Jordan Lake Nutrient Sensitive Water Management Strategy

Baseline Data Collection

Subwatershed: Haw River

County: Chatham

Please note that a form must be submitted per subwatershed in your county: Haw, Upper New Hope and Lower New Hope.

Baseline Cropland Acreage and Fertilization Rate: January 1 - December 3

Crops	1997 Crop Data (ac)	N Rate (lbs/ac)	1998 Crop Data (ac)	N Rate (lbs/ac)	1999 Crop Data (ac)	N Rate (lbs/ac)	2000 Crop Data (ac)	N Rate (lbs/ac)	2001 Crop Data (ac)	N Rate (lbs/ac)	Acreage Average	N Rate Average	2010 Crop Data (ac)	N Rate (lbs/ac)
Barley (Grain)	75	100	0	100	38	100	0	100	0	100	23	100	0	100
Corn (Grain): Conventional	75	175	68	175	53	175	45	175	15	175	51	175	7	217
Corn (Grain): No-till	75	175	68	175	53	175	45	175	15	175	51	175	128	217
Corn (Silage): Conventional	53	175	68	175	105	175	90	175	105	175	84	175	0	217
Corn (Silage): No-till	53	175	68	175	105	175	90	175	105	175	84	175	0	217
Cotton	21	60	0	60	75	60	64	60	75	60	47	60	0	60
Mixed Cool Season (Hay)	1875	180	2400	180	2430	180	2400	180	2415	180	2304	180	3750	140
Oats (Grain)	77	90	0	90	0	90	45	90	41	90	32	90	0	90
Sorghum (Grain)	9	92	17	92	0	92	0	92	0	92	5	92	0	92
Soybeans (Double Cropped)	135	0	126	0	117	0	117	0	126	0	124	0	122	0
Soybeans (Full Season)	90	0	84	0	78	0	78	0	84	0	83	0	284	0
Tobacco (Flue Cured)	183	80	144	80	128	80	101	80	97	80	130	80	0	80
Wheat (Grain)	90	130	105	130	195	130	195	130	120	130	141	130	0	110
Total crop acreage (acres)	2,810		3,146		3,375		3,269		3,197		3,159		4,290	

Reduction Progress

	1997 Data	1998 Data	1999 Data	2000 Data	2001 Data	Baseline Average	2010 Data
lbs (from NLEW)						220,152	172,210
Reduction (%)							21.78%

Best Management Practices Installed

	1997 Data	1998 Data	1999 Data	2000 Data	2001 Data	Average	2010 Data
Scavenger Crop							
Wheat							
Oats							
Rye							
Triticale							
Barley							
Nutrient Mgmt	291.5	291.5	291.5	239.6	770.6	376.9	213.2
Buffer: min 20'	190	190	190	190	190	190	195
Buffer: min 30'	92	92	92	92	92	92	95
Buffer: min 50'	174	174	174	174	174	174	179
Buffer: min 100'	369	369	369	369	369	369	379

Primary Source of Cropland Data : NCDA&CS Ag Statistics
Primary Source of N Rate Data : NCDA & CR Agronomics Division (primary), NC State University (primary), Ag Extension (primary
Cornell University (primary), Plant Management Network (primary), Local Farmers (primar

NLEW Aggregate LakeJordan v6.01
CHATHAM COUNTY Aggregate Results 9/14/2012 2:16:41 PM

INPUTS

SMG	SMGAcres	Crops	CropAcres	CropNRate	% of Total
SMG19	10	Barley (Grain)	23	100	1
SMG23	1	Corn (Grain): Conventional	51	175	2
SMG102	54	Corn (Grain): No-Till	51	175	2
SMG103	299	Corn (Silage): Conventional	84	175	3
SMG107	215	Corn (Silage): No-Till	84	175	3
SMG110	2	Cotton	47	60	1
SMG111	414	Mixed Cool Season Grass (Hay)	2,304	180	73
SMG113	2,116	Oats (Grain)	32	90	1
SMG114	9	Sorghum (Grain)	5	92	0
SMG115	25	Soybeans (Double Cropped)	124	0	4
SMG117	14	Soybeans (Full Season)	83	0	3
		Tobacco (Flue Cured)	130	80	4
		Wheat (Grain)	141	130	4
Tot_SMGs	3,159	Tot_Crops	3,159		

