



Vision • Commitment • Pride

FOREST STEWARDSHIP MANAGEMENT PLAN

Prepared For:
Leake County BOE

Prepared By:
Howard Wayne Ornsbey
MS Forestry Commission

Time Period Covered by This Plan:
2012 - 2021

Date Plan Prepared:
2012-02-13

Plan Type:
Stewardship / Stewardship

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

Property Name: Section 16 Township 12 North Range 09 East

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FOREST STEWARDSHIP MANAGEMENT PLAN**

LANDOWNER INFORMATION

Name: Leake County BOE
Mailing Address: P.O. Box 478
City, State, Zip: Carthage, MS 39051
Country: United States of America
Contact Numbers: Home Number:
Office Number: 601-267-4579
Fax Number: 601-267-5283
E-mail Address:
Social Security Number (optional):

FORESTER INFORMATION

Name: Howard Wayne Ornsbey , Service Forester
Forester Number: 01820
Organization: MS Forestry Commission
Street Address: PO Box 24
City, State, Zip: Carthage, MS 39051
Contact Numbers: Office Number: 601-267-9357
Fax Number: 601-267-9357
E-mail Address: wornsbey@mfc.state.ms.us

PROPERTY LOCATION

County: Leake Total Acres: 639 Latitude: -89.38 Longitude: 32.89
Section: 16 Township: 12N Range: 9E

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.

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.

OBJECTIVES

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.

Water Quality

Streamside management zones have or will be established along the stream and a protective vegetative zone maintained along the perimeter. Water diversions will be installed and maintained where needed on access roads to prevent erosion.

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

The property is located in the Northeast part of Leake County along Mississippi Highway 25, Jones Road and Mars Hill Road. This property is 639 acres. The major stand type is Loblolly Pine ranging in age from seven to fifty years of age. There is 493 acres of sub-merchantable pine plantation, 59 acres of sawtimber, there is a Steam Side Management Zone (SMZ) totaling 38 acres and 86 acres of this tract is non-forest.

No Archeological or Cultural Resources Were Identified:

No Archeological or Cultural Resources Were Identified:

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

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: Neshoba, Smithdale, and Williamsville.

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

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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.

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.

SOIL TYPES

Neshoba

The Neshoba 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 clayey 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 2e. This soil does not meet hydric criteria. Loblolly Site Index = 90.

Smithdale

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.

Williamsville

The Williamsville component makes up 90 percent of the map unit. Slopes are 12 to 17 percent. This component is on hillslopes. The parent material consists of clayey 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 moderate. 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 6e. This soil does not meet hydric criteria. Loblolly Site Index = 88.

STRATA

Strata 1: Stands 2, 3, 7, 9, and 12

Strata Description

Mixed Sawtimber

Acres: 59

This is a 53+ year-old mixed pine-hardwood sawtimber stand. At present, pine basal area averages 8 square feet per acre and average merchantable heights average 41 feet. This strata includes a 39 acre SMZ. At present, the average dbh of the residual stand is 14.2 inches. Species found includes: southern red oak, white oak, sweetgum, post oak, and pine.

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Strata Recommendations

These stands will be managed to a 35 year rotation. During this time frame, management activities such as thinning to remove poor quality trees and improve growth, vegetative control to control undesirable species, and prescribed burning to improve wildlife habitat will be used to keep stands at full production.

Monitor this stand annually. At this time there are no scheduled activities planned. Routine inspections and general maintenance of the roads, Firelanes, and boundary lines will ensure overall appearance and aesthetics of the property. In order to produce high quality sawtimber the stand should be managed under existing recommendations. This will be accomplished on a thirty-five-year rotation. At the end of thirty-five-years the stand will have a final harvest done on it followed by site prep and artificial regeneration to Loblolly Pine. This strata should be harvested when the adjoining area's have a final harvest.

Strata 2: Stands 4, 5, 6, 10, 14, and 15

Strata Description

Pine Sub-merchantable

Acres: 341

This tract is a 7 year-old, sub-merchantable Loblolly Pine stand that averages, 480 trees per acre and total height measures 20 feet.

Strata Recommendations

These stands will be managed to a 35 year rotation. During this time frame, management activities such as thinning to remove poor quality trees and improve growth, vegetative control to control undesirable species, and prescribed burning to improve wildlife habitat will be used to keep stands at full production.

