



Vision • Commitment • Pride

# FOREST STEWARDSHIP MANAGEMENT PLAN

Prepared For:  
Attala County Schools BOE

Prepared By:  
James Wade McCulloch  
Ms. Forestry Commission

Time Period Covered by This Plan:  
2012 - 2021

Date Plan Prepared:  
2012-02-21

Plan Type:  
Stewardship / Stewardship

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

**Property Name: Carmack Section 16-16-6**

MISSISSIPPI FOREST STEWARDSHIP PROGRAM

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**MISSISSIPPI FORESTRY COMMISSION  
FOREST STEWARDSHIP MANAGEMENT PLAN**

**LANDOWNER INFORMATION**

Name: Attala County Schools BOE  
Mailing Address: 100 Courthouse Bldg.  
Suite 3  
City, State, Zip: Kosciusko, MS 39090  
Country: United States of America  
Contact Numbers: Home Number:  
Office Number: 662-289-2801  
Fax Number:  
E-mail Address:  
Social Security Number (optional):

**FORESTER INFORMATION**

Name: James Wade McCulloch , Attala Co. Service Forester  
Forester Number: 02329  
Organization: Ms. Forestry Commission  
Street Address: P.O. Box 576  
City, State, Zip: Kosciusko, MS 39090  
Contact Numbers: Office Number: 662-289-6803  
Fax Number: 662-289-2627  
E-mail Address: wmcculloch@mfc.state.ms.us

**PROPERTY LOCATION**

County: Attala    Total Acres: 642    Latitude: -89.69    Longitude: 33.25  
Section: 16    Township: 16N    Range: 6E

**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 purpose 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*

There are approximately 138 non-forested acres under leases that prohibit proper forestry activity on this section. Access to and on the section are by way of Attala Road 3122. Soils on this section are best suited for Loblolly Pine production except on the south side of the section which is part of the Zilpha Creek swamp. Old fields were converted to pine with a small portion planted to a progeny test.

*Archeological or Cultural Resources:*

No Archeological or Cultural resources were identified during a reconnaissance of the property. However, if Archeological or Cultural resources are discovered anytime on the property special managements measures will be applied immediately in order preserve these sensitive areas.

*Water Resources*

A perennial water resources were identified during a reconnaissance of the property. Also, any other 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.

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*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:

**SOIL TYPES**

*60F2*

The Smithdale component makes up 50 percent of the map unit. Slopes are 15 to 35 percent. This component is on hillslopes. The parent material consists of loamy fluviomarine 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 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 1 percent. Nonirrigated land capability classification is 7e. This soil does not meet hydric criteria. The Sweatman component makes up 35 percent of the map unit. Slopes are 15 to 35 percent. This component is on uplands. The parent material consists of loamy marine 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 high. Shrink-swell potential is moderate. 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 1 percent. Nonirrigated land capability classification is 7e. This soil does not meet hydric criteria.

*6*

The Gillsburg component makes up 90 percent of the map unit. Slopes are 0 to 1 percent. 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 low. 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 18 inches during January, February, March, April, 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. Loblolly Site Index = 90.

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*44D3*

The Providence component makes up 90 percent of the map unit. Slopes are 8 to 12 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.

*32D*

The Smithdale component makes up 90 percent of the map unit. Slopes are 8 to 15 percent. This component is on hillslopes. The parent material consists of loamy fluviomarine 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 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 1 percent. Nonirrigated land capability classification is 4e. This soil does not meet hydric criteria. Loblolly Site Index = 80.

*2*

The Oaklimer component makes up 90 percent of the map unit. 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.

## **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

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- 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.

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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.

*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.

**STRATA**

*Strata 1*

Strata Description

Stands: 4,5,15,18,25

Acres: 140

This stand consists of mature mixed pine hardwood sawtimber established in ~1958. There are 86 pine trees per acre with 71 square feet of basal area per acre and 92 hardwood trees per acre with 53 square feet of basal area per acre in this stand.



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Strata Recommendations

Strata 1 is a mixed stand of pine and hardwood that is reaching a mature level.

Biologically, this timber should be harvested within the next few years. Economically, the stand should not be harvested until stumpage prices increase. After harvesting, site preparations should be completed and then the area should be planted back with loblolly pine seedlings.

Activity Recommendations

Harvest

A final harvest should be carried out on stands 4,5,15,18 and 25 in 2012. Follow when practical with reforestation to convert to Loblolly Pine.

*Strata 2*

Strata Description

Stands: 8,12,13,20

Acres: 102

This area consists of natural bottomland hardwood sawtimber established in ~1958. The soils are wet, on the edge of Zilpha Creek swamp and several tributaries. There are 166 hardwood trees per acre with 123 square feet of basal area per acre in this stand.

