Vision • Commitment • Pride

# FOREST STEWARDSHIP MANAGEMENT PLAN

Prepared For:
Kemper County BOE

Prepared By:
Matt Persons
MFC

Time Period Covered by This Plan:
2012 - 2021

Date Plan Prepared:
2012-01-05

Plan Type:
Stewardship / Stewardship

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

**Property Name: Kemper 16-9-17**

MISSISSIPPI FOREST STEWARDSHIP PROGRAM

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## LANDOWNER INFORMATION

| | | |
|---|---|---|
| Name: | Kemper County BOE | |
| Mailing Address: | P.O. Box 219 Main Ave | |
| City, State, Zip: | DeKalb, MS 39328 | |
| Country: | United States of America | |
| Contact Numbers: | Home Number: | |
| | Office Number: | 601-743-2657 |
| | Fax Number: | 601-743-9297 |
| E-mail Address: | | |
| Social Security Number (optional): | | |

## FORESTER INFORMATION

| | | |
|---|---|---|
| Name: | Matt Persons , Service Forester | |
| Forester Number: | 02485 | |
| Organization: | MFC | |
| Street Address: | 201 Firetower Rd. | |
| City, State, Zip: | DeKalb, MS 39328 | |
| Contact Numbers: | Office Number: | 601-743-5529 |
| | Fax Number: | |
| E-mail Address: | rpersons@mfc.state.ms.us | |

## PROPERTY LOCATION

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| County: | Kemper | Total Acres: | 643 | Latitude: | -88.56 | Longitude: | 32.63 |
| Section: | 16 | Township: | 9N | Range: | 17E | | |

## DISCLAIMER

This information was dervied from a small sampling of 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.

## 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.

*Water Quality*

Streamside management zones have or will be established along the stream and a protective vegetative zone maintained along the perimeter. Water diversions will be installed and maintained where needed on access roads to prevent erosion.

## PROPERTY DESCRIPTION

*General Property Information*

The property is located in the southeastern part of the county on Kemper Springs-St. Johns Road. Blackwater Creek runs through the northern part of the section. Access to and within the section is fair.

*Water Resources*

Blackwater Creek runs through the northern part of the section. Streamside management zones will be implemented in sales that are adjacent to or near the creek and Best Management Practices will be utilized in all forest management activities.

*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.

*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:

## GENERAL PROPERTY RECOMMENDATIONS

*Forest Protection*

A healthy vigorously growing stand is the best defense to an attack form 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
- 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*

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.

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

*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

*Ma*
The Mantachie component makes up 90 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains. The parent material consists of loamy alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is occasionally flooded. It is not ponded. A seasonal zone of water saturation is at 15 inches during January, February, March, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 2w. This soil does not meet hydric criteria. Loblolly Site Index = 98.

*SL*
The Smithdale component makes up 90 percent of the map unit. Slopes are 8 to 35 percent. This component is on hillslopes. The parent material consists of loamy fluviomarine 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 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 matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 7e. This soil does not meet hydric criteria. Loblolly Site Index = 80.

*SY*
The Sweatman component makes up 46 percent of the map unit. Slopes are 12 to 35 percent. This component is on uplands. The parent material consists of loamy marine 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 high. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 7e. This soil does not meet hydric criteria. The Smithdale component makes up 40 percent of the map unit. Slopes are 12 to 35 percent. This component is on hillslopes. The parent material consists of loamy fluviomarine 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 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 matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 7e. This soil does not meet hydric criteria.

*MV*
The Kinston component makes up 35 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains. The parent material consists of loamy alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 6 inches during January, February, March, April, May, June, November, December. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 6w. This soil meets hydric criteria. The Mantachie component makes up 30 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains. The parent material consists of loamy alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 15 inches during January, February, March, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 5w. This soil does not meet hydric criteria.

# STRATA

*Strata 1*

Strata Description

Strata 1 consists of stands 1, 3, 5, and 14, which are pine chip n'saw in size and total 273 acres. Current basal areas average 100 square feet per acre and average heights are 60 feet.

Activity Recommendations

Harvest

Stand 1 is scheduled for a second thinning in 2016. Poorly formed, diseased, and suppressed trees will be targeted during this activity. Residual basal areas should average 70 square feet per acre.

Harvest

Stands 3 and 14 are scheduled for thinning in 2017. This activity will target poor quality, diseased, and suppressed trees within the stand. Residual basal areas should average 70 square feet per acre.

Harvest

Stand 1 is scheduled for a final harvest in 2021. Site preparation and regeneration will take place after the life of the plan is finished.