BMP	Acres
Buffer: Minimum 20 ft	190
Buffer: Minimum 30 ft	92
Buffer: Minimum 50 ft	174
Buffer: Minimum 100 ft	369

OUTPUTS

Total N Needed	=	378,447 lbs
Total N (APPLIED)	=	499,160 lbs
Excess N	=	120,713 lbs
Surface N (Excess)	=	6,036 lbs
SubSurface N (Excess)	=	114,678 lbs
SubSurface After Crop	=	117,230 lbs
Total SubSurface	=	231,908 lbs
SubSurface Intercepted By BMP	=	17,791 lbs
SubSurface Loss	=	214,117 lbs
**** TOTAL NITROGEN LOST**	**=**	**220,152 lbs**

*** The Total Nitrogen Lost value is for comparative purposes only. It may not represent actual loss from the Soil Management Unit.*

Comments:
Baseline Avg Haw Ag Stats

NLEW Aggregate LakeJordan v6.01
CHATHAM COUNTY Aggregate Results 9/14/2012 2:19:44 PM

INPUTS

SMG	SMGAcres	Crops	CropAcres	CropNRate	% of Total
SMG19	13	Corn (Grain): Conventional	7	217	0
SMG23	1	Corn (Grain): No-Till	128	217	3
SMG102	73	Mixed Cool Season Grass (Hay)	3,747	140	87
SMG103	406	Soybeans (Double Cropped)	122	0	3
SMG107	292	Soybeans (Full Season)	284	0	7
SMG110	3				
SMG111	562				
SMG113	2,873				
SMG114	12				
SMG115	34				
SMG117	19				
Tot_SMGs	4,288	Tot_Crops	4,288		

BMP	Acres
Buffer: Minimum 20 ft	195
Buffer: Minimum 30 ft	95
Buffer: Minimum 50 ft	179
Buffer: Minimum 100 ft	379

OUTPUTS

Total N Needed	=	499,570 lbs
Total N (APPLIED)	=	553,875 lbs
Excess N	=	54,305 lbs
Surface N (Excess)	=	2,715 lbs
SubSurface N (Excess)	=	51,589 lbs
SubSurface After Crop	=	128,359 lbs
Total SubSurface	=	179,949 lbs
SubSurface Intercepted By BMP	=	10,454 lbs
SubSurface Loss	=	169,495 lbs
**** TOTAL NITROGEN LOST**	**=**	**172,210 lbs**

*** The Total Nitrogen Lost value is for comparative purposes only. It may not represent actual loss from the Soil Management Unit.*

Comments:
2010 Haw Ag Stats

Jordan Lake Nutrient Sensitive Water Management Strategy

Baseline Data Collection

Date: 9/13/12 **Subwatershed: Lower New Hope**

County: Chatham Please note that a form must be submitted per subwatershed in your county: Haw, Upper New Hope and Lower New Hope.

Baseline Cropland Acreage and Fertilization Rate: January 1 - December 31

Crops	1997 Crop Data (ac)	N Rate (lbs/ac)	1998 Crop Data (ac)	N Rate (lbs/ac)	1999 Crop Data (ac)	N Rate (lbs/ac)	2000 Crop Data (ac)	N Rate (lbs/ac)	2001 Crop Data (ac)	N Rate (lbs/ac)	Average	Average	2010 Data (ac)	N Rate (lbs/ac)
Barley (Grain)	20	100	0	100	10	100	0	100	0	100	6	100	0	100
Corn (Grain): Conventional	20	110	18	110	14	110	12	110	4	110	14	110	1	134
Corn (Grain): No-till	20	110	18	110	14	110	12	110	4	110	14	110	26	134
Corn (Silage): Conventional	14	110	18	110	28	110	24	110	28	110	22	110	0	134
Corn (Silage): No-till	14	110	18	110	28	110	24	110	28	110	22	110	0	134
Cotton	6	60	0	60	20	60	17	60	20	60	13	60	0	60
Mixed Cool Season (Hay)	500	180	640	180	648	180	640	180	644	180	614	180	750	140
Oats (Grain)	20	90	0	90	0	90	12	90	11	90	9	90	0	90
Sorghum (Grain)	2	92	4	92	0	92	0	92	0	92	1	92	0	92
Soybeans (Double Cropped)	36	0	34	0	31	0	31	0	34	0	33	0	24	0
Soybeans(Full Season)	24	0	22	0	21	0	21	0	22	0	22	0	57	0
Tobacco (Flue Cured)	49	80	38	80	34	80	27	80	26	80	35	80	0	80
Wheat (Grain)	24	130	28	130	52	130	52	130	32	130	38	130	0	110
Total crop acreage (acres)	749		839		900		872		853		842		858	
ck fig														