In 2019, the stand will need to be evaluated to determine if it can be thinned. In order to produce high quality sawtimber the stand should be managed under existing recommendations. This will be accomplished on a thirty-five-year rotation. At the end of thirty-five-years the stand will have a final harvest done on it followed by site prep and artificial regeneration to Loblolly Pine.

This will be the first thinning of this pine plantation. A fifth row thin followed by an operator select cut is recommended for this property. After removing every fifth row of trees, the operator will select from the remaining trees those in need of removal. It will be thinned to produce a well-spaced stand with a basal area of 75 square feet per acre. Priority will be placed on removal of trees that are forked, less than 6 inches dbh, or otherwise undesirable.

Activity Recommendations

Fire Protection

A prescribed burn should be carried out on this property in the late fall or early winter of 2019 and be repeated on a two or three year rotation thereafter. Prescribed fire when used correctly can greatly benefit the health and vigor of a stand. It reduces the undesirable tree species that often crowd out or suppress pines. These unwanted understory trees and shrubs species not only compete for water, nutrients, and growing space, but often contain dead needles and leaves that act as ladder fuels allowing a fire to climb into the overstory crowns. Prescribed fire also reduces the hazardous fuel loads within the stand and prevents damage in the event of a wildfire.

A Prescribed burning program benefits wildlife by maintaining the forest understory in early stages of plant succession. It is utilized by bobwhite quail, turkey, white-tailed deer, and many other nongame species. This is accomplished by keeping the forage within the reach of the wildlife. Openings left in the forest, firebreaks, and the edge effect created adjacent to these openings will serve to provide feeding (food plots), nesting, and dusting areas for many different species of wildlife. Both game and non-game species will concentrate in these areas, thereby increasing opportunities for wildlife viewing.

Harvest

This will be the first thinning of this pine plantation in fiscal year 2020. A fifth row thin followed by an operator select cut is recommended for this property. After removing every fifth row of trees, the operator will select from the remaining trees those in need of removal. It will be thinned to produce a well-spaced stand with a basal area of 75 square feet per acre. Priority will be placed on removal of trees that are forked, less than 6 inches dbh, or otherwise undesirable.

Strata 3: Stands 8 and 11

Strata Description

Pine Sub-merchantable

Acres: 154

This tract is a 8 year-old, sub-merchantable Loblolly Pine stand that averages, 455 trees per acre and total height measures 20 feet.

Strata Recommendations

These stands will be managed to a 35 year rotation. During this time frame, management activities such as thinning to remove poor quality trees and improve growth, vegetative control to control undesirable species, and prescribed burning to improve wildlife habitat will be used to keep stands at full production.

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In 2019, the stand will need to be evaluated to determine if it can be thinned. In order to produce high quality sawtimber the stand should be managed under existing recommendations. This will be accomplished on a thirty-five-year rotation. At the end of thirty-five-years the stand will have a final harvest done on it followed by site prep and artificial regeneration to Loblolly Pine.

This will be the first thinning of this pine plantation. A fifth row thin followed by an operator select cut is recommended for this property. After removing every fifth row of trees, the operator will select from the remaining trees those in need of removal. It will be thinned to produce a well-spaced stand with a basal area of 75 square feet per acre. Priority will be placed on removal of trees that are forked, less than 6 inches dbh, or otherwise undesirable.

Activity Recommendations

Fire Protection

A prescribed burn should be carried out on this property in the late fall or early winter of 2019 and be repeated on a two or three year rotation thereafter. Prescribed fire when used correctly can greatly benefit the health and vigor of a stand. It reduces the undesirable tree species that often crowd out or suppress pines. These unwanted understory trees and shrubs species not only compete for water, nutrients, and growing space, but often contain dead needles and leaves that act as ladder fuels allowing a fire to climb into the overstory crowns. Prescribed fire also reduces the hazardous fuel loads within the stand and prevents damage in the event of a wildfire.

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Harvest

This will be the first thinning of this pine plantation in fiscal year 2020. A fifth row thin followed by an operator select cut is recommended for this property. After removing every fifth row of trees, the operator will select from the remaining trees those in need of removal. It will be thinned to produce a well-spaced stand with a basal area of 75 square feet per acre. Priority will be placed on removal of trees that are forked, less than 6 inches dbh, or otherwise undesirable.

OTHER PLAN ACTIVITIES

Boundary Lines

Line Description

The section boundary line's have been established and painted on a five year rotation.

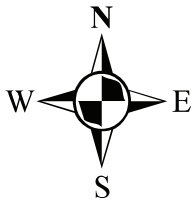
Line Recommendations

The section boundary line are to be painted with **Orange** boundary line paint. The are to be painted on a five year rotation.

