



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-2W

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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: 637 Latitude: -90.41 Longitude: 32.1
Section: 16 Township: 3N Range: 2W

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 estimates 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 Section Road. This section consists of 294 acres of pine plantation, 333 acres of natural pine and mixed hardwood and 11 acres of non-forested area. The plantation areas have been first thinned and the hardwood areas are at maturity and will begin to be final harvested during this plan.

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: Providence, Loring and Oaklimeter

Archaeological and Cultural Resources

There is a hunting camp on this section. Aesthetics bordering this area will be in order.

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

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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.

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

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property should be conducted and a plan developed to accomplish your specific goals for recreational activities on your property.

SOIL TYPES

Providence

Slopes are 8 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. Loblolly Site Index = 87. Longleaf Site Index = 73.

Loring

Slopes are 2 to 8 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 28 inches during January, February, March, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria. Loblolly Site Index = 95.

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 14

Acres : 14

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This is a well stocked Loblolly Pine plantation originated in 1993. This stand was corridor 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. It should also be kept on a burning rotation to reduce sweetgum competition that is a problem in this area. Burning is scheduled for 2012.

Activity Recommendations

Harvest

The second thinning of this plantation is scheduled for 2016. 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 2017 and 2020. 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 3

Strata Description

Strata 3 : Stands 1, 2, 8, 15, 16 and 17

Acres : 246

This is a well stocked Loblolly Pine plantation that was established in 1993. This strata was first thinned using corridor operations 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 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

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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. This strata will be split up during harvests because of the acreage involved. Prescribed burning is scheduled for 2012.

Activity Recommendations

Harvest

Stands 8 and 15 will be second thinned in 2015.

Stands 1, 2, 16 and 17 will be second thinned in 2016.

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 2017 and 2020. 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 : Stands 9, 10, 18, 24, 25, 26, 27 and 28

Acres : 333

This is an area consisting of natural pine and mixed hardwood that is approximately 55 years old. There is some storm damage in areas and quality is poor in other areas.

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. Some areas will need to be final harvested during this plan in order to maximize revenue in the poor quality and overmature areas. Advanced generation Loblolly Pine seedlings will replace the poor quality hardwood areas during this plan.

Activity Recommendations

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Harvest

Stand 10 will be final harvested along with stand 3 of strata 5 in 2014. The pines in strata 5 will be financially mature at this time and by adding stand 10 it will increase the acres for a more manageable stand.

The area will be aerially sprayed and burned in 2015 to reduce debris and produce a clean planting area.

Artificial regeneration will take place in 2016 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.

Harvest

Stand 26 and 28 will be final harvested in 2019. The pines in this area will be starting to decline at this time and a final harvest will be needed.

Spraying and burning will take place in 2020 to create a clean planting area.

Bareroot advanced generation Loblolly Pine seedlings will be hand planted in 2021 at 622 trees per acre on a 7x10 spacing.

Strata 5

Strata Description

Strata 5 : Stand 3

Acres : 34

This is a well stocked 32 year old Loblolly Pine plantation that will be final harvested during this plan.

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 is pine sawtimber stand that is financially mature and will need a final harvest scheduled for 2014. This area will be regenerated with advanced generation Loblolly Pine.

Activity Recommendations

Harvest

Stand 3 will be final harvested in 2014. The pines will be financially mature at this time and in need of harvesting.

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The area will be aerially sprayed and burned in 2015 to reduce debris and produce a clean planting area.

Artificial regeneration will take place in 2016 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.

OTHER PLAN ACTIVITIES

Boundary Lines

Line Description

The repainting of boundary lines will be on a five year rotation starting in 2012.

