



Vision • Commitment • Pride

FOREST STEWARDSHIP MANAGEMENT PLAN

Prepared For:
Grenada County BOE

Prepared By:
Kenneth E. Cline
MFC

Time Period Covered by This Plan:
2012 - 2021

Date Plan Prepared:
2012-02-15

Plan Type:
Stewardship / Stewardship

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

Property Name: S16-T21N-R7E

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FOREST STEWARDSHIP MANAGEMENT PLAN

LANDOWNER INFORMATION

Name: Grenada County BOE
Mailing Address: Grenada School District
P.O. Box 1940
City, State, Zip: Grenada, MS 38902
Country: United States of America
Contact Numbers: Home Number:
Office Number: 662-226-1606
Fax Number: 662-226-7994
E-mail Address: ddaigneault@gsd.k12.ms.us
Social Security Number (optional):

FORESTER INFORMATION

Name: Kenneth E. Cline , SF
Forester Number: 01333
Organization: MFC
Street Address: 50 E. Pecan St.
Suite-A
City, State, Zip: Grenada, MS 38901
Contact Numbers: Office Number: 662-226-1973
Fax Number: 662-226-1973
E-mail Address: kcline@mfc.state.ms.us

PROPERTY LOCATION

County: Grenada Total Acres: 649 Latitude: -89.57 Longitude: 33.69
Section: 16 Township: 21N Range: 7E

DISCLAIMER

Stewardship Plan 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.

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.

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 approximately 6 miles South-Southeast of Gore Springs in Grenada County on the Montgomery County line, and consist of 648.63 acres, of which 630.07 acres are forested. The section consists of the following stands:

STRATUM #1: Pine Sub. Merch.-9 yr. old (171.51 ac.) estab. 2002. **Stand # 4, 14, 34 & 36.**

STRATUM #2: Hardwood Sawtimber SMZ-73 yr. old (113.91 ac.) estab. 1938. **Stand # 1, 2, 15, 30, 33, 37 & 42.**

STRATUM #3: Pine Chip-n-Saw-22 yr. old (109.17 ac.) estab. 1989. **Stand # 6 & 8.**

STRATUM #4: Pine Chip-n-Saw-22 yr. old (65.09 ac.) estab. 1989. **Stand # 3, 9, 10, 13, 16, 19, 20, 22, 25, 26, 27, 32, 35, 39 & 41.**

STRATUM #5: Pine Sub. Merch.-8 yr. old (78.43 ac.) estab. 2003. **Stand # 5, 11, 12, 17 & 18.**

STRATUM #6: Pine Sawtimber-55 yr. old (69.16 ac.) estab. 1956. **Stand # 7.**

STRATUM #7: Pine Sawtimber-Test Plots 34 yr. old (22.8ac) estab. 1977. **Stand # 23, 24, 28, 29, 31, 38 & 40.**

The section will be inspected annually to assess the overall condition of the stands, roads and firelanes. Any and all maintenance to the section will be done as needed.

Water Resources

Perennial water resources were identified during a reconnaissance of the property. The watershed drainages of this section are in the Batupan Bogue watershed. Batupan Bogue is a tributary of the Yazoo River Watershed Basin. The objective is to protect, preserve and

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enhance all water sources and drainages on or transecting the property. Mississippi's Best Management Practices will be implemented during all aspects of the management of this property to minimize the impact on any water source.

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.

Archeological and Cultural Resources

No Archeological and Cultural Resources were identified during a reconnaissance of the property.

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

He - Henry

The Henry component makes up 90 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats. The parent material consists of loess deposits. Depth to a root restrictive layer, fragipan, is 20 to 36 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during January, February, March, April, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 3w. This soil meets hydric criteria. Loblolly Site Index = 85.

Fl,Ff - Falaya silt loam

The Falaya 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. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is moderately low. Available

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water to a depth of 60 inches is very high. Shrink-swell potential is low. This soil is occasionally flooded. It is not ponded. A seasonal zone of water saturation is at 18 inches during January, February, March, April, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 2w. This soil does not meet hydric criteria. Loblolly Site Index = 98, Cherrybark Oak = 110.

Gu,Gt - Gullied land,silty

Generated brief soil descriptions are created for major soil components. The Gullied land is a miscellaneous area. Loblolly Site Index = 68.

