

**COUNTY-WIDE SIXTEENTH SECTION FOREST  
RESOURCE STEWARDSHIP MANAGEMENT**

**PLAN**

**FOR THE**

**SMITH COUNTY BOARD OF EDUCATION**

**SMITH COUNTY SCHOOL DISTRICT**

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**Date:**

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# MISSISSIPPI FORESTRY COMMISSION

## COUNTY-WIDE SIXTEENTH SECTION FOREST RESOURCE STEWARDSHIP MANAGEMENT PLAN

FOR THE

### SMITH COUNTY SCHOOL DISTRICT

#### LANDOWNER INFORMATION

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#### FORESTER INFORMATION

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- I. INTRODUCTION: This plan is a vital part of the Mississippi Forestry Commission's (MFC, the Commission) efforts in implementing the best forest management program possible on sixteenth section school trust lands in Smith County, Mississippi.
  - A. PURPOSE OF PLAN: This plan presents a current inventory of forest resources in Smith County. Information presented includes: forested acres, timber volumes, descriptions of individual parts of sections, age of stands, growth, particular needs for individual parts of sections, and problems associated with timber management. This plan establishes a tentative schedule of activities to be followed in upgrading sixteenth section forested land through a directed forest management program. The primary goal is providing the most revenue realistically possible to the public

school system in Smith County, Mississippi, on a continued basis. From this plan, both annual and monthly plans, which are more specific, will be developed for use by Commission personnel to carry out this goal.

- B. THE LAND RESOURCE: Smith County has seventeen (17) sixteenth sections of school trust land. All of these are full sections (each with approximately 640 acres) of school trust land. These sections total approximately 10,899 acres of which 7,713 are forested, with the remaining 3,186 as non-forested. Of the 7,713 acres which are classified as forest, 1,014 are listed as inoperable due to lack of access, lessee issues, swampy ground, etc., leaving **6,699** acres as manageable forested acreage.

There are three (3) main timber types which dominate the forested acreage on Smith County sixteenth section land. These are 1) pine-hardwood, 2) bottomland hardwood, and 3) pine plantation. The *pine-hardwood* stands are primarily the older mature natural stands, and occupy the upland dry sites. The pine-hardwood stands are composed of shortleaf pine, loblolly, and some longleaf, and lower grade of upland hardwoods composed mostly of post oak, hickory, water oak, sweetgum, and other assorted hardwood species. The upland sites are best suited for the production of pine. The *bottomland hardwood* stands are composed of a variety of oaks, hickory, ash and other assorted hardwood species, and generally occupy the wet sites. The *pine plantation* stands are made up of areas which were mixed pine-hardwood stands, which have been converted from uneven-age management to even-age management through harvest and regeneration, and are primarily located on the upland sites. The site index on bottomland will range from 75 to 85, and the site index on the upland site ranges from 80 to 90 with the average being around 85. See the graphs in the appendix of this document for a complete breakdown of stand types, stand classifications and percentages, and age distribution.

At this point in time, the cut cannot be regulated by the growth completely. This is due to several factors that will be discussed in detail later. This plan provides a starting point to continuously bring this land into full production with regulated annual cut. At the present time, the average stand is well stocked. Through improvement cuts, tree planting, and timber stand improvement work, growth can be increased to the desired level over the coming years.

- C. ADMINISTRATION: Under the current State law, the Secretary of State is designated as the "supervisory trustee" for all school trust lands in the State. Even though the Smith County Board of Education (the Board) has been delegated responsibility for the day-to-day administration of the trust property in Smith County, the Secretary of State is the final administrative authority. This procedure has been in place since July 1, 1978.

The Mississippi Forestry Commission, by virtue of current existing State laws, is vested with the general supervision of all timber on sixteenth section school trust lands in the State. In addition, there exists between the Commission and the school board with sixteenth section administrative responsibilities, timber management

and marketing agreements. These agreements define the duties and responsibilities of both parties in regard to sixteenth section land management. The Commission and the Secretary of State's office have also entered into similar agreements. Most school districts in the State of Mississippi also entered into similar agreements with the Secretary of State's office in the past few years.

