



Vision • Commitment • Pride

FOREST STEWARDSHIP MANAGEMENT PLAN

Prepared For:
Jefferson County Schools

Prepared By:
J. Ted Ratcliff
Miss. Forestry Comm.

Time Period Covered by This Plan:
2012 - 2021

Date Plan Prepared:
2012-01-04

Plan Type:
Stewardship / Stewardship

This plan was developed in accordance with the rules of the Stewardship program.

Property Name: 55-10N-2E

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LANDOWNER INFORMATION

Organization: Jefferson County Schools
Name: Jefferson County Schools
Mailing Address: P.O. Box 157
City, State, Zip: Fayette, MS 39069
Country: United States of America
Contact Numbers: Home Number:
Office Number: 601-786-3791
Fax Number:
E-mail Address:
Social Security Number (optional): 640000000

FORESTER INFORMATION

Name: J. Ted Ratcliff, Service Forester
Forester Number: 00717
Organization: Miss. Forestry Comm.
Street Address: P. O. Box 452
City, State, Zip: Meadville, MS 39653
Contact Numbers: Office Number: 601-754-9111
Fax Number: 601-384-2437
E-mail Address: tratcliff@mfc.state.ms.us

PROPERTY LOCATION

County: Jefferson Total Acres: 623 Latitude: -91 Longitude: 31.81
Section: 55 Township: 10N Range: 2E

INTRODUCTION

This Forest Stewardship Management Plan will serve as a guide for accomplishing the goals and objectives for your property. In addition to addressing your specific goals and objectives, this plan includes recommendations for maintaining soil and water quality and protecting your forest from insects, disease, and wildfire. Recommendations are based on observation and assessment of the site.

OBJECTIVES

Timber Production

The goal is to produce high quality sawtimber. This will be accomplished through reforestation and timber stand improvement practices such as herbicide applications, prescribed burning, thinning at specified intervals, and other silvicultural practices. Forestry Best Management Practices will be implemented to prevent erosion and protect water quality.

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Wildlife Management - General

The goal is to provide a diversity of habitats suitable for a variety of game and non-game wildlife species. Habitat management will focus on developing a variety of food, cover, water, and space. This will be accomplished by establishing and maintaining access roads and firelanes, providing openings within the forest, and the management of trees located within the Streamside Management Zone

PROPERTY DESCRIPTION

General Property Information

This section is located in the north central portion of the county and is easily accessible by Highway 552 that dissects the section running north and south. Approximately 590 acres are forested, of the 623 +/- total acres.

Water Resources

No perennial water resources were identified during a reconnaissance of the property. However, intermittent streams and drains identified will be managed in accordance with Mississippi's Best Management Practices.

Timber Production

The goal is to maximize the production of high quality timber. This will be accomplished through the application of timely thinning and other silvicultural practices designed to enhance timber quality and growth. Forestry Best Management Practices will be implemented to prevent erosion and protect water quality.

Threatened and Endangered Species

No threatened and endangered species were identified during the reconnaissance and evaluation of your property.

Interaction with Surrounding Property

Prescribed practices should be carried out in a manner that will minimize adverse impacts on surrounding properties. Consideration should be given to potential air, water, visual, and other impacts. In addition, practices carried out should have positive effects on the surrounding community such as improved wildlife habitat and soil stabilization.

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Soils General

Soils were evaluated on the property to determine the suitability of the site for the proposed activities. Forest practices were planned so as to minimize erosion or other adverse effects on the soil. The following soils are identified for this property: Memphis.

Archeological or Cultural Resources

These areas can range from churches, old cemeteries, or Indian mounds to old home sites or other areas of historical significance.

Archeological or Cultural Resources Were Identified:

This region of the county is rich with history and is in close proximity with antebellum homes and civil war battle fields. It is possible that this area was once encapsulated into the acreage of fields farmed by the owner of Ross Wood Plantation.

A church and two cemeteries exist in stand 3 and a third cemetery exist in the southern portion of stand 15 as indicated on the attachment map. Also, in stand 21 adjacent to Hwy 552 are several old building sites.

