



Vision • Commitment • Pride

# FOREST STEWARDSHIP MANAGEMENT PLAN

Prepared For:  
Holmes County Schools BOE

Prepared By:  
Mac Ables  
Miss. Forestry Comm.

Time Period Covered by This Plan:  
2012 - 2021

Date Plan Prepared:  
2012-02-15

Plan Type:  
Stewardship / Stewardship

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

**Property Name: Thornton Section**

## TABLE OF CONTENTS

LANDOWNER INFORMATION .....	3
FORESTER INFORMATION .....	3
DISCLAIMER .....	3
INTRODUCTION .....	3
OBJECTIVES .....	4
PROPERTY DESCRIPTION .....	4
GENERAL PROPERTY RECOMMENDATIONS .....	6
SOIL TYPES .....	9
STRATA .....	9
OTHER PLAN ACTIVITIES .....	10
PLAN MAP .....	12
PLAN MAP .....	13
PLAN MAP .....	14
PLAN MAP .....	15
PLAN MAP .....	16
PLAN MAP .....	17
STRATA ACTIVITY SCHEDULE .....	18

**MISSISSIPPI FORESTRY COMMISSION  
FOREST STEWARDSHIP MANAGEMENT PLAN**

**LANDOWNER INFORMATION**

Name: Holmes County Schools BOE  
Mailing Address: P. O. Box 630  
City, State, Zip: Lexington, MS 39095  
Country: United States of America  
Contact Numbers: Home Number:  
Office Number: 662-834-2175  
Fax Number:  
  
E-mail Address:  
Social Security Number (optional):

**FORESTER INFORMATION**

Name: Mac Ables , Servicer Forester  
Forester Number: 02368  
Organization: Miss. Forestry Comm.  
Street Address: P.O. Box 483  
City, State, Zip: Lexington, MS 39095  
Contact Numbers: Office Number: 662-834-3467  
Fax Number:  
  
E-mail Address: mables@mfc.state.ms.us

**PROPERTY LOCATION**

County: Holmes    Total Acres: 639    Latitude: -90.41    Longitude: 33.06  
Section: 16    Township: 14N    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 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.

**MISSISSIPPI FORESTRY COMMISSION  
FOREST STEWARDSHIP MANAGEMENT PLAN**

**OBJECTIVES**

*Fire Protection*

The goal is to protect the resource from wildfires, by establishing and maintaining firebreaks around the property; annually inspect possible signs of insect infestations and disease; and prohibit grazing until terminal bud is beyond reach of livestock.

*Timber Production*

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.

*Wildlife Management - General*

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 4 miles west of Thornton. Access is good with Bee Lake Road going through the section. Bee Lake also runs through the section. Being in the Delta, most of the area is open, leased in agriculture. There is a small acreage of timber in a few poorly drained wet areas. It is best suited to grow bottom land hardwoods.

*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.

Bee Lake runs through this section. The Bee Lake Watershed consists of nearly 12,000 acres of prime farmland in Holmes County. Bee Lake is a 1400-acre oxbow lake lined with cypress trees; because of its beauty and relatively abundant fish population, the lake is a popular recreation area that contributes to the local economy. The lake also serves as a water supply for agricultural irrigation. (

[http://www.epa.gov/region4/water/nps/MS/documents/MsBeeLake\\_1.pdf](http://www.epa.gov/region4/water/nps/MS/documents/MsBeeLake_1.pdf))

**For additional information contact:**

Zoffee Dahmash, P.E., BCEE Chief, Nonpoint Source (NPS) Section Mississippi  
Department of Environmental Quality

P.O. Box 2261 Jackson, MS 39225

Phone: 601-961-5137 E-mail: [Zoffee\\_Dahmash@deq.state.ms.us](mailto:Zoffee_Dahmash@deq.state.ms.us)

