0209173190 UNNAMED TRIBUTARY TO SANDY RUN NEAR LIZZIE, NC

Neuse Basin
Contentnea Subbasin

LOCATION.--Lat 35°31′31″, long 77°33′46″ referenced to North American Datum of 1983, Greene County, NC, Hydrologic Unit 03020203, approximately 6.0 mi south of Farmville.

DRAINAGE AREA.--.57 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--April 1999 to September 2001, June 2002 to current year.

GAGE.--Water-stage recorder. Datum of gage is 48.50 ft above NGVD of 1929. Satellite telemetry at station.

REMARKS.--Records poor. Station operated in cooperation with the U.S. Environmental Protection Agency and the North Carolina Department of Environment and Natural Resources to monitor water quality changes in an agricultural watershed. Maximum discharge for period of record from rating curve extended above 10 ft^3/s by logarithmic plotting. No flow occurs on many days during most years. Discharge for period Oct. 2001 to May 2002 not published due to beaver activity affecting the accuracy of the data. The missing daily mean discharge values in October, November 2005, March, April 2006 are due to an unreliable gage height-discharge relationship.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0.00	---	0.30	0.35	0.51	0.11	0.01	0.03	0.02	0.23	0.06	e34
2	0.00	---	0.23	0.41	0.40	0.10	0.01	0.02	0.02	0.14	0.05	3.7
3	0.00	---	0.17	0.89	0.35	0.06	0.02	0.03	0.28	0.10	0.04	1.8
4	0.00	---	0.32	0.67	0.34	0.03	---	0.03	0.06	6.0	0.03	0.98
5	0.00	---	0.98	0.56	0.25	0.03	---	0.07	0.10	1.2	0.32	1.6
6	0.00	---	0.91	0.46	0.19	0.10	---	0.26	0.06	0.94	0.21	2.7
7	0.23	---	0.59	0.38	0.17	0.10	---	0.59	0.05	0.96	0.04	1.3
8	1.9	---	0.47	0.33	0.13	0.09	---	1.8	0.06	0.49	0.63	0.74
9	0.26	---	0.59	0.29	0.11	0.11	---	0.53	0.08	0.27	1.1	0.44
10	0.09	---	0.52	0.26	0.10	0.10	---	0.26	0.03	0.14	0.26	0.28
11	0.04	---	0.44	0.25	0.14	---	---	0.18	0.08	0.08	0.77	0.17
12	0.02	---	0.36	0.24	0.14	---	---	0.12	0.21	0.06	0.36	0.10
13	0.01	---	0.29	0.23	0.11	---	---	0.06	0.22	0.05	0.19	0.09
14	0.01	---	0.24	0.58	0.09	---	---	0.08	2.1	0.04	0.10	0.13
15	---	0.04	0.70	0.37	0.08	---	---	0.14	0.79	0.03	0.06	0.20
16	---	0.05	1.2	0.30	0.06	---	---	0.10	0.28	0.01	0.04	0.13
17	---	0.04	0.72	0.26	0.05	---	---	0.13	0.14	0.00	0.05	0.13
18	---	0.03	1.7	0.61	0.04	---	---	0.35	0.08	0.01	0.08	0.10
19	---	0.04	1.1	0.47	0.03	---	---	0.48	0.06	0.01	0.11	0.08
20	---	0.04	0.81	0.39	0.04	---	---	0.20	0.07	0.01	0.08	0.04
21	---	0.81	0.65	0.43	0.04	0.41	---	0.09	1.2	0.01	0.12	0.04
22	---	0.72	0.53	0.52	0.05	0.07	---	0.06	0.66	0.01	0.77	0.03
23	---	0.43	0.48	0.48	0.29	0.04	---	0.05	0.32	0.55	0.24	0.03
24	---	0.33	0.43	0.72	0.14	0.05	---	0.03	0.18	0.15	0.10	0.02
25	---	0.21	0.54	0.58	0.10	0.04	---	0.02	0.30	0.45	0.06	0.02
26	---	0.18	0.55	0.42	0.13	0.03	0.02	0.02	1.4	0.13	0.04	0.01
27	---	0.16	0.43	0.33	0.14	0.02	0.35	0.03	2.2	0.07	0.02	0.02
28	---	0.19	0.49	0.30	0.13	0.02	0.24	0.02	1.2	0.09	0.02	0.02
29	---	0.19	0.62	0.29	---	0.02	0.10	0.01	0.64	0.12	0.01	0.04
30	---	0.43	0.47	0.27	---	0.01	0.06	0.01	0.37	0.11	0.03	0.03
31	---	---	0.41	0.66	---	0.01	---	0.02	---	0.08	1.2	---
Total	2.56	3.89	18.24	13.30	4.35	1.55	0.81	5.82	13.26	12.54	7.19	48.97
Mean	0.18	0.24	0.59	0.43	0.16	0.07	0.10	0.19	0.44	0.40	0.23	1.63
Max	1.9	0.81	1.7	0.89	0.51	0.41	0.35	1.8	2.2	6.0	1.2	34
Min	0.00	0.03	0.17	0.23	0.03	0.01	0.01	0.01	0.02	0.00	0.01	0.01
Cfsm	0.32	0.43	1.03	0.75	0.27	0.13	0.18	0.33	0.78	0.71	0.41	2.86
In.	0.17	0.25	1.19	0.87	0.28	0.10	0.05	0.38	0.87	0.82	0.47	3.20

