



Vision • Commitment • Pride

# FOREST STEWARDSHIP MANAGEMENT PLAN

Prepared For:  
Petal School District

Prepared By:  
Brad D Pulliam  
MFC

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: 16-5N-12W**

MISSISSIPPI FOREST STEWARDSHIP PROGRAM

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**MISSISSIPPI FORESTRY COMMISSION  
FOREST STEWARDSHIP MANAGEMENT PLAN**

**LANDOWNER INFORMATION**

Name: Petal School District  
Mailing Address: P.O. Drawer 528  
City, State, Zip: Petal, MS 00000  
Country: United States of America  
Contact Numbers: Home Number:  
Office Number:  
Fax Number:  
  
E-mail Address:  
Social Security Number (optional): 000000000

**FORESTER INFORMATION**

Name: Brad D Pulliam, Forestry Technician  
Forester Number: 00000  
Organization: MFC  
Street Address: P.O. Box 452  
City, State, Zip: Richton, MS 39476  
Contact Numbers: Office Number: 601-788-6006  
Fax Number: 601-788-6708  
  
E-mail Address: bpulliam@mfc.state.ms.us

**PROPERTY LOCATION**

County: Forrest    Total Acres: 637    Latitude: -89.21    Longitude: 31.4  
Section: 16    Township: 5N    Range: 12W

**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.

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## **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 in the Northeast part of Forrest county just North of Petal high school. It has many challenges as far as timber management is concerned, some being houses, and residential leases and others being pipelines and powerlines, also there are many county roads throughout this tract. The county has a landfill area on the southeast part of the tract and also the school has a small dirt pit located on the east side of land. This section has approximately 370 acres in pine production at this time with 50 acres of hardwood mostly in drains throughout the section. While the remaining 220 acres are in non-forest type lands either right-of-ways, roads, house spots, leases etc..

### *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.

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*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:

**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

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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

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property should be conducted and a plan developed to accomplish your specific goals for recreational activities on your property.

## **SOIL TYPES**

### *Heidel*

The Heidel component makes up 90 percent of the map unit. Slopes are 12 to 30 percent. This component is on uplands. 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 moderate. 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 7e. This soil does not meet hydric criteria. Loblolly Site Index = 90. Slash Site Index = 90.

### *Benndale*

The Benndale component makes up 90 percent of the map unit. Slopes are 2 to 5 percent. This component is on coastal plains. The parent material consists of sandy loam alluvium 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 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 2 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria. Loblolly Site Index = 94. Longleaf Site Index = 79. Slash Site Index = 94.

### *Benndale*

The Benndale component makes up 90 percent of the map unit. Slopes are 5 to 8 percent. This component is on coastal plains. The parent material consists of sandy loam alluvium 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 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 2 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria. Loblolly Site Index = 94. Longleaf Site Index = 79. Slash Site Index = 94.

### *McLaurin*

The McLaurin component makes up 90 percent of the map unit. Slopes are 2 to 5 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 moderate. 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

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capability classification is 2e. This soil does not meet hydric criteria. Loblolly Site Index = 90. Longleaf Site Index = 72. Slash Site Index = 90.

*Benndale*

The Benndale component makes up 90 percent of the map unit. Slopes are 8 to 12 percent. This component is on coastal plains. The parent material consists of sandy loam alluvium 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 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 2 percent. Nonirrigated land capability classification is 4e. This soil does not meet hydric criteria. Loblolly Site Index = 94. Longleaf Site Index = 79. Slash Site Index = 94.

*Susquehanna*

The Susquehanna component makes up 85 percent of the map unit. Slopes are 5 to 12 percent. This component is on coastal plains. The parent material consists of clayey marine deposits. 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 very low. Available water to a depth of 60 inches is high. Shrink-swell potential is high. 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 = 78.

*Prentiss*

The Prentiss component makes up 90 percent of the map unit. Slopes are 2 to 5 percent. This component is on terraces. The parent material consists of loamy alluvium deposits. Depth to a root restrictive layer, fragipan, is 20 to 32 inches. The natural drainage class is moderately well drained. Available water to a depth of 60 inches is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 26 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 = 88.

