



Vision • Commitment • Pride

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: 16-3N-3W

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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: 647 Latitude: -90.51 Longitude: 32.1
Section: 16 Township: 3N Range: 3W

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.

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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 southern part of Hinds County. Access to this section can be reached off of Bear Creek Road. This section consists of 365 acres of Loblolly pine plantation, 85 acres of recent clearcut and 173 acres of mixed hardwood. With frequent wildfires in this area, firelanes must be maintained at all times. Non-forested areas consist of 24 acres that are mainly count roads.

Water Resources

No perennial water resources were identified during a reconnaissance of the property. However, intermittent streams and drains identified will be managed in accordance with Mississippi's Best Management Practices.

Timber Production

The goal is to maximize the production of high quality timber. This will be accomplished through the application of timely thinning and other silvicultural practices designed to enhance timber quality and growth. Forestry Best Management Practices will be implemented to prevent erosion and protect water quality.

Threatened and Endangered Species

No threatened and endangered species were identified during the reconnaissance and evaluation of your property.

Interaction with Surrounding Property

Prescribed practices should be carried out in a manner that will minimize adverse impacts on surrounding properties. Consideration should be given to potential air, water, visual, and other impacts. In addition, practices carried out should have positive effects on the surrounding community such as improved wildlife habitat and soil stabilization.

Soils General

Soils were evaluated on the property to determine the suitability of the site for the proposed activities. Forest practices were planned so as to minimize erosion or other

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adverse effects on the soil. The following soils are identified for this property: Loring, Providence and Oaklimeter

Archaeological and Cultural Resources

There is one residence on the North east corner of stand 5. This area will be taken into consideration during all stand activities.

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

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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 been 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.

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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

Loring

Slopes are 12 to 20 percent. This component is on uplands. The parent material consists of loess deposits. Depth to a root restrictive layer, fragipan, is 14 to 35 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. 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, December. Organic matter content in the surface horizon is about 1 percent. This soil does not meet hydric criteria. The Kisatchie component makes up 30 percent of the map unit. Slopes are 5 to 30 percent. This component is on coastal plains. The parent material consists of clayey marine deposits. Depth to a root restrictive layer, bedrock, paralithic, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches is low. 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.

Providence

Slopes are 10 to 15 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. The Smithdale component makes up 30 percent of the map unit. Slopes are 12 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.

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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.

STRATA

Strata 1

Strata Description

Strata 1 : Stand 6

Acres : 120

This stand is a well stocked advanced generation Loblolly Pine plantation. The plantation was established in 1991 and was first thinned in 2009.

Stand 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 area should be selectively thinned when the average pine basal area exceeds 110 square feet per acre. Thin back to an average basal area of 70 square feet per acre, plus or minus 5 square feet per acre leaving the best trees for crop trees.

Activity Recommendations

Harvest

The second thinning of this plantation is scheduled for 2015. The basal area will be reduced by removing poor form and diseased timber. We will select take out trees from the rows cut by the first thin. This will minimize stand damage and maximize future sawtimber quality.

Prescribed Burn

A prescribed burn is planned for 2012 and 2016. The prescribed burn will reduce fuel levels from thinning. The burn should be done with good surrounding firelanes. A burn plan needs to be written and followed by a certified burn manager. Burning will promote browse for local wildlife. Burning is heavily influenced by weather and may take a few years to complete large acreage.

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Strata 2

Strata Description

Strata 2 : Stands 2 and 4

Acres : 134

This area is a well stocked Loblolly Pine plantation that was established in 1994. The stands will need to be harvested on different years to reduce the cutting arces and streamline revenue across the ten year plan.

Stand 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 area should be thinned when the average pine DBH is 6 inches and average basal area exceeds 110 square feet per acre. Either thin using a fourth or fifth row thinning or a cutter select corridor thin that represents a fourth or fifth row thinning scheme. Thin back to an average basal area of 70 square feet per acre, plus or minus 5 square feet per acre.

Activity Recommendations

Harvest

Stand 2 will be first thinned in 2013 and second thinned in 2018.

Stands 4 will be first thinned in 2016 and second thinned in 2021.

All thinnings will reduce the basal area to 75sqft per acre by removing poor form and diseased timber. This will create a high quality sawtimber stand.

Prescribed Burn

A prescribed burn is planned for 2014 and 2019 on stand 2.

A prescribed burn is planned for 2012, 2015 and 2018 on stand 4.