**MISSISSIPPI FORESTRY COMMISSION  
FOREST STEWARDSHIP MANAGEMENT PLAN**

**Additional Resources:**

"Total Maximum Daily Load for Sediment/Siltation and Organic Enrichment/Low Dissolved Oxygen, Bee Lake, Holmes County, Mississippi"; Final Report, Sept. 2003, Tetra Tech, Inc. Fairfax, VA

[http://www.deq.state.ms.us/mdeq.nsf/pdf/TWB\\_BeeLakeSep03/\\$File/YazooRBBeeLakeSep03.pdf?openElement](http://www.deq.state.ms.us/mdeq.nsf/pdf/TWB_BeeLakeSep03/$File/YazooRBBeeLakeSep03.pdf?openElement)

"Bee Lake Watershed Implementation Plan"; Final Draft Report, June, 2006, Delta Farms, Stoneville, MS

[http://www.deltafarm.net/resources/Bee\\_Lake\\_Plan\\_Bee\\_Lake\\_Plan.pdf](http://www.deltafarm.net/resources/Bee_Lake_Plan_Bee_Lake_Plan.pdf)

*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 this property. This property was evaluated on October 14, 2011 for endangered species. For more information on endangered species in your area, you may visit: [museum.mdwfp.com/science/ms\\_endangered\\_species.html](http://museum.mdwfp.com/science/ms_endangered_species.html)

*Archeological and Historic Sites*

This property was evaluated for Archeological and special sites on October 10, 2011. During the evaluation, there were no sites located throughout the property. For more information on historic preservations, contact the Mississippi Department of Archives and History or visit <http://mdah.state.ms.us/hpres>.

*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: Dundee and Tensas components.

**MISSISSIPPI FORESTRY COMMISSION  
FOREST STEWARDSHIP MANAGEMENT PLAN**

## **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. Practices such as thinning in pine stands or marked timber sales in hardwoods are often recommended. Once a stand has reached its maximum density, the growth rate begins to decline. Once the growth rate declines, the overall health of the stand begins to decline. Thinning or marked timber sales reduce the stand density, allowing the growth rate to increase thus increasing the overall vigor of the stand. Prescribed burning is often recommended to reduce hardwood competition within pine stands. A reduction in competition will assist in a faster growth rate thus creating a healthy vigorous stand.

### 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.

**MISSISSIPPI FORESTRY COMMISSION  
FOREST STEWARDSHIP MANAGEMENT PLAN**

Boundary lines should be painted in 2017

**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.

*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.

Several practices can be carried out throughout this property to help increase wildlife habitat. Early successional plants made up of native grasses are beneficial to wildlife. These early successional habitats provide forbs, and shrubs that are low to the ground and extremely beneficial to smaller wildlife species. A balance of grasses, forbs and shrubs should be maintained along road sides, fire breaks and open areas throughout the property. Recommended practices to maintain a well balanced plant community are disking and burning.

**ACCESS ROADS :** Access roads and fire breaks often give opportunity for vegetation management. Areas that exceed in width along access roads throughout this property should

**MISSISSIPPI FORESTRY COMMISSION  
FOREST STEWARDSHIP MANAGEMENT PLAN**

be disked on a 3 year rotation and managed for native grasses. Disking down existing water bars and water turnouts should be avoided.

**FIRE BREAKS:** Fire breaks can be managed in many ways. Selected areas where fire breaks are long and narrow can serve as annual food plots or areas to disk and manage for natural warm season grasses. Areas that are not used as annual food plots should be disked on a 3 year rotation to help maintain the early stages of succession. Disking down water bars and water turnouts should be avoided on permanent fire breaks.

**OPEN AREAS:** Open areas throughout this property should be used for annual seasonal planting or placed on a prescribed burning regime.