The church was originally known as the Red Lick Presbyterian Church which was organized in 1845 with the church being constructed in 1846. The cornerstone was laid on June 28, 1846 with the dedication by Revs Zebulon Butler and S. S. Templeton. It is now known as the Red Lick Baptist Church. The cemetery is divided into three sections. The first (and oldest) is across Woodvine Road from the church, the second is in front of the church, and the third section is in the rear of the church

This site has been buffered and designated with blue paint on the trees around site. No forest management activities will occur inside this protected area.

GENERAL PROPERTY RECOMMENDATIONS

Forest Protection

A healthy and vigorously growing stand is the best defense to an attack from a variety of forest insects, plants and pathogens.

Insects and Diseases

Trees are subject to attack from insects and diseases. Different insects and diseases affect trees according to the age, species, and condition of the trees. Planted stands of pines and pure stands of hardwoods are particularly susceptible to attack. Since there are many different insects and diseases, no attempt will be made here to explain all of them.

The property should be inspected at least annually for possible signs of insect and disease activity. Some things to look for are:

- Unseasonable leaf fall
- Discoloration of leaves or needles

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- Pitch pockets on pine trees
- Heavy defoliation of hardwood leaves
- Groups of three or more dying trees within a stand

This list does not cover all instances of insect or disease attacks. If anything unusual is noticed, report it to a forester. In most cases, insect and disease problems can be controlled if discovered early.

Fire Protection

Your forest should be protected from wildfire at all times. The best way to protect your investment is by establishing and maintaining firebreaks around the property. Guidelines for establishment and maintenance of firebreaks may be found in Mississippi Forestry Commission publication #107, *Mississippi's Best Management Practices*.

Grazing

Tree seedlings should be protected from grazing until such time as the terminal bud of the sapling is beyond reach of livestock. Domestic livestock should be denied access to the tree planting area.

Boundary Lines

It is the responsibility of the landowner to ensure that all property lines and boundaries designating areas to receive forestry work are clearly identified and visible to all contractors.

Note: Some forest practices may cause temporary adverse environmental or aesthetic impacts. These practices will only cause short-term adverse impacts where they are installed. Special efforts will be made to minimize adverse effects when carrying out any of the practices. Examples include: site preparation, planting, prescribed fires, firebreak installation and maintenance, road installation and maintenance, pesticide applications and timber harvesting.

Water Quality Protection

The objective of the landowner is to protect, preserve and enhance all water sources on or transecting the property. This can best be achieved by implementation of Best Management Practices in all aspects of the management of the property.

Aesthetics

The goal is to assure that the property is managed in such a way that is aesthetically pleasing to the landowner as well as the community. Activities could include, maintaining buffer strips along the road and adjacent to the home site, planting wildflowers along the road, and trees with attractive fall and spring color along the drive and near the home site.

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Ecological Restoration

Ecological restoration is the process of assisting the recovery of an ecosystem that has been degraded, damaged, or destroyed. A reconnaissance of the property has been conducted and no ecological restoration activities are recommended at this time.

Wildlife Mgt. Target Species

The objective of this practice is to provide habitat best suited for the featured or target species. Habitat management will focus on providing food, cover, water, and space to facilitate the target species.

Environmental Education

Environmental educational goals are to provide educational opportunities for children and adults through the development of items such as nature trails with tree identification markers, wildlife viewing areas, picnic areas, parking, public restroom facilities.

Wildlife Management General

The goal is to provide a diversity of habitats suited for a variety of game and non-game wildlife species. Habitat management will focus on providing a variety of food, cover, water, and space. This will be accomplished, in part, by establishing and maintaining access roads and firelanes, providing openings within the forest, and leaving mast producing and den trees.

Timber Management

Timber management goals for this property are to manage timber resources in such a manner as to maximize timber production throughout the life of the stand.

Recreation

According to landowner objectives the recreational use of the property could prove to be an avenue for personal enjoyment or for generating income. An evaluation of your property should be conducted and a plan developed to accomplish your specific goals for recreational activities on your property.

