

FOREST STEWARDSHIP MANAGEMENT PLAN

Prepared For: Hinds County BOE

Prepared By:
John Randall Giachelli
MFC

Time Period Covered by This Plan: 2012 - 2021

Date Plan Prepared: 2012-02-22

Plan Type: Stewardship / Stewardship

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

Property Name: 16-13N-5E

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LANDOWNER INFORMATION

Organization: Hinds County Schools Name: Hinds County BOE

Mailing Address: 13192 Hwy 18

City, State, Zip: Raymond, MS 39154 Country: United States of America

Contact Numbers: Home Number: 601-857-5222

Office Number: Fax Number:

E-mail Address: shandley@hinds.k12.ms.us

Social Security Number (optional):

FORESTER INFORMATION

Name: John Randall Giachelli, Service Forester

Forester Number: 02503 Organization: MFC

Street Address: 3139 Hwy 468 City, State, Zip: Pearl, MS 39208

Contact Numbers: Office Number: 601-420-6018

Fax Number:

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

PROPERTY LOCATION

County: Hinds Total Acres: 626 Latitude: -90.71 Longitude: 32.1

Section: 16 Township: 13N Range: 5E

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

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.

The goal is to provide a diversity of habitats suitable for a variety of game and non-game wildlife species. Habitat management will focus on developing a variety of food, cover, water, and space. This will be accomplished by establishing and maintaining access roads and firelanes, providing openings within the forest, and the management of trees located within the Streamside Management Zone.

PROPERTY DESCRIPTION

General Property Information

This section is located in the southwest portion of Hinds County. Access to this section can be reached off of Hunt Road. The property consists of Loblolly Pine plantations, mixed pine/hardwood and mature hardwood stands. The hardwood on this section consists of Red Oak, White Oak, Poplar, Sweetgum, Hickory and miscellaneous species. The property is well stocked and will need final harvests and thinnings during this plan. The only non-forested acres in this 626 acre property consists of 13 acres made up of county roads and streams.

Water Resources

Big Sand Creek runs accross the northern half of the property and will be treated with large streamside management zones. All 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: Smithdale, Oaklimeter, Memphis and Riedtown

Archaeological and Cultural Resources

This section has Big Sand Creek running through it and a streamside management zone will be left to withold waster quality and minimize erosion. No residential structures are located on this section and burning will not be an issue. Hunt Road runs down the West line and will be the main access into the property.

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

Smithdale

Slopes are 17 to 40 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. The Lexington component makes up 24 percent of the map unit. Slopes are 12 to 20 percent. This component is on uplands. The parent material consists of loess. 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 6e. This soil does not meet hydric criteria.

Oaklimeter

Slopes are 0 to 2 percent. This component is on flood plains. The parent material consists of silty alluvium deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is very high. Shrink-swell potential is low. This soil is occasionally flooded. It is not ponded. A seasonal zone of water saturation is at 24 inches during January, February, March, November, 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.

Memphis

Slopes are 8 to 17 percent. This component is on uplands. The parent material consists of loess 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 very 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 2 percent. Nonirrigated land capability classification is 6e. This soil does not meet hydric criteria. Loblolly Site Index = 105.

Riedtown

Slopes are 0 to 2 percent. This component is on flood plains. The parent material consists of silty alluvium deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is very high. Shrink-swell potential is low. This soil is occasionally flooded. It is not ponded. A seasonal zone of water saturation is at 30 inches during January, February, March, November, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 2w. This soil does not meet hydric criteria.

STRATA

Strata 1

Strata Description

Strata 1: Stands 7, 8, 11, 14, 21 and 23

Acres: 78

This is a well stocked 20 year old Loblolly Pine plantation. The area was fist thinned in 2009 removing poor form and smaller timber.

Strata Recommendations

This plantation is planned to have a second thinning in 2015 to again remove poor form and diseased timber. The thinning will be operator select to reduce the basal area to 75sqft per acre. These stands will be managed to a 35 to 40 year rotation. During this time frame, management activities such as thinnings, mid-rotation release to control undesirable species, and prescribed burning to improve wildlife habitat will be used to keep stands at full production.

Activity Recommendations

Harvest

A second thin is planned for 2015. Operator select will be used to remove poor timber to a 75sqft per acre basal area.

