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FOREST STEWARDSHIP MANAGEMENT PLAN

Prepared For: George County BOE

Prepared By: Vernon Eugene Cooper 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: S16-T2S-R6W

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	13
PLAN MAP	14
PLAN MAP	15
STAND ACTIVITY SCHEDULE	16

LANDOWNER INFORMATION

Name: George County BOE

Mailing Address: 5152

Main St.

City, State, Zip: Lucedale, MS 39452 Country: United States of America

Contact Numbers: Home Number:

Office Number: 601-947-6993

Fax Number:

E-mail Address:

Social Security Number (optional): 646000379

FORESTER INFORMATION

Name: Vernon Eugene Cooper, Service Forester

Forester Number: 00960 Organization: MFC Street Address: 1165

Fig Farm Rd.

City, State, Zip: Lucedale, MS 39452

Contact Numbers: Office Number: 601-947-4961

Fax Number:

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

PROPERTY LOCATION

County: George Total Acres: 654 Latitude: -88.59 Longitude: 30.87

Section: 16 Township: 2S Range: 6W

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 on Old Highway 63 South, 3 miles south of the junction of Highways 26 and 63 in Lucedale. Access to the section is from old highway 63which forms the western boundary of the section. The section is divided by Cedar Creek which runs north to south the entire length of the section. George County High School was completed in the mid 90 's and is located on the section . There is also other improvements on this section including the counties JC building and the Muti-purpose building. Nonforested areas comprise over 120 acres of the total area.

This section contains a total of \pm -653 acres of this \pm -115 acres are non-forested with no management activities currently planned, and \pm -538 acres are in timber production.

Cogan grass will be controlled as necessary on the section with harvest areas being a priority during the life of this plan.

Introduction Text

This section is primarily mature longleaf pine. The high school is presently using most of timbered area for forestry classed and cross-country track. There has been limited timber harvested from the section with the last sale occurring in 2010 with no future harvesting scheduled.

The section will have silvicultural burns every 3 to 5 years.

Water Resources

Cedar Creek bisects this section from the North to the South with intermittent streams flowing primarily from the eastern side of the section into Cedar Creek. Cedar Creek and other streams will be managed in accordance with Mississippi's Best Management Practices.

Archeological and Cultural Resources

Prescribed practices should be carried out in a manner that will minimize adverse impacts on archeological and or cultural resources. All laws, regulations, and guidelines will be followed if such areas are identified, and all management practices will be carried out in a manner to have positive effects on these resources.

These areas can range from churches, old cemeteries or Indian mounds to old home sites or other areas of historical significance.

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

Eustis

The Eustis component makes up 85 percent of the map unit. Slopes are 12 to 20 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 7s. This soil does not meet hydric criteria. Loblolly Site Index = 80. Longleaf Site Index = 65. Slash Site Index = 80.

Dorovan

The Dorovan component makes up 63 percent of the map unit. Slopes are 0 to 1 percent. This component is on depressions. The parent material consists of decomposed organic material. 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 high. Available water to a depth of 60 inches is very high. Shrink-swell potential is low. This soil is frequently flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during January, February, March, April, May, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 50 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 22 percent of the map unit. Slopes are 0 to 1 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 high. Shrink-swell potential is low. This soil is frequently flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during January, February, March, April, May, June, November, December. Organic matter content in the surface horizon is about 13 percent. Nonirrigated land capability classification is 7w. This soil meets hydric criteria.

Cahaba(smithdale)

The Cahaba(smithdale) component makes up 85 percent of the map unit. Slopes are 12 to 17 percent. This component is on coastal plains. 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 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 6e. This soil does not meet hydric criteria. Loblolly Site Index = 86. Longleaf Site Index = 69. Slash Site Index = 85.

Susquehanna

The Susquehanna component makes up 72 percent of the map unit. Slopes are 12 to 17 percent. This component is on coastal plains. The parent material consists of clayey 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 very low. Available water to a depth of 60 inches is high. Shrink-swell potential is high. This soil is not flooded. It is not ponded. 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 6e. This soil does not meet hydric criteria. The Benndale component makes up 13 percent of the map unit. Slopes are 8 to 12 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 low. Available water to a depth of 60 inches is high. Shrink-swell potential is high. This soil is not flooded. It is not ponded. 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 4e. This soil does not meet hydric criteria.

Mclaurin(heidel)

The Mclaurin(heidel) component makes up 85 percent of the map unit. Slopes are 8 to 12 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 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 4e. This soil does not meet hydric criteria. Loblolly Site Index = 90. Slash Site Index = 90.