- Disking will reduce plant density and releases the natural seedbed to sunlight. This will allow desired natural vegetation to germinate from the seedbed and create a diversity of desired native plants. Disking should be done in the fall or winter on a 3 year rotation. Disking should be done between October-February on a 2-3 year rotation.
- Prescribed Fire Prescribed burning will create a balanced diversity of native warm season grasses that are desired by wildlife. Prescribed fire will also help control undesired hardwoods from regenerating within the open areas. Fire helps to increase food availability by letting more sunlight reach the forest floor, encouraging new growth of native plants. Burning should be done in the spring season on a 2-3 year rotation. March is the recommended month for prescribed fire. For more information on prescribed burning, you may contact your local Mississippi Forestry Commission county office.
- Seasonal Planting- Long and narrow food plots are recommended. Food plots should be established in areas where sunlight is not excluded. Once food plots are established, soil testing is highly recommended. A soil test will give the exact prescription for proper fertilization. The abundance and condition of wildlife are related directly to the soil. Proper fertilization will dramatically increase forage production in return providing an abundance of habitat for native wildlife. Open areas can be planted in either/or warm or cool season plants. Warm season plantings can include but not limited to plants such as cowpeas, American jointvetch, alyce clover, or white clover. Cool season plantings can include but not limited to wheat, clovers and oats. Rye grass is not recommended because of its density at ground level after the growing season. Other plants such as Honeysuckle and Common Ragweed are excellent sources of protein and should be fertilized throughout the growing season.
- Bush Hogging : Clipping is not recommended. Clipping increases plant density at ground level and is not effective in controlling undesired hardwood species. If clipping is necessary, it should be avoided during the nesting seasons (April 1-August 15th). Clipping is the least desired practice for wildlife management.

Additional publications for wildlife management are attached at the back of this plan. These publications will give additional information on open field management, stem injection, quality vegetation management and controlling non native grasses. You can also visit [www.mdwfp.com/privatelands](http://www.mdwfp.com/privatelands) for more information.



**MISSISSIPPI FORESTRY COMMISSION  
FOREST STEWARDSHIP MANAGEMENT PLAN**

*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**

*Te*

The Tensas component makes up 90 percent of the map unit. Slopes are 0 to 1 percent. This component is on natural levees. The parent material consists of clayey alluvium. 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 very low. Available water to a depth of 60 inches is high. Shrink-swell potential is very high. This soil is rarely flooded. It is not ponded. A seasonal zone of water saturation is at 24 inches during January, February, March, April, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3w. This soil does not meet hydric criteria.

*DeA*

The Dundee component makes up 90 percent of the map unit. Slopes are 0 to 2 percent. This component is on terraces. The parent material consists of loamy alluvium. 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 high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 30 inches during January, February, March, April. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 2w. This soil does not meet hydric criteria.

## **STRATA**

*Strata 1*

Strata Description

Strata # 1: Consist of Stand # 2,3 and 6. This strata is made up of 105.67 acres of hardwood sawtimber that was established in 1938. This strata has reached its maturity and should undergo a final harvest. This strata should be converted to a more profitable species better suited to the soil type. Based on the soil type for this property, this strata is well suited for Loblolly Pine.

**MISSISSIPPI FORESTRY COMMISSION  
FOREST STEWARDSHIP MANAGEMENT PLAN**

Strata Recommendations

This strata has reached it's maturity and should undergo a final harvest. This strata should be replanted back to a fully stocked stand once the final harvest is completed. This strata should be restocked in species that are best suited for the soil types on this strata.

Activity Recommendations

Harvest

This strata should undergo a final harvest in 2011 if prices are accpetable. All BMP practices should be followed during any and all harvesting practices.

Regeneration

**Planting:**

It is recommended for this area to planted to bottomland hardwoods. Following the site preparation, this strata should be hand planted on a 10 x 10 spacing at 436 seedlings per acre. Planting should be done during the normal planting season of December 31 and March 13. Tree planting jobs will be inspected by the Mississippi Forestry Commission to ensure adequate stocking and a proper planting job. Adverse weather conditions such as prolonged dry or cold periods should be taken into consideration when planting. Eighty-five percent of the prescribed planting rate per acre must be planted correctly.

**Survival:**

A survival check should be conducted by the Mississippi Forestry Commission in the following fall after the planting has been complete. A survival check should be conducted to ensure adequate stocking per acre so the strata will be a maximum production per acre. If survival is low, the strata should be considered for supplemental planting the following planting season. If strata is deemed fully stocked and survival is at a acceptable level, there should be no more activities for this strata during the life of this plan.