Prescribed Burn

A prescribed burn is planned for 2012 and 2017 to reduce fuel loads and competing vegetation. This will be a late Spring burn to kill woody vegetation. Burning is heavily influenced by weather and may take a few years to complete large acreage.

Strata 2

Strata Description

Strata 2: Stands 2, 3, 5, 6, 9, 12, 15 and 17

Acres: 167

This is a well stocked 58 year old mixed natural pine and hardwood strata. Most of this acreage will serve as a streamside management zone for Big Sand Creek.

Strata Recommendations

These stands will be managed to 65 to 75 year rotation. During this time frame management activities such as thinning from underneath to remove poor quality and overcrowded trees will be done. At the end of the rotation, a final harvest will be conducted and reforestation activities will be completed to return these stands to full production. Stands 3 and 12 that lie West of Hunt Road have a final harvest planned and will be converted to Loblolly Pine during regeneration.

Activity Recommendations

Harvest

The stands 3 and 12 will be combined with stand 20 to equal a 79 acre final harvest in 2021. All merchantable timber will be removed to produce a future advanced generation Loblolly Pine plantation. Because this area is close to the road, it will be easy to thin and will receive better prices for future timber sales.

Strata 3

Strata Description

Strata 3: Stands 16 and 22

Acres: 43

This is a Loblolly Pine stand that was harvest seeded in 1991. Survival is poor and does not need a thinning at this time.

Strata Recommendations

These stands will be managed to a 35 to 40 year rotation. During this time frame, management activities such as thinnings, mid-rotation release to control undesirable species, and prescribed burning to improve wildlife habitat will be used to keep stands at full production. These stands will have to be combined with boardering pine plantations during any harvest scheduling. There is not enough survival to hold a sale on it's own.

Strata 4

Strata Description

Strata 4: Stand 19

Acres: 108

This is a well stocked Loblolly Pine plantation planted in 1990. The stand is in steep terrain but holds very quality timber.

Strata Recommendations

These stands will be managed to a 35 to 40 year rotation. During this time frame, management activities such as thinnings, mid-rotation release to control undesirable species, and prescribed burning to improve wildlife habitat will be used to keep stands at full production. This stand is in need of a first thinning to promote future stand growth.

Activity Recommendations

Harvest

This stand will be select corridor thinned in 2012 to a basal area of 75sqft per acre. Smaller and poor form timber will be removed.

Harvest

This stand will receive a second thinning in 2017. This will also remove poor form and smaller timber. The second thinning may be a marked thin depending on future assessments. The stand will be thinned to a basal area of 75sqft per acre.

Prescribed Burn

This stand will need a cool season silviculture burn in 2013 and 2018 to reduce fuel loads from thinning. Burning is heavily influenced by weather and may take a few years to complete large acreage.

Strata 5

Strata Description

Strata 5: Stand 13

Acres: 102

This Loblolly Pine plantation was established in 1998. It it well stock with scattered hardwood pulpwood throughout. The stand is in need of a first thinning.

Strata Recommendations

These stands will be managed to a 35 to 40 year rotation. During this time frame, management activities such as thinnings, mid-rotation release to control undesirable

species, and prescribed burning to improve wildlife habitat will be used to keep stands at full production. A first and second thin will be needed during this plan.

Activity Recommendations

Harvest

The first thin will be in 2013. A corridor thin will remove basal area back to 75sqft per acre. This will enhance future growth.

Harvest

A second thinning is planned for 2018 to remove poor form and diseased timber to create a quality sawtimber stand.

Prescribed Burn

The stand will need a cool season burn in 2015 and 2020 to reduce fuel load from thinning and to reduce woody competition. Burning is heavily influenced by weather and may take a few years to complete large acreage.

Strata 6

Strata Description

Strata 6: Stand 20

Acres: 37

This area consists of planted pine that had poor survival. The stand is now a mixed hardwood and pine stand. The stand was established in 1998.

Strata Recommendations

These stands will be managed to a 35 to 40 year rotation. During this time frame, management activities such as thinnings, mid-rotation release to control undesirable species, and prescribed burning to improve wildlife habitat will be used to keep stands at full production. This stand will be final harvested during this plan.

Activity Recommendations

Harvest

The final harvest is planned for 2021. All merchantable timber will be removed during this harvest.

