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: 16-4N-1W

MISSISSIPPI FOREST STEWARDSHIP PROGRAM

TABLE OF CONTENTS

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:	-90.31	Longitude:	32.19
Section:	16	Township:	4N	Range:	1W		

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 south central part of Hinds County. Access to this section can be reached off of Gary Road. Prescribed burning practices should not be used on this section due to the smoke sensitive areas nearby. This section consists of 307 acres of pine plantation, 216 acres of natural pine and mixed hardwood and 124 acres of non-forested area. The plantation acres have been first thinned and will be planned for second thinning during this plan. The mixed hardwood area is mainly a streamside management zone and may be select cut as future monitoring suggests.

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 not be carried out due to the adverse impacts it will have on surrounding properties. The use of prescribed burn should never be used on this section because of the smoke sensitive areas located near this section. The use of chemical herbicides can be used to help reduce fuels and reduce competing vegetation.

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: Providence, Grenada, Loring and Oaklimeter

Archaeological and Cultural Resources

This section has two schools on it and is surrounded by urban areas. Wildfire prevention is a high priority in this area. Aesthetics on this section will become increasingly important as the surrounding area becomes more populated.

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

Providence
Slopes are 5 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.

Grenada
Slopes are 2 to 5 percent. This component is on uplands. The parent material consists of loess deposits. Depth to a root restrictive layer, fragipan, is 18 to 36 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 high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 23 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 = 85.

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 3e. 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 : Stands 2-4, 9-14, 18, 22, 25-27 and 29

Acres : 307

This is a well stocked advanced generation Loblolly Pine plantation that was established in 1992.

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 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

Property Activities

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

Harvest

Stands 2-4 and 9 will be second thinned in 2014 and third thinned in 2020.

Stands 10-14, 18, 22, 25-27 and 29 will be second thinned in 2016 and third 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.

Stand Improvement

A chemical spraying of competing vegetation is scheduled for 2012 and 2018 to reduce fuel loads and promote stand growth. This will be done aerially to target hardwood saplings.

Strata 2

Strata Description

Strata 2 : Stands 23 and 24

Acres : 30

This is a well stocked advanced generation Loblolly Pine plantation that was established in 1991. The stands boarder a school and aesthetics is a priority.

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 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 third 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.

Stand Improvement

A chemical spraying of competing vegetation is scheduled for 2012 and 2018 to reduce fuel loads and promote stand growth. This will be done aerially to target hardwood saplings.

Strata 3

Strata Description

Strata 3 : Stands 6, 15 and 28

Acres : 216

This is a well stocked natural pine and mixed hardwood stand that is 58 yeard old. Some of this area acts as a streamside management zone.

Strata Recommendations

These stands will be managed as permanent SMZ's. Mature timber will harvested without reducing crown cover below 50 %. Thinning will be completed along with adjoining timber sales. There are no activities at this time. This area will be monitored for storm damage and bug activity.