**OTHER PLAN ACTIVITIES**

*Boundary Lines*

Line Description

It is the responsibility of the School Board to assure all boundary lines are correctly established. Each corner should be adequately identified with significant corner markers. It is the responsibility of the School Board to assure all boundary lines are correctly established. Each corner should be adequately identified with significant corner markers. Boundary lines should be maintained to prevent future disputes of trespassing and prevent future cost of surveying.

**MISSISSIPPI FORESTRY COMMISSION  
FOREST STEWARDSHIP MANAGEMENT PLAN**

Line Recommendations

It is recommended for each boundary line to maintained by the Mississippi Forestry Commission on a 4 year rotation. Boundary lines should be clearly marked in orange boundary line paint in well defined marks. Where applicable, firelanes should be installed on property lines to add access benefits for management activities.

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.

# Plan Map



**Plan Map**  
S16 T14N R2W  
2011-2021  
638.73 Acres



(12/19/2011)

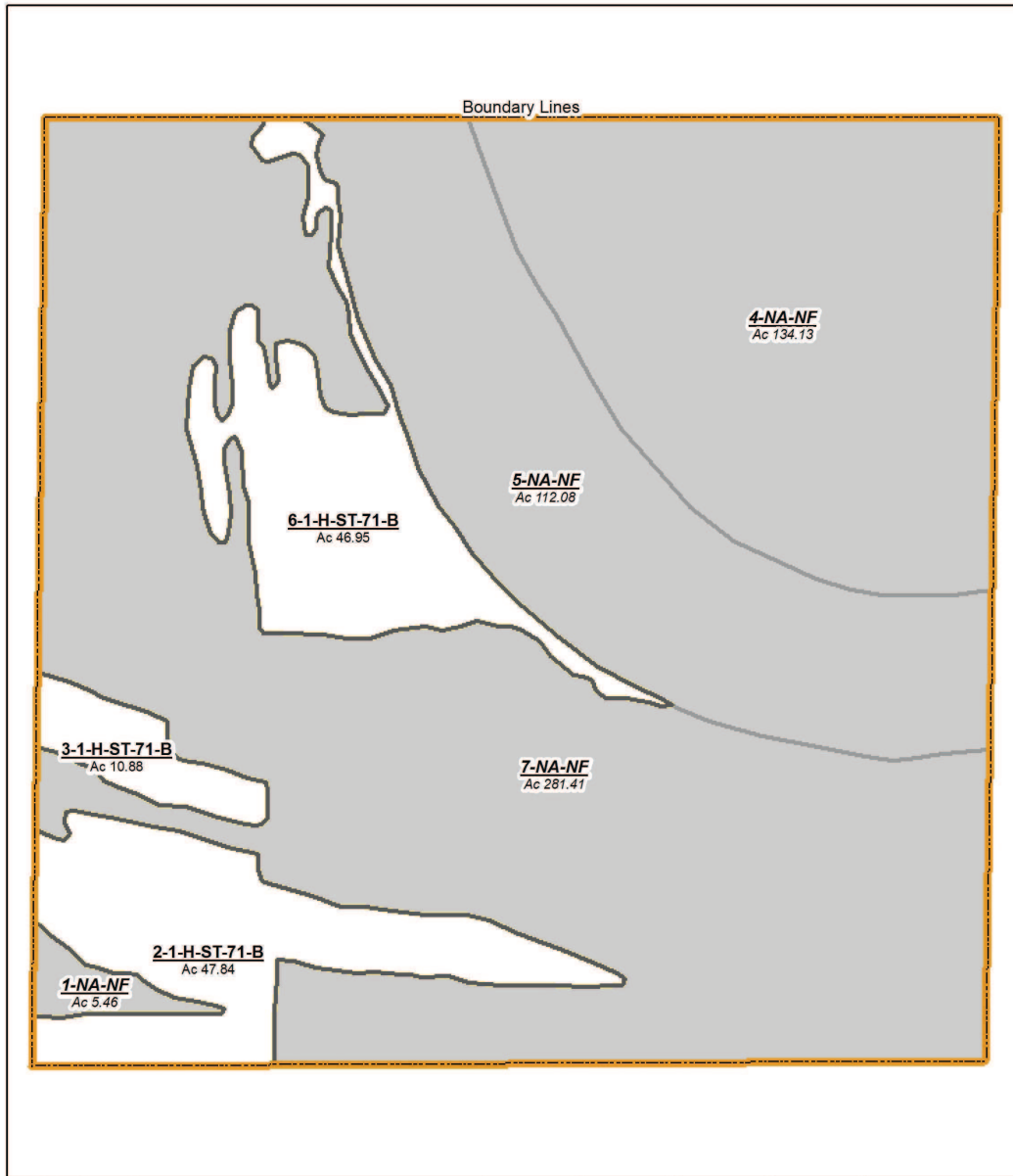
0 0.1 0.2 0.3 0.4 Miles

