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FOREST STEWARDSHIP MANAGEMENT PLAN

Prepared For:
Lowndes County BOE

Prepared By:
S. Todd Matthews
MS Forestry Commission

Time Period Covered by This Plan:
2012 - 2021

Date Plan Prepared:
2012-02-28

Plan Type:
Stewardship / Stewardship

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

Property Name: Caledonia 16-18S-17W

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LANDOWNER INFORMATION

Name: Lowndes County BOE
Mailing Address: 1053 Highway 45 South
City, State, Zip: Columbus, MS 39701
Country: United States of America
Contact Numbers: Home Number:
Office Number: 662-329-5722
Fax Number: 662-244-5043

E-mail Address:
Social Security Number (optional):

FORESTER INFORMATION

Name: S. Todd Matthews , Service Forester
Forester Number: 02102
Organization: MS Forestry Commission
Street Address: 717 5th Street N.
City, State, Zip: Columbus, MS 39701
Contact Numbers: Office Number: 662-327-3352
Fax Number:
E-mail Address: tmatthews@mfc.state.ms.us

PROPERTY LOCATION

County: Lowndes Total Acres: 647 Latitude: -88.32 Longitude: 33.67
Section: 16 Township: 16S Range: 17W

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.

DISCLAIMER

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.

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.

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OBJECTIVES

Fire Protection

The goal is to protect the resource from wildfires, by establishing and maintaining firebreaks around the property; annually inspect possible signs of insect infestations and disease; and prohibit grazing until terminal bud is beyond reach of livestock.

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 referred to as the "Caledonia" section, and is located on Cal-Steens and Seed Tick Roads. This section is almost entirely within the Caledonia City limits. Nearly 370 acres of this section are non-forested while approximately 276 acres of the tract is mixed hardwood and pine sawtimber. Approximately 8 acres is in pine pulpwood. This section has approximately 284 forested acres.

Water Resources

Perennial water resources were identified during a reconnaissance of the property. These sources along with intermittent streams and drains identified will be managed in accordance with Mississippi's Best Management Practices.

Threatened and Endangered Species

No threatened and endangered species were identified during the reconnaissance and evaluation of your property.

Archeological or Cultural Resources:

These areas can range from churches, old cemeteries or Indian mounds to old home sites or other areas of historical significance.

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No Archeological or Cultural Resources Were Identified:

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.

Interaction with Surrounding Property

Since most of this section is within the Caledonia City limits, many silvicultural practices are hindered. It seems that in the past, timber harvests were not met favorably by local citizens and leaseholders. Many businesses, the city park and school are also located on the section.

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.

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.

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

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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

Boundary lines on this section have not previously been maintained. The Mississippi Forestry Commission will work with the Lowndes County School Board to establish the boundary lines, and then maintain them on a 4 year rotation.

SOIL TYPES

Gu

The Guyton component makes up 90 percent of the map unit. Slopes are 0 to 1 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 poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches is very high. Shrink-swell potential is low. This soil is occasionally flooded. It is not ponded. A seasonal zone of water saturation is at 9 inches during January, February, March, April, May, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 4w. This soil meets hydric criteria. Loblolly Site Index = 95.

Ph

The Pheba component makes up 90 percent of the map unit. Slopes are 0 to 2 percent. This component is on terraces. The parent material consists of loamy alluvium. Depth to a root restrictive layer, fragipan, is 14 to 32 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 moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 21 inches during January, February, March. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 3w. This soil does not meet hydric criteria. Loblolly Site Index = 90. Slash Site Index = 90.

SaC2

The Savannah component makes up 90 percent of the map unit. Slopes are 5 to 8 percent. This component is on coastal plains. The parent material consists of loamy alluvium deposits. Depth to a root restrictive layer, fragipan, is 16 to 38 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 moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 24 inches during January, February, March. Organic matter content in the

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surface horizon is about 2 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria. Loblolly Site Index = 81.

Pa

The Paden component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on stream terraces. The parent material consists of silty alluvium deposits. Depth to a root restrictive layer, fragipan, is 18 to 26 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 low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 27 inches during January, February, March, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 2w. This soil does not meet hydric criteria. Loblolly Site Index = 80.

