Forrest Land

Wild Tract

Forest Management Plan

July 22, 2008

Note: This report is entirely fictional

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OVERVIEW:

The purpose of this plan is to provide you with a ten-year guide that will enable you to meet your management objectives as they pertain to the many resources found on your property. The development of the plan begins with gathering information about you, your property, and the forest on your property. The more we know about each of these topics, the better job we can do developing the plan. The information we gather is taken from conversations with you, field observations, tax office maps, topographic maps, aerial photography, and soil maps. Together with the information we have gathered and your management objectives, we can make recommendations to guide the management of the property.

Before reading any further you might want to read *Forest Health-Community Wealth* found in the cover pocket of this notebook to provide yourself with some background information about forest management planning. If you run across terms you are not familiar with please refer to *Understanding Forestry Terms: A Glossary for Private Landowners,* found in the appendix.

There are seven main sections in this management plan.

Ownership Information:

This section contains your contact information; a description of your level of interest and participation in managing the property; your management objectives for the property, and other information related to the ownership of land.

Activity Summary:

Right up front we are going to present the main recommendations in a table format. If you are in a hurry to get started and don't have time to read all the details this is the page for you.

Management Unit Recommendations:

This is the section where all of the specific recommendations are made. For the purpose of practical implementation activities may overlap stands, or road sections. Management units may be a single stream, combinations of stands, or parts of roads. A map of the management units is found in the inside cover of this binder.

Forest Finance:

In this section we will provide you with money saving information. The topics covered will include present-use property tax valuation, cost-sharing payments, and how to handle expenses and income.

Resource Description:
This section is where we present all of the detailed information about the resources on your property. These resources include parcel level information, boundary lines, forest stands, roads, stream crossings, water features, improvements, cultural features, non-forested areas, and soil type information. This is the information foresters look at when making recommendations, but it doesn't make for light reading.

Journal:
The journal is place to keep up with what has happened on your property. I encourage you to record all significant activities and events here. It is nice to look back over several years' worth of journal entries and see how your property has changed. The journal is also a good place to keep up with financial transactions on the property. The IRS doesn't require a formal bookkeeping system be maintained, but they do recommend you do keep enough records so you can account for your management activities if needed. This section is found behind the second tab of your notebook.

Appendix:
The appendix is found behind the last tab of your note book. We have put more detailed information about specific practices in this section from a variety of sources.

1. OWNERSHIP INFORMATION:

Contact Information:

Forrest Land
PO BOX 955
Wilkesboro, NC 28697

Landowner Assessment:

Residence:	The landowner lives on the property full time.	
Hobbies:	The landowner or a member of his family enjoys ATV riding.	
	The landowner or a member of his family enjoys deer hunting.	
	The landowner or a member of his family enjoys small game hunting.	
Financial:	The landowner has initial investment capital.	
Work:	The landowner is willing and able to perform physical work on the property.	
Equipment:	The landowner has:	ATV
		Tractor w/front end loader
		Bushhog

Management Objectives:

Timber:	Manage the timber resource to generate periodic income from the sale of forest products.
Wildlife:	Improve habitat for turkey/deer
Soil & Water:	Protect and maintain the soil and water by utilizing best management practices during all management activities.
Recreation:	Utilize property for hunting.

Directions to Property:

Located just off of Rattlesnake Rd.

Latitude: 36 8.994876 **Longitude:** -81 8.819506 WGS 1984

High Elevation: 1360 **Low Elevation:** 1260

Note: Elevations are taken from USGS topographic maps.

Landowner Liability:

Many landowners have concerns about the liability they incur by owning their property. There are always horror stories about a trespasser getting hurt and then successfully suing the landowner. There is no guaranteed way to protect yourself, but there are a number of things you can do to limit your liability.

Among the items you should consider to limit your liability are, posting your property, having guidelines on allowing use of the property, taking care of dangerous area such as abandoned wells and dilapidated buildings, and carrying appropriate liability insurance. Additional information of this subject is found in the appendix in *Liability and the North Carolina Landowner*.

2. ACTIVITY SUMMARY:

Job # 2008-138 Tract # 27	Activity	Year	Responsible Party
	Apply for Present Use Valuation	2009	Landowner
	Wildfire Home Protection	2008	Landowner
Wildlife Unit 1			
	Mow Field for Wildlife	2008	Landowner
	Plant warm season grasses	2008	Landowner
Crossings Unit 1			
	Conduct general stream crossing maintenance	2008	Landowner
	Conduct general stream crossing maintenance	2011	Landowner
	Conduct general stream crossing maintenance	2014	Landowner
Road Unit 1			
	Develop ATV riding trails	2008	Landowner
	Conduct trail maintenance	2011	Landowner
	Conduct trail maintenance	2014	Landowner
Boundary Unit 1			
	Perform boundary line maintenance	2008	Landowner
	Perform boundary line maintenance	2015	Landowner
Forest Management Unit 1	**Patch Harvest**		
	Conduct patch harvest	2013	Casey&Company Forestry, PLLC
	Assess hardwood site preparation	2014	Casey&Company Forestry, PLLC
	Plant log decks and main skid trails	2014	Casey&Company Forestry, PLLC
	Conduct crop tree release	2028	Contractor
	Conduct patch harvest	2028	Casey&Company Forestry, PLLC
	Assess hardwood site preparation	2029	Casey&Company Forestry, PLLC
	Plant log decks and main skid trails	2029	Casey&Company Forestry, PLLC
	Conduct crop tree release	2043	Contractor
	Conduct patch harvest	2043	Casey&Company Forestry, PLLC

Job # 2008-138 Tract # 27	Activity	Year	Responsible Party
Forest Management Unit 2	**Converting Virginia Pine Stand to Loblolly Pine**		
	Conduct a clearcut harvest	2013	Casey&Company Forestry, PLLC
	Assess pine site preparation	2014	Casey&Company Forestry, PLLC
	Plant loblolly pine on a 10ft x 10ft spacing	2014	Contractor
	Plant log decks and main skid trails	2014	Casey&Company Forestry, PLLC
	Assess stand for pine release	2017	Casey&Company Forestry, PLLC
	Conduct commercial thinning	2028	Casey&Company Forestry, PLLC
	Conduct understory burn	2029	Contractor
	Conduct a clearcut harvest	2043	Casey&Company Forestry, PLLC
	Assess pine site preparation	2044	Casey&Company Forestry, PLLC
	Plant loblolly pine on a 10ft x 10ft spacing	2044	Contractor
Forest Management Unit 3	**Streamside Management Zone**		
	Conduct single tree harvest in SMZ	2013	Casey&Company Forestry, PLLC
	Conduct single tree harvest in SMZ	2028	Casey&Company Forestry, PLLC
	Conduct single tree harvest in SMZ	2043	Casey&Company Forestry, PLLC

Activity Timeline:

Job 2008-138	Activity	Year	Responsible Party
Tract # 27	Wildfire Home Protection	2008	Landowner
Boundary Unit 1	Perform boundary line maintenance	2008	Landowner
Road Unit 1	Develop ATV riding trails	2008	Landowner
Crossings Unit 1	Conduct general stream crossing maintenance	2008	Landowner
Wildlife Unit 1	Mow Field for Wildlife	2008	Landowner
Wildlife Unit 1	Plant warm season grasses	2008	Landowner
Tract # 27	Apply for Present Use Valuation	2009	Landowner
Road Unit 1	Conduct trail maintenance	2011	Landowner
Crossings Unit 1	Conduct general stream crossing maintenance	2011	Landowner
Forest Management Unit 1	Conduct patch harvest	2013	Casey&Company Forestry, PLLC
Forest Management Unit 2	Conduct a clearcut harvest	2013	Casey&Company Forestry, PLLC
Forest Management Unit 3	Conduct single tree harvest in SMZ	2013	Casey&Company Forestry, PLLC
Forest Management Unit 1	Assess hardwood site preparation	2014	Casey&Company Forestry, PLLC
Forest Management Unit 1	Plant log decks and main skid trails	2014	Casey&Company Forestry, PLLC
Forest Management Unit 2	Assess pine site preparation	2014	Casey&Company Forestry, PLLC
Forest Management Unit 2	Plant loblolly pine on a 10ft x 10ft spacing	2014	Contractor
Forest Management Unit 2	Plant log decks and main skid trails	2014	Casey&Company Forestry, PLLC
Road Unit 1	Conduct trail maintenance	2014	Landowner
Crossings Unit 1	Conduct general stream crossing maintenance	2014	Landowner
Boundary Unit 1	Perform boundary line maintenance	2015	Landowner
Forest Management Unit 2	Assess stand for pine release	2017	Casey&Company Forestry, PLLC
Forest Management Unit 1	Conduct crop tree release	2028	Contractor
Forest Management Unit 1	Conduct patch harvest	2028	Casey&Company Forestry, PLLC
Forest Management Unit 2	Conduct commercial thinning	2028	Casey&Company Forestry, PLLC
Forest Management Unit 3	Conduct single tree harvest in SMZ	2028	Casey&Company Forestry, PLLC
Forest Management Unit 1	Assess hardwood site preparation	2029	Casey&Company Forestry, PLLC

Job 2008-138	Activity	Year	Responsible Party
Forest Management Unit 1	Plant log decks and main skid trails	2029	Casey&Company Forestry, PLLC
Forest Management Unit 2	Conduct understory burn	2029	Contractor
Forest Management Unit 1	Conduct crop tree release	2043	Contractor
Forest Management Unit 1	Conduct patch harvest	2043	Casey&Company Forestry, PLLC
Forest Management Unit 2	Conduct a clearcut harvest	2043	Casey&Company Forestry, PLLC
Forest Management Unit 3	Conduct single tree harvest in SMZ	2043	Casey&Company Forestry, PLLC
Forest Management Unit 2	Assess pine site preparation	2044	Casey&Company Forestry, PLLC
Forest Management Unit 2	Plant loblolly pine on a 10ft x 10ft spacing	2044	Contractor

3. MANAGEMENT UNIT RECOMMENDATIONS:

In this section will present all of the specific management recommendations. For forest management units this will include a silvicultural system and associated activities. For the other management units it will include only specific activities. For practical implementation the boundaries of the units will often overlap stand types, road sections, or water features.