Activity Recommendations

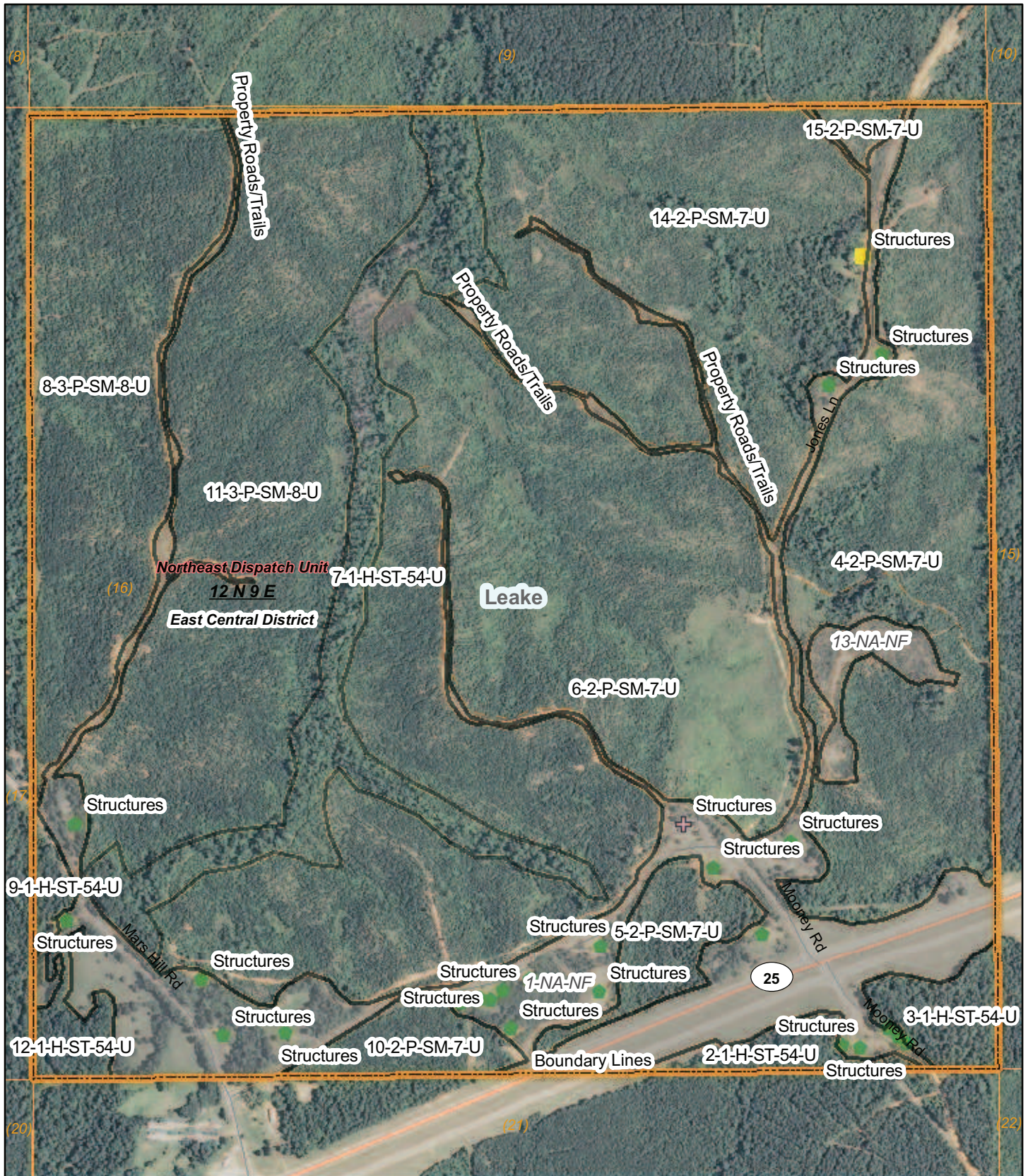
Property Activities

Routine inspections and general maintenance of the roads, Firelanes, and boundary lines will ensure overall appearance and aesthetics of the property.

