

REVIEW AND INSPECTING UNIQUE PROJECTS

Orange County, North Carolina
Erosion Control & Stormwater Division



Project Name :
White Cross Solar Farm

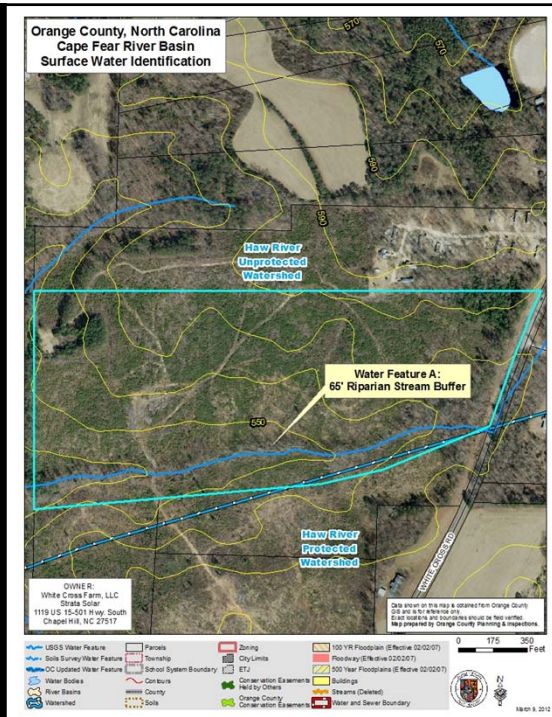
**Owner / Financially
Responsible Party :**



Location :
2314 White Cross Rd.
Chapel Hill, NC 27516
Haw River Unprotected Watershed
Cape Fear River Basin

Total Size of Tract :
53.31 acres

Existing Conditions :
USGS / Soil Survey Stream
5-Year Growth Timber Farm





**Hydro-Cut
Land Clearing & Brush Cutting**





















Final Stabilization




NCDAS&S Agronomic Division Phone: (919) 733-2655 Website: www.ncagr.gov/agronomi/ Report No. FY14-SL011212

Predictive Soil Report Mehlich-3 Extraction Client: Todd Hannon 50101 Governors Dr. CHAPEL HILL, NC 27517 Sampled County : Orange

Advisor: Strata solar c/o Todd Hannon 1119 15-501 Hwy S Chapel Hill, NC 27517



Sampled: Received: 10/17/2013 Completed: 10/28/2013 Farm: [Link to Helpful Information](#)

Sample ID:	Recommendations:	Lime (tons/acre)	Nutrients (lb/acre)														More Information			
Sample ID:	Crop		N	P ₂ O ₅	K ₂ O	Mg	S	Mn	Zn	Cu	B	Soil Class: Mineral						More Information		
GSF1	1 - Bermuda hay/past., M	0.0	180-220	0	90	0	0	0	0	0	0	Zn-I	Zn-AI	Cu-I	Na	ESP	SS-I	NO ₃ -N		
	2 -																			
Lime History:			pH																	
Test Results [units - WV in g/cm ³ ; CEC and Na in meq/100 cm ² ; NO ₃ -N in mg/dm ³]:																				
HM%	WV	CEC	BS%	Ac	pH	P-I	K-I	Ca%	Mg%	SI	Mn-I	Mn-AI1	Mn-AI2	Zn-I	Zn-AI	Cu-I	Na	ESP	SS-I	NO ₃ -N
0.51	1.32	4.8	89	0.5	6.0	156	59	60	23	27	44	43		247	247	168	0.0			
Sample ID:	Recommendations:	Lime (tons/acre)	Nutrients (lb/acre)														More Information			
Sample ID:	Crop		N	P ₂ O ₅	K ₂ O	Mg	S	Mn	Zn	Cu	B	Soil Class: Mineral						More Information		
BSF1	1 - Bermuda hay/past., M	0.8	180-220	20	100	25	0	0	0	0	0	Zn-I	Zn-AI	Cu-I	Na	ESP	SS-I	NO ₃ -N		
	2 -																			
Lime History:			pH																	
Test Results [units - WV in g/cm ³ ; CEC and Na in meq/100 cm ² ; NO ₃ -N in mg/dm ³]:																				
HM%	WV	CEC	BS%	Ac	pH	P-I	K-I	Ca%	Mg%	SI	Mn-I	Mn-AI1	Mn-AI2	Zn-I	Zn-AI	Cu-I	Na	ESP	SS-I	NO ₃ -N
0.36	1.27	3.4	64	1.2	4.9	54	55	48	8	45	33	37		52	52	32	0.1	3		
Sample ID:	Recommendations:	Lime (tons/acre)	Nutrients (lb/acre)														More Information			
Sample ID:	Crop		N	P ₂ O ₅	K ₂ O	Mg	S	Mn	Zn	Cu	B	Soil Class: Mineral						More Information		
WC001	1 - Bermuda hay/past., M	1.6	180-220	130	190	0	0	0	0	0	0	Zn-I	Zn-AI	Cu-I	Na	ESP	SS-I	NO ₃ -N		
	2 -																			
Lime History:			pH																	
Test Results [units - WV in g/cm ³ ; CEC and Na in meq/100 cm ² ; NO ₃ -N in mg/dm ³]:																				
HM%	WV	CEC	BS%	Ac	pH	P-I	K-I	Ca%	Mg%	SI	Mn-I	Mn-AI1	Mn-AI2	Zn-I	Zn-AI	Cu-I	Na	ESP	SS-I	NO ₃ -N
0.36	1.10	4.1	45	2.3	4.5	6	21	32	10	57	73	61		37	37	18	0.1	2		