DuC3 - Dulac silt loam

The Dulac 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 loess deposits. Depth to a root restrictive layer, fragipan, is 20 to 26 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches is high. 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, April, December. 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 = 75.

CxE2,CrF,RcF - Cuthbert-Ruston complex

The Cuthbert component makes up 45 percent of the map unit. Slopes are 12 to 17 percent. This component is on uplands. The parent material consists of loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is 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 7e. This soil does not meet hydric criteria. The Ruston component makes up 40 percent of the map unit. Slopes are 12 to 17 percent. This component is on coastal plains. 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 6e. This soil does not meet hydric criteria.

Loblolly Site Index = 80.

CaB - Calloway silt loam

The Calloway 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 loess deposits. Depth to a root restrictive layer, fragipan, is 18 to 28 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is not flooded.

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It is not ponded. A seasonal zone of water saturation is at 16 inches during January, February, March, April. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria. Loblolly Site Index = 95.

PcD2 - Providence-Loring complex

The Providence component makes up 50 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 4e. This soil does not meet hydric criteria. The Loring component makes up 40 percent of the map unit. Slopes are 8 to 12 percent. This component is on uplands. The parent material consists of loess deposits. Depth to a root restrictive layer, fragipan, is 14 to 35 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. 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, December. 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 = 87.

Ws - Waverly silt loam

The Waverly component makes up 90 percent of the map unit. Slopes are 0 to 2 percent. This component is on stream terraces. 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 very high. Shrink-swell potential is low. This soil is occasionally flooded. It is not ponded. A seasonal zone of water saturation is at 9 inches during January, February, March, April, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3w. This soil meets hydric criteria. Loblolly Site Index = 98, Cherrybark Oak = 110.

Cm - Collins silt loam

The Collins 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 42 inches during January, February, March, April. 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 Pine Site Index = 105, Cherrybark Oak = 115.

PrC3 - Providence, severely eroded

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 4e. This soil does not meet hydric criteria. Loblolly Site Index = 75.

GENERAL PROPERTY RECOMMENDATIONS

Forest Protection

A vigorous, 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 been degraded, damaged, or destroyed. A reconnaissance of the property has been conducted and no ecological restoration activities are recommended at this time.

Wildlife Mgt. Target Species

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

Environmental Education

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

Wildlife Management General

The goal is to provide a diversity of habitats suited for a variety of game and non-game wildlife species. Habitat management will focus on providing a variety of food, cover, water, and space. This will be accomplished, in part, by establishing and maintaining

access roads and firelanes, providing openings within the forest, and leaving mast producing and den trees.

Timber Management

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

Recreation

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

STRATA

Strata 1

Strata Description

Pine Sub-Merchantable-9 yr. old (171.51 ac.) estab. 2002. **Stand # 4, 14, 34 & 36.**

Current stocking consists of 550 trees per acre averaging 6 inches in dbh. This strata has an average Basal Area of 73 square feet per acre.

Strata Recommendations

This strata is scheduled for a 1st thinning in **2017**. This will be followed by a fuel reduction burn in **2020**, to remove the logging slash.

Activity Recommendations

Harvest

A 1st thinning is scheduled for **2017** to maintain the health and vigor of the stand. The objective will be to remove diseased, damaged and ill formed trees; reducing the Basal Area to approximately 80 square feet per acre. Market and stand conditions will dictate the actual timing of the thinning.

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 (on a limited basis) and other certified prescribed burning vendors are available to conduct prescribed burning.

A *Prescribed Burn* is scheduled for **2020** (two years after the 1st thinning), to remove logging slash and reduce the fuel load.

Strata 2

Strata Description

Hardwood Sawtimber SMZ-73 yr. old (113.91 ac.), estab. 1938. [*This is a restricted management zone.*] **Stand # 1, 2, 15, 30, 33, 37 & 42.**

Current stocking is 94 trees per acre with a Basal Area of 122 square feet per acre. The estimated yield is 134 tons per acre.

Strata Recommendations

This strata will be managed on an 80 year rotation with *selective* harvesting only. Selective harvesting will occur when adjacent stands are thinned or regenerated. No more than 50% of the crown cover will be removed, in order to maintain sufficient overstory to provide shade, maintain bank stability and protect water quality. [*The minimum width on all SMZ's will be 30 feet on both sides of the stream bank.*]

Natural regeneration will be utilized when needed.