Fire Protection

A prescribed fire 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 (on a limited basis) and other certified prescribed burning vendors are available to conduct prescribed burning. Stands 1, 3, and 14 are scheduled for burning in 2012.

*Strata 2*

Strata Description

Strata 2 consists of stands 2, 4, and 10, which are mixed pine-hardwood sawtimber stands with average basal areas of 100 square feet per acre and average 80 feet in height. These stands total 179 acres. Stand 4, (96 acres), will be managed as a streamside management zone and will be thinned when adjacent stands are harvested. A thinning is not scheduled for stand 4 due to hilly terrain and wet conditions along the creek, which are present within this stand.

Activity Recommendations

Harvest

Stand 2 is scheduled for a final harvest in 2019.

Harvest

Stand 10 is scheduled for a final harvest in 2021. Site preparation and regeneration will take place after the life of the plan.

Site Preparation

Stand 2 will need to be aerially sprayed to control hardwood regrowth in 2020. This activity will need to be contracted by a vendor and completed before October 1.

Site Preparation Burn

A prescribed burn should be conducted to further prepare the site. A burn will reduce debris that may otherwise impede tree planting. The result will enable better accessibility by tree planters, improving overall uniformity and quality of the planting job. A prescribed burning plan should be developed and followed in the application of the burn. A certified prescribed burn manager should be employed to conduct the burn. The Mississippi Forestry Commission is available to conduct prescribed burning on a limited basis. This burn should take place 4-6 weeks after the chemical application.

Regeneration

This tract will need to be planted at a rate of 691 Loblolly Pine seedlings per acre during the planting season, (December-March). A compliance check will be done by MFC crews to insure proper planting and correct number of trees.

*Strata 3*

Stand Description

This strata is a Loblolly Pine plantation, established in January, 2008, totaling 138 acres. The strata averages 450 seedlings per acre and has an average height of eight feet. At present, competing hardwoods are present and need to be controlled.

Activity Recommendations

Vegetation Control

An aerial application of herbicide is recommended for this property. This involves the application of a labeled herbicide to control or abate herbaceous and/or woody competition after planting. The application should be a broadcast application. The herbicide should conform to the manufacturer recommended rates and specification. A herbicide representative should be contacted to write a rate and application method recommendation. This practice is scheduled for 2013 and will need to be contracted by a vendor and sprayed prior to October 15, 2013.

*Strata 4*

Strata Description

Strata 4 consists of one stand, (7), and totals 36 acres of pine sawtimber. The stand has an average height of 90 feet and average basal area of 100.

Activity Recommendations

Harvest

A regeneration harvest is planned for Strata 4 in 2019.

Site Preparation

Strata 4 will need to be aerially sprayed to control hardwood regrowth in 2020. This activity will need to be contracted by a vendor and completed before October 1.

Site Preparation Burn

A prescribed burn should be conducted to further prepare the site. A burn will reduce debris that may otherwise impede tree planting. The result will enable better accessibility by tree planters, improving overall uniformity and quality of the planting job. A prescribed burning plan should be developed and followed in the application of the burn. A certified prescribed burn manager should be employed to conduct the burn. The Mississippi Forestry Commission is available to conduct prescribed burning on a limited basis. This burn should take place 4-6 weeks after the chemical application.

Regeneration

Following site preparation, the area should be planted with genetically improved loblolly pine seedlings. Seedlings should be planted at a rate of 691 trees per acre at a spacing of 7 feet x 9 feet. Planting should be done between December and March. Adverse weather conditions such as prolonged dry or cold periods should be taken into consideration when considering planting.

Seedling care and handling, as well as planting, will conform to the established MFC guidelines. See "What You Should Know About Planting Your Stewardship Forest" in the attachment section of this plan.

## OTHER PLAN ACTIVITIES

*Boundary Lines*

Maintenance of property boundary lines is important to prevent timber trespass. This activity will include blazing and painting of boundary line trees and may require permanent firelanes. This activity will take place every five years.