McLaurin

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

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.

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

1-1-P-RP-0-U Stand acres 66

Stand Description

The stand had a final harvest completed on it in the winter of 2009 and was replanted in December of 2010 with bare root second generation loblolly pine seedling with a target of 605 trees per acre on a 6 by 12 foot spacing. The survival was conducted this fall resulting in 488 trees per acres living.

Stand Recommendations

The stand is recommended to serve as cover for wildlife.

2-3-P-ST-57-B Stand acres 103

Stand Description

This bottomland stand is comprised of drainage which runs from the North to South and includes Cedar Creek. The stand has a species composition of Slash pine, red maple, black gum and tupelo gum making up 95% of species composition. This stand is primarily wet throughout most of years and can be logged only during extremely dry conditions. Special considerations will be made to protect this stand for wildlife and water quaility.

All Ms. BMP's should be followed during any activities in this stand.

Stand Recommendations

This stand will be harvested has part of other harvesting operations on adjoining stands removing timber that can be removed with minimiun soil and water disturbance. This will mean harvesting all merchantable pine and hardwood but leaving a average basal area of 55 to 65 square feet in the residual stand . All MS. BMP's should be followed has

regards to this stand. Wildlife enhancement and protection of the water quaility should be maintained.

Activity Recommendations

11-2-P-ST--57-U Stand acres 95

Stand Description

This is primarily a upland longleaf pine stand 171 acres in size. The average age of this stand is apprioximately 52 years old. This stand has a site index for longleaf of 85 and is a well drained upland site. The stand is composed of old gowth longleaf timber with some hardwoods composition. The soils on this stand is made of mostly well drained making it operable year round.

The stand is currently being used by the High School for forestry and botany classes and cross-country tract.

Stand Recommendations

The stand is recommended to have a final harvest conducted on it in 2018. Once, all of the merchantable timber has been removed the stand needs to have a chemical site preparation, and planted with either longleaf or loblolly pine seedlings in 2020.

Activity Recommendations

The stand is recommended to have an aerial application of herbicides applied in the summer prior to replanting. The application of herbicide will reduce the amount of competing vegetation on the stand, which will provide an establishment period for the pine seedling that will be planted the following winter.

Harvest

The stand should have a final harvest conducted on it in 2018 and remove all merchantable timber.

Site Preparation

Site Preparation

The stand should be burned six to eight weeks after the chemical application has been applied to reduce debris that may impede tree planting.

Regeneration

The site will be planted during January of 2018 with genetically improved loblolly or containerized longleaf pine seedlings on a 6 by 12 foot spacing with a target of 605 trees per acre.

12-2-P-ST-57-U Stand acres 171 acres

Stand Description

This is primarily a upland longleaf pine stand 171 acres in size. The average age of this stand is apprioximately 52 years old. This stand has a site index for longleaf of 85 and is a well drained upland site. The stand is composed of old gowth longleaf timber with some hardwoods composition. The soils on this stand is made of mostly well drained making it operable year round.

This stand is now a mutliple use area has a outdoor classroom for the students in the Vo-Tech and Forestry classes taught at the high school.

Stand Recommendations

A shelterwood harvest will be done on this stand in the winter of 2021. This will be a marked harvest of co-dominant, intermediate and suppressed stems while leaving the dominant stems in the stand This harvest will leave a residual stand of comprised of 35 to 40 stems/ acre and a basal area of 40-45 square feet.

Activity Recommendations

Fire Protection

A prescribed fire is recommended for this site in order to reduce fuel loading 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.

The stand is recommended to have a prescribe burn conducted in 2014, 2017 and again in 2020 to reduce the amount of undesirable vegetation and hardwood completion.

Harvest

A shelterwood harvest will be done on this stand in the winter of 2021. This will be a marked harvest of co-dominant, intermediate and suppressed stems while leaving the dominant stems in the stand This harvest will leave a residual stand of comprised of 35 to 40 stems/ acre and a basal area of 40-45 square feet.

This stand is now is a mutliple use area has a outdoor classroom for the students in the Vo-Tech and Forestry classes taught at the high school.

6-2-P-ST-57-U Stand acres 21

Stand Description

This is primarily a upland longleaf pine stand twenty acres in size. The average age of this stand is approximately 52 years old. This stand has a site index for longleaf of 85 and is a well drained upland site. The stand is composed of old growth longleaf timber with some hardwoods composition. The soils on this stand is made of mostly well drained making it operable year round.

Due to the location of this stand to the high school and to old highway 63; any management activities to this stand will be limited.