Strata 3

Strata Description

Pine Chip-n-Saw-22 yr. old (109.17 ac.), estab. 1989. **Stand # 6 & 8.**

This strata received it's 1st thinning in the summer of 2010. Current stocking consists of 182 trees per acre with a Basal Area of 98 square feet per acre, yielding 87 tons per acre.

Strata Recommendations

This strata is scheduled for a prescribed burn in **2013** and **2019** (two years after the 1st and 2nd thinnings) and a 2nd thinning in **2016** (stand age 27). Stand and market conditions will dictate the actual timing of these practices.

Activity Recommendations

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 (on a limited basis) and other certified prescribed burning vendors are available to conduct prescribed burning.

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A *Prescribed Burn* is scheduled for **2013** and **2019**. Both are fuel reduction burns scheduled approximately two years after a thinning. The purpose is to remove logging slash and reduce the fuel load.

Harvest

A 2nd thinning is scheduled in **2016** (stand age 27). The objective will be to remove any remaining pulpwood, as well as, any diseased, damaged and ill formed trees. Market and stand conditions will dictate the actual timing of the thinning.

Strata 4

Strata Description

Pine Chip-n-Saw-22 yr. old (65.09 ac.), estab. 1989. **Stand # 3, 9, 10, 13, 16, 19, 20, 22, 25, 26, 27, 32, 35, 39 & 41.**

This strata received it's 2nd thinning in 2010. A prescribed burn was performed in 2011 (FY '12) to remove logging slash and reduce the fuel load. Current stocking consists of 132 trees per acre with a Basal Area of 92 square feet per acre. The estimated yield is 81 tons per acre.

Strata Recommendations

This strata is scheduled for a *habitat improvement* burn in **2015**. This will be followed by a *3rd thinning* in **2017** (stand age 28) and a *fuel reduction* burn in **2020**.

Activity Recommendations

Wildlife Management

Prescribed burning is highly recommended for wildlife habitat management where loblolly, shortleaf, longleaf, or slash pine is the primary overstory species. Periodic fire tends to favor understory species that require a more open habitat. Deer, dove, quail and turkey are game species which benefit from prescribed fire. Yield and quality of herbage, legumes, and browse from hardwood sprouts are increased after a prescribed burn. Prescribed burning creates openings for feeding, travel, and dusting.

A *Prescribed Burn* is scheduled for **2015** (3 years after the fuel reduction burn), to improve the wildlife habitat.

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Harvest

A 3rd thinning is scheduled for **2017** (stand age 28). The objective will be to reduce the Basal Area to 80 square feet per acre by removing diseased, damaged and ill formed trees. This will leave only dominant and codominant trees in the residual stand. Stand and market conditions will dictate the actual timing of the sale.

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 (on a limited basis) and other certified prescribed burning vendors are available to conduct prescribed burning.

A Prescribed Burn is scheduled for **2020** (two years after the 3rd thinning), to remove logging slash and reduce the fuel load.

Strata 5

Strata Description

Pine Sub-Merchantable-8 yr. old (78.43 ac.), estab. 2003. **Stand # 5, 11, 12, 17 & 18.**

Current stocking consists of 460 trees per acre with an average dbh of 6 inches. This strata has an average Basal Area of 40 square feet per acre.

Strata Recommendations

This strata is scheduled for it's 1st thinning in **2020** (stand age 17).

Activity Recommendations

Harvest

A 1st thinning is scheduled in **2020** (stand age 17). The goal will be to remove diseased, damaged and ill formed trees, reducing the Basal Area to 80 square feet per acre. Stand and market conditions will dictate the actual timing of the sale.

Strata 6

Strata Description

Pine Sawtimber-55 yr. old (69.16 ac.), estab. 1956. **Stand #7.**

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Current pine stocking consists of 112 trees per acre with an average Basal Area of 141 square feet per acre. Miscellaneous hardwoods account for an additional 32 trees per acre and 22 square feet of Basal Area. The estimated total yield from this stand is 145 tons per acre.

Strata Recommendations

This strata is scheduled for a *final harvest* in **2012**. This will be followed by a *chemical site prep*, a *site prep burn* and *tree planting* in **2014**.

