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FOREST STEWARDSHIP MANAGEMENT PLAN

Prepared For:
Webster County BOE

Prepared By:
Russell L Swords
MS Forestry Commission

Time Period Covered by This Plan:
2012 - 2021

Date Plan Prepared:
2012-02-15

Plan Type:
Stewardship / Stewardship

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

Property Name: Grady S16 T19N R9E

MISSISSIPPI FOREST STEWARDSHIP PROGRAM

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LANDOWNER INFORMATION

Name:	Webster County BOE	
Mailing Address:	95 Clark Ave.	
City, State, Zip:	Eupora, MS 39744	
Country:	United States of America	
Contact Numbers:	Home Number:	
	Office Number:	662-258-5921
	Fax Number:	
E-mail Address:		
Social Security Number (optional):		

FORESTER INFORMATION

Name:	Russell L Swords , Service Forester	
Forester Number:	00571	
Organization:	MS Forestry Commission	
Street Address:	PO Box 368	
City, State, Zip:	Walthall, MS 39771	
Contact Numbers:	Office Number:	662-258-6661
	Fax Number:	
E-mail Address:	rswords@mfc.state.ms.us	

PROPERTY LOCATION

County:	Webster	Total Acres:	651	Latitude:	-89.36	Longitude:	33.51
Section:	16	Township:	19N	Range:	9E		

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 phisically 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

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.

Water Quality

Streamside management zones have or will be established along the stream and a protective vegetative zone maintained along the perimeter. Water diversions will be installed and maintained where needed on access roads to prevent erosion.

PROPERTY DESCRIPTION

General Property Information

This section is known as the "Grady" section and is located on Grady Rd. The majority of this section is in loblolly pine. Grady has approximately 600 forested acres of various size pine timber.

Water Resources

One significant creek was identified during a reconnaissance of the property. 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.

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.

Archeological or Cultural Resources

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.

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 health vigorously growing stand is the best defense to an attack form 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 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 will be maintained by the Mississippi Forestry Commission on a 5 year rotation. All lines will be marked in blue paint.

SOIL TYPES

OrD2

The Ora component makes up 100 percent of the map unit. Slopes are 8 to 12 percent. This component is on uplands. The parent material consists of loamy fluviomarine deposits. Depth to a root restrictive layer, fragipan, is 18 to 42 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 30 inches during February, March, April. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 4e. This soil does not meet hydric criteria. Loblolly Site Index = 83.

W

Generated brief soil descriptions are created for major soil components. The Water area is a miscellaneous area.

OrD3

The Ora component makes up 100 percent of the map unit. Slopes are 8 to 12 percent. This component is on uplands. The parent material consists of loamy fluviomarine deposits. Depth to a root restrictive layer, fragipan, is 18 to 42 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 30 inches during February, March, April. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 6e. This soil does not meet hydric criteria. Loblolly Site Index = 83.

Ae

The Ariel component makes up 90 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains. The parent material consists of silty alluvium deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is 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 occasionally 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. Loblolly Site Index = 95.

PoD3
The Providence component makes up 90 percent of the map unit. Slopes are 8 to 12 percent. This component is on uplands. The parent material consists of silty loess over sandy marine deposits. Depth to a root restrictive layer, fragipan, is 18 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 18 inches during January, February, March. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 6e. This soil does not meet hydric criteria. Loblolly Site Index = 87. Longleaf Site Index = 73.

TaD2
The Tippah component makes up 100 percent of the map unit. Slopes are 8 to 12 percent. This component is on uplands. The parent material consists of loess deposits. 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 low. Available water to a depth of 60 inches is high. Shrink-swell potential is high. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 26 inches during January, February, March, April, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 4e. This soil does not meet hydric criteria. Loblolly Site Index = 78.

TaC2
The Tippah component makes up 100 percent of the map unit. Slopes are 5 to 8 percent. This component is on uplands. The parent material consists of loess deposits. 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 low. Available water to a depth of 60 inches is high. Shrink-swell potential is high. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 26 inches during January, February, March, April, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria. Loblolly Site Index = 78.

PrE
The Providence component makes up 100 percent of the map unit. Slopes are 8 to 35 percent. This component is on uplands. The parent material consists of silty loess over sandy marine deposits. Depth to a root restrictive layer, fragipan, is 18 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 18 inches during January, February, March. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 7e. This soil does not meet hydric criteria. Loblolly Site Index = 68.

SuE
The Sweatman component makes up 100 percent of the map unit. Slopes are 15 to 25 percent. This component is on uplands. The parent material consists of loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is 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 moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 7e. This soil does not meet hydric criteria. Loblolly Site Index = 83.

