

FOREST STEWARDSHIP MANAGEMENT PLAN

Prepared For: Smith County Board of Education

Prepared By: Jared R. Bynum MFC

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: S16_T3N_R9E

TABLE OF CONTENTS

LANDOWNER INFORMATION	3
FORESTER INFORMATION	3
DISCLAIMER	3
INTRODUCTION	3
OBJECTIVES	4
PROPERTY DESCRIPTION	4
GENERAL PROPERTY RECOMMENDATIONS	6
SOIL TYPES	8
STRATA	9
OTHER PLAN ACTIVITIES	12
PLAN MAP	13
LEGEND MAP	14
STRATA ACTIVITY SCHEDI II E	15

LANDOWNER INFORMATION

Name: Smith County Board of Education

Mailing Address: P.O. Box 308

212 Sylvarena Ave.

City, State, Zip: Raleigh, MS 39153 Country: United States of America

Contact Numbers: Home Number:

Office Number: 601-782-4296

Fax Number:

E-mail Address: robert.miles@smithcountyschools.net

Social Security Number (optional): 646001078

FORESTER INFORMATION

Name: Jared R. Bynum, Service Forester

Forester Number: 01726 Organization: MFC

Street Address: P.O. Box 182

505 Magnolia Drive

City, State, Zip: Raleigh, MS 39153

Contact Numbers: Office Number: 601-782-9471

Fax Number: 601-782-4386

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

PROPERTY LOCATION

County: Smith Total Acres: 639 Latitude: -89.38 Longitude: 32.1

Section: 16 Township: 3N Range: 9E

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 is a vital part of the Mississippi Forestry Commission's efforts in implementing the best forest management program possible on sixteenth section school trust lands in Smith County, Mississippi. This plan will serve as a guide for accomplishing the goals and objectives for this section. In addition to addressing 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 primary objetive of placing sixteenth section lands under a forest management program is to produce as much revenue as possible for the Smith County School District. The primary goal is to produce a desirable high quality sawtimber product. These efforts will be directed by regulating the forest resource 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 parcel is a full section of land (639 acres) and is located in the east-northeastern part of Smith County, being more specifically located approximately three miles southeast of Pineville, Mississippi. Two public roads pass through the section, making access to and on the section good. Several residences are located on the section. Ichusa Creek passes through the southwest quarter of the section and several small drainages exist throughout the section. Approximately 417 acres of the section is forested, with about 186 acres in open land, and the remaining 36 acres in an inoperable semi-forested condition. The section has good, well-maintained boundary lines. Existing access roads have been improved, and additional access roads have been established.

History

This section has had a long history of abuse. Timber stands had been depleted over many years to the levels where they were/are understocked. At least one illegal cutting violation has been reported over the years. Since 1990, a couple of timber sales have been made. One of the sales had to be made due to a catastrophic wildfire caused by a lessee, which damaged or killed a large percentage of the timber in stand 13. This same fire also destroyed a pine plantation less than two years of age. The entire area mentioned above had to be harvested and replanted. Fire had escaped a pile of debris in the lessee's yard. Her home is off of the section, but her yard is on the section. I believe that her lease was cancelled after the fire, but I believe that she still is using the area as part of the yard. In the more recent past, illegal cutting violations have subsided, but the site still requires monitoring.

Recreation and Wildlife

This section has some hunting potential. Game species most abundant are squirrel, rabbit, turkey, and deer. Some habitat is available for these species on this section. Any timber management practices to be implemented should consider ways to improve the wildlife habitat as much as feasible.

Problems

The primary problem that complicates forest management on this section is improper lease classification and/or lease descriptions. This section potentially has at least one residence and a yard of another person without a lease document at all. Also, an access to another residence off of the section possibly does not have a lease document of any kind. Other leases are being allowed to grow up with undesirable species of trees, even though the area is classified as "farm-residential". Illegal timber harvests and wildfires caused mostly by lessees have been a problem in the past, and still require monitoring. "Pit-Bull" dogs have also been reported along the section lines, chained to trees on the school property.

