

FOREST STEWARDSHIP MANAGEMENT PLAN

Prepared For: Copiah County BOE

Prepared By: Miles Henderson MS Forestry Commission

Time Period Covered by This Plan: 2012 - 2021

Date Plan Prepared: 2012-01-18

Plan Type: Stewardship / Stewardship

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

Property Name: S16 T10N R10E

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LANDOWNER INFORMATION

Name: Copiah County BOE
Mailing Address: 254 West Gallatin St.
City, State, Zip: Hazlehurst, MS 39083
Country: United States of America

Contact Numbers: Home Number:

Office Number: 601-894-1341

Fax Number:

E-mail Address:

Social Security Number (optional):

FORESTER INFORMATION

Name: Miles Henderson, Copiah County Service Forester

Forester Number: 02512

Organization: MS Forestry Commission

Street Address: P.O. Box 229

City, State, Zip: Hazlehurst, MS 39083

Contact Numbers: Office Number: 601-894-1131

Fax Number:

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

PROPERTY LOCATION

County: Copiah Total Acres: 646 Latitude: -90.2 Longitude: 31.84

Section: 16 Township: 10N Range: 10E

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 off Highway 473 in the southeast portion of Copiah County. Primary access is gained by using Cooper road, although there is a secondary access road to the south-east section corner. This section has several different ages of timber, from regeneration to mature pine sawtimber. This section has been controlled burn many times over the years. The timber quality is excellent and stocking is good.

There are several small intermittent drains that cross the section. With its access, burning history and diversity, it has excellent wildlife and timber management potential.

Water Resources

A perennial water resource was identified during a reconnaissance of the property. The perennial stream and drains 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.

Archeological and 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 managements 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.

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

SmD

The Smithdale component makes up 90 percent of the map unit. Slopes are 8 to 12 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 4e. This soil does not meet hydric criteria. Loblolly Site Index = 86. Longleaf Site Index = 69. Slash Site Index = 85.

PrB2

The Providence 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 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 2e. This soil does not meet hydric criteria. Loblolly Site Index = 87. Longleaf Site Index = 73.

STRATA

Strata 1 Stand Description

Acres: 138

Strata 1: Stands 2,8

These stands were hand planted in 2001 using genetically improved Loblolly Pine seedlings on a 10' x 6' spacing at 726 trees per acre. There is natural regeneration, which has created overstocking in some areas.

Stand Recommendations

These stands will be managed to approximately 35-40 years. During this time frame, management activities such as thinning and herbicide applications will be used to maximize growth. At the end of this rotation a final harvest will be conducted and reforestation activities will be completed to return these stands to full production.

Activity Recommendations

Harvest

These stands will be first thinned in 2018. This will be a corridor thin, representing a third or fourth row thin, reducing the stocking to 75 square feet of basal area per acre. This thin will remove about 35% of this stand's volume.

Fire Protection

A prescribed burn is recommended in 2020 to reduce fuel loads and the potential for a wildfire to occur. A prescribed burning plan must be developed and followed in the application of the burn. Because of equipment, personnel and weather requirements, the application of a prescribed fire is limited to only those days that meet requirements of the burning plan. A certified prescribed burning manager should be employed to conduct the burn. The Mississippi Forestry Commission (on a limited basis) and other certified prescribed burning vendors are available to conduct prescribed burning.

Strata 2
Stand Description
Strata 2: Stand 17

Acres: 58

This stand was hand planted in 2004 using 2nd generation loblolly Pine seedlings on a 10' x 6' spacing at 726 trees per acre. There is natural regeneration, which has created overstocking in some areas.

Stand Recommendations

This stand will be managed to approximately 35-40 years. During this time frame, management activities such as thinning and herbicide applications will be used to maximize growth. At the end of this rotation a final harvest will be conducted and reforestation activities will be completed to return this stand to full production.

Activity Recommendations

Harvest

This stand will be first thinned in 2019. This will be a corridor thin, representing a third or fourth row thin, reducing the stocking to 75 square feet of basal area per acre. This thin will remove about 35% of this stand's volume.