OTHER PLAN ACTIVITIES

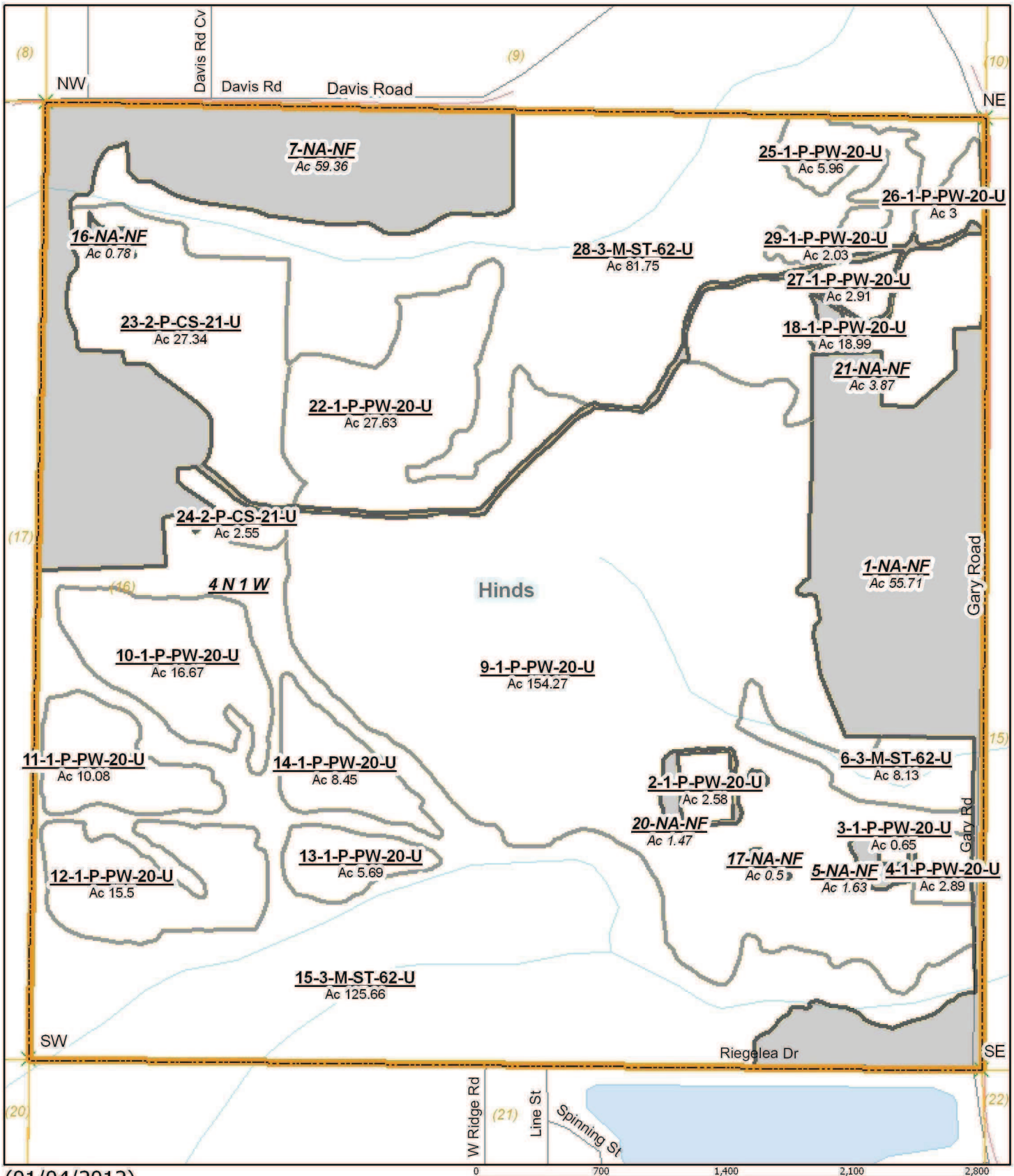
Boundary Lines

Line Description

Boundary lines will be painted on a five year rotation to prevent trespassing and timber theft. This will begin in 2013.