The Mississippi Forestry Commission acts as the Board's technical advisor on all forestry matters. All work will be explained to and approved by the Board of Education prior to its execution in most cases. Work such as timber marking, burning, firelanes, tree planting, boundary line painting, and other work accomplished by the Commission, will be done, beginning July 1, 2012, on a fee basis, which is based on historic average actual costs.

## II. HISTORY OF THE FOREST:

- A. Past Abuses: Sixteenth section forested land in Smith County, as in most counties of the State, has a history of abuse in the form of wildfire, unauthorized timber removals, and erosion. Almost all of such abuses have occurred on lands that were being leased, or adjacent to those leases. Although abuses have greatly subsided in recent years, the effects of some of those abuses are still evident, even today.
- B. Income: In past years, sixteenth section timber sales have provided much needed, and sometimes critically needed funds for the public school system in Smith County. Funds from such sales during the last ten years totaled **\$3,420,802**, and sales for the next ten years should easily exceed the last ten years total.
- C. Improvements: Many improvements have been made on sixteenth section forested lands in Smith County during the last ten years, and beyond. Still additional improvements are needed. Most areas are not yet in full production. These are areas that are generally difficult to work with for varying reasons, but most of these areas could be brought into full production during the life of this plan. In the past 30 years, a considerable amount of work has been done on these lands in an effort to bring all forest acres into full production. These efforts will continue to be noticeable in the near future as more sales are made and the volumes should increase.
- D. Leases: nearly all of the school trust land leases in Smith County either have been renegotiated in recent years, or are due for renegotiation now. However, there are still areas of forested land in Smith County still leased under the "farm residential" classification. These areas pose problems for forest management. The leasing of forested land, for any purpose other than hunting, has never proven to be a benefit to the sixteenth section forest management program. Much time has been spent in past years by Mississippi Forestry Commission personnel in dealing with lessee related problems. Furthermore, aerial herbicide applications and prescribed burns, both of which are important to forest management programs, are more difficult to conduct when lessees live on or near parcels that need such treatments.

### III. FOREST MANAGEMENT OBJECTIVES

Management objectives consist of four (4) main points. The first being to have the forest managed for sustained yield for pine sawtimber. The second is to improve growing stock. The third objective is to get every acre producing to its full potential. The fourth objective is to continue to provide adequate game habitat while still producing good quality timber. The steps necessary to meet these objectives will be outlined in the remainder of this plan.

- A. Primary: The primary objective of placing sixteenth section school trust lands under a forest management program is to produce maximum income for the public school system. To accomplish this objective, efforts will be directed towards regulating the forest resource by balancing the workload of improvements, harvesting and regeneration. Such regulation will insure a continuous supply of forest products and increased income for the future.
- B. Secondary: The secondary objective of this plan is to better provide for multiple use opportunities on forest lands. Forest lands will be managed to also provide for wildlife, recreation, and watershed protection. The leasing of sixteenth section trust lands for hunting, fishing, and other recreational rights is a common practice and is, in most cases, very profitable for the School District. Whitetail Deer is the game species most people will pay higher rates to hunt. Where possible, the timber will be managed in such as way to promote the Whitetail Deer, and other game species.
- C. Production Aims: The primary production aim is to produce high quality sawlogs at the lowest possible cost. Pine-hardwood stands will be converted to stands that have 90-95% pine and only 5-10% hardwood. Attention will be given to leaving enough hardwood for mast production for wildlife species. This will be done by leaving low-lying hardwood areas and other selected areas in hardwood stands to promote wildlife diversity. Sales will be made to remove the lower quality hardwoods. The hardwood on hardwood sites will continue to be managed for the production of high quality hardwood sawlogs. No amount of volume can be set at this time to be removed from these lands each year. Attention needs to be give to removing low grade material with the ultimate objective of having the best species of trees growing the most volume possible. Sales need to be made as rapidly as possible. The available market will probably be the governing factor on the size and speed of the sales, as well as land classification and any type of lease, if involved.

