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FOREST STEWARDSHIP MANAGEMENT PLAN

Prepared For:
Kosciusko 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: Fletcher Crossing Section 16-13-7

MISSISSIPPI FOREST STEWARDSHIP PROGRAM

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LANDOWNER INFORMATION

Name:	Kosciusko Schools BOE	
Mailing Address:	229 W. Washington St.	
City, State, Zip:	Kosciusko, MS 39090	
Country:	United States of America	
Contact Numbers:	Home Number:	
	Office Number:	662-289-4771
	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:	Kosicusko, 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:	635	Latitude:	-89.58	Longitude:	32.98
Section:	16	Township:	13N	Range:	7E		

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.

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 142 non-forested acres in this section which includes leases, gasline, and roads. The leases prohibit proper forestry activity. Access to and on the section is by way of Attala Roads 1022 and 1020. Soils on this section are best suitd for Loblolly Pine production except on the west side of the section which is part of the Yockanookany River swamp.

Archeological or Cultural Resources:

A cemetery exists in the northeast portion of the section as indicated on the attached map. No forest management activities will occur inside of this protected area.

Water Resources

No perennial water resources were identified during a reconnaissance of the property. However, intermittent streams and drains identified will be managed in accordance with Mississippi's Best Management Practices.

Timber Production

The goal is to maximize the production of high quality timber. This will be accomplished through the application of timely thinning and other silvicultural practices designed to enhance timber quality and growth. Forestry Best Management Practices will be implemented to prevent erosion and protect water quality.

Threatened and Endangered Species

No threatened and endangered species were identified during the reconnaissance and evaluation of your property.

Interaction with Surrounding Property
Prescribed practices should 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

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.

44C2
The Providence component makes up 90 percent of the map unit. Slopes are 5 to 8 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 3e. This soil does not meet hydric criteria. Loblolly Site Index = 87. Longleaf Site Index = 73.

44B2
The Providence component makes up 90 percent of the map unit. Slopes are 2 to 5 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 2e. This soil does not meet hydric criteria. Loblolly Site Index = 87. Longleaf Site Index = 73.

2

The Oaklimeter 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.

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The Kinston component makes up 40 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains. The parent material consists of loamy alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is 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 frequently flooded. It is not ponded. A seasonal zone of water saturation is at 6 inches during January, February, March, April, May, June, November, December. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 6w. This soil meets hydric criteria. The Rosebloom component makes up 30 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 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 frequently flooded. It is not ponded. A seasonal zone of water saturation is at 6 inches during January, February, March. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 5w. This soil meets hydric criteria.

GENERAL PROPERTY RECOMMENDATIONS

Forest Protection

A healthy vigorously growing stand is the best defense to an attack from a variety of forest insects, plants and pathogens.

Insects and Diseases

Trees are subject to attack from insects and diseases. Different insects and diseases affect trees according to the age, species, and condition of the trees. Planted stands of pines and pure stands of hardwoods are particularly susceptible to attack. Since there are many different insects and diseases, no attempt will be made here to explain all of them. The property should be inspected at least annually for possible signs of insect and disease activity. Some things to look for are:

- Unseasonable leaf fall
- Discoloration of leaves or needles
- Pitch pockets on pine trees
- Heavy defoliation of hardwood leaves

- Groups of three or more dying trees within a stand

This list does not cover all instances of insect or disease attacks. If anything unusual is noticed, report it to a forester. In most cases, insect and disease problems can be controlled if discovered early.

Fire Protection

Your forest should be protected from wildfire at all times. The best way to protect your investment is by establishing and maintaining firebreaks around the property. Guidelines for establishment and maintenance of firebreaks may be found in Mississippi Forestry Commission publication #107, *Mississippi's Best Management Practices.*

Grazing

Tree seedlings should be protected from grazing until such time as the terminal bud of the sapling is beyond reach of livestock. Domestic livestock should be denied access to the tree planting area.

Boundary Lines

It is the responsibility of the landowner to ensure that all property lines and boundaries designating areas to receive forestry work are clearly identified and visible to all contractors.

Note: Some forest practices may cause temporary adverse environmental or aesthetic impacts. These practices will only cause short-term adverse impacts where they are installed. Special efforts will be made to minimize adverse effects when carrying out any of the practices. Examples include: site preparation, planting, prescribed fires, firebreak installation and maintenance, road installation and maintenance, pesticide applications and timber harvesting.

Water Quality Protection

The objective of the landowner is to protect, preserve and enhance all water sources on or transecting the property. This can best be achieved by implementation of Best Management Practices in all aspects of the management of the property.