Wildlife Unit #: 1

Acres: 12

Prescription:

Activity:	Mow Field for Wildlife Strip mowing for wildlife simply involves creating ground disturbance, to reduce litter accumulation, and stimulate germination of seed producing plants and grasses. Mowing should be avoided during early spring when ground nesting birds and animals such as deer and rabbits are using the field as cover. By mowing alternating strips every year, usually every 3rd row, the area will have reduced woody competition, and allow the field to be mowed using normal bush hogging equipment. Doing this will improve the habitat for deer and birds such as turkey, quail, and grouse. The older strips of grasses will provide cover habitat for wildlife, while the adjacent younger strips will provide foraging habitat.
Responsible Party:	Landowner
Time Frame:	2008

Activity: Plant warm season grasses

Warm season grasses such as big and little bluestem, Indian grass, switchgrass, and eastern gamagrass are very beneficial to wildlife. These grasses grow in small clumps or bunches which provide excellent cover and foraging habitat. Also these grasses need little water or fertilizer to thrive. This makes them great for dry areas with low fertility. To establish warm season grasses it will be necessary to kill the existing grass, especially tall fescue, the season before planting. Then in the spring till the soil, plant, and lightly pack into the ground. Before doing a large scale project try purchasing a small quantity (one or two lbs. will go a long way) of one kind of grass each year and hand-sowing it in spring. Each seed that survives and grows will produce a bunch grass the size of a dinner plate so they do not have to be sown a high rates. After the grass is established regular winter burns can maintain the grass and ensure a good regrowth the following spring.

Responsible Party: Landowner

Time Frame: 2008

Crossings Unit #: 1

Prescription:

Activity:	Conduct general stream crossing maintenance Regular maintenance of stream crossings can prevent problems before they occur. Maintenance should include checking culverts for obstructions, examine bridge decking and supports, monitor if the stream channel has moved, and replace any rocks or gravel that may have washed away.
Responsible Party:	Landowner
Time Frame:	2008
Activity:	Conduct general stream crossing maintenance
Responsible Party:	Landowner
Time Frame:	2011
Activity:	Conduct general stream crossing maintenance
Responsible Party:	Landowner
Time Frame:	2014

Road Unit #: 1

Prescription:

Activity:	Develop ATV riding trails Many landowners utilize their ATVs for work as well as recreation. A properly constructed ATV trail system can reduce safety concerns and improve overall enjoyment. All terrain vehicles are capable of high speeds, which require different safety considerations than pedestrian or horse trails. Poorly designed trails can suffer badly from erosion and rutting, caused by aggressive ATV tires. In order to avoid these problems the trail surface might need to be hardened. The higher speeds reached during riding must be compensated for with trail width. Visibility of other riders is also a concern, which must be addressed during trail layout. For more information see So You Want To Build an ATV Trail in the appendix.
Responsible Party:	Landowner
Time Frame:	2008
Activity:	Conduct trail maintenance Maintaining ATV trails can be accomplished with a minimal amount of financial cost. It is normally only necessary to clear large trees and low hanging branches that have blocked the trail. This can be done with a bush axe or chainsaw. It is some times necessary to rebuild the trail surface if heavy rutting or erosion has taken place. A shovel and mattock or pick can be used to maintain waterbars. Bush-hogging can improve a trail if there is available clearance to accept a tractor. Constant light maintenance with can help avoid a large trail clearing job if left unattended.
Responsible Party:	Landowner
Time Frame:	2011
Activity:	Conduct trail maintenance
Responsible Party:	Landowner
Time Frame:	2014

Boundary Unit #: 1

Prescription:

Activity:	Perform boundary line maintenance Mark your property lines with bright colored paint. Paint starts to fade as soon as 5 or 6 years after application and it can start being difficult to see. If you have a large amount of boundary lines to paint consider breaking them into sections and painting a different section each year. The more often the lines are painted the less expensive they are to maintain. Well-marked lines will also make future timber sales much easier to set-up and implement. If all of your corners are marked we will be able to assist you. If corners are missing you will need a surveyor to locate the corners before the lines can be marked. We usually need a surveyor to relocate boundary lines on client's property several times each year because the lines had been marked at some point in the past but not maintained. The cost of having your boundary lines marked can range from 15 cents per foot for repainting to a dollar or more per foot for surveying and painting.
Responsible Party:	Landowner
Time Frame:	2008
Activity:	Perform boundary line maintenance
Responsible Party:	Landowner
Time Frame:	2015

Forest Management Unit #: 1

Acres: 15

Silviculture System: Patch Harvest

This silvicultural system is useful in areas of high aesthetic value, rugged or irregular terrain. Small areas of 5 to 10 acres will be harvested at one time, and approximately 25 percent of the total management unit can be cut every 15 to 20 years. This will result in a mosaic of age classes across the management unit. The large variety of vertical and horizontal diversity greatly increases the available wildlife forage and habitat. The larger openings of this silvicultural system make it possible to artificially regenerate a stand. It may be necessary to hire a contractor and cut down residual trees after the harvest is complete to help regeneration.

The skid trail system will need to be laid out prior to harvest. It will be necessary to reuse loading decks to harvest other patches in this management unit. We sometimes recommend the sale be negotiated rather than sealed bid, dependent on the difficulty of the logging. Timing of the timber sale may depend on current timber market prices.

Prescription:

Activity:	Conduct patch harvest Several patches ranging in size from 5 to 10 acres will be harvested in this management unit.
Responsible Party:	Casey&Company Forestry, PLLC
Time Frame:	2013
Activity:	Assess hardwood site preparation Assess need for site preparation after harvest is completed. Site preparation will depend on the stand type and logging contractor. If the logger cuts the tract cleanly nothing will need to be done. If a large number of stems are left after the harvest you will need to hire a contractor to come in and cut down the remaining stems that are greater than 2 inches in diameter at breast height. Cost sharing funds are normally available to help offset this cost.
Responsible Party:	Casey&Company Forestry, PLLC
Time Frame:	2014

Activity: Plant log decks and main skid trails

Planting log decks and main skid roads aids in the recovery of your disturbed forest land and provides forage for wildlife. During harvesting activities a logger will need to create one or more open areas to serve as a loading area, or log deck. These areas are used to load your timber onto trucks headed to the mill. Once the logging is complete these log decks as well as the skid trails leading into your land will still remain as open un-used forest land. Seed mixtures that include wildlife friendly species like red fescue, orchard grass, Korean lespedeza, Indian grass, clover, or deer tongue can provide two important outcomes. First, the plants will help stabilize the surface from erosion and accelerate the recovery of these areas. Second, it will provide forage for wildlife particularly deer, song birds, and turkeys. The soil on log decks and skid trails can be very compacted and will usually require some sort of seed bed preparation such as chisel plowing. Applying 17-17-17 fertilizer at a rate of 300lbs per acre, and pelletized lime at a rate of 2 tons per acre will help insure the seed mixture has plenty of nutrients. Annual maintenance will be required to sustain the wildlife benefit of these areas including mowing, fertilization, liming, and sometimes re-seeding.

Responsible Party: Casey&Company Forestry, PLLC

Time Frame: 2014

Activity: Conduct crop tree release

Crop tree management is a system designed to increase the growth rate of your most valuable trees, which in turn increases the financial return from your forestry investment. Crop tree management accomplishes this by identifying the highest quality or "crop" trees and removing the competing trees to give the crop trees more room to grow and more resources to utilize. Crop tree selection criteria can include timber, wildlife, aesthetic, and water quality. When looking at pure timber production you will focus on the trees with the highest monetary value. When looking at wildlife habitat improvement you will be looking for trees that produce hard mast and trees with cavities or den trees. Most landowners combine their selection criteria with the primary focus on timber production while leaving the better hard mast producing and den trees, and in areas along road and trails picking crop trees for fall color, spring blossoms and unique trees such as those unusual shapes or attractive bark patterns. This is also a good opportunity to create snags. Snags are dead or dying trees used by wildlife for roosting, foraging, perching, and territorial displays. You can create snags by girdling trees. To do this use a chainsaw to cut completely through the bark in two rings about 12 inches apart. Refer to page 4 in Crop Tree Management North Carolina found in the appendix for more information on selection criteria for crop trees.

The aftermath of crop tree release is messy. You should not plan on using an area that has been released for several years. Crop tree management is an intermediate stand treatment and it will not produce any income, just increased growth of the remaining trees. We will be glad to assist you with this project at whatever level you need. Additional information on crop tree management can be found in the appendix. After the crop tree release is done, sit back and let the trees grow for 30 to 40 years more and you will be ready to harvest again.

Responsible Party: Contractor
Time Frame: 2028

Activity: Conduct patch harvest
Responsible Party: Casey&Company Forestry, PLLC
Time Frame: 2028

Activity: Assess hardwood site preparation
Responsible Party: Casey&Company Forestry, PLLC

Time Frame:	2029
Activity:	Plant log decks and main skid trails
Responsible Party:	Casey&Company Forestry, PLLC
Time Frame:	2029
Activity:	Conduct crop tree release
Responsible Party:	Contractor
Time Frame:	2043
Activity:	Conduct patch harvest
Responsible Party:	Casey&Company Forestry, PLLC
Time Frame:	2043

Forest Management Unit #: 2

Acres: 26

Silviculture System: Converting Virginia Pine Stand to Loblolly Pine

- Conduct a sealed bid timber sale with a clearcut harvest. Timing of the timber sale may depend on current timber market prices.
- Assess need for site preparation after harvest is completed. It will at least be necessary to burn the site before planting to reduce the amount of Virginia pine present in the seedbed.
- If there is a large amount of Virginia pine regeneration present it may be necessary to hire a contractor to spray the harvested areas with herbicide. This will kill the Virginia pine seedlings and increase the survival and vigor of the seedlings that will be planted.
- Plant with genetically improved loblolly pine seedlings during the spring.
- Check seedling survival the following winter and replant as necessary.
- Three to five years after planting release the loblolly pine seedlings from competing Virginia pine and other seedlings by brush sawing or herbicide application.
- Commercial thinning at age 20 to 25 if possible.
- Clearcut harvest at age 35 to 40.

