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FOREST STEWARDSHIP MANAGEMENT PLAN

Prepared For:
Sunflower County BOE

Prepared By:
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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-T17N-R5W

MISSISSIPPI FOREST STEWARDSHIP PROGRAM

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**MISSISSIPPI FORESTRY COMMISSION
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LANDOWNER INFORMATION

Name: Sunflower County BOE
Mailing Address: 200 Main St.
City, State, Zip: Indianola, MS 38749
Country: United States of America
Contact Numbers: Home Number: 662-887-4919
Office Number:
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: Sunflower Total Acres: 652 Latitude: -90.72 Longitude: 33.32
Section: 16 Township: 17N Range: 5W

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_T17N_R5W consists of +/- 652 acres. Section contains 388 acres of agriculture land, 95 acres of bottomland hardwood forest and 168 acres of tupelo gum/bald cypress brake. The brake is called Dabney Brake and resides in the central portion of the section. Dominate species in the mixed hardwood forest being willow oak, nuttall oak, overcup oak, and sycamore. The section is located 1 mile North of Kenlcok, Mississippi. This section is accessible from Blands road from the North boundary and Kinlock road from the South East of the section. Property's topography is low, with areas that hold water throughout most of the year.

Water Resources

Dabney Brake resides in the central area of the section. Mound Bayou. The Sunflower River flows in the North East corner of the section. The section drains into Dabney Brake which drains into the Sunflower River water shed. The section is part of the Yazoo River Basin watershed system. 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.

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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 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

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- 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 especially on the West boundary line. This part of the section is still in timber and meets another landowner's property. 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.

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

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

Ah

The Alligator component makes up 90 percent of the map unit. Slopes are 3 to 5 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 3e. This soil meets hydric criteria.

Dc

The Dowling component makes up 90 percent of the map unit. Slopes are 0 to 2 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 very poorly drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches is moderate. Shrink-swell potential is very high. This soil is occasionally 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 4w. This soil meets hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 3 percent.

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Fn

The Forestdale component makes up 90 percent of the map unit. Slopes are 3 to 7 percent. This component is on meander scrolls. 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 high. Shrink-swell potential is moderate. This soil is rarely flooded. It is not ponded. A seasonal zone of water saturation is at 15 inches during January, February, March, April. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 3w. This soil meets hydric criteria.

Dk

The Dundee component makes up 90 percent of the map unit. Slopes are 0 to 3 percent. This component is on terraces. 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 rarely flooded. It is not ponded. A seasonal zone of water saturation is at 30 inches during January, February, March, April. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 2w. This soil does not meet hydric criteria.

STRATA

Strata 1

Strata Description

This 73 acre strata is made up of stands 6, 7, and 9. This strata was approximately established in 1945. This strata is an fully stocked bottomland hardwood mixed forest with nuttall oak, willow oak, overcup oak, and sycamore being the dominate species. This strata has a basal area of 80 and 81 trees per acre. This strata contains 23 tons of pulpwood and 16 tons of sawtimber per acre.

Strata Recommendations

Stands 6 and 9 will be harvested by final harvest method or seed tree method in 2014. The stands will be reaching the management age of 65 years. Stands 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.

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Stand 7 will be managed as a permanent Stream Side Management Zone (SMZ) for Sunflower River. Mississippi Best Management Practices guidelines require a minimum of 35 foot buffer width and 50 % crown closure remain. Thus harvesting will not be conducted on the stand 7 to ensure guidelines are kept at the highest standard. Stand 7 will provide a travel corridor for native wildlife species along the river.

Activity Recommendations

Stands 6 and 9 are scheduled for a final harvest 2014. After harvesting stands will be reforested during planting season using multiple bottomland hardwood species seedlings planted on 12' x 12' (302 trees per acre) spacing. Tree species will be based on soil type and site planted. Stands will be managed on a 65 - 80 year rotation age.

Harvest

A final harvest is scheduled for stands 6 and 9 in 2013.

Regeneration

Stands 6 and 9 are scheduled to be replanted in 2013 after harvest. Stands 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 3

Strata Description

This 167 acre strata is made up of stand 1. Stand 1 is Dabney Brake which is an overstocked bald cypress and tupelo gum brake. Stand 1 holds water throughout most of the year. This stand joins stands 6, 9, and 5.

Strata Recommendations

Recommendations for harvesting will be evaluated in 2014 when stands 6 and 9 are scheduled for final harvest. Harvesting will be limited because of the hydrology. During most years this strata stays wet year round. Dry year in 2014 may allow for harvesting activities. Harvesting during dry conditions will prevent environmental damage such as excessive rutting. Dabney Brake provides habitat for shoreline birds, aquatic animals, and migrating waterfowl.

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.

Strata 4

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Strata Description

This 44 acre strata is made up of stand 5. Stand 5 is a fully stocked sub-merchantable stand with nuttall oak, willow oak, and green ash being the dominate species. Stand 5 was an open field that was planted in 1993. Planting was done on 12 x 12 foot spacing with 302 seedlings per acre. Natural regeneration is occurring throughout the stands. This strata has an average of 280 trees per acre and 220 basal area.

Strata Recommendations

There are no activities planned for this strata other than monitoring. This stand is on a 65 to 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. Over the course of the plan this strata will provide food sources and cover for native wildlife species on the property.

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 of reaching highest growth and yield values.

Section16-T17N-R5W



Section16-T17N-R5W

Sunflower County, Mississippi
2012 to 2021
652.00 Acres



(01/03/2012)

0 0.1 0.2 0.3 0.4 Miles



Section16-T17N-R5W

Property

Property (1)

Category 1: Stands

Sawtimber (4)

Sub-Merchantable (1)

Category 3: Non-Forest Stands

Non-Forest (4)

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 (2)

School Sections

School Sections (1)

Public School Districts

SUNFLOWER COUNTY SCHOOL DIST (1)

US Congressional District

US Cong Dist #2 (1)

MS Senate

13 (1)

MS House

31 (1)

Major River

Major River (1)

Perennial Streams

Perennial Streams (2)

Hydrologic Units (Basins)

BOGUE PHALIA RIVER (1)

Historic Forest Boundary

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

MS Forest Habitat

YAZOO BASIN DRYLANDS (1)

Physiographic Region

Delta (1)

Soil Associations

alligator-sharkey-forestdale (1)

forestdale-dundee-sharkey (1)

Surface Geology

ALLUVIUM (1)

MFC Districts

MFC Districts (1)

MFC Dispatch Units

MFC Dispatch Units (1)

MS Outline

MS Outline (1)

Strata Activity Schedule

S16-T17N-R5W

BOE

PlanYear	Strata	Activity	Acres	Revenue	Cost
2014	1	Harvest ,Mechanical ,Final , Machine	62	\$22,666	\$2,168
2014	1	Regeneration ,Artificial ,Plant , Hand	48	\$0	\$5,964
			Year Sub-total	\$22,666	\$8,131
		Grand Totals		\$22,666	\$8,131