The prescribed burn will reduce fuel levels from thinning. The burn should be done with good surrounding firelanes. A burn plan needs to be written and followed by a certified burn manager. Burning will promote browse for local wildlife. Frequent burns is a must to keep fuel levels down because of the high number of wildfires in this area. Burning is heavily influenced by weather and may take a few years to complete large acreage.

Strata 3

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Strata Description

Strata 3 : Stand 3

Acres : 114

This is a well stocked Loblolly Pine plantation that was established in 1995. A streamside management zone runs through this stand and all harvests will be planned to protect water quality.

Stand 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 area should be thinned when the average pine DBH is 6 inches and average basal area exceeds 110 square feet per acre. Either thin using a fourth or fifth row thinning or a cutter select corridor thin that represents a fourth or fifth row thinning scheme. Thin back to an average basal area of 70 square feet per acre, plus or minus 5 square feet per acre.

Activity Recommendations

Harvest

This first thinning is planned for 2013 and second for 2017.

All thinnings will reduce the basal area to 75sqft per acre by removing poor form and diseased timber. This will create a high quality sawtimber stand.

Prescribed Burn

A prescribed burn is planned for 2013 and 2018. The prescribed burn will reduce fuel levels from thinning. The burn should be done with good surrounding firelanes. A burn plan needs to be written and followed by a certified burn manager. Burning will promote browse for local wildlife. Burning is heavily influenced by weather and may take a few years to complete large acreage.

Strata 4

Strata Description

Strata 4 : Stand 5

Acres : 66

This is a well stocked natural pine and mixed hardwood stand. A residence is located on the Northeast corner of this stand.

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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. There are no activities planned at this time but a harvest may be needed if any storm damage or bug related timber damage is observed.

Strata 5

Strata Description

Strata 5 : Stand 7

Acres : 108

This is a well stocked natural pine and mixed hardwood stand that is approximately 60 years old. This stand is planned for final harvesting during this plan.

Stand 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. With this being said, this area should be harvested of all merchantable timber. Small bug spots are being noticed in this stand indicating overmaturity. The stand is slow growing and will benefit from being artificially regenerated with advanced generation Loblolly Pine seedlings.

Activity Recommendations

Harvest and Regeneration

Stand 7 will be final harvested in 2019.

The area will be aurally sprayed and burned in 2020 to reduce debris and produce a clean planting area.

Artificial regeneration will take place in 2021 to create an advanced generation Loblolly Pine plantation. Planting will consist of 622 trees per acre on a 7x10 spacing. The area will be hand planted with bareroot seedlings.

Strata 6

Strata Description

Strata 6 : Stand 8

Acres : 85

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This is a clearcut area that was recently harvested in 2011. The stand was mature hardwood and will be artificially regenerated with advanced generation Loblolly Pine bareroot seedlings.

Stand Recommendations

This area needs to be site prepared and planted with advanced generation Loblolly Pine seedlings. 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

Site Preparation

These stands need to be sprayed in 2012 by helicopter during late summer. An aerial broadcast spray will offer the best coverage because of the size and amount of competing vegetation.

Site Preparation Burn

This area should be burned in 2012 in order to reduce debris and help control competing vegetation. This will also create a clean planting area.

Regeneration

Regeneration will be performed between the months of December and February of 2012-2013. This will ensure best survival and lower the chances of future replanting. The second generation loblolly pine seedling need to be planted on a spacing of 7x10 that leads to a tree count of 622 trees per acre. A qualified tree planter will be used during this process.

OTHER PLAN ACTIVITIES

Boundary Lines

Line Description

Boundary line painting will be on a five year rotation to reduce trespassing and timber theft starting in 2012.