Activity Recommendations

Harvest

A final harvest is scheduled for **2012**. All merchantable timber will be harvested at this time. *Market conditions will dictate the actual timing of the sale.*

Site Preparation

Following the final harvest, this strata will be *chemically site preped* to control competing vegetation and to prepare the site for tree planting in the Winter of **2014**. This work will be done **July 15, 2013-Sept. 30, 2013**. The chemical application will be followed by a *site prep burn* during the Fall of **2013**, to further prepare the site for the tree planting operation.

Regeneration

This strata will be hand planted in Improved Loblolly Pine on a 7 foot X 9 foot spacing (691 trees per acre). This work should be done **January 1, 2014-March 1, 2014**.

Strata 7

Strata Description

Pine Sawtimber (*Test Plots*)-34 yr. old (22.8 ac.), estab. 1977. **Stand # 23, 24, 28, 29, 31, 38 & 40.**

This strata was thinned in 2010 and prescribed burned-to remove logging slash and reduce the fuel load, in 2011 (FY '12). Current pine stocking consists of 132 trees per acre with a Basal Area of 92 square feet per acre. Miscellaneous hardwoods account for an additional 20 trees per acre and 22 square feet of Basal Area. The estimated total yield from this strata is 100 tons per acre.

Strata Recommendations

This strata is scheduled for a *habitat improvement burn* in **2015** and a *final harvest* in **2017**. Following the final harvest a *chemical site prep*, *site prep burn* and a *tree planting* operation will be conducted in **2019**.

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Activity Recommendations

Wildlife Management

Prescribed burning is highly recommended for wildlife habitat management where loblolly, shortleaf, longleaf, or slash pine is the primary overstory species. Periodic fire tends to favor understory species that require a more open habitat. Deer, dove, quail and turkey are game species which benefit from prescribed fire. Yield and quality of herbage, legumes, and browse from hardwood sprouts are increased after a prescribed burn. Prescribed burning creates openings for feeding, travel, and dusting.

A prescribed burn is scheduled for **2015** (3 years after the fuel reduction burn), to improve the wildlife habitat.

Harvest

A final harvest is scheduled for **2017**. All merchantable timber will be harvested at this time. *Market conditions will dictate the actual timing of the sale.*

Site Preparation

Following the final harvest, this strata will be *chemically site preped* to control competing vegetation and to prepare the site for tree planting in the Winter of **2019** (FY '19). This will be done **July 15, 2018-Sept. 30, 2018**. The chemical application will be followed by a *site prep burn* during the Fall of **2018** (FY '19), to further prepare the site for the tree planting operation.

Regeneration

This strata will be hand planted in Improved Loblolly Pine on a 7 foot X 9 foot spacing (691 trees per acre). This work should be done **January 1, 2019-March 1, 2019**.

OTHER PLAN ACTIVITIES

Boundary Lines

Line Description

The Boundary Lines on this section were last painted in May 2011. They were marked with *Orange* paint.

Line Recommendations

Boundary Line Maintenance is scheduled for **2016** and **2021**. They will be marked with *Orange* paint.

Activity Recommendations

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Property Activities

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

This work is scheduled for **2016** and **2021**, when the boundary lines are painted.

This section will, also, be inspected for Beaver Dams, with demolition of any dams scheduled as needed. The estimated cost of this work is \$500 per demolition. Because the actual need for this work is unpredictable, this cost is NOT included in the Expense & Revenue Spread Sheets included in this plan.



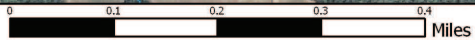
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Test Plot Section

2012 to 2021
648.61 Acres



(11/03/2011)



