



Vision • Commitment • Pride

# FOREST STEWARDSHIP MANAGEMENT PLAN

Prepared For:  
Leflore County BOE

Prepared By:  
Wesley James Howard  
MS Forestry Commission

Time Period Covered by This Plan:  
2012 - 2021

Date Plan Prepared:  
2012-02-13

Plan Type:  
Stewardship / Stewardship

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

**Property Name: S16-T21N-R2 W**

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**MISSISSIPPI FORESTRY COMMISSION  
FOREST STEWARDSHIP MANAGEMENT PLAN**

**LANDOWNER INFORMATION**

Name: Leflore County BOE  
Mailing Address: 1901 HWY 82 West  
City, State, Zip: Greenwood , MS 38930  
Country: United States of America  
Contact Numbers: Home Number:  
Office Number: 662-453-8566  
Fax Number:  
  
E-mail Address:  
Social Security Number (optional):

**FORESTER INFORMATION**

Name: Wesley James Howard , Service Forester  
Forester Number: 02521  
Organization: MS Forestry Commission  
Street Address: 9600 Hwy 17  
City, State, Zip: Carrollton, MS 38917  
Contact Numbers: Office Number: 662-237-6732  
Fax Number:  
  
E-mail Address: whoward@mfc.state.ms.us

**PROPERTY LOCATION**

County: Leflore    Total Acres: 634    Latitude: -90.41    Longitude: 33.69  
Section: 16    Township: 21N    Range: 2W

**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.

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**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*

Section 16\_T21N\_R2W is +/- 634 acres of bottomland hardwood forest and agriculture fields. The forested acres consists of 473 acres. A large canal drainage ditch resides in the middle of the section the ditch runs North and South. The timber consists of mature bottomland hardwood sawtimber, pulpwood, and submerchantable. Dominate species being bitter pecan, willow oak, and nuttall oak. The section is located 4 miles North West of Schalter, Mississippi. This section is accessible from County Roads 531 and 534 from the North boundary of the section. Property's topography is low, with areas that hold water during wet months.

*Water Resources*

The section contains a large drainage ditch that divides the section in half. The ditch runs from the North Boundary to the South Boundary. The section drains into the Yazoo River watershed. Mississippi's Best Management Practices will be followed at all times during any 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 this property.

If any threatened and /or endangered species are discovered, immediate management procedures will be applied to protect these sensitive natural resources for future

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generations.

*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. Mississippi Best Management Practices will be implemented to prevent any adverse effects.

*Archeological and Cultural Resources*

No Archeological or Cultural resources were identified during a reconnaissance of the property. However, if Archeological or Cultural resources are discovered anytime on the property special managements measures will be applied immediately in order preserve these sensitive areas.

## **GENERAL PROPERTY RECOMMENDATIONS**

*Forest Protection*

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

**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.

*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:

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- 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.

### *Water Quality Protection*

The objective of the landowner is to protect, conserve, and enhance all water resources and drainages on or transecting the property. This objective can be met by implementing Mississippi's Best Management Practices in all aspects of management practices. Protection for water resources must be given in order to maintain the water quality. This protection will be done by the use of stream side management zones (SMZ's) as well as following all Mississippi Best Management Practices.

### *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 been degraded, damaged, or destroyed. A reconnaissance of the property has been conducted and no ecological restoration activities are recommended at this time.

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*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 "etc".

*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*

The Leflore County School Board leases the forested acres for hunting opportunities. The hunting lease brings an annual income of \$5,701.00.

## **SOIL TYPES**

4

The Alligator component makes up 90 percent of the map unit. Slopes are 0 to 1 percent. This component is on backswamps. The parent material consists of clayey 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 very low. Available water to a depth of 60 inches is moderate. Shrink-swell potential is very high. This soil is rarely flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during January, February, March, April, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3w. This soil meets hydric criteria.