Prescription:

Activity:	Conduct a clearcut harvest Conduct a sealed bid timber sale with a clearcut harvest. Timing of the timber sale may depend on current timber market prices.
Responsible Party:	Casey&Company Forestry, PLLC
Time Frame:	2013
Activity:	Assess pine site preparation Assess need for site preparation after harvest is completed. Site preparation will depend on the stand type and logging contractor. Burning and raking the site with a bulldozer are two typical site preparation techniques.
Responsible Party:	Casey&Company Forestry, PLLC
Time Frame:	2014

Activity: Plant loblolly pine on a 10ft x 10ft spacing

In the spring after harvest or site preparation, hand plant loblolly pine improved seedlings on a 10 foot by 10 foot basis.

Responsible Party: Contractor
Time Frame: Spring 2014

Activity: Plant log decks and main skid trails

Planting log decks and main skid roads aids in the recovery of your disturbed forest land and provides forage for wildlife. During harvesting activities a logger will need to create one or more open areas to serve as a loading area, or log deck. These areas are used to load your timber onto trucks headed to the mill. Once the logging is complete these log decks as well as the skid trails leading into your land will still remain as open un-used forest land. Seed mixtures that include wildlife friendly species like red fescue, orchard grass, Korean lespedeza, Indian grass, clover, or deer tongue can provide two important outcomes. First, the plants will help stabilize the surface from erosion and accelerate the recovery of these areas. Second, it will provide forage for wildlife particularly deer, song birds, and turkeys. The soil on log decks and skid trails can be very compacted and will usually require some sort of seed bed preparation such as chisel plowing. Applying 17-17-17 fertilizer at a rate of 300lbs per acre, and pelletized lime at a rate of 2 tons per acre will help insure the seed mixture has plenty of nutrients. Annual maintenance will be required to sustain the wildlife benefit of these areas including mowing, fertilization, liming, and sometimes re-seeding.

Responsible Party: Casey&Company Forestry, PLLC
Time Frame: 2014

Activity: Assess stand for pine release

Three years after planting assess stand to see if pine seedlings need release from competing hardwood sprouts and seedlings.

Responsible Party: Casey&Company Forestry, PLLC
Time Frame: 2017

Activity: Conduct commercial thinning

Commercial thinning at age 15 to 25 if possible. At the current time it is difficult to get thinning done, but in 20 to 24 years who knows?

Responsible Party: Casey&Company Forestry, PLLC
Time Frame: 2028

Activity: Conduct understory burn

Begin understory burning when trees are 20 to 25 feet tall.

Responsible Party: Contractor
Time Frame: Winter 2029

Activity: Conduct a clearcut harvest
Responsible Party: Casey&Company Forestry, PLLC
Time Frame: 2043

Activity: Assess pine site preparation
Responsible Party: Casey&Company Forestry, PLLC
Time Frame: 2044

Activity: Plant loblolly pine on a 10ft x 10ft spacing
Responsible Party: Contractor
Time Frame: Spring 2044

Forest Management Unit #: 3

Acres: 7

Silviculture System: Streamside Management Zone

The primary purpose of this management unit is to protect water quality. This is accomplished be leaving a forested buffer around all water. This is further described in the North Carolina Best Management Practices Manual. Harvesting within this area varies based on state and local regulations.

- Harvesting in this unit will take place when adjacent units are being harvested.
- Trees larger than 16 inches in diameter at breast height will be marked to be cut.
- If any skid trails or roads are constructed within this management unit they will need to be permanently stabilized with a vegetative cover after logging has been completed.

Prescription:

Activity: Conduct single tree harvest in SMZ

A single tree harvest is the method used to remove trees from the stream side management zones. Stream side management zones are maintained and managed primarily to protect water quality, but this doesn't mean you can't harvest trees out of it. In some areas there are rules that specify what may be done in a SMZ. More information about rules for specific areas can be found at http://www.ces.ncsu.edu/nreos/forest/ordinance/index.html. Any harvesting in a SMZ needs to be done in conjunction with harvests in adjoining areas. We've found most landowners want at least some of the high value trees cut out of the SMZ's. SMZ's can be important as wildlife corridors and they also provide important mature forest attributes such as the presence of hard mast producing trees such as beeches and oaks. You will want to retain some of the mast producing trees such as beeches and oaks for wildlife use.

Responsible Party: Casey&Company Forestry, PLLC

Time Frame: 2013

Activity: Conduct single tree harvest in SMZ
Responsible Party: Casey&Company Forestry, PLLC
Time Frame: 2028

Activity: Conduct single tree harvest in SMZ
Responsible Party: Casey&Company Forestry, PLLC
Time Frame: 2043

4. FOREST FINANCE:

Financial Incentives for Forest Management:
Forest management can be an excellent long-term investment. Part of managing a forest investment is doing everything you can to keep your trees healthy and growing fast. Another part is being knowledgeable about cost-sharing programs, present use valuation of your forestland, and the federal tax laws.

Cost-Sharing Payments: The federal and state governments have implemented financial incentive programs for woodlot owners. Several of these programs offer cost-sharing payments that reimburse landowners for timber management activities. Please refer to *Financial Incentives for Forest Management* in the appendix for additional information.

Forestry Present- Use Valuation: Qualifying North Carolina forest landowners can receive, upon approval of their application, property tax relief for managed timberland. The land must be:

1. individually owned, including certain types of corporations;
2. soundly managed;
3. 20 acres or more in size or be any size if part of a farm that qualifies for special agricultural or horticultural present- use valuation.

If your land is not in the program, you will need to apply in January at the Tax assessor's office. For the details of this program Please refer to *North Carolina's Forestry Present Use Property Tax Program* in the Appendix for the details of this program

Tax Incentives: Just as knowledge of cost-share programs and ways to reduce your property tax can increase the yield from your forest management investment, so can knowledge of tax law as they pertain to forestry. For example if you have a high basis in your timber you might owe little or no taxes when you sell that timber. Want to know more about basis, please refer to *Federal Income Taxes for Timber Growers* in the appendix. *Financial Incentives for Forest Management*, mentioned above, also has information on how to take advantage of the current tax laws.

5. RESOURCE DESCRIPTIONS:

In this section we will identify the many resources of your property. These resources include forest stands as well as; parcel information, boundary lines, roads and access, stream crossings, water, improvements, cultural features, non-forested areas, and soils. By using the sum of all of these resources we have made management recommendations.

Parcel Level Information:

This information deals with the legal records of your land ownership. The subject property is comprised of the parcels described below:

Parcel #:	117
Parcel Name:	Wild
Owner:	Forrest Land
Acres:	87
County:	Monroe
Deed Book/Page:	985/462
PIN #:	3052-67-9854
Parcel ID #:	5672359
Purchase Date:	8/12/1977
Survey:	Modern survey
Right of Way:	This parcel joins a public road.
Width:	0
Land Use:	This parcel is not in the land use program.

Boundary Line Information:

We spend quite a bit of time every year dealing with boundary line problems for landowners. The most common problem is timber trespass. This is usually occurs when timber on an adjoining property is cut. Timber trespass is not usually a malicious act, but occurs because the boundary lines were hard to find. The next most common problem is encroachment from neighbors. This usually takes the form of dog lots, junk cars, outbuildings, etc, ending up across property lines. We find that the best way to avoid these and other boundary line problems is to keep your boundary lines marked.

For additional information please refer to *Maintaining Forest Property Boundaries* in the appendix for additional information.

During the inspection of your property we noted:

Boundary lines are marked with old paint.

Forest Stand Information:

This section of the plan provides a detailed description of each stand on your property. This is the information management recommendations are based on.

The items covered in the description section are:

Forest Stand Type Table: This table describes the overall composition of the forest stand based on several factors.

- Canopy: Broken down into five classes based on the relative position in the canopy. Overstory 1st species is the primary forest species type in the uppermost canopy, or the tallest trees in your stand. Overstory second describes the secondary species type in this uppermost canopy level if it is present. 2 Age 1st is used to describe stands that are two aged. Two aged stands are created when light can penetrate the upper most canopy and reach the forest floor. This is sometimes reached through selective harvesting of a stand, or through damage to the upper canopy. 2 Age 2nd describes the secondary species composition in the second age class. The final class is Regeneration; this describes new growth with the ability to regenerate the stand. This growth may be a result of stump or root sprouts, or seed from the forest floor.
- Forest type: Describes the primary, and if present, secondary forest type. Detailed forest type descriptions are found in the appendix
- Origin: Describes whether or not the stand was naturally regenerated, or artificially regenerated by some form of planting.
- Tree Size: Describes the size of the trees found in the stand. We use six different sizes to describe the trees found in the stand. Seedlings and stump sprouts are trees less than 1 inch in Diameter at Breast Height. Saplings are those trees that are greater than 1 inch and less than 6 inches in Diameter at Breast Height. Poles are trees between 6 and 10 inches in Diameter at Breast Height. Small sawtimber trees are trees ranging from 10 to 15 inches in Diameter at Breast Height. Large sawtimber is any tree 16 inches or greater in Diameter at Breast Height.
- Tree Quality: Describes the overall quality of the trees found within the stand.
- Acres: Describes the size of the stand in acres.

Site Quality: Describes how well trees should grow. Depending on the dominant species, we break down site quality into four classes based on how well red oak, white pine, or yellow pine will grow on the site

Site Quality Guide: Describes what site quality guide was used to determine the stand site quality. We use six different site quality guides depending on the site, and species growing there.

Silviculture History Table: This table describes the silvicultural practices that have been performed in the stand, and the approximate time they were performed.

Event: Describes the type of silvicultural practice performed. There are nine practices we look for: planting; fell and leave; pine release; crop tree release; first commercial thinning; second commercial thinning; clear cut harvest; group selection harvest; and high grade timber cutting. If these events occurred in your stand they will be listed here.

Time: Describes the amount of time since the practice was performed. We break the time periods up into four choices: 0 to 4 years ago; 5 to 15 years ago; 16 to 30 years ago; and over 30 years ago.

Slope Position: Describes the general topographical features of the land within the stand.

Slope: Describes how steep the land is

Aspect: Describes which way the stand faces. (South and west facing slopes are drier than east and north facing slopes.)

Tree Density and Stocking: Describes the tree density and stocking levels found in the stand. The growth achieved in a given stand is in large part determined by the number, species, and quality of trees currently in the stand. The management recommendations are designed to change the number, species, and quality of the trees to better meet your management objectives. It is important that we know all we can about the existing trees.

