

# 2010 Annual Work Plan

FOR

## Chesapeake Forest Lands

Sustainable Forests for People and the Bay



### FOREST SERVICE



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## **CHESAPEAKE FOREST ANNUAL WORK PLAN SUMMARY**

This document summarizes the proposed activities that will occur on the Chesapeake Forest during the 2010 fiscal year. The fiscal year runs from July 1, 2009 to June 30, 2010. The following proposed activities are the results of a multi-agency effort. The multi-agency approach has ensured that all aspects of these lands have been addressed within the development of this plan.

### **Plan Activities**

#### **Network with Maryland DNR agencies:**

- Wildlife & Heritage – Identify and develop restoration projects, report and map potential Ecological Significant Areas (ESA) as found during fieldwork, release programs for game and non-game species. Mapping will be done with Global Positioning Systems (GPS). Participates on the Inter-Disciplinary Team (ID Team) and assists in the development of a forest monitoring program.
- Natural Resource Police – Enforcement of natural resource laws on the forest.
- Public Lands Policy & Planning – Provides assistance in the development of plans, facilitates meetings with various management groups, develops Geographic Information System (GIS) maps for public review, and conducts deed research and boundary recovery. Also participates on the ID Team.
- State Forest & Park Service – Participates on the ID Team.
- Chesapeake & Coastal Watershed Service – Develops watershed improvement projects, assists in the development of a forest monitoring programs and participates on the ID Team.

#### **Network with other agencies:**

- DNR Contract Manager – Assists the Forest Manager in the designs and implementation of management activities on the donated portion of the forest. Also participates on the ID Team.
- Sustainable Forestry Initiative (SFI) – Provides third party forest certification by conducting annual audits.
- Forest Stewardship Council (FSC) – Provides third party forest certification by conducting annual audits.

- The Conservation Fund – Provides guidance in the development of management activities on the forest.
- The Chesapeake Bay Foundation – Identifies sites for future water quality improvement projects.
- National Wild Turkey Federation – Establishes and maintains handicap-hunting opportunities within the forest and provides funding for habitat protection and restoration.
- US Fish & Wildlife Service – Assists in prescribed burns for Delmarva Fox Squirrel (DFS) habitat. Also assists in maintaining open forest road conditions as fire breaks.
- Maryland Forest Association - Master Loggers Program provides training in Advanced Best Management Practices for Forest Product Operators (i.e. Foresters & Loggers) workshops on the forest.

### **Network with Universities and Colleges:**

- Maryland Environmental Lab, Horn Point – Conducts water quality monitoring on a first order stream not influenced by agriculture. These samples will serve as a local base line for other samples taken on other Delmarva streams.
- Yale School of Forestry – Conduct annual field tour for forestry student's showcasing Silviculture practices on Delmarva.
- Allegany College – Conduct annual field tour for forestry school student's showcasing Sustainable Forest Management practices on the forest under dual third party certification.

## **Maintenance:**

- Forest roads will undergo general maintenance to maintain access for forest management activities (i.e. logging, prescribed burning and wildfire control). Interior roads within each complex will be brush hogged where possible by the MFS & the WHS. Many of the roads have grown shut and require special heavy equipment to remove the larger trees. Brushing of these roads will improve access for the public and help maintain firebreaks for communities at risk from wildfire.
- Forest boundary lines will continue to be converted from the old Chesapeake Corporation white square markings to the DNR yellow band markings. Signs will be placed along the boundary lines designating they type of public access to the property.
- Illegal trash dumps will continue to be removed off the forest as they are discovered. The average amount of trash removed from the forest each year has been 36 tons.

## Recreation:

- Improve and post public parking areas for the 30,000 acres designated for public use.
- Host the annual lottery for vacant tracts designated for hunt club access only. Vacant tracts are those that existing clubs opted not to continue to lease or land that has recently become available due to acquisition or right-of-ways being opened.
- Continue to explore additional Resource Based Recreational (RBR) opportunities on the forest. This may include hunting, horseback riding; water trails, hiking trails, bird watching opportunities, etc.
- Chesapeake Forest (CF) Green Hill 2009 Trail Enhancement Project – This project will improve the existing 15.6 miles of hiking and horse back riding trails within the 3,311 acre CF along Nanticoke road in Wicomico County. The trail system is used frequently by hikers, bird watches, horse back riders and hunters. The forest trails are located along old woods roads that require routine maintenance to provide users with a quality outdoor experience. Many of the trails have grown shut due to a lack of timber harvesting activity in the area. Certain sections of the trail have developed large wet holes, which need to be filled in. Other sections of trails are blocked by downed trees and over hanging branches and vines.  
The project will involve widening sections of the trail with a mower, removing overhanging vegetation and downed trees with chainsaws. Several sections of the trails will require fill material to stabilize wet holes and make them passable. Gates that allow horse passage will also be installed to prevent ATV traffic. Parking areas at the trail heads will be mowed and marked with parking signs. Partial funding for this project will be obtained through a 2009 National Recreation Trails Grant.

Total estimated cost: \$33,600.

## **Special Projects:**

- Maintain dual forest certification from the Forest Stewardship Council (FSC) and the Sustainable Forest Initiative (SFI).
- Conduct information and educational opportunities based on the Sustainable Forest Management model of the forest.
- Update and maintain forest information in a GIS database, which will result in a new updated forest wide field maps.
- Continue the effort to inventory and protect historic sites (i.e. cemeteries, old home sites, Native American Indian sites) using GPS and GIS technology.

## Silvicultural Activity Overview

Table 2 summarizes the proposed silvicultural activities for the 2010 Annual Work Plan on approximately 2,166 acres (3.6%) of the Chesapeake Forest.

**Table 2. 2010 Silvicultural Activity Overview.**

<b>Activity</b>	<b>Acres</b>
1. Variable Retention/Final Harvest	152
2. Pre-commercial Thinning	139
3. 1 <sup>st</sup> Commercial Thinning	1,602
4. 2 <sup>nd</sup> Commercial Thinning	113
5. Reforestation	42
6. Aerial Spray – Grass Control*	42
7. Prescribed Fire	76
<b>Total acres affected</b>	<b>2,166</b>

\* Grass control is a potential requirement during the reestablishment of the stand. This prescription will not occur if monitoring results (on site) show unimpeded growth.

**The following is a list of forestry terms and definitions of proposed management activities that may occur within this plan:**

**Reforestation** – Reforestation reestablishes forest cover either naturally or artificially (hand planting), and is usually accompanied by some kind of site preparation during the same fiscal year. The nature of the site preparation will be determined by field examination. It is almost always followed, in the same fiscal year, with grass control in the form of chemicals (hand-applied by ground crews). Site conditions will dictate application rates, etc., in each case.

**Site Preparation/Regeneration** - While natural regeneration is the preferred method of reforesting harvested areas, alternative plans should be in place in case natural regeneration is unsuccessful. Alternatives include prescribed burning, herbicide, light mechanical disturbance, or a combination thereof followed by planting of native pines or hardwoods as the management zone dictates.

