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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: 16-5N-3W

MISSISSIPPI FOREST STEWARDSHIP PROGRAM

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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:	652	Latitude:	-90.51	Longitude:	32.28
Section:	16	Township:	5N	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.

OBJECTIVES

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.

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.

PROPERTY DESCRIPTION

General Property Information

This section is located in the west central part of Hinds County. Access to this section can be reached off of Bill Downing Road. The property consists of 126 acres of pine plantation, 315 acres of natural pine and mixed hardwood, 163 acres of reproduction and 46 acres of non-forested area. The majority of the plantation acres will need to be second thinned during this plan. The pine reproduction acres will be protected at all times by maintained firelanes. The mixed hardwood included Red Oak, Hickory, Sweetgum, Ash and miscellaneous species.

Water Resources

No perennial water resources were identified during a reconnaissance of the property. However, Turkey Creek runs north and south accross the east side of the section and 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: Memphis, Riedtown, Calloway and McRaven

Archaeological and Cultural Resources
A hunting camp is located on the Northern boarder of this section and a house on the Eastern line. There is a gas line that splits the section that will be crossed with care during any harvest.

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

Memphis
Slopes are 2 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 2e. 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.

Calloway
Slopes are 0 to 2 percent. This component is on uplands. The parent material consists of loess deposits. Depth to a root restrictive layer, fragipan, is 18 to 28 inches. The natural drainage class is somewhat poorly 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 low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 16 inches during January, February, March, April. 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 = 80.

McRaven
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 somewhat 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 occasionally flooded. It is not ponded. A seasonal zone of water saturation is at 15 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 3, 20, 35-37 and 46

Acres : 163

This is a recent final harvested area that was artificially regenerated with advanced generation Loblolly Pine seedlings at 622 trees per acre.

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 area will be monitored for competing vegetation and will be sprayed if needed during this plan. Firelanes should be kept clean duing dry weather to reduce the chance of wildfire.

Strata 2
Strata Description
Strata 2 : Stands 1, 6, 8, 12, 13, 17, 23, 25, 31-33, 39, 40, 44, 50 and 51

Acres : 94

This strata consists of Loblolly Pine plantations that were established in 2000. The stands are well stocked and healthy.

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

The first thinning of this plantation is scheduled for 2016. The basal area will be reduced by removing poor form and diseased timber.

Prescribed Burn

A prescribed burn is planned for 2017. 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.

Strata 3

Strata Description

Strata 3 : Stands 18, 19, 26, 28 and 47

Acres : 36

This is a well stocked advanced generation Loblolly Pine plantation established in 2005.

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

The first thinning of this plantation is scheduled for 2020. The basal area will be reduced by removing poor form and diseased timber.

Prescribed Burn

A prescribed burn is planned for 2021. 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.

Strata 5

Strata Description

Strata 5 : Stands 4, 5, 14, 16, 22, 27, 29, 30. 34, 38, 41-43, 45, 48 and 49

Acres : 284

This is a well stocked upland hardwood area that is approximately 58 years old.

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 of this area is in need of final harvest and will be completed during this plan.

Activity Recommendations

Harvest

Stands 48 and 27 will be removed of all merchantable timber in 2020 to create a faster growing Loblolly Pine plantation to maximize revenue.

Site Preparation

These stands need to be sprayed by helicopter during late summer of 2021. An aerial broadcast spray will offer the best coverage because of the size and amount of competing vegitation.

Site Preparation

These stands will need to be burned 45-60 days after spraying. The prescribed burn will reduce fuel levels and make an easier work area for hand planters. The burn should be done with good surrounding firelanes because of the high fuel levels. A burn plan needs to be written and followed by a certified burn manager.

Strata 6

Strata Description

Strata 6 : Stands 2, 10, 11 and 21

Acres : 38

This is a 28 year old natural pine and mixed hardwood area that is slow growing and will be added to boardering stands for harvesting.

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 area needs to be artificially regenerated with Loblolly Pine to increase revenue.

