

NC Division of Forest Resources

Woodland Management Map



Acreages and Boundaries are Approximate





Landowner: William Callow

County: Craven

Location: BSP=65-7-20

Date: 9-17-01

Drawn By: Greg Hicks



Ayden, NC 28513 252-746-2018

Tree planting bill for Call Ca	llow
Acres 17.5 lold	
Spacing 7x 12	_ (2x 12 _ \$ 155 _ \$ 790.50
Price per Acre 472	4 155
Total Labor and Trees 4 260	_ 4790.50
	total \$2030.50
	Nancy Linclsey Jeff Scholl 3970 Ayden Golf Club Road

Please make check payable to Nancy.



North Carolina Department of Environment and Natural Resources

Michael F. Easley, Governor William G. Ross Jr., Secretary



North Carolina Division of Forest Resources

Stanford M. Adams, Director

3810 M. L. King, Jr. Boulevard New Bern, NC 28562-2236 September 17, 2001

D-4 FM Project (CREP 1479) Callow, William—35-7-20 (35-23.25/77-08.17)

Mr. William Callow 843 CC Road Vanceboro, NC 28586-7406

Dear Mr. Callow:

On August 1, 2001, Assistant Craven County Ranger Kim Arrington and I examined the field areas you have enrolled in the North Carolina Conservation Reserve Enhancement Program (CREP). The Conservation Reserve Enhancement Program requires that a "Tree Planting Plan" be prepared by the N.C. Division of Forest Resources for each planting project. Given below are my recommendations for planting the eligible field areas to reduce sediment, nutrient, and other nonpoint source impacts to nearby water systems. The recommendations are based on the CREP Handbook Guidelines, June 2000, for Practice CP22—Riparian Forest Buffer; and the N.C. Natural Resources Conservation Service Practice Standard for practice code 391, Riparian Forest Buffer; and clarification of the Riparian Forest Buffer Standard from CREP meetings Assistant District Forester Steve Whittemore attended on February 11, 2000 and August 16, 2000.

Site Locations

The areas we examined are 4 fields located on your farm, Farm Service Agency Tract Number 21479. This farm is located off State Road 1130, north of Vanceboro in the northwestern portion of Craven County, North Carolina. The specific eligible fields are Field 1 (5.4 acres), Field 2 (2.7 acres), Field 3 (4.9 acres), and Field 4 (9.6 acres).

Site Description

These fields have been left out of rotation for a year and is grown up with annual weeds and grasses such as dogfennel, horseweed, and fireweed. The predominant soil types are Rains fine sandy loam that's poorly drained and Lynchburg fine sandy loam that's somewhat poorly drained. Most of the vegetation on the site is over head high.

Site Preparation

This area should be mowed with a bushhog to remove the annual vegetation on the site. Debris from mowing should stabilize the area until the area can be planted. Mowing can be done at any time after the first frost this fall or winter before planting.

Planting Specifications

Planting Riparian Forest Buffers under the Conservation Reserve Enhancement Program requires that at least two species be planted or regenerated naturally. An area at least 15 feet wide from the edge of the waterway (identified as Buffer) must be planted or naturally regenerated with hardwoods. The remaining area must be regenerated with a species suitable for the site.

To meet the above criteria, I recommend planting two rows of hardwoods along drainages and waterbodies. The first row should be planted 12 feet from the drainage and the second row 24 feet from the drainage. Natural hardwoods should also be allowed to regenerate in this hardwood area to provide a variety of hardwood species. The areas to be planted with hardwoods are around 5.1 acres and are shown as "Hardwood Area" on the enclosed map. The remaining 17.5 acres enrolled in the Conservation Reserve Enhancement Program can be machine or hand planted with either containerized or bare-root longleaf pine seedlings or loblolly pine seedlings. The areas to be planted with pine are shown as "Pine Area" on the enclosed map.

