



Vision • Commitment • Pride

FOREST STEWARDSHIP MANAGEMENT PLAN

Prepared For:
Jefferson County Schools

Prepared By:
J. Ted Ratcliff
Miss. Forestry Comm.

Time Period Covered by This Plan:
2012 - 2021

Date Plan Prepared:
2012-01-04

Plan Type:
Stewardship / Stewardship

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

Property Name: 16-9N-3E

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LANDOWNER INFORMATION

Organization: Jefferson County Schools
Name: Jefferson County Schools
Mailing Address: P.O. Box 157
City, State, Zip: Fayette, MS 39069
Country: United States of America
Contact Numbers: Home Number:
Office Number: 601-786-3791
Fax Number:
E-mail Address:
Social Security Number (optional): 640000000

FORESTER INFORMATION

Name: J. Ted Ratcliff, Service Forester
Forester Number: 00717
Organization: Miss. Forestry Comm.
Street Address: P. O. Box 452
City, State, Zip: Meadville, MS 39653
Contact Numbers: Office Number: 601-754-9111
Fax Number: 601-384-2437
E-mail Address: ratcliff@mfc.state.ms.us

PROPERTY LOCATION

County: Jefferson Total Acres: 617 Latitude: -90.88 Longitude: 31.76
Section: 16 Township: 9N Range: 3E

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

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.

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Wildlife Management - General

The goal is to provide a diversity of habitats suitable for a variety of game and non-game wildlife species. Habitat management will focus on developing a variety of food, cover, water, and space. This will be accomplished by establishing and maintaining access roads and firelanes, providing openings within the forest, and the management of trees located within the Streamside Management Zone

PROPERTY DESCRIPTION

General Property Information

This section is located in the north eastern portion of the county in the Blue Hill Community about thirteen miles north east of Fayette. Access to the section is good with Highway 552 running through the middle of the section. This section is approximately 617 acres, with all of the area being forested except for small food plots, woods roads, and utility right of ways, which makes up about 8 acres.

Water Resources

A small perennial water resources was identified during a reconnaissance of the property. It and all 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: Memphis, Falaya, Lorman, Loring, and Deerford.

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Archeological or Cultural Resources

These areas can range from churches, old cemeteries, or Indian mounds to old home sites or other areas of historical significance.

No Archeological or Cultural Resources Were Identified:

No Archeological or Cultural Resources were identified during the reconnaissance of the property. However, if Archeological or Cultural Resources are discovered anytime on the property special management measures will be applied immediately to preserve these sensitive areas.

GENERAL PROPERTY RECOMMENDATIONS

Forest Protection

A healthy and 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*.

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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 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.

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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 (Stand 10)

Stand Description

The stand consist of 102 acres of mature pine sawtimber. There is a small amount of mixed hardwood scattered through the midstory, with a moderate amount of hardwood brush in the understory.

Stand Recommendations

This stand will be managed as a mixed loblolly pine and hardwood timber stand throughout the rotation and be harvested at maturity to be regenerated back into loblolly pine.

Activity Recommendations

Harvest

This stand will be harvested with a clear cut in 2014. Volumes to sale will be determined with a minimum of 10 % cruise.

Site Preparation

Property will be burned in 2016 prior to planting allowing a better kill on the vines and weeds as well as the woody plants on site. The burn will improve spacing on the planting of the pines due to improved access.

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Site Preparation

Aerial Application of Herbicide During the summer prior to planting, site preparation in the form of an aerial application of a herbicide should be applied to the tract to control competing vegetation. The herbicide should conform to the manufacturer recommended rates and specifications. A herbicide representative should be contacted to write a rate and application method recommendation.

Regeneration

This area will be planted with genetically improved, containerized loblolly seedlings in 2016. Spacing will be done on a 8 foot by 10 foot spacing, yielding 544 seedlings per acre.

Strata 2(Stands 5,9,13,17,18,19, and 20)

Stand Description

This strata consists of approximately 98 acres of loblolly pine pulpwood, planted in approximately 1990 and has just undergone a thinning. Site was an old field prior to planting.

Stand Recommendations

This stand will be managed as a loblolly pine plantation throughout the rotation and be harvested at maturity to be regenerated back into loblolly pine.