 Reprogramming of the laboratory-information-management system that makes this report possible is being funded through a grant from the North Carolina Tobacco Trust Fund Commission. Thank you for using agronomic services to manage nutrients and safeguard environmental quality. - Steve Troxler, Commissioner of Agriculture





NCDA&CS Agronomic Division		Phone: (919) 733-2655		Website: www.ncagr.gov/agronomi/		Report No. FY14-S000157								
 <p>Predictive Solution Report</p>		Client: Strata solar c/o Todd Hannon 1119 15-501 Hwy S Chapel Hill, NC 27517		Advisor:										
		Sampled County: Orange		Links to Helpful Information										
Sampled: Received: 10/16/2013 Completed: 10/18/2013 Farm:														
Sample Information	Nutrient Measurements	Other Results												
Sample ID: 1	N (ppm)	P (ppm)	K (ppm)	Ca (ppm)	Mg (ppm)	S (ppm)	Fe (ppm)	Mn (ppm)	Zn (ppm)	Cu (ppm)	B (ppm)	Na (ppm)	Cl (ppm)	
Solution Code: QS	Inorganic N	3.57	0.57	26.0	20.7	5.48	2.16	14.1	0.07	0.06	0.02	0.08	3.94	9.25
Description:	NH ₄ -N	0.57	Other Results (continued)											
	NO ₃ -N	3.00	SS	EC	pH	CO ₃	HCO ₃	Total Alkalinity	Acid Requirement	Hardness	SAR			
	Organic N	0	(10 ⁻⁶ S/cm)	(mS/cm)		(meq/L)	(meq/L)	(ppm CaCO ₃)	(oz/100 gal)	(ppm CaCO ₃)				
	Urea	0	16	0.16	5.17	0	0.90	45.0		74.0		0.20		
Agronomist's Comments:														
Note, please label box with solution, media, waste or plant sample to our lab, even if soil samples are in the box; address them to NCDA&CS plant/waste/solution/media lab. Boxes with soil sample will be taken to the soil lab, if solution samples are in these boxes they could be lost or analysis could be delayed. For runoff sample 1, Nitrate nitrogen (NO ₃ -N) concentration is higher than background levels normally found in surface or ground water (3 ppm). Aaron Pettit 10/19/2013 8:46 AM														
Sample Information	Nutrient Measurements	Other Results												
Sample ID: 2	N (ppm)	P (ppm)	K (ppm)	Ca (ppm)	Mg (ppm)	S (ppm)	Fe (ppm)	Mn (ppm)	Zn (ppm)	Cu (ppm)	B (ppm)	Na (ppm)	Cl (ppm)	
Solution Code: QS	Inorganic N	1.71	0.18	5.94	9.47	3.61	1.71	10.4	0.02	0.03	0.01	0.04	5.14	8.08
Description:	NH ₄ -N	0.30	Other Results (continued)											
	NO ₃ -N	1.40	SS	EC	pH	CO ₃	HCO ₃	Total Alkalinity	Acid Requirement	Hardness	SAR			
	Organic N	0	(10 ⁻⁶ S/cm)	(mS/cm)		(meq/L)	(meq/L)	(ppm CaCO ₃)	(oz/100 gal)	(ppm CaCO ₃)				
	Urea	0	10	0.10	5.52	0	0.10	5.00		38.0		0.36		
		Reprogramming of the laboratory-information-management system that makes this report possible is being funded through a grant from the North Carolina Tobacco Trust Fund Commission. Thank you for using agronomic services to manage nutrients and safeguard environmental quality. - Steve Trotter, Commissioner of Agriculture.												