Foresters commonly use two different ways to measure tree density in a stand. These two methods are trees per acre and basal area. Trees per acre is as it implies, the average number of trees per acre. Basal area is a bit more complicated but very useful. Basal area is the cross sectional area of a tree trunk 4.5 feet above the ground. It is measured in square feet. Picture an acre of forest with every stem cut off 4.5 feet above the ground. Add up the cut surface of each stem in square feet and you have the basal area for that acre.

Stocking is not directly measured like tree density; it is a subjective measure of how well the stand in question compares to what we believe the ideal stand should look like. For instance, if we feel the stand is in good shape and fits your objectives well, we would call that normal stocking level. If the trees are so numerous that they are suppressing each others growth, we would call that grossly overstocked. This is especially important if you are trying to grow sawtimber.

Logging Deck:	Describes whether or not log decks are present in the stand
Log Deck Condition:	Describes the overall condition of the log decks if they are present in the stand.
Skid Trails:	Describes whether there are established skid trails in the stand or whether they are required.
Number:	Describes the number of skid trails present in the stand.
Condition:	Describes the overall condition of the skid trails found in the stand.
Logging Method:	Describes the logging method that would be used to harvest the timber in the stand.
Rocks:	Lists the rock formations found in the stand. Rocks in a stand can be a management concern particularly for access so we list them and what type they are.
Natural Disturbance:	Describes any natural disturbance that has happened in the stand. This category has four possible options including: fire, flood, ice, and wind damage.
Invasive Plant Species:	Describes any invasive plant species found within the stand. There are several species of non-native plants that we look for when inspecting your forest stand. These plants can significantly impact a stands growth and reproduction.
Other Threats:	This section will include any other threats to the forest stand. Other threats range from southern pine beetle to feral pigs.
Wildlife Sightings:	Describes any wildlife that was seen while inspecting the stand.
Wildlife sign:	Describes any wildlife evidence found in the stand.
Wildlife Forage:	Describes what type of forage is available in the stand.
Wildlife Trails:	Describes the amount of active game trails present in the stand.

Stand Growth Table: This table shows the growth rate of trees sampled within the stand.

- Species: Describes the species of tree sampled.
- DBH: States the Diameter at Breast Height (DBH) of the sampled trees.
- Height: States the overall height of the tree in 16 foot logs.
- Ten Year Growth: States the amount of growth the tree has undergone in the past ten years. This data is measured using an increment boring device. The device is used to drill into the tree at DBH, and extract a straw sized sample of wood. The sample shows us the amount and size of tree growth rings from the bark to the center of the tree.
- Percent Growth: States the annual percent growth that was calculated using the ten year growth data.

Stand #: 1

Forest Stand				
Canopy	**Forest Type**	**Origin**	**Tree Size**	**Tree Quality**
Primary Overstory	Virginia Pine	Natural	Small Sawtimber: trees between 10 inches and 15 inches in dbh; can be sold for saw logs.	Good
Secondary Overstory	Mixed Hardwood	Natural	Small Sawtimber: trees between 10 inches and 15 inches in dbh; can be sold for saw logs.	Good

Acres: 20
Site Quality: Fair
Guide: Hardwood Forest Site Index by Species Composition

Silviculture History	
Event	**Time**
N/A	N/A

Slope Position: Broad ridge
Shoulder Slope
Slope: 0 - 14 % slope
15 - 29 % slope
Aspect: South

Tree Density And Stocking Level: Overstocked

Logging Deck: There is not a logging deck present in the stand.
Condition: NA
Skid Trails: The stand topography does not require skid trails.
Number: Very few trails are present in the stand.
Condition: The trails could be used with very little work.
Logging Method: Grapple Skidder

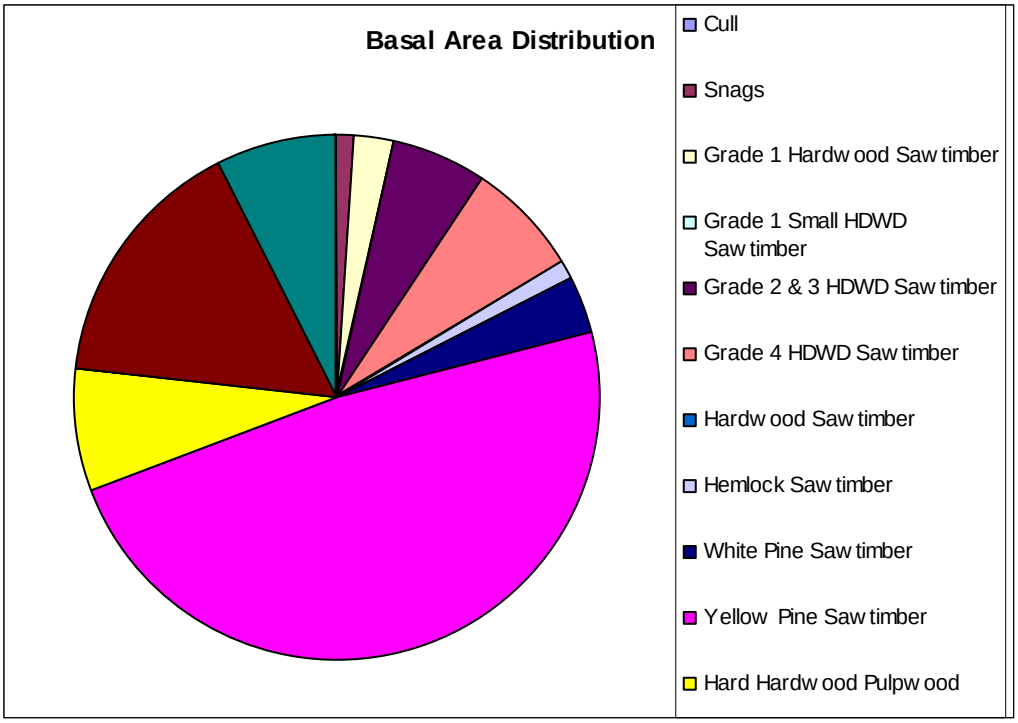
Rocks: Surface Rock, small rocks are visible above ground
Natural Disturbance: Stand has been damaged by wind.
Invasive Plant Species: None noted
Other Threats: None noted

Wildlife Sightings: A reptile was seen in the stand.
A neo-tropical migratory bird was seen in the stand.
Wildlife Habitat: One or more snags are located in this stand.
A vernal pool, used for amphibian breeding, was located within the stand.
Wildlife Sign: Deer tracks were found in the stand.
Deer dung was found in the stand.
Wildlife Forage: None Noted
Wildlife Trails: There were a few game trails established in the stand.

Tree Growth

Species	DBH	Height	10 Yr Growth	% Growth
Virginia Pine	12	2.5 logs	1.3	2.3
Virginia Pine	11	1.5 logs	0.9	2.1

Forest Stand Graphs:



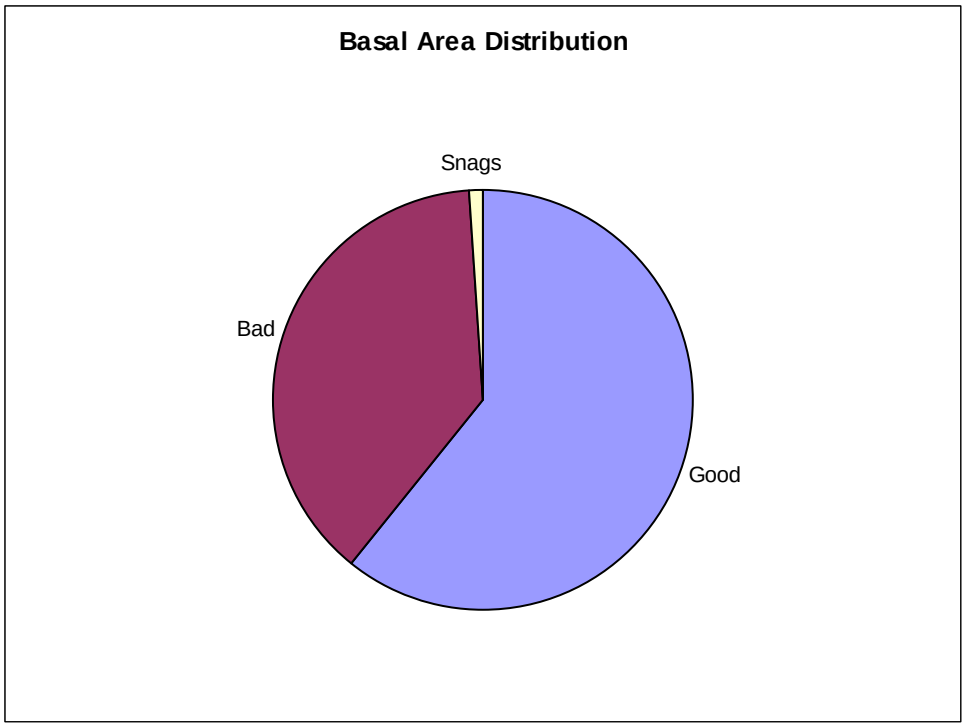


Table: Basal area and trees per acre for stand 1.