Activity Recommendations

Harvest

A second thin in 2016 should be conducted taking into consideration the growth of the stand and the local market. The stand should be thinned back to a 70-80 basal area. Only pulpwood size, lower quality form, overcrowded and suppressed, or diseased stems should be removed.

Fire Protection

A prescribed fire is recommended in 2018 for this site in order to reduce fuel loading and the potential for a wildfire to occur. A prescribed burning plan must be developed and followed in the application of the burn. Because of equipment, personnel and weather requirements, the application of a prescribed fire is limited to only those days that meet requirements of the burning plan. A certified prescribed burning manager should be employed to conduct the burn. The Mississippi Forestry Commission and other certified prescribed burning vendors are available to conduct prescribed burning.

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Strata 3 (Stand 12)

Stand Description

This stand consist of about 87 acres which consist of mixed hardwood with few pine. Much of the area has intermittent streams through it, which will be managed as an SMZ. The timber ranges from pulpwood to sawtimber in size.

Stand Recommendations

This stand will be managed as a mixed loblolly pine and hardwood timber stand throughout the rotation and be harvested at maturity to be regenerated back into loblolly pine. The areas along the drains will remain mixed hardwood.

Activity Recommendations

Harvest

This area should be thinned in 2014. Pines will be thinned to remove stressed, crowded and dying stems that would not survive until the final harvest. The less desirable species of hardwood will be removed to promote more available room for growth of desirable species.

Strata 4 (Stand 16)

Stand Description

This strata consists of approximately 64 acres of loblolly pine pulpwood, planted in 2002 and is fully stocked. Site was harvested prior to planting in 2001.

Stand Recommendations

This stand will be managed as a loblolly pine plantation throughout the rotation and be harvested at maturity to be regenerated back into loblolly pine.

Activity Recommendations

Harvest

Our plans are to conduct a first thinning operation in 2017, with a pay as cut harvester select thinning. Corridors to be cut by buyer to allow access because of poor row integrity. Corridors will not be wider than 20 feet and at a minimum of 30 feet apart. Remaining basal area will be 70-80 sq. feet per acre, made up of crop trees which is considered to be potentially sawtimber quality. Trees to be thinned will only be pulpwood size, lower quality form, overcrowded suppressed or diseased stems.

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

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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.

Strata 5 (Stand 15)

Stand Description

This area(67 acres) is made up of a mature stand of predominately loblolly pine with smaller areas of large mature hardwoods mixed in.

Stand Recommendations

This stand will be managed as a loblolly pine timber stand throughout the rotation and be harvested at maturity to be regenerated back into loblolly pine.

Activity Recommendations

Harvest

Stand 15 will be harvested with a clear cut in 2019. Volumes of the sale will be determined with a minimum of a 10 % cruise. Site preparation and planting will follow in the years after the harvest.

Fire Protection

A prescribed fire is recommended for this site in order to reduce fuel loading and the potential for a wildfire to occur. A prescribed burning plan must be developed and followed in the application of the burn. Because of equipment, personnel and weather requirements, the application of a prescribed fire is limited to only those days that meet requirements of the burning plan. A certified prescribed burning manager should be employed to conduct the burn. The Mississippi Forestry Commission and other certified prescribed burning vendors are available to conduct prescribed burning.

Regeneration

This area will be planted in 2020 with genetically improved, containerized loblolly seedlings. Spacing will be done on a 8 foot by 10 foot spacing, yielding 544 seedlings per acre.

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Site Preparation

The heavy site preparation needed will be an aerial application of herbicides to be completed prior to October 24, 2020. The objective of the herbicide application will be to kill the competing vegetation currently on the site. The herbicides to use and the rate of application will be prescribed by a herbicide specialist.

Site Preparation

Property will be burned in 2020 prior to planting allowing a better kill on the vines and weeds as well as the woody plants on site. The burn will improve spacing on the planting of the pines due to improved access.

Strata 6 (Stand 1)

Stand Description

This 80 acres is made up of a mature stand of predominately loblolly pine with smaller areas of large mature hardwoods mixed in.