Hardwoods suitable for planting are water oak, swamp chestnut oak, willow oak, sweetgum, blackgum, white oak, southern red oak, and red maple. Seedlings used should be from a local seed source. **Mountain seed source is not appropriate for Craven County.** If planting multiple hardwood species, each species should be planted together in a group to reduce competition between species. The hardwoods should be planted on an approximate 12' x 12' spacing. This will result in around 300 seedlings per acre being planted. The seedlings should be planted between January 1, 2002 and April 15, 2002.

In the past, we have not been real successful with hardwood planting for forestry purposes. Planted hardwoods are slow to get established and often they are out-competed by natural vegetation. To improve survival, you may wish to place solid tube tree protectors around the hardwoods during the planting process. This will allow herbicides to be used in the future to control vegetation around the planted seedlings. If using tree protectors, each protector must be anchored with two stakes placed 180 degrees apart on the tube wall to prevent the tube from rotating.

Longleaf pine is harder to get established than most other pines. Usually after planting, longleaf pine stays in a "grass stage" and does not initiate height growth for several years. Once established and growing, however, longleaf pine is very desirable due to its resistance to most diseases, resistance to fire damage, good consistent growth for many years, wildlife benefits, and its potential for straw production. To improve the chances of successful longleaf pine establishment; either containerized seedling should be hand planted or bare-root seedlings should be machine planted. If using containerized longleaf seedlings, planting should be conducted in

November and/or December. If machine planting bare-root seedlings, planting should be conducted in December and/or January. No-matter which type of longleaf seedlings you use; they must be from a North Carolina Coastal seed source. They should also be planted on rows approximately 12 feet apart and approximately seven feet apart within each row. This approximate 7' x 12' spacing will result in around 518 trees per acre being planted.

This area is also suitable for loblolly pine. Loblolly pine can be hand planted and should be done from January 1, 2002 to April 15, 2002. Loblolly pines can be planted on the same spacing as stated above for the longleaf pine and should come from a North Carolina Coastal seed source. Loblolly pine is easier to get established than longleaf but it is not as disease resistant.

Hardwood, longleaf, and loblolly pine planting must be performed to N.C. Division of Forest Resources Standards to receive cost-share assistance. These standards include proper handling and storing of seedlings prior to planting, as well as proper planting of the seedlings. Due to large root systems, proper planting of hardwoods requires use of a shovel or tool that can make a large hole. Loblolly and containerized longleaf pines can be planted with a planting dibble bar. Most contractors who do tree planting are familiar with our standards. We suggest landowners have a written contract that requires the entire planting operation to meet N.C. Division of Forest Resources standards prior to paying the contractor. Either you or the planting contractor should notify the N.C. Division of Forest Resources prior to the beginning of the tree planting operation so we can inspect the work while it is being done.

Enclosed to assist you with obtaining a contractor are two information sheets, "District Four Tree Planting Contractors," and "Suggested Provisions for Tree Planting Contracts." As hardwood seedlings are usually in short supply, I suggest you go ahead and contact a tree planter about obtaining seedlings. Enclosed is a "Seedling Catalog." The Seedling Catalog lists 2001-2002 seedling prices. Due the time of the year, it is most likely that all longleaf seedlings are already sold out. All the nurseries have been sold out for some time now. There may be a chance that some tree planting contractors still have seedlings that area not obligated. However, if all of the seedlings are obligated then planting of longleaf pine will need to be postponed until next planting season.

Estimation of Planting Costs

The cost of planting genetically improved longleaf pine seedlings usually ranges \$110 to \$135 per acre. Cost of planting loblolly pine should be around \$70 to \$80 per acre. This includes the cost of seedlings. The cost for planting hardwood seedlings should range from \$150 to \$170 per acre. If you choose to use tree protectors, the cost for installing tree protectors should be around \$300 per acre. Actual costs for tree planting work may be different, as tree planting is done by private contractors who price the job prior to starting work.

Maintenance of Planted Areas

The planted areas should be reexamined after one complete growing season to determine if satisfactory stands have been established. For the pine areas, a minimum of approximately 200

to 300 fairly well distributed seedlings per acre will represent a satisfactory stand. The seedling survival examination will be done by the N.C. Division of Forest Resources.