SOIL TYPES

Memphis

Memphis soils are the predominate soils found on this section. Slopes are 5 to 12 percent. This component is on uplands. The parent material consists of loess deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is very high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic

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matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 6e. This soil does not meet hydric criteria. Loblolly Site Index = 105.

STANDS

STRATA 1 (Stands 11 and 19)

Stand Description

This stand consist of approximately 88 acres of pine plantation that was planted in 1999 following a harvest. This stand is well stocked and in good growing condition.

Stand Recommendations

This stand will be managed to grow to a 35 to 40 year rotation. At maturity it will be regenerated back into Loblolly Pine.

Activity Recommendations

Fire Protection

A prescribed burn should be carried out on this property in the late fall or early winter of 2014 and 2020. Prescribed fire when used correctly can greatly benefit the health and vigor of a stand. It reduces the undesirable tree species that often crowd out or suppress pines. These unwanted understory trees and shrubs species not only compete for water, nutrients, and growing space, but often contain dead needles and leaves that act as ladder fuels allowing a fire to climb into the overstory crowns. Prescribed fire also reduces the hazardous fuel loads within the stand and prevents damage in the event of a wildfire.

Harvest

This area should be thinned in 2012 and in 2018 with a pay as cut harvester select thinning. Remaining basal area will be 70-80 sq. feet per acre, made up of crop trees, which is considered to be sawtimber quality. Trees to be thinned will only be of inferior product classes, lower quality form, overcrowded suppressed or diseased stems.

STRATA 2 (Stand 15)

Stand Description

The stand consist of 12 acres of mature pine sawtimber. There is also a large amount of hardwood in the midstory and understory. A cemetery is located within this stand and will affect the final management decision.

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Stand Recommendations

This stand is mature and will be regenerated back into Loblolly Pine after the scheduled harvest.

Activity Recommendations

Harvest

This stand will be harvested with a clear cut in 2018. Volumes to sale will be determined with a minimum of 10 % cruise.

Regeneration

The area will be planted in genetically improved, containerized loblolly seedlings in the 2019 planting season. Seedlings will be planted on a 8 foot by 10 foot spacing, yielding 544 seedlings per acre.

Site Preparation

The area will be site prepared with an aerial broadcast herbicide application. Chemicals and rates will be determined based on the vegetation present at that time by a licensed applicator.

This site will need a site preparation burn. The objective of the burn will be to remove the accumulation of debris on the site, which will improve planting conditions for the tree planting personnel. The burn should be done by a certified burner or the landowner using a burn plan and a permit to burn.

STRATA 3 (Stand 21)

Stand Description

The stand consist of approximately 142 acres of mature pine sawtimber that has been heavily thinned over the past years. There is a moderate amount of mixed hardwood scattered through the midstory, with a large amount of hardwood brush in the understory.

Stand Recommendations

This stand is mature and will be regenerated back into Loblolly Pine after the scheduled harvest.

Activity Recommendations

Site Preparation

In 2015 the area will be Site prepared with an aerial herbicide application following the harvest. Chemicals and rates will be determined after the harvest.

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Regeneration

The area will be planted in genetically improved, containerized loblolly seedlings in the 2015 planting season. Seedlings will be planted on a 8 foot by 10 foot spacing, yielding 544 seedlings per acre.

Harvest

This stand will be clear cut in 2013. Volumes used to sale the timber will be determined a 10 % cruise.

STRATA 4 (Stand 6)

Stand Description

This stand consist of about 161 acres which consist of mixed hardwood sawtimber and patches of pine sawtimber. Much of the area has intermittent streams through it, which will be managed as an SMZ. The timber ranges from pulpwood to sawtimber in size.

Stand Recommendations

This stand will be managed as a hardwood stand, with harvest leaning to a natural regeneration.

Activity Recommendations

Harvest

This area is planned to be thinned in 2015. This will be a thinning from underneath, favoring red oak. The scattered mature pine will be removed at this harvest.