Stand Recommendations

This stand will be managed as a loblolly pine timber stand throughout the rotation and be harvested at maturity to be regenerated back into loblolly pine.

Activity Recommendations

Fire Protection

A prescribed fire is recommended in 2012 for this site in order to reduce fuel loading and the potential for a wildfire to occur. A prescribed burning plan must be developed and followed in the application of the burn. Because of equipment, personnel and weather requirements, the application of a prescribed fire is limited to only those days that meet requirements of the burning plan. A certified prescribed burning manager should be employed to conduct the burn. The Mississippi Forestry Commission and other certified prescribed burning vendors are available to conduct prescribed burning.

Harvest

This stand will be harvested with a clear cut in 2017. Volumes of the sale will be determined with a minimum of a 10 % cruise.

Site Preparation

The area will be site prepared with an aerial broadcast herbicide application in 2018. Chemicals and rates will be determined based on the vegetation present at that time by a licensed applicator.

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Burning of the area will reduce the logging slash allowing better planting of seedlings and killing any residual plants not affected by the herbicide treatment.

Site Preparation

Site Preparation Burning - A prescribed burn should be conducted to further prepare the site and to enhance the herbicide effectiveness and reducing the likelihood of re-sprouting. A burn will reduce debris that may otherwise impede tree planting. The result will enable better accessibility by tree planters, improving overall uniformity and quality of the tree planting job. A prescribe burning plan should be developed and followed in the application of the burn. A certified prescribed burning manager should be employed to conduct the burn.

Regeneration

This area will be planted in 2018 with genetically improved, containerized loblolly seedlings. Spacing will be done on a 8 foot by 10 foot spacing, yielding 544 seedlings per acre.

Strata 7 (Stand 2,3,6 and 8)

Stand Description

This strata was clear cut in 2010 and being approximately 89 acres. All merchantable timber was removed and the area was site prepared and planted in 2011. This strata was planted with 544 trees per acre of genetically improved containerized loblolly pine seedlings. Trees were planted on an 8 by 10 spacing. After planting, the area was sprayed with a mix to control both herbaceous and woody stems as well as Kudzu. Also a burn was done to reduce the volume of logging slash before the plant. The strata will be managed as a pine stand and will be thinned at age 12 to 15, afterwhich a control burn will reduce the excess slash and keep the hardwood growth in check. Periodic checks for Kudzu return will be made.

Stand Recommendations

This stand will be managed as a loblolly pine plantation throughout the rotation and be harvested at maturity to be regenerated back into loblolly pine.

Activity Recommendations

Site Preparation

The heavy site preparation was done by an aerial application of herbicides completed prior to October 24, 2011. The objective of the herbicide application was to kill the competing vegetation (Kudzu) currently on the site. The herbicides to use and the rate of application was prescribed by a herbicide specialist.

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Strata 8 (Stands 4 and 7)

Stand Description

This area is between old fields and made up predominately of hardwood with a few scattered pines.

Strata Recommendations

Since this strata will be managed as a permanent SMZ, only selective cutting will occur in these areas. Selective cutting will occur as adjoining sales are performed. The harvesting will focus on removing the mature timber and will not remove more than 50 percent of the existing stand.

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.