Reduction Progress

	1997 Data	1998 Data	1999 Data	2000 Data	2001 Data	Average	2010 Data
lbs (from NLEW)						57,853	33829
Reduction (%)		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		41.53%

Changes in Cropland Acreage

	1997 Data	1998 Data	1999 Data	2000 Data	2001 Data	Average	2010 Data
Cropland Acreage	749	839	900	872	853	842	858
Change							
% Change		-11.96%	-20.13%	-16.36%	-13.80%		-14.52%

Agricultural Landuse Changes

	1997 Data	1998 Data	1999 Data	2000 Data	2001 Data	Average	2010 Data	2011 Data
Cropland	749.2	838.8	900	871.8	852.6	842.48	858	
Idle/Fallow Cropland								
Cropland Conversion								
Cropland to Development	192				45		15	78

Best Management Practices Installed

	1997	1998	1999	2000	2001		2010

NLEW Aggregate LakeJordan v6.01
CHATHAM COUNTY Aggregate Results 9/14/2012 1:57:05 PM

INPUTS

SMG	SMGAcres	Crops	CropAcres	CropNRate	% of Total
SMG19	2	Barley (Grain)	5	100	1
SMG23	0	Corn (Grain): Conventional	10	110	2
SMG102	11	Corn (Grain): No-Till	10	110	2
SMG103	60	Corn (Silage): Conventional	17	110	3
SMG107	43	Corn (Silage): No-Till	17	110	3
SMG110	0	Cotton	9	60	1
SMG111	83	Mixed Cool Season Grass (Hay)	461	180	73
SMG113	423	Oats (Grain)	6	90	1
SMG114	2	Sorghum (Grain)	1	92	0
SMG115	5	Soybeans (Double Cropped)	25	0	4
SMG117	3	Soybeans (Full Season)	17	0	3
		Tobacco (Flue Cured)	26	80	4
		Wheat (Grain)	28	130	4
Tot_SMGs	632	Tot_Crops	632		

BMP	Acres
Buffer: Minimum 20 ft	3
Buffer: Minimum 30 ft	1
Buffer: Minimum 50 ft	2
Buffer: Minimum 100 ft	6

OUTPUTS

Total N Needed	=	75,689 lbs
Total N (APPLIED)	=	96,312 lbs
Excess N	=	20,623 lbs
Surface N (Excess)	=	1,031 lbs
SubSurface N (Excess)	=	19,592 lbs
SubSurface After Crop	=	23,445 lbs
Total SubSurface	=	43,037 lbs
SubSurface Intercepted By BMP	=	242 lbs
SubSurface Loss	=	42,795 lbs
**** TOTAL NITROGEN LOST**	**=**	**43,826 lbs**

*** The Total Nitrogen Lost value is for comparative purposes only. It may not represent actual loss from the Soil Management Unit.*

Comments:
Baseline Avg UNH Ag Stats

NLEW Aggregate LakeJordan v6.01
CHATHAM COUNTY Aggregate Results 9/14/2012 2:02:22 PM