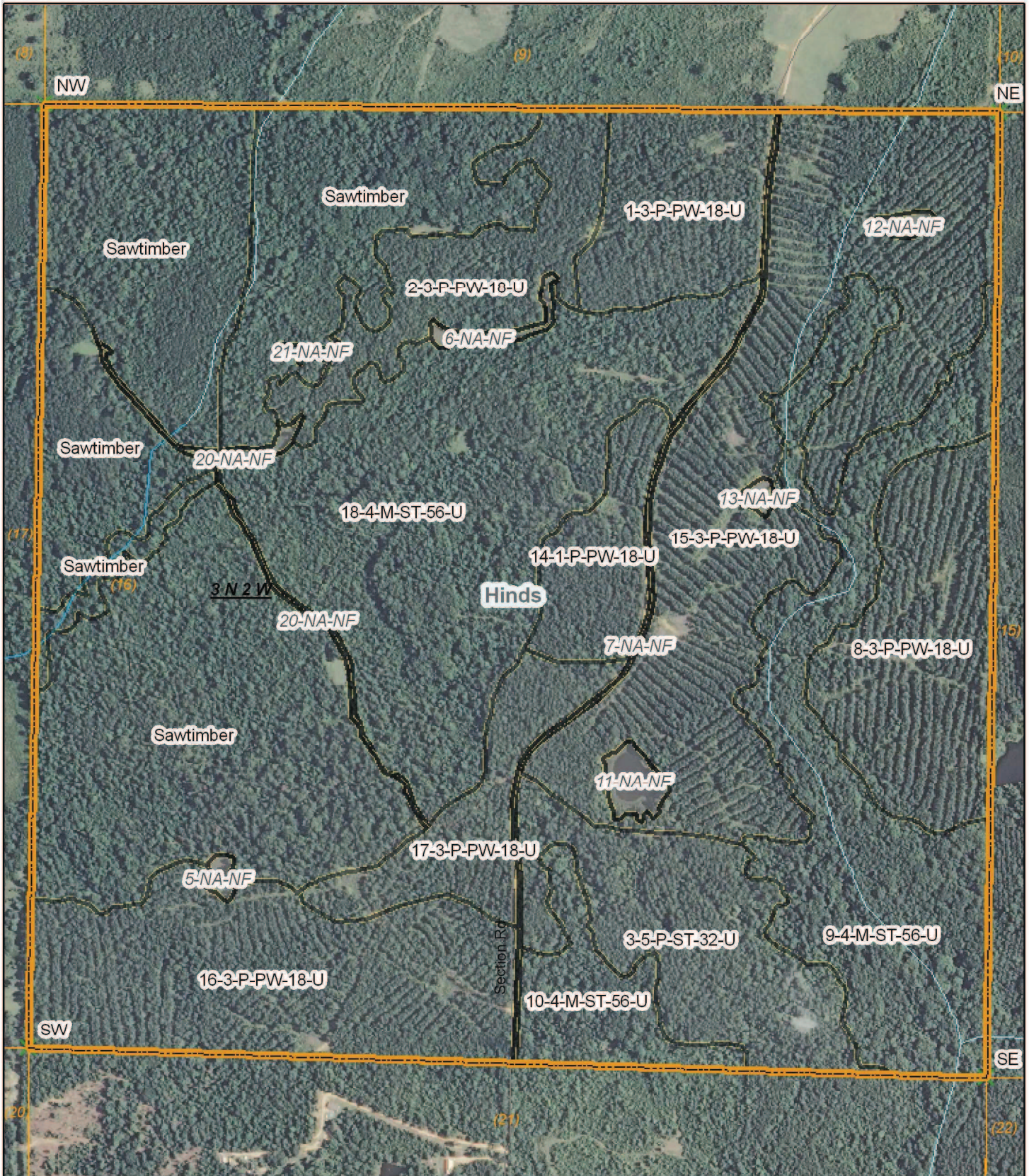


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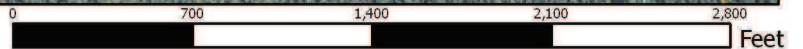
SEC. 16 TWN 3N RGE 2W

2012 to 2021

636.80 Acres




(12/28/2011)





Hinds County Schools




Property

 Property (1)


Category 1: Stands

 Pulpwood (7)
 Sawtimber (9)

Category 3: Non-Forest Stands


 Non-Forest (8)

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) (1)


Tract/BNA (Census 2000)

 Tract/BNA (Census 2000) (1)


County Roads

 County Roads (1)


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

 73 (1)


Perennial Streams

 Perennial Streams (1)

Intermittent Streams

 Intermittent Streams (4)

Hydrologic Units (Basins)

 BAYOU PIERRE (1)


Historic Forest Boundary

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



MS Forest Habitat

 SOUTHERN LOESSIAL LOAM HILLS-RUGGED TOPO (1)

Physiographic Region

 SOUTH CENTRAL HILLS (1)