## **STRATA**

*Strata 1*

**Strata Description**

Strata 1: Stands 2,3,5,6,17,19,25,33,34,43

Acres: 162

These stands consist of machine planted loblolly plantations that was planted in the winter of 2009-2010 after a final harvest of these areas. The exception is stand 17 which was planted in 2008 by machine was an open field. All stands are well stocked and growing at this time.



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Strata Recommendations

These stands will need to be monitored for the possibility of insect and disease and also the possibility of invasive species. Should any be found corrective action should be taken to prevent the spread and damage to stand.

*Strata 2*

Strata Description

Strata 2: Stands 1,7,10,12,13,28,29,31,37,38,39,40,42

Acres: 246

This strata consists of several pine plantations that are within a couple of years age difference. All of these stands will be ready to thin in or around year 2013. Due to the amount of acres the board may wish to split the sales to reduce acres and get more bids and possibly better prices. All stands are well stocked at this time and are growing.

Strata Recommendations

These stands will need a first thin to reduce the average BA back to around 70 and remove the undesirable stems from the stands. This should be done on a fifth row thinning method to accomplish this goal. After the thinning is complete the stands should be treated for a mid rotation release to control unwanted brush and release these stands to grow. This is recommended because the area is very difficult to do control burning because of houses and highways.

Activity Recommendations

Harvest

1st thin

5th row method

Target undesirable stems (crooked, forked, suppressed, etc.)

Reduce BA to average of 70 per acre.

Stand Improvement

This treatment will need to be applied by ground application and target the underbrush within the stand.

*Strata 3*

Strata Description

Strata 3: Stands 15, 20, 35

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Acres: 49

This strata is made up of mostly hardwood drains and SMZ areas. Most of the wood located in these stands is low quality hardwood that is of little to no value and would better be left alone to serve its purpose in the drain.

**Strata Recommendations**

It is recommended to manage these stands as SMZ area and have little to no activity within them.

*Strata 4*

**Strata Description**

Strata 4: Stand 16

Acres: 10

This stands consist of a small 10 acre parcel that is in a farm residential lease. It has semi stocked with chip-n-saw and pulpwood size trees.

**Strata Recommendations**

This stand could be put in with another sale and cut and/or thinned with the areas across the road when they are cut if the board wishes to do that.

*Strata 5*

**Strata Description**

Strata 5: Stands 22,24

Acres: 20

These stands consist of a farm residential lease that has grown up in pine seedlings from the surrounding trees. These trees range from seedlings to pulpwood in size and are mostly low quality trees.

**Strata Recommendations**

This stand should be left as is until all the trees reach a merchantable size and at that time be clear cut and replanted with improved seedlings.

# Petal Schools



## Petal Schools

16-5N-12W  
2012 to 2021  
640 Acres



(02/02/2012)