Aesthetics

The goal is to assure that the property is managed in such a way that is aesthetically pleasing to the landowner as well as the community. Activities could include, maintaining buffer strips along the road and adjacent to the home site, planting wildflowers along the road, and trees with attractive fall and spring color along the drive and near the home site.

Ecological Restoration

Ecological restoration is the process of assisting the recovery of an ecosystem that has be degraded, damaged, or destroyed. A reconnaissance of the property has been conducted and no ecological restoration activities are recommended at this time.

Wildlife Mgt. Target Species
The objective of this practice is to provide habitat best suited for the featured or target species. Habitat management will focus on providing food, cover, water, and space to facilitate the target species.

Environmental Education
Environmental educational goals are to provide educational opportunities for children and adults through the development of items such as nature trails with tree identification markers, wildlife viewing areas, picnic areas, parking, public restroom facilities.

Wildlife Management General
The goal is to provide a diversity of habitats suited for a variety of game and non-game wildlife species. Habitat management will focus on providing a variety of food, cover, water, and space. This will be accomplished, in part, by establishing and maintaining access roads and firelanes, providing openings within the forest, and leaving mast producing and den trees.

Timber Management
Timber management goals for this property are to manage timber resources in such a manner as to maximize timber production throughout the life of the stand.

Recreation
According to landowner objectives the recreational use of the property could prove to be an avenue for personal enjoyment or for generating income. An evaluation of your property should be conducted and a plan developed to accomplish your specific goals for recreational activities on your property.

STRATA

Strata 1

Strata Description

Stands: 1,3,5,15,17,21,22,26,29

Acres: 200

This area consists of Loblolly Pine planted in 2005. There are 667 trees per acre and approximately 80 square feet of basal area. Also, a few hardwoods are scattered throughout the stand that are 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. It is estimated that this thinning should take place in the next planning period (beyond 2021).

Activity Recommendations

Strata 2
Strata Description
Stands: 2,4,9,12,18,30

Acres: 50

This area consists of Loblolly Pine planted in 1987. There are 350 trees per acre and approximately 120 square feet of basal area. Also, a few hardwoods are scattered throughout the stand that are competing for the soil nutrients.

Strata Recommendations
This area has been thinned once in 2005. This area should be thinned again when the basal area exceeds 110 square feet per acre.

Activity Recommendations
Harvest
This stand is to be managed to a rotation age of 35 years. The goal is to produce high quality sawtimber. This will be accomplished through timber stand improvement practices such as herbicides applications, prescribed burning, thinning at specified intervals, and other silvicultural practices. The trees in this stand needs to be select marked either for cutting or marked for leaving before the 2nd thinning is performed. It is estimated that this thinning should take place in 2015.

Strata 3
Strata Description
Stands: 7,8,23,31

Acres: 31

This area consists of Loblolly Pine planted in 2001. There are 700 trees per acre and approximately 90 square feet of basal area. Also a few hardwoods are scattered throughout the stand that are 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 2020.

Strata 4

Strata Description

Stands: 11,16,28

Acres: 136

This area consists of natural bottomland hardwood timber established in ~1948. There are 126 hardwood trees per acre and 12 pine trees per acre with a combined total of 122 square feet of basal area.

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 5

Strata Description

Stands: 10,27

Acres: 43

This area consists of natural bottomland hardwood timber on hydric soils. This timber was established in ~1948. There are approximately 70 trees per acre with 50 square feet of basal area. The growth of these hardwoods has been stunted because of the soils.

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 6

Strata Description

Stand: 6

Acres: 28

This area consists of Loblolly Pine planted in 1997. There are 365 trees per acre and approximately 85 square feet of basal area. A few hardwoods are scattered throughout the stand that are 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 2015.

Strata 7

Strata Description

Stands: 24,25

Acres: 5

This area consists of a natural hardwood submerchentable timber established in approximately 1997. There are approximately 300 trees per acre with 40 square feet of basal area.

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.