Activity Recommendations

Harvest

Stands 2 and 21 will be added to the final harvest of strata 5 in 2020. All merchantable timber will be removed.

Site Preparation

These stands need to be sprayed by helicopter during late summer of 2021. An aerial broadcast spray will offer the best coverage because of the size and amount of competing vegitation.

Site Preparation

These stands will need to be burned 45-60 days after spraying. The prescribed burn will reduce fuel levels and make an easier work area for hand planters. The burn should be done with good surrounding firelanes because of the high fuel levels. A burn plan needs to be written and followed by a certified burn manager.

OTHER PLAN ACTIVITIES

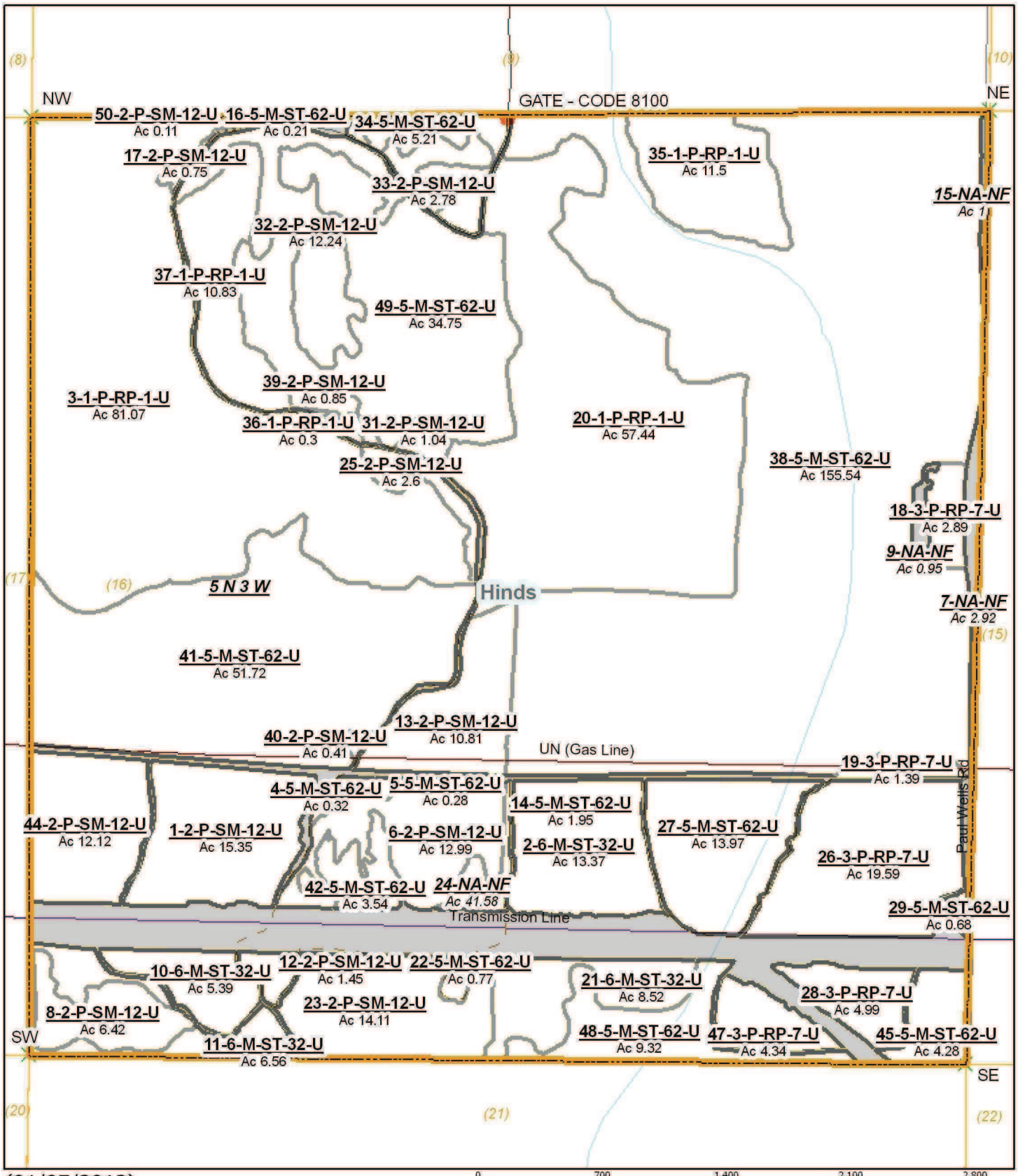
Boundary Lines

Line Description

Boundary lines will be painted on a five year rotation to prevent trespassing and timber theft starting in 2014.

Hinds County Schools

SEC. 16 TWN 5N RGE 3W
2012 to 2021
651.93 Acres



(01/05/2012)

0 700 1,400 2,100 2,800 Feet

Hinds County Schools

SEC. 16 TWN 5N RGE 3W
2012 to 2021
651.93 Acres

(01/05/2012)

0 700 1,400 2,100 2,800 Feet

Hinds County Schools

Property
- Property (1)

Category 1: Stands
- Sawtimber (20)
- Sub-Merchantable (16)
- Reproduction (11)

Category 3: Non-Forest Stands
- Non-Forest (4)

Boundary Corners
- Property (4)

Other
- Locked (1)

Property Roads/Trails
- Access Road (1)
- Logging Road (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 (3)

Transmission Lines
- Transmission Lines (1)

Natural Gas Lines
- Natural Gas Lines (1)

School Sections
- School Sections (1)

Public School Districts
- HINDS COUNTY SCHOOL DISTRICT (1)

US Congressional District
- US Cong Dist #2 (1)

MS Senate
- 26 (1)

MS House
- 63 (1)

