

# FOREST STEWARDSHIP MANAGEMENT PLAN

Prepared For: Copiah County BOE

Prepared By: Miles Henderson MS Forestry Commission

Time Period Covered by This Plan: 2012 - 2021

Date Plan Prepared: 2012-01-18

Plan Type: Stewardship / Stewardship

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

**Property Name: S16 T2N R1W** 

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## LANDOWNER INFORMATION

Name: Copiah County BOE
Mailing Address: 254 West Gallatin St.
City, State, Zip: Hazlehurst, MS 39083
Country: United States of America

Contact Numbers: Home Number:

Office Number: 601-894-1341

Fax Number:

E-mail Address:

Social Security Number (optional):

## FORESTER INFORMATION

Name: Miles Henderson, Copiah County Service Forester

Forester Number: 02512

Organization: MS Forestry Commission

Street Address: P.O. Box 229

City, State, Zip: Hazlehurst, MS 39083

Contact Numbers: Office Number: 601-894-1131

Fax Number:

E-mail Address: mhenderson@mfc.state.ms.us

#### PROPERTY LOCATION

County: Copiah Total Acres: 646 Latitude: -90.31 Longitude: 32.01

Section: 16 Township: 2N Range: 1W

## 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.

#### 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.

## 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 northeast portion of Copiah County. Primary access is off Barnes Road and Dear Road. The section has 417 acres of either open or idle land that is not under timber management. There are several pine plantations ranging from 1 year to 20 years old. There is also some mature timber, although the quality is not very good. Burning on this section is difficult due to smoke management considerations.

#### Water Resources

A perennial water resource was identified during a reconnaissance of the property. The perennial stream, intermittent stream, and drains 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.

#### 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.

## Archeological and Cultural Resources

Several houses and a church exist along Barnes Road as indicated on the attached map. These sites will be buffered and designated with yellow paint and flagging on trees around the site. No forest management activities will occur inside of this protected area.

#### GENERAL PROPERTY RECOMMENDATIONS

#### Forest Protection

A healthy, 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
- 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.

#### **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.

## 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**

Soils

Smithdale sandy loam (SMF)- Is a well drained soil with a slope range of 17-40%. As a result the erosion hazard is severe. Available water capacity is moderate. The site index for loblolly pine is 86.

Providence silt loam (Prb2)(Prc2)- Moderately well drained with 2-8% slope. The erosion hazard is moderate and the runoff is medium. Available water capacity is moderate. The site index for loblolly pine and Shumard Oak is 87.

Arial silt loam (Ae)- Well drained with a slope range of 0-2%. Available water capacity is high. The erosion hazard is slight and the runoff is slow. The site index for loblolly pine is 95 and 110 for Cherrybark oak.

## **STRATA**

Strata 1

Stand Description

Strata 1: Stands 1,3,4,23

Acres: 97

These stands were final harvested in 2010. Following the final harvest, these stands will be site prep sprayed and burned in 2011 to minimize logging debris and obtain better planter access. These stands will be hand planted in 2011 using 2nd generation loblolly Pine seedlings on a 10' x 7' spacing at 622 trees per acre. Compliance checks will be completed as these stands are planted to ensure proper planting and stocking. Survival checks will be completed in the Fall to ensure an adequate survival rate.

#### Stand Recommendations

These stands will be managed to approximately 35-40 years. During this time frame, management activities such as thinning and herbicide applications will be used to maximize growth. At the end of this rotation a final harvest will be conducted and reforestation activities will be completed to return these stands to full production.

## **Activity Recommendations**

## Site Preparation

These stands will be aerially sprayed with herbicides to control unwanted hardwood competition and herbaceous weeds. This activity will be completed in 2011.

#### Regeneration

These stands will be hand planted in 2012 using 2nd generation Loblolly pine seedlings. Seedlings will be planted at a rate of 622 trees per acre at a spacing of 10 feet x 7 feet. A deviation from the recommended planting rates will be limited to plus or minus 40 trees per acre. Planting should be done between December and March. A survival study will be completed the following Fall to ensure sufficient stocking. Adverse weather conditions such as prolonged dry or cold periods should be taken into consideration when planting.

Strata 2
Stand Description

Strata 2: Stands 21,24

Acres: 23

These are sub-merchantable pine stands that were machine planted on a 10' x 7' spacing at a rate of 622 trees per acre in 2000 using 1st generation Loblolly Pine seedlings. These stands are well stocked and healthy.

#### Stand Recommendations

These stands will be managed to approximately 35-40 years. During this time frame, management activities such as thinning and herbicide applications will be used to maximize growth. At the end of this rotation a final harvest will be conducted and reforestation activities will be completed to return these stands to full production.

## **Activity Recommendations**

## Harvest

These stands will be first thinned in 2014. This will be a row thin, removing every third row, reducing the stocking to 75 square feet of basal area per acre. This thin will remove about 35% of this strata's volume.

Strata 3

Stand Description

Strata 3: Stands 18,22,25

Acres: 42

These stands are permanent Streamside-Management-Zones that were established in 1952. They have a mixture of hardwood species and some scattered Loblolly Pine.