OTHER PLAN ACTIVITIES

Boundary Lines

Line Description

These are the outside boundary lines of Sec.16-T13N-R7E

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

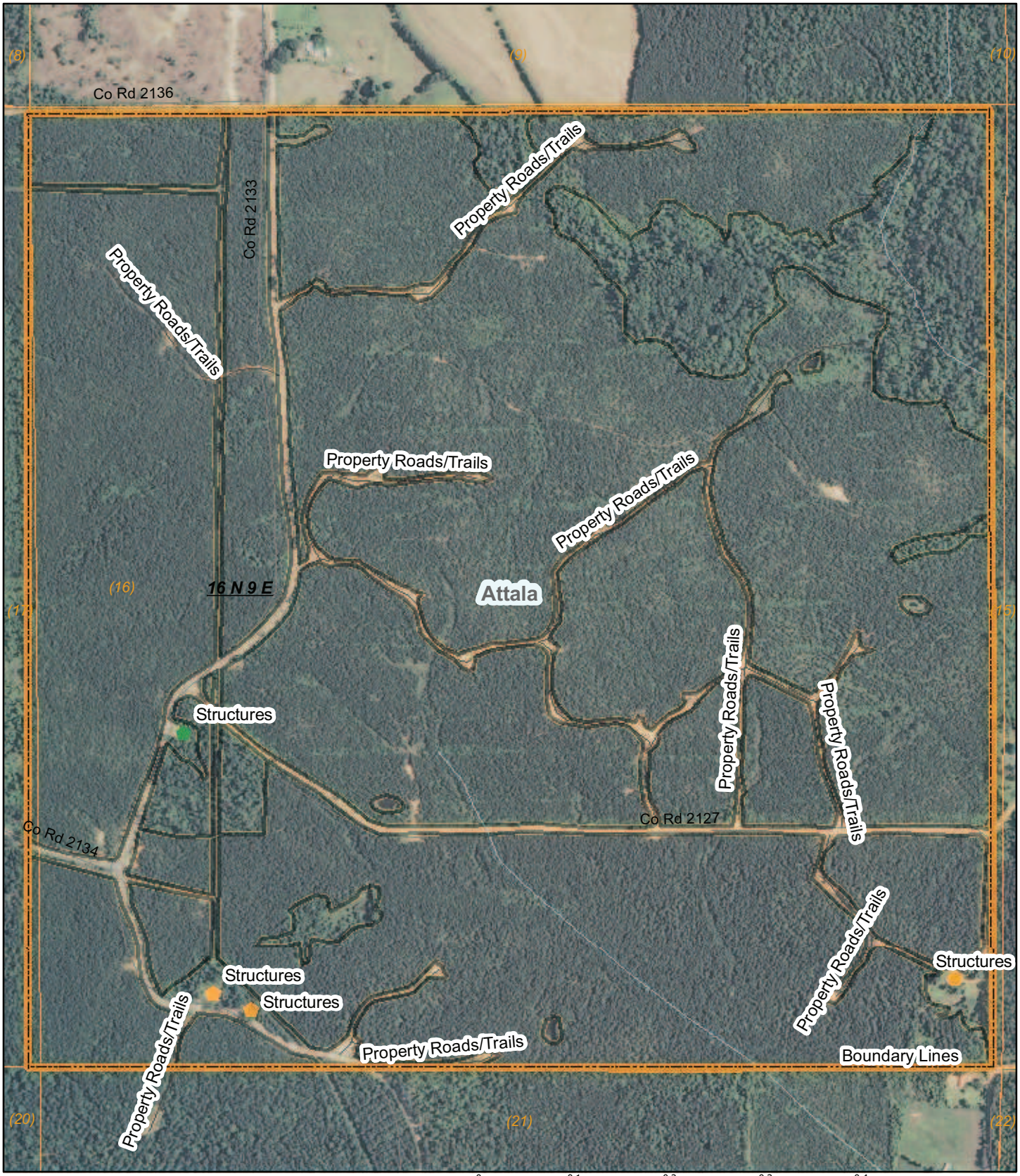
Property Activities

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 2015 and again in 2021.