Hinds County Schools

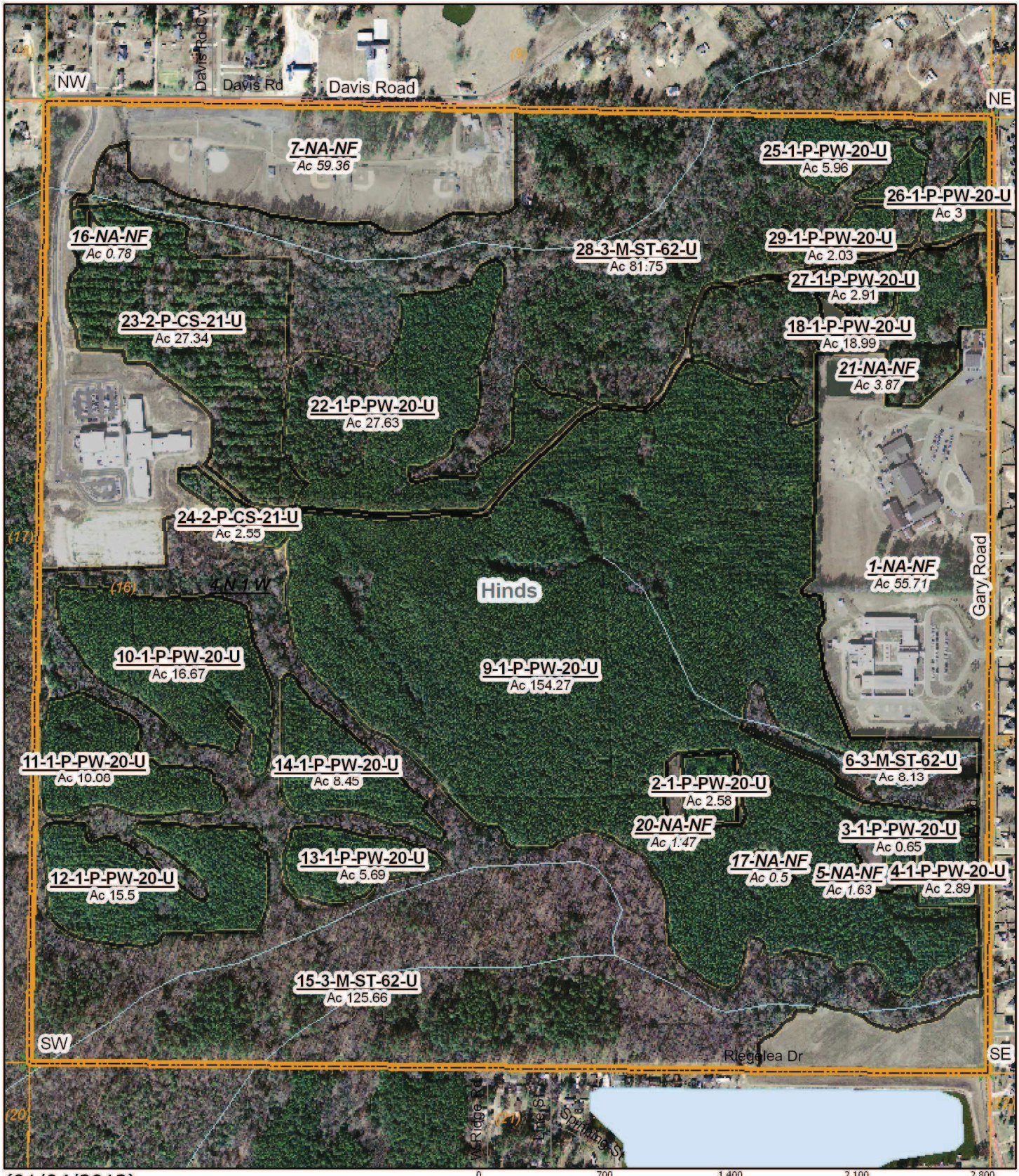
SEC. 16 TWN 4N RGE 1W
2012 to 2021
646.92 Acres



(01/04/2012)

Hinds County Schools

SEC. 16 TWN 4N RGE 1W
2012 to 2021
646.92 Acres



(01/04/2012)

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

Hinds County Schools

Property
Property (1)

Category 1: Stands
Pulpwood (15)
Sawtimber (3)
Chip-n-Saw (2)

Category 3: Non-Forest Stands
Non-Forest (9)

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) (2)

Block (Census 2000)
Block (Census 2000) (8)

Places (Non-Incorporated)
Places (Non-Incorporated) (1)

Tract/BNA (Census 2000)
Tract/BNA (Census 2000) (2)

County Roads
County Roads (6)

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)

Intermittent Streams
Intermittent Streams (5)

Hydrologic Units (Basins)
PEARL RIVER ABOVE STRONG 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
loring-byram-grenada (1)

