460 NEUSE RIVER BASIN

353308077340301 TILE DRAIN (MS3-T1) NEAR TRIBUTARY TO MIDDLE SWAMP NEAR MARLBORO, NC

LOCATION.--Lat 35°33'08.0", long 77°34'03.4", North American Datum of 1983, Pitt County, Hydrologic Unit 03020203, approximately 0.9 mi south of U.S. Highway 264A and 2.4 mi southeast of Marlboro.

DRAINAGE AREA. -- Not applicable.

PERIOD OF RECORD.--August 2000 to August 2001.

REMARKS.--Station operated in cooperation with the North Carolina Department of Environment and Natural Resources as part of a project to examine nutrient loadings from subsurface tile drains in the Neuse River Basin.

WATER-QUALITY DATA, FOR PERIOD AUGUST 2000 TO AUGUST 2001

DATE	TIME	FLOW RATE (G/M) (00059)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	ALKA- LINITY WAT.DIS FET LAB CACO3 (MG/L) (29801)
SEP 2000 27	1410	42.4	5.9	68	4.0	244	22.2	60	15.0	5.40	10.0	5.1	<1
OCT													
24 DEC	1750	.72	8.4	89	4.2	268	18.9	65	16.0	6.20	7.10	6.4	
11 FEB 2001	1530	3.5	9.4	87	4.4	220	11.8	58	14.0	5.50	6.00	5.1	
06 27 MAR	1000 0955	.59 4.2	10.7 10	92 89	4.5 4.3	237 217	9.1 10.7	68 57	18.0 14.0	5.60 5.40	5.70 5.60	5.6 5.3	<1
05	1745	13.3	5.5	51	4.3	213	11.1	56	14.0	5.20	5.80	5.2	
APR 03	1515	11.5	5.2	49	4.2	211	12.2	57	14.0	5.30	6.00	5.2	
JUN 14	1900	7.2	7.2	83	4.2	223	21.5	55	13.0	5.40	10.0	4.5	
JUL 09	1830	8.3	6.6	77	4.2	220	22.0	53	13.0	5.10	7.50	5.5	
AUG 14	1755	13.5	6.4	76	4.0	339	23.3	91	24.0	7.50	9.00	7.0	
DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)
SEP 2000	RIDE, DIS- SOLVED (MG/L AS CL)	DIS- SOLVED (MG/L AS SO4)	GEN, AMMONIA DIS- SOLVED (MG/L AS N)	GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	GEN, NITRITE DIS- SOLVED (MG/L AS N)	GEN, ORGANIC DIS- SOLVED (MG/L AS N)	GEN, ORGANIC TOTAL (MG/L AS N)	GEN, TOTAL (MG/L AS N)	PHORUS DIS- SOLVED (MG/L AS P)	PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	PHORUS TOTAL (MG/L AS P)
SEP 2000 27 OCT 24	RIDE, DIS- SOLVED (MG/L AS CL) (00940)	DIS- SOLVED (MG/L AS SO4) (00945)	GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	GEN, ORGANIC TOTAL (MG/L AS N) (00605)	GEN, TOTAL (MG/L AS N) (00600)	PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHORUS TOTAL (MG/L AS P) (00665)
SEP 2000 27 OCT 24 DEC 11	RIDE, DIS- SOLVED (MG/L AS CL) (00940)	DIS- SOLVED (MG/L AS SO4) (00945)	GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	GEN, ORGANIC TOTAL (MG/L AS N) (00605)	GEN, TOTAL (MG/L AS N) (00600)	PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHORUS TOTAL (MG/L AS P) (00665)
SEP 2000 27 OCT 24 DEC	RIDE, DIS- SOLVED (MG/L AS CL) (00940) 20.0 26.0	DIS- SOLVED (MG/L AS SO4) (00945) 18.0	GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608) .010	GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625) .48 <.20	GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613) <.010	GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607) .48	GEN, ORGANIC TOTAL (MG/L AS N) (00605)	GEN, TOTAL (MG/L AS N) (00600)	PHORUS DIS- SOLVED (MG/L AS P) (00666) <.020	PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671) <.010	PHORUS TOTAL (MG/L AS P) (00665)
SEP 2000 27 OCT 24 DEC 11 FEB 2001 06 27	RIDE, DIS- SOLVED (MG/L AS CL) (00940) 20.0 26.0	DIS- SOLVED (MG/L AS SO4) (00945) 18.0 14.0	GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608) .010 .050 <.010	GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623) .49 .20	GEN,AM- MONIA + ORGANIC TOTTAL (MG/L AS N) (00625) .48 <.20	GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631) 13.0 15.0	GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613) <.010 <.010	GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607) .48	GEN, ORGANIC TOTAL (MG/L AS N) (00605)	GEN, TOTAL (MG/L AS N) (00600)	PHORUS DIS- SOLVED (MG/L AS P) (00666) <.020 <.020	PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671) <.010 <.010	PHORUS TOTAL (MG/L AS P) (00665) <.020 <.020