INPUTS

SMG	SMGAcres	Crops	CropAcres	CropNRate	% of Total
SMG19	2	Corn (Grain): Conventional	1	134	0
SMG23	0	Corn (Grain): No-Till	17	134	3
SMG102	10	Mixed Cool Season Grass (Hay)	501	140	87
SMG103	54	Soybeans (Double Cropped)	16	0	3
SMG107	39	Soybeans (Full Season)	38	0	7
SMG110	0				
SMG111	75				
SMG113	383				
SMG114	2				
SMG115	5				
SMG117	3				
Tot_SMGs	573	Tot_Crops	573		

BMP	Acres
Buffer: Minimum 20 ft	3
Buffer: Minimum 30 ft	1
Buffer: Minimum 50 ft	2
Buffer: Minimum 100 ft	6

OUTPUTS

Total N Needed	=	66,757 lbs
Total N (APPLIED)	=	72,552 lbs
Excess N	=	5,795 lbs
Surface N (Excess)	=	290 lbs
SubSurface N (Excess)	=	5,505 lbs
SubSurface After Crop	=	17,152 lbs
Total SubSurface	=	22,658 lbs
SubSurface Intercepted By BMP	=	140 lbs
SubSurface Loss	=	22,517 lbs
**** TOTAL NITROGEN LOST**	**=**	**22,807 lbs**

*** The Total Nitrogen Lost value is for comparative purposes only. It may not represent actual loss from the Soil Management Unit.*

Comments:
2010 UNH Ag Stats

Jordan Lake Nutrient Sensitive Water Management Strategy

Baseline Data Collection

Subwatershed: Lower New Hope

County: Chatham

Please note that a form must be submitted per subwatershed in your county: Haw, Upper New Hope and Lower New Hope.

Baseline Cropland Acreage and Fertilization Rate: January 1 - December 3

Crops	1997 Crop Data (ac)	N Rate (lbs/ac)	1998 Crop Data (ac)	N Rate (lbs/ac)	1999 Crop Data (ac)	N Rate (lbs/ac)	2000 Crop Data (ac)	N Rate (lbs/ac)	2001 Crop Data (ac)	N Rate (lbs/ac)	Acreage Average	N Rate Average	2010 Data (ac)	N Rate (lbs/ac)
Barley (Grain)	20	100	0	100	10	100	0	100	0	100	6	100	0	100
Corn (Grain): Conventional	20	110	18	110	14	110	12	110	4	110	14	110	1	134
Corn (Grain): No-till	20	110	18	110	14	110	12	110	4	110	14	110	26	134
Corn (Silage): Conventional	14	110	18	110	28	110	24	110	28	110	22	110	0	134
Corn (Silage): No-till	14	110	18	110	28	110	24	110	28	110	22	110	0	134
Cotton	6	60	0	60	20	60	17	60	20	60	13	60	0	60
Mixed Cool Season (Hay)	500	180	640	180	648	180	640	180	644	180	614	180	750	140
Oats (Grain)	20	90	0	90	0	90	12	90	11	90	9	90	0	90
Sorghum (Grain)	2	92	4	92	0	92	0	92	0	92	1	92	0	92
Soybeans (Double Cropped)	36	0	34	0	31	0	31	0	34	0	33	0	24	0
Soybeans(Full Season)	24	0	22	0	21	0	21	0	22	0	22	0	57	0
Tobacco (Flue Cured)	49	80	38	80	34	80	27	80	26	80	35	80	0	80
Wheat (Grain)	24	130	28	130	52	130	52	130	32	130	38	130	0	110
Total crop acreage (acres)	749		839		900		872		853		842		858	

Reduction Progress

	1997 Data	1998 Data	1999 Data	2000 Data	2001 Data	Average	2010 Data
lbs (from NLEW)						57,853	33829
Reduction (%)							41.53%

Changes in Cropland Acreage

	1997 Data	1998 Data	1999 Data	2000 Data	2001 Data	Average	2010 Data
Cropland Acreage	749	839	900	872	853	842	858
Change							
% Change		-11.96%	-20.13%	-16.36%	-13.80%		-14.52%

Best Management Practices Installed

	1997 Data	1998 Data	1999 Data	2000 Data	2001 Data	Average	2010 Data
Scavenger Crop							
Wheat							
Oats							
Rye							
Triticale							
Barley							
Nutrient Mgmt							
Buffer: min 20'	10	10	10	10	10	10	10
Buffer: min 30'	5	5	5	5	5	5	5
Buffer: min 50'	9	9	9	9	9	9	9
Buffer: min 100'	20	20	20	20	20	20	19

