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FOREST STEWARDSHIP MANAGEMENT PLAN

Prepared For:
Petal School District

Prepared By:
Brad D Pulliam
MFC

Time Period Covered by This Plan:
2012 - 2021

Date Plan Prepared:
2012-02-21

Plan Type:
Stewardship / Stewardship

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

Property Name: 16-4N-12W

MISSISSIPPI FOREST STEWARDSHIP PROGRAM

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LANDOWNER INFORMATION

Name:	Petal School District
Mailing Address:	P.O. Drawer 528
City, State, Zip:	Petal , MS 00000
Country:	United States of America
Contact Numbers:	Home Number:
	Office Number:
	Fax Number:
E-mail Address:	
Social Security Number (optional):	000000000

FORESTER INFORMATION

Name:	Brad D Pulliam , Forestry Technician	
Forester Number:	00000	
Organization:	MFC	
Street Address:	P.O. Box 452	
City, State, Zip:	Richton, MS 39476	
Contact Numbers:	Office Number:	601-788-6006
	Fax Number:	601-788-6708
E-mail Address:	bpulliam@mfc.state.ms.us	

PROPERTY LOCATION

County:	Forrest	Total Acres:	641	Latitude:	-89.2	Longitude:	31.31
Section:	16	Township:	4N	Range:	12W		

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

This section is located in the middle of the Sunrise Community in Northeast Forrest County. It only has approximatly 290 of managable timber land on it due to the fact it has many residential leases throughout it. The parts of the section that are in timber was agricultural leases that was returned to the school several years ago and planted. The timber on this section ranges in age from 3years to approximatly 25 years with the younger being some fields that was just planted to the older being the first planted and it being in the chip-saw size class. This section has several pipelines running across it that should be mentioned for management purposes and also has a community center and playing field complex on the North end of it.

Water Resources

No perennial water resources were identified during a reconnaissance of the property. However, intermittent streams and drains identified will be managed in accordance with Mississippi’s Best Management Practices.

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 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.

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. The following soils are identified for this property: Sandy Loam.

GENERAL PROPERTY RECOMMENDATIONS

Forest Protection
A healthly vigorously 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 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.

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.

Water Quality Protection

The objective of the landowner is to protect, preserve and enhance all water sources on or transecting the property. This can best be achieved by implementation of Best Management Practices in all aspects of the management of the property.

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 be degraded, damaged, or destroyed. A reconnaissance of the property has been conducted and no ecological restoration activities are recommended at this time.

Wildlife Mgt. Target Species

The objective of this practice is to provide habitat best suited for the featured or target species. Habitat management will focus on providing food, cover, water, and space to facilitate the target species.

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.

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

Prentiss
The Prentiss 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 deposits. Depth to a root restrictive layer, fragipan, is 20 to 32 inches. The natural drainage class is moderately well drained. 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 26 inches during January, February, March. 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 = 88.

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

Cahaba
The Cahaba 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 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 moderate. Shrink-swell potential is low. This soil is rarely 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 1. This soil does not meet hydric criteria. Loblolly Site Index = 87. Slash Site Index = 91.

Benndale
The Benndale 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 sandy loam 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 moderate. 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 2 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria. Loblolly Site Index = 94. Longleaf Site Index = 79. Slash Site Index = 94.

Harleston
The Harleston component makes up 90 percent of the map unit. Slopes are 0 to 2 percent. This component is on stream terraces. The parent material consists of loamy 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 moderate. 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 January, February, March, November, December. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 2w. This soil does not meet hydric criteria. Loblolly Site Index = 90.

McLaurin
The McLaurin 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 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 moderate. 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 3e. This soil does not meet hydric criteria. Loblolly Site Index = 90. Longleaf Site Index = 72. Slash Site Index = 90.

McLaurin
The McLaurin 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 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 moderate. 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 2e. This soil does not meet hydric criteria. Loblolly Site Index = 90. Longleaf Site Index = 72. Slash Site Index = 90.

Lucedale
The Lucedale component makes up 90 percent of the map unit. Slopes are 0 to 2 percent. This component is on coastal plains. The parent material consists of loamy alluvium. 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 1. This soil does not meet hydric criteria. Loblolly Site Index = 90. Longleaf Site Index = 75. Slash Site Index = 90.

Prentiss
The Prentiss component makes up 90 percent of the map unit. Slopes are 2 to 5 percent. This component is on terraces. The parent material consists of loamy alluvium deposits.

Depth to a root restrictive layer, fragipan, is 20 to 32 inches. The natural drainage class is moderately well drained. 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 26 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 = 88.

Heidel
The Heidel component makes up 90 percent of the map unit. Slopes are 12 to 30 percent. This component is on uplands. 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 moderate. 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. Loblolly Site Index = 90. Slash Site Index = 90.

STRATA

Strata 0
Strata Description
Strata 0: Stand 6

Acres: 8.5

This is a small stand on the southwest corner of the section which consist of mostly hardwood pulpwood. Due to the size and nature of the stand it is best suited to leave this stand as an SMZ area as most of is is located in a drain.

