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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-T18N-R2W

MISSISSIPPI FOREST STEWARDSHIP PROGRAM

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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:	640	Latitude:	-90.41	Longitude:	33.43
Section:	16	Township:	18N	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.

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_T18N_R2W is +/- 640 acres of agriculture fields, bottomland hardwood forest, and bald cypress, tupelo gum brake. The forested consists of 211.4 acres. The timber consists of mature bottomland hardwood sawtimber. Dominate species being pecan, willow oak, and overcup oak. Bald cypress, tupelo gum brake consists of sawtimber and pulpwood size timber. The section is located 4 miles Northwest of Morgan City, Mississippi. County road 546 runs through the section. Property's topography is low, with areas containing water year round. Access will become an issue during wet conditions for management activities such as harvesting. Mississippi Best Management Practices will be followed to ensure water quality and prevent damage.

Water Resources

An intermittent drainage ditch systems resides on the property. The ditch runs from the South West corner of the section. The section drains into the Bear Creek water shed, which is part of the Yazoo River watershed. Mississippi's Best Management Practices such as stream side management zones will be applied to protect water sources from contamination. There are two bald cypress, tupelo gum brakes that reside on the property.

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 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
oils were evaluated on the property to determine the suitability of the site for theproposed 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 form 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

- 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.

Currently boundaries are not clearly marked on the section. Boundaries should be surveyed and clearly marked especially on the South East and North West boundary of the section. These boundaries adjoin another property and need to be clearly marked. 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.

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 from harvesting, and leaving mast producing and den trees. The bald cypress, tupelo gum brake provides year long habitat for shoreline birds. During the migration season the brake provides food sources and shelter for migrating waterfowl species.

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 269 acres of the section for hunting opportunities with an annual income $4,500. Majority of the property leased for hunting is a bald cypress, tupelo gum brake. These provides great habitat for waterfowl and waterfowl has become a high commodity. The lease expires in December of 2014.

SOIL TYPES

12
The Askew component makes up 90 percent of the map unit. Slopes are 1 to 3 percent. This component is on terraces. The parent material consists of alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately 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 rarely flooded. It is not ponded. A seasonal zone of water saturation is at 30 inches during January, February, March, April, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.

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.

23
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 71.09 acre strata is made up of four stands (#1,#4,#5,#6). This strata is approximately 65 years old bottomland hardwood forest with pecan, willow oak, and overcup oak being the dominant species. This strata has a basal area of 164 and 125 trees per acre with an average diameter of 18 inches. There is an estimated 75 tons of hardwood sawtimber and estimated 35 tons of hardwood pulpwood to the acre.

Strata Recommendations

Strata 1 will harvested in 2019 by final harvest method or seed tree method. The strata has reached the management age of 65 years. . Strata 1 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 stands. . 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 then the stand will be re-planted with desirable hardwood species to achieve full stocking.

Activity Recommendations

This strata will be scheduled for a final harvest or seed tree harvest in 2019. IF a final harvest is completed it will be reforested using multiple hardwood species seedlings planted on 12' X 12' (302ac) spacing. It will be managed on a 65 - 80 year rotation. Until harvesting this strata will provide habitat for native wildlife species. After harvest this

strata will grow fresh vegetation that will provide new food sources and cover for native wildlife species.

During the time frame of the plan monitoring will be conducted periodically to make sure that the stands are in good vigor condition and no major transformations have occurred that could alter the goal for future harvesting. Over the course of the plan this strata will provide habitat for native wildlife species on the property.

Harvest

A final havest or seed tree harvest is scheduled for year 2019.

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 428.65 acre strata consists of stand #3. Stand #3 consists of agricultural land. The Leflore County School board leases this land for agricultural production.

Strata Recommendations

Stand #3 is leased out by the Leflore County School board for agriculture production. The agriculture lease provides an annual income of $24,000 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 planed for the time period of the plan.