Strata Recommendations

At this time no activities are planned. A reassessment in the future may indicate a need to at least conduct a thinning operation on this timber.

*Strata 3*

Strata Description

Stand: 10

Acres: 237

This area consists of Loblolly Pine planted in 1999. There are approximately 440 trees per acre in this stand. A few hardwoods are scattered throughout the stand competing for the soil nutrients.

Strata Recommendations

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.

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Activity Recommendations

Harvest

It is estimated that this thinning should take place in 2017.

*Strata 4*

Strata Description

Stands: 11,21,22

Acres: 21

This area consists of Loblolly Pine planted in 1985. There are 396 trees per acre with 149 square feet of basal area in this stand. A few hardwoods are scattered throughout the stand competing for the soil nutrients.

Strata Recommendations

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

It is estimated that this thinning should take place in 2017.

*Strata 5*

Strata Description

Stands: 9,19

Acres: 4

This area consists of Loblolly Pine planted in 1985. There are 300 trees per acre with 160 square feet of basal area per acre in this stand. A few hardwoods are scattered throughout the stand competing for the soil nutrients.

Strata Recommendations

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

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back to an average basal area of 70 square feet per acre, plus or minus 5 square feet per acre.

Activity Recommendations

Harvest

It is estimated that this thinning should take place in 2017.

**OTHER PLAN ACTIVITIES**

*Boundary Lines*

Line Description

These are the outside boundary lines of Sec.16-T16N-R6E

Line Recommendations

The boundary lines need permanent lines pushed around them and the boundary trees need to be marked in paint every six years.

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.

The boundary lines will need to be painted in 2014 and again in 2020.

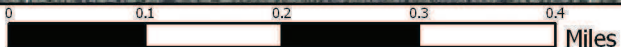


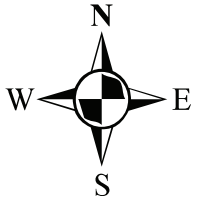
# Attala Co. BOE Carmack Section

S16 T16N R6E  
2012 to 2021  
641.71 Acres



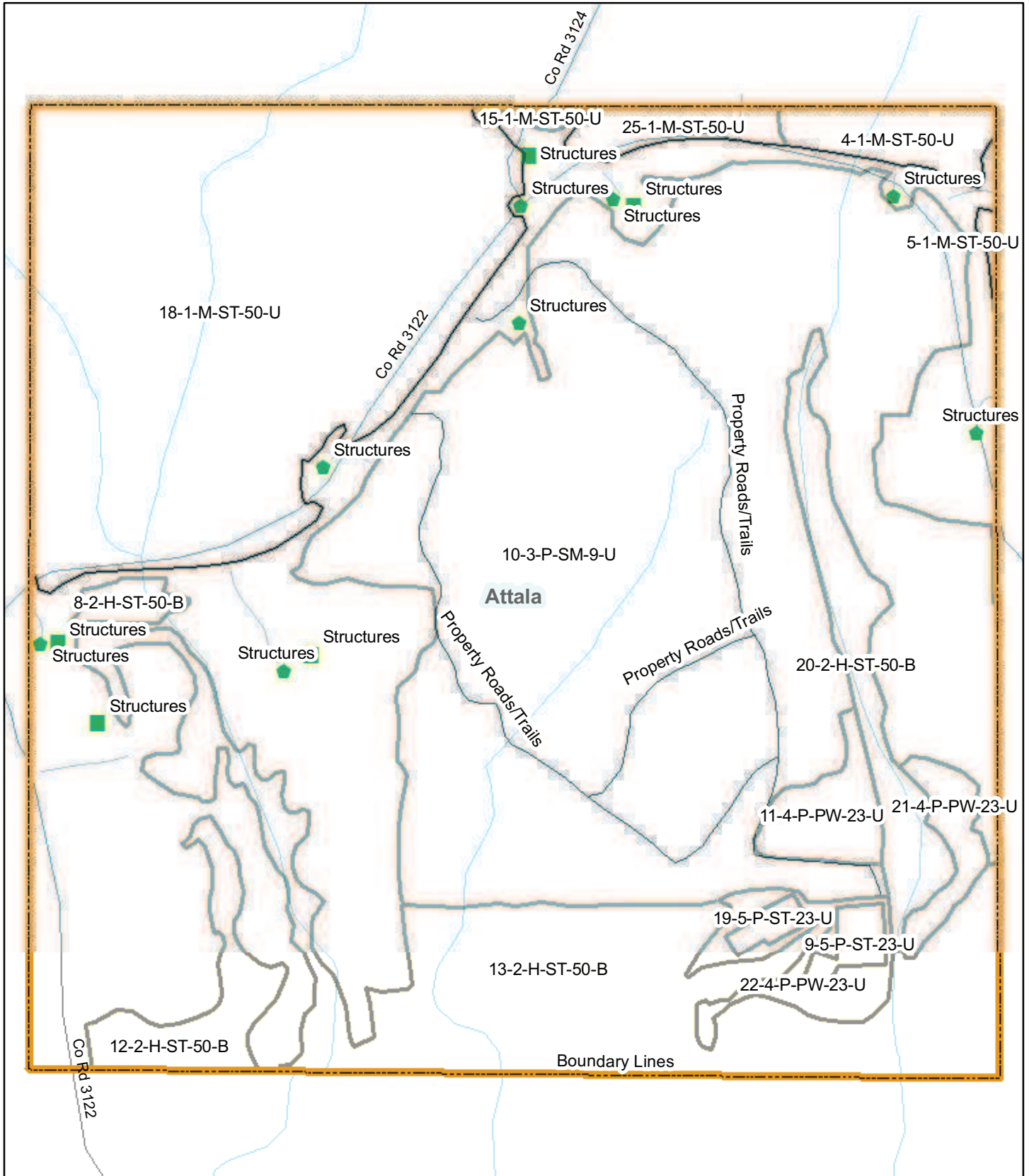
(02/22/2012)