Holmes Co. BOE - Thornton Section

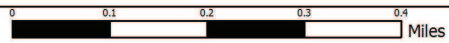


**Holmes Co. BOE - Thornton Section**

S16 T14N R2W  
2009 to 2018  
638.73 Acres



(05/20/2008)





Plan::0045 00017 28051 05022008111402 - Thornton Section



Property

Property (1)

Category 1: Stands

Sawtimber (3)

Category 3: Non-Forest Stands

Non-Forest (4)

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) (5)

Tract/BNA (Census 2000)

Tract/BNA (Census 2000) (1)

County Roads

County Roads (1)

School Sections

School Sections (1)

Public School Districts

HOLMES COUNTY SCHOOL DISTRICT (1)

US Congressional District

US Cong Dist #2 (1)

MS Senate

24 (1)

MS House

47 (1)

Intermittent Streams

Intermittent Streams (2)

Hydrologic Units (Basins)

UPPER YAZOO RIVER (1)

Water Bodies

Water Bodies (1)

Historic Forest Boundary

Bottomland Hardwood (Oak-Gum-Cottonwood-Cypress) (1)

MS Forest Habitat

MISCELLANEOUS ALLUVIAL FLOODPLAINS (1)

MS Forest Habitat (cont)

YAZOO BASIN DRYLANDS (1)

Physiographic Region

Delta (1)

Soil Associations

dundee-forestdale-dubbs (1)

Surface Geology

ALLUVIUM (1)

MFC Districts

MFC Districts (1)

MFC Areas

MFC Areas (1)