Fire Protection

A prescribed burn is recommended in 2021 to reduce fuel loads and the potential for a wildfire to occur. A prescribed burning plan must be developed and followed in the application of the burn. Because of equipment, personnel and weather requirements, the application of a prescribed fire is limited to only those days that meet requirements of the burning plan. A certified prescribed burning manager should be employed to conduct the burn. The Mississippi Forestry Commission (on a limited basis) and other certified prescribed burning vendors are available to conduct prescribed burning.

Strata 3
Stand Description

Strata 3: Stands13,15,16,19

Acres: 222

These stands were established in 1956 consisting of mainly mature Loblolly Pine and Shortleaf Pine. They are well stocked, except in some areas that were damaged by Hurricane Katrina. These areas were salvaged, leaving them slightly under stocked.

Strata Recommendations

Stand 16 (84 acres) is scheduled for a final harvest in 2013, Stand 15 (113 acres) is scheduled for a final harvest in 2015, and Stand 13 (24 acres) will be final harvested in 2017 respectfully. Once final harvesting has been completed, reforestation activities will be conducted, including aerial application of herbicides and site preparation burns. Second generation Loblolly Pine seedlings will be used to reforest these stands. Once established they will be managed on a 35 to 40 year rotation.

Activity Recommendations

Harvest

Stand 16 (84 acres) is scheduled for a final harvest in 2013. This type of harvest removes all merchantable timber from the stand.

Stand 15 (113 acres) is scheduled for a final harvest in 2015. This type of harvest removes all merchantable timber from the stand.

Stand 13 (24 acres) is scheduled for a final harvest in 2017. This type of harvest removes all merchantable timber from the stand. This stand will be harvested along with Strata 5.

Site Preparation

Following each final harvest, these stands will be aerially sprayed with herbicides to control unwanted hardwood competition and herbaceous weeds.

Regeneration

After site preparation, these stands will be hand planted using 2nd generation Loblolly pine seedlings. Seedlings will be planted on a 10' x 7' spacing at a rate of 622 trees per acre. A deviation from the recommended planting rates will be limited to plus or minus 40 trees per acre. Planting should be done between December and February. Compliance checks will be completed as these stands are planted to ensure proper planting. A survival study will be completed the following Fall to ensure sufficient stocking. Adverse weather conditions such as prolonged dry or cold periods should be taken into consideration when planting.

Strata 4
Stand Description
Strata 4: Stands 5,9,10

Acres: 76

These stands are permanent Streamside-Management-Zones (SMZs) that were established in 1946. These stands consist of a mixture of hardwood species and some scattered Loblolly Pine.

Stand Recommendations

These stands will be managed as permanent Streamside-Management-Zones (SMZs). Mature timber will be harvested as timber sales are completed on adjacent stands. A minimum of 50% crown cover will be maintained to ensure that a quality SMZ is left. This SMZ is vital to reduce soil erosion and to protect water quality.

Strata 5
Stand Description

Strata 5: Stands 4,7,11,12,20

Acres: 72

These are Loblolly Pine stands that were open field machine planted in 1983. These stands were second thinned in 2009, and are currently in good health and well stocked.

Stand Recommendations

These stands will be managed to approximately 35-40 years. During this time frame, management activities such as thinning and herbicide applications will be used to

maximize growth. At the end of this rotation a final harvest will be conducted and reforestation activities will be completed to return these stands to full production.

Activity Recommendations

Forest Health

A prescribed burn is recommended in 2012 to reduce fuel loads and the potential for a wildfire to occur. A prescribed burning plan must be developed and followed in the application of the burn. Because of equipment, personnel and weather requirements, the application of a prescribed fire is limited to only those days that meet requirements of the burning plan. A certified prescribed burning manager should be employed to conduct the burn. The Mississippi Forestry Commission (on a limited basis) and other certified prescribed burning vendors are available to conduct prescribed burning.

Harvest

These stands are scheduled for a final harvest in 2016. This type of harvest removes all merchantable timber from the stand. Strata 3 Stand 13 will be final harvested along with Strata 5

Site Preparation

These stands will be aerially sprayed with herbicides to control unwanted hardwood competition and herbaceous weeds. This activity will be completed in 2018.