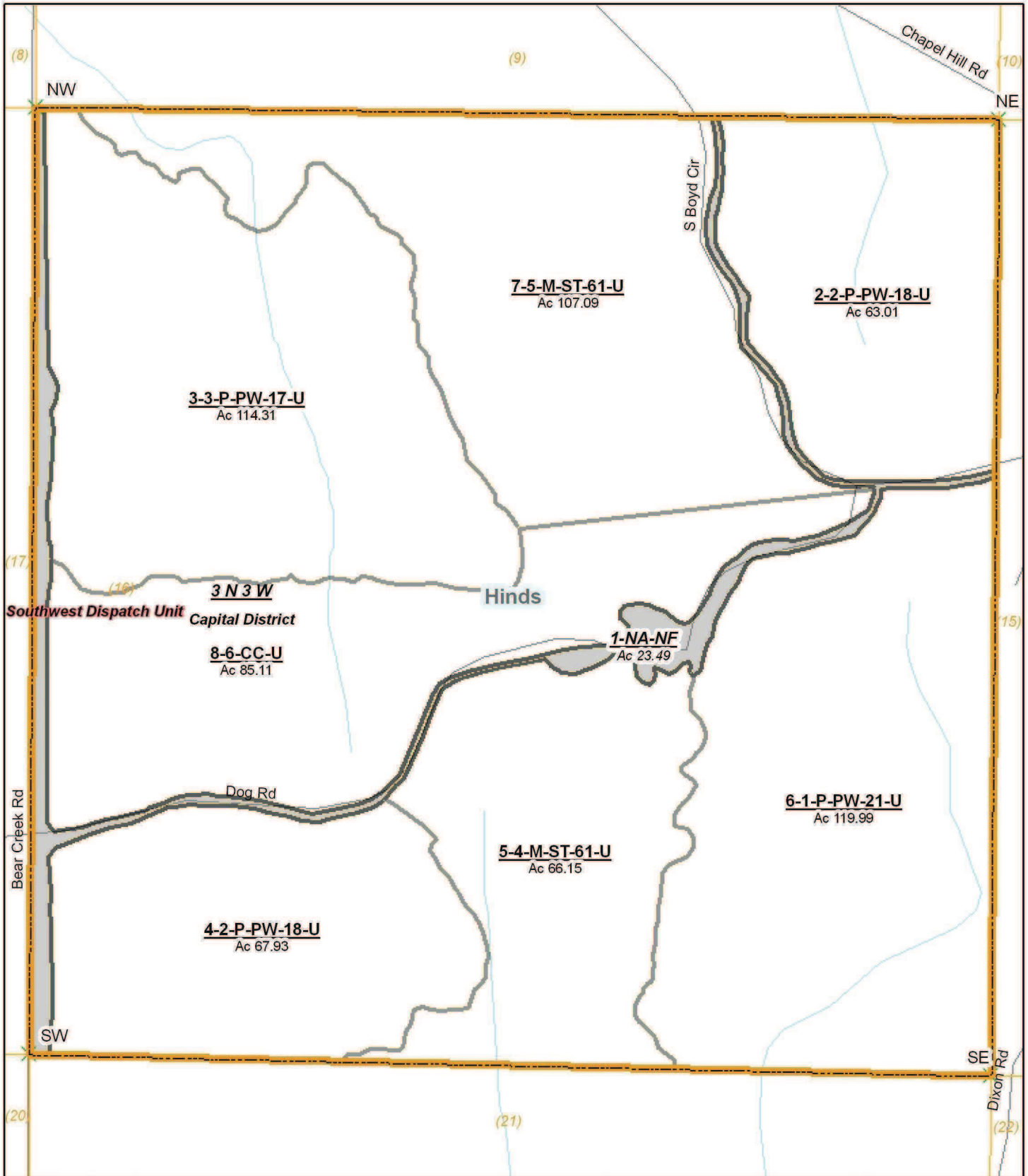


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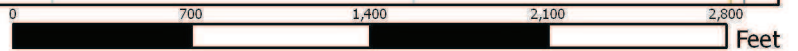
SEC. 16 TWN 3N RGE 3W

2012 to 2021

647.08 Acres



(01/04/2012)





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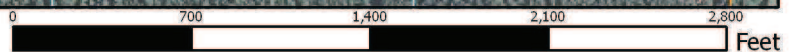
SEC. 16 TWN 3N RGE 3W

2012 to 2021

647.08 Acres




(01/04/2012)




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Property

 Property (1)


Category 1: Stands

 Pulpwood (4)


 Sawtimber (2)

 Clear Cut (1)

Category 3: Non-Forest Stands


 Non-Forest (1)

Boundary Corners


 Property (2)

MFC Basemap


County Boundary

 County Boundary (1)


Quadrangle Grid

 USGS Quad (1)


PLS Townships

 PLS Townships (1)


Survey Districts

 District 2 (1)


Blockgroup (Census 2000)

 Blockgroup (Census 2000) (1)


Block (Census 2000)

 Block (Census 2000) (4)


Tract/BNA (Census 2000)

 Tract/BNA (Census 2000) (1)


County Roads

 County Roads (4)


School Sections

 School Sections (1)

Public School Districts

 HINDS COUNTY SCHOOL DISTRICT (1)

US Congressional District

 US Cong Dist #2 (1)


MS Senate

 29 (1)


MS House

 63 (1)

