlori muron-ethyl, water, filtered, recoverable, μg/L (50306)	Chlor pyrifos, water, filtered, recoverable, μg/L (38933)	cis-Permeth rin, water, filtered (0.7 micron glass fiber filter), recoverable, μg/L (82687)	Propicon azole, water, filtered, recoverable, μg/L (79846)	Clopyr alid, water, filtered (0.7 micron glass fiber filter), recoverable, μg/L (49305)	Cyanazine, water, filtered, recoverable, μg/L (04041)	Cycloate, water, filtered, recoverable, μg/L (04031)	Cyfluthrin, water, filtered, recoverable, μg/L (61585)	Cyper methrin, water, filtered, recoverable, μg/L (61586)
	11-11-2009	< .10	< .080	< .010	< .014	< .009	< .06	< .022	< .04	< .016
12-03-2009	--	--	--	--	--	--	--	--	--	--
02-18-2010	--	--	--	--	--	--	--	--	--	--
05-04-2010	--	--	--	--	--	--	--	--	--	--
05-04-2010	--	--	--	--	--	--	--	--	--	--
06-24-2010	--	--	--	--	--	--	--	--	--	--
08-27-2010	--	--	--	--	--	--	--	--	--	--

0208650112 FLAT RIVER TRIBUTARY NEAR WILLARDVILLE, NC—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

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[%, percent; N, nitrogen; P, phosphorus; 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; E, estimated]

Date	Dacthal monoacid, water, filtered (0.7 micron glass fiber filter), recover able, μg/L (49304)	DCPA, water, filtered (0.7 micron glass fiber filter), recover able, μg/L (82682)	Desulfinyl fipronil amide, water, filtered, recover able, μg/L (62169)	Desulfinyl fipronil, water, filtered, recover able, μg/L (62170)	Diazinon, water, filtered, recover able, μg/L (39572)	Dicamba, water, filtered (0.7 micron glass fiber filter), recover able, μg/L (38442)	Dichlor prop, water, filtered (0.7 micron glass fiber filter), recover able, μg/L (49302)	Dichlorvos , water, filtered, recover able, μg/L (38775)	Dicro tophos, water, filtered, recover able, μg/L (38454)	Dieldrin, water, filtered, recover able, μg/L (39381)
	11-11-2009	< .04	< .008	< .029	< .012	< .005	< .04	< .04	< .02	< .08
12-03-2009	--	--	--	--	--	--	--	--	--	--
02-18-2010	--	--	--	--	--	--	--	--	--	--
05-04-2010	--	--	--	--	--	--	--	--	--	--
05-04-2010	--	--	--	--	--	--	--	--	--	--
06-24-2010	--	--	--	--	--	--	--	--	--	--
08-27-2010	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

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[%, percent; N, nitrogen; P, phosphorus; 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; E, estimated]

Date	Dimetho ate, water, filtered (0.7 micron glass fiber filter), recover able, μg/L (82662)	Dinoseb, water, filtered (0.7 micron glass fiber filter), recover able, μg/L (49301)	Di phenamid, water, filtered, recover able, μg/L (04033)	Di sulfoton sulfone, water, filtered, recover able, μg/L (61640)	Disulfoton, water, filtered (0.7 micron glass fiber filter), recover able, μg/L (82677)	Diuron, water, filtered (0.7 micron glass fiber filter), recover able, μg/L (49300)	Endo sulfan water, filtered, recover able, μg/L (61590)	EPTC, water, filtered (0.7 micron glass fiber filter), recover able, μg/L (82668)	Ethal fluralin, water, filtered (0.7 micron glass fiber filter), recover able, μg/L (82663)	Ethion monoxon, water, filtered, recover able, μg/L (61644)
	11-11-2009	< .010	< .04	< .04	< .01	< .04	< .04	< .014	< .002	< .006
12-03-2009	--	--	--	--	--	--	--	--	--	--
02-18-2010	--	--	--	--	--	--	--	--	--	--
05-04-2010	--	--	--	--	--	--	--	--	--	--
05-04-2010	--	--	--	--	--	--	--	--	--	--
06-24-2010	--	--	--	--	--	--	--	--	--	--
08-27-2010	--	--	--	--	--	--	--	--	--	--

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WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

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[%, percent; N, nitrogen; P, phosphorus; 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; E, estimated]

Date	Ethoprop, water, filtered (0.7 micron glass fiber filter), recover able, μg/L (82672)	Fenami phos sulfone, water, filtered, recover able, μg/L (61645)	Fenami phos sulfoxide, water, filtered, recover able, μg/L (61646)	Fenami phos, water, filtered, recover able, μg/L (61591)	Fenuron, water, filtered (0.7 micron glass fiber filter), recover able, μg/L (49297)	Fipronil sulfide, water, filtered, recover able, μg/L (62167)	Fipronil sulfone, water, filtered, recover able, μg/L (62168)	Fipronil, water, filtered, recover able, μg/L (62166)	Flumet sulam, water, filtered, recover able, μg/L (61694)	Fluome turon, water, filtered (0.7 micron glass fiber filter), recover able, μg/L (38811)
11-11-2009	< .016	< .053	< .08	< .03	< .06	< .013	< .024	< .018	< .06	< .04
12-03-2009	--	--	--	--	--	--	--	--	--	--
02-18-2010	--	--	--	--	--	--	--	--	--	--
05-04-2010	--	--	--	--	--	--	--	--	--	--
05-04-2010	--	--	--	--	--	--	--	--	--	--
06-24-2010	--	--	--	--	--	--	--	--	--	--
08-27-2010	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