Strata Recommendations
Manage this area as an SMZ with little to no activity with in it for the life of the plan.

Strata 1
Strata Description
Strata 1; Stands 13, 14

Acres: 32

This stands consist of old fields that was turned over to the school in 2008 and hand planted with improved loblolly. The trees had a good survial and are well stocked and growing at this time.

Strata Recommendations

These stands will need to be monitored for the possibility of insect and disease and also invasive species. At which time any of the above are found action will need to be taken to treat the problem.

Strata 2

Strata Description

Strata 2: Stand 9

Acres: 16

This stand consist of a hand planted longleaf plantation that was planted in 2003 on a field site. This area was scalped to allow the trees to be free to grow before planting. This area had to be spot replanted the next year due to poor survival of the first planting. The stand is semi well stocked and growing at this time.

Strata Recommendations

This stand will should be monitered for the need of a prescribed burn in the future and if conditions persist it should be added to the plan in order to carry it out in a safe and effective manner.

Strata 3

Strata Description

Strata 3: Stand 3

Acres: 49

This stand is located just behind the playing field complex and should be managed with it in mind. The aesthetic value of the stand should be first and fore most on this stand. The majority of the timber is of low quality and is located in a low, wet area. It is well stocked at this time.

Strata Recommendations

This stand should be managed in a way to shield the playing fields from nearby houses and other structures in the area.

Strata 4

Strata Description

Strata 4: Stand 10

Acres: 126

This stand serves as an SMZ area and is made up of low quality hardwood even tho it well stocked at this time. This area is low and wet throughout most of the year with access being a problem to it for any potential harvest.

Strata Recommendations

Manage as an SMZ area for the surounding stands.

Strata 5

Strata Description

Strata 5: Stand 2

Acres: 33

This stand is made up of mostly pine pulpwood size trees with some chip -n-saw and log size stems mixed in. It is well stocked and will be in need of a thinning in the upcoming years to reduce the average BA to around 70.

Strata Recommendations

This stand should be thinned in 2016, at that time a decision will have to be made whether to mark the stand or do an operater select thinning on it. A marked sale will probably be the best so that target trees can be harvested and the best stems left for a final crop.

Activity Recommendations

Harvest

This thin will need to be a marked sale due to fact of many different products with in the sale and by marking the target trees can be removed to achieve the goal at hand.

Strata 6

Strata Description

Strata 6: Stands 8, 11

Acres: 163

These stands are made up of chip-n-saw size trees that are approximatly 25 years old. This stand is well stocked at this time. It was thinned in 2007 for the first time, and should have a second thinning within the life of this plan. The stand should be control burned in order to reduce the amount of unwanted brush within it.

Strata Recommendations

This stand will need a control burn in 2013 and a second thin in or around 2017 depending on the current market and conditions at that time.

Activity Recommendations

Fire Protection

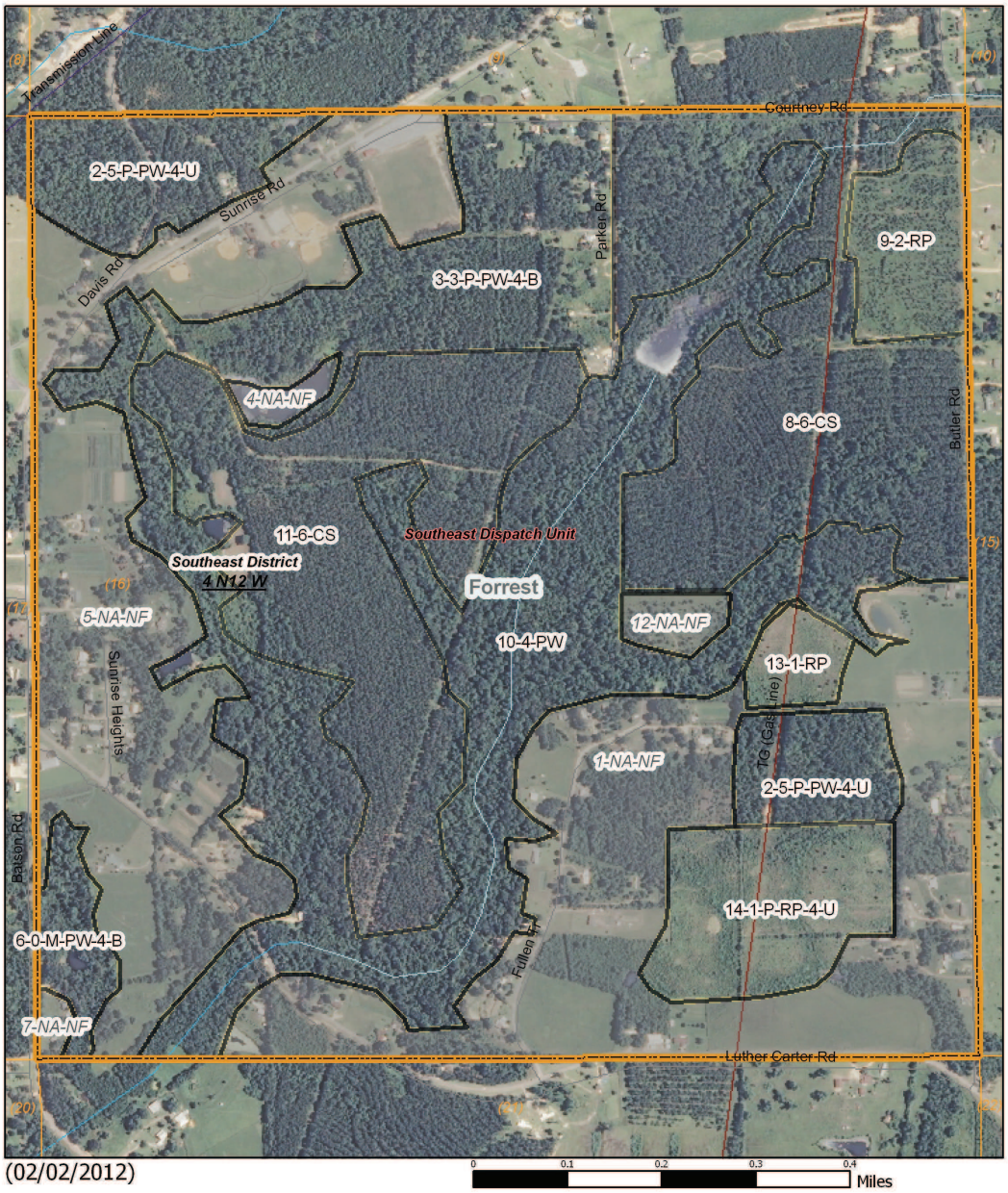
A prescribed burn should be carried out on this property in the late fall or early winter of 2013 and be repeated on a two or three year rotation thereafter. Prescribed fire when used correctly can greatly benefit the health and vigor of a stand. It reduces the undesirable tree species that often crowd out or suppress pines. These unwanted understory trees and shrubs species not only compete for water, nutrients, and growing space, but often contain dead needles and leaves that act as ladder fuels allowing a fire to climb into the overstory crowns. Prescribed fire also reduces the hazardous fuel loads within the stand and prevents damage in the event of a wildfire.

Harvest

This will be a second thin on this stand and should target the less desirable stems, being pulpwood and any forked crooked or disease stems left from the first thin.

Petal Schools 16-4N-12W

2012 to 2021
640 Acres



Plan::0046_00022_28035_05212008105432

Property
Property

Category 1: Stands
Pulpwood
Chip-n-Saw
Reproduction

Category 3: Non-Forest Stands
Non-Forest

MFC Basemap

County Boundary
County Boundary

Quadrangle Grid
USGS Quad

PLS Townships
PLS Townships

Survey Districts
District 5

Blockgroup (Census 2000)
Blockgroup (Census 2000)

Block (Census 2000)
Block (Census 2000)

Tract/BNA (Census 2000)
Tract/BNA (Census 2000)

County Roads
County Roads

Natural Gas Lines
Natural Gas Lines

School Sections
School Sections

Public School Districts
PETAL SCHOOL DISTRICT

US Congressional District
US Cong Dist #4

MS Senate
45
44

MS House
104

Perennial Streams
Perennial Streams

Intermittent Streams
Intermittent Streams

Dam Locations
Dam Locations

Hydrologic Units (Basins)
LOWER LEAF RIVER

Historic Forest Boundary
Longleaf Pine with Loblolly Pine-Slash Pine

MS Forest Habitat
SOUTHERN LOAM HILLS-RUGGED TOPOGRAPHY

Physiographic Region
Pine Belt

Soil Associations
mclaurin-heidel-prentiss

Surface Geology
PASCAGOULA/HATTIESBURG

MFC Districts
MFC Districts

MFC Dispatch Units
MFC Dispatch Units

MS Outline
MS Outline

Stand Activity Schedule for
Petal School District
16 4N 12W

Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue
2013					
6	8	Fire Protection, Other, Burn, Hand, Hazard Mitigation	83	$2,067.25	$0.00
6	11	Fire Protection, Other, Burn, Hand, Hazard Mitigation	80	$1,996.75	$0.00
		Yearly Totals	163	$4.064.00	$0.00
2016					
5	2	Harvest, Mechanical, Thin, Machine, Loblolly	33	$1,155.00	$13,200.00
		Yearly Totals	33	$1.155.00	$13.200.00
2017					
6	8	Harvest, Mechanical, 2nd Thin, Machine, Loblolly	83	$2,894.15	$39,277.75
6	11	Harvest, Mechanical, 2nd Thin, Machine, Loblolly	80	$2,800.00	$38,000.00
		Yearly Totals	163	$5.694.15	$77.277.75
		Grand Totals	**358**	**$10.913.15**	**$90.477.75**