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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: Cruger Section

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**MISSISSIPPI FORESTRY COMMISSION
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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: 488 Latitude: -90.2 Longitude: 33.34
Section: 16 Township: 17N Range: 1E

DISCLAIMER

This information was derived from a small sampling of the forest resources. It reflects a statistical estimation that is only intended to be accurate enough for the purposes of making decisions for the short-term management of these resources. These estimations are temporally static. Events and circumstances may occur within the survey area that will physically alter the forest resources and therefore will not be reflected in this plan.

INTRODUCTION

This Forest Stewardship Management Plan will serve as a guide for accomplishing the goals and objectives for your property. In addition to addressing your specific goals and objectives, this plan includes recommendations for maintaining soil and water quality and protecting your forest from insects, disease, and wildfire. Recommendations are based on observation and assessment of the site.

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OBJECTIVES

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 in the Delta on the Leflore County line which splits the section in half. Most of the area is open, leased to agriculture. There is a small acreage of bottomland hardwood timber behind the levee of the Abiaca Creek drainage project which holds water most of the year. This section has 394.47 acres that are classified as nonforested acres that is in agriculture. This property is located East of HWY 49 in Cruger.

Water Resources

Abiaca Creek runs through the North end of this property. Any silvicultural practices carried out should consider this watershed as a management zone and must be protected.

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 December 15, 2012 for endangered species. For more information on endangered species in your area, you may visit: museum.mdwfp.com/science/ms_endangered_species.html

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Archeological and Cultural Sites

The Abiaca Creek drainage area is in the Yazoo River Basin Hydrologic Unit Code 08030206 in northwest Mississippi. The drainage area is based on the major tributaries and topography and is approximately 62,831 acres. It lies within portions of Carroll, Holmes, and Leflore Counties. The watershed is rural. Forest and pasture are the dominant landuses within the watershed. A copy of the *National Register of Historic Places* registration form is attached at the end of this plan.

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: Silverdale component. For more information regarding the soil types on this property, see the *Soil Types* section in this 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

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- 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.

Boundary lines should be painted in 2012 and 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.

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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 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 turn outs 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.

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- 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 for more information.

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

Sg

The Silverdale component makes up 90 percent of the map unit. Slopes are 0 to 2 percent. This component is on depressions. The parent material consists of loamy alluvium. 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 moderate. Shrink-swell potential is low. This soil is rarely flooded. It is not ponded. A seasonal zone of water saturation is at 30 inches during January, February, March, April, May. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 3s. This soil does not meet hydric criteria.

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STRATA

Strata 1

Strata Description

Strata # 1: Consist of Stand #3,5,8,9 and 10.

This strata is made up of 78.97 acres of bottomland hardwood stands that were established in 1950. The average DBH for this strata is 12 inches with an average tree height of 65 feet. This strata is composed of Water Oak, Willow Oak, Hickory, Elm, Sweetgum, Persimmon, Red Maple and Sycamore.

Strata Recommendations

This strata is located behind the levee of Abiaca Creek which severely limits access because of increased soil moisture and equipment access. At this time, there are no activities planned for this strata. However, if weather conditions present a time where access can be acquired, this strata should be evaluated immediately for a Timber Stand Improvement cut.

Strata 2

Strata Description

Strata # : Consist of Stand #1,6 and 7.

This strata is made up of 14.59 acres of young bottomland hardwood stands that were established in 1980. The average DBH for this strata is 8 inches with an average tree height of 40 feet. This strata is composed of Water Oak, Willow Oak, Sweetgum, Hickory, Elm, Cherrybark Oak, and Persimmon.

Strata Recommendations

This strata is located behind the levee of Abiaca Creek which severely limits access because of increased soil moisture and equipment access. Due to the age of this strata, there should be no activities carried out in this strata during the life of this plan. This strata should be placed on a 70 year rotation using sound forestry management practices.

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.

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Boundary lines should be maintained to prevent future disputes of trespassing and prevent future cost of surveying.

Line Recommendations

It is recommended for each boundary line to be 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. The property lines on this section are scheduled to be marked in 2012 and 2017.