SEP 2000 27 OCT 24 DEC 11 FEB 2001 06 27 MAR 05	RIDE, DIS- SOLVED (MG/L AS CL) (00940) 20.0 26.0 23.0	DIS- SOLVED (MG/L AS SO4) (00945) 18.0 14.0 16.0	GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608) .010 .050 <.010 <.010	GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623) .49 .20 .23	GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625) .48 <.20 .27	GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631) 13.0 15.0 10.0	GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613) <.010 <.010 <.010 <.010	GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	GEN, ORGANIC TOTAL (MG/L AS N) (00605)	GEN, TOTAL (MG/L AS N) (00600) 13 10	PHORUS DIS- SOLVED (MG/L AS P) (00666) <.020 <.020 <.020 <.020	PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671) <.010 <.010	PHORUS TOTAL (MG/L AS P) (00665) <.020 <.020 <.020
SEP 2000 27 OCT 24 DEC 11 FEB 2001 06 27 MAR 05	RIDE, DIS- SOLVED (MG/L AS CL) (00940) 20.0 26.0 23.0 25.0 22.0	DIS- SOLVED (MG/L AS SO4) (00945) 18.0 14.0 16.0 17.0 15.0	GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608) .010 .050 <.010 <.010 .018	GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623) .49 .20 .23	GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625) .48 <.20 .27	GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631) 13.0 15.0 10.0	GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613) <.010 <.010 <.010 <.010 <.010	GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607) .48 .1523	GEN, ORGANIC TOTAL (MG/L AS N) (00605) .47	GEN, TOTAL (MG/L AS N) (00600) 13 10 11 9.5	PHORUS DIS- SOLVED (MG/L AS P) (00666) <.020 <.020 <.020 <.020	PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671) <.010 <.010 <.010 <.010	PHORUS TOTAL (MG/L AS P) (00665) <.020 <.020 <.020 <.020 <.020
SEP 2000 27 OCT 24 DEC 11 FEB 2001 06 27 MAR 05 APR 03 JUN 14	RIDE, DIS- SOLVED (MG/L AS CL) (00940) 20.0 26.0 23.0 25.0 22.0	DIS- SOLVED (MG/L AS SO4) (00945) 18.0 14.0 16.0 17.0 15.0	GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608) .010 .050 <.010 <.010 .018	GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623) .49 .20 .23 .22 .25 .29	GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625) .48 <.20 .27 .22 .26 .29	GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631) 13.0 15.0 10.0 11.0 9.20 9.80	GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613) <.010 <.010 <.010 <.010 <.010 <.010 <.010	GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607) . 48 .15 .23	GEN, ORGANIC TOTAL (MG/L AS N) (00605) .47 .24	GEN, TOTAL (MG/L AS N) (00600) 13 10 11 9.5	PHORUS DIS- DIS- SOLVED (MG/L AS P) (00666) <.020 <.020 <.020 <.020 <.020 <.020	PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671) <.010 <.010 <.010 <.010	PHORUS TOTAL (MG/L AS P) (00665) <.020 <.020 <.020 <.020 <.020
SEP 2000 27 OCT 24 DEC 11 FEB 2001 06 27 MAR 05 APR 03 JUN	RIDE, DIS- SOLVED (MG/L AS CL) (00940) 20.0 26.0 23.0 25.0 22.0 21.0	DIS- SOLVED (MG/L AS SO4) (00945) 18.0 14.0 16.0 17.0 15.0 16.0	GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608) .010 .050 <.010 .018 .020 <.010	GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623) .49 .20 .23 .22 .25 .29 .31	GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625) .48 <.20 .27 .22 .26 .29 .25	GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631) 13.0 15.0 10.0 11.0 9.20 9.80 10.0	GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613) <.010 <.010 <.010 <.010 <.010 <.010 <.010 <.010	GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607) .48 .15 .23 .27	GEN, ORGANIC TOTAL (MG/L AS N) (00605) .47 .24 .27	GEN, TOTAL (MG/L AS N) (00600) 13 10 11 9.5	PHORUS DIS- SOLVED (MG/L AS P) (00666) <.020 <.020 <.020 <.020 <.020 <.020 <.020 <.020	PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671) <.010 <.010 <.010 <.010 .010 <.010	PHORUS TOTAL (MG/L AS P) (00665) <.020 <.020 <.020 <.020 <.020 <.020

NEUSE RIVER BASIN 461

353308077340301 TILE DRAIN (MS3-T1) NEAR TRIBUTARY TO MIDDLE SWAMP NEAR MARLBORO, NC--Continued WATER-QUALITY DATA, FOR PERIOD AUGUST 2000 TO AUGUST 2001

DATE	AS C)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	AS MN)
SEP 2000			
27	2.6	M	18.0
OCT 24	1.9	<2	25.0
DEC 11	1.9	М	21.0
FEB 2001	1.9	IVI	21.0
06	1.7	<2	24.0
27	2.0	<2	21.0
MAR 05	2.6	<2	20.0
APR			
03	2.8	<2	21.0
JUN 14	2.9	М	17.0
JUL	2.,	••	17.0
09	2.7	M	20.0
AUG			
14	3.6	10	24.0