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2006,[a] BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	0.57	0.38	0.51	0.28	0.50	0.69	0.41	0.55	0.25	0.19	0.44	2.35
Max	2.06	0.80	1.28	0.43	1.04	1.49	1.06	2.60	1.13	0.62	2.39	15.4
(WY)	(2000)	(2004)	(2004)	(2006)	(2003)	(2003)	(2003)	(2003)	(2001)	(2003)	(2003)	(1999)
Min	0.02	0.05	0.09	0.13	0.16	0.07	0.10	0.08	0.02	0.01	0.00	0.00
(WY)	(2005)	(2001)	(2001)	(2001)	(2006)	(2006)	(2006)	(2001)	(2004)	(2000)	(2002)	(2002)

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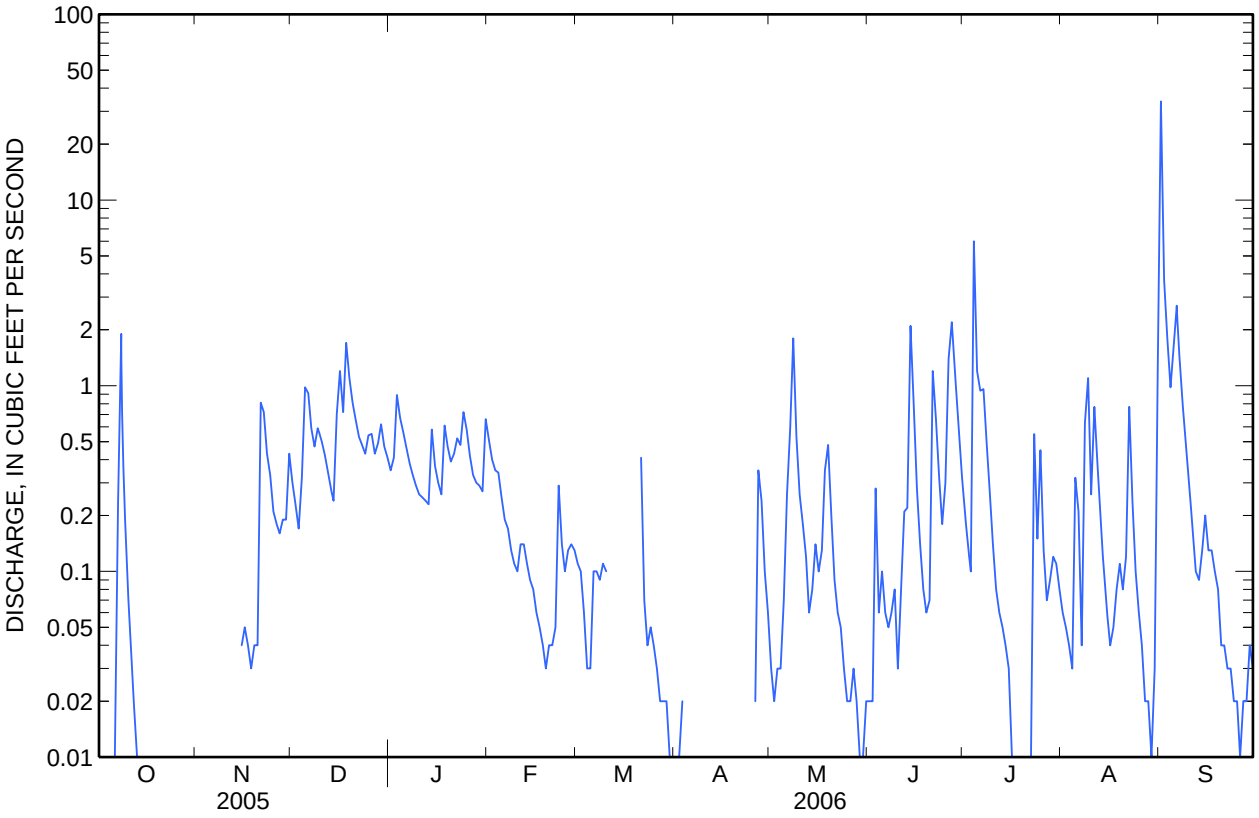
SUMMARY STATISTICS