# Attala Co. BOE Carmack Section

S16 T16N R6E  
2012 to 2021  
641.71 Acres



(02/22/2012)

0 0.1 0.2 0.3 0.4 Miles

# Plan::0045 00015 28007 05022008105821 Carmack Section



## Property

- Property

## Category 1: Stands

- Clear Cut
- Non-Stocked
- Reproduction
- Sub-Merchantable
- Pulpwood
- Chip-n-Saw
- Sawtimber
- Poles

## Category 2: Stands

- Clear Cut
- Non-Stocked
- Reproduction
- Sub-Merchantable
- Pulpwood
- Chip-n-Saw
- Sawtimber
- Poles

## Category 3: Non-Forest Stands

- Non-Forest

## Category 4: Not in Plan Stands

- Not in Plan

## Category 5: Features Only Plan Stand

- Features Only Plan

## Restricted Sites

- Archeology
- Cemetery
- Red-Cockaded Woodpecker
- Gopher Tortoise
- Picture Bogg Plant

## Forest Health (Points)

- Cogan Grass
- Kudzu
- Japanese Climbing Fern
- Chinese Tallow
- Privet
- Southern Pine Beetle
- Sirex Wasp
- IPPS

## Hydrology (Points)

- Concrete Dam
- Beaver Dam
- Earthen Dam
- Permanent
- Temporary
- Wooden
- Other
- Culvert
- Pond

## Wildlife (Points)

- Food Plot
- Water Hole
- Feeder

## Boundary Corners

- Property
- Section
- Quarter Section
- Areas

## Structures

- Barn
- Tractor Shed
- Out Building
- Single-Family
- Multi-Family
- Camp House
- Club House
- Office Building
- Manufacturing
- Warehouse
- Chicken House
- Horse Stall
- Milking Parlor
- Hog Pen
- Blind
- Stand
- Hospital
- Nursing Home
- Dr. Clinic
- State Facility
- Office
- Work Center
- Materials Depot
- Prison
- School
- Church
- Mosque
- Synagogue
- Other

## Cruise Plots

- Pre-Cruise
- Post-Cruise

## Other

- Towers
- Logging Deck
- Locked
- UnLocked
- Water
- Oil
- Natural Gas

## Property Roads/Trails

- Drive Ways
- Access Road
- Logging Road
- Skid Trail
- Farm Road
- Hiking Trail
- Horseback Riding Trail

## Boundary Lines

- Archeology
- Cemetery
- Drilling Sites
- Education

## Boundary Lines (cont)

- Forest Health
- Invasive Species
- Management Compartment
- Military Area
- Natural Area
- Property
- Recreation
- Rights of Way
- SMZ
- Special Use
- Stand
- Surface Mining
- Threatened/Endangered Species
- Visual Buffer

## Fire Control

- Temporary Line
- Permanent Fire Break

## Wildlife (Lines)

- Green Strip

## Fire

- Mitigation Burn
- Silviculture Burn
- Site-Prep Burn
- Wildfire

## School Land Lease

- Hunting
- Minerals
- Recreation

## Restricted Area

- SMZ
- Archeology
- Cemetery
- Visual Buffer
- Special Use
- Natural Area
- Education
- Recreation
- Military Area
- Large Utility
- Red-Cockaded Woodpecker
- Gopher Tortoise
- Picture Bogg Plant
- Coal
- Gravel
- Dirt
- Water
- Oil
- Natural Gas