Oa
The Oaklimeter component makes up 90 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains. The parent material consists of silty alluvium deposits. 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 very high. Shrink-swell potential is low. This soil is occasionally flooded. It is not ponded. A seasonal zone of water saturation is at 24 inches during January, February, March, November, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 2w. This soil does not meet hydric criteria. Loblolly Site Index = 90.

SOE
The Smithdale component makes up 44 percent of the map unit. Slopes are 12 to 35 percent. This component is on hillslopes. The parent material consists of loamy fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is 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 not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 7e. This soil does not meet hydric criteria.
The Ora component makes up 26 percent of the map unit. Slopes are 8 to 12 percent. This component is on uplands. The parent material consists of loamy fluviomarine deposits. Depth to a root restrictive layer, fragipan, is 18 to 42 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 30 inches during February, March, April. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 4e. This soil does not meet hydric criteria.

STRATA

Strata 1-pulpwood-stands 1,2,4,9,13,18,15
Strata Description

This is a 15 year-old Loblolly pine plantation that averages 450 trees per acre, and has an average merchantable height of 31 feet. At present, the average dbh of this stand is 8.4 inches.

Stand Recommendations

The MFC recommends this stand be managed till age 35 then regenerated with loblolly seedlings.

Activity Recommendations

Harvest

This stand will be 1st thinned to an average basal area of 78 feet in 2012.

Fire Protection

A prescribed fire is recommended for this stand in order to reduce fuel loading and the potential for wildfire. A prescribed burn will be conducted in 2015.

Harvest

This stand will be 2nd thinned to an average basal area of 78 feet in 2018.

Fire Protection

A prescribed fire is recommended for this stand in order to reduce fuel loading and the potential for wildfire. A prescribed burn will be conducted in 2021.

Strata 3-chip-n-saw-Stands 8,10,11,14-79 acres

Strata Description

Pine Sawtimber

This is a 23 year old pine sawtimber stand that averages 80 square feet of basal area and has an average merchantable height of 39 feet.

Stand Recommendations

The MFC recommends this stand be managed till age 35 then regenerated with loblolly seedlings.

Activity Recommendations

Fire Protection

A prescribed fire is recommended for this stand in order to reduce fuel loading and the potential for wildfire. A prescribed burn will be conducted in 2012.

Harvest

A final harvest will be conducted on this stand in 2017.

Site Preparation

This stand will be site prep burned in 2018.

Regeneration

This stand should be hand planted in genetically improved loblolly pine seedlings at a rate of 691 TPA. Survival should be greater than or equal to 350 TPA after the first summer.

Strata 4-sawtimber-stands 5,12,16

Strata Description

Mixed Sawtimber

This is a 50 year old pine-hardwood sawtimber stand. At present, pine basal area averages 120 square feet per acre and average merchantable height of 43 feet.

Stand Recommendations

The MFC recommends this stand be managed till age 70 then regenerated with loblolly seedlings.

OTHER PLAN ACTIVITIES

Boundary Lines

Line Description

The lines consist of four miles of painted property boundaries.

Line Recommendations

The property boundaries will be maintained on a 5 year rotation and painted with orange paint.

Activity Recommendations

Property Activities

Routine inspections and general maintenance of the roads, Firelanes, and boundary lines will ensure overall appearance and aesthetics of the property.

Property Activities

Routine inspections and general maintenance of the roads, Firelanes, and boundary lines will ensure overall appearance and aesthetics of the property. These lines are to be painted in 2013 and 2018.

Property Activities

Routine inspections and general maintenance of the roads, Firelanes, and boundary lines will ensure overall appearance and aesthetics of the property.

Fire Control

Line Description

The lines consist of four miles of pushed firelanes.

Line Recommendations

The property boundaries will be maintained on a 5 year rotation and be pushed with a dozer.

Activity Recommendations

Fire Protection

A firebreak should be constructed to completely surround the tract and constructed according to Mississippi's Best Management Practices Handbook Guidelines. It will be seeded and fertilized according to recommended rates to prevent erosion if needed in 2013 and 2018.

Property Roads/Trails

Line Description

The lines consist of 2.4 miles of access roads.

Line Recommendations

The access roads will be maintained on a yearly basis so that access to timber stands can be maintained.

Activity Recommendations

Roads

These roads will be bush-hogged and pushed by dozer annually.