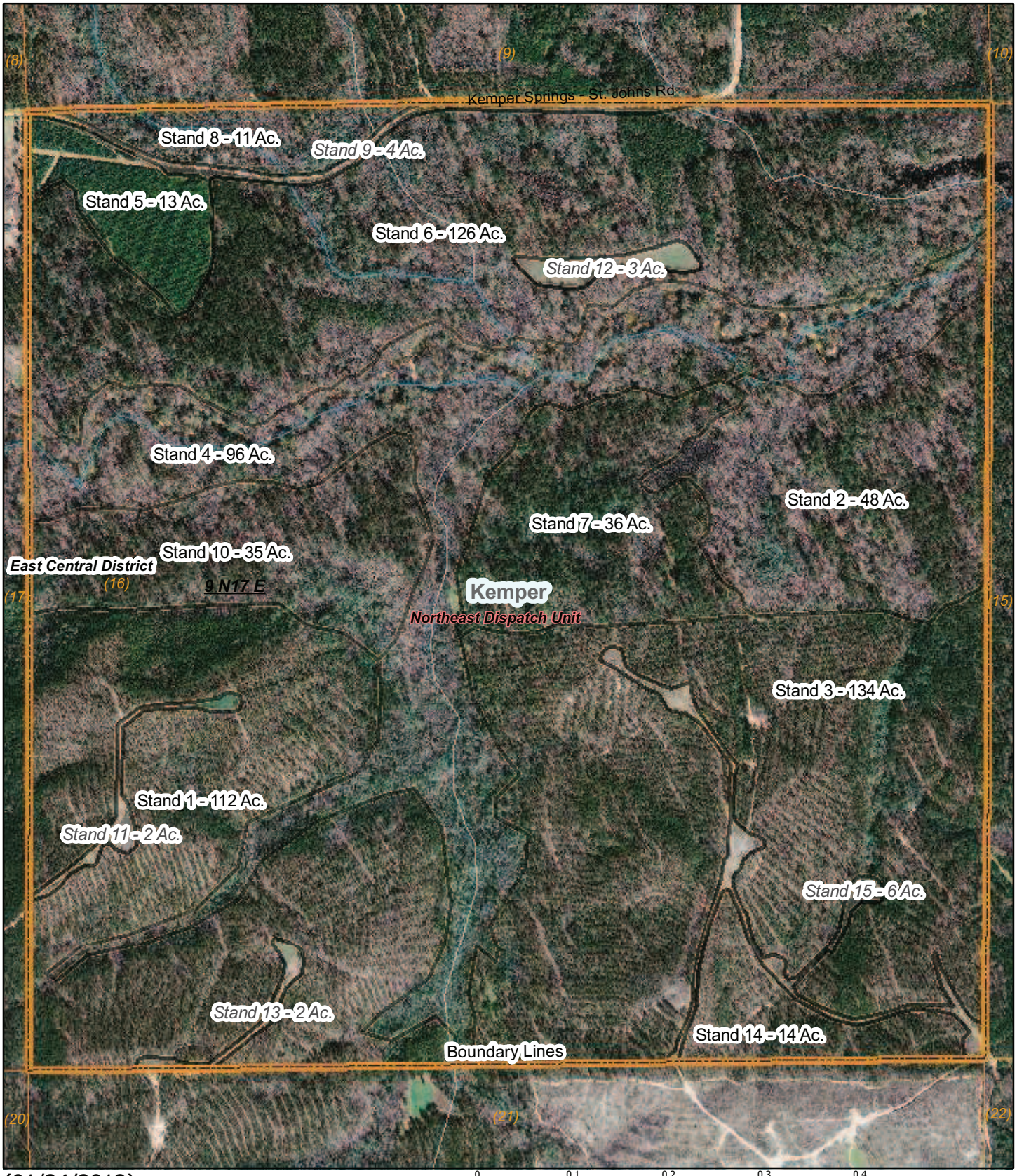
Activity Recommendations

Property Activities

Routine inspections and general maintenance of the roads, Firelanes, and boundary lines will ensure overall appearance and aesthetics of the property.

# Kemper County Schools

16-9-17
2012 to 2021
643.45 Acres




(01/24/2012)

0 0.1 0.2 0.3 0.4 Miles

# 16-9-17

Property
Property (1)

Category 1: Stands
Chip-n-Saw (4)
Sawtimber (4)
Sub-Merchantable (2)

Category 3: Non-Forest Stands
Non-Forest (5)

Boundary Lines
Property (1)

Management Compartment
Management (1)

## MFC Basemap

County Boundary
County Boundary (1)

Quadrangle Grid
USGS Quad (2)

PLS Townships
PLS Townships (1)

Survey Districts
District 2 (1)

Blockgroup (Census 2000)
Blockgroup (Census 2000) (1)

Block (Census 2000)
Block (Census 2000) (5)

Tract/BNA (Census 2000)
Tract/BNA (Census 2000) (1)

County Roads
County Roads (2)

School Sections
School Sections (1)

Public School Districts
KEMPER COUNTY SCHOOL DISTRICT (1)

US Congressional District
US Cong Dist #3 (1)