Strata 7

Strata Description

Strata 7: Stand 18

Acres: 78

This is a well stocked mature hardwood stand. Species consist of Red Oak, White Oak, Poplar, Hickory and Sweetgum.

Strata Recommendations

These stands will be managed to 65 to 75 year rotation. During this time frame management activities such as thinning from underneath to remove poor quality and overcrowded trees will be done. At the end of the rotation, a final harvest will be conducted and reforestation activities will be completed to return these stands to full production. This stand is healthy and will be harvested as soon as other areas are cut to create roads into this area. No activities are planned at this time.

OTHER PLAN ACTIVITIES

Boundary Lines

Boundary lines will be painted on a five year rotation to reduce trespassing and timber theft. This will begin in 2012.



Hinds County Schools

SEC. 16 TWN 13N RGE 5E 2012 to 2021 625.59 Acres



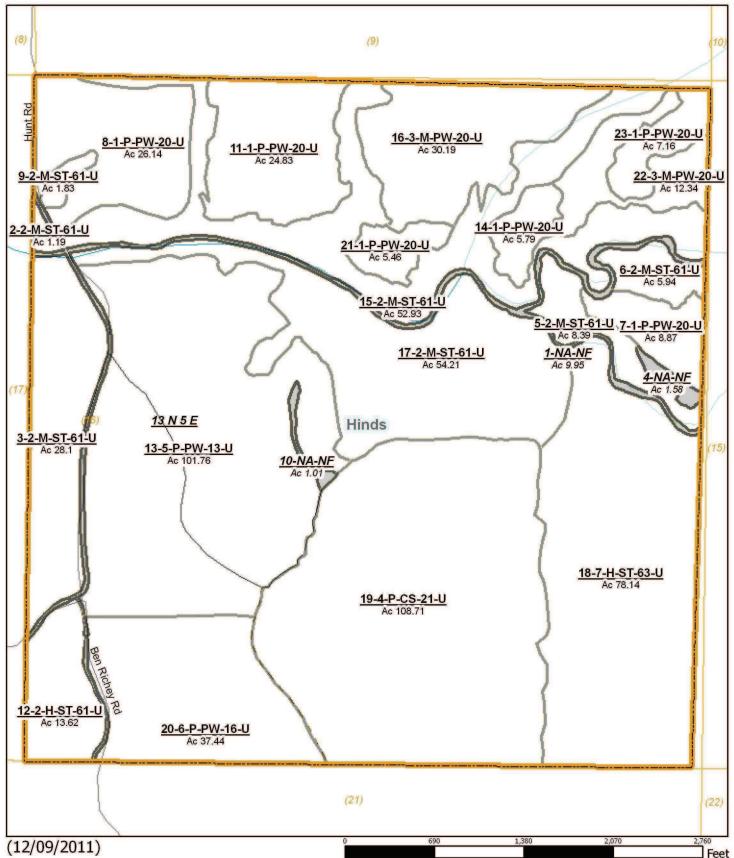




Hinds County Schools

SEC. 16 TWN 13N RGE 5E 2012 to 2021 625.59 Acres





Hinds County Schools



Property Property (1)	Category 3: Non-Forest Stands Non-Forest (3)	Management Compartment Harvest (1)
Category 1: Stands Sawtimber (9) Pulpwood (10) Chip-n-Saw (1)	Property Roads/Trails Access Road (1) Logging Road (1)	
MFC Basemap		
County Boundary County Boundary (1)	Public School Districts HINDS COUNTY SCHOOL DISTRICT (1)	Physiographic F
Quadrangle Grid USGS Quad (1)	US Congressional District US Cong Dist #2 (1)	Soil Association oaklimete smithdale
PLS Townships PLS Townships (1)	MS Senate 36 (1)	Surface Geolog
Survey Districts District 4 (1)	MS House 85 (1)	MFC Districts MFC Districts
Blockgroup (Census 2000) Blockgroup (Census 2000) (1)	Perennial Streams Perennial Streams (1)	MFC Dispatch U
Block (Census 2000) Block (Census 2000) (6)	Intermittent Streams Intermittent Streams (4)	MS Outline MS Outline
Tract/BNA (Census 2000) Tract/BNA (Census 2000) (1)	Hydrologic Units (Basins) LOWER BIG BLACK RIVER (1)	
County Roads County Roads (3)	Historic Forest Boundary Loblolly/Shortleaf Pine-Oak (1)	
School Sections School Sections (1)	MS Forest Habitat DEEP LOESS HILLS AND BLUFFS (1)	