	Calendar Year 2005		Water Year 2006		Water Years 1999 - 2006 [a]	
Annual total	102.13		132.48			
Annual mean	0.31		0.44		0.61	
Highest annual mean					2.61	1999
Lowest annual mean					0.01	2002
Highest daily mean	4.0	May 6	34	Sep 1	283	Sep 16, 1999
Lowest daily mean	0.00	Jun 17	0.00	Oct 1	0.00	Jun 10, 1999
Annual seven-day minimum	0.00	Jun 17	0.01	Jul 16	0.00	Jul 30, 1999
Maximum peak flow			NOT DETERMINED		[b]500	Sep 16, 1999
Maximum peak stage			3.21	Sep 1	5.18	Sep 16, 1999
Instantaneous low flow			0.00	Oct 1	[b]0.00	Jun 10, 1999
Annual runoff (cfsm)	0.536		0.770		1.07	
Annual runoff (inches)	6.67		8.65		14.58	
10 percent exceeds	0.71		0.77		0.90	
50 percent exceeds	0.17		0.14		0.13	
90 percent exceeds	0.00		0.02		0.00	

[a] See Period of Record.
[b] See Remarks.



WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1999-2004, March 2006 to October 2006.

REMARKS.--Station operated in cooperation with the North Carolina Department of Environment and Natural Resources and the U.S. Environmental Protection Agency to examine nutrient loadings as part of the Lizzie research site water-quality monitoring project.

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 1 of 3

[Remark codes: <, less than.]

Date	Time	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of sat-uration (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc-tance, wat unf uS/cm 25 degC (00095)	Temper-ature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Magnes-ium, water, fltrd, mg/L (00925)	Potas-sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alka-linity, wat flt fxd end lab, mg/L as CaCO3 (29801)	Chlor-ide, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)
Mar													
28...	1130	--	--	6.2	--	8.6	--	--	--	--	--	--	--
Jun													
14...	1133	--	--	--	238	--	--	--	--	--	--	--	--
14...	1233	--	--	--	101	--	--	--	--	--	--	--	--
14...	1503	--	--	--	101	--	--	--	--	--	--	--	--
14...	1903	--	--	--	153	--	--	--	--	--	--	--	--
15...	0503	--	--	--	233	--	--	--	--	--	--	--	--
19...	1400	--	--	--	289	23.5	--	--	--	--	--	--	--
Jul													
23...	1812	--	--	--	304	--	--	--	--	--	--	--	--
23...	1827	--	--	--	201	--	--	--	--	--	--	--	--
23...	1842	--	--	--	80	--	--	--	--	--	--	--	--
23...	1942	--	--	--	112	--	--	--	--	--	--	--	--
23...	2142	--	--	--	148	--	--	--	--	--	--	--	--
24...	1740	--	--	--	265	25.8	--	--	--	--	--	--	--
25...	1155	6.1	72	5.7	170	23.5	12.3	3.39	11.5	5.92	17	20.1	11.2
26...	1525	5.3	63	6.0	295	23.9	--	--	--	--	--	--	--