Product Group	Basal Area	Trees per acre
Grade 1 Hardwood Sawtimber	2.9	2.0
Grade 1 Small HDWD Sawtimber	0.0	0.0
Grade 2 & 3 HDWD Sawtimber	7.1	0.0
Grade 4 HDWD Sawtimber	8.6	3.4
Hardwood Sawtimber	0.0	0.0
Hemlock Sawtimber	1.4	0.0
White Pine Sawtimber	4.3	1.5
Yellow Pine Sawtimber	58.6	58.5
Hardwood Growing Stock	0.0	0.0
Hardwood Pulpwood	18.0	50.0
Hemlock Growing Stock	0.0	0.0
Pine Pulpwood	19.6	50.0
White Pine Growing Stock	0.0	0.0
Yellow Pine Growing Stock	0.0	0.0
Cull	0.0	0.0
Snags	1.4	5.1
Regeneration		0.0
Total:	121.9	170.5

Stand #: 2

Forest Stand				
Canopy	**Forest Type**	**Origin**	**Tree Size**	**Tree Quality**
Primary Overstory	Mixed Hardwood	Natural	Large Sawtimber: trees greater than 15 inches in dbh; can be sold for saw logs; usually more valuable than small saw logs. Small Sawtimber: trees between 10 inches and 15 inches in dbh; can be sold for saw logs.	Good

Acres: 19
Site Quality: Good
Guide: Hardwood Forest Site Index by Species Composition

Silviculture History	
Event	**Time**
High Grade	More than 30 years since event

Slope Position: Side Slope
Shoulder Slope
Broad ridge
Slope: 0 - 14 % slope
15 - 29 % slope
Aspect: South

Tree Density And Stocking Level: Normal

Logging Deck: There is not a logging deck present in the stand.
Condition: NA
Skid Trails: The stand topography does not require skid trails.
Number: None noted
Condition: NA
Logging Method: Grapple Skidder

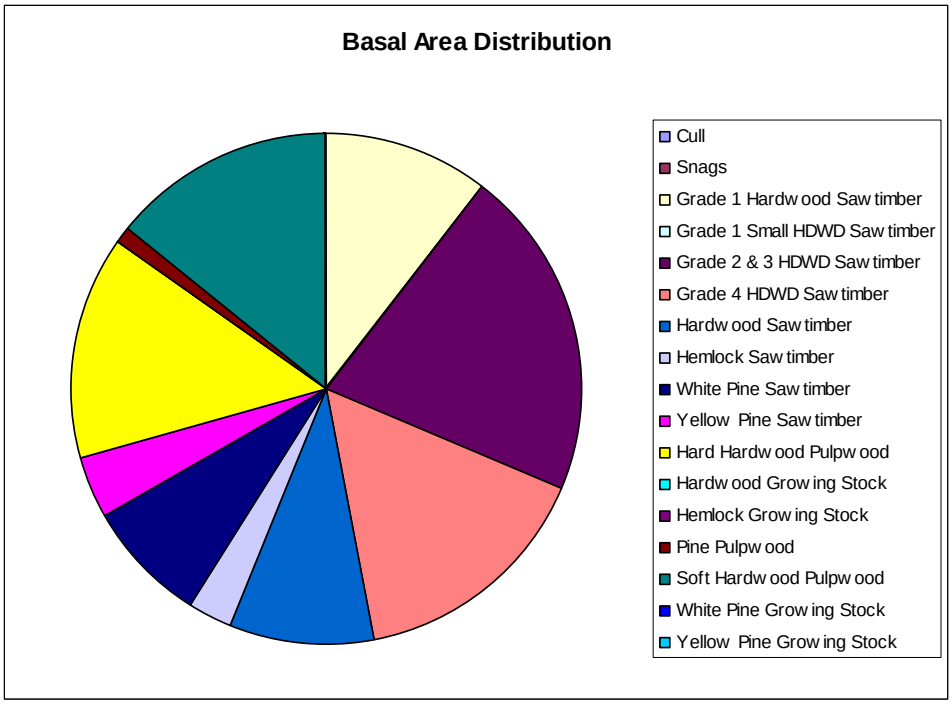
Rocks: Surface Rock, small rocks are visible above ground
Natural Disturbance: None noted
Invasive Plant Species: None noted
Other Threats: None noted

Wildlife Sightings: A deer was seen in the stand.
A squirrel was seen in the stand.
Wildlife Habitat: The stand has edge habitat.
One or more snags are located in this stand.
Wildlife Sign: A deer tree rub was found in the stand.
Deer tracks were found in the stand.
Wildlife Forage: There are hard mast producing trees present.
Wildlife Trails: There were a few game trails established in the stand.

Tree Growth

Species	DBH	Height	10 Yr Growth	% Growth
Yellow-Poplar	14	3 logs	2.6	5.6
Southern Red Oak	16	2 logs	3.7	6.4

Forest Stand Graphs:



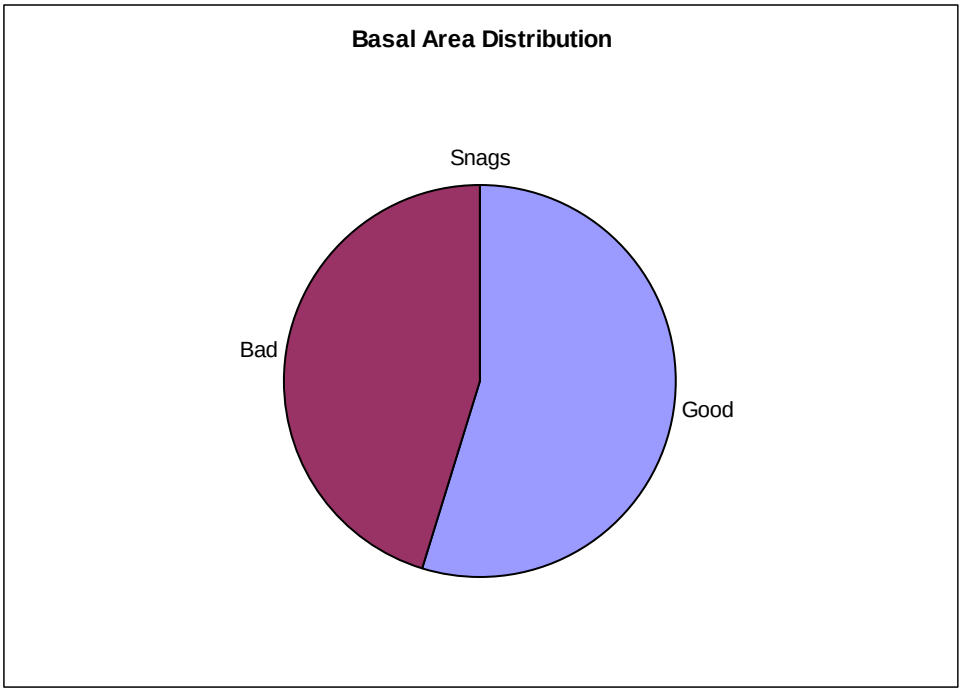


Table: Basal area and trees per acre for stand 2**.**

Product Group	Basal Area	Trees per acre
Grade 1 Hardwood Sawtimber	13.3	6.5
Grade 1 Small HDWD Sawtimber	0.0	0.0
Grade 2 & 3 HDWD Sawtimber	26.7	13.4
Grade 4 HDWD Sawtimber	20.0	22.6
Hardwood Sawtimber	11.7	15.2
Hemlock Sawtimber	3.3	5.1
White Pine Sawtimber	10.0	3.9
Yellow Pine Sawtimber	5.0	0.0
Hardwood Growing Stock	0.0	0.0
Hardwood Pulpwood	36.0	108.0
Hemlock Growing Stock	0.0	0.0
Pine Pulpwood	1.6	9.6
White Pine Growing Stock	0.0	0.0
Yellow Pine Growing Stock	0.0	0.0
Cull	0.0	0.0
Snags	0.0	0.0
Regeneration		0.0
Total:	127.6	184.3

Stand #: 3

Forest Stand				
Canopy	**Forest Type**	**Origin**	**Tree Size**	**Tree Quality**
Primary Overstory	Yellow Poplar	Natural	Large Sawtimber: trees greater than 15 inches in dbh; can be sold for saw logs; usually more valuable than small saw logs.	Excellent

Acres: 9
Site Quality: Excellent
Guide: Hardwood Forest Site Index by Species Composition

Silviculture History	
Event	**Time**
High Grade	More than 30 years since event

Slope Position: Footslope
Terrace
Slope: 0 - 14 % slope
Aspect: South

Tree Density And Stocking Level: Normal

Logging Deck: There is not a logging deck present in the stand.
Condition: NA
Skid Trails: The stand topography does not require skid trails.
Number: None noted
Condition: NA
Logging Method: Grapple Skidder

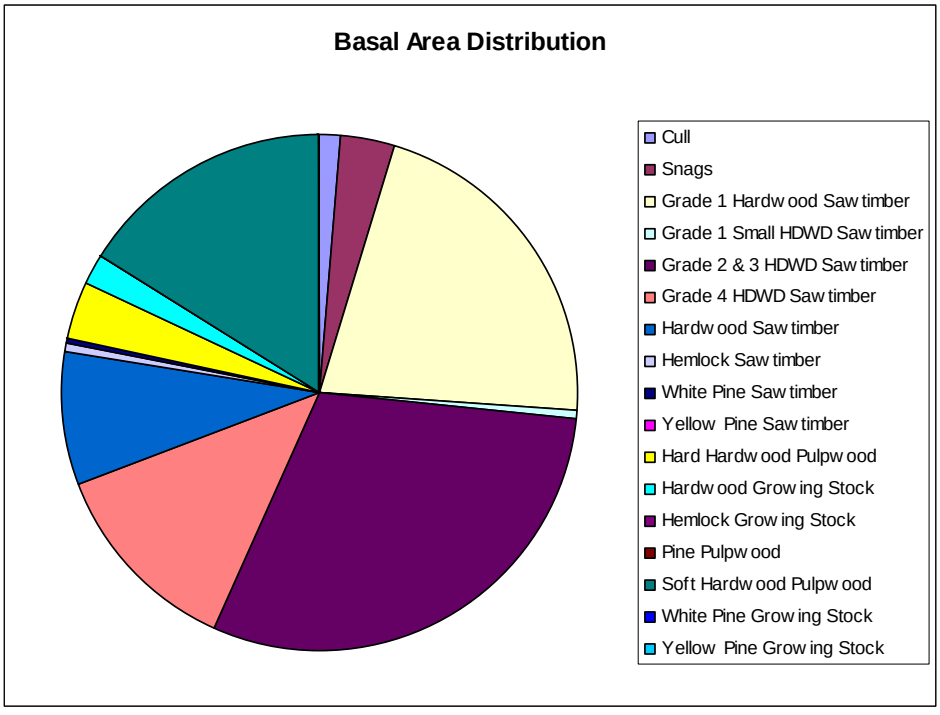
Rocks: No rocks were noted in this stand
Natural Disturbance: None noted
Invasive Plant Species: Grass
Other Threats: None noted

Wildlife Sightings: A neo-tropical migratory bird was seen in the stand.
A rabbit was seen in the stand.
Wildlife Habitat: One or more snags are located in this stand.
The stand has edge habitat.
Wildlife Sign: Deer dung was found in the stand.
Predator dung was found in the stand.
Wildlife Forage: There are soft mast producers in the stand.
Grapes were found in the stand.
Wildlife Trails: There are several game trails in this stand.