Activity Recommendations

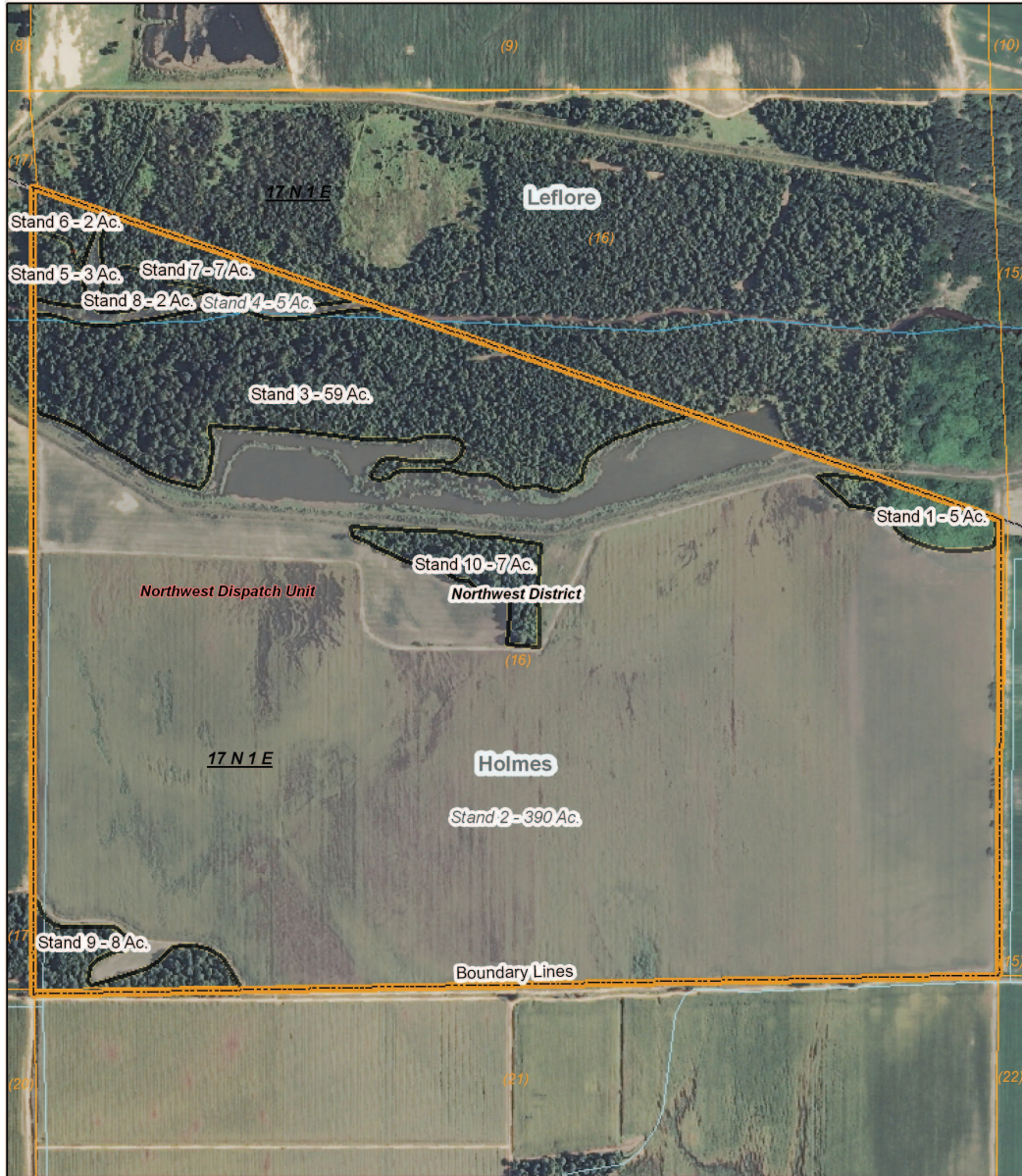
Property Activities

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 T17N R1E
2012 to 2021
488.03 Acres



(01/24/2012)

0 0.1 0.2 0.3 0.4 Miles

Cruger Section



Legend Cruger Section

Property

Property (1)

Category 1: Stands

Pulpwood (3)

Sawtimber (5)

Category 3: Non-Forest Stands

Non-Forest (2)

MFC Basemap

County Boundary

County Boundary (2)

Quadrangle Grid

USGS Quad (2)

PLS Townships

PLS Townships (2)

Survey Districts

District 2 (2)

Blockgroup (Census 2000)

Blockgroup (Census 2000) (2)

Block (Census 2000)

Block (Census 2000) (3)

Tract/BNA (Census 2000)

Tract/BNA (Census 2000) (2)

School Sections

School Sections (3)

Public School Districts

HOLMES COUNTY SCHOOL DISTRICT (2)

LEFLORE COUNTY SCHOOL DISTRICT (1)

US Congressional District

US Cong Dist #2 (2)

MS Senate

24 (2)

MS House

34 (2)

Perennial Streams

Perennial Streams (1)