**Pre-Commercial Thinning** – Pre-commercial thinning is the removal of trees to reduce over crowded conditions within a stand. This type of thinning concentrates growth on more desirable trees while improving the health of the stand. This treatment is usually done on stands 5 to 10 years of age. The number of trees retained will depend on growth, tree species present, and site productivity. This activity is conducted with hand held power tools and not heavy equipment, thereby reducing adverse impact to the soil.

**First Commercial Thinning** – Usually performed on plantations 15-20 years old. The objective is to facilitate forest health and promote development of larger trees over a shorter period of time. This is accomplished in plantations by removing every 5<sup>th</sup> row of trees and selectively thinning (poor form & unhealthy trees) between rows. In naturally regenerated stands, thinning corridors will be established every 50 feet and the stand will be selectively thinned along both sides of the corridor. Approximately 30-35% of the total stand volume will be removed in this process.

**Second Commercial Thinning** - Usually performed on stands 30-40 years old. The objective is to lengthen the rotation age of the stand and produce larger healthier trees. In some cases, this technique is used to improve habitat for the Delmarva Fox Squirrel (DFS) and Forest Interior Dwelling Species (FIDS). Approximately 30-35% of the total stand volume will be removed in this process.

**Selection Harvest** – This includes the removal of single trees and groups of trees within a given stand. This method will be used to distribute age classes and to adjust species composition within a given stand (i.e. riparian buffers, ESA's, DFS & FID areas).

**Shelterwood Harvest** – The shelterwood method involves the gradual removal of the entire stand in a series of partial cuttings that extend over a fraction of the rotation (Smith 1986). The number of trees retained during the first stage of the harvest depends on the average tree size (diameter at breast height) on the site. As with seed tree

regeneration, the shelterwood method works best when overstory trees are more than 30 years old and in their prime period of seed production potential (Schultz 1997).

**Seed Tree Harvest** – This type of harvest is designed to regenerate pine on the site by leaving 12 to 14 healthy dominant trees per acre as a seed source. The seed trees are typically left on the site for another rotation. The seed tree method regenerates loblolly pine effectively and inexpensively in the Coastal Plain, where seed crops are consistently heavy (Schultz 1997).

**Variable Retention Harvest** – This harvest type focuses on the removal of approximately 80 percent of a given stand in one cutting, while retaining approximately 20 percent as wildlife corridors/islands, visual buffers and legacy trees. The preferred method of regeneration is by natural seeding from adjacent stands, or from trees cut in the clearing operation. Coarse woody debris (slash/tree tops) is left evenly across the site to decompose. A Variable Retention Harvests (VRH) is prescribed to help regulate the forest growth over the entire forest, ensuring a healthy and vigorous forest condition. Harvesting of young loblolly pine stands is done to help balance the age class distribution across the forest. Currently, 50% of the forest is 19 years of age or younger. VRH are also used to regenerate mixed natural stands within ESA's, DFS & Core FIDS areas. If adequate natural regeneration is not obtained within 3 years of the harvest, hand planting of the site is typically required (not required for certain restoration projects, such as bay restoration).

**Aerial Release Spraying** - An aerial spray of herbicide is used to reduce undesirable hardwood species (i.e. sweet gum & red maple) or competing grass within the stand. In many cases, a reduced rate (well below the manufacturer's recommendation) is used. A reduced rate has been used on the CF successfully to kill the undesirable species while maintaining the desirable ones (yellow poplar & oaks). All forms of aerial spraying are based on precision GPS mapping and accompanied by on-board flight GPS controls. GPS-generated maps show each pass of the aircraft and are provided by the contractor to demonstrate precision application. Aerial applications are not conducted over High Conservation Value Forest (HCVF) areas, riparian buffers or wetland areas on the forest.

**Prescribed Fire** – Prescribed fires are set deliberately by MFS personnel, under proper weather conditions, to achieve a specific management objective. Prescribed fires are used to enhance wildlife habitat, encourage fire-dependent plant species, reduce fuel loads that feed wildfires, and prepare sites for planting.

**Riparian Buffer Zone Establishment** – Riparian buffer zones are vegetated areas adjacent to or influenced by a perennial or intermittent body of water. These buffers are established and managed to protect aquatic, wetland, shoreline, and/or terrestrial environments and ultimately the Chesapeake Bay. Boundaries of riparian buffer zones will be marked, surveyed (GPS) and mapped (GIS). Selective harvesting and/or thinning may occur in these areas to encourage a mixed hardwood-pine composition.

### Literature Cited

Schulz, Robert P. 1997. The Ecology and Culture of Loblolly Pine, Loblolly Pine, U.S. Gov. Printing Office, Washington, D.C. 5-13, 5-14 pp.

Smith, David M. 1986. The Practice of Silviculture. Wiley, New York. 403 pp.

Wenger, Karl F. 1984, Forestry Handbook, For the Society of American Foresters, Wiley, New York. 418 pp.

**Locations & Descriptions  
Of  
Silvicultural Activities**

## ***Description of 2010 Activities – Talbot County***

### **Complex T01 Seth Demonstration Forest**

A first thinning is proposed for Stand 2. Stand 2 is an 8.3-acre loblolly pine plantation established in 1989. This stand is located within the General management area.

## *Description of 2010 Activities – Caroline County*

### Complex C02 Seipp

A first thinning is proposed for Stand 1. Stand 1 is a 25.7-acre loblolly pine plantation established in 1990. This stand is located within an ESA management area.

# FY10 Annual Work Plan



1 inch equals 1,320 feet

Complex : T01 Seth

DEB-DNR Forest Service 06/02/2008

## Silviculture Prescription:

A first thinning is proposed for Stand 2.  
Stand 2 is a 8.3-acre loblolly pine plantation established in 1989.  
This stand is in a General Management area.

## Guidelines:

# FY10 Annual Work Plan



1 inch equals 1,320 feet

Complex : C02 Seipp

DEB-DNR Forest Service 01/15/2008

**Silviculture Prescription:**  
A first thinning is proposed for Stand 1.  
Stand 1 is a 25.7-acre loblolly pine plantation established in 1990.  
This stand is in an ESA management area.

**Guidelines:**

## ***Description of 2010 Activities – Dorchester County***

### **Complex D07 Bennett**

A first thinning is proposed for Stand 1. Stand 1 is a 59.5-acre loblolly pine plantation, which was established in 1990. This stand is located within the General management area.

### **Complex D10 Huhne**

A pre-commercial thinning is proposed for stand 2. Stand 2 is a 21.4 acre loblolly pine plantation, which was established in 1999. This stand is located within the General management area.

### **Complex D11 Harper**

A pre-commercial thinning is proposed for stands 1 & 4. Stands 1 & 4 are comprised of 43.7 acres loblolly pine, which were established in 1997/1998. These stands are located within the DFS & HCVF management areas.

### **Complex D12 Marshy Hope**

A first thinning is proposed for Stand 13. Stand 13 is a 19.4-acre loblolly pine plantation, which was established in 1990. This stand is located in an ESA zone 3 (sawtimber rotation) and a small portion of this stand falls within an ESA zone 1.