A requirement of the Conservation Reserve Enhancement Program is that the cost-share practices be maintained for the life of the contract. The planted pine stands will require thinning at least once and possibly twice during the 30-year contract. During this period planted seedlings must be protected from destructive fire, grazing, land clearing, or any other destructive action. Thinnings are needed to open up overcrowded stands and improve the growth and health of the residual trees. The pine areas should be examined for a first thinning when the pines are between 15 and 20 years of age. The basal area after the first thinning should be between 60 and 70 square feet per acre. Thinning or cutting of the pines within the 50 feet "no-cut" zone is permitted only if necessary to maintain the health of individual trees.

As mentioned earlier, planted hardwoods are hard to get established. The final stand will probably be a mix of planted hardwoods, natural sweetgums, and natural red maples. Although not a required maintenance practice, to improve the chances of planted hardwoods getting established, you may wish to periodically release the planted hardwoods from natural competition. If tree protectors are used, this can be accomplished using a herbicide and backpack applicator to spray around but not on the sensitive hardwood trees. This may need to be done in early spring and in the summer during the first three years after planting. All herbicides used must be federally, state, and locally registered; applied according to the label; and recommended according to the enclosed hardwood Herbicide Application Plan (HAP) or an amendment to this plan. Mowing between planted hardwood rows to reduce competition should not be done so that natural hardwoods can help regenerate this area.

If you decide to go with longleaf, they will most definitely need a herbicide spray release in summer during the first few years after planting. This site is not the best soil type for planting longleaf. The soil types are very fertile for this area which, increases the competition on planted longleaf pine. Longleaf pine is very sensitive to competition because it stays in a grass stage the first few years of its life. The herbicide used would be different from the hardwood release herbicide (refer to Pine Release Herbicide Application Plan). Mowing between planted rows to reduce competition may also be applicable during the first three years after planting. For wildlife purposes the minimum mowing height should be 12 inches so that cover is always available. Mowing should not be done between April 1st and September 15th as this is the breeding and brood-rearing season for ground-nesting species. It may also be feasible to winter burn the pine area several times during the 30-year contract to reduce unwanted competition. If burning is conducted, it should be done according to a "Prescribed Burning Plan" prepared by a certified burn boss.

If you have any questions concerning the Conservation Reserve Enhancement Program, you should contact District Conservationist Andy Metts at 252-637-2547. If you have any questions concerning the tree planting guide outlined above, feel free to call Craven County Ranger Jim Hines at 252-244-0295 or me at 252-514-4764. We look forward to working with you on this project.

Sincerely,

Gregory M. Hicks Service Forester

N.C. Registered Forester #1431

GH:CJ

Enclosures

cc: Andy Metts, Natural Resources Conservation Service Jim Hines, Craven County Ranger