STRATA 5 (Stand 8)

Stand Description

This stand consist of approximately 97 acres of pine plantation that was hand planted in 1985. This stand was thinned in 2006 and is in good growing condition.

Stand Recommendations

This stand will be managed to grow to a 35 to 40 year rotation. At maturity it will be regenerated back into Loblolly Pine.

Activity Recommendations

Harvest

This stand is scheduled to be thinned for the second time in 2015. Crop trees will be left to a 70 square foot basal area. Crop trees are considered to be trees that are sawlog size or have the potential to be sawlog quality trees.

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Fire Protection

A prescribed fire in 2017 is recommended for this site in order to reduce fuel loading and the potential for a wildfire to occur. A prescribed burning plan must be developed and followed in the application of the burn. Because of equipment, personnel and weather requirements, the application of a prescribed fire is limited to only those days that meet requirements of the burning plan. A certified prescribed burning manager should be employed to conduct the burn. The Mississippi Forestry Commission and other certified prescribed burning vendors are available to conduct prescribed burning.

Harvest

This stand will be harvested with a clear cut in 2021. Volumes to sale will be determined with a minimum of 10 % cruise.

STRATA 6 (Stands 5 and 7)

Stand Description

This area consist of approximately 12 acres of a mixed stand of hardwood sawtimber and pulpwood. . Much of this area is steep, making it difficult for harvesting operations.

Stand Recommendations

This stand will be managed as a hardwood stand, with harvest leaning to a natural regeneration.

Activity Recommendations

Harvest

This area will be harvested where possible in 2021 in conjunction with stand 8. The terrain in the area will make operations difficult and the timber will be marked for harvest, and desirable seed sources will be left for natural regeneration.

STRATA 7 (Stand 10)

Stand Description

The stand consist of approximately 58 acres of mature pine sawtimber. There is a moderatel amount of mixed hardwood scattered through the midstory, with a large amount of hardwood brush in the understory.

Stand Recommendations

This stand is mature and will be regenerated back into Loblolly Pine after the scheduled harvest.

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Activity Recommendations

Harvest

This stand will be harvested with a clear cut in 2018. Volumes to sale will be determined with a minimum of 10 % cruise.

Site Preparation

In 2019 the area will be site prepared with an aerial herbicide application following the harvest. Chemicals and rates will be determined after the harvest.

Regeneration

The area will be planted in genetically improved, containerized loblolly seedlings in the 2019 planting season. Seedlings will be planted on a 8 foot by 10 foot spacing, yielding 544 seedlings per acre.

STRATA 8 (Stand 20)

Stand Description

This stand consist of approximately 14 acres in a Streamside Management Zone. Timber is predominately hardwood ranging from sawtimber to pulpwood size.

Stand Recommendations

This stand will be managed as a hardwood stand, with harvest leaning to a natural regeneration.

DISCLAIMER

This information was derived from a small sampling of the forest resources. It reflects a statistical estimation that is only intended to be accurate enough for the purposes of making decisions for the short-term management of these resources. These estimations are temporally static. Events and circumstances may occur within the survey area that will physically alter the forest resources and therefore will not be reflected in this plan.