S16-T21N-R7E ROAD MAP

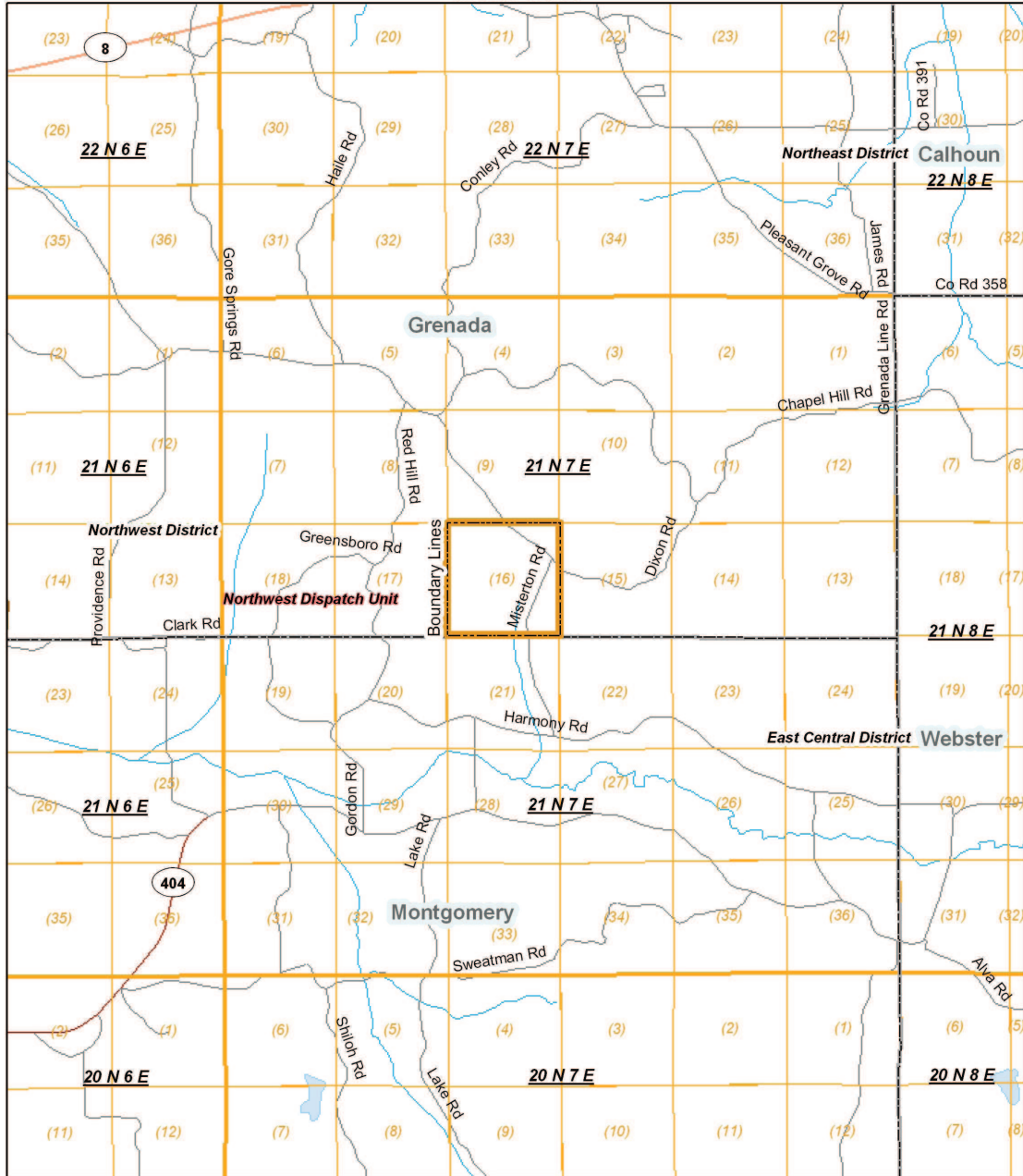


S16-T21N-R7E ROAD MAP

Test Plot Section



2012 to 2021
648.61 Acres



(11/03/2011)





S16-T21N-R7E GRENADA COUNTY

Property

Property (1)

Category 1: Stands

- Sawtimber (15)
- Chip-n-Saw (17)
- Sub-Merchantable (9)

Category 3: Non-Forest Stands

Non-Forest (1)

MFC Basemap

County Boundary

County Boundary (1)

Quadrangle Grid

USGS Quad (1)

PLS Townships

PLS Townships (1)

Survey Districts

District 2 (1)

Blockgroup (Census 2000)

Blockgroup (Census 2000) (1)

Block (Census 2000)

Block (Census 2000) (3)

Tract/BNA (Census 2000)

Tract/BNA (Census 2000) (1)

County Roads

County Roads (4)

School Sections

School Sections (1)

Public School Districts

GRENADA SCHOOL DISTRICT (1)

US Congressional District

US Cong Dist #1 (1)

MS Senate

8 (1)

MS House

35 (1)

Perennial Streams

Perennial Streams (1)

Intermittent Streams

Intermittent Streams (7)

Hydrologic Units (Basins)

YALOBUSHA RIVER ABOVE GRENADA DAM (1)