Debra McCoy, Craven/Carteret Farm Service Agency

233	OF FOREST RESOURC	DIVISION	
Part II HERBICIDE PRESCRIPTION			
Prepared By: Gregory M. Hicks Herbicide: Arsenal Applicator Concentra) troud Liviñ A. B.CDat ite	e: 9-17-01	42 1-7 (8-96)
Rate/Ac of Herbicide: 4-6 oz. per acre o	f Arsenal	enoria	Agent
Carrier: Water	Spray Vol/Ac: 20 to	30 gallons per acre	
Adjuvant: none	Rate/Ac of Adjuvan	i Callow cad; Vanceboro NO 255 $oldsymbol{t}$	Landowner: William Address: 842 CC R
Application Method: Aerial (Must be ap	proved by Regional Fo	prester or their representativ	re)
⊠ Ground Type	of Ground Application		
Dates of Application (timing): June 15, 200 Additional Information: band spray a strip	5 feet wide over the tol	o ot each row	
Approved By: Kell Colonia	not gelorga Date: 1.913	D(1) - Kakirinada amir	
Part III PREPARATION FOR APPLICATION	ON (Initial and date wh	en completed) and dual Ca	Part SITE ANALYS
Boundaries determined & suitably designated Acreage determined prior to treatment:	ated: (someneque	werd species by order of in	VEGETA TON (List)
Acreage determined prior to treatment:	ies KS/ iH	avial application):	2513000 0 2244
Notification of all residents living within 500) feet of target area (at	ents:	grasses
Check labeling & target area for Endange Special Problem Areas Considered:	red Species Requirem	onto.	
·	A - vi-1 A religators Dos	ord & Attach)	
Part IV APPLICATION RECORD (Obtain Observed By:	Aeriai Applicators Rec	Ac Treated	if Reliase
Application Mathodists stores of C	ontractor A	Boom Type:	Crop. Species T
Type Nozzle Tips: No Appl. Speed: Boom Pres	o, of Nozzles:	ApplaHt: #1 003-00	Longleaf Pine
Direction Spraying Progressed (N-S, etc.)	: Broadca	st rate/ac	Pientation
Total Vol. Sprayed/ac.: Otl	ner (injection spacing,	5tC.).	SOILS
Remarks:	Topsort Thiokness	fexture of top rail:	mineral
Conditions: Soil Moisture: wet r	noist 🗌 dry 🔲 very di		
Weed Species: drought stress fi	all colors insect or o	lisease damage dew	
weed Species.		,,,oou.oo	Erosion status; slight
Weather: Time of Day:	R.H. %:	Temp.: (a)loogaA	Percent Slopes;
Wind Speed: Wind Dir.:	Cloud Cover %:	: po- Check sii that apply and loc	SENSITIVE AREAS
Rainfall (dates & amounts): Before Applic	ation:	Buffer size 'ff	Municipal W/S
If Restricted Use Pesticide: EPA Reg. #	Application:	Buffer size	Ponds/Lakes
es dutter size ft.	[_iSchools/Ohurch	Buffer size ft	Drainage/Streams
Part V POST TREATMENT EVALUATION	_ Nursenss NO	Burfer size f	_ Agric, Crops _ PoultryAnimals
Satisfactory Unsatisfactory - e		្សា ម្ចាស់ ម្ចាស់ មាន	Other
Evaluated By:		roblems No bulturs requires	Remarks or Special p
2nd Evaluation (if needed): Satisfactor	ry Unsatisfactory	- Explain willy	
Evaluated By:	Date:		

DIVISION OF FOREST RESOURCES

4211-1 (8-96)

Perf II HERBICIDE APPLICATION PLAN (II: MALP NOITA)