#### Stand Recommendations

These stands will be managed as permanent Streamside-Management-Zones (SMZs). Mature timber will be harvested as timber sales are completed on adjacent stands. A minimum of 50% crown cover will be maintained to ensure that a quality SMZ is left. This SMZ is vital to reduce soil erosion and to protect water quality.

Strata 4

Stand Description

Strata 4: Stand 17

Acres: 10

This is a mature stand of pine-hardwood that was established in 1963. It is slightly under-stocked with quality timber. The pine is Loblolly and the most common hardwoods are mixed red oaks and Sweetgum.

#### Strata Recommendations

This stand is considered Farm Residential and can not be reasonably managed at this time.

Strata 5

Stand Description

Strata 5: Stands 11,13,15

Acres: 61

These are Loblolly Pine stands that were hand planted using genetically improved Loblolly Pine seedlings in 1991. These stands were first thinned in 2007 and are currently in good health and well stocked. These stands were released in 2009.

#### Stand Recommendations

These stands will be managed to approximately 35-40 years. During this time frame, management activities such as thinning and herbicide applications will be used to maximize growth. At the end of this rotation a final harvest will be conducted and reforestation activities will be completed to return these stands to full production.

## **Activity Recommendations**

Harvest

These stands are scheduled for a second thin in 2014, focusing on removing poor quality, diseased, or poorly formed trees. This will be an operator select thinning, using existing corridors from the first thin to reduce the stocking to 75 square feet of basal area per acre.

A third thin is scheduled for these stands in 2021, focusing on removing poor quality, diseased, or poorly formed trees. This will be an operator select thinning, using existing corridors from the previous thins to reduce the stocking to 75 square feet of basal area per acre.

Strata 6
Stand Description
Strata 6: Stand 5

Acres: 73

This is a natural pine stand that was established in 2005. Stocking is poor in some areas with hardwood competition.

#### Strata Recommendations

This stand is considered Farm Residential and can not be reasonably managed at this time.

## OTHER PLAN ACTIVITIES

Property Activities

**Activity Recommendations** 

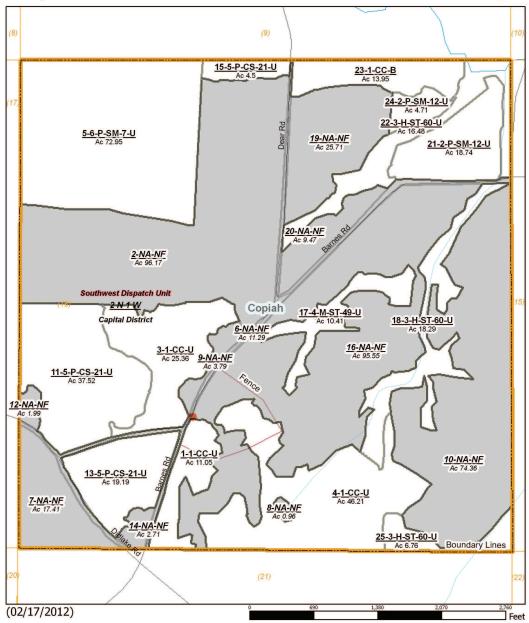
Routine inspections and general maintenance of the roads, firelanes, and boundary lines will ensure overall appearance and aesthetics of the property.



# **Copiah Board of Education**

SEC 16; TWN 2N; RGE 1W 2012 to 2021 645.54 Acres





## SEC 16 TWN 2N RGE 1W

# SEC 16; TWN 2N; RGE 1W



| Property  Property (1)   | Category 3: Non-Forest Stands Non-Forest (11)   | Management Compartment  Site Preparation (4)   |
|--|---|--|
| Category 1: Stands Clear Cut (4) Sub-Merchantable (3) Chip-n-Saw (3) Sawtimber (4)                   | Other Locked (1)  Boundary Lines Property (1)   |  |
| MFC Basemap  County Boundary  County Boundary (1)  | Public School Districts  COPIAH COUNTY SCHOOL DISTRICT (1)                            | Physiographic Region SOUTH CENTRAL HILLS (1)   |
| Quadrangle Grid USGS Quad (1)  PLS Townships PLS Townships (1)                                       | US Congressional District US Cong Dist #2 (1)  MS Senate 35 (1)                       | Soil Associations smithdale-providence-saffell (1) loring-providence-grenada (1) Surface Geology |
| Survey Districts District 2 (1)  | MS House 62 (1)   | CATAHOULA (1) CITRONELLE (1) MFC Districts   |
| Blockgroup (Census 2000)  Blockgroup (Census 2000) (2)  Block (Census 2000)  Block (Census 2000) (5) | Perennial Streams Perennial Streams (1) Intermittent Streams Intermittent Streams (2) | MFC Dispatch Units MFC Dispatch Units MFC Dispatch Units (1)                                     |
| Tract/BNA (Census 2000) Tract/BNA (Census 2000) (1)  | Hydrologic Units (Basins)  PEARL RIVER ABOVE STRONG RIVER (1)                         | MS Outline  MS Outline (1)   |
| County Roads County Roads (11)   | Historic Forest Boundary Shortleaf/Longleaf Pine-Upland Hardwoo                       | d-Loblolly Pine (1)  |
| School Sections (1)  | MS Forest Habitat  SOUTHERN LOESSIAL LOAM HILLS-RUG                                   | GED TOPO (1)   |