Regeneration

These stands will be hand planted in 2018 using 2nd generation Loblolly pine seedlings. Seedlings will be planted on a 10' x 7' spacing at a rate of 622 trees per acre. A deviation from the recommended planting rates will be limited to plus or minus 40 trees per acre. Planting should be done between December and February. Compliance checks will be completed as these stands are planted to ensure proper planting. A survival study will be completed the following Fall to ensure sufficient stocking. Adverse weather conditions such as prolonged dry or cold periods should be taken into consideration when planting.

Strata 6
Stand Description
Strata 6: Stand 1

Acres: 76

This stand was final harvested in 2010. Following the final harvest, this stand was site prep sprayed in 2011. This stand will be hand planted in 2012 using 2nd generation loblolly Pine seedlings on a 10' x 7' spacing at 622 trees per acre. Compliance checks were completed as this stand was planted to ensure proper planting and stocking. Survival checks will be completed in the Fall to ensure an adequate survival rate.

Stand Recommendations

This stand will be managed to approximately 35-40 years. During this time frame, management activities such as thinning and herbicide applications will be used to maximize growth. At the end of this rotation a final harvest will be conducted and reforestation activities will be completed to return this stand to full production.

Activity Recommendations

Site Preparation

This stand will be aerially sprayed with herbicides to control unwanted hardwood competition and herbaceous weeds. This activity will be completed in 2011.

Regeneration

This stand will be hand planted in 2012 using 2nd generation Loblolly pine seedlings. Seedlings will be planted on a 10' x 7' spacing at a rate of 622 trees per acre. A deviation from the recommended planting rates will be limited to plus or minus 40 trees per acre. Planting should be done between December and February. Compliance checks will be completed as these stands are planted to ensure proper planting. A survival study will be completed the following Fall to ensure sufficient stocking. Adverse weather conditions such as prolonged dry or cold periods should be taken into consideration when planting.

OTHER PLAN ACTIVITIES

Property Activities

Activity Recommendations

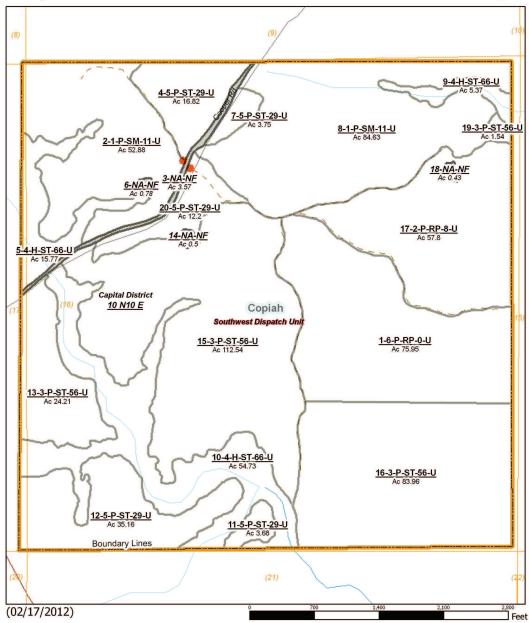
Routine inspections and general maintenance of the roads, firelanes, and boundary lines will ensure overall appearance and aesthetics of the property.



Copiah Board of Education SEC 16; TWN 10N; RGE 10E

EC 16; TWN 10N; RGE 10E 2012 to 2021 646.26 Acres





SEC 16 TWN 10N RGE 10E

SEC 16; TWN 10N; RGE 10E





Stand Activity Summary for Copiah County BOE 16 10N 10E

Filters Applied: County: Copiah

Client Class: School Trust Land
District: Capital District
Client: Copiah County BOE

STR: 16 10N 10E Activity:

