478 NEUSE RIVER BASIN

## 353125077332501 TILE DRAIN (MS4-T2) MIDDLE SWAMP TRIBUTARY NEAR WILLOW GREEN, NC

LOCATION.--Lat 35°31′25.2", long 77°33′24.5", North American Datum of 1983, Greene County, Hydrologic Unit 03020203, approximately 0.1 mi west of State Road 1345 and 1.5 mi west-northwest of Willow Green.

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)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
SEP 2000	1450	15.0	6.0	70	4.0	407	21.4	100	26.0	0.00	10.0	21.0	40.0
28 DEC	1450	15.3	6.2	70	4.0	497	21.4	100	26.0	9.20	19.0	21.0	49.0
12 FEB 2001	1000	14.1	9.2	85	4.3	484	12.0	110	28.0	9.50	13.0	20.0	54.0
26 MAR	1420	6.7	7.6	70	4.0	463	11.5	110	27.0	9.50	11.0	20.0	52.0
05	1610	15.7	8.2	74	4.1	476	10.4	110	28.0	9.90	11.0	21.0	53.0
APR 03	0955	7.3	9.0	81	4.0	446	11.1	100	26.0	9.30	10.0	18.0	49.0
JUN 14	1800	44.1	6.9	76	4.0	642	19.6	140	36.0	12.0	28.0	26.0	72.0
JUL 10	0915	7.4	5.7	67	3.7	515	22.7	110	27.0	9.60	17.0	22.0	59.0
AUG 15	1000	27.0	5.3	61	3.9	558	22.7	110	28.0	9.70	26.0	24.0	65.0
DATE	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)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)
SEP 2000 28	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)	ORGANIC DIS- SOLVED (MG/L AS C)
SEP 2000 28 DEC 12	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)	ORGANIC DIS- SOLVED (MG/L AS C) (00681)
SEP 2000 28 DEC 12 FEB 2001 26	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)	ORGANIC DIS- SOLVED (MG/L AS C) (00681)
SEP 2000 28 DEC 12 FEB 2001 26 MAR 05	DIS- SOLVED (MG/L AS SO4) (00945)	GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608) .020	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) 33.0	GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613) <.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)	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) <.020	ORGANIC DIS- SOLVED (MG/L AS C) (00681)
SEP 2000 28 DEC 12 FEB 2001 26 MAR 05	DIS- SOLVED (MG/L AS SO4) (00945) 10.0 9.4 8.3	GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)  .020 .030	GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)  .44 <.20	GEN, AM- MONIA + ORGANIC TOTTAL (MG/L AS N) (00625) .51 .22	GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)  33.0 30.0	GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)  <.010 <.010	GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)  .4221	GEN, ORGANIC TOTAL (MG/L AS N) (00605) .49 .19	GEN, TOTTAL (MG/L AS N) (00600)	PHORUS DIS- DIS- SOLVED (MG/L AS P) (00666) <.020 <.020	PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671) <.010	PHORUS TOTAL (MG/L AS P) (00665) <.020 <.020	ORGANIC DIS- SOLVED (MG/L AS C) (00681) 2.4 1.6
SEP 2000 28 DEC 12 FEB 2001 26 MAR 05 APR 03 JUN 14	DIS- SOLVED (MG/L AS SO4) (00945) 10.0 9.4 8.3 9.8	GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)  .020 .030 .014 .072	GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623) .44 <.20 .22	GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625) .51 .22 .29 .33	GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631) 33.0 30.0 29.0	GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)  <.010 <.010 <.010 <.010	GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607) .42  .21	GEN, ORGANIC TOTAL (MG/L AS N) (00605) .49 .19 .28	GEN, TOTAL (MG/L AS N) (00600) 34 30 29	PHORUS DIS- SOLVED (MG/L AS P) (00666) <.020 <.020 <.020	PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671) <.010 .020 <.010	PHORUS TOTAL (MG/L AS P) (00665) <.020 <.020 .020	ORGANIC DIS- SOLVED (MG/L AS C) (00681) 2.4 1.6 1.7
SEP 2000 28 DEC 12 FEB 2001 26 MAR 05 APR 03 JUN	DIS- SOLVED (MG/L AS SO4) (00945) 10.0 9.4 8.3 9.8	GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)  .020 .030 .014 .072 .012	GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)  .44 <.20 .22 .35 .26	GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625) .51 .22 .29 .33 .37	GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)  33.0 30.0 29.0 30.0	GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)  <.010 <.010 <.010 <.010 <.010	GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607) .42  .21 .28	GEN, ORGANIC TOTAL (MG/L AS N) (00605) .49 .19 .28 .26	GEN, TOTAL (MG/L AS N) (00600) 34 30 29 30	PHORUS DIS- DIS- SOLVED (MG/L AS P) (00666)  <.020 <.020 <.020 <.020 <.020	PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671) <.010 .020 <.010 <.010	PHORUS TOTAL (MG/L AS P) (00665) <.020 <.020 <.020 <.020	ORGANIC DIS- SOLVED (MG/L AS C) (00681) 2.4 1.6 1.7

DATE	IRON, DIS- SOLVED (UG/L AS FE) (01046)	(UG/L AS MN)
SEP 2000 28	М	49.0
DEC 12	М	57.0
FEB 2001 26 MAR	М	57.0
05 APR	М	58.0
03	М	57.0
14	10	60.0
10	М	57.0
15	20	51.0