### IV. CURRENT PROBLEMS AFFECTING FOREST MANAGEMENT

- A. Leases: Having to deal with lands under lease (hunting leases excluded) is one of the most difficult problems in carrying out any management activity. Lessee conflicts over land use, locked gates, fences, timber hauling routes, and lease boundaries are frequent. Time spent with such problems could be more profitable spent managing the forest resource.

- B. Personnel/Budget Limitations: Workload responsibility, present personnel and available equipment limit the Mississippi Forestry Commission's efforts on sixteenth section trust lands. The Forestry Commission has numerous responsibilities in addition to sixteenth section timber management.
  
- C. Section Boundary Lines: Generally, sixteenth section boundary lines are well established and readily identifiable. However, some lines have questions associated with them because of the new surveys, and may require court proceedings to secure the boundary. Some of these problem lines may also require a new survey where the lines and/or section markers have been damaged or destroyed. Where new surveys are required due to abuse or destruction of the established line, such surveys will be requested by the Mississippi Forestry Commission, as funds from the Forestry Escrow Fund become available for this type of work, provided the Board is unable to pass those costs on to the party or parties responsible for the damage.
  
- D. Access: The problems of access across leases have already been noted. Other access problems that exist are the need to purchase permanent easements or other management access and harvesting access across private parcels to some sections. Still, other access issues are the need to build and improve existing permanent firebreaks and woods roads, which sometimes include installing culverts, gates, etc. These access roads sometimes need to be built or improved across leased parcels. The use of gates and locks prohibit unauthorized use.
  
- V. SILVICULTURE: In Smith County, as in most counties in the State, ever increasing demands are being placed on school trust lands to provide revenue to supplement the public school system. Meeting such demands, in regard to the timber resource, will require an intensive forest management program and a working knowledge of the silvicultural choices available. Some of the guidelines are as follows:
  - A. General:
    - 1. BEST MANAGEMENT PRACTICES: The term "best management practice" refers to a practice or combination of practices, which is determined to be the most effective, practical means of preventing or reducing the amount of pollution generated by non-point sources to a level compatible with the water quality goals.
 

Public land management can generally be divided into three categories as follows:

      - (a) General forest management which consists of prescribed burning, hardwood brush control with chemicals and other general maintenance work.

- (b) Timber harvesting – this is the cutting and removing of forest products. These cutting operations will vary in size, shape and type cutting according to the specific situation. These cutting will include but not be limited to insect removal, thinning of stands or clear cutting of stands.
- (c) Post harvesting – this is any activity carried out as a result of harvesting and conducted after the harvesting has been completed. These Activities will include but not be limited to hardwood brush control, regeneration work and road construction/maintenance.

All work on public lands will address pollution matters on upland, bottomland and wetland sites. All work will be planned and carried out according to Mississippi's Best Management Practices Handbook.

2. Regeneration cuts will be prioritized according to the relative stocking, age, condition, size of the timber stand, and problems affecting management.
3. Where possible, regeneration cuts will be planned on each section to create diversity of age classes to benefit wildlife and make a better protection system in regard to wildfire and insects.
4. Areas will be left timbered along streams to reduce sediment and improve wildlife habitat.
5. Productive mixed pine-hardwood stands will be managed as long as it is economically feasible.

B. Pine:

1. Even-age management is preferred. Uneven-age situations will be held only until it is feasible to convert them to even-age.
2. Smith County has very productive soils for the most part. After conversion from natural to plantation stands, rotation ages should be 30 to 35 years.
3. Regeneration will be accomplished by whatever method seems to be the most practical for the stand concerned, employing both natural and artificial methods, but artificial methods are preferred.
4. Ideally, regeneration cuts will not exceed 110 acres in size, and additional regeneration cuts will not ideally be made on adjacent stands for at least 5 years.
5. Prescribed burning will be made an integral part of pine silviculture to the extent allowed by current smoke management guidelines.