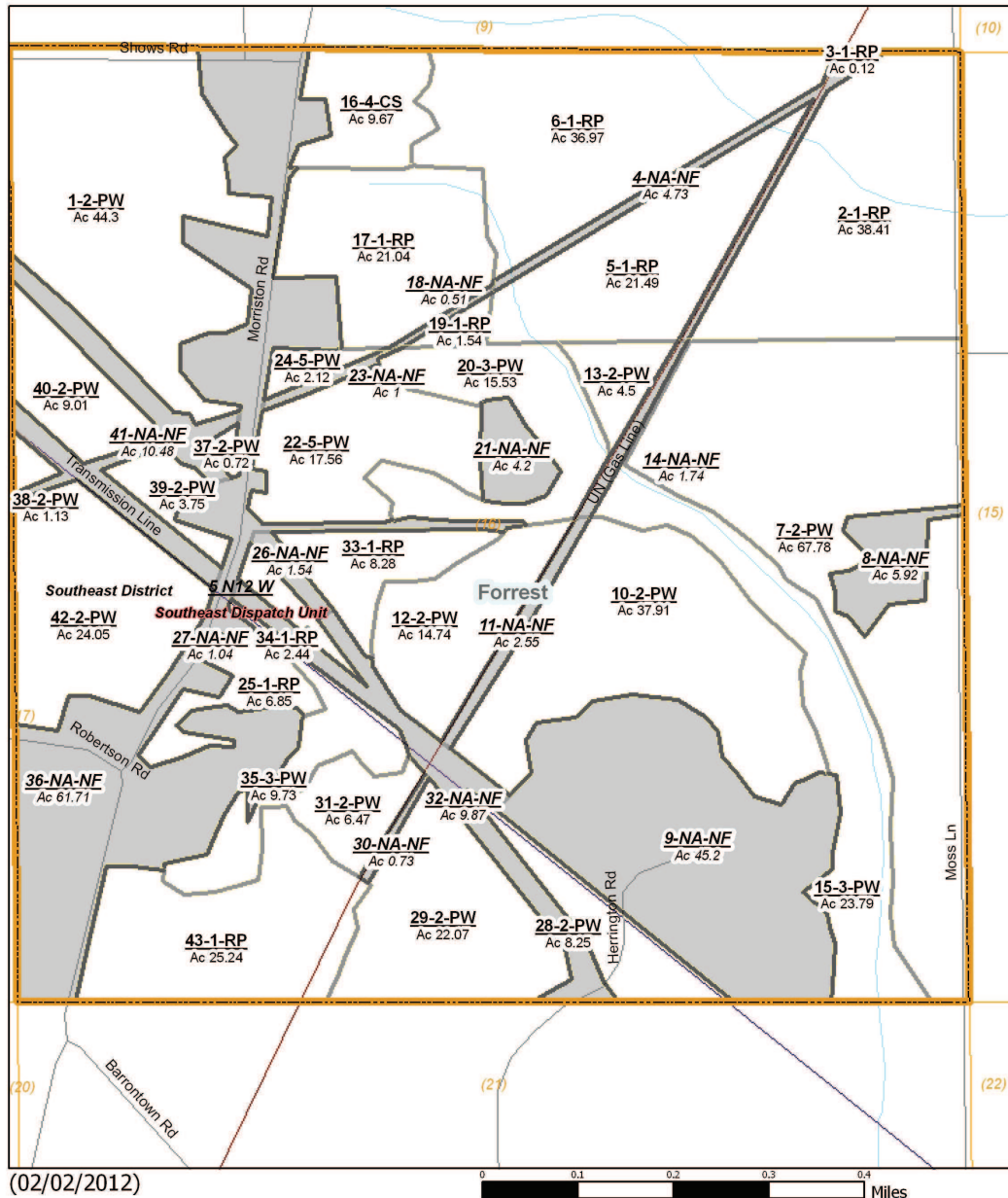
0 0.1 0.2 0.3 0.4 Miles





**0046 00022 28035 05212008105759**

2012 to 2021  
636.66 Acres





Plan::0046 00022 28035 05212008105759

<b>Property</b> Property <b>Category 1: Stands</b> Clear Cut Non-Stocked Reproduction Sub-Merchantable Pulpwood Chip-n-Saw Sawtimber Poles <b>Category 2: Stands</b> Clear Cut Non-Stocked Reproduction Sub-Merchantable Pulpwood Chip-n-Saw Sawtimber Poles <b>Category 3: Non-Forest Stands</b> Non-Forest <b>Category 4: Not in Plan Stands</b> Not in Plan <b>Category 5: Features Only Plan Stand</b> Features Only Plan <b>Restricted Sites</b> Archeology Cemetery Red-Cockaded Woodpecker Gopher Tortoise Picture Bogg Plant <b>Forest Health (Points)</b> Cogan Grass Kudzu Japanese Climbing Fern Chinese Tallow Privet Southern Pine Beetle Sirex Wasp IPPS <b>Hydrology (Points)</b> Concrete Dam Beaver Dam Earthen Dam Permanent Temporary Wooden Other Culvert Pond <b>Wildlife (Points)</b> Food Plot Water Hole Feeder	<b>Boundary Corners</b> Property Section Quarter Section Areas <b>Structures</b> 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 <b>Cruise Plots</b> Pre-Cruise Post-Cruise <b>Other</b> Towers Logging Deck Locked UnLocked Water Oil Natural Gas <b>Property Roads/Trails</b> Drive Ways Access Road Logging Road Skid Trail Farm Road Hiking Trail Horseback Riding Trail <b>Boundary Lines</b> Archeology Cemetery Drilling Sites Education	<b>Boundary Lines (cont)</b> 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 <b>Fire Control</b> Temporary Line Permanent Fire Break <b>Wildlife (Lines)</b> Green Strip <b>Fire</b> Mitigation Burn Silviculture Burn Site-Prep Burn Wildfire <b>School Land Lease</b> Hunting Minerals Recreation <b>Restricted Area</b> 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 <b>Forest Health (Polygons)</b> Cogan Grass Kudzu Japanese Climbing Fern Chinese Tallow Privet Southern Pine Beetle Sirex Wasp IPPS	<b>School Land Classification</b> Forest Land Farm/Residential Land Residential Land Agricultural Land Industrial Land Recreational Land Catfish Farming Land Other Land Commercial Land <b>Management Compartment</b> 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 <b>Transportation (Lines)</b> City Streets County Roads 3 Digit Highway Interstate Highway US Highway State Highway Natchez Trace Parkway Runways/Airports Active RR Abandoned RR <b>Hydrology (Lines)</b> Mississippi River Major River Primary Stream Intermittent Stream Canal Ditch Earthen Dam Concrete Dam <b>Utilities (Lines)</b> Large Electrical Local Utility Large Pipeline Small Pipeline Gas Line Utility Line Water Line
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Stand Activity Schedule for  
Petal School District  
16 5N 12W

Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue
<b>2013</b>					
2	1	Harvest, Mechanical, 1st Thin, Machine, Loblolly	44	\$1,540.00	\$9,680.00
2	7	Harvest, Mechanical, 1st Thin, Machine, Loblolly	68	\$2,380.00	\$14,960.00
2	10	Harvest, Mechanical, 1st Thin, Machine, Loblolly	38	\$1,330.00	\$8,360.00
2	12	Harvest, Mechanical, 1st Thin, Machine, Loblolly	15	\$525.00	\$3,300.00
2	13	Harvest, Mechanical, 1st Thin, Machine, Loblolly	5	\$175.00	\$1,100.00
2	28	Harvest, Mechanical, 1st Thin, Machine, Loblolly	8	\$280.00	\$1,760.00
2	29	Harvest, Mechanical, 1st Thin, Machine, Loblolly	22	\$770.00	\$4,840.00
2	31	Harvest, Mechanical, 1st Thin, Machine, Loblolly	6	\$210.00	\$1,320.00
2	37	Harvest, Mechanical, 1st Thin, Machine, Loblolly	1	\$35.00	\$220.00
2	38	Harvest, Mechanical, 1st Thin, Machine, Loblolly	1	\$35.00	\$220.00
2	39	Harvest, Mechanical, 1st Thin, Machine, Loblolly	4	\$140.00	\$880.00
2	40	Harvest, Mechanical, 1st Thin, Machine, Loblolly	9	\$315.00	\$1,980.00
2	42	Harvest, Mechanical, 1st Thin, Machine, Loblolly	24	\$840.00	\$5,280.00
Yearly Totals			245	\$8,575.00	\$53,900.00
<b>2014</b>					
2	1	Stand Improvement, Chemical, Release, Machine, Woody Stems	44	\$4,430.00	\$0.00
2	7	Stand Improvement, Chemical, Release, Machine, Woody Stems	68	\$6,778.00	\$0.00
2	10	Stand Improvement, Chemical, Release, Machine, Woody Stems	38	\$3,791.00	\$0.00
2	12	Stand Improvement, Chemical, Release, Machine, Woody Stems	15	\$1,474.00	\$0.00
2	13	Stand Improvement, Chemical, Release, Machine, Woody Stems	5	\$450.00	\$0.00

Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue	
2	28	Stand Improvement, Chemical, Release, Machine, Woody Stems	8	\$825.00	\$0.00	
2	29	Stand Improvement, Chemical, Release, Machine, Woody Stems	22	\$2,207.00	\$0.00	
2	31	Stand Improvement, Chemical, Release, Machine, Woody Stems	6	\$647.00	\$0.00	
2	37	Stand Improvement, Chemical, Release, Machine, Woody Stems	1	\$72.00	\$0.00	
2	38	Stand Improvement, Chemical, Release, Machine, Woody Stems	1	\$113.00	\$0.00	
2	39	Stand Improvement, Chemical, Release, Machine, Woody Stems	4	\$400.00	\$0.00	
2	40	Stand Improvement, Chemical, Release, Machine, Woody Stems	9	\$901.00	\$0.00	
2	42	Stand Improvement, Chemical, Release, Machine, Woody Stems	24	\$2,405.00	\$0.00	
			Yearly Totals	245	\$24,493.00	\$0.00
			Grand Totals	490	\$33,068.00	\$53,900.00