Stand Recommendations

This stand has no recommended management activities at the present during the duration of this management plan.

Activity Recommendations

Due to the location of the stand to school and highway the future use of this stand will be for school related activities rather than for timber and wildlife.

Harvest

A shelterwood harvest will be done on this stand in the winter of 2021. This will be a marked harvest of co-dominant, intermediate and suppressed stems while leaving the dominant stems in the stand This harvest will leave a residual stand of comprised of 35 to 40 stems/ acre and a basal area of 40-45 square feet.

7-1-P-RP-0-U Stand acres 6

Stand Description

The stand had a final harvest completed on it in the winter of 2009 and was replanted in December of 2010 with bare root second generation loblolly pine seedling with a target of 605 trees per acre on a 6 by 12 foot spacing. The survival was conducted this fall resulting in 488 trees per acres living.

Stand Recommendations

The stand is recommended to serve as cover for wildlife.

9-1-P-RP-0-U Stand acres 67

Stand Description

The stand had a final harvest completed on it in the winter of 2009 and was replanted in December of 2010 with bare root second generation loblolly pine seedlings with a target of 605 trees per acre on a 6 by 12 foot spacing.

The survival was conducted this fall resulting in 488 trees per acres living.

Stand Recommendations

The stand is recommended to serve as cover for wildlife.

Activity Recommendations

There are no planned activities scheduled for this stand for the duration of this plan.

10-1-P-RP-0-U Stand acres 10

Stand Description

The stand had a final harvest completed on it in the winter of 2009 and was replanted in December of 2010 with bare root second generation loblolly pine seedling with a target of 605 trees per acre on a 6 by 12 foot spacing. The survival was conducted this fall resulting in 488 trees per acres living.

Stand Recommendations

The stand is recommended to serve as cover for wildlife.

OTHER PLAN ACTIVITIES

Boundary Lines

Line Recommendations

The section's boundary lines were last painted in 2008. They are scheduled to be painted in 2013 and again 2018. They are well established and will be maintained on a five year rotation.

Activity Recommendations

Property Activities

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

Property Activities

The section's woods roads will be maintained on a 5 year rotation in conjunction with the boundary line maintenance unless there are erosion issues that need to be addressed.



Section 16- 2S-6W

George County High School 2012 to 2021 640 Acres

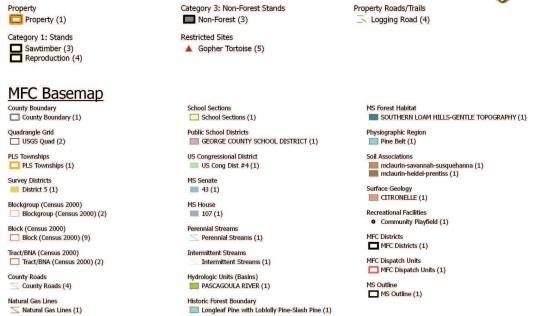




Legend

Legend





Stand Activity Schedule for George County Boe 16 2S 6W

Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue	
2014						
2	12	Fire Protection, Other, Burn, Hand, Fuel Reduction	171	\$4,268.25	\$0.00	
		Yearly Totals	171	\$4,268.25	\$0.00	
2017						
2	12	Fire Protection, Other, Burn, Hand, Fuel Reduction	171	\$4,268.25	\$0.00	
		Yearly Totals	171	\$4,268.25	\$0.00	
2018						
2	11	Harvest, Mechanical, Final, Machine, Longleaf	95	\$3,325.00	\$135,587.80	
		Yearly Totals	95	\$3,325.00	\$135,587.80	
2020						
2	11	Regeneration, Artificial, Plant, Hand, Longleaf	95	\$15,675.00	\$0.00	
2	11	Site Preparation, Other, Burn, Hand, Cut-Over	95	\$2,375.00	\$0.00	
2	11	Site Preparation, Chemical, Broadcast, Aerial, Combination	95	\$9,500.00	\$0.00	
2	12	Fire Protection, Other, Burn, Hand, Fuel Reduction	171	\$4,268.25	\$0.00	
		Yearly Totals	456	\$31.818.25	\$0.00	
2021						
2	6	Harvest, Mechanical, Shelter Wood, Machine, Longleaf Pine	21	\$735.00	\$15,139.32	
2	12	Harvest, Mechanical, Shelter Wood, Machine, Longleaf Pine	171	\$5,985.00	\$123,277.32	
		Yearly Totals	192	\$6.720.00	\$138.416.64	
		Grand Totals	1.084	\$50,399.75	\$274.004.44	