Intermittent Streams
- Intermittent Streams (1)

Hydrologic Units (Basins)
- LOWER BIG BLACK RIVER (1)

Historic Forest Boundary
- Loblolly/Shortleaf Pine-Oak (1)

MS Forest Habitat
- DEEP LOESS PLAINS (1)

Physiographic Region
- SOUTH CENTRAL HILLS (1)

Soil Associations
- memphis-loring-collins (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 5N 3W

Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue
2016					
2	1	Harvest, Mechanical, Thin, Machine, Loblolly	15	$537.25	$3,684.00
2	6	Harvest, Mechanical, Thin, Machine, Loblolly	13	$454.65	$3,117.60
2	8	Harvest, Mechanical, Thin, Machine, Loblolly	6	$224.70	$1,540.80
2	12	Harvest, Mechanical, Thin, Machine, Loblolly	1	$35.00	$240.00
2	13	Harvest, Mechanical, Thin, Machine, Loblolly	11	$378.35	$2,594.40
2	17	Harvest, Mechanical, Thin, Machine, Loblolly	1	$26.25	$180.00
2	23	Harvest, Mechanical, Thin, Machine, Loblolly	14	$493.85	$3,386.40
2	25	Harvest, Mechanical, Thin, Machine, Loblolly	3	$91.00	$624.00
2	31	Harvest, Mechanical, Thin, Machine, Loblolly	1	$36.40	$249.60
2	32	Harvest, Mechanical, Thin, Machine, Loblolly	12	$428.40	$2,937.60
2	33	Harvest, Mechanical, Thin, Machine, Loblolly	3	$97.30	$667.20
2	39	Harvest, Mechanical, Thin, Machine, Loblolly	1	$29.75	$204.00
2	40	Harvest, Mechanical, Thin, Machine, Loblolly	0	$14.35	$98.40
2	44	Harvest, Mechanical, Thin, Machine, Loblolly	12	$424.20	$2,908.80
		Yearly Totals	93	$3,271.45	$22,432.80
2017					
2	1	Wildlife Management, Other, Burn, Hand, Habitat Improvement	15	$375.00	$0.00
2	6	Wildlife Management, Other, Burn, Hand, Habitat Improvement	13	$325.00	$0.00
2	8	Wildlife Management, Other, Burn, Hand, Habitat Improvement	6	$150.00	$0.00
2	12	Wildlife Management, Other, Burn, Hand, Habitat Improvement	1	$25.00	$0.00

Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue
2	13	Wildlife Management, Other, Burn, Hand, Habitat Improvement	11	$275.00	$0.00
2	17	Wildlife Management, Other, Burn, Hand, Habitat Improvement	1	$25.00	$0.00
2	23	Wildlife Management, Other, Burn, Hand, Habitat Improvement	14	$350.00	$0.00
2	25	Wildlife Management, Other, Burn, Hand, Habitat Improvement	3	$75.00	$0.00
2	31	Wildlife Management, Other, Burn, Hand, Habitat Improvement	1	$25.00	$0.00
2	32	Wildlife Management, Other, Burn, Hand, Habitat Improvement	12	$300.00	$0.00
2	33	Wildlife Management, Other, Burn, Hand, Habitat Improvement	3	$75.00	$0.00
2	39	Wildlife Management, Other, Burn, Hand, Habitat Improvement	1	$25.00	$0.00
2	40	Wildlife Management, Other, Burn, Hand, Habitat Improvement	1	$25.00	$0.00
2	44	Wildlife Management, Other, Burn, Hand, Habitat Improvement	12	$300.00	$0.00
		Yearly Totals	94	$2,350.00	$0.00
2020					
3	18	Harvest, Mechanical, Thin, Machine, Loblolly	3	$105.00	$720.00
3	19	Harvest, Mechanical, Thin, Machine, Loblolly	1	$35.00	$240.00
3	26	Harvest, Mechanical, Thin, Machine, Loblolly	20	$700.00	$4,800.00
3	28	Harvest, Mechanical, Thin, Machine, Loblolly	5	$175.00	$1,200.00
3	47	Harvest, Mechanical, Thin, Machine, Loblolly	4	$140.00	$960.00
5	27	Harvest, Mechanical, Final, Machine, Misc Hardwood	14	$490.00	$4,088.00
5	48	Harvest, Mechanical, Final, Machine, Misc Hardwood	9	$315.00	$11,970.00
6	2	Harvest, Mechanical, Final, Machine, Misc Hardwood	13	$455.00	$23,075.00
6	21	Harvest, Mechanical, Final, Machine, Misc Hardwood	9	$315.00	$1,440.00
		Yearly Totals	78	$2,730.00	$48,493.00
2021					

Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue
3	18	Wildlife Management, Other, Burn, Hand, Habitat Improvement	3	$75.00	$0.00
3	19	Site Preparation, Other, Burn, Hand, Combination	1	$25.00	$0.00
3	26	Wildlife Management, Other, Burn, Hand, Habitat Improvement	20	$500.00	$0.00
3	28	Wildlife Management, Other, Burn, Hand, Habitat Improvement	5	$125.00	$0.00
3	47	Wildlife Management, Other, Burn, Hand, Habitat Improvement	4	$100.00	$0.00
5	27	Site Preparation, Other, Burn, Hand, Combination	14	$350.00	$0.00
5	27	Site Preparation, Chemical, Broadcast, Aerial, Combination	14	$910.00	$0.00
5	48	Site Preparation, Chemical, Broadcast, Aerial, Combination	9	$585.00	$0.00
5	48	Site Preparation, Other, Burn, Hand, Combination	9	$225.00	$0.00
6	2	Site Preparation, Chemical, Broadcast, Aerial, Herbaceous	13	$845.00	$0.00
6	2	Site Preparation, Other, Burn, Hand, Combination	13	$325.00	$0.00
6	21	Site Preparation, Other, Burn, Hand, Combination	9	$225.00	$0.00
6	21	Site Preparation, Chemical, Broadcast, Aerial, Combination	9	$585.00	$0.00
		Yearly Totals	123	$4,875.00	$0.00
		Grand Totals	**388**	**$13,226.45**	**$70,925.80**