Intermittent Streams

Intermittent Streams (1)

Hydrologic Units (Basins)

UPPER YAZOO RIVER (2)

Historic Forest Boundary

Bottomland Hardwood (Oak-Gum-Cottonwood-Cypress) (2)

MS Forest Habitat

YAZOO BASIN DRYLANDS (2)

Physiographic Region

Delta (2)

Soil Associations

morganfield-adler-convent (1)

dundee-forestdale-dubbs (2)

Surface Geology

ALLUVIUM (3)

MFC Districts

MFC Districts (1)

MFC Dispatch Units

MFC Dispatch Units (1)

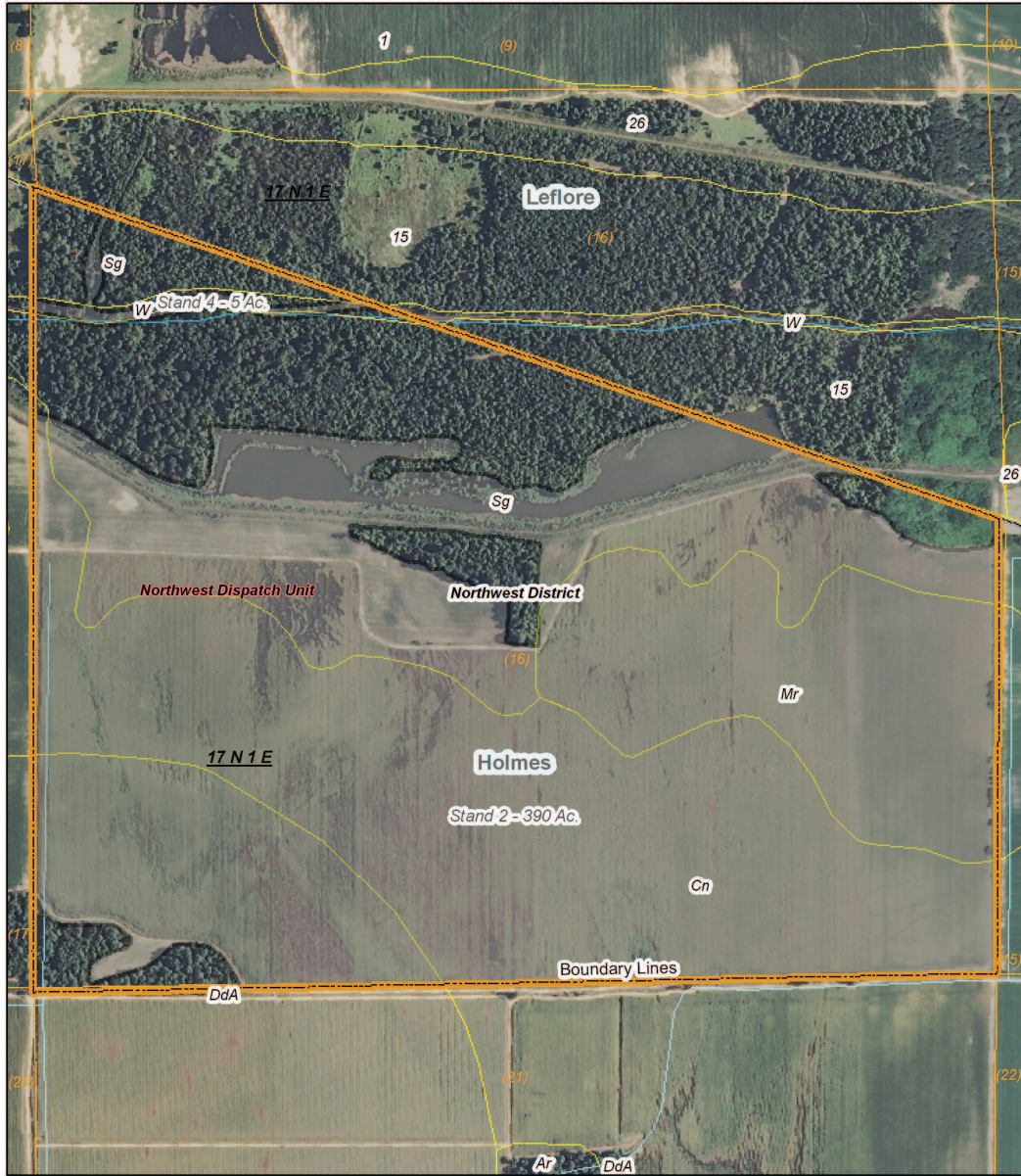
MS Outline

MS Outline (1)