Kosciusko School District - Fletcher Crossing Section

S16 T13N R7E
2012 to 2021
635.28 Acres

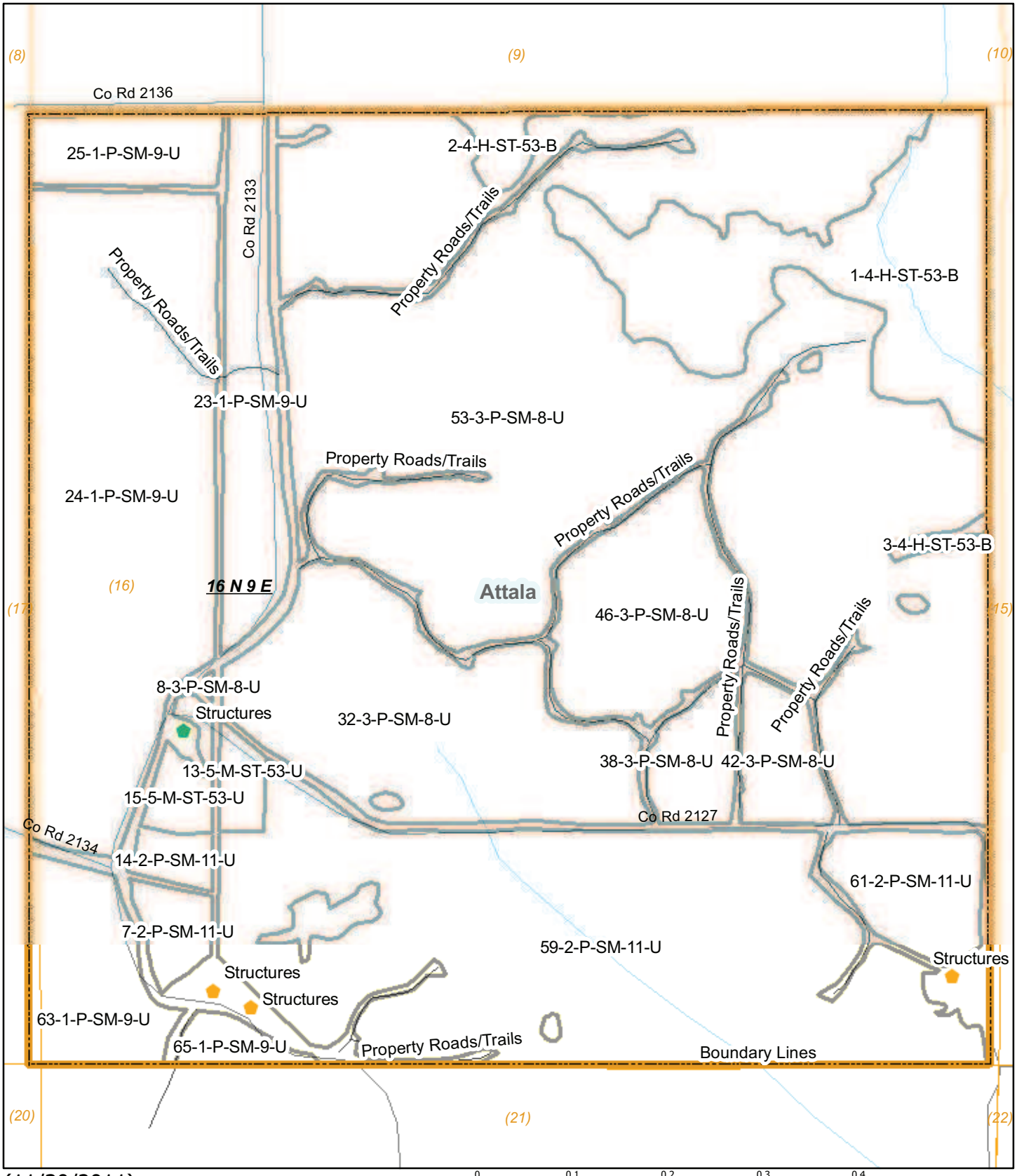


(11/30/2011)

0 0.1 0.2 0.3 0.4 Miles

Kosciusko School District - Fletcher Crossing Section

S16 T13N R7E
2012 to 2021
635.28 Acres



(11/30/2011)

0 0.1 0.2 0.3 0.4 Miles

Plan::0045_00016_28007_05022008104657_Fletcher Crossing 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
Kosciusko Schools BOE
16 13N 7E

Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue
2015					
2	2	Harvest, Mechanical, 2nd Thin, Machine, Loblolly	1	$41.65	$606.90
2	4	Harvest, Mechanical, 2nd Thin, Machine, Loblolly	2	$57.75	$841.50
2	9	Harvest, Mechanical, 2nd Thin, Machine, Loblolly	35	$1,225.00	$17,850.00
2	12	Harvest, Mechanical, 2nd Thin, Machine, Loblolly	4	$136.50	$1,989.00
2	18	Harvest, Mechanical, 2nd Thin, Machine, Loblolly	6	$196.70	$2,866.20
2	30	Harvest, Mechanical, 2nd Thin, Machine, Loblolly	3	$96.95	$1,412.70
6	6	Harvest, Mechanical, 1st Thin, Machine, Loblolly	28	$980.00	$7,252.00
		Yearly Totals	78	$2,734.55	$32,818.30
2020					
3	7	Harvest, Mechanical, 1st Thin, Machine, Loblolly	9	$303.10	$2,242.94
3	8	Harvest, Mechanical, 1st Thin, Machine, Loblolly	6	$201.25	$1,489.25
3	23	Harvest, Mechanical, 1st Thin, Machine, Loblolly	9	$311.15	$2,302.51
3	31	Harvest, Mechanical, 1st Thin, Machine, Loblolly	7	$245.00	$1,813.00
		Yearly Totals	30	$1,060.50	$7,847.70
		Grand Totals	**108**	**$3,795.05**	**$40,666.00**