C. Hardwood:

1. Sixteenth sections are located in several major hardwood bottoms. These are well suited to growing good quality hardwood in some instances. Even-age management will be needed to produce the best possible stands in the next rotation. Current stands will be held and managed as long as economically feasible, but will target a 70 year rotation.
2. As mentioned in the individual section plans, some of these areas will be included in future cuttings of adjacent stands, to reduce the overall size of some of the larger bottomland timber stands and Streamside Management Zones that have been left from past cuttings.
3. Natural regeneration of hardwood areas is preferred, because of cost, and other factors, but artificial regeneration is also an option where desired.
4. The MFC's "Hardwoods Management Handbook" will serve as an additional resource for treating hardwood stands on sixteenth sections.

VI. PROTECTION:

- A. Wildfires: Wildfires occasionally occur on sixteenth section land. The Mississippi Forestry Commission has the responsibility of the fire control on all sections. The Commission operates three (3) suppression units in Smith County. In the event of emergency, often units may be called in from adjoining counties. Dispatching of fires is done by contacting the central dispatch located at this District Office in Bay Springs, Mississippi, at **1-800-736-9115**.
- B. Pests, Insects, and Diseases: Insect pests, particularly pine park beetles are the most commonly occurring pest on sixteenth section land. Beavers are problems in certain areas. Feral hogs are also a problem in some areas. Plant pests, such as Privet hedge, Cogongrass, Chinese tallow tree, and kudzu are also problems. Periodic aerial detection flights and ground surveys are conducted to help locate pests and diseases and treat them when possible.
- C. Unauthorized Timber Removals: Unauthorized timber removals from sixteenth section school trust lands occasionally occur, although occurrence is very rare. Commission employees investigate and report violations to the Board.
- D. Threatened and Endangered Species: All public lands will be managed in accordance with the current laws and regulations governing both plants and animals that are considered threatened and/or endangered. Prior to any management activity the tract(s) in question will be surveyed for any known threatened or endangered species. If any species is found on tract, then the tract will be managed in accordance with the guidelines published for that particular species.

- E. Historical, Cultural, or Archeological Items: Any historical, cultural, or archeological item that is found on public land will be identified, located, marked and preserved. No silvicultural practice that will damage or destroy these items will be conducted on the site. Sufficient area around the site may be excluded to insure that the site will not be damaged. There are no published lists of items to be preserved. Items would generally consist of old monuments, grave sites, Indian mounds, etc.

VII. UTILIZATION AND MARKETING:

- A. Timber Sale Policies: Authority in determining when timber sales are to be made rest with the Mississippi Forestry Commission. However, the Commission strives to work with each respective school board in a cooperative way in scheduling timber sales. There is an established appeals process that can be followed should a disagreement exist between the Commission and a school board. If no disagreement exists, a regularly scheduled timber sale must be advertised according to law. Timber sale prospectuses, prepared and mailed out by the Commission on behalf of the respective school boards are an important part of the advertisement process. Once the Commission has determined a minimum bid price for a particular timber sale, the school board may award the sale to the highest bidder.
- B. Timber markets and Bidders: Smith County is located in a good timber marketing area. However, the number of local buyers has diminished over the past few years. The distance to pulp mills affects the price of pulpwood in Smith County. A current list of timber buyers is maintained by the Commission. Potential buyers for a particular sale are mailed a prospectus including an invitation to bid, and a map of the sale area.
- C. All marketing will be in accordance with the schedule in the appendix. Any timber marked for individual tree sale will be marked at stump and eye level. All timber, regardless of the type of sale, will be cruised by the Commission. After marking and/or cruising, the forester in charge will compute the volume of all products. Volume will be computed using Doyle Scale with appropriate form classes. The sale will be advertised by the Board. The period of advertisement will be 21 days. Sample contracts will be sent to all buyers in the area of the sale by the Commission. All bids must be marked "bid" and sent to the Board. The successful bidder will be governed by the terms of the contract. The forester in charge will make periodic checks of the cutting operation to insure compliance with the terms of the contract.
- D. The Board of Education will be invoiced for the work at the completion of the sale. A minimum of 15% percent of all timber revenue will be placed in an escrow fund for forestry work of any approved type. If additional funds are needed, the Commission may request the Board of Education to place additional funds in the escrow account. This may be from timber sales, or from the general fund money.