Grady

S16 T19N R9E
2012 to 2021
650.78 Acres

(01/30/2012)

0 0.1 0.2 0.3 0.4 Miles

Legend Map

Property
- Property

Category 1: Stands
- Clear Cut
- Non-Stocked
- Reproduction
- Sub-Merchantable
- Pulpwood
- Chip-n-Saw
- Sawtimber
- Poles

Category 3: Non-Forest Stands
- Non-Forest

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

Structures (cont)
- 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

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
- 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

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

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
Webster County BOE
16 19N 9E

Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue
2012					
1	1	Harvest, Mechanical, 1st Thin, Machine, Loblolly	174	$1,565.46	$26,091.00
1	2	Harvest, Mechanical, 1st Thin, Machine, Loblolly	131	$1,179.00	$50,539.80
1	4	Harvest, Mechanical, 1st Thin, Machine, Loblolly	6	$49.95	$832.50
1	9	Harvest, Mechanical, 1st Thin, Machine, Loblolly	9	$78.84	$1,314.00
1	13	Harvest, Mechanical, 1st Thin, Machine, Loblolly	35	$315.00	$5,250.00
1	15	Harvest, Mechanical, 1st Thin, Machine, Loblolly	30	$267.84	$11,481.41
1	18	Harvest, Mechanical, 1st Thin, Machine, Loblolly	3	$29.34	$1,257.71
		Yearly Totals	387	$3,485.43	$96,766.42
2015					
1	1	Fire Protection, Other, Burn, Hand, Fuel Reduction	174	$3,478.80	$0.00
1	2	Fire Protection, Other, Burn, Hand, Fuel Reduction	131	$2,619.40	$0.00
1	4	Fire Protection, Other, Burn, Hand, Fuel Reduction	6	$111.00	$0.00
1	9	Fire Protection, Other, Burn, Hand, Fuel Reduction	9	$175.20	$0.00
1	13	Fire Protection, Other, Burn, Hand, Fuel Reduction	35	$695.20	$0.00
1	15	Fire Protection, Other, Burn, Hand, Fuel Reduction	30	$595.20	$0.00
1	18	Fire Protection, Other, Burn, Hand, Fuel Reduction	3	$65.20	$0.00
		Yearly Totals	387	$7,740.00	$0.00
2017					
3	8	Harvest, Mechanical, Final, Machine, Loblolly	6	$121.59	$3,126.60
3	10	Harvest, Mechanical, Final, Machine, Loblolly	18	$378.00	$9,720.00

Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue
3	11	Harvest, Mechanical, Final, Machine, Loblolly	4	$78.96	$2,030.40
3	14	Harvest, Mechanical, Final, Machine, Loblolly	51	$1,080.03	$27,772.20
		Yearly Totals	79	$1,658.58	$42,649.20
2018					
1	1	Harvest, Mechanical, 2nd Thin, Machine, Loblolly	174	$2,609.10	$43,485.00
1	2	Harvest, Mechanical, 2nd Thin, Machine, Loblolly	131	$1,964.55	$32,742.50
1	4	Harvest, Mechanical, 2nd Thin, Machine, Loblolly	6	$83.25	$1,387.50
1	9	Harvest, Mechanical, 2nd Thin, Machine, Loblolly	9	$131.40	$2,190.00
1	13	Harvest, Mechanical, 2nd Thin, Machine, Loblolly	35	$525.00	$8,750.00
1	15	Harvest, Mechanical, 2nd Thin, Machine, Loblolly	30	$446.40	$7,440.00
1	18	Harvest, Mechanical, 2nd Thin, Machine, Loblolly	3	$48.90	$815.00
3	8	Site Preparation, Other, Burn, Hand, Cut-Over	6	$173.70	$0.00
3	8	Regeneration, Artificial, Plant, Hand, Loblolly	6	$579.00	$0.00
3	10	Site Preparation, Other, Burn, Hand, Cut-Over	18	$530.10	$0.00
3	10	Regeneration, Artificial, Plant, Hand, Loblolly	18	$1,767.00	$0.00
3	11	Site Preparation, Other, Burn, Hand, Cut-Over	4	$112.80	$0.00
3	11	Regeneration, Artificial, Plant, Hand, Loblolly	4	$376.00	$0.00
3	14	Site Preparation, Other, Burn, Hand, Cut-Over	51	$1,542.90	$0.00
3	14	Regeneration, Artificial, Plant, Hand, Loblolly	51	$5,143.00	$0.00
		Yearly Totals	545	$16,033.10	$96,810.00
2021					
1	1	Fire Protection, Other, Burn, Hand, Fuel Reduction	174	$3,478.80	$0.00
1	2	Fire Protection, Other, Burn, Hand, Fuel Reduction	131	$2,619.40	$0.00

Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue
1	4	Fire Protection, Other, Burn, Hand, Fuel Reduction	6	$111.00	$0.00
1	9	Fire Protection, Other, Burn, Hand, Fuel Reduction	9	$175.20	$0.00
1	13	Fire Protection, Other, Burn, Hand, Fuel Reduction	35	$695.20	$0.00
1	15	Fire Protection, Other, Burn, Hand, Fuel Reduction	30	$595.20	$0.00
1	18	Fire Protection, Other, Burn, Hand, Fuel Reduction	3	$65.20	$0.00
		Yearly Totals	387	$7.740.00	$0.00
		Grand Totals	**1.785**	**$36.657.11**	**$236.225.62**