SaB

The Savannah component makes up 90 percent of the map unit. Slopes are 2 to 5 percent. This component is on coastal plains. The parent material consists of loamy alluvium deposits. Depth to a root restrictive layer, fragipan, is 16 to 38 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 moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 24 inches during January, February, March. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria. Loblolly Site Index = 81.

STRATA

Strata 1 (includes stands 1,6)

Strata Description

These are loblolly pine stands that were established in 1992. They are small acreage and located within the city limits. Because of their location, size and age, it is recommended they be clearcut rather than thinned. This should be done at the same time the adjacent sawtimber stands are harvested. This will make it easier to manage a larger stand rather than multiple smaller stands of different age and composition. These stands average 550 trees per acre and average 100 square feet of basal area.

Activity Recommendations

Because these stands are both small and located in the city limits, no activities are recommended for them individually during the timeframe of this plan. They should be harvested and replanted whenever the adjacent stands (2 and 5) are harvested.

Strata 2 (includes stands 2 and 5)

Strata Description

These are mixed pine and hardwood (red oak, sweetgum, hickory) stands. The primary difference in these stands and other mixed stands on this section is the timing of different management activities in order to minimize conflict with leaseholders and the

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city. These stands average 120 trees per acre pine and 250 trees per acre hardwood. Pine basal area is 80 and hardwood basal area is 70.

Activity Recommendations

No activities are scheduled for these stands during the timeframe of this plan.

Strata 3 (Includes Stand 7)

Strata Description

These are mixed pine and hardwood stands. The primary difference in these stands and other mixed stands on this section is the timing of different management activities in order to minimize conflict with leaseholders and the city. These stands average 120 trees per acre pine and 250 trees per acre hardwood. Pine basal area is 80 and hardwood basal area is 70. This is a 118 acre stand that is located almost entirely inside the city limits.

Activity Recommendations

Harvest

This mixed stand is scheduled for a final harvest in 2018.

Regeneration

Following harvest and site preparation, this stand is scheduled for planting in 2019. Seedlings should be genetically improved loblolly and they should be planted at a rate of 691 trees per acre.

Vegetation Control

A post-plant chemical application for vegetation control is scheduled following the planting. This will be a combination woody/herbaceous treatment to be applied aerially.

Strata 4 (includes stands 3,4 and 11)

Strata Description

These are mixed pine and hardwood stands. The primary difference in these stands and other mixed stands on this section is the timing of different management activities in order to minimize conflict with leaseholders and the city. These stands average 120 trees per acre pine and 250 trees per acre hardwood. Pine basal area is 80 and hardwood basal area is 70.

Strata Recommendations

No activities are scheduled for these stands for the timeframe of this management plan. Stands should be monitored periodically.

Strata 5 (includes stand 9)

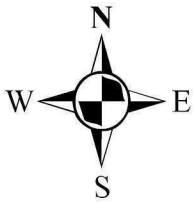
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Strata Description

These are mixed pine and hardwood stands. The primary difference in these stands and other mixed stands on this section is the timing of different management activities in order to minimize conflict with leaseholders and the city. These stands average 120 trees per acre pine and 250 trees per acre hardwood. Pine basal area is 80 and hardwood basal area is 70.

Strata Recommendations

No activities are scheduled for this stands during the timeframe of this management plan. This stand should be monitored periodically.



Caledonia

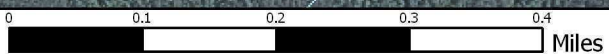
S16-T16S-R17W

2012 to 2021

647.00 Acres



(12/05/2011)



Caledonia



Property

- Property

Category 1: Stands

- Clear Cut
- Non-Stocked
- Reproduction
- Sub-Merchantable
- Pulpwood
- Chip-n-Saw
- Sawtimber
- Poles

Category 2: Stands

- Clear Cut
- Non-Stocked
- Reproduction
- Sub-Merchantable
- Pulpwood
- Chip-n-Saw
- Sawtimber
- Poles

Category 3: Non-Forest Stands

- Non-Forest

Category 4: Not in Plan Stands

- Not in Plan

Category 5: Features Only Plan Stand

- Features Only Plan

Restricted Sites

- Archeology
- Cemetery
- Red-Cockaded Woodpecker
- Gopher Tortoise
- Picture Bogg Plant

Forest Health (Points)

- Cogan Grass
- Kudzu
- Japanese Climbing Fern
- Chinese Tallow
- Privet
- Southern Pine Beetle
- Sirex Wasp
- IPPS