Soils Map



Soils Map
S16 T17N R1E
2012 to 2021
488.03 Acres



(01/24/2012)

0 0.1 0.2 0.3 0.4 Miles

Topographic Map



Topographic Map

S16 T17N R1E
2012 to 2021
488.03 Acres

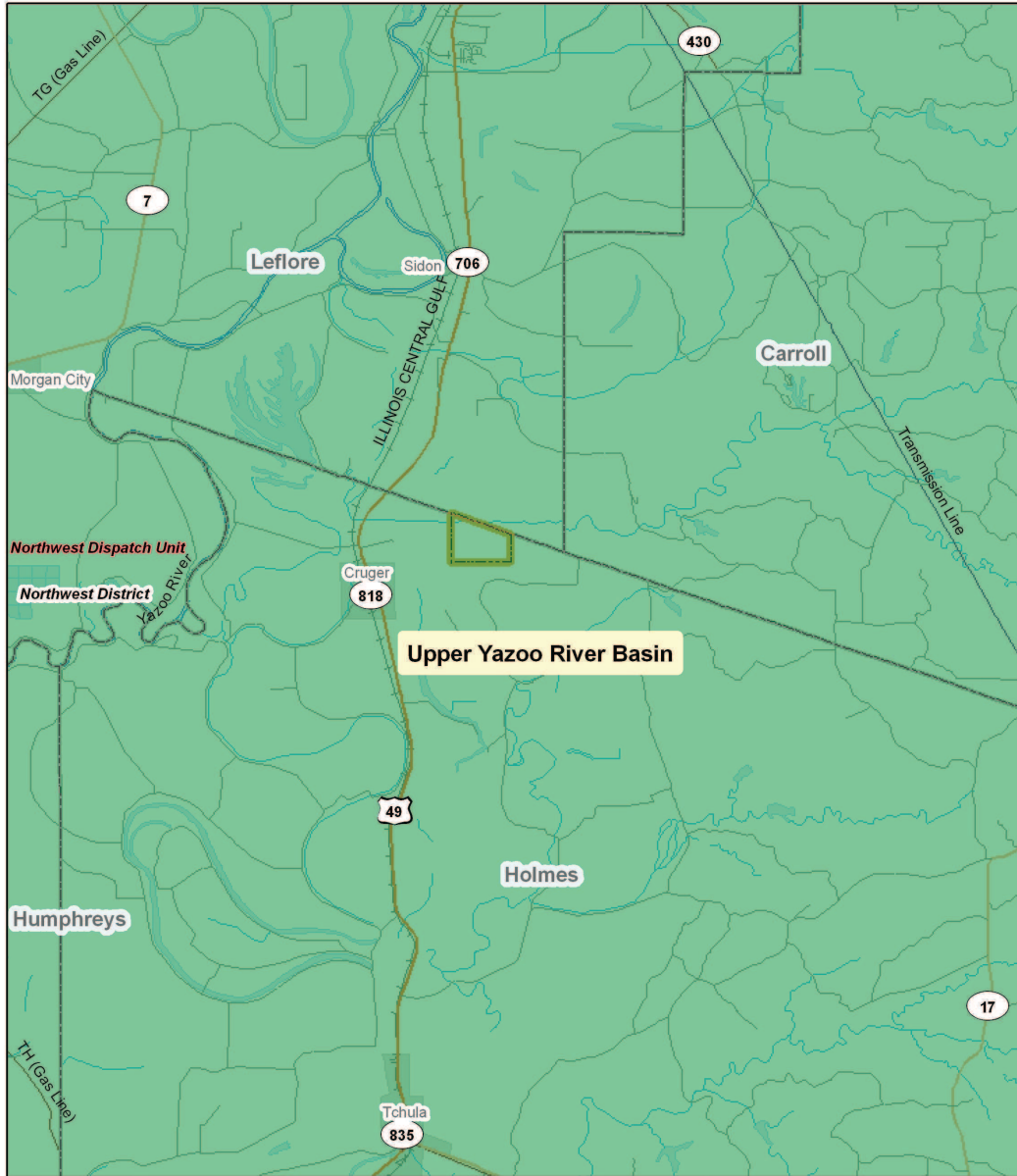


(01/24/2012)

Hydrology Units

Hydrology Units

S16 T17N R1E
2012 to 2021
488.03 Acres



(01/24/2012)

0 2 4 6 8 Miles

Stand Activity Schedule for
Holmes County Schools BOE
16 17N 1E

Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue
		Yearly Totals	0	\$0.00	\$0.00
		Grand Totals	0	\$0.00	\$0.00