Tree Growth

Species	DBH	Height	10 Yr Growth	% Growth
Yellow-Poplar	16	3 logs	3.5	6.6
Yellow-Poplar	19	2 logs	2.6	4.7

Forest Stand Graphs:



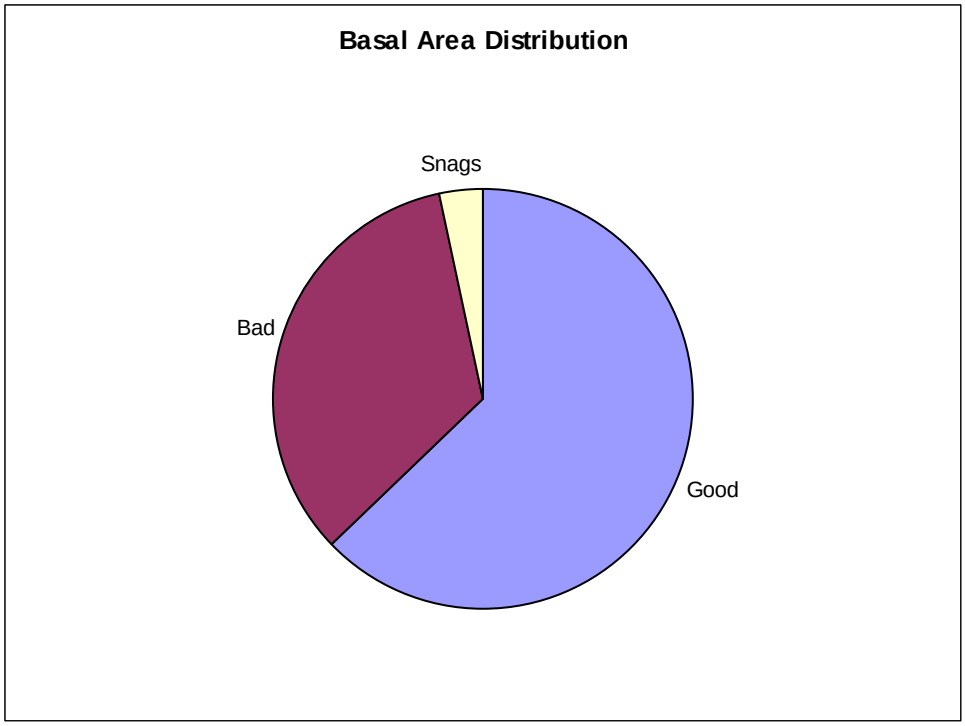


Table: Basal area and trees per acre for stand 3.

Product Group	Basal Area	Trees per acre
Grade 1 Hardwood Sawtimber	34.4	13.8
Grade 1 Small HDWD Sawtimber	0.9	0.0
Grade 2 & 3 HDWD Sawtimber	48.8	30.0
Grade 4 HDWD Sawtimber	20.5	15.4
Hardwood Sawtimber	13.5	10.3
Hemlock Sawtimber	0.9	0.4
White Pine Sawtimber	0.5	0.3
Yellow Pine Sawtimber	0.0	0.0
Hardwood Growing Stock	3.3	14.8
Hardwood Pulpwood	32.1	79.1
Hemlock Growing Stock	0.0	0.0
Pine Pulpwood	0.0	0.0
White Pine Growing Stock	0.0	0.0
Yellow Pine Growing Stock	0.0	0.0
Cull	2.3	6.1
Snags	5.6	10.7
Regeneration		0.0
Total:	162.8	180.9

Roads and Access:

In order to access your property, or travel from one area of the property to another, you will need a road or trail system. The types of roads you have or need will depend on the size of your property and your management goals. In forest management, timber harvesting requires access to your property by large trucks. These types of roads require in-depth planning and maintenance in order to be useful. You may also have woods roads, or ATV trails on your property that should not be overlooked. These roads and trails can be a valuable asset to you.

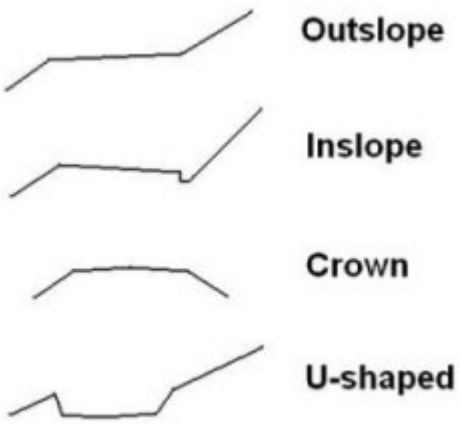
The process of harvesting trees and hauling them to a sawmill or other facility is the primary motivation for the vast majority of forest management practices. You will need a good road system capable of handling frequent trips of heavy log trucks. Even a small timber sale will result in log trucks making several hundred trips. How easily logging trucks access your property can greatly influences the value of your timber.

There are two basic types of log trucks used in western North Carolina. With a tandem truck the logs are loaded and hauled on the truck. There are at least two drive axles and often a third "drop axle" in the rear of the truck. When fully loaded a tandem truck can weigh 66,000 pounds. The next type of truck is the more conventional tractor-trailer, or eighteen-wheeler. With this type of truck the logs are loaded and hauled on a trailer pulled by the truck. When a tractor-trailer is fully loaded it can weigh 80,000 pounds.

The first consideration must be given to how log trucks will access the property. A driveway that is fine for you to access your house could be problematic for a logging truck. Large trucks generally require a stable well drained road surface, gentle grades, curves, switchbacks, and suitable stream crossings.

A stable road surface is necessary to provide traction for the trucks. This is most often accomplished with gravel. A surface of 4-6 inches of crushed rock is usually sufficient. If there are any wet places additional gravel may be necessary. If the logging access road for your property crosses or uses a portion of privately maintained paved road many problems could occur. Often the thickness of asphalt used for a private paved road is unable to hold the weight and frequent trips of log trucks. Cracked or damaged asphalt is often the result.

The road surface needs to have some method of draining water. Proper road drainage will keep the road stable, dry, and reduce maintenance. The road profile has the largest effect on road drainage. The shape of the profile controls where the water is directed. An out sloped road disperses the water off the road and down hill. An in sloped road directs the water toward the inside of the road. A crown shaped road profile disperses water to either side of the road. A U-shaped road profile keeps the water concentrated on the road surface.



Each of these road profiles requires additional ways of draining water from the road surface. An out sloped road is the easiest profile to

control water with. It naturally disperses the water off of the road surface and usually all that is required are water bars. In sloped roads direct the water flow to a ditch. This water needs to be directed under the road surface with culverts and allowed to disperse. A crown profile road disperses the water to both sides equally. This type of profile is rarely seen. A U-shaped profile has no means of draining the road surface and should be avoided whenever possible.

Many times this U-shaped profile can also be seen in your woods roads and ATV trails. Although these trails may not be used to transport timber from your property, they still serve an important purpose. By maintaining these trails you allow access into hard to reach areas of your property. This can be helpful for a number of reasons. Access to your property allows fire or rescue crews to perform their job, it allows work to be performed on your property without having to build a new road system, and it allows you to access your property.

Maintaining this road or trail system will save you money in the long run. It is much cheaper to maintain a good road than it would be to neglect the road and need to build a new road in the future. This means that even on trails and woods roads, water control and road profile should be part of your maintenance plan. With woods roads and ATV trails, bed overgrowth and bank over growth can be a problem. Overhead obstacles should be removed on these trails in order to avoid damaging vehicles, animals such as horses, or your-self.

A properly built road or trail is a great asset to a landowner. It can increase the value of your timber and land, provide you with easy access, and keep maintenance costs low.

During the inspection of your property we identified any roads and have described them. The items covered in the description are:

Name:	The name of the road if it has one.
Ownership:	Describes if the road is privately or publicly owned.
Type:	Describes the type of road.
Accessible:	Describes the type of vehicle that can use the road for access.
Gate:	Describes if the road is blocked or restricted by a gate.
Water Control:	Lists the types of water control structures used to drain the road surface.
Profile:	Describes the road profile.
Slope:	Describes how steep the road is.
Problem:	Lists any problems that the road might have.

Road #: **1**
Name:
Ownership: Private
Type: Trail
Accessible: Accessible by ATV's and UTV's.
Gate: None
Water Control: No water control structures are used.
Profile: Ditch
Slope: Less than 10%
Problem: The road surface is eroding.
Comments:

Road #: **2**
Name:
Ownership: Private
Type: Woods
Accessible: Accessible by 18 wheel trucks.
Gate: None
Water Control: Cross-culverts are used.
Profile: Combo
Slope: Less than 10%
Problem: No problems.
Comments:

Road #: **3**
Name:
Ownership: Private
Type: Gravel
Accessible: Accessible by 18 wheel trucks.
Gate: Gate/Lock
Water Control: Cross-culverts are used.
Profile: Inslope
Slope: Less than 10%
11-15%
Problem: No problems.
Comments:

Stream Crossings:

It is rare when a road does not cross a stream. Stream crossings are often the biggest concern in road design. A bad crossing can limit access to your property, be costly to maintain, and result in sedimentation of your streams. Proper planning and installation of stream crossings can eliminate many problems.

The most common type of stream crossing that we encounter is culverts. A culvert is simply a pipe for water to pass through. Culverts need to be adequately sized. Although a culvert may be sized large enough for water to pass through during normal times, it could be too small during a heavy rain or storm. Plan ahead for these events and pick a culvert that is large enough. The culvert also needs to be put in the creek in such a way that water will consistently flow through it.

Fords are another, much simpler, way to cross a creek. A ford is essentially a place in a stream with a hard bottom and where the banks have been altered so vehicles can drive over them. Fords can be less expensive to install, and can handle greater water flow. A ford is not well suited to a road with high traffic volumes.

Bridges are used in certain situations such as where a large stream needs to be crossed. Large decay resistant logs are often used for support with decking made of decay resistant lumber. If the span of a bridge is too long a log truck might not be able to pass over the bridge when loaded. Bridges are the most complicated and costly means of crossing a stream. Much detailed planning is necessary before constructing a bridge.

Stream crossings are often a necessity, and are one of the most important features of a road system. Crossings that are properly installed can last for many years and not require significant maintenance. During the inspection of your property we identified any stream crossings and have described them.