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The Alligator, depressional component makes up 95 percent of the map unit. Slopes are 0 to 1 percent. This component is on depressions. The parent material consists of clayey 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 very low. Available water to a depth of 60 inches is moderate. Shrink-swell potential is very high. This soil is rarely flooded. It is frequently ponded. A seasonal zone of water saturation is at 6 inches during January, February, March, April, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 5w. This soil meets hydric criteria.

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## **STRATA**

### *Strata 1*

#### Strata Description

This 378 acre strata is made up of stands 1, 2, 3, and 9. This strata was approximately established in 1943. This stand is a fully stocked bottomland hardwood mixed forest with bitter pecan, nuttall oak, and willow oak being the dominate species. This strata has a basal area of 94 and 98 trees per acre. This strata contains 26 tons of pulpwood and 63 tons of sawtimber per acre. Patch clearcuts were created for wildlife and regeneration of stands in 2003. These areas were replanted with 302 seedlings per acre and also natural regeneration is occurring.

#### Strata Recommendations

Stand 2 will be harvested by final harvest method or seed tree method in 2017. Stand 2 has reached the management age of 65 years. Stand 2 could begin to decline in growth and yield values and begin to increase in mortality. Harvesting by seed tree method will release the stand and create openings for natural regeneration or final harvesting will allow for capturing the highest monetary value of the stand. The harvesting technique will be based on the amount of natural regeneration of desirable species available at the time of harvest. Seed tree method will be used if enough desirable hardwood species regeneration such as oak is adequate enough to fully restock the stand. Final harvest method will be used if there is not an adequate stocking of natural regeneration. If final harvest method is chosen the stands will be re-planted with desirable hardwood species to achieve full stocking.

The remaining stands 1 and 9 will be monitored throughout the course of the plan. Stands could be harvested if the stands show signs of high mortality due to over maturity or lack of natural regeneration. The goal of the MFC is to not have clearcuts over 110 acres. It could be necessary to cut larger areas to gain the highest monetary values of the stands. These stands are not scheduled to be harvested during this planning period, but stand conditions could require harvesting. These stands received harvesting practices in 2003. These stands provide a diverse habitat for native wildlife species.

#### Activity Recommendations

Stand 2 is scheduled for a final harvest or seed tree harvest in 2017. If a final harvest is completed it will be reforested using multiple bottomland hardwood species seedlings planted on 12' x 12' (302 trees per acre) spacing. Stands will be managed on a 60 - 80 year rotation age. Until harvesting this strata will provide habitat for native wildlife species. After harvesting the stands will provide fresh vegetation providing new food sources and cover for native wildlife species.

#### Harvest

A final harvest or seed tree cut is scheduled for stand 2 in 2017.



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Regeneration

Regeneration will be based on the type of harvesting method that is used. If a seed tree harvest is completed then the stand will be regenerated by natural regeneration of unharvested trees. If the stand is final harvested will be replanted on a 12' X 12' spacing (302 ac.) using mixed bottomland hardwood seedling species. The species planted will be determined by the site and soil type.

*Strata 2 (Non-Forest)*

Strata Description

This 160 acre strata consists of stands 4, 8, 10, 11, 12, 13, and 14. Stands 4 and 8 consists of 156 acres of agricultural land. The Leflore County School board leases this land for agricultural production. Stands 10, 11, 12, 13, and 14 consists of 3.75 acres of food plots.

Strata Recommendations

Stands 4 and 8 are leased out by the Leflore County School board for agriculture production. The agriculture lease provides an annual income of \$10,0290. The agriculture lease provides the highest and best use for this stand.

Strata Activities

During the time frame of the plan monitoring will be conducted periodically to insure no damaging activities are occurring that could impact other stands on the section. No activities are planned for the time period of the plan.

*Strata 3*

Strata Description

This 95 acre strata is made up of stands 5, 6, and 7. Stands are a fully stocked sub-merchantable stands with nuttall oak, willow oak, green ash, and elm being the dominate species. Stands were final harvested in 2003 and replanted with willow oak and nuttall oak bareroot seedlings. Planting was done on a 12 x 12 foot spacing with 302 seedling per acre. Natural regeneration is occurring throughout the stands. This strata has an average of 576 trees per acre.