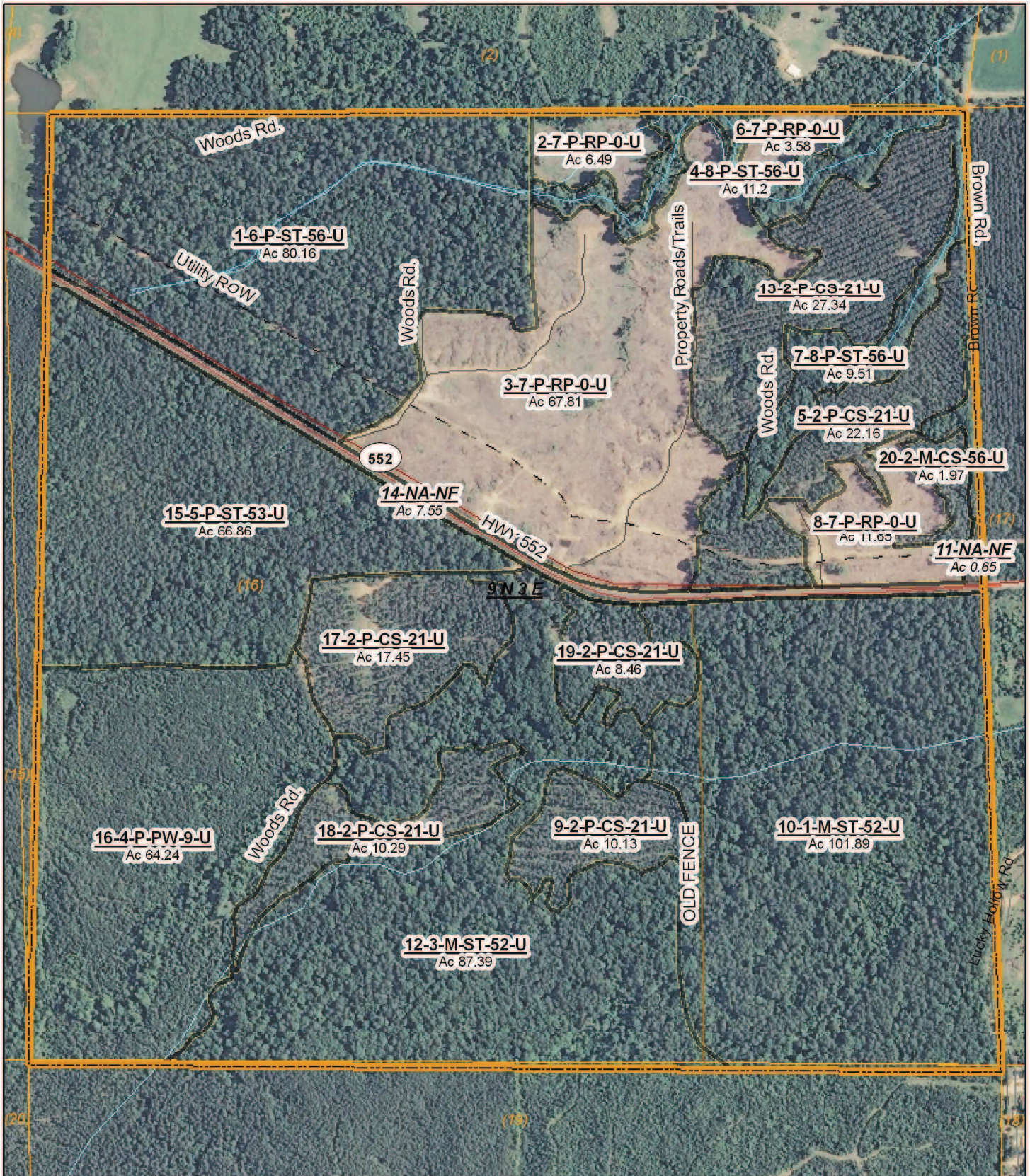


JEFFERSON COUNTY SCHOOLS

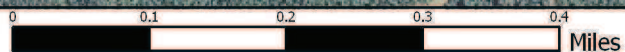
BLUE HILL Sect.16T-9N-R3E

2012 to 2021

616.75 Acres



(12/28/2011)



LEGEND



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

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
- Forest Health
- Invasive Species
- Management Compartment
- Military Area
- Natural Area

Boundary Lines (cont)

- Property
- Recreation
- Rights of Way
- SMZ
- Special Use
- Stand
- Surface Mining
- Threatened/Endangered Species
- Visual Buffer

Utilities (Lines)