Historic Forest Boundary

Loblolly/Shortleaf Pine-Oak (1)

MS Forest Habitat

NORTHERN LOESSIAL LOAM HILLS (1)

Physiographic Region

North Central Hills (1)

Soil Associations

smithdale-sweatman-providence (1)

Surface Geology

WILCOX (1)

MFC Districts

MFC Districts (1)

MFC Dispatch Units

MFC Dispatch Units (1)

MS Outline

MS Outline (1)

Stand Activity Schedule for
Grenada County BOE
16 21N 7E

Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue
2012					
6	7	Harvest, Mechanical, Final, Machine, Loblolly	69	\$2,415.00	\$85,422.00
Yearly Totals			69	\$2,415.00	\$85,422.00
2013					
3	6	Fire Protection, Other, Burn, Hand, Fuel Reduction	6	\$143.25	\$0.00
3	8	Fire Protection, Other, Burn, Hand, Fuel Reduction	103	\$2,575.00	\$0.00
Yearly Totals			109	\$2,718.25	\$0.00
2014					
6	7	Site Preparation, Other, Burn, Hand, Cut-Over	69	\$1,729.00	\$0.00
6	7	Site Preparation, Chemical, Broadcast, Aerial, Combination	69	\$8,299.20	\$0.00
6	7	Regeneration, Artificial, Plant, Hand, Loblolly	69	\$5,878.60	\$0.00
Yearly Totals			207	\$15,906.80	\$0.00
2015					
4	3	Wildlife Management, Other, Burn, Hand, Habitat Improvement	6	\$150.00	\$0.00
4	9	Wildlife Management, Other, Burn, Hand, Habitat Improvement	20	\$505.75	\$0.00
4	10	Wildlife Management, Other, Burn, Hand, Habitat Improvement	3	\$65.75	\$0.00
4	13	Wildlife Management, Other, Burn, Hand, Habitat Improvement	1	\$27.00	\$0.00
4	16	Wildlife Management, Other, Burn, Hand, Habitat Improvement	3	\$85.75	\$0.00
4	19	Wildlife Management, Other, Burn, Hand, Habitat Improvement	7	\$171.75	\$0.00
4	20	Wildlife Management, Other, Burn, Hand, Habitat Improvement	8	\$194.50	\$0.00
4	22	Wildlife Management, Other, Burn, Hand, Habitat Improvement	1	\$35.50	\$0.00

Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue	
4	25	Wildlife Management, Other, Burn, Hand, Habitat Improvement	2	\$61.00	\$0.00	
4	26	Wildlife Management, Other, Burn, Hand, Habitat Improvement	1	\$15.50	\$0.00	
4	27	Wildlife Management, Other, Burn, Hand, Habitat Improvement	1	\$18.25	\$0.00	
4	32	Wildlife Management, Other, Burn, Hand, Habitat Improvement	9	\$230.75	\$0.00	
4	35	Wildlife Management, Other, Burn, Hand, Habitat Improvement	1	\$22.75	\$0.00	
4	39	Wildlife Management, Other, Burn, Hand, Habitat Improvement	1	\$14.50	\$0.00	
4	41	Wildlife Management, Other, Burn, Hand, Habitat Improvement	1	\$17.25	\$0.00	
7	23	Wildlife Management, Other, Burn, Hand, Habitat Improvement	3	\$86.00	\$0.00	
7	24	Wildlife Management, Other, Burn, Hand, Habitat Improvement	1	\$17.75	\$0.00	
7	28	Wildlife Management, Other, Burn, Hand, Habitat Improvement	1	\$19.00	\$0.00	
7	29	Wildlife Management, Other, Burn, Hand, Habitat Improvement	7	\$179.00	\$0.00	
7	31	Wildlife Management, Other, Burn, Hand, Habitat Improvement	2	\$58.25	\$0.00	
7	38	Wildlife Management, Other, Burn, Hand, Habitat Improvement	5	\$137.00	\$0.00	
7	40	Wildlife Management, Other, Burn, Hand, Habitat Improvement	3	\$73.00	\$0.00	
			Yearly Totals	87	\$2,186.00	\$0.00
2016						
3	6	Harvest, Mechanical, 2nd Thin, Machine, Loblolly	6	\$210.00	\$4,170.00	
3	8	Harvest, Mechanical, Thin, Machine, Loblolly	103	\$3,605.00	\$71,585.00	
			Yearly Totals	109	\$3,815.00	\$75,755.00
2017						
1	4	Harvest, Mechanical, Thin, Machine, Loblolly	114	\$3,990.00	\$11,400.00	
1	14	Harvest, Mechanical, Thin, Machine, Loblolly	28	\$983.85	\$2,811.00	
1	34	Harvest, Mechanical, Thin, Machine, Loblolly	28	\$997.15	\$2,849.00	

Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue
1	36	Harvest, Mechanical, Thin, Machine, Loblolly	1	\$19.60	\$56.00
4	3	Harvest, Mechanical, Thin, Machine, Loblolly	6	\$225.75	\$3,902.25
4	9	Harvest, Mechanical, Thin, Machine, Loblolly	20	\$700.00	\$12,100.00
4	10	Harvest, Mechanical, Thin, Machine, Loblolly	3	\$92.05	\$1,591.15
4	13	Harvest, Mechanical, Thin, Machine, Loblolly	1	\$37.80	\$653.40
4	16	Harvest, Mechanical, Thin, Machine, Loblolly	3	\$120.05	\$2,075.15
4	19	Harvest, Mechanical, Thin, Machine, Loblolly	7	\$240.45	\$4,156.35
4	20	Harvest, Mechanical, Thin, Machine, Loblolly	8	\$272.30	\$4,706.90
4	22	Harvest, Mechanical, Thin, Machine, Loblolly	1	\$49.70	\$859.10
4	25	Harvest, Mechanical, Thin, Machine, Loblolly	2	\$85.40	\$1,476.20
4	26	Harvest, Mechanical, Thin, Machine, Loblolly	1	\$21.70	\$375.10
4	27	Harvest, Mechanical, Thin, Machine, Loblolly	1	\$25.55	\$441.65
4	32	Harvest, Mechanical, Thin, Machine, Loblolly	9	\$323.05	\$5,584.15
4	35	Harvest, Mechanical, Thin, Machine, Loblolly	1	\$31.85	\$550.55
4	39	Harvest, Mechanical, Thin, Machine, Loblolly	1	\$20.30	\$350.90
4	41	Harvest, Mechanical, Thin, Machine, Loblolly	1	\$24.15	\$417.45
7	23	Harvest, Mechanical, Final, Machine, Loblolly	3	\$120.40	\$2,769.20
7	24	Harvest, Mechanical, Final, Machine, Loblolly	1	\$24.85	\$571.55
7	28	Harvest, Mechanical, Final, Machine, Loblolly	1	\$26.60	\$611.80
7	29	Harvest, Mechanical, Final, Machine, Loblolly	7	\$250.60	\$5,763.80
7	31	Harvest, Mechanical, Final, Machine, Loblolly	2	\$81.55	\$1,875.65
7	38	Harvest, Mechanical, Final, Machine, Loblolly	5	\$175.00	\$4,025.00
7	40	Harvest, Mechanical, Final, Machine, Loblolly	3	\$102.20	\$2,350.60

Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue	
			Yearly Totals	258	\$9,041.90	\$74,323.90
2019						
3	6	Fire Protection, Other, Burn, Hand, Fuel Reduction	6	\$143.25	\$0.00	
3	8	Fire Protection, Other, Burn, Hand, Fuel Reduction	103	\$2,586.00	\$0.00	
7	23	Regeneration, Artificial, Plant, Hand, Loblolly	3	\$344.00	\$0.00	
7	23	Site Preparation, Other, Burn, Hand, Cut-Over	3	\$86.00	\$0.00	
7	23	Site Preparation, Chemical, Broadcast, Aerial, Combination	3	\$344.00	\$0.00	
7	24	Site Preparation, Chemical, Broadcast, Aerial, Combination	1	\$71.00	\$0.00	
7	24	Site Preparation, Other, Burn, Hand, Cut-Over	1	\$17.75	\$0.00	
7	24	Regeneration, Artificial, Plant, Hand, Loblolly	1	\$71.00	\$0.00	
7	28	Regeneration, Artificial, Plant, Hand, Loblolly	1	\$76.00	\$0.00	
7	28	Site Preparation, Chemical, Broadcast, Aerial, Combination	1	\$76.00	\$0.00	
7	28	Site Preparation, Other, Burn, Hand, Cut-Over	1	\$19.00	\$0.00	
7	29	Site Preparation, Other, Burn, Hand, Cut-Over	7	\$179.00	\$0.00	
7	29	Regeneration, Artificial, Plant, Hand, Loblolly	7	\$716.00	\$0.00	
7	29	Site Preparation, Chemical, Broadcast, Aerial, Combination	7	\$716.00	\$0.00	
7	31	Regeneration, Artificial, Plant, Hand, Loblolly	2	\$233.00	\$0.00	
7	31	Site Preparation, Other, Burn, Hand, Cut-Over	2	\$58.25	\$0.00	
7	31	Site Preparation, Chemical, Broadcast, Aerial, Combination	2	\$233.00	\$0.00	
7	38	Site Preparation, Other, Burn, Hand, Cut-Over	5	\$137.00	\$0.00	
7	38	Site Preparation, Chemical, Broadcast, Aerial, Combination	5	\$548.00	\$0.00	
7	38	Regeneration, Artificial, Plant, Hand, Loblolly	5	\$548.00	\$0.00	
7	40	Site Preparation, Chemical, Broadcast, Aerial, Combination	3	\$300.00	\$0.00	

Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue
7	40	Regeneration, Artificial, Plant, Hand, Loblolly	3	\$292.00	\$0.00
7	40	Site Preparation, Other, Burn, Hand, Cut-Over	3	\$73.00	\$0.00
Yearly Totals			178	\$7,867.25	\$0.00

2020					
1	4	Fire Protection, Other, Burn, Hand, Fuel Reduction	114	\$2,850.00	\$0.00
1	14	Fire Protection, Other, Burn, Hand, Fuel Reduction	28	\$702.75	\$0.00
1	34	Fire Protection, Other, Burn, Hand, Fuel Reduction	28	\$712.25	\$0.00
1	36	Fire Protection, Other, Burn, Hand, Fuel Reduction	1	\$14.00	\$0.00
4	3	Fire Protection, Other, Burn, Hand, Fuel Reduction	6	\$161.25	\$0.00
4	9	Fire Protection, Other, Burn, Hand, Fuel Reduction	20	\$505.75	\$0.00
4	10	Fire Protection, Other, Burn, Hand, Fuel Reduction	3	\$65.75	\$0.00
4	13	Fire Protection, Other, Burn, Hand, Fuel Reduction	1	\$27.00	\$0.00
4	16	Fire Protection, Other, Burn, Hand, Fuel Reduction	3	\$85.75	\$0.00
4	19	Fire Protection, Other, Burn, Hand, Fuel Reduction	7	\$171.75	\$0.00
4	20	Fire Protection, Other, Burn, Hand, Fuel Reduction	8	\$194.50	\$0.00
4	22	Fire Protection, Other, Burn, Hand, Fuel Reduction	1	\$35.50	\$0.00
4	25	Fire Protection, Other, Burn, Hand, Fuel Reduction	2	\$61.00	\$0.00
4	26	Fire Protection, Other, Burn, Hand, Fuel Reduction	1	\$15.50	\$0.00
4	27	Fire Protection, Other, Burn, Hand, Fuel Reduction	1	\$18.25	\$0.00
4	32	Fire Protection, Other, Burn, Hand, Fuel Reduction	9	\$230.75	\$0.00
4	35	Fire Protection, Other, Burn, Hand, Fuel Reduction	1	\$22.75	\$0.00
4	39	Fire Protection, Other, Burn, Hand, Fuel Reduction	1	\$14.50	\$0.00
4	41	Fire Protection, Other, Burn, Hand, Fuel Reduction	1	\$17.25	\$0.00

Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue
5	5	Harvest, Mechanical, 1st Thin, Machine, Loblolly	72	\$2,520.00	\$7,200.00
5	11	Harvest, Mechanical, 1st Thin, Machine, Loblolly	4	\$140.00	\$400.00
5	12	Harvest, Mechanical, 1st Thin, Machine, Loblolly	1	\$35.00	\$100.00
5	17	Harvest, Mechanical, 1st Thin, Machine, Loblolly	1	\$35.00	\$100.00
5	18	Harvest, Mechanical, 1st Thin, Machine, Loblolly	2	\$70.00	\$200.00
Yearly Totals			316	\$8,706.25	\$8,000.00
Grand Totals			1,334	\$52,656.45	\$243,500.90