Hydrology (Points)

- Concrete Dam
- Beaver Dam
- Earthen Dam
- Permanent
- Temporary
- Wooden
- Other
- Culvert
- Pond

Wildlife (Points)

- Food Plot
- Water Hole
- Feeder

Boundary Corners

- Property
- Section
- Quarter Section
- Areas

Structures

- Barn
- Tractor Shed
- Out Building
- Single-Family
- Multi-Family
- Camp House
- Club House
- Office Building
- Manufacturing
- Warehouse
- Chicken House
- Horse Stall
- Milking Parlor
- Hog Pen
- Blind
- Stand
- Hospital
- Nursing Home
- Dr. Clinic
- State Facility
- Office
- Work Center
- Materials Depot
- Prison
- School
- Church
- Mosque
- Synagogue
- Other

Cruise Plots

- Pre-Cruise
- Post-Cruise

Other

- Towers
- Logging Deck
- Locked
- UnLocked
- Water
- Oil
- Natural Gas

Property Roads/Trails

- Drive Ways
- Access Road
- Logging Road
- Skid Trail
- Farm Road
- Hiking Trail
- Horseback Riding Trail

Boundary Lines

- Archeology
- Cemetery
- Drilling Sites
- Education

Boundary Lines (cont)

- Forest Health
- Invasive Species
- Management Compartment
- Military Area
- Natural Area
- Property
- Recreation
- Rights of Way
- SMZ
- Special Use
- Stand
- Surface Mining
- Threatened/Endangered Species
- Visual Buffer

Fire Control

- Temporary Line
- Permanent Fire Break

Wildlife (Lines)

- Green Strip

Fire

- Mitigation Burn
- Silviculture Burn
- Site-Prep Burn
- Wildfire

School Land Lease

- Hunting
- Minerals
- Recreation

Restricted Area

- SMZ
- Archeology
- Cemetery
- Visual Buffer
- Special Use
- Natural Area
- Education
- Recreation
- Military Area
- Large Utility
- Red-Cockaded Woodpecker
- Gopher Tortoise
- Picture Bogg Plant
- Coal
- Gravel
- Dirt
- Water
- Oil
- Natural Gas

Forest Health (Polygons)

- Cogan Grass
- Kudzu
- Japanese Climbing Fern
- Chinese Tallow
- Privet
- Southern Pine Beetle
- Sirex Wasp
- IPPS

School Land Classification

- Forest Land
- Farm/Residential Land
- Residential Land
- Agricultural Land
- Industrial Land
- Recreational Land
- Catfish Farming Land
- Other Land
- Commercial Land

Management Compartment

- Management
- Regeneration
- Site Preparation
- Post Plant
- Site Improvement
- Vegetation Control
- Stand Improvement
- Invasive Species Control
- Harvest
- Fire Protection
- Technical
- Wildlife Management
- Property Activities
- Roads
- SMZ
- Forest Health
- Recreation
- Site Restoration

Transportation (Lines)

- City Streets
- County Roads
- 3 Digit Highway
- Interstate Highway
- US Highway
- State Highway
- Natchez Trace Parkway
- Runways/Airports
- Active RR
- Abandoned RR

Hydrology (Lines)

- Mississippi River
- Major River
- Primary Stream
- Intermittent Stream
- Canal
- Ditch
- Earthen Dam
- Concrete Dam

Utilities (Lines)

- Large Electrical
- Local Utility
- Large Pipeline
- Small Pipeline
- Gas Line
- Utility Line
- Water Line

Stand Activity Schedule for
Lowndes County BOE
16 16S 17W

Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue
2018					
3	7	Harvest, Mechanical, Regeneration, Machine, Loblolly	118	\$4,130.00	\$217,120.00
Yearly Totals			118	\$4,130.00	\$217,120.00
2019					
3	7	Vegetation Control, Chemical, Broadcast, Aerial, Woody	118	\$5,900.00	\$0.00
3	7	Regeneration, Artificial, Plant, Hand, Loblolly	118	\$10,620.00	\$0.00
3	7	Site Preparation, Mechanical, Shear/Rake, Machine, Cut-Over	118	\$23,600.00	\$0.00
Yearly Totals			354	\$40,120.00	\$0.00
Grand Totals			472	\$44,250.00	\$217,120.00