Water Resources

Ichusa Creek was identified as a water resource during a reconnaissance of the property. It, and any 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.

Archeological or 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 management measures will be applied immediately in order preserve these sensitive areas.

GENERAL PROPERTY RECOMMENDATIONS

Forest Protection

A healthy, vigorously growing stand is the best defense to an attack from a variety of forest insects, plants and pathogens. Furthermore, forest roads and permanent firebreaks will be utilized, where possible, to help protect the site from destructive wildfires.

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 are established. The Mississippi Forestry Commission will maintain these established boundary lines and will ensure that 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 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. Streamside Management Zones (SMZ) will be utilized where needed to help to protect and preserve these resources.

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 adjacent to any home sites, and silvicultural burning of pine stands to reduce understory competition, and other possible activities.

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, if the Board of Education were to decide to do so.

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.

Prescribed burning is highly recommended for wildlife habitat management where loblolly, shortleaf, longleaf, or slash pine is the primary overstory species. Periodic fire tends to favor understory species that require a more open habitat. Deer, dove, quail and turkey are game species which benefit from prescribed fire. Yield and quality of herbage, legumes, and browse from hardwood sprouts are increased after a prescribed burn. Prescribed burning creates openings for feeding, travel, and dusting.

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 recreational use of the property proves to be an avenue for generating income for the schools, despite leasning issues on the section. By continuing to manage the property for wildlife benefits as mentioned earlier in the plan, the property will become even more desirable for lease by deer hunting clubs, and others. Current recreational opportunities exist in the form of a hunting and fishing lease. As time goes on, and further forest improvements are made, this revenue should also increase.

SOIL TYPES

Sweatman

The Sweatman component makes up 10 percent of the map unit. Slopes are 2 to 5 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 3e. This soil does not meet hydric criteria. Loblolly Site Index = 83.

Smithdale

The Smithdale component makes up 10 percent of the map unit. Slopes are 12 to 30 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. Loblolly Site Index = 80.

Savannah

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 27 inches during January, February, March. 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 = 81.

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.

Providence

The Providence component makes up 10 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.

Ora

The Ora component makes up 90 percent of the map unit. Slopes are 2 to 5 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 24 inches during January, February, March. 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 = 83.

STRATA

Strata 1

Strata Description

Stand 1 and 12 make up this strata, and consists of 163 acres of pine plantation which was planted in FY 2011.

Strata Recommendations

These stands will be managed on a 35 to 40 year rotation. During this time frame, management activities such as thinnings, mid-rotation release, and prescribed burning to improve wildlife habitat will be used to keep stands at full production.

Over the course of this planning cycle, the stands in this strata will be monitored only.

Strata 3

Strata Description

Stands 6 and 17 make up this strata and consists of a 50 acre sub-merchantable pine plantation which was planted in 2000.

Strata Recommendations

These stands will be managed on a 35 to 40 year rotation. During this time frame, management activities such as thinnings, mid-rotation release, and prescribed burning to improve wildlife habitat will be used to keep stands at full production.

Activity Recommendations

Harvest

In 2015, these stands will be thinned by removing every 4th row where visible, or removing a row of stems at the proper distance to be approximately a 4th row removal for a corridor, and then remove stems in the remaining rows or areas by cutter selection method. The stands that remain should be 70 to 80 square feet of basal area. Stems removed by cutter selection method should be chosen first based on poor quality, form, and presence of disease.

Silvicultural Burning

Prescribed burning is recommended on the stands in this strata beginning in FY 2017, approximately 2 years after the first thinning, and should be repeated approximately every 3 to 4 years. Burning should be forgone on any year immediately following any thinning.

Strata 4

Strata Description

Strata 4 is comprised of stands 8, 13, 14, 15, and 16, and contains 85 total acres of sub-merchantable pine plantation which was planted in 2001. Stand 15 is a little older than the other stands in this strata, due to the theft of the previous timber. Because the area only contains 8 acres, it will be managed with the adjacent stands in the same strata.