A pre-commercial thinning is proposed for a part of stand 19. This stand is a 20-acre loblolly pine plantation, which is overstocked. This stand is located in an ESA zone 1 and zone 3 (sawtimber rotation).

### **Complex D14 Indian Town**

A second thinning is proposed for stands 14 & 17. Stands 14 & 17 are a 29-acre loblolly pine plantation, which was established in 1971 and first thinned in 1995/1996. These stands are within a DFS management area, ESA zone 3 pulpwood, and ESA zone 1 management areas.

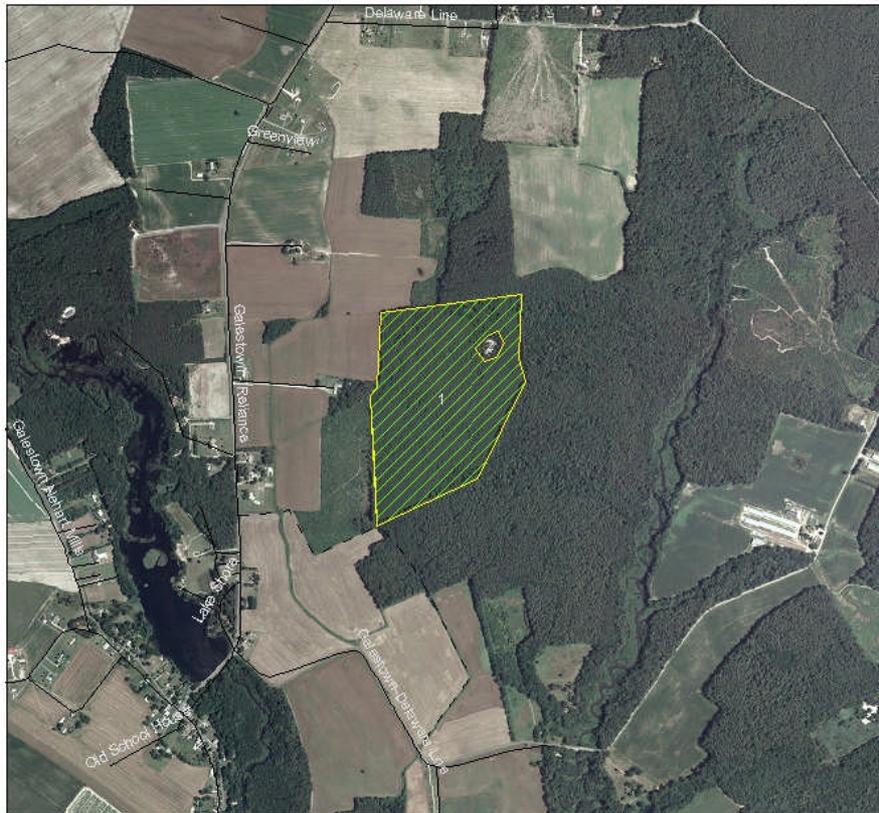
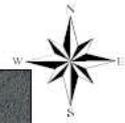
### **Complex D20 Trice**

A first thinning is proposed for stand 4. Stand 4 is a 27.6-acre loblolly pine plantation, which was established in 1991. This stand is located in ESA zone 3 pulpwood rotation management zone.

### Complex D26 Lewis

A first thinning is proposed for stand 4. Stand 4 is a 70-acre loblolly pine plantation, which was established in 1988. This activity falls within the DFS management area only (not ESA zone 1). Thinning in this stand will increase the spacing among residuals while favoring hard mast producing species where found.

# FY10 Annual Work Plan



1 inch equals 1,320 feet

Complex: D07 Bennett

DEB-DNR Forest Service 01/15/2008

### Silviculture Prescription:

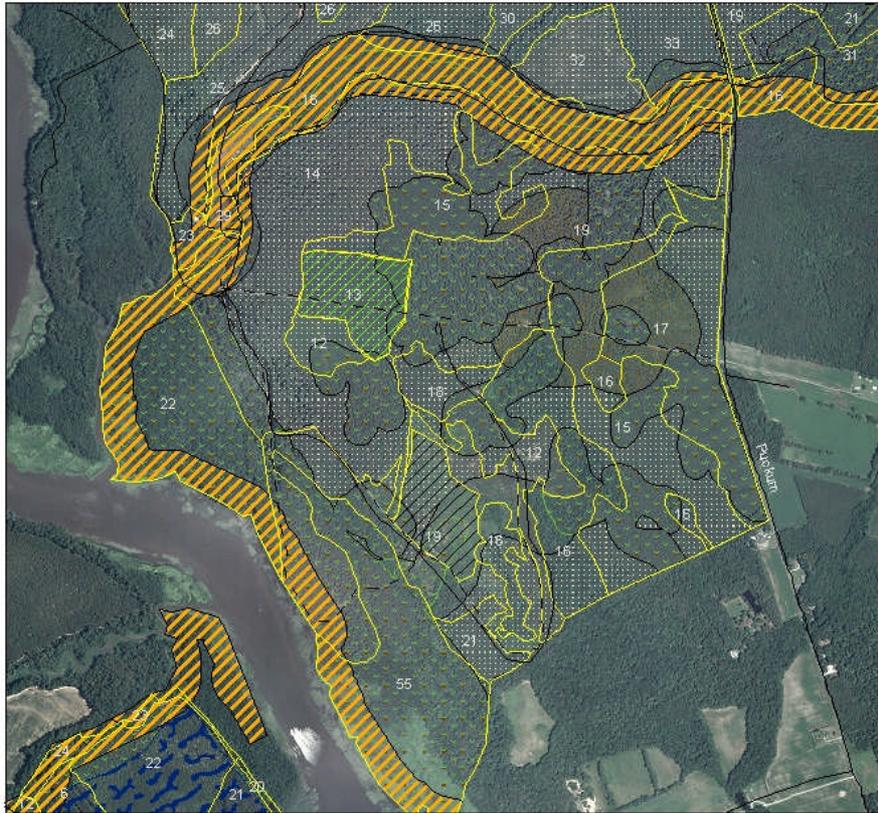
A first thinning is proposed for stand 1. Stand 1 is a 59.5 acre loblolly pine plantation, which was established in 1990. This stand is located in the General management area.