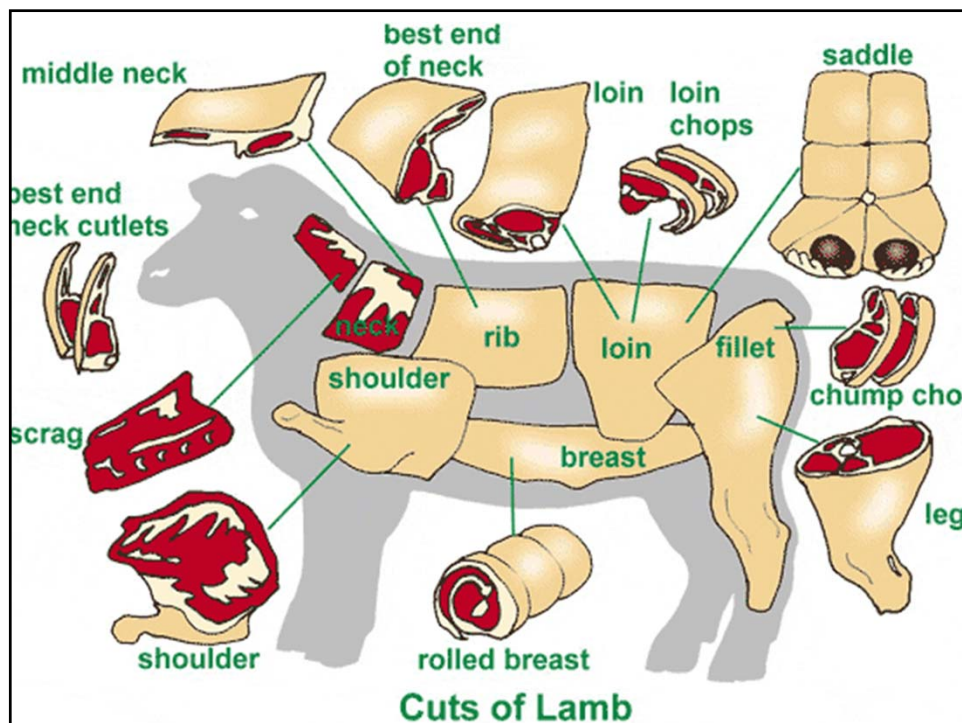
Approval With Performance Reservations

PROS :

- Upfront cost savings
- Reduces soil disturbance and compaction
- No disturbance of feeder roots from remaining trees
- Immediate temporary ground cover
- No offsite sediment loss during construction
- Vegetative maintenance by animals

CONS :

- Movement of mulch during heavy rain events
- Follow-up land disturbance
- Remaining stumps
- Low pH soil and leachate
- Potential increased maintenance costs
- Potential overgrazing





Contact Information :

Wesley Poole

Orange County Planning & Inspections Department
Erosion Control & Stormwater Division Officer II
(919) 245-2587
wpoole@orangecountync.gov

Steve Kaltenbach

Orange County Planning & Inspections Department
Erosion Control & Stormwater Division Officer I
(919) 245-2588
skaltenbach@orangecountync.gov