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

Stand Activity Schedule for
Jefferson County Schools
16 9N 3E

Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue
2012					
5	15	Fire Protection, Other, Burn, Hand, Fuel Reduction	67	\$1,671.50	\$0.00
6	1	Fire Protection, Other, Burn, Hand, Fuel Reduction	80	\$2,400.00	\$0.00
7	2	Stand Improvement, Chemical, Release, Aerial, Woody Stems	6	\$811.25	\$0.00
7	3	Stand Improvement, Chemical, Release, Aerial, Woody Stems	68	\$8,500.00	\$0.00
7	6	Site Preparation, Chemical, Broadcast, Aerial, Combination	4	\$500.00	\$0.00
7	8	Stand Improvement, Chemical, Release, Aerial, Woody Stems	12	\$1,500.00	\$0.00
Yearly Totals			237	\$15,382.75	\$0.00
2014					
1	10	Harvest, Mechanical, Regeneration, Machine, Loblolly	102	\$3,570.00	\$166,770.00
3	12	Harvest, Mechanical, Thin, Machine, Loblolly	87	\$3,045.00	\$32,199.57
Yearly Totals			189	\$6,615.00	\$198,969.57
2016					
1	10	Site Preparation, Other, Burn, Hand, Debris	102	\$3,060.00	\$0.00
1	10	Site Preparation, Chemical, Broadcast, Machine, Combination	102	\$11,220.00	\$0.00
1	10	Regeneration, Artificial, Plant, Hand, Loblolly	102	\$11,220.00	\$0.00
2	5	Harvest, Mechanical, 2nd Thin, Machine, Loblolly	22	\$770.00	\$12,200.10
2	9	Harvest, Mechanical, Thin, Machine, Loblolly	10	\$350.00	\$5,900.00
2	13	Harvest, Mechanical, 2nd Thin, Machine, Loblolly	27	\$945.00	\$14,599.98
2	17	Harvest, Mechanical, Thin, Machine, Loblolly	17	\$595.00	\$8,197.74
2	18	Harvest, Mechanical, Thin, Machine, Loblolly	10	\$360.15	\$4,962.04

Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue	
2	19	Harvest, Mechanical, Thin, Machine, Loblolly	8	\$296.10	\$4,079.58	
2	20	Harvest, Mechanical, Thin, Machine, Loblolly	2	\$70.00	\$371.50	
			Yearly Totals	403	\$28,886.25	\$50,310.95
2017						
4	16	Harvest, Mechanical, Thin, Machine, Loblolly	64	\$2,240.00	\$17,258.24	
6	1	Harvest, Mechanical, Regeneration, Machine, Loblolly	80	\$2,800.00	\$197,386.40	
			Yearly Totals	144	\$5,040.00	\$214,644.64
2018						
2	5	Fire Protection, Other, Burn, Hand, Hazard Mitigation	22	\$664.80	\$0.00	
2	9	Fire Protection, Other, Burn, Hand, Hazard Mitigation	10	\$303.90	\$0.00	
2	13	Fire Protection, Other, Burn, Hand, Hazard Mitigation	27	\$820.20	\$0.00	
2	17	Fire Protection, Other, Burn, Hand, Hazard Mitigation	17	\$523.50	\$0.00	
2	18	Fire Protection, Other, Burn, Hand, Hazard Mitigation	10	\$308.70	\$0.00	
2	19	Fire Protection, Other, Burn, Hand, Hazard Mitigation	8	\$253.80	\$0.00	
2	20	Fire Protection, Other, Burn, Hand, Hazard Mitigation	2	\$60.00	\$0.00	
6	1	Regeneration, Artificial, Plant, Hand, Loblolly	80	\$10,000.00	\$0.00	
6	1	Site Preparation, Chemical, Broadcast, Aerial, Woody	80	\$10,000.00	\$0.00	
6	1	Site Preparation, Other, Burn, Hand, Combination	80	\$2,400.00	\$0.00	
			Yearly Totals	338	\$25,334.90	\$0.00
2019						
4	16	Fire Protection, Other, Burn, Hand, Hazard Mitigation	64	\$1,920.00	\$0.00	
5	15	Harvest, Mechanical, Regeneration, Machine, Loblolly	67	\$3,350.00	\$128,975.00	
			Yearly Totals	131	\$5,270.00	\$128,975.00
2020						

Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue	
5	15	Regeneration, Artificial, Plant, Hand, Loblolly	67	\$7,370.00	\$0.00	
5	15	Site Preparation, Chemical, Broadcast, Aerial, Combination	67	\$7,370.00	\$0.00	
5	15	Site Preparation, Other, Burn, Hand, Debris	67	\$2,010.00	\$0.00	
			Yearly Totals	201	\$16,750.00	\$0.00
			Grand Totals	1,643	\$103,278.90	\$592,900.16