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[%, percent; N, nitrogen; P, phosphorus; 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; E, estimated]

Date	Fonofos, water, filtered, recover able, μg/L (04095)	Hexa zinone, water, filtered, recover able, μg/L (04025)	Imaza quin, water, filtered, recover able, μg/L (50356)	Imaze thapyr, water, filtered, recover able, μg/L (50407)	Imi dacloprid, water, filtered, recover able, μg/L (61695)	Iprodione, water, filtered, recover able, μg/L (61593)	Isofen phos, water, filtered, recover able, μg/L (61594)	lambda- Cyhalo thrin, water, filtered, recover able, μg/L (61595)	Lindane, water, filtered, recover able, μg/L (39341)	Linuron, water, filtered (0.7 micron glass fiber filter), recover able, μg/L (38478)
11-11-2009	< .004	< .008	< .06	< .06	< .060	< .021	< .006	< .010	< .004	< .04
12-03-2009	--	--	--	--	--	--	--	--	--	--
02-18-2010	--	--	--	--	--	--	--	--	--	--
05-04-2010	--	--	--	--	--	--	--	--	--	--
05-04-2010	--	--	--	--	--	--	--	--	--	--
06-24-2010	--	--	--	--	--	--	--	--	--	--
08-27-2010	--	--	--	--	--	--	--	--	--	--

0208650112 FLAT RIVER TRIBUTARY NEAR WILLARDVILLE, NC—Continued

WATER-QUALITY DATA
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[%, percent; N, nitrogen; P, phosphorus; 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; E, estimated]

Date	Malaoxon, water, filtered, recover able, μg/L (61652)	Malathion, water, filtered, recover able, μg/L (39532)	MCPA, water, filtered (0.7 micron glass fiber filter), recover able, μg/L (38482)	MCPB, water, filtered (0.7 micron glass fiber filter), recover able, μg/L (38487)	Metalaxyl, water, filtered, recover able, μg/L (50359)	Methida thion, water, filtered, recover able, μg/L (61598)	Methio carb, water, filtered (0.7 micron glass fiber filter), recover able, μg/L (38501)	Methomyl, water, filtered (0.7 micron glass fiber filter), recover able, μg/L (49296)	Methyl paraoxon, water, filtered, recover able, μg/L (61664)	Methyl parathion, water, filtered (0.7 micron glass fiber filter), recover able, μg/L (82667)
11-11-2009	< .080	< .016	< .04	< .20	< .04	< .012	< .040	< .120	< .01	< .008
12-03-2009	--	--	--	--	--	--	--	--	--	--
02-18-2010	--	--	--	--	--	--	--	--	--	--
05-04-2010	--	--	--	--	--	--	--	--	--	--
05-04-2010	--	--	--	--	--	--	--	--	--	--
06-24-2010	--	--	--	--	--	--	--	--	--	--
08-27-2010	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

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[%, percent; N, nitrogen; P, phosphorus; 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; E, estimated]

Date	Metola chlor, water, filtered, recover able, μg/L (39415)	Metribuzin , water, filtered, recover able, μg/L (82630)	Metsul furon- methyl, water, filtered, recover able, μg/L (61697)	Molinate, water, filtered (0.7 micron glass fiber filter), recover able, μg/L (82671)	Myclo butanil, water, filtered, recover able, μg/L (61599)	N-(4- Chloro phenyl)- urea, water, filtered, recover able, μg/L (61692)	Naprop amide, water, filtered (0.7 micron glass fiber filter), recover able, μg/L (82684)	Neburon, water, filtered (0.7 micron glass fiber filter), recover able, μg/L (49294)	Nico sulfuron, water, filtered, recover able, μg/L (50364)	Nor flurazon, water, filtered (0.7 micron glass fiber filter), recover able, μg/L (49293)
11-11-2009	< .014	< .012	< .14	< .003	< .010	< .06	< .008	< .02	< .10	< .04
12-03-2009	--	--	--	--	--	--	--	--	--	--
02-18-2010	--	--	--	--	--	--	--	--	--	--
05-04-2010	--	--	--	--	--	--	--	--	--	--
05-04-2010	--	--	--	--	--	--	--	--	--	--
06-24-2010	--	--	--	--	--	--	--	--	--	--
08-27-2010	--	--	--	--	--	--	--	--	--	--

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WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

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[%, percent; N, nitrogen; P, phosphorus; 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; E, estimated]