0209173190 UNNAMED TRIBUTARY TO SANDY RUN NEAR LIZZIE, NC—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006
Part 2 of 3
[Remark codes: <, less than.]

Date	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phos-phate, water, fltrd, mg/L as P (00671)	Phos-phorus, water, fltrd, mg/L (00666)	Phos-phorus, water, unfltrd mg/L (00665)	Organic carbon, water, fltrd, mg/L (00681)	Iron, water, fltrd, ug/L (01046)
Mar										
28...	2.3	2.1	1.77	8.83	.061	<.02	.006	.034	--	--
Jun										
14...	2.0	2.6	1.23	5.61	.070	.012	.022	.30	--	--
14...	1.4	4.0	.598	2.53	.029	--	.124	1.06	--	--
14...	1.2	3.0	.263	2.04	.014	.082	.112	.79	--	--
14...	1.5	2.1	.451	4.02	.018	--	.110	.32	--	--
15...	1.5	1.9	.734	7.30	.023	--	.028	.152	--	--
19...	1.7	2.0	1.29	8.75	.103	--	.007	.058	--	--
Jul										
23...	4.7	3.7	2.00	10.7	.809	--	.033	.24	--	--
23...	2.6	4.4	1.30	7.26	.611	--	.044	.84	--	--
23...	2.0	7.9	.873	2.40	.091	--	.036	1.77	--	--
23...	1.7	3.2	.235	2.17	.036	--	.29	1.04	--	--
23...	2.1	2.1	.328	3.07	.063	--	.26	.51	--	--
24...	2.8	2.4	1.30	7.92	.126	--	.033	.090	--	--
25...	2.2	2.3	.470	3.49	.029	.069	.128	.35	14.9	305
26...	2.4	2.1	1.41	9.21	.135	--	.019	.059	--	--

0209173190 UNNAMED TRIBUTARY TO SANDY RUN NEAR LIZZIE, NC—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
Part 3 of 3
[Remark codes: <, less than.]

Date	Time	Specif. conduc-tance, wat unf uS/cm 25 degC (00095)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phos-phate, water, fltrd, mg/L as P (00671)	Phos-phorus, water, fltrd, mg/L (00666)	Phos-phorus, water, unfltrd mg/L (00665)
Oct										
18...	0029	315	3.5	3.5	2.38	10.6	.321	--	.023	.129
18...	0229	252	2.8	2.8	1.51	7.56	.188	--	.084	.208
18...	0329	210	3.1	3.4	1.80	5.70	.098	--	.067	.365
18...	0459	128	1.3	1.6	.269	2.51	.026	--	.112	.349
18...	1145	231	1.4	1.6	.435	6.56	.048	--	.065	.190
19...	1415	304	1.6	1.5	.792	9.59	.123	.011	.017	.060
27...	2240	259	2.6	3.0	1.78	6.73	.146	--	.021	.142
27...	2309	200	2.5	2.4	1.18	5.36	.071	--	.094	.314
28...	0109	137	1.6	2.0	.284	2.98	.024	--	.208	.593
28...	0309	116	1.2	2.6	.093	2.57	.017	--	.288	.969
28...	0809	162	1.2	1.6	.147	4.42	.014	--	.157	.40
28...	1710	216	1.6	1.3	.221	6.68	.018	--	.048	.194
29...	1015	251	1.2	1.0	.494	7.92	.019	--	.018	.075