Intermittent Streams


 Intermittent Streams (4)

Hydrologic Units (Basins)


 BAYOU PIERRE (1)

Historic Forest Boundary


 Shortleaf/Longleaf Pine-Upland Hardwood-Loblolly Pine (1)

 Loblolly/Shortleaf Pine-Oak (1)

MS Forest Habitat


 SOUTHERN LOESSIAL LOAM HILLS-RUGGED TOPO (1)


Physiographic Region

 SOUTH CENTRAL HILLS (1)

Soil Associations

 loring-kisatchie-memphis (1)

 providence-smithdale-saffell (1)

 loring-byram-grenada (1)

Surface Geology

 CATAHOULA (1)


MFC Districts

 MFC Districts (1)

MFC Dispatch Units

 MFC Dispatch Units (1)

MS Outline

 MS Outline (1)

Stand Activity Schedule for
Hinds County Schools
16 3N 3W

Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue
2012					
1	6	Wildlife Management, Other, Burn, Hand, Habitat Improvement	120	\$2,400.00	\$0.00
2	4	Wildlife Management, Other, Burn, Hand, Habitat Improvement	68	\$1,700.00	\$0.00
6	8	Site Preparation, Chemical, Broadcast, Aerial, Combination	85	\$8,500.00	\$0.00
6	8	Site Preparation, Other, Burn, Hand, Debris	85	\$1,700.00	\$0.00
Yearly Totals			358	\$14,300.00	\$0.00
2013					
2	2	Harvest, Mechanical, Thin, Machine, Loblolly	63	\$2,205.00	\$20,254.50
3	3	Wildlife Management, Other, Burn, Hand, Habitat Improvement	114	\$2,850.00	\$0.00
3	3	Harvest, Mechanical, Thin, Machine, Loblolly	114	\$3,990.00	\$27,360.00
6	8	Regeneration, Artificial, Plant, Machine, Loblolly	85	\$6,800.00	\$0.00
Yearly Totals			376	\$15,845.00	\$47,614.50
2014					
2	2	Wildlife Management, Other, Burn, Hand, Habitat Improvement	63	\$1,575.00	\$0.00
Yearly Totals			63	\$1,575.00	\$0.00
2015					
1	6	Harvest, Mechanical, Thin, Machine, Loblolly	120	\$4,200.00	\$43,800.00
2	4	Wildlife Management, Other, Burn, Hand, Habitat Improvement	68	\$1,700.00	\$0.00
Yearly Totals			188	\$5,900.00	\$43,800.00
2016					
1	6	Wildlife Management, Other, Burn, Hand, Habitat Improvement	120	\$3,000.00	\$0.00
2	4	Harvest, Mechanical, Thin, Machine, Loblolly	68	\$2,380.00	\$25,309.60

Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue	
			Yearly Totals	188	\$5,380.00	\$25,309.60
2017						
3	3	Harvest, Mechanical, Thin, Machine, Loblolly	114	\$3,990.00	\$44,346.00	
			Yearly Totals	114	\$3,990.00	\$44,346.00
2018						
2	2	Harvest, Mechanical, Thin, Machine, Loblolly	63	\$2,205.00	\$24,570.00	
2	4	Wildlife Management, Other, Burn, Hand, Habitat Improvement	68	\$1,700.00	\$0.00	
3	3	Wildlife Management, Other, Burn, Hand, Habitat Improvement	114	\$2,850.00	\$0.00	
			Yearly Totals	245	\$6,755.00	\$24,570.00
2019						
2	2	Wildlife Management, Other, Burn, Hand, Habitat Improvement	63	\$1,575.00	\$0.00	
5	7	Harvest, Mechanical, Final, Machine, Loblolly	107	\$3,745.00	\$153,438.00	
			Yearly Totals	170	\$5,320.00	\$153,438.00
2020						
5	7	Site Preparation, Chemical, Broadcast, Aerial, Combination	107	\$6,955.00	\$0.00	
5	7	Site Preparation, Other, Burn, Hand, Combination	107	\$2,675.00	\$0.00	
			Yearly Totals	214	\$9,630.00	\$0.00
2021						
2	4	Harvest, Mechanical, Thin, Machine, Loblolly	68	\$2,380.00	\$28,900.00	
5	7	Regeneration, Artificial, Plant, Hand, Loblolly	107	\$9,095.00	\$0.00	
			Yearly Totals	175	\$11,475.00	\$28,900.00
			Grand Totals	2,091	\$80,170.00	\$367,978.10