Physiographic Region

LOESS HILLS (1)

Soil Associations
oaklimeter-ariel-gillsburg (1)
smithdale-lexington-providence (1)

Surface Geology
CATAHOULA (1)

MFC Districts
MFC Districts (1)

MFC Dispatch Units
MFC Dispatch Units
MFC Dispatch Units (1)

MS Outline
MS Outline (1)

Stand Activity Schedule for Hinds County Schools 16 13N 5E

Strata	Stand	Activity		Est. Cost	Est. Revenue
2012					
1	8	Fire Protection, Other, Burn, Hand, Fuel Reduction	26	\$520.00	\$0.00
1	11	Fire Protection, Other, Burn, Hand, Fuel Reduction	25	\$500.00	\$0.00
4	19	Harvest, Mechanical, Thin, Machine, Loblolly	109	\$1,962.00	\$35,043.50
		Yearly Totals	160	\$2.982.00	\$35,043.50
2013					
4	19	Fire Protection, Other, Burn, Hand, Fuel Reduction	109	\$2,725.00	\$0.00
5	13	Harvest, Mechanical, Thin, Machine, Loblolly	102	\$3,570.00	\$24,480.00
		Yearly Totals	211	\$6.295.00	\$24,480.00
2015					
1	7	Harvest, Mechanical, Thin, Machine, Loblolly	9	\$310.45	\$4,323.95
1	8	Harvest, Mechanical, Thin, Machine, Loblolly	26	\$914.90	\$12,742.73
1	11	Harvest, Mechanical, Thin, Machine, Loblolly	25	\$875.00	\$9,750.00
1	14	Harvest, Mechanical, Thin, Machine, Loblolly	6	\$202.65	\$2,822.51
1	21	Harvest, Mechanical, Thin, Machine, Loblolly	5	\$191.10	\$2,661.64
1	23	Harvest, Mechanical, Thin, Machine, Loblolly	7	\$250.60	\$3,490.36
5	13	Fire Protection, Other, Burn, Hand, Fuel Reduction	102	\$2,550.00	\$0.00
		Yearly Totals	180	\$5,294.70	\$35.791.18
2017					
1	7	Fire Protection, Other, Burn, Hand, Fuel Reduction	9	\$225.00	\$0.00
1	8	Fire Protection, Other, Burn, Hand, Fuel Reduction	26	\$650.00	\$0.00

Strata	Stand	Activity		Acre	Est. Cost	Est. Revenue
1	11	Fire Protection, Other, Burn, Hand, Fuel Reduction		25	\$625.00	\$0.00
1	14	Fire Protection, Other, Burn, Hand, Fuel Reduction		6	\$150.00	\$0.00
1	21	Fire Protection, Other, Burn, Hand, Fuel Reduction		5	\$125.00	\$0.00
1	23	Fire Protection, Other, Burn, Hand, Fuel Reduction		7	\$175.00	\$0.00
4	19	Harvest, Mechanical, Thin, Machine, Loblolly		109	\$3,815.00	\$46,852.56
			Yearly Totals	187	\$5.765.00	\$46.852.56
2018						
4	19	Fire Protection, Other, Burn, Hand, Fuel Reduction		109	\$2,725.00	\$0.00
5	13	Harvest, Mechanical, Thin, Machine, Loblolly		102	\$3,570.00	\$24,480.00
			Yearly Totals	211	\$6.295.00	\$24,480.00
2020						
5	13	Fire Protection, Other, Burn, Hand, Fuel Reduction		102	\$2,550.00	\$0.00
			Yearly Totals	102	\$2.550.00	\$0.00
2021						
2	3	Harvest, Mechanical, Final, Machine, Loblolly		28	\$980.00	\$49,140.00
2	12	Harvest, Mechanical, Final, Machine, Misc Hardwood		14	\$490.00	\$27,160.00
6	20	Harvest, Mechanical, Final, Machine, Loblolly		37	\$1,295.00	\$74,370.00
			Yearly Totals	79	\$2,765.00	\$150,670.00
			Grand Totals	1.130	\$31.946.70	\$317.317.24