MS Senate
32 (1)

MS House
42 (1)

Perennial Streams
Perennial Streams (3)

Intermittent Streams
Intermittent Streams (4)

Hydrologic Units (Basins)
SUCARNOOCHEE RIVER (1)

Historic Forest Boundary
Shortleaf/Longleaf Pine-Loblolly Pine-Upland Hardwood (1)

MS Forest Habitat
LOWER CLAY HILLS-RUGGED TOPOGRAPHY (1)

Physiographic Region
North Central Hills (1)

Soil Associations
mooreville-kinston-mantachie (1)
smithdale-lucy-ruston (1)

Surface Geology
WILCOX (1)
NAHEOLA (1)

MFC Districts
MFC Districts (1)

MFC Dispatch Units
MFC Dispatch Units (1)

MS Outline
MS Outline (1)

Stand Activity Schedule for

16 9N 17E

| Strata | Stand | Activity | Acre | Est. Cost | Est. Revenue |
|---|---|---|---|---|---|
| **2012** | | | | | |
| 1 | 1 | Fire Protection, Other, Burn, Hand, Fuel Reduction | 112 | $3,920.00 | $0.00 |
| 1 | 3 | Fire Protection, Other, Burn, Hand, Hazard Mitigation | 134 | $4,690.00 | $0.00 |
| 1 | 14 | Fire Protection, Other, Burn, Hand, Fuel Reduction | 14 | $490.00 | $0.00 |
| | | Yearly Totals | 260 | $9,100.00 | $0.00 |
| **2013** | | | | | |
| 3 | 6 | Vegetation Control, Chemical, Broadcast, Aerial, Woody | 126 | $9,450.00 | $0.00 |
| 3 | 8 | Vegetation Control, Chemical, Broadcast, Aerial, Woody | 11 | $852.75 | $0.00 |
| | | Yearly Totals | 137 | $10,302.75 | $0.00 |
| **2016** | | | | | |
| 1 | 1 | Harvest, Mechanical, Thin, Machine, Loblolly | 112 | $3,920.00 | $40,320.00 |
| | | Yearly Totals | 112 | $3,920.00 | $40,320.00 |
| **2017** | | | | | |
| 1 | 3 | Harvest, Mechanical, Thin, Machine, Loblolly | 134 | $4,690.00 | $48,240.00 |
| 1 | 5 | Harvest, Mechanical, Thin, Machine, Loblolly | 13 | $455.00 | $9,451.00 |
| 1 | 14 | Harvest, Mechanical, Thin, Machine, Loblolly | 14 | $490.00 | $2,800.00 |
| | | Yearly Totals | 161 | $5,635.00 | $60,491.00 |
| **2019** | | | | | |
| 2 | 2 | Harvest, Mechanical, Final, Machine, Loblolly | 48 | $1,680.00 | $62,697.60 |
| 4 | 7 | Harvest, Mechanical, Final, Machine, Loblolly | 36 | $1,260.00 | $47,023.20 |
| | | Yearly Totals | 84 | $2,940.00 | $109,720.80 |
| **2020** | | | | | |

| Strata | Stand | Activity | Acre | Est. Cost | Est. Revenue |
|---|---|---|---|---|---|
| 2 | 2 | Site Preparation, Other, Burn, Hand, Debris | 48 | $1,200.00 | $0.00 |
| 2 | 2 | Regeneration, Artificial, Plant, Hand, Loblolly | 48 | $4,080.00 | $0.00 |
| 2 | 2 | Site Preparation, Chemical, Broadcast, Aerial, Combination | 48 | $4,080.00 | $0.00 |
| 4 | 7 | Site Preparation, Other, Burn, Hand, Debris | 36 | $900.00 | $0.00 |
| 4 | 7 | Regeneration, Artificial, Plant, Hand, Loblolly | 36 | $3,060.00 | $0.00 |
| 4 | 7 | Site Preparation, Chemical, Broadcast, Aerial, Combination | 36 | $3,060.00 | $0.00 |
| | | Yearly Totals | 252 | $16,380.00 | $0.00 |
| 2021 | | | | | |
| 1 | 1 | Harvest, Mechanical, Final, Machine, Loblolly | 112 | $3,920.00 | $154,000.00 |
| 2 | 10 | Harvest, Mechanical, Final, Machine, Loblolly | 35 | $1,225.00 | $45,717.00 |
| | | Yearly Totals | 147 | $5,145.00 | $199,717.00 |
| | | **Grand Totals** | **1,153** | **$53,422.75** | **$410,248.80** |