			nirate	ral Applicato. Concer	Herbicide Arear
Agent:		Phone #:	Sheet Dietri	ict: 489 .xc 8-4 .soldi	
	9108 1 3 0 8 n ¢	20 to 30 gallo	Spray Vol/Ac		amen Water
Landowner: Willia	m Callow		Coun	ity: Craven	
	Road; Vanceboro, N		A 10 0 A lets 9 Photo	No.	enon thevuib
(x (heir raphischiativa	enal Forester c	iges and bevo BK 9	5 SQ 7 PT 20	Application Method
			laga briuma appli	T baunta	
	Mied and It seden	July 15, 2002	Est. A	Ac. 17:50 (primit) no	Cates of Application
The objective is to	control approximately	/ 80% of the w	eed species for: He	erbaceous Weed Cor	Naditional Informs Approved By: lortr
VEGETATION (Lies	SIS: (Authorized FIVI	Rep making p	rescription)	TION FOR APPLICA	Part III PREPARA
Weed Species	weed species by ord	ier of importar	gnated: (exi	asop Algorithms & part u	Boundaries det an
annual weeds		BA Ht.		'ks emisali othong be	Acres ge detainin
grasses	80 goellees 20	TOS ISCIBBLISCI	500 reet of target a	esidents living within	Notification of all n
grasses	20	emenieni.	igered Species Hea	arget area for Endan	Check labeling & 1
				Arcas Considered	Spanial Problem A
		A S Same of a	and the same and the same at		
If Release:	(1 UC)	T LA	O S NUCA IBNSA NIS	HON KEC <mark>ORD (Obl</mark>	Part IV APPLICA
				Condition/vigor	Observed By:
		Age	Date sin (Dr	ought, insects, etc.)	Application Metho
Longical Fillic	300-300 Fit. 197	A lgra	2000-2001	: Boom P	Type Nozzle Tips:
Plantation	Spacing: 7 v 10 for	vam Vvidir	?ressure	Boom	Appl Speed:
i lantation	Spacing. 7 x 12 for	ot Site Prep	Method & Date:	g Progressin (N.S. e	Direction Spraying
SOILS		(018 0005	Office (injection spi		Total Vol. Sprayer
mineral	Toxture of tenesile	-			Remarks
minoral .	Texture of topsoil:	10	psoil Thickness:		
Water table: low	Drainaga naada	duna D	vap talow	Jaw 🗌 earliebh lid	Conditions. Sc
vator table. low			rainage class: mod		
Erosion status: sligh	wab apan sb	seessible to	fall colors 📋 inse	drought singuals	Weed Species: 1
Li colon dialas. Silgi					
Percent Slopes:	Aspect		A H.A	ine of Day:	Teather.
order order	Aspeci				
SENSITIVE AREAS	(Check all that apply	and locate all	vool buol0	Wind Direction	Wind Speed:
/ ((Oncok all triat apply	and locate all		the map to be attach	
☐Municipal W/S	Buffer size	ft.	ppication:	amounts). Bafore Ap	Rainfall (dales &
Ponds/Lakes	Buffer size		Residences	Buffer size	ft.
Drainage/Streams			Businesses	Buffer size	If Resincted Jse
☐Agric. Crops	Buffer size		Schools/Churches	Buffer size	ft.
Poultry/Animals	Buffer size		Nurseries/Orchards		Part POTT
Other	Buffer size		Bees (Apiaries)	Buffer size	**
	Dullet 3126	ft.	Roads/Hwys.	Buffer size	Satisfactor
Remarks or Special	problems:No buffers	required for a	ound application		V8 belsulsv7
opeoidi	VIOL	ectory - explain		obsira 2 Tankana s	
		1,000	KINDS	finecularly in Satisfa	2nd Evaluation (i

Prepared By: Gregory M. Hicks Herbicide: Accord Rate/Ac of Herbicide: 2% by volume or 7				4211-1 (5-36) Aganti
Carrier: water	Spray Vol/Ac: N//	4		
Adjuvant: Surfactant 80%	ূ Rate/Ac of Adjuv	ant: .5% by volur	me or 2 oz for	each gallons mix
Application Method: Aerial (Must be ap	proved by Regional	Forester or their	representative))
Dates of Application (timing): 3-1-2002 to 5 Additional Information: spray may be need spray to kill vegetation within 3 ft. of each t Approved By:	of Ground Application 5-1-2002 to 6-1-2 ed each year from 2 ree to be relased. d Date: 9	on: 2002 to 8-1-2002 2002-2004, twice on't let spray cor - 17-9 (a year, in thes	se time windows. se released. do edif
Part III PREPARATION FOR APPLICATION	ON (Initial and date v	vhen completed)	weed species	VEGETATION (List
Boundaries determined & suitably designa	ted: H80 H		70 141	Wess Species Annual Weens
Acreage determined prior to treatment:	fact of target area	(aerial application	08 a): 08	3188318
Notification of all residents living within 500 Check labeling & target area for Endanger Special Problem Areas Considered:	ed Species Require	ments:	1).	
Part IV APPLICATION RECORD (Obtain	Aerial Applicators R	ecord & Attach)		reasele 81
Observed By: (colo ,a)opan ,ide or Da	nte: aludi so	A Ac. Treated:		Crop Spacies
	and the second of the second o	[7]	200-300 1 ft	Mixed Hardwoods
Application Method: Co Type Nozzle Tips: No Appl. Speed: Boom Pres Direction Spraying Progressed (N-S, etc.):	. of Nozzles:	Appl. Ht:		Natural
Appl. Speed: Boom Pres	sure: Swath	vviotn: :ast rate/ac.:	Spacing	IE IN EN
	er (injection spacing			SOILS
Remarks:	Topsoil Thickness	:lioae	Texture of top	mineral
Conditions: Soil Moisture: wet m	noist dry very	dry on bebeen	Orainage	Water lable: low
Weed Species: drought stress fa	ll colors 🗌 insect o	r disease damag	e 🗌 dew	Prosion status; sligh
Weather: Time of Day:	R.H. %:	Temp.:		Percent Slopes:
Wind Speed: Wind Dir.:	Cloud Cover %	each brie y and loca	Fog:	SENSITIVE AREAS
Rainfall (dates & amounts): Before Applica	ation some bless I			Municipal W/8
After	Application:		Buffer size	Ponds/Lakes
If Restricted Use Pesticide: EPA Reg. #	Schools/Churci		s Burter size	Drainage/Streams]Agric, Crops
ands burner size	notursenesturi, i Resonanciari		Butter size	Poultry/Animals
Part V POST TREATMENT EVALUATION			Sis remus	Other
Satisfactory Unsatisfactory - ex	cplain why			
Evaluated By:	Da	te:	problems	demarks or Special
2nd Evaluation (if needed): Satisfactor				
	Date:			
Evaluated By:	Date.			