Primary Source of Cropland Data : Ag Statistics

Primary Source of N Rate Data : NCDA & CS Agronomics Division (primary), NC State University (primary), Ag Extension (primary), Cornell University (primary), Plant Management Network (primary), Local Farmers (primary)

NLEW Aggregate LakeJordan v6.01
CHATHAM COUNTY Aggregate Results 9/14/2012 1:57:05 PM

INPUTS

SMG	SMGAcres	Crops	CropAcres	CropNRate	% of Total
SMG19	2	Barley (Grain)	5	100	1
SMG23	0	Corn (Grain): Conventional	10	110	2
SMG102	11	Corn (Grain): No-Till	10	110	2
SMG103	60	Corn (Silage): Conventional	17	110	3
SMG107	43	Corn (Silage): No-Till	17	110	3
SMG110	0	Cotton	9	60	1
SMG111	83	Mixed Cool Season Grass (Hay)	461	180	73
SMG113	423	Oats (Grain)	6	90	1
SMG114	2	Sorghum (Grain)	1	92	0
SMG115	5	Soybeans (Double Cropped)	25	0	4
SMG117	3	Soybeans (Full Season)	17	0	3
		Tobacco (Flue Cured)	26	80	4
		Wheat (Grain)	28	130	4
Tot_SMGs	632	Tot_Crops	632		

BMP	Acres
Buffer: Minimum 20 ft	3
Buffer: Minimum 30 ft	1
Buffer: Minimum 50 ft	2
Buffer: Minimum 100 ft	6

OUTPUTS

Total N Needed	=	75,689 lbs
Total N (APPLIED)	=	96,312 lbs
Excess N	=	20,623 lbs
Surface N (Excess)	=	1,031 lbs
SubSurface N (Excess)	=	19,592 lbs
SubSurface After Crop	=	23,445 lbs
Total SubSurface	=	43,037 lbs
SubSurface Intercepted By BMP	=	242 lbs
SubSurface Loss	=	42,795 lbs
**** TOTAL NITROGEN LOST**	**=**	**43,826 lbs**

*** The Total Nitrogen Lost value is for comparative purposes only. It may not represent actual loss from the Soil Management Unit.*

Comments:
Baseline Avg UNH Ag Stats

NLEW Aggregate LakeJordan v6.01
CHATHAM COUNTY Aggregate Results 9/14/2012 2:02:22 PM

INPUTS

SMG	SMGAcres	Crops	CropAcres	CropNRate	% of Total
SMG19	2	Corn (Grain): Conventional	1	134	0
SMG23	0	Corn (Grain): No-Till	17	134	3
SMG102	10	Mixed Cool Season Grass (Hay)	501	140	87
SMG103	54	Soybeans (Double Cropped)	16	0	3
SMG107	39	Soybeans (Full Season)	38	0	7
SMG110	0				
SMG111	75				
SMG113	383				
SMG114	2				
SMG115	5				
SMG117	3				
Tot_SMGs	573	Tot_Crops	573		

BMP	Acres
Buffer: Minimum 20 ft	3
Buffer: Minimum 30 ft	1
Buffer: Minimum 50 ft	2
Buffer: Minimum 100 ft	6

OUTPUTS

Total N Needed	=	66,757 lbs
Total N (APPLIED)	=	72,552 lbs
Excess N	=	5,795 lbs
Surface N (Excess)	=	290 lbs
SubSurface N (Excess)	=	5,505 lbs
SubSurface After Crop	=	17,152 lbs
Total SubSurface	=	22,658 lbs
SubSurface Intercepted By BMP	=	140 lbs
SubSurface Loss	=	22,517 lbs
**** TOTAL NITROGEN LOST**	**=**	**22,807 lbs**

*** The Total Nitrogen Lost value is for comparative purposes only. It may not represent actual loss from the Soil Management Unit.*

Comments:
2010 UNH Ag Stats