# Stand Activity Summary for Copiah County BOE 16 2N 1W

Filters Applied: County: Copiah

Client Class: School Trust Land
District: Capital District
Client: Copiah County BOE

STR: 16 2N 1W

Activity:

Year: 2012 Through 2021

| STR      | Strata | Stand | Activity   |     | Est.<br>Cost | Est.<br>Revenue |
|----------|--------|-------|--|-----|--------------|-----------------|
| 2012     |        |       |  |     |              |                 |
| 16 2N 1W | 1      | 1     | Site Preparation, Chemical, Broadcast, Aerial, Combination |     | \$828.75     | \$0.00          |
| 16 2N 1W | 1      | 1     | Regeneration, Artificial, Plant, Hand, Loblolly            |     | \$935.00     | \$0.00          |
| 16 2N 1W | 1      | 3     | Regeneration, Artificial, Plant, Hand, Loblolly            |     | \$2,125.00   | \$0.00          |
| 16 2N 1W | 1      | 3     | Site Preparation, Chemical, Broadcast, Aerial, Combination |     | \$1,875.00   | \$0.00          |
| 16 2N 1W | 1      | 4     | Site Preparation, Chemical, Broadcast, Aerial, Combination |     | \$3,465.75   | \$0.00          |
| 16 2N 1W | 1      | 4     | Regeneration, Artificial, Plant, Hand, Loblolly            |     | \$3,910.00   | \$0.00          |
| 16 2N 1W | 1      | 23    | Regeneration, Artificial, Plant, Hand, Loblolly            |     | \$1,190.00   | \$0.00          |
| 16 2N 1W | 1      | 23    | Site Preparation, Chemical, Broadcast, Aerial, Combination |     | \$1,046.25   | \$0.00          |
|          |        |       | Yearly Totals  | 192 | \$15.375.75  | \$0.00          |
| 2014     |        |       |  |     |              |                 |
| 16 2N 1W | 2      | 21    | Harvest, Mechanical, 1st Thin, Machine, Loblolly           |     | \$665.00     | \$6,536.00      |
| 16 2N 1W | 2      | 24    | Harvest, Mechanical, 1st Thin, Machine, Loblolly           |     | \$175.00     | \$1,700.00      |
| 16 2N 1W | 5      | 11    | Harvest, Mechanical, 2nd Thin, Machine, Loblolly           |     | \$1,330.00   | \$17,480.00     |
| 16 2N 1W | 5      | 13    | Harvest, Mechanical, 2nd Thin, Machine, Loblolly           |     | \$671.65     | \$8,827.40      |
| 16 2N 1W | 5      | 15    | Harvest, Mechanical, 2nd Thin, Machine, Loblolly           |     | \$175.00     | \$1,950.00      |
|          |        |       | Yearly Totals  | 86  | \$3.016.65   | \$36.493.40     |
| 2016     |        |       |  |     |              |                 |
| 16 2N 1W | 5      | 11    | Fire Protection, Other, Burn, Hand, Fuel Reduction         |     | \$938.00     | \$0.00          |
|          |        |       |  |     |              |                 |

| STR      | Strata | Stand | Activity   |               | Acre | Est.<br>Cost | Est.<br>Revenue |
|----------|--------|-------|--|---------------|------|--------------|-----------------|
| 16 2N 1W | 5      | 13    | Fire Protection, Other, Burn, Hand, Fuel Reduction |               | 19   | \$479.75     | \$0.00          |
|          |        |       |  | Yearly Totals | 57   | \$1,417.75   | \$0.00          |
| 2021     |        |       |  |               |      |              |                 |
| 16 2N 1W | 2      | 21    | Harvest, Mechanical, 2nd Thin, Machine, Loblolly   |               | 19   | \$665.00     | \$8,550.00      |
| 16 2N 1W | 2      | 24    | Harvest, Mechanical, 2nd Thin, Machine, Loblolly   |               | 5    | \$164.85     | \$2,119.50      |
| 16 2N 1W | 5      | 11    | Harvest, Mechanical, Thin, Machine, Loblolly       |               | 38   | \$1,330.00   | \$28,500.00     |
| 16 2N 1W | 5      | 13    | Harvest, Mechanical, Thin, Machine, Loblolly       |               | 19   | \$671.65     | \$14,392.50     |
| 16 2N 1W | 5      | 15    | Harvest, Mechanical, Thin, Machine, Loblolly       |               | 5    | \$175.00     | \$3,100.00      |
|          |        |       |  | Yearly Totals | 86   | \$3,006.50   | \$56,662.00     |
|          |        |       |  | Grand Totals  | 421  | \$22,816.65  | \$93,155.40     |