### Guidelines:





# FY10 Annual Work Plan



1 inch equals 1,320 feet

Complex: D12 Marshy Hope

DEB-DNR Forest Service 03/18/2008

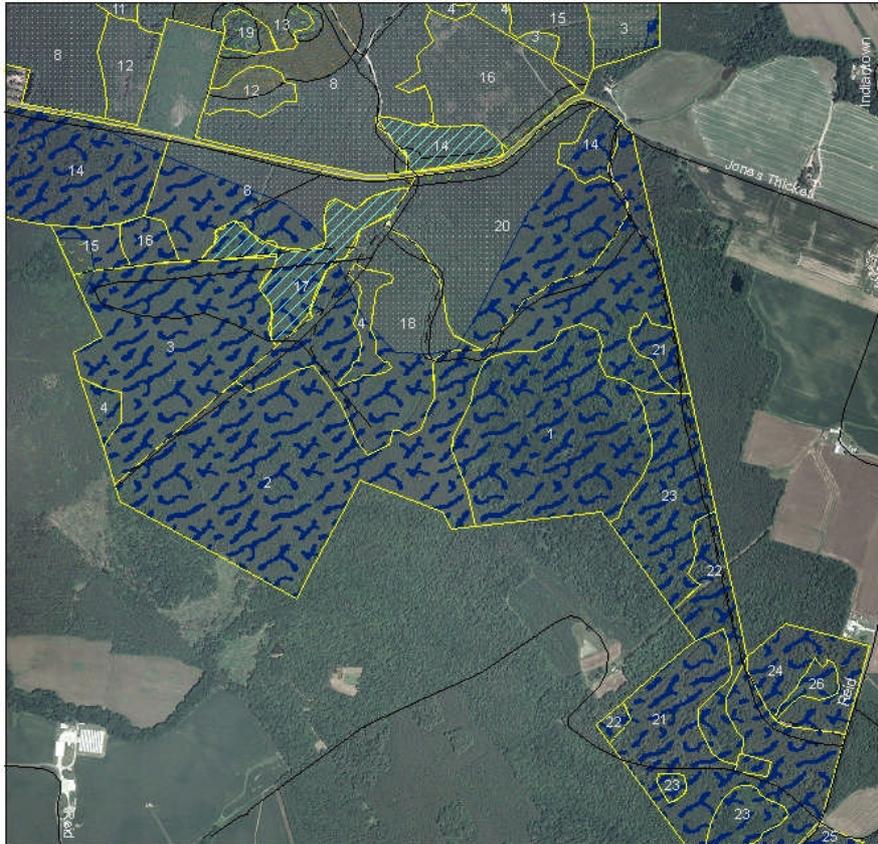
### Silviculture Prescription:

A first thinning is proposed for stand 13. Stand 13 is a 19.4 acre loblolly pine plantation, which was established in 1990. This stand is located in an ESA zone 3 (sawtimber rotation) and a small portion of this stand falls within an ESA zone 1.

A Pre-Commercial Thinning is proposed for part of stand 19. This stand is a 20 acre loblolly pine plantation, which is overstocked. This stand is located in an ESA zone 1 and zone 3 (sawtimber rotation).

### Guidelines:

# FY10 Annual Work Plan



1 inch equals 1,320 feet

Complex: D14 Indian Town

DEB-DNR Forest Service 03/18/2008

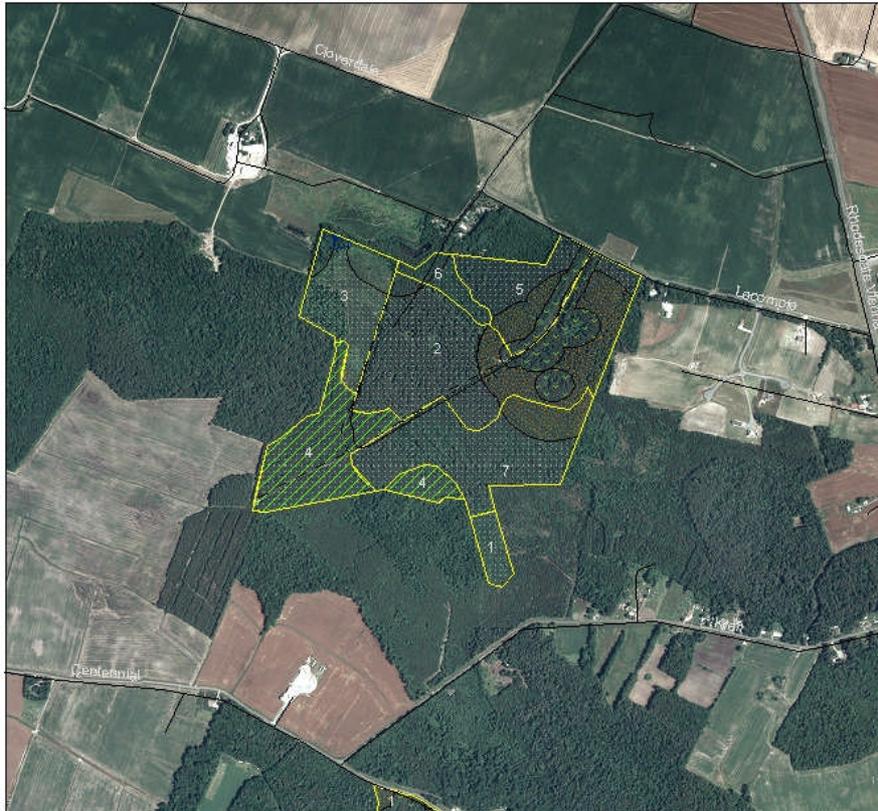
## Silviculture Prescription:

A second thinning is proposed for stands 14, & 17. Stands 14, & 17 are 29 acre loblolly pine plantation, which was established in 1971 and first thinned in 1995, and 1996. These stands are within a DFS management area, ESA zone 3 pulpwood, and ESA zone 1 management area.

## Guidelines:

Blank area for guidelines.

# FY10 Annual Work Plan



1 inch equals 1,320 feet

Complex: D20 Trice

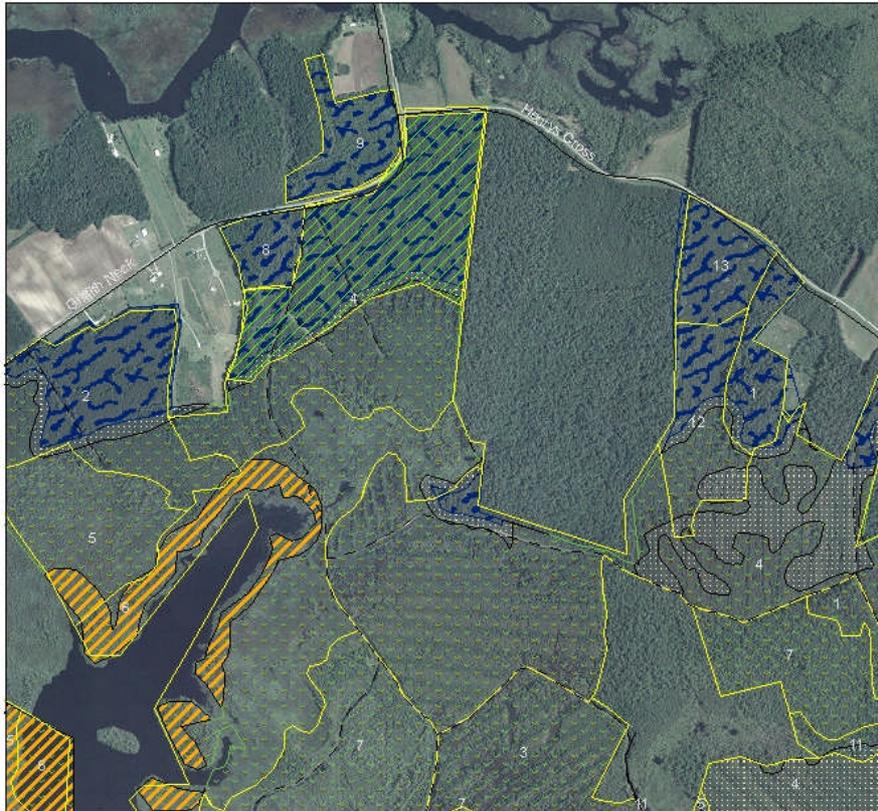
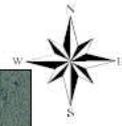
DEB-DNR Forest Service 01/15/2008

### Silviculture Prescription:

A first thinning is proposed for stand 4. Stand 4 is a 27.6 acre loblolly pine plantation, which was established in 1991. This stand is located in ESA zone 3 pulpwood rotation management zone.