The items covered in the description are:

Type:	Describes the type of stream crossing used.
Problem:	Describes any problems that the stream crossing might have.

Stream Crossing #:	**1**
Type:	Culvert
Problem:	None
	This crossing is a 24 inch double-wall plastic culvert.

Water:

Water resources found on a tract are often overlooked. It can be hard to think of a small trickle of water on your property as being part of a vast river basin. Often the past uses and treatments of streams are still affecting them today. A stream that once had a portable sawmill set up over the stream channel might now be a source of drinking water for a house.

Forest management and logging can greatly influence the quality of water found on your property. Best Management Practices were designed to protect water quality through forest management. These practices include leaving forested buffers around all water sources, stabilizing stream crossings, and stabilizing skidder roads and trails. There are special situations which require additional protection measures for water such as designated trout waters, and drinking water. During our inspection of your property we identified any forms of water and have described it.

The items covered in the water description are:

River Basin	The name of the river basin the water feature is in.
Name:	The name of the water feature, if it has one.
Water Type:	Describes the type of water feature.
Stream Type:	Describes the water temperature of the stream.
Fishable:	Whether or not the stream can be fished.
Trout Water:	Whether or not the North Carolina Wildlife Resource Commission has designated the stream as a trout water.
Drinking Water:	Whether the water feature is used for drinking by people or livestock.
Problem:	Describes any problems that might be occurring with the water feature.

Water Feature #:	**1**
Basin:	Yadkin River
Name:	
Water Type:	Stream
Stream Type:	Cool Fish species commonly associated with this type of stream are smallmouth bass, rock bass, walleye, sauger, creek chub, river and bluehead chubs, whitetail shiner, white sucker, Tennessee shiner, mirror shiner, warpaint shiner, northern hog sucker, fantail darter, greenside darter, greenfin darter. Summer temperatures generally do not exceed 76 degrees Fahrenheit. Elevations generally over 1200 feet.
Fishable:	No
Trout Water:	This stream has not been designated as a trout water.
Drinking Water:	No
Problem:	No problems.

Water Feature #:	**2**
Basin:	Yadkin River
Name:	
Water Type:	Stream
Stream Type:	Warm Fish species commonly associated with this type of stream are largemouth bass, striped bass, Roanoke bass, white bass, black crappie, yellow perch, variety of catfish species and bullheads, redbreast sunfish, bluegill, pumpkin seed, variety of redhorse suckers, American eel, redfin pickerel, chain pickerel, golden shiner, creek chubsucker, margined madtom, pirate perch, warmouth, tessellated darter.
Fishable:	Yes
Trout Water:	This stream has been designated as a trout water.
Drinking Water:	No
Problem:	No problems.

Improvements:
Improvements add value and convenience to a property. They can range from a deer stand to a vacation house. During the inspection of your property we found the following improvements: House, Deer Stand.

Cultural:
Cultural features are of historical significance. They can relate to family history; such as an old homestead. Cultural features; such as old liquor stills; even relate to North Carolina history. Whatever the feature might be they are of interest and deserve special attention. During the inspection of your property we found the no cultural features.

Non-Forested Area Description:
The primary purpose of the following areas is not growing trees for commercial timber production. During the inspection of your property we identified the following non-forested areas:

Non-Forested Areas	
Area	**Acreage**
Grass Field	12.7

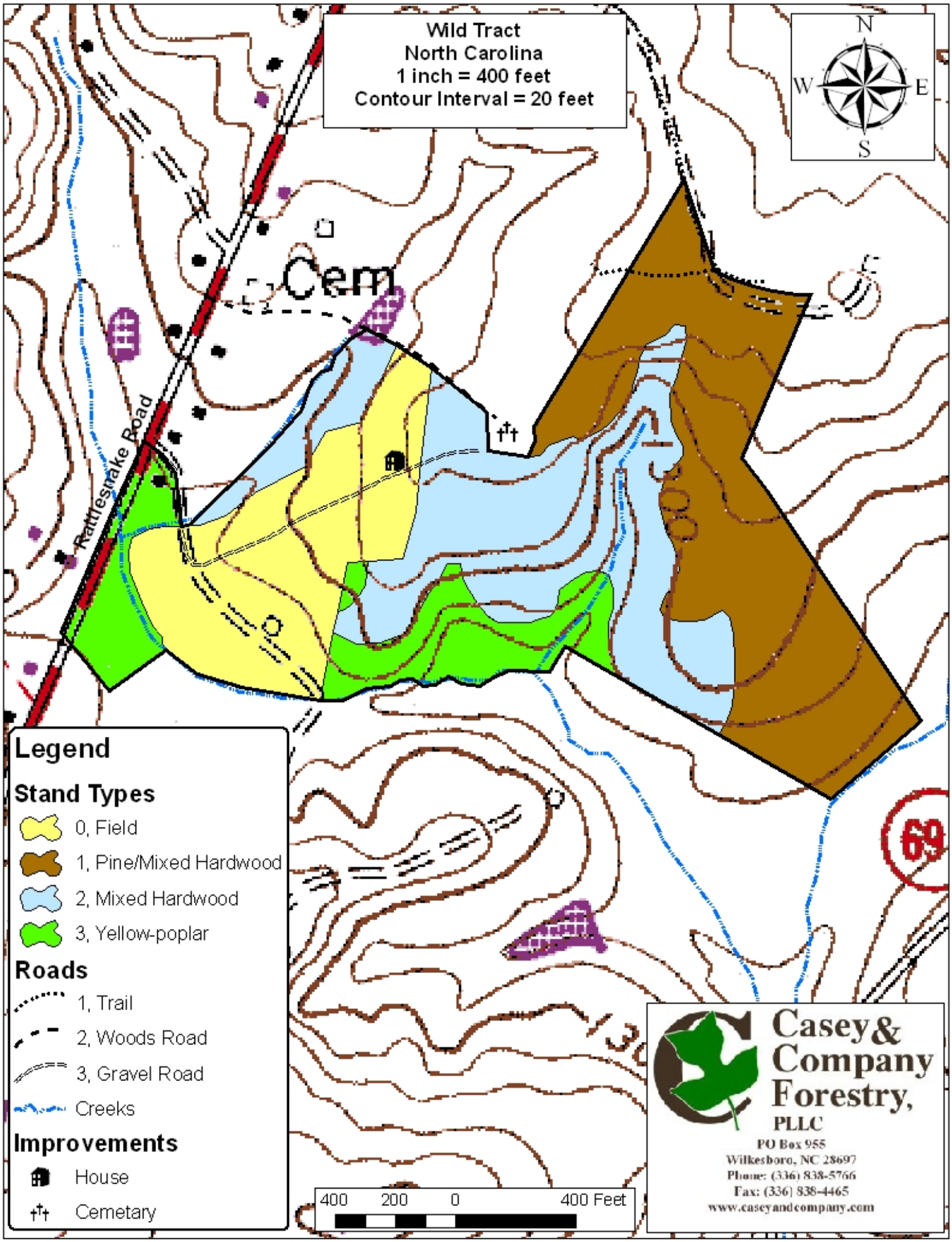
Soils:

The soils on your property are very important to your forest management decisions. They are one of the limiting factors to tree growth on your property. Soils are very difficult to improve on a forest wide basis and very easy to degrade.

Soils Description: The information provided below is a brief summary of the soils found on your property. Additional information can be found in the Monroe County Soil Survey available from the Natural Resources Conservation Service (NRCS) office.

Mapping Unit	Description
PaD - Pacolet sandy loam, 15 to 25 percent slopes	These moderately steep, very deep, well drained soils are on uplands. They formed in residuum from felsic rocks. They have a loamy surface layer and a clayey subsoil. Permeability is moderate. Shrink-swell potential is low. Seasonal high water table is below 6.0 feet.
PcB2 - Pacolet sandy clay loam, 2 to 8 percent slopes, eroded	These gently sloping, very deep, well drained, eroded soils are on uplands. They formed in residuum from felsic rocks. They have a loamy surface layer and a clayey subsoil. Permeability is moderate and shrink-swell potential is low. Seasonal high water table is below 6.0 feet.
PcC2 - Pacolet sandy clay loam, 8 to 15 percent slopes, eroded	These strongly sloping, very deep, well drained, eroded soils are on uplands. They formed in residuum from felsic rocks. They have a loamy surface layer and a clayey subsoil. Permeability is moderate and shrink-swell potential is low. Seasonal high water table is below 6.0 feet.
RnE - Rion fine sandy loam, 25 to 60 percent slopes	These moderately steep to steep, very deep, well drained soils are on uplands. They formed in residuum from felsic rock. They have a loamy surface layer and subsoil. Permeability is moderate and shrink-swell potential is low. Seasonal high water table is below 6.0 feet.
ToA - Toccoa sandy loam, 0 to 3 percent slopes, occasionally flooded	These nearly level, very deep, well drained or moderately well drained soil are on flood plains. They formed in loamy alluvial deposits. They have a loamy surface layer and loamy subsoil. Permeability is moderately rapid and shrink-swell potential is low. Seasonal high water table is within a depth of 2.5 to 5.0 feet. This soil is subject to occasional flooding.