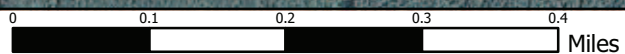


Leake County Schools

Sec. 16 Twn 12 North Rge 09 East
Management Map (MaryDell Section)
639.31 Acres



(01/12/2012)



Sec. 16 Twn 12 North Rge 09 East (MaryDell Section)



Property

Property (1)

Category 1: Stands

Sawtimber (5)
 Sub-Merchantable (8)

Category 3: Non-Forest Stands

Non-Forest (2)

Structures

Single-Family (23)
 Tractor Shed (1)
 Church (1)

Property Roads/Trails

Logging Road (6)

MFC Basemap

County Boundary

County Boundary (1)

Quadrangle Grid

USGS Quad (2)

PLS Townships

PLS Townships (1)

Survey Districts

District 2 (1)

Blockgroup (Census 2000)

Blockgroup (Census 2000) (1)

Block (Census 2000)

Block (Census 2000) (6)

Tract/BNA (Census 2000)

Tract/BNA (Census 2000) (1)

County Roads

County Roads (6)

US/State Highways

State Highway (1)

School Sections

School Sections (1)

Public School Districts

LEAKE COUNTY SCHOOL DISTRICT (1)

US Congressional District

US Cong Dist #3 (1)

MS Senate

18 (1)

MS House

45 (1)

Hydrologic Units (Basins)

YOCKANOOKANY RIVER (1)

Historic Forest Boundary

Loblolly/Shortleaf Pine-Oak (1)

MS Forest Habitat

LOWER LOAM HILLS (1)

Physiographic Region

North Central Hills (1)

Soil Associations

williamsville-neshoba-smithdale (1)
 mantachie-kirkville-jena (1)

Surface Geology

KOSCIUSKO (1)
 ZILPHA/WINONA (1)
 TALLAHATTA/NESHOBA SAND (1)

MFC Districts

MFC Districts (1)

MFC Dispatch Units

MFC Dispatch Units (1)

MS Outline

MS Outline (1)

Stand Activity Summary for
Leake County BOE
16 12N 9E

Filters Applied: County: Leake
 Client Class: School Trust Land
 District: East Central District
 Client: Leake County BOE
 STR: 16 12N 9E
 Activity:
 Year: 2012 Through 2021

STR	Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue
2019						
16 12N 9E	2	4	Fire Protection, Other, Burn, Hand, Hazard Mitigation	81	\$2,025.00	\$0.00
16 12N 9E	2	5	Fire Protection, Other, Burn, Hand, Hazard Mitigation	10	\$248.25	\$0.00
16 12N 9E	2	6	Fire Protection, Other, Burn, Hand, Hazard Mitigation	159	\$3,963.75	\$0.00
16 12N 9E	2	10	Fire Protection, Other, Burn, Hand, Hazard Mitigation	8	\$207.25	\$0.00
16 12N 9E	2	14	Fire Protection, Other, Burn, Hand, Hazard Mitigation	81	\$2,030.00	\$0.00
16 12N 9E	2	15	Fire Protection, Other, Burn, Hand, Hazard Mitigation	2	\$56.25	\$0.00
16 12N 9E	3	8	Fire Protection, Other, Burn, Hand, Hazard Mitigation	61	\$1,525.00	\$0.00
16 12N 9E	3	11	Fire Protection, Other, Burn, Hand, Hazard Mitigation	92	\$2,300.00	\$0.00
Yearly Totals				494	\$12,355.50	\$0.00
2020						
16 12N 9E	2	4	Harvest, Mechanical, 1st Thin, Machine, Loblolly	81	\$2,825.20	\$9,686.40
16 12N 9E	2	5	Harvest, Mechanical, 1st Thin, Machine, Loblolly	10	\$350.00	\$1,200.00
16 12N 9E	2	6	Harvest, Mechanical, 1st Thin, Machine, Loblolly	159	\$5,565.00	\$19,080.00
16 12N 9E	2	10	Harvest, Mechanical, 1st Thin, Machine, Loblolly	8	\$290.15	\$994.80
16 12N 9E	2	14	Harvest, Mechanical, 1st Thin, Machine, Loblolly	81	\$2,835.00	\$9,720.00
16 12N 9E	2	15	Harvest, Mechanical, 1st Thin, Machine, Loblolly	2	\$78.75	\$270.00
16 12N 9E	3	8	Harvest, Mechanical, 1st Thin, Machine, Loblolly	61	\$2,135.00	\$8,540.00
16 12N 9E	3	11	Harvest, Mechanical, 1st Thin, Machine, Loblolly	92	\$3,220.00	\$11,040.00

STR	Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue
			Yearly Totals	494	\$17,299.10	\$60,531.20
			Grand Totals	988	\$29,654.60	\$60,531.20