Strata 3

Strata Description

This 119.88 acre strata consists of two stands (#1,#3). This strata was approximately established in 1939. This strata is a overstocked bald cypress and tupelo gum brake with an average diameter of 13 inches. This area holds water throughout the year.

Strata Recommendations

Because this strata stays wet most years special consideration in allowing harvesting may take place if a dry period will allow harvesting activity without causing environmental damage. Harvesting will take place on other stands in this section in year 2019. If 2019 is a dry year that would permit harvesting practices without causing long

term environmental damage harvesting will be permitted. Harvesting will remove trees that have reached maturity and are on the decline in health and would eventually die. Areas that have a basal area will be looked in thinning which would allow for natural regeneration to occur by opening up the canopy.

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 stand. This strata will provide habitat for waterfowl species during the winter months and also habitat for shoreline birds throughout the entire year as well as provide habitat for aquatic animal such as fish. Will also provide nesting cavity trees for wood ducks in raising their young.

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Section16_T18N_R2W
Leflore County, MIssissippi
2012 - 2021
640.05
(8)
(9)
(10)
Co Rd 303
Co Rd 546
(17)
(16)
18 N 2 W
(15)
(20)
(21)
(22)
(08/01/2011)
0
0.1
0.2
0.3
0.4
Miles

Section16-T18N-R2W

Property
- Property (1)

Category 1: Stands
- Sawtimber (4)
- Pulpwood (3)

Category 3: Non-Forest Stands
- Non-Forest (1)

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) (4)

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

County Roads
- County Roads (4)

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)

Hydrologic Units (Basins)
- UPPER YAZOO RIVER (1)
- BOGUE PHALIA RIVER (1)

Historic Forest Boundary
- Bottomland Hardwood (Oak-Gum-Cottonwood-Cypress) (1)

MS Forest Habitat
- YAZOO BASIN DRYLANDS (1)

MS Forest Habitat (cont)
- MISCELLANEOUS ALLUVIAL FLOODPLAINS (1)

Physiographic Region
- Delta (1)

Soil Associations
- dundee-forestdale-dubbs (1)
- 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 18N 2W

Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue
2019					
1	1	Harvest, Mechanical, Final, Machine, Misc Hardwood	23	$805.00	$28,980.00
1	5	Harvest, Mechanical, Final, Machine, Misc Hardwood	4	$141.40	$5,090.40
1	6	Harvest, Mechanical, Final, Machine, Misc Hardwood	40	$1,397.20	$50,299.20
1	7	Harvest, Mechanical, Final, Machine, Misc Hardwood	4	$135.80	$4,888.80
		Yearly Totals	71	$2,479.40	$89,258.40
2020					
1	1	Regeneration, Artificial, Plant, Hand, Misc Hardwood	23	$2,875.00	$0.00
1	5	Regeneration, Artificial, Plant, Hand, Misc Hardwood	4	$505.00	$0.00
1	6	Regeneration, Artificial, Plant, Hand, Misc Hardwood	40	$4,990.00	$0.00
1	7	Regeneration, Artificial, Plant, Hand, Misc Hardwood	4	$485.00	$0.00
		Yearly Totals	71	$8,855.00	$0.00
		Grand Totals	**142**	**$11,334.40**	**$89,258.40**

Stand Activity Schedule for

Leflore County BOE

16 18N 2W

Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue
2019					
1	1	Harvest, Mechanical, Final, Machine, Misc Hardwood	23	$805.00	$28,980.00
1	5	Harvest, Mechanical, Final, Machine, Misc Hardwood	4	$141.40	$5,090.40
1	6	Harvest, Mechanical, Final, Machine, Misc Hardwood	40	$1,397.20	$50,299.20
1	7	Harvest, Mechanical, Final, Machine, Misc Hardwood	4	$135.80	$4,888.80
		Yearly Totals	71	$2,479.40	$89,258.40
		Grand Totals	**71**	**$2,479.40**	**$89,258.40**