Year: 2012 Through 2021

STR	Strata	Stand	Activity		Acre	Est. Cost	Est. Revenue
2012							
16 10N 10E	5	4	Forest Health, Other, Burn, Hand, Southern Pine Beetle		17	\$420.50	\$0.00
16 10N 10E	5	7	Forest Health, Other, Burn, Hand, Southern Pine Beetle		4	\$93.75	\$0.00
16 10N 10E	5	11	Forest Health, Other, Burn, Hand, Southern Pine Beetle		4	\$92.00	\$0.00
16 10N 10E	5	12	Forest Health, Other, Burn, Hand, Southern Pine Beetle		35	\$879.00	\$0.00
16 10N 10E	5	20	Forest Health, Other, Burn, Hand, Southern Pine Beetle		12	\$300.00	\$0.00
16 10N 10E	6	1	Site Preparation, Chemical, Broadcast, Aerial, Combination		76	\$6,080.00	\$0.00
16 10N 10E	6	1	Regeneration, Artificial, Plant, Hand, Loblolly		76	\$6,460.00	\$0.00
	, ,			Yearly Totals	223	\$14.325.25	\$0.00
2013							
16 10N 10E	3	16	Harvest, Mechanical, Final, Machine, Loblolly		84	\$2,940.00	\$161,196.00
				Yearly Totals	84	\$2.940.00	\$161.196.00
2015							
16 10N 10E	3	15	Harvest, Mechanical, Final, Machine, Loblolly		113	\$3,955.00	\$241,142.00
16 10N 10E	3	16	Site Preparation, Chemical, Broadcast, Aerial, Combination		84	\$6,716.80	\$0.00
16 10N 10E	3	16	Regeneration, Artificial, Plant, Hand, Loblolly		84	\$7,136.60	\$0.00
				Yearly Totals	281	\$17.808.40	\$241,142.00
2017							
16 10N 10E	3	15	Regeneration, Artificial, Plant, Hand, Loblolly		113	\$9,605.00	\$0.00

STR	Strata	Stand	Activity		Est. Cost	Est. Revenue
16 10N 10E	3	15	Site Preparation, Chemical, Broadcast, Aerial, Combination		\$9,040.00	\$0.00
			Yearly Totals	226	\$18.645.00	\$0.00
2018						
16 10N 10E	1	2	Harvest, Mechanical, 1st Thin, Machine, Loblolly		\$1,855.00	\$17,490.00
16 10N 10E	1	8	Harvest, Mechanical, 1st Thin, Machine, Loblolly		\$2,962.05	\$27,927.90
			Yearly Totals	138	\$4.817.05	\$45.417.90
2019						
16 10N 10E	2	17	Harvest, Mechanical, 1st Thin, Machine, Loblolly	58	\$2,030.00	\$17,516.00
			Yearly Totals	58	\$2.030.00	\$17.516.00
2020						
16 10N 10E	1	2	Fire Protection, Other, Burn, Hand, Fuel Reduction		\$1,322.00	\$0.00
16 10N 10E	1	8	Fire Protection, Other, Burn, Hand, Fuel Reduction		\$2,125.00	\$0.00
			Yearly Totals	138	\$3,447.00	\$0.00
2021						
16 10N 10E	2	17	Fire Protection, Other, Burn, Hand, Fuel Reduction		\$1,445.00	\$0.00
16 10N 10E	3	13	Harvest, Mechanical, Final, Machine, Loblolly		\$840.00	\$48,336.00
16 10N 10E	5	4	Harvest, Mechanical, Final, Machine, Loblolly		\$588.70	\$35,961.16
16 10N 10E	5	7	Harvest, Mechanical, Final, Machine, Loblolly		\$131.25	\$8,017.50
16 10N 10E	5	11	Harvest, Mechanical, Final, Machine, Loblolly		\$128.80	\$7,867.84
16 10N 10E	5	12	Harvest, Mechanical, Final, Machine, Loblolly		\$1,225.00	\$74,830.00
16 10N 10E	5	20	Harvest, Mechanical, Final, Machine, Loblolly		\$427.00	\$26,083.60
	<u>, </u>		Yearly Totals	153	\$4.785.75	\$201.096.10
			Grand Totals	1.301	\$68.798.45	\$666.368.00