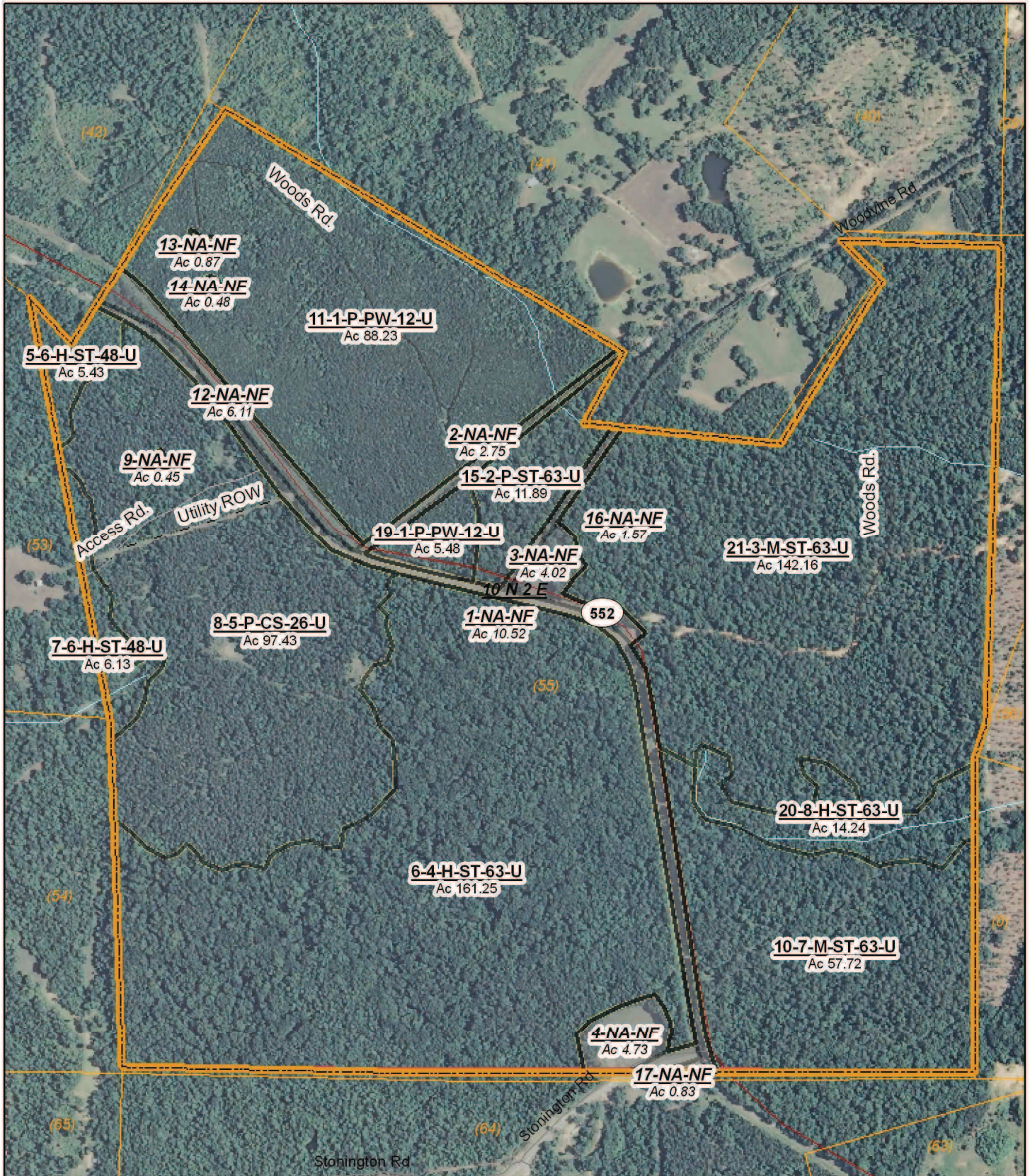


JEFFERSON COUNTY SCHOOLS

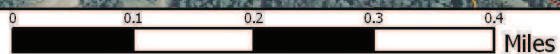
RED LICK Sect.55-T10N-R2E

2012 to 2021

622.60 Acres



(12/29/2011)



LEGEND



Property

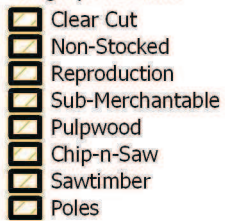


Property

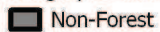
Category 1: Stands



Category 2: Stands

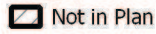


Category 3: Non-Forest Stands



Non-Forest

Category 4: Not in Plan Stands



Not in Plan

Category 5: Features Only Plan Stand



Features Only Plan

Property Roads/Trails



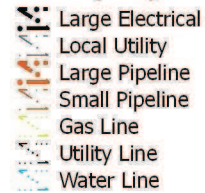
Boundary Lines



Boundary Lines (cont)