### Guidelines:

# FY10 Annual Work Plan



1 inch equals 1,320 feet

Complex: D26 Lewis

DEB-DNR Forest Service 01/15/2008

## Silviculture Prescription:

A first thinning is proposed for stand 4. Stand 4 is a 70 acre loblolly pine plantation, which was established in 1988. This activity falls within the DFS management area only (not ESA zone 1). Thinning in this stand will increase the spacing among residuals while favoring hard mast producing species where found.

## Guidelines:

## *Description of 2010 Activities – Wicomico County*

### Complex W16 Savannah

A final harvest is proposed for Stand 1. Stand 1 is a 49.9 acre loblolly pine plantation that is 34 years old. This site will be planted in loblolly and herbicides will be used to control grass and other unwanted vegetation. This site is located within the General Management Area.

### Complex W29 White

A first thinning is proposed for Stand 4. Stand 4 is a 22.5-acre loblolly pine plantation, which was established in 1985. This site is located within the General Management Area.

### Complex W30 Fair Meadows

A first thinning is proposed in stand 1. Stand 1 is a 29.3 acre loblolly pine plantation that was established in 1988.

A second thinning is proposed for stand 5. Stand 5 is a 17.2 acre natural loblolly pine stand that was established in 1976 and was first thinned in 2001.

Both treatments occur within the General Management Area.

### Complex W31 Lovella Jones

A first thinning is proposed for Stand 1. Stand 1 is a 45.5-acre loblolly pine plantation. This stand was established in 1989. This site is located within the General Management Area.

### Complex W34 Herman-Hodson

A first thinning is proposed for Stand 2. Stand 2 is a 7.5-acre natural loblolly pine stand, which was established in 1985. This stand is adjacent to a 41 acre stand slotted to be thinned under the 2007 AWP. This site is located within the General Management Area.

### Complex W37 Farlow

A first thinning is proposed for stand 1. Stand 1 is a 16.3-acre loblolly pine plantation, which was established in 1983. This stand is adjacent to a 68-acre first thinning site approved under the 2005 AWP. This site is located within the General Management Area.

### Complex W46 Wicomico Demonstration Forest

A first thinning is proposed for stands 9, 10, 25, 53, 72, 74 & 76. These stands are all young loblolly pine plantations that are overstocked and stagnate. The total area to be thinned is 327.3 acres. This thinning will improve the health, specie diversity and the growth of the stand as per DFS management guidelines. These sites are all located within the DFS Management Area.

### Complex W48 Peterson Farm

A first thinning is proposed for stands 2 & 3. Stands 2 & 3 are a 105.9-acre loblolly pine plantation, which was established in 1991 & 1998 respectfully. A portion of this site is within an ESA zone 1 area and the HCVF area.

### Complex W53 Twigg-Fooks

A first thinning is proposed for stands 5, 6, 7 & 10 that occur within the General Management Area. A final harvest is proposed for the ESA zone 1 portions of these stands in an attempt to enhance rare threatened & endangered species range. The stands are all young loblolly pine sites that are overstocked and stagnate. The total prescription area is 268.9 acres. Stands range in age from 18 to 21 years old.

# FY10 Annual Work Plan



1 inch equals 1,320 feet

Complex: W16 Savannah

DEB-DNR Forest Service 02/19/2008

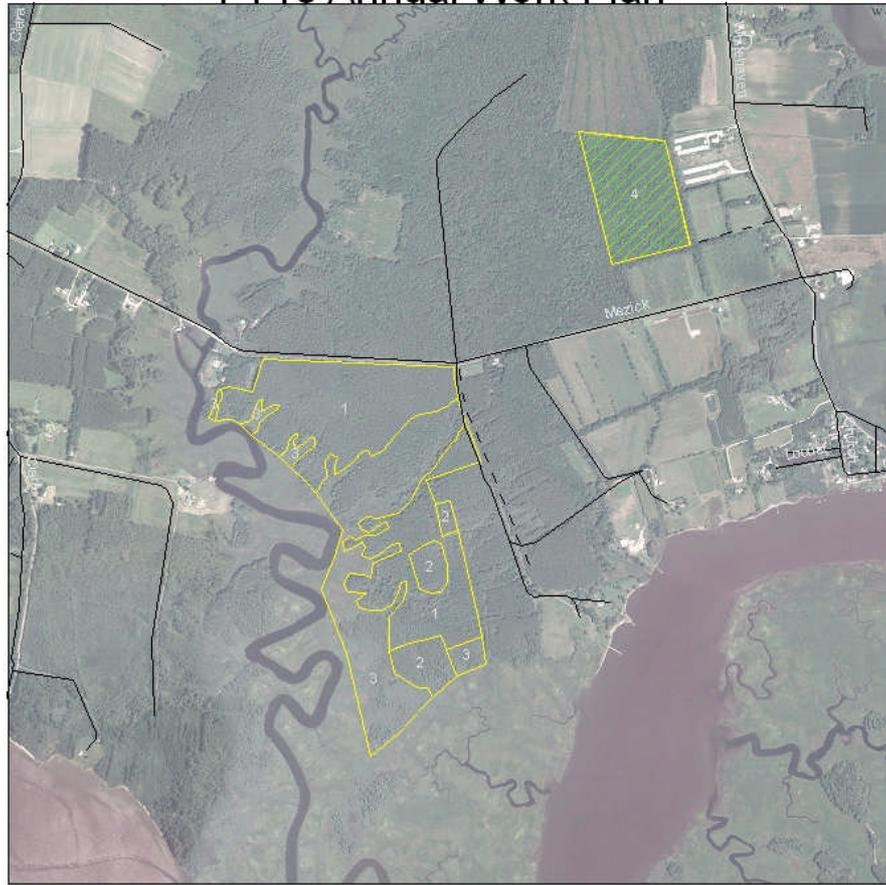
### Silviculture Prescription:

A final harvest is proposed for stand 1. Stand 1 is a 49.9 acre loblolly pine plantation that is 34 years old. This site will be planted in loblolly pine and herbicides will be used to control grass and other unwanted vegetation. This site is located within the General Management area.