Appendix



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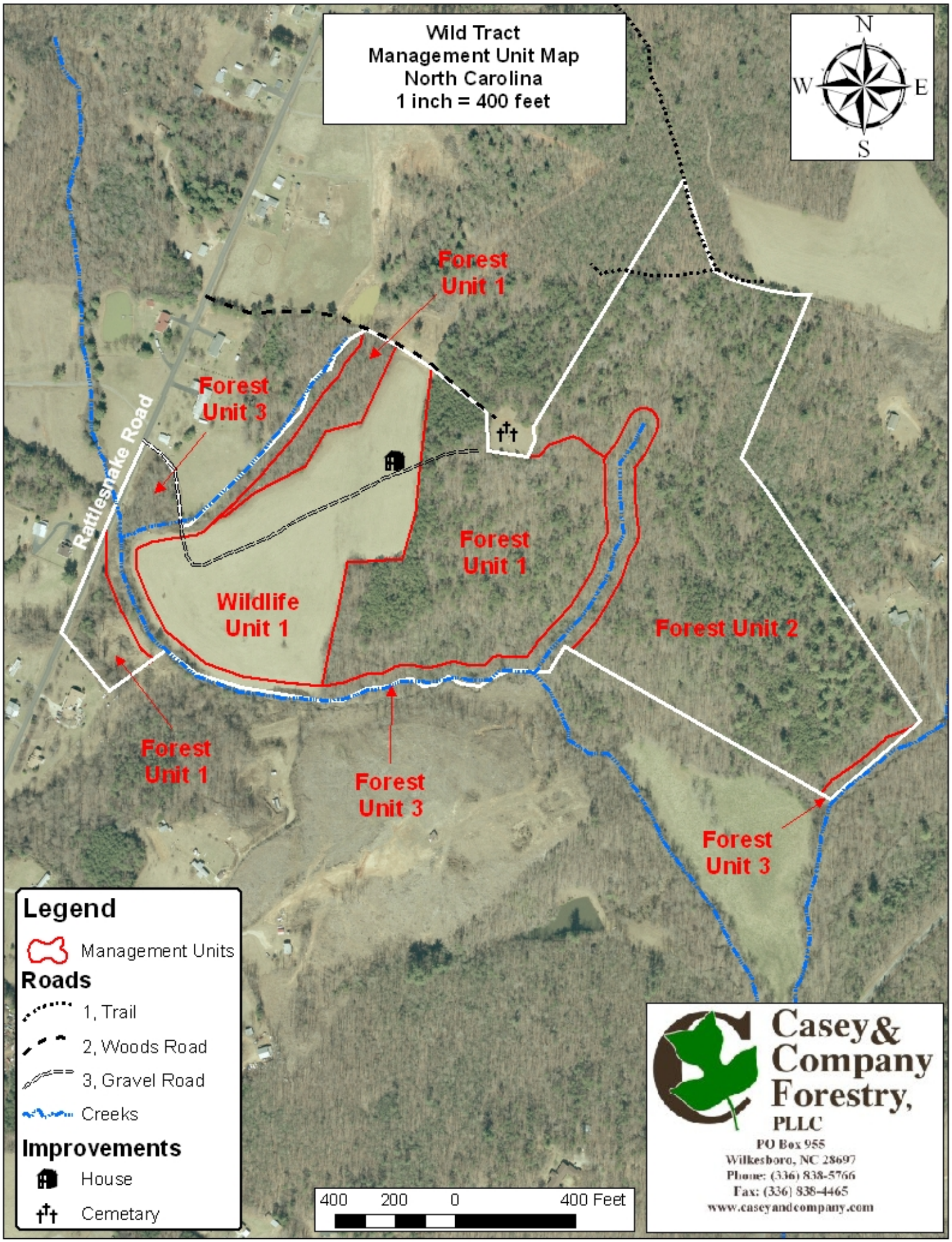

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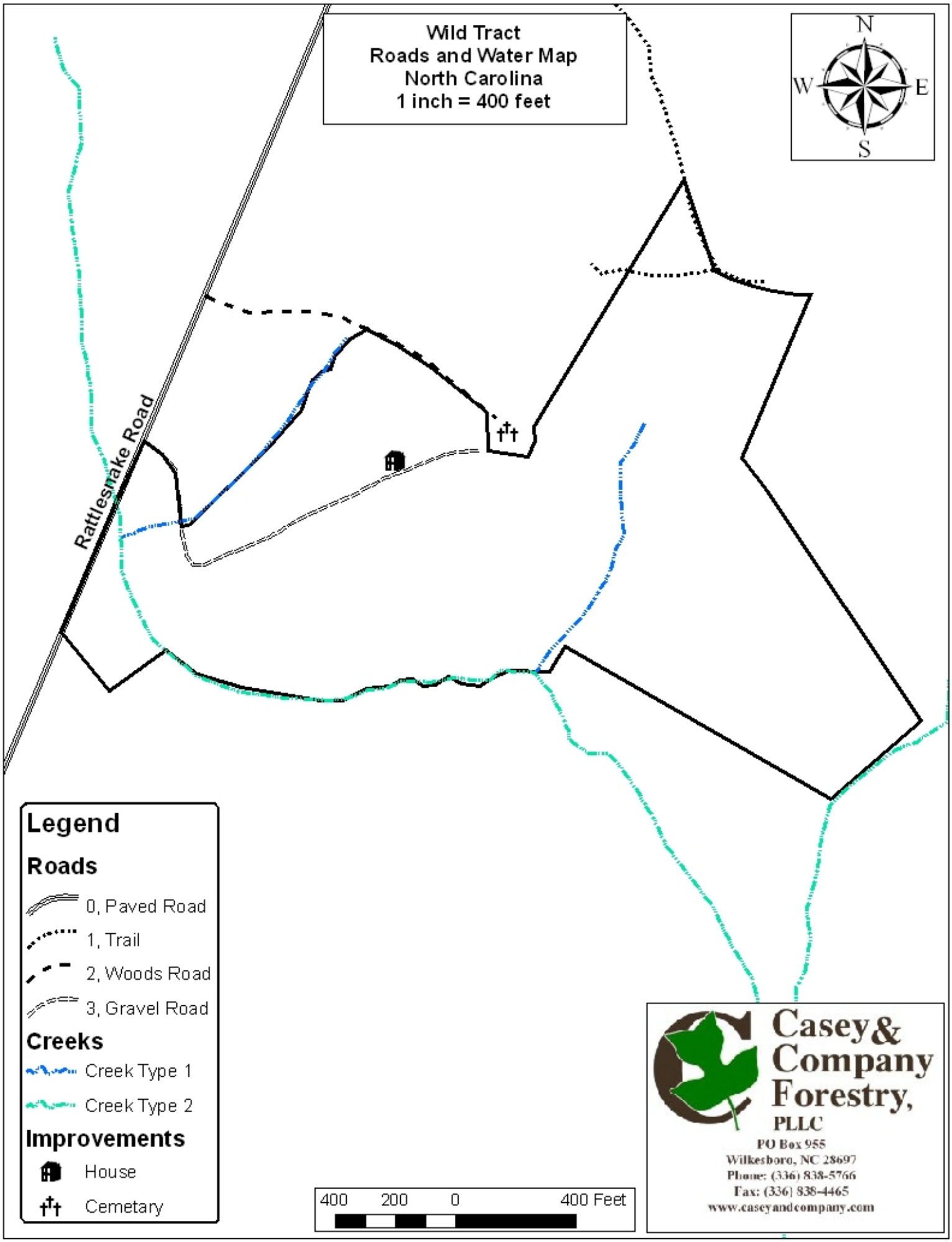

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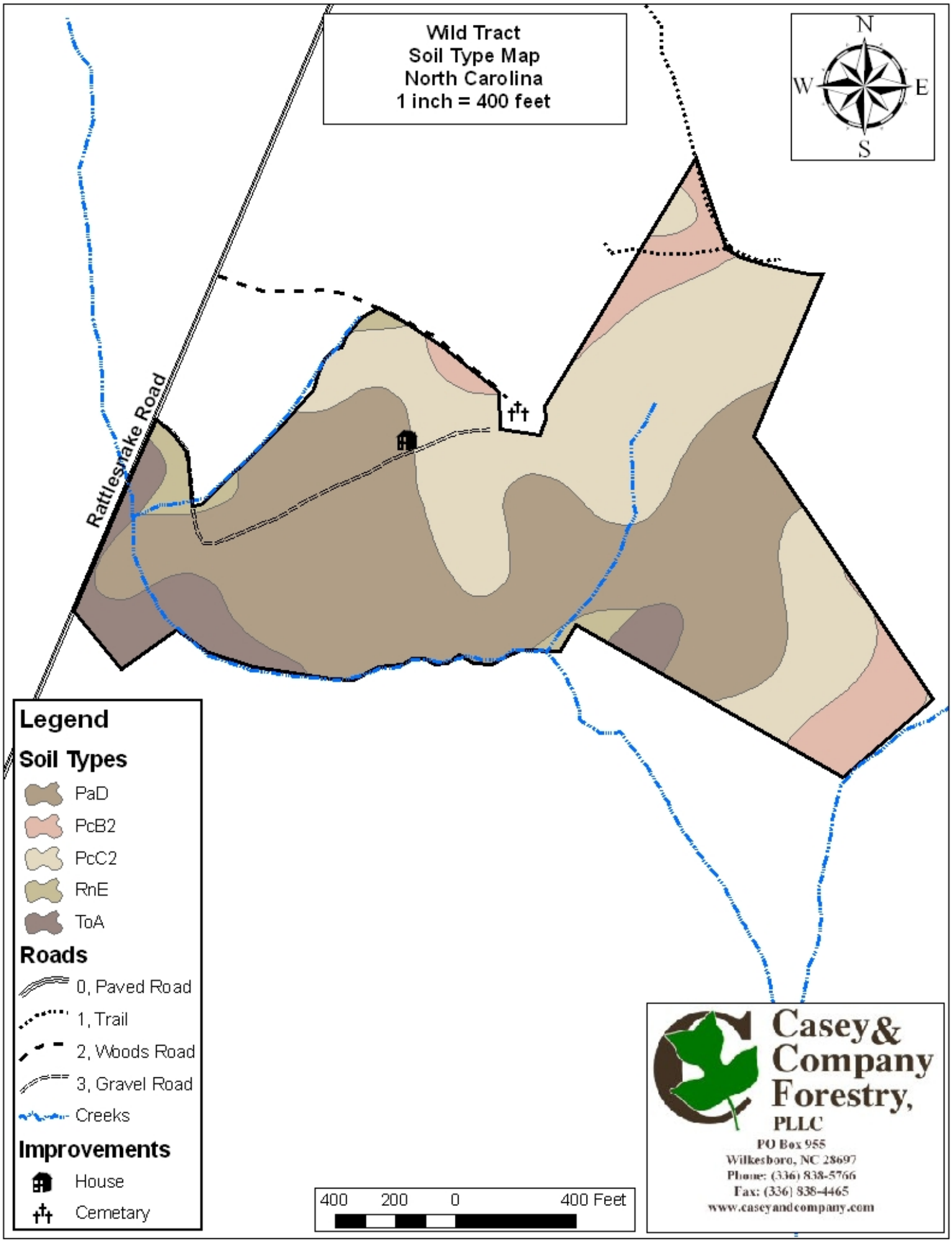

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