Utilities (Lines)



Stand Activity Schedule for
Jefferson County Schools
55 10N 2E

Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue
2012					
1	11	Harvest, Mechanical, 1st Thin, Machine, Loblolly	88	\$2,200.00	\$24,999.92
1	19	Harvest, Mechanical, 1st Thin, Machine, Loblolly	5	\$175.00	\$1,500.00
Yearly Totals			93	\$2,375.00	\$26,499.92
2013					
3	21	Harvest, Mechanical, Regeneration, Machine, Loblolly	142	\$4,970.00	\$126,522.00
Yearly Totals			142	\$4,970.00	\$126,522.00
2014					
1	11	Fire Protection, Other, Burn, Hand, Hazard Mitigation	88	\$1,764.60	\$0.00
1	19	Fire Protection, Other, Burn, Hand, Hazard Mitigation	5	\$109.60	\$0.00
Yearly Totals			94	\$1,874.20	\$0.00
2015					
3	21	Fire Protection, Other, Burn, Hand, Fuel Reduction	142	\$4,260.00	\$0.00
3	21	Regeneration, Artificial, Plant, Hand, Loblolly	142	\$15,620.00	\$0.00
3	21	Site Preparation, Chemical, Broadcast, Aerial, Woody	142	\$15,620.00	\$0.00
4	6	Harvest, Mechanical, Thin, Machine, Loblolly	161	\$5,635.00	\$72,686.67
5	8	Harvest, Mechanical, Thin, Machine, Loblolly	97	\$4,850.00	\$55,969.00
Yearly Totals			684	\$45,985.00	\$128,655.67
2017					
5	8	Fire Protection, Other, Burn, Hand, Hazard Mitigation	97	\$2,910.00	\$0.00
Yearly Totals			97	\$2,910.00	\$0.00
2018					

Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue	
1	11	Harvest, Mechanical, 2nd Thin, Machine, Loblolly	88	\$2,640.00	\$46,600.40	
1	19	Harvest, Mechanical, 2nd Thin, Machine, Loblolly	5	\$175.00	\$3,575.00	
2	15	Harvest, Mechanical, Regeneration, Machine, Loblolly	12	\$420.00	\$10,874.52	
4	6	Fire Protection, Other, Burn, Hand, Hazard Mitigation	161	\$4,830.00	\$0.00	
7	10	Harvest, Mechanical, Regeneration, Machine, Loblolly	58	\$2,030.00	\$76,062.36	
			Yearly Totals	324	\$10,095.00	\$137,112.28
2019						
2	15	Regeneration, Artificial, Plant, Hand, Loblolly	12	\$1,320.00	\$0.00	
2	15	Site Preparation, Chemical, Broadcast, Hand, Woody	12	\$1,320.00	\$0.00	
7	10	Site Preparation, Chemical, Broadcast, Aerial, Woody	58	\$9,523.80	\$0.00	
7	10	Regeneration, Artificial, Plant, Hand, Loblolly	58	\$8,658.00	\$0.00	
7	10	Site Preparation, Other, Burn, Hand, Cut-Over	58	\$1,740.00	\$0.00	
			Yearly Totals	197	\$22,561.80	\$0.00
2020						
1	11	Fire Protection, Other, Burn, Hand, Fuel Reduction	88	\$2,640.00	\$0.00	
1	19	Fire Protection, Other, Burn, Hand, Fuel Reduction	5	\$150.00	\$0.00	
			Yearly Totals	93	\$2,790.00	\$0.00
2021						
5	8	Harvest, Mechanical, Regeneration, Machine, Loblolly	97	\$3,395.00	\$130,000.37	
6	5	Harvest, Mechanical, Thin, Machine, Loblolly	5	\$175.00	\$300.00	
6	7	Harvest, Mechanical, Thin, Machine, Loblolly	6	\$210.00	\$1,260.00	
			Yearly Totals	108	\$3,780.00	\$131,560.37
			Grand Totals	1.832	\$97,341.00	\$550,350.24