### Guidelines:

Blank area for guidelines.

# FY10 Annual Work Plan



1 inch equals 1,320 feet

Complex: W29 White

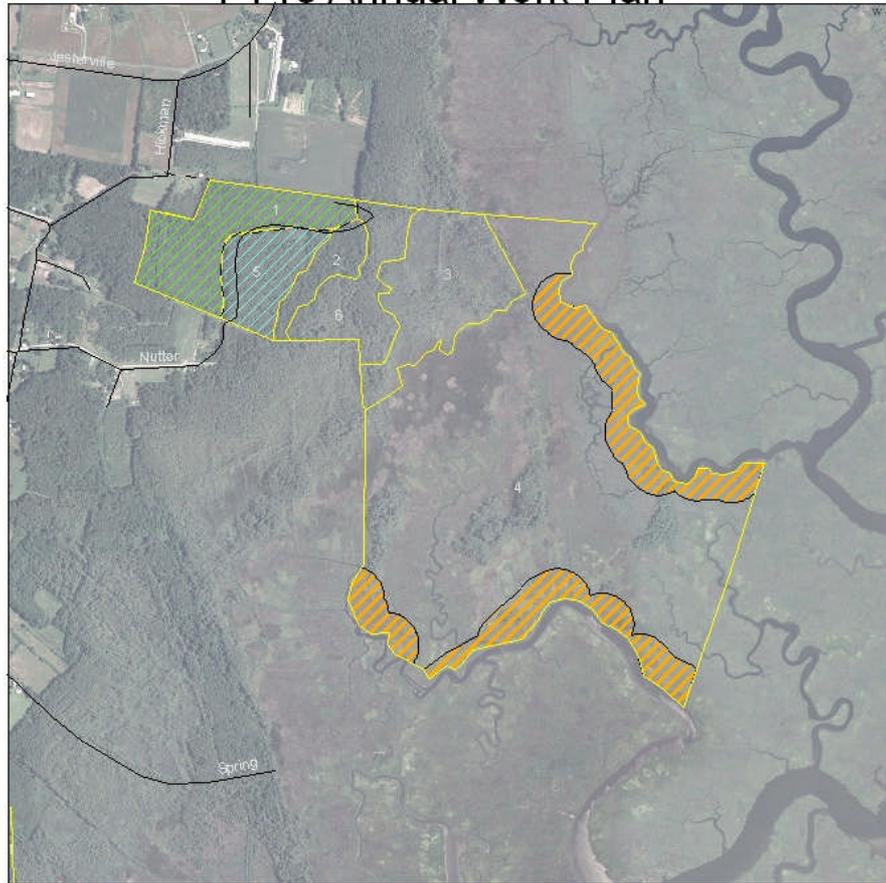
DEB-DNR Forest Service 02/19/2008

### Silviculture Prescription:

A first thinning is proposed for stand 4. Stand 4 is a 22.5 acre loblolly pine plantation, which was established in 1985. This site is located within the General Management Area.

### Guidelines:

# FY10 Annual Work Plan



1 inch equals 1,320 feet

Complex: W30 Fair Meadows

DEB-DNR Forest Service 02/19/2008

### Silviculture Prescription:

A first thinning is proposed for stand 1. Stand 1 is a 29.3 acre loblolly pine plantation that was established in 1988.

A second thinning is proposed for stand 5. Stand 5 is a 17.2 acre natural loblolly pine stand that was established in 1976 and was first thinned in 2001.

Both treatments occur within the General Management Area.

### Guidelines:

# FY10 Annual Work Plan



1 inch equals 1,320 feet

Complex: W31 Lovella Jones

DEB-DNR Forest Service 02/19/2008

## Silviculture Prescription:

A first thinning is proposed for stand 1. Stand 1 is a 45.5 acre loblolly pine plantation. This stand was established in 1989. This site is located within the General Management Area.

## Guidelines:

# FY10 Annual Work Plan



1 inch equals 1,320 feet

Complex: W34 Herman-Hodson

DEB-DNR Forest Service 02/19/2008

## Silviculture Prescription:

A first thinning is proposed for stand 2. Stand 2 is a 7.5 acre natural loblolly pine stand, which was established in 1985. This stand is adjacent to a 41 acre stand slotted to be thinned under the 2007 AWP. This site is located within the General Management Area.

## Guidelines:

# FY10 Annual Work Plan



1 inch equals 1,320 feet

Complex: W37 Farlow

DEB-DNR Forest Service 02/19/2008

### Silviculture Prescription:

A first thinning is proposed for stand 1. Stand 1 is a 16.3 acre loblolly pine plantation, which was established in 1983. This stand is adjacent to a 68 acre first thinning site approved under the 2005 AWP. This site is located within the General Management Area.

### Guidelines:

Blank area for guidelines.