## Forest Health (Polygons)

- Cogan Grass
- Kudzu
- Japanese Climbing Fern
- Chinese Tallow
- Privet
- Southern Pine Beetle
- Sirex Wasp
- IPPS

## School Land Classification

- Forest Land
- Farm/Residential Land
- Residential Land
- Agricultural Land
- Industrial Land
- Recreational Land
- Catfish Farming Land
- Other Land
- Commercial Land

## Management Compartment

- Management
- Regeneration
- Site Preparation
- Post Plant
- Site Improvement
- Vegetation Control
- Stand Improvement
- Invasive Species Control
- Harvest
- Fire Protection
- Technical
- Wildlife Management
- Property Activities
- Roads
- SMZ
- Forest Health
- Recreation
- Site Restoration

## Transportation (Lines)

- City Streets
- County Roads
- 3 Digit Highway
- Interstate Highway
- US Highway
- State Highway
- Natchez Trace Parkway
- Runways/Airports
- Active RR
- Abandoned RR

## Hydrology (Lines)

- Mississippi River
- Major River
- Primary Stream
- Intermittent Stream
- Canal
- Ditch
- Earthen Dam
- Concrete Dam

## Utilities (Lines)

- Large Electrical
- Local Utility
- Large Pipeline
- Small Pipeline
- Gas Line
- Utility Line
- Water Line

Stand Activity Schedule for  
Attala County Schools BOE  
16 16N 6E

Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue
<b>2012</b>					
1	4	Harvest, Mechanical, Final, Machine, Loblolly	8	\$240.00	\$17,328.00
1	5	Harvest, Mechanical, Final, Machine, Loblolly	1	\$30.00	\$2,166.00
1	18	Harvest, Mechanical, Final, Machine, Loblolly	125	\$3,750.00	\$270,750.00
1	25	Harvest, Mechanical, Final, Machine, Loblolly	5	\$150.00	\$10,830.00
<b>Yearly Totals</b>			<b>139</b>	<b>\$4,170.00</b>	<b>\$301,074.00</b>
<b>2013</b>					
1	4	Site Preparation, Chemical, Broadcast, Aerial, Combination	8	\$716.40	\$0.00
1	4	Regeneration, Artificial, Plant, Hand, Loblolly	8	\$676.60	\$0.00
1	4	Site Preparation, Other, Burn, Hand, Cut-Over	8	\$199.00	\$0.00
1	5	Site Preparation, Chemical, Broadcast, Aerial, Combination	1	\$65.70	\$0.00
1	5	Site Preparation, Other, Burn, Hand, Cut-Over	1	\$18.25	\$0.00
1	5	Regeneration, Artificial, Plant, Hand, Loblolly	1	\$62.05	\$0.00
1	18	Site Preparation, Chemical, Broadcast, Aerial, Combination	125	\$11,282.40	\$0.00
1	18	Site Preparation, Other, Burn, Hand, Cut-Over	125	\$3,134.00	\$0.00
1	18	Regeneration, Artificial, Plant, Hand, Loblolly	125	\$10,655.60	\$0.00
1	25	Site Preparation, Chemical, Broadcast, Aerial, Combination	5	\$494.10	\$0.00
1	25	Regeneration, Artificial, Plant, Hand, Loblolly	5	\$466.65	\$0.00
1	25	Site Preparation, Other, Burn, Hand, Cut-Over	5	\$137.25	\$0.00
<b>Yearly Totals</b>			<b>419</b>	<b>\$27,908.00</b>	<b>\$0.00</b>
<b>2017</b>					

Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue
3	10	Harvest, Mechanical, 1st Thin, Machine, Loblolly	237	\$8,295.00	\$49,533.00
4	11	Harvest, Mechanical, 1st Thin, Machine, Loblolly	7	\$245.00	\$1,813.00
4	21	Harvest, Mechanical, 1st Thin, Machine, Loblolly	5	\$178.15	\$1,318.31
4	22	Harvest, Mechanical, 1st Thin, Machine, Loblolly	8	\$296.45	\$2,193.73
5	9	Harvest, Mechanical, 1st Thin, Machine, Loblolly	2	\$85.75	\$634.55
5	19	Harvest, Mechanical, 1st Thin, Machine, Loblolly	2	\$56.70	\$419.58
Yearly Totals			262	\$9,157.05	\$55,912.17
<b>Grand Totals</b>			<b>819</b>	<b>\$41,235.05</b>	<b>\$356,986.17</b>