MS Outline

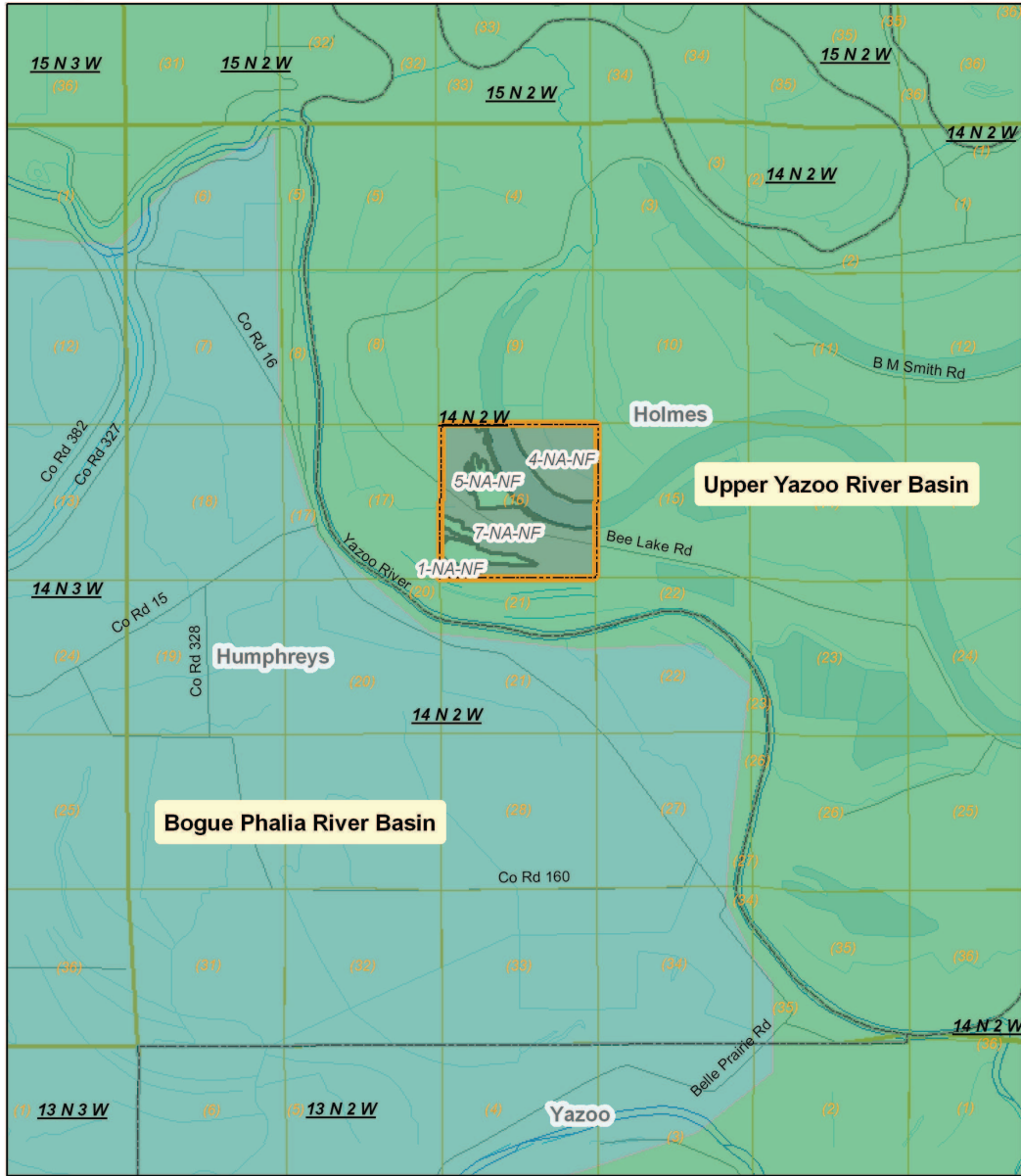
MS Outline (1)

# Hydrology Units Map



## Hydrologic Units

S16 T14N R2W  
2011-2021  
638.73 Acres



(12/19/2011)