# FY10 Annual Work Plan



1 inch equals 2,171 feet

Complex: W46 Wicomico Demonstration Forest

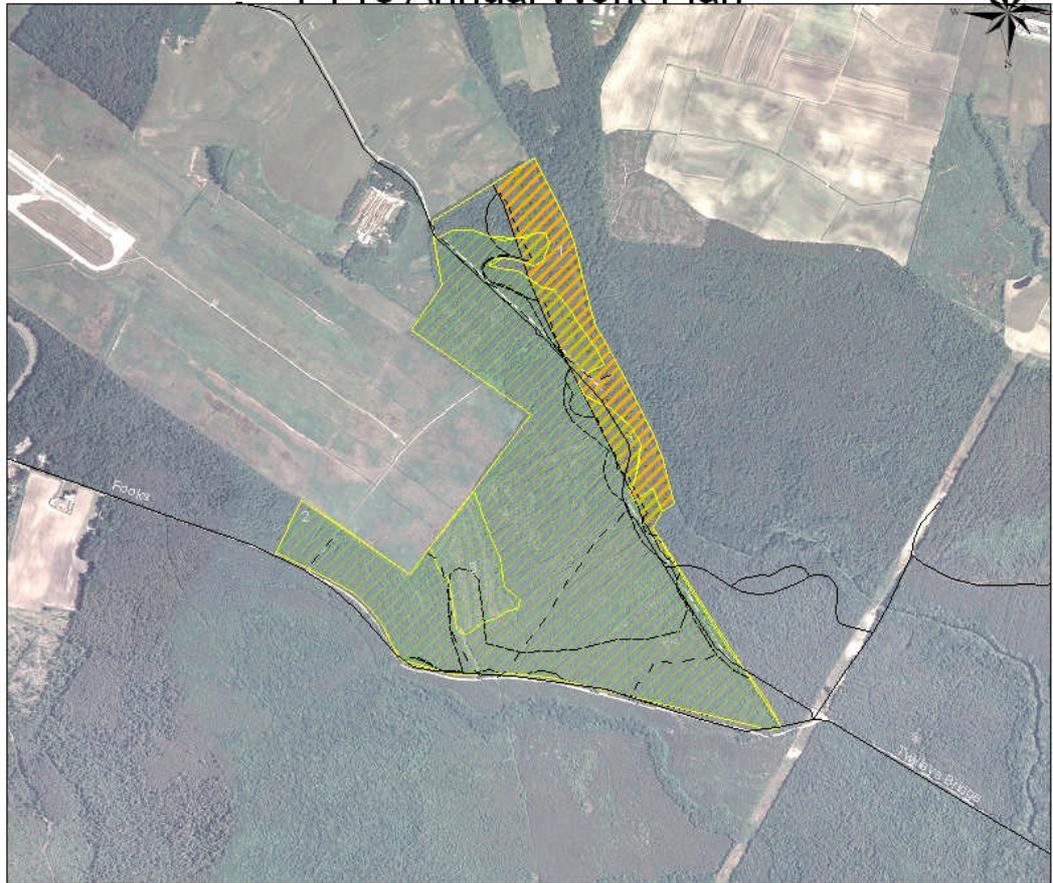
DEB-DNR Forest Service 02/19/2008

**Silviculture Prescription:**

A first thinning is proposed for stands 9, 10, 25, 53, 72, 74, & 76. These stands are all young loblolly pine plantations that are overstocked and stagnate. The total area to be thinned is 327.3 acres. This thinning will improve the health, specie diversity and the growth of the stand as per DFS management guidelines. These sites are all located within the DFS Management Area.

**Guidelines:**

# FY10 Annual Work Plan



1 inch equals 1,320 feet

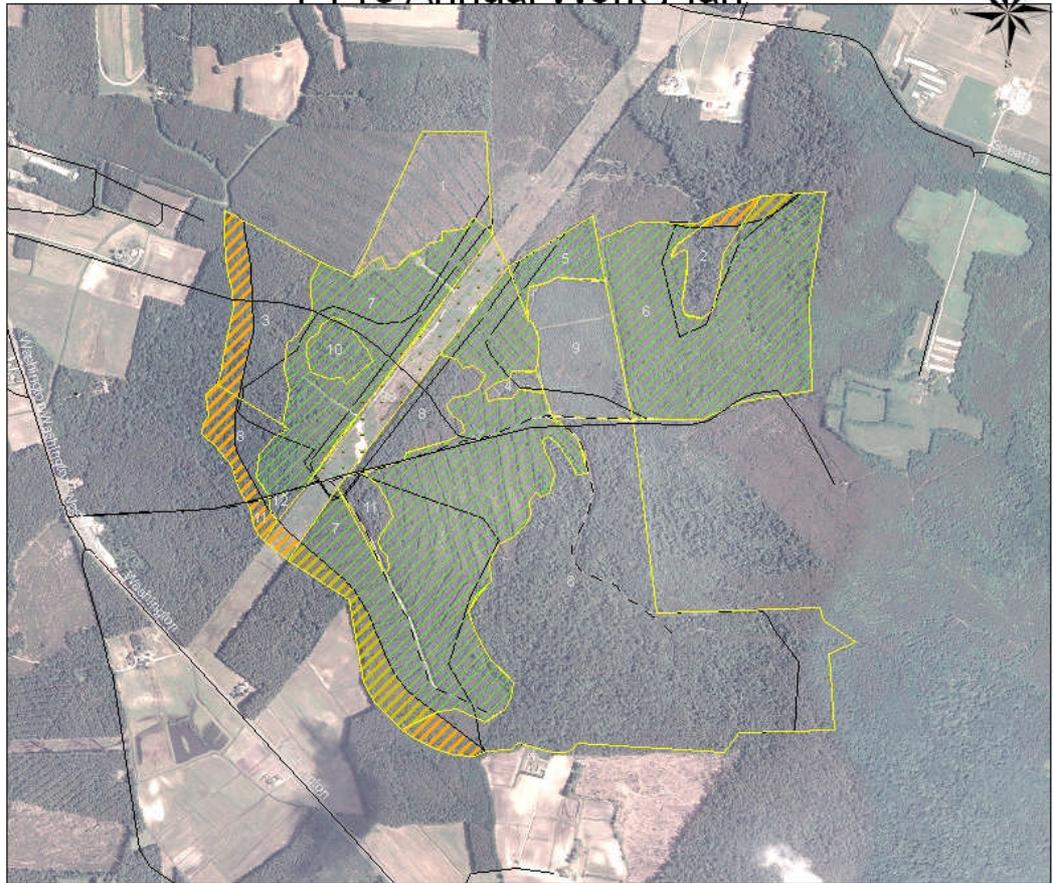
Complex: W48 Peterson Farm

DEB-DNR Forest Service 02/19/2008

**Silviculture Prescription:**  
A first thinning is proposed for stands 2 & 3. Stands 2 & 3 are a 105.9 acre loblolly pine plantation, which was established in 1991 & 1998 respectively. A portion of this site is within the ESA zone 1 area and the HCVF area.

**Guidelines:**

# FY10 Annual Work Plan



1 inch equals 1,320 feet

Complex: W53 Twigg-Fooks

DEB-DNR Forest Service 02/19/2008

## Silviculture Prescription:

A first thinning is proposed for stands 5, 6, 7 & 10 that occur within the General Management Area. A final harvest is proposed for the ESA zone 1 portions of these stands in an attempt to enhance RT & E species range. The stands are all young loblolly pine sites that are overstocked and stagnate. The total prescription area is 268.9 acres. Stands range in age from 18 to 21 years old.

## Guidelines:

## *Description of 2010 Activities – Worcester County*

### Complex WR10 Cordery

A prescribe burn is proposed for stand 1. Stand 1 is a dense loblolly pine plantation, which was established in 1988 and has not been thinned. This burn will reduce the understory vegetation and possibly help thin the stand. Stand 1 is 36.2 acres in size.

A first thinning is proposed for stands 13, 16, 17, & 18. These adjacent stands contain loblolly pine ranging in age from 20 to 32 years of age and are overly stocked. A first thinning will improve growth of residual pines and create opportunities for specie diversity. Oaks and poplar trees will be retained where found. Total area to be thinned is 50.4 acres.

A second thinning is proposed for stands 15 & 19. Stands 15 & 19 were first thinned in 1995 and are adjacent to the above mentioned first thinning stands. Stand 15 is 30 years old and stand 19 is 32 years old. Both stands are loblolly pine plantations and are 67 acres collectively. There is a power line that bisects the stands along the south western boundaries.

All these proposed activities are located within an ESA management area.

### Complex WR24 Johnson & Johnson

A first thinning is proposed for stands 25, 26 & 28. The stands are loblolly pine plantations, which range in age from 14 to 17 years old. The total area to be thinned is 168.1 acres. These stands are located within an ESA management area.

### Complex WR28 Abe Hammond

An aerial spray & planting is proposed for stands 3, 4 & 5. This area was a 19 year old pine plantation that was harvested in 2007. Natural regeneration has resulted in a combination of grasses and sweet gum. Herbicides should be used to control the undesirable vegetation while the site is hand planted with a pine oak mixture. Total area to be treated is 42.3 acres. This site falls within a DFS management area and is adjacent to the Pocomoke State Forest.

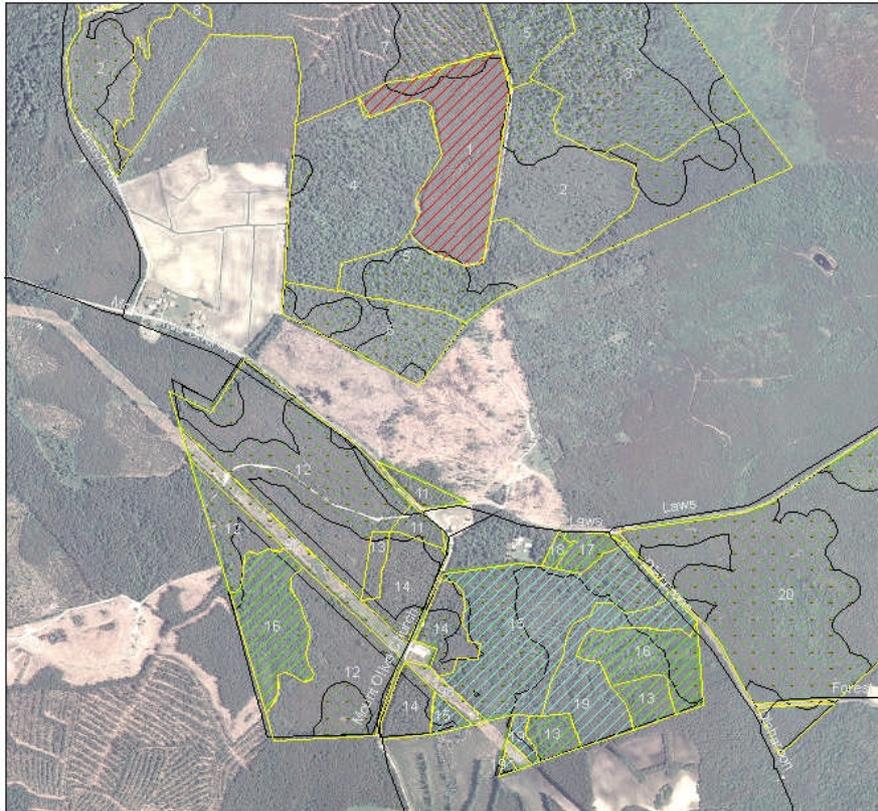
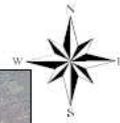
A first thinning is proposed for stand 6. Stand 6 is a loblolly pine plantation, which was established in 1989. This stand is adjacent to the above mentioned harvested area and contains a HCVF along its westerly boundary. The first thinning will improve the growth of residual trees while creating canopy openings, which will encourage the ingrowth of hardwood species. Stand 6 is 72.8 acres in size and is within a DFS & HCVF management area.

### Complex WR40 Dunn Swamp

A final harvest is proposed for a portion of stands 3, 12, 23 & all of stand 9. Each stand is a loblolly pine plantation ranging in age from 32 to 37 years old. The portion of stand 3 to be harvested is 27.3 acres, the portion of stand 12 is 13.1 acres, and the portion of stand 23 is 33.5 acres. Stand 9 is 10.3 acres. None of the proposed harvest areas are adjacent to one another. All of these stands are located within the General management area.

A prescribe burn is proposed for stand 21. Stand 21 is a loblolly pine plantation that was established in 1971. This stand had a second thinning in 1997 and has responded well. The prescribe burn will reduce fuel in the understory and eliminate undesirable species while encouraging fire dependant ones. The total area to be burned is 39.6 acres and is located within the General management area.

# FY10 Annual Work Plan



1 inch equals 1,320 feet

Complex: WR10 Cordery

DEB-DNR Forest Service 01/16/2008

**Silviculture Prescription:**

A prescribe burn is proposed for stand 1. Stand 1 is a dense loblolly pine plantation, which was established in 1988 and has not been thinned. This burn will reduce the understory vegetation and possibly help thin the stand. Stand 1 is 36.2 acres in size.

A first thinning is proposed for stands 13, 16, 17 & 18. These adjacent stands contain overly stocked loblolly pine ranging in age from 20 to 32 years of age. Oaks and poplar trees will be retained where found. Total area to be thinned is 50.4 acres.

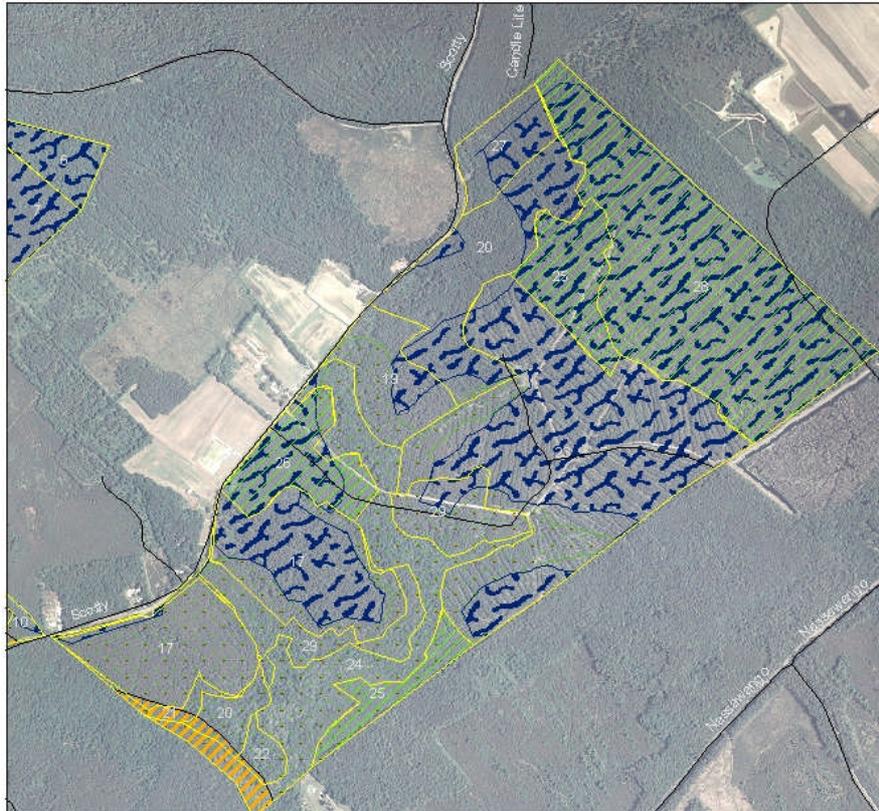
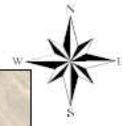
A second thinning is proposed for stands 15 & 19. These stands were first thinned in 1995. Stand 15 is 30 years old and stand 19 is 32 years old. Both stands are loblolly pine plantations and are 67 acres.

All stands are in an ESA management area.

**Guidelines:**

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# FY10 Annual Work Plan



1 inch equals 1,320 feet

Complex: WR24 Johnson & Johnson

DEB-DNR Forest Service 01/16/2008