Soil Associations

 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 2W

Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue
2012					
3	8	Wildlife Management, Other, Burn, Hand, Habitat Improvement	36	\$720.00	\$0.00
3	15	Wildlife Management, Other, Burn, Hand, Habitat Improvement	91	\$1,820.00	\$0.00
3	16	Wildlife Management, Other, Burn, Hand, Habitat Improvement	53	\$1,060.00	\$0.00
3	17	Wildlife Management, Other, Burn, Hand, Habitat Improvement	18	\$360.00	\$0.00
Yearly Totals			198	\$3,960.00	\$0.00
2014					
4	10	Harvest, Mechanical, Final, Machine, Misc Hardwood	15	\$525.00	\$31,350.00
5	3	Harvest, Mechanical, Final, Machine, Loblolly	34	\$1,190.00	\$49,572.00
Yearly Totals			49	\$1,715.00	\$80,922.00
2015					
3	8	Harvest, Mechanical, Thin, Machine, Loblolly	36	\$1,260.00	\$14,004.00
3	15	Harvest, Mechanical, Thin, Machine, Loblolly	91	\$3,185.00	\$35,399.00
4	10	Site Preparation, Chemical, Broadcast, Aerial, Combination	15	\$975.00	\$0.00
4	10	Site Preparation, Other, Burn, Hand, Combination	15	\$375.00	\$0.00
5	3	Site Preparation, Other, Burn, Hand, Combination	34	\$850.00	\$0.00
5	3	Site Preparation, Chemical, Broadcast, Aerial, Combination	34	\$2,210.00	\$0.00
Yearly Totals			225	\$8,855.00	\$49,403.00
2016					
1	14	Harvest, Mechanical, Thin, Machine, Loblolly	14	\$490.00	\$9,912.00
3	1	Harvest, Mechanical, Thin, Machine, Loblolly	23	\$805.00	\$5,520.00

Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue
3	2	Harvest, Mechanical, Thin, Machine, Loblolly	25	\$875.00	\$8,875.00
3	16	Harvest, Mechanical, Thin, Machine, Loblolly	53	\$1,855.00	\$20,617.00
3	17	Harvest, Mechanical, Thin, Machine, Loblolly	18	\$630.00	\$7,002.00
4	10	Regeneration, Artificial, Plant, Hand, Loblolly	15	\$1,275.00	\$0.00
5	3	Regeneration, Artificial, Plant, Hand, Loblolly	34	\$2,890.00	\$0.00

Yearly Totals			182	\$8,820.00	\$51,926.00
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2017

1	14	Wildlife Management, Other, Burn, Hand, Habitat Improvement	14	\$350.00	\$0.00
3	1	Wildlife Management, Other, Burn, Hand, Habitat Improvement	23	\$575.00	\$0.00
3	2	Wildlife Management, Other, Burn, Hand, Habitat Improvement	25	\$625.00	\$0.00
3	8	Wildlife Management, Other, Burn, Hand, Habitat Improvement	36	\$900.00	\$0.00
3	15	Wildlife Management, Other, Burn, Hand, Habitat Improvement	91	\$2,275.00	\$0.00
3	16	Wildlife Management, Other, Burn, Hand, Habitat Improvement	53	\$1,325.00	\$0.00
3	17	Wildlife Management, Other, Burn, Hand, Habitat Improvement	18	\$450.00	\$0.00

Yearly Totals			260	\$6,500.00	\$0.00
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2019

4	26	Harvest, Mechanical, Final, Machine, Loblolly	19	\$665.00	\$28,880.00
4	28	Harvest, Mechanical, Final, Machine, Loblolly	39	\$1,365.00	\$59,280.00

Yearly Totals			58	\$2,030.00	\$88,160.00
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2020

1	14	Wildlife Management, Other, Burn, Hand, Habitat Improvement	14	\$350.00	\$0.00
3	1	Wildlife Management, Other, Burn, Hand, Habitat Improvement	23	\$575.00	\$0.00
3	2	Wildlife Management, Other, Burn, Hand, Habitat Improvement	25	\$625.00	\$0.00
3	8	Wildlife Management, Other, Burn, Hand, Habitat Improvement	36	\$900.00	\$0.00

Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue	
3	15	Wildlife Management, Other, Burn, Hand, Habitat Improvement	91	\$2,275.00	\$0.00	
3	16	Wildlife Management, Other, Burn, Hand, Habitat Improvement	53	\$1,325.00	\$0.00	
3	17	Wildlife Management, Other, Burn, Hand, Habitat Improvement	18	\$450.00	\$0.00	
4	26	Site Preparation, Other, Burn, Hand, Combination	19	\$475.00	\$0.00	
4	26	Site Preparation, Chemical, Broadcast, Aerial, Combination	19	\$1,235.00	\$0.00	
4	28	Site Preparation, Chemical, Broadcast, Aerial, Combination	39	\$2,535.00	\$0.00	
4	28	Site Preparation, Other, Burn, Hand, Combination	39	\$975.00	\$0.00	
			Yearly Totals	376	\$11,720.00	\$0.00
2021						
4	26	Regeneration, Artificial, Plant, Hand, Loblolly	19	\$1,615.00	\$0.00	
4	28	Regeneration, Artificial, Plant, Hand, Loblolly	39	\$3,315.00	\$0.00	
			Yearly Totals	58	\$4,930.00	\$0.00
			Grand Totals	1,406	\$48,530.00	\$270,411.00