Surface Geology
CATAHOULA (1)

Recreational Facilities
Community Playfield (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 4N 1W

Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue
2012					
1	2	Stand Improvement, Chemical, Release, Aerial, Woody Stems	3	$195.00	$0.00
1	3	Stand Improvement, Chemical, Release, Aerial, Woody Stems	1	$42.25	$0.00
1	4	Stand Improvement, Chemical, Release, Aerial, Woody Stems	3	$187.85	$0.00
1	9	Stand Improvement, Chemical, Release, Aerial, Woody Stems	154	$10,010.00	$0.00
1	10	Stand Improvement, Chemical, Release, Aerial, Woody Stems	17	$1,083.55	$0.00
1	11	Stand Improvement, Chemical, Release, Aerial, Woody Stems	10	$655.20	$0.00
1	12	Stand Improvement, Chemical, Release, Aerial, Woody Stems	16	$1,007.50	$0.00
1	13	Stand Improvement, Chemical, Release, Aerial, Woody Stems	6	$369.85	$0.00
1	14	Stand Improvement, Chemical, Release, Aerial, Woody Stems	8	$549.25	$0.00
1	18	Stand Improvement, Chemical, Release, Aerial, Woody Stems	19	$1,234.35	$0.00
1	22	Stand Improvement, Chemical, Release, Aerial, Woody Stems	28	$1,795.95	$0.00
1	25	Stand Improvement, Chemical, Release, Aerial, Woody Stems	6	$387.40	$0.00
1	26	Stand Improvement, Chemical, Release, Aerial, Woody Stems	3	$195.00	$0.00
1	27	Stand Improvement, Chemical, Release, Aerial, Woody Stems	3	$189.15	$0.00
1	29	Stand Improvement, Chemical, Release, Aerial, Woody Stems	2	$131.95	$0.00
2	23	Stand Improvement, Chemical, Release, Aerial, Woody Stems	27	$1,755.00	$0.00
2	24	Stand Improvement, Chemical, Release, Aerial, Woody Stems	3	$165.75	$0.00
		Yearly Totals	307	$19,955.00	$0.00
2014					
1	2	Harvest, Mechanical, Thin, Machine, Loblolly	3	$105.00	$945.00

Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue
1	3	Harvest, Mechanical, Thin, Machine, Loblolly	1	$35.00	$315.00
1	4	Harvest, Mechanical, Thin, Machine, Loblolly	3	$105.00	$945.00
1	9	Harvest, Mechanical, Thin, Machine, Loblolly	154	$5,390.00	$63,910.00
		Yearly Totals	161	$5,635.00	$66,115.00
2016					
1	10	Harvest, Mechanical, Thin, Machine, Loblolly	17	$583.45	$8,606.72
1	11	Harvest, Mechanical, Thin, Machine, Loblolly	10	$352.80	$5,204.30
1	12	Harvest, Mechanical, Thin, Machine, Loblolly	16	$542.50	$8,002.65
1	13	Harvest, Mechanical, Thin, Machine, Loblolly	6	$199.15	$2,937.75
1	14	Harvest, Mechanical, Thin, Machine, Loblolly	8	$295.75	$4,362.74
1	18	Harvest, Mechanical, Thin, Machine, Loblolly	19	$664.65	$9,804.54
1	22	Harvest, Mechanical, Thin, Machine, Loblolly	28	$967.05	$14,265.37
1	25	Harvest, Mechanical, Thin, Machine, Loblolly	6	$208.60	$3,077.15
1	26	Harvest, Mechanical, Thin, Machine, Loblolly	3	$105.00	$1,548.90
1	27	Harvest, Mechanical, Thin, Machine, Loblolly	3	$101.85	$1,502.43
1	29	Harvest, Mechanical, Thin, Machine, Loblolly	2	$70.00	$1,032.60
2	23	Harvest, Mechanical, Thin, Machine, Loblolly	27	$945.00	$11,178.00
2	24	Harvest, Mechanical, Thin, Machine, Loblolly	3	$89.25	$1,055.70
		Yearly Totals	146	$5,125.05	$72,578.84
2018					
1	2	Stand Improvement, Chemical, Release, Aerial, Woody Stems	3	$167.70	$0.00
1	3	Stand Improvement, Chemical, Release, Aerial, Woody Stems	1	$42.25	$0.00
1	4	Stand Improvement, Chemical, Release, Aerial, Woody Stems	3	$187.85	$0.00

Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue
1	9	Stand Improvement, Chemical, Release, Aerial, Woody Stems	154	$10,027.55	$0.00
1	10	Stand Improvement, Chemical, Release, Aerial, Woody Stems	17	$1,083.55	$0.00
1	11	Stand Improvement, Chemical, Release, Aerial, Woody Stems	10	$655.20	$0.00
1	12	Stand Improvement, Chemical, Release, Aerial, Woody Stems	16	$1,007.50	$0.00
1	13	Stand Improvement, Chemical, Release, Aerial, Woody Stems	6	$369.85	$0.00
1	14	Stand Improvement, Chemical, Release, Aerial, Woody Stems	8	$549.25	$0.00
1	18	Stand Improvement, Chemical, Release, Aerial, Woody Stems	19	$1,234.35	$0.00
1	22	Stand Improvement, Chemical, Release, Aerial, Woody Stems	28	$1,795.95	$0.00
1	25	Stand Improvement, Chemical, Release, Aerial, Woody Stems	6	$387.40	$0.00
1	26	Stand Improvement, Chemical, Release, Aerial, Woody Stems	3	$195.00	$0.00
1	27	Stand Improvement, Chemical, Release, Aerial, Woody Stems	3	$189.15	$0.00
1	29	Stand Improvement, Chemical, Release, Aerial, Woody Stems	2	$131.95	$0.00
2	23	Stand Improvement, Chemical, Release, Aerial, Woody Stems	27	$1,777.10	$0.00
2	24	Stand Improvement, Chemical, Release, Aerial, Woody Stems	3	$165.75	$0.00
		Yearly Totals	307	$19,967.35	$0.00
2020					
1	2	Harvest, Mechanical, Thin, Machine, Loblolly	3	$105.00	$690.00
1	3	Harvest, Mechanical, Thin, Machine, Loblolly	1	$35.00	$230.00
1	4	Harvest, Mechanical, Thin, Machine, Loblolly	3	$105.00	$690.00
1	9	Harvest, Mechanical, Thin, Machine, Loblolly	154	$5,390.00	$54,670.00
		Yearly Totals	161	$5,635.00	$56,280.00
2021					
1	10	Harvest, Mechanical, Thin, Machine, Loblolly	17	$583.45	$5,917.85

Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue
1	11	Harvest, Mechanical, Thin, Machine, Loblolly	10	$352.80	$3,578.40
1	12	Harvest, Mechanical, Thin, Machine, Loblolly	16	$542.50	$5,502.50
1	13	Harvest, Mechanical, Thin, Machine, Loblolly	6	$199.15	$2,019.95
1	14	Harvest, Mechanical, Thin, Machine, Loblolly	8	$295.75	$2,999.75
1	18	Harvest, Mechanical, Thin, Machine, Loblolly	19	$664.65	$6,741.45
1	22	Harvest, Mechanical, Thin, Machine, Loblolly	28	$967.05	$9,808.65
1	25	Harvest, Mechanical, Thin, Machine, Loblolly	6	$208.60	$2,115.80
1	26	Harvest, Mechanical, Thin, Machine, Loblolly	3	$105.00	$1,065.00
1	27	Harvest, Mechanical, Thin, Machine, Loblolly	3	$101.85	$1,033.05
1	29	Harvest, Mechanical, Thin, Machine, Loblolly	2	$71.05	$720.65
		Yearly Totals	117	$4,091.85	$41,503.05
		Grand Totals	**1,200**	**$60,409.25**	**$236,476.89**