Strata Recommendations

These stands will be managed on a 35 to 40 year rotation. During this time frame, management activities such as thinnings, mid-rotation release, and prescribed burning to improve wildlife habitat will be used to keep stands at full production.

Activity Recommendations

Harvest

In 2016, these stands will be thinned by removing every 4th row where visible, or removing a row of stems at the proper distance to be approximately a 4th row removal for a corridor, and then remove stems in the remaining rows or areas by cutter selection method. The stands that remain should be 70 to 80 square feet of basal area. Stems removed by cutter selection method should be chosen first based on poor quality, form, and presence of disease.

Silvicultural Burning

Prescribed burning is recommended on the stands in this strata beginning in FY 2018, approximately 2 years after the first thinning, and should be repeated approximately every 3 to 4 years. Burning should be forgone on any year immediately following any thinning.

Strata 6

Strata Description

Strata 6 is made up of stand 5 and contains 19 acres of older growth sawtimber. This area is predominantly hardwood, and is a wetter area.

Strata Recommendations

Ideally, this stand should be harvested during the period covered by this plan, considering a rotation age of about 70 years. Because of the wet nature of the soils, and the access requirements to get onto this stand, additional evaluation will be required prior to any harvesting operation being recommended.

Strata 7

Strata Description

Strata 7 consists of stands 3 and 7 and contains 86 acres of mature hardwood sawtimber.

Strata Recommendations

The planned rotation age for stands made up of this amount of hardwood would generally be 70 years. At this time, there are no recommendations for this site. the site is relatively fragile, and because of the leasing situation, the area may or may not have a reforestation agreement in the lease instrument, so no harvest is planned for this planning period. As some later date, the site may be revisited for a harvest, if the leasing situation changes.

Strata 10

Strata Description

This strata is made up of stands 4 and 18, and are Streamside Management Zones. The strata is comprised of approximately 16 total acres.

Strata Recommendations

The stands will be maintained for the life of the plan, and no plans are made to improve these stands because they are SMZ's and are left primarily for soil and water protection.

Strata 20

Strata Description

Stands 19 and 20 make up this strata, which is a semi-forested, farm-residential lease.

Strata Recommendations

For the purposes of this plan, these stands are considered inoperable, and will not be managed until the leasing situation changes, or until they reach a merchantable state, whereby they would be harvested.

OTHER PLAN ACTIVITIES

Boundary Lines

Line Description

This section has approximately 4 miles of boundary lines that are established and painted with "Orange" boundary line paint. These lines are maintained by periodically repainting the boundary.

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. The boundary lines are scheduled for repainting in 2012, and again in FY 2018.



Smith County Board of Education

Section 16, Township 3 North, Range 9 East Smith County, Mississippi 2012-2021 planning period (639 Acres)





Section 16, Township 3 North, Range 9 East

School Sections

School Sections



Property Property	Category 1: Stands (cont) Pulpwood	Boundary Lines Property	
Category 1: Stands Reproduction Sawtimber Sub-Merchantable	Category 3: Non-Forest Stands Non-Forest		
MFC Basemap			
County Boundary	Public School Districts		Physiographic Region
County Boundary	SMITH COUNTY SCHOOL DISTRICT		SOUTH CENTRAL HILLS
Quadrangle Grid	US Congressional District		Soil Associations
USGS Quad	US Cong Dist #3		ora-savannah-prentiss
The state of the s			smithdale-sweatman-providence
PLS Townships	MS Senate		
PLS Townships	34		Surface Geology
Survey Districts	MS House		FOREST HILL/RED BLUFF CLAY
District 2	79		USFS Ownership
District 2	75		Forest Service
Blockgroup (Census 2000)	Perennial Streams		1 of est service
Blockgroup (Census 2000)	Perennial Streams		USFS Boundary
			Bienville
Block (Census 2000)	Intermittent Streams		
Block (Census 2000)	Intermittent Streams		MFC Districts
T+/PNA (C 2000)	Underland Unite (Desire)		MFC Districts
Tract/BNA (Census 2000)	Hydrologic Units (Basins)		MFC Dispatch Units
Tract/BNA (Census 2000)	UPPER LEAF RIVER		
County Roads	Historic Forest Boundary		MFC Dispatch Units
County Roads	Longleaf Pine with Loblolly Pine-Slash P	ine	MS Outline
	Longicul I inc that Lobion/ I inc oldsir i		MS Outline