Date	Oryzalin, water, filtered (0.7 micron glass fiber filter), recover able, μg/L (49292)	Oxamyl, water, filtered (0.7 micron glass fiber filter), recover able, μg/L (38866)	Oxy fluorfen, water, filtered, recover able, μg/L (61600)	p,p'-DDE, water, filtered, recover able, μg/L (34653)	Para thion, water, filtered, recover able, μg/L (39542)	Pendimethalin, water, filtered (0.7 micron glass fiber filter), recover able, μg/L (82669)	Pendimethalin, water, filtered (0.7 micron glass fiber filter), recover able, μg/L (82683)	Phorate, water, oxygen analog, filtered, recover able, μg/L (61666)	Phorate, water, filtered (0.7 micron glass fiber filter), recover able, μg/L (82664)	Phosmet oxygen analog, water, filtered, recover able, μg/L (61668)
	11-11-2009	< .04	< .12	< .010	< .002	< .020	< .016	< .012	< .03	< .020
12-03-2009	--	--	--	--	--	--	--	--	--	--
02-18-2010	--	--	--	--	--	--	--	--	--	--
05-04-2010	--	--	--	--	--	--	--	--	--	--
05-04-2010	--	--	--	--	--	--	--	--	--	--
06-24-2010	--	--	--	--	--	--	--	--	--	--
08-27-2010	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

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[%, percent; N, nitrogen; P, phosphorus; 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; E, estimated]

Date	Phosmet, water, filtered, recover able, μg/L (61601)	Picloram, water, filtered (0.7 micron glass fiber filter), recover able, μg/L (49291)	Prometon, water, filtered, recover able, μg/L (04037)	Prometryn, water, filtered, recover able, μg/L (04036)	Propachlor, water, filtered, recover able, μg/L (04024)	Propanil, water, filtered (0.7 micron glass fiber filter), recover able, μg/L (82679)	Propargite, water, filtered (0.7 micron glass fiber filter), recover able, μg/L (82685)	Propham, water, filtered (0.7 micron glass fiber filter), recover able, μg/L (49236)	Propiconazole, water, filtered, recover able, μg/L (50471)	Propoxur, water, filtered (0.7 micron glass fiber filter), recover able, μg/L (38538)
	11-11-2009	< .034	< .12	< .01	< .006	< .006	< .010	< .02	< .040	< .04
12-03-2009	--	--	--	--	--	--	--	--	--	--
02-18-2010	--	--	--	--	--	--	--	--	--	--
05-04-2010	--	--	--	--	--	--	--	--	--	--
05-04-2010	--	--	--	--	--	--	--	--	--	--
06-24-2010	--	--	--	--	--	--	--	--	--	--
08-27-2010	--	--	--	--	--	--	--	--	--	--

0208650112 FLAT RIVER TRIBUTARY NEAR WILLARDVILLE, NC—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

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[%, percent; N, nitrogen; P, phosphorus; 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; E, estimated]

Date	Propyz amide, water, filtered (0.7 micron glass fiber filter), recover able, μg/L (82676)		Sulfo meturon- methyl, water, filtered, recover able, μg/L (50337)		Tebu thiuron, water, filtered (0.7 micron glass fiber filter), recover able, μg/L (82670)		Teflu thrin, water, filtered, recover able, μg/L (61606)		Terbacil, water, filtered, recover able, μg/L (04032)		Terbufos oxygen analog sulfone, water, filtered, recover able, μg/L (61674)		Terbufos, water, filtered (0.7 micron glass fiber filter), recover able, μg/L (82675)		Terbuthyl azine, water, filtered, recover able, μg/L (04022)		Thioben carb, water, filtered (0.7 micron glass fiber filter), recover able, μg/L (82681)	
	11-11-2009	< .004	< .006	< .060	< .03	< .013	< .040	< .04	< .02	< .01	< .016							
12-03-2009	--	--	--	--	--	--	--	--	--	--								
02-18-2010	--	--	--	--	--	--	--	--	--	--								
05-04-2010	--	--	--	--	--	--	--	--	--	--								
05-04-2010	--	--	--	--	--	--	--	--	--	--								
06-24-2010	--	--	--	--	--	--	--	--	--	--								
08-27-2010	--	--	--	--	--	--	--	--	--	--								

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[%, percent; N, nitrogen; P, phosphorus; 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; E, estimated]

Date	trans- Propicon azole, water, filtered, recover able, μg/L (79847)		Tri late, water, filtered (0.7 micron glass fiber filter), recover able, μg/L (82678)		Tri buphos, water, filtered, recover able, μg/L (61610)		Triclopyr, water, filtered (0.7 micron glass fiber filter), recover able, μg/L (49235)		Tri fluralin, water, filtered (0.7 micron glass fiber filter), recover able, μg/L (82661)		Caffeine, water, filtered, recover able, μg/L (50305)		Suspended sediment concentration, mg/L (80154)		Suspended sediment discharge, tons per day (80155)	
	11-11-2009	< .02	< .006	< .018	< .08	< .018	< .080	458	22							
12-03-2009	--	--	--	--	--	--	29	.78								
02-18-2010	--	--	--	--	--	--	4	.01								
05-04-2010	--	--	--	--	--	--	7	.00								
05-04-2010	--	--	--	--	--	--	--	--								
06-24-2010	--	--	--	--	--	--	7	.00								
08-27-2010	--	--	--	--	--	--	6	.00								