



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-R1E

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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: 656 Latitude: -90.2 Longitude: 33.68
Section: 16 Township: 21N Range: 1E

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_R1E is +/- 656 acres of bottomland hardwood forest, bald cypress-tupelo gum brake, residential housing, Six Mile Lake, and McIntyre Lake. The forested acres consists of 485 acres. The timber consists of mature bottomland hardwood sawtimber. Dominate species being bitter pecan, willow oak, overcup oak, and nuttall oak. Bald cypress and tupelo gum brakes consist of pulpwood size timber. There are several residential homes that reside on Six Mile Lake in the northern half of the section. The section is located north of Money on Six Mile Lake. This section is accessible from County Roads 532 and 79 from the south and County Road 541 from the north. The section joins Malmasion Wildlife Management Area on the east boundary. Property's topography is low. The section floods during wet months due to McIntyre Lake. Access will be an issue during wet conditions and also due the location of the property. Mississippi Best Management Practices will be followed to ensure water quality.

Water Resources

Six Mile Lake resides in the North West corner of the section property. McIntyre Lake resides on the East side of the section. During wet months McIntyre Lake floods a large portion of the section property. There are several bald cypress and tupelo gum brakes that reside throughout the property. These brakes hold water throughout majority of the year. The section drains in the Yazoo River watershed system. Mississippi Best Management Practices such as stream side management zone (SMZ'S) will be applied to protect water resources from contamination.

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

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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 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

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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

Currently boundaries are not clearly marked on the section. Boundaries should be surveyed and clearly marked on all boundaries of the section. The boundaries line join another landowner's property and need to be surveyed. Boundaries will need to be established before any management activities such as harvesting can take place. Once the boundaries have been surveyed the MFC will maintain these boundaries.

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.

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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.

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 lease provides an annual income of \$16,700.

SOIL TYPES

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The Alligator, frequently flooded component makes up 50 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 frequently flooded. It is not 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. The Tensas component makes up 22 percent of the map unit. Slopes are 0 to 1 percent. This component is on flood plains. The parent material consists of clayey 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 very low. Available water to a depth of 60 inches is high. Shrink-swell potential is high. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 24 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 does not meet hydric criteria.

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The Tensas component makes up 85 percent of the map unit. Slopes are 0 to 1 percent. This component is on terraces. The parent material consists of clayey 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 very low. Available water to a depth of 60 inches is high. Shrink-swell potential is very high. This soil is rarely flooded. It is not ponded. A seasonal zone of water saturation is at 24 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 does not meet hydric criteria.

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The Dowling, MUCK component makes up 100 percent of the map unit. Slopes are 0 to 1 percent. This component is on swamps. The parent material consists of clayey alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is very low. Available water to a depth of 60 inches is high. Shrink-swell potential is very high. This soil is frequently flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during January, February, March, April, May, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 8 percent. Nonirrigated land capability classification is 7w. This soil meets hydric criteria.

STRATA

Strata 1

Strata Description

This 254 acres strata is made up of three stands (#3,#8,#11). This strata was approximately established in 1943 years old bottomland hardwood forest with willow oak, green ash, and hickory being the dominant species. This strata has a basal area of 138 and 158 trees per acre with an average diameter of 20 inches. There is an estimated 123 tons of hardwood sawtimber and 130 tons of pulpwood to the acre.

Strata Recommendations

Stand 11 will be harvested by final harvest method or seed tree method in 2015. The stands will be reaching the management age of 65 years. Stand 11 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. Weather conditions will have a large impact on this stand on when harvesting activities occur. This stand receives excessive flooding during winter months due to be next McIntye Lake. Harvesting may be postponed if conditions are extreme.

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The remaining stands 3 and 8 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.

Activity Recommendations

Stand 11 is scheduled for a final harvest or seed tree harvest in 2015. 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 11 in 2015.

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

Strata Description

This 14 acre strata is made up of stand 7. Stand 7 was an abandoned field that was allowed to be natural regenerated in 1997. Stand 7 is a sub-merchantable stand with sweet gum, elm, green ash, and oak being the dominate species. This strata has an average of 288 trees per acre with basal area of 73.

Strata Recommendations

There are no activities planned for this strata other than monitoring. This stand is on a 70 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 at least once annually to make sure that the stands are in good vigor condition and no major transformations have occurred that could alter the goal of reaching maturity. Over the course of the plan this

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strata will provide habitat for native wildlife species on the property.

Strata 3

Strata Description

This 218 acre strata is made up of stands 1, 2, 6, 10, and 13. This strata is a fully stocked bald cypress and tupelo gum forest. This strata holds water throughout most of the year.

Strata Recommendations

Recommendations for harvesting will be evaluated throughout the plan period. Harvesting will be limited because of the hydrology. During most years this strata stays wet year round. Dry years may allow for harvesting activities. Harvesting during dry conditions will prevent environmental damage such as excessive rutting.

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 4 (Non-Forest)

Strata Description

This 170 acre strata consists of stands 3, 5, 9, 12, and 14. Stands consist of residential housing, McIntyre Lake, and agricultural land. The Leflore County School board leases this land for agricultural production and residential housing.

Strata Recommendations

Leflore County School board leases out some of the acres for residential housing and agriculture production. The agriculture lease provides an annual income of \$7,100.

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.



Section16-T21N-R1E

Property

Property (1)

Category 1: Stands

- Pulpwood (5)
- Sawtimber (3)
- Sub-Merchantable (1)

Category 3: Non-Forest Stands

Non-Forest (5)

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) (7)

Tract/BNA (Census 2000)

Tract/BNA (Census 2000) (1)

County Roads

County Roads (3)

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

34 (1)

Perennial Streams

Perennial Streams (1)

Intermittent Streams

Intermittent Streams (1)

Hydrologic Units (Basins)

YALOBUSHA RIVER ABOVE GRENADA DAM (1)

Water Bodies

Water Bodies (2)

Historic Forest Boundary

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

MS Forest Habitat

MISCELLANEOUS ALLUVIAL FLOODPLAINS (1)

YAZOO BASIN DRYLANDS (1)

Physiographic Region

Delta (1)

Soil Associations

alligator-sharkey-forestdale (1)

Surface Geology

ALLUVIUM (1)

Wildlife Management Areas

Wildlife Management Areas (1)

MFC Districts

MFC Districts (1)

MFC Dispatch Units

MFC Dispatch Units (1)

MS Outline

MS Outline (1)

Section16-T21N-R1E



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Leflore County, Mississippi
2012 to 2021
656.11 Acres



(12/12/2011)

0 0.1 0.2 0.3 0.4 Miles

Stand Activity Schedule for
Leflore County BOE
16 21N 1E

Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue
2015					
1	11	Harvest, Mechanical, Final, Machine, Misc Hardwood	107	\$3,740.45	\$290,686.40
Yearly Totals			107	\$3,740.45	\$290,686.40
2016					
1	11	Regeneration, Artificial, Plant, Hand, Misc Hardwood	107	\$13,358.75	\$0.00
Yearly Totals			107	\$13,358.75	\$0.00
Grand Totals			214	\$17,099.20	\$290,686.40

Stand Activity Schedule for
Leflore County BOE
16 21N 1E

Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue	
2015						
1	11	Harvest, Mechanical, Final, Machine, Misc Hardwood	107	\$3,740.45	\$290,686.40	
			Yearly Totals	107	\$3,740.45	\$290,686.40
			Grand Totals	107	\$3,740.45	\$290,686.40