MS Forest Habitat

SOUTHERN LOAM HILLS-RUGGED TOPOGRAPHY

Stand Activity Summary for Smith County Board of Education 16 3N 9E

Filters Applied: County: Smith

Client Class: School Trust Land

District: South Central District
Client: Smith County Board of Ed

STR: 16 3N 9E

Activity:

Year: 2012 Through 2021

STR	Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue
2015						
16 3N 9E	3	6	Harvest, Mechanical, Thin, Machine, Loblolly	48	\$1,697.15	\$22,843.64
16 3N 9E	3	17	Harvest, Mechanical, Thin, Machine, Loblolly	2	\$70.00	\$942.20
			Yearly Totals	50	\$1.767.15	\$23,785.84
2016						
16 3N 9E	4	8	Harvest, Mechanical, Thin, Machine, Loblolly	23	\$805.00	\$10,557.92
16 3N 9E	4	13	Harvest, Mechanical, Thin, Machine, Loblolly	42	\$1,454.95	\$19,082.29
16 3N 9E	4	14	Harvest, Mechanical, Thin, Machine, Loblolly	4	\$125.30	\$1,643.36
16 3N 9E	4	15	Harvest, Mechanical, Thin, Machine, Loblolly	8	\$295.40	\$3,874.30
16 3N 9E	4	16	Harvest, Mechanical, Thin, Machine, Loblolly	8	\$282.10	\$3,699.86
			Yearly Totals	85	\$2.962.75	\$38.857.74
2017						
16 3N 9E	3	6	Wildlife Management, Other, Burn, Hand, Habitat Improvement	48	\$1,212.25	\$0.00
16 3N 9E	3	17	Wildlife Management, Other, Burn, Hand, Habitat Improvement	2	\$50.00	\$0.00
			Yearly Totals	50	\$1.262.25	\$0.00
2018						
16 3N 9E	4	8	Wildlife Management, Other, Burn, Hand, Habitat Improvement	23	\$585.50	\$0.00
16 3N 9E	4	13	Wildlife Management, Other, Burn, Hand, Habitat Improvement	42	\$1,039.25	\$0.00
16 3N 9E	4	14	Wildlife Management, Other, Burn, Hand, Habitat Improvement	4	\$89.50	\$0.00

STR	Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue
16 3N 9E	4	15	Wildlife Management, Other, Burn, Hand, Habitat Improvement	8	\$211.00	\$0.00
16 3N 9E	4	16	Wildlife Management, Other, Burn, Hand, Habitat Improvement	8	\$201.50	\$0.00
			Yearly Totals	85	\$2,126.75	\$0.00
2020						
16 3N 9E	4	8	Wildlife Management, Other, Burn, Hand, Habitat Improvement	23	\$585.50	\$0.00
16 3N 9E	4	13	Wildlife Management, Other, Burn, Hand, Habitat Improvement	42	\$1,039.25	\$0.00
16 3N 9E	4	14	Wildlife Management, Other, Burn, Hand, Habitat Improvement	4	\$89.50	\$0.00
16 3N 9E	4	15	Wildlife Management, Other, Burn, Hand, Habitat Improvement	8	\$211.00	\$0.00
16 3N 9E	4	16	Wildlife Management, Other, Burn, Hand, Habitat Improvement	8	\$201.50	\$0.00
			Yearly Totals	85	\$2,126.75	\$0.00
			Grand Totals	356	\$10,245.65	\$62,643.58