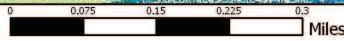
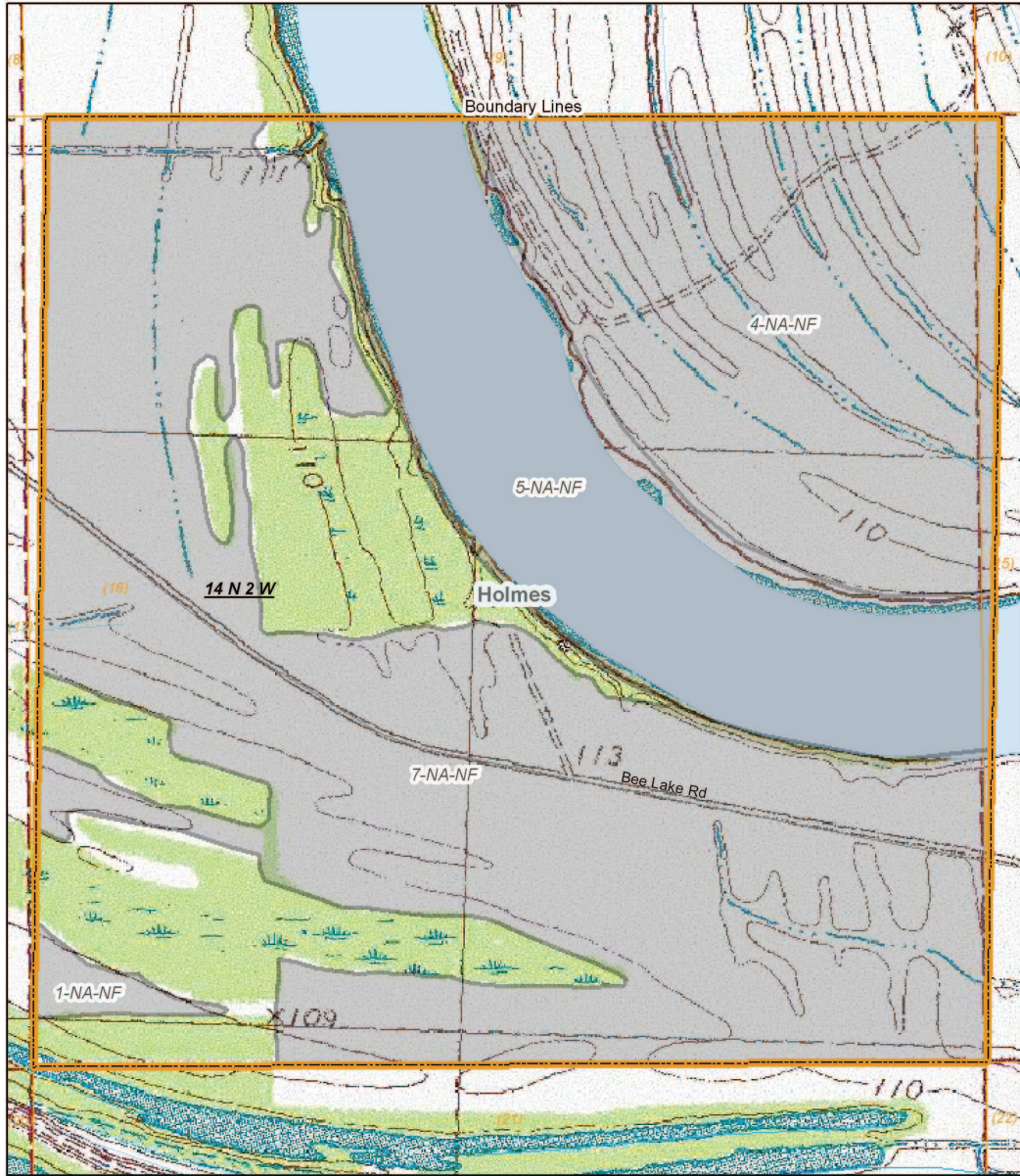




# Topo Map

## Topographic Map

S16 T14N R2W  
2011-2021  
638.73 Acres



Stand Activity Schedule for  
Holmes County Schools BOE  
16 14N 2W

Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue
<b>2012</b>					
1	2	Harvest, Mechanical, Final, Machine, Misc Hardwood	48	\$1,680.00	\$71,040.00
1	3	Harvest, Mechanical, Final, Machine, Misc Hardwood	11	\$380.80	\$16,102.40
1	6	Harvest, Mechanical, Final, Machine, Misc Hardwood	47	\$1,643.25	\$69,486.00
Yearly Totals			106	\$3,704.05	\$156,628.40
<b>2013</b>					
1	2	Regeneration, Artificial, Plant, Hand, Misc Red Oak	48	\$5,980.00	\$0.00
1	3	Regeneration, Artificial, Plant, Hand, Misc Red Oak	11	\$1,360.00	\$0.00
1	6	Regeneration, Artificial, Plant, Hand, Misc Red Oak	47	\$5,875.00	\$0.00
Yearly Totals			106	\$13,215.00	\$0.00
<b>Grand Totals</b>			<b>212</b>	<b>\$16,919.05</b>	<b>\$156,628.40</b>