DIVISION OF FOREST RESOURCES

4211-1 (8-96)	1 H 01	Partil HERBICIDE PRESCRIPTION Prepared By: Gregory M. Hic NAJ9 NOITADIJ99A EDIDIBREHOT Herbicide: Accord			
Agent:	Pi	: for each gallons :# enor	picide: 2º4 by vol 4:35:172:IO 2		
Landowner: Willia Address: 843 CC		28586 EVU[bA to bA\ets?	County: Craven	djuvant: Sudact	
	r or their representative	ved by Regional Foreste Fround Application:	BK 95 SQ 7 PT 20	Application Metho	
swobniw ser it a)4, twice a your in these	2002 to 6-1-2002 to each year from 2002 200	Est. Ac. 5.1 - (gamm) no babaan ad yam (sigs nod) for: Herbaceous Weed Con	smooth lecurith h	
Part I SITE ANALY	YSIS: (Authorized FM R	ep making prescription)	TION FOR APPLICATION		
Weed Species Annual Weeds Grasses	% #/Ac. B 80	A Ht. DBH : s to target area (aedata)	mined & suitably di exyramen of process to treatment. estimants living within 500 feating tree for Endangered. Areas Considered.	Scundaries deter Noreage determic Notification of all r Check labeling &	
If Release: Crop Species Mixed Hardwoods	1ree/Ac. Ht. DBH 200-300 1 ft. n/a.	-l⊝A Age Date		Observed By: Application Metho	
Natural	Spacing:	Site Prep Method &	Date: 19 moo8	Type Nozzie Tips Appi. Speed:	
SOILS mineral	Texture of topsoil:	Topsoil Thickness			
Water table: low	Drainage needed:	no Drainage clas	s:well I sw [rejutach k		
Erosion status: slig	ht was I seemsale	olors 🗀 insect or disease	orough(stress fall co	Weed Species:	
Percent Slopes:	Aspect(s				
SENSITIVE AREAS	S (Check all that apply a	and locate all sensitive ar	eas on the map to be attach		
☐Municipal W/S ☐Ponds/Lakes ☐Drainage/Stream ☐Agric. Crops ☐Poultry/Animals ☐Other	Buffer size Buffer size	ft.	Buffer size Buffer size urches Buffer size rchards Buffer size ies) Buffer size	Rainfall (daths & .th .th If Restricted tuse .th Part V POtty T. Tth	
Pemarks or Specia	l mrahlama.				

Remarks or Special problems: