## Vision • Commitment • Pride

# FOREST STEWARDSHIP MANAGEMENT PLAN

Prepared For: Jackson County School Board

Prepared By: Samuel A. Morgan MS. Forestry Commission

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 - 5S - 5W

## **TABLE OF CONTENTS**

LANDOWNER INFORMATION	3
FORESTER INFORMATION	3
DISCLAIMER	3
INTRODUCTION	3
OBJECTIVES	4
PROPERTY DESCRIPTION	4
SOIL TYPES	5
GENERAL PROPERTY RECOMMENDATIONS	7
STANDS	9
OTHER PLAN ACTIVITIES	11
PLAN MAP	12
PLAN MAP	13
STAND ACTIVITY SCHEDULE	14

## LANDOWNER INFORMATION

Name: Jackson County School Board

Mailing Address: 4700

Colonel Vickery Rd.

City, State, Zip: Vancleave, MS 39565 Country: United States of America

Contact Numbers: Home Number:

Office Number: 228-826-1757

Fax Number:

E-mail Address:

Social Security Number (optional):

## FORESTER INFORMATION

Name: Samuel A. Morgan, Service Forester

Forester Number: 00000

Organization: MS. Forestry Commission

Street Address: 6200

Gautier/Vancleave Road

City, State, Zip: Gautier, MS 39553

Contact Numbers: Office Number: 228-497-3790

Fax Number: 228-497-1393

E-mail Address: smorgan@mfc.state.ms.us

#### PROPERTY LOCATION

County: Jackson Total Acres: 636 Latitude: -88.49 Longitude: 30.61

Section: 16 Township: 5S 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 temporarily 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

The main access point for this section is by Highway 613, which bisects the property from north to south. This section is largely non-forested and is continuing to be developed into subdivisions. Currently, 282 acres are being used primarily for recreation in the form of a 152 acre golf coarse, as well as numerous sports complexes and residences. There are currently no forest management activities planned in these non-forested stands. Of the 340 acres of currently forested land, 308 acres are comprised of naturally seeded miscellaneous hardwood-mixed pine stands. Thirty-two acres in the northwest corner of the property have been planted with slash pine in 1994, but the timber is showing remarkably slow growth as a result of poor soil conditions.

#### Archeological or Cultural Resources

These areas can range from churches, old cemeteries, natural springs, Native American burrial grounds, homes, or other areas of historical significance.

There are numerous recreational complexes, dwellings and commercial businesses located on and around this section. Every effort will be made to minimize conflicts with the stake holders associated with this section while conducting forest management activities.

#### 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:

#### **SOIL TYPES**

#### Ocilla

The Ocilla 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 sandy and loamy alluvium deposits. 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 low. Shrink-swell potential is low. This soil is occasionally flooded. It is not ponded. A seasonal zone of water saturation is at 21 inches during January, February, March, April, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 4w. This soil does not meet hydric criteria. Loblolly Site Index = 85. Longleaf Site Index = 77. Slash Site Index = 90.

#### Daleville

The Daleville component makes up 90 percent of the map unit. Slopes are 0 to 1 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 poorly 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 moderate. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 6 inches during January, February, March, April, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 6w. This soil meets hydric criteria. Loblolly Site Index = 95.

#### Escambia

The Escambia 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 sandy and loamy marine deposits. 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 low. Available water to a depth of 60 inches is high. 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, April, 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. Longleaf Site Index = 80. Slash Site Index = 90.

#### **Benndale**

The Benndale component makes up 85 percent of the map unit. Slopes are 0 to 2 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 1 percent. Nonirrigated land capability classification is 2s. This soil does not meet hydric criteria. Loblolly Site Index = 94. Longleaf Site Index = 79. Slash Site Index = 94.

#### Vancleave

The Vancleave component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on terraces. The parent material consists of loamy fluviomarine deposits. Depth to a root restrictive layer, fragipan, is 24 to 50 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, April, 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. Longleaf Site Index = 70. Slash Site Index = 90.

#### Benndale

The Benndale component makes up 85 percent of the map unit. Slopes are 3 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 1 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.

#### Eustis

The Eustis component makes up 90 percent of the map unit. Slopes are 2 to 5 percent. This component is on hillslopes. The parent material consists of Sandy Marine Deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat excessively drained. Water movement in the most restrictive layer is 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. 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 3s. This soil does not meet hydric criteria. Loblolly Site Index = 80. Longleaf Site Index = 65. Slash Site Index = 80.

#### Croatan

The Croatan component makes up 50 percent of the map unit. Slopes are 0 to 2 percent. This component is on depressions. The parent material consists of decomposed organic material over loamy alluvium deposits. 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 moderately low. Available water to a depth of 60 inches is very high. Shrink-swell potential is low. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 6 inches during January, February, March, April, May, November, December. Organic matter content in the surface horizon is about 42 percent. Nonirrigated land capability classification is 7w. This soil meets hydric criteria. The soil has a slightly sodic horizon within 30 inches of the soil surface. The Johnston component makes up 40 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains. The parent material consists of loamy 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 high. Available water to a depth of 60 inches is moderate. Shrink-swell potential is low. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 6 inches during January, February, March, April, May, November, December. Organic matter content in the surface horizon is about 12 percent. Nonirrigated land capability classification is 7w. This soil meets hydric criteria.

## GENERAL PROPERTY RECOMMENDATIONS

Forest Protection

A healthy, vigorously growing stand is the best defense against 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.

## **STANDS**

Stand 1 - 32 Ac.

## Stand Description

This stand contains sub-merchantable slash pine that was established in 1994 and is showing slow growth due to the poor soil conditions. The stand has an average DBH of 4, with 283 trees per acre and a basal area of 47.

## Stand Recommendations

The stand should become merchantable in 2016, at which time a final harvest will be conducted. The stand will then be regenerated with advanced generation loblolly. The prospect of bedding and fertilizing will be evaluated following the harvest.

## **Activity Recommendations**

#### Harvest

This stand is recommended to have a final harvest in 2016.

## Site Preparation

An application of herbicides will minimize the amount of competitive vegetation.

## Site Preparation

A prescribed burn should be conducted in 2017 to further reduce the amount of competitive vegetation as well as reduce the amount of debris left behind from the harvest.

#### Regeneration

The stand is recommended to be replanted in advanced generation loblolly pine.

#### Stand 7 - 130 Ac.

#### Stand Description

This is an under stocked natural stand consisting of merchantable and sub-merchantable uneven aged slash pine and mixed low quality hardwoods. This is a lowland site with poor soil conditions.

#### Stand Recommendations

A final harvest is recommended on this stand in 2017. The stand should be replanted with an advanced generation loblolly pines. The prospect of bedding and fertilizing will be evaluated following the harvest.

#### **Activity Recommendations**

#### Harvest

The stand is recommended to have a final harvest in 2017. This stand may be split into multiple harvests to comply with the Forestry Commission's policy on acreage limits for timber harvests.

#### Site Preparation

An application of herbicides will minimize the amount of competitive vegetation.

#### Site Preparation

A prescribed burn should be conducted in 2019 to further reduce the amount of competitive vegetation as well as reduce the amount of debris left behind from the harvest.

#### Regeneration

The stand is recommended to be replanted in advanced generation loblolly pine, the winter following the completion of the site preparation.

Stand 8 - 178 Ac.

#### Stand Description

This is an under stocked natural stand of merchantable and sub-merchantable uneven aged slash pine and mixed low quality hardwoods. This is a lowland site with poor soil characteristics.

#### Stand Recommendations

A final harvest is recommended on this stand and it should be replanted with an advanced generation loblolly pine. The prospect of bedding and fertilizing will be evaluated following the harvest. This stand can be split into multiple stands, to comply with the Forestry Commission's policy reguarding acreage limits on final harvests.

It is recommended that these activities be scheduled in the begining of the next management plan period (2022). This is advised in order to distribute over time the expences involved, as well as limit the size and age of clear cuts on this section.

#### OTHER PLAN ACTIVITIES

Boundary Lines

Section boundary lines will be painted on a five year rotation. Inspections of fire breaks and road conditions will be completed regurlarly.

This section was last painted in 2009 and is scheduled to be painted again, in 2014 and 2019.

#### Cogon Grass Control

Cogon grass is present on every School trust section in Jackson County. Every precaution must be taken to prevent further spread. Treatment costs for cogon grass are not included in the activities portion of ths plan due to the uncertainty of the extent of the infestation on each stand. An assessment is underway to determine the best means for dealing with the problem.

#### Activity Recommendations

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

Aesthetics will play a large roll in the forest management activities planned on this section due to the multiple uses and various stakeholders involved with this tract.



# <u>16 - 5S - 5W</u>

Hurley 2012 to 2021 635.83 Acres





## 16 - 5S - 5W





# Stand Activity Schedule for Jackson County School Board 16 5S 5W

Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue		
2016							
1	1	Harvest, Mechanical, Final, Machine, Slash	32	\$1,120.00	\$7,394.56		
		Yearly Totals	32	\$1,120.00	\$7,394.56		
2017							
1	1	Site Preparation, Other, Burn, Hand, Debris	32	\$800.00	\$0.00		
1	1	Regeneration, Artificial, Plant, Hand, Loblolly	32	\$800.00	\$0.00		
1	1	Site Preparation, Chemical, Broadcast, Aerial, Woody	32	\$800.00	\$0.00		
2	7	Site Preparation, Other, Burn, Hand, Debris	130	\$3,250.00	\$0.00		
2	7	Site Preparation, Chemical, Broadcast, Aerial, Combination	130	\$3,250.00	\$0.00		
2	7	Harvest, Mechanical, Final, Machine, Slash	130	\$4,550.00	\$167,417.90		
		Yearly Totals	486	\$13,450.00	\$167.417.90		
2018							
2	7	Regeneration, Artificial, Plant, Hand, Loblolly	130	\$3,250.00	\$0.00		
		Yearly Totals	130	\$3,250.00	\$0.00		
		Grand Totals	648	\$17.820.00	\$174.812.46		