Strata Recommendations

There are no activities planned for this strata other than monitoring. This stand is on a 65 - 80 year rotation age and has not reached maturity. However during the time frame of this plan a management decision of thinning may be made if the strata shows that thinning is necessary to achieve the highest yield value.

Strata Activities

During the time frame of the plan monitoring will be conducted periodically to ensure the stands are in good vigor condition and no major transformations have occurred that could alter the goal for future harvesting.

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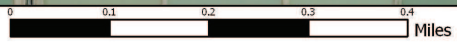


**Section16-T21N-R2W**

Leflore County, Mississippi  
2012 to 2021  
634.29 Acres



(12/29/2011)





**Section16-T21N-R2W**

Property

Property (1)

Category 1: Stands

Sawtimber (4)

Sub-Merchantable (3)

Category 3: Non-Forest Stands

Non-Forest (7)

**MFC Basemap**

County Boundary

County Boundary (1)

Quadrangle Grid

USGS Quad (1)

PLS Townships

PLS Townships (1)

Survey Districts

District 2 (1)

Blockgroup (Census 2000)

Blockgroup (Census 2000) (1)

Block (Census 2000)

Block (Census 2000) (2)

Tract/BNA (Census 2000)

Tract/BNA (Census 2000) (1)

School Sections

School Sections (1)

Public School Districts

LEFLORE COUNTY SCHOOL DISTRICT (1)

US Congressional District

US Cong Dist #2 (1)

MS Senate

24 (1)

MS House

30 (1)

Intermittent Streams

Intermittent Streams (3)

Hydrologic Units (Basins)

BOGUE PHALIA RIVER (1)

Historic Forest Boundary

Bottomland Hardwood (Oak-Gum-Cottonwood-Cypress) (1)

MS Forest Habitat

MISCELLANEOUS ALLUVIAL FLOODPLAINS (1)

Physiographic Region

Delta (1)

Soil Associations

alligator-sharkey-forestdale (1)

Surface Geology

ALLUVIUM (1)

MFC Districts

MFC Districts (1)

MFC Dispatch Units

MFC Dispatch Units (1)

MS Outline

MS Outline (1)

Stand Activity Schedule for  
Leflore County BOE  
16 21N 2W

| Strata              | Stand | Activity   | Acre       | Est. Cost          | Est. Revenue        |
|---------------------|-------|--|------------|--------------------|---------------------|
| <b>2017</b>         |       |  |            |                    |                     |
| 1                   | 2     | Harvest, Mechanical, Final, Machine, Misc Red Oak  | 112        | \$3,924.20         | \$129,057.97        |
| Yearly Totals       |       |  | 112        | \$3,924.20         | \$129,057.97        |
| <b>2018</b>         |       |  |            |                    |                     |
| 1                   | 2     | Regeneration, Artificial, Plant, Hand, Nuttall Oak | 112        | \$14,015.00        | \$0.00              |
| Yearly Totals       |       |  | 112        | \$14,015.00        | \$0.00              |
| <b>Grand Totals</b> |       |  | <b>224</b> | <b>\$17,939.20</b> | <b>\$129,057.97</b> |

Stand Activity Schedule for  
Leflore County BOE  
16 21N 2W

| Strata      | Stand | Activity  | Acre                | Est. Cost  | Est. Revenue      |                     |
|-------------|-------|---|---------------------|------------|-------------------|---------------------|
| <b>2017</b> |       |   |                     |            |                   |                     |
| 1           | 2     | Harvest, Mechanical, Final, Machine, Misc Red Oak | 112                 | \$3,924.20 | \$129,057.97      |                     |
|             |       |   | Yearly Totals       | 112        | \$3,924.20        | \$129,057.97        |
|             |       |   | <b>Grand Totals</b> | <b>112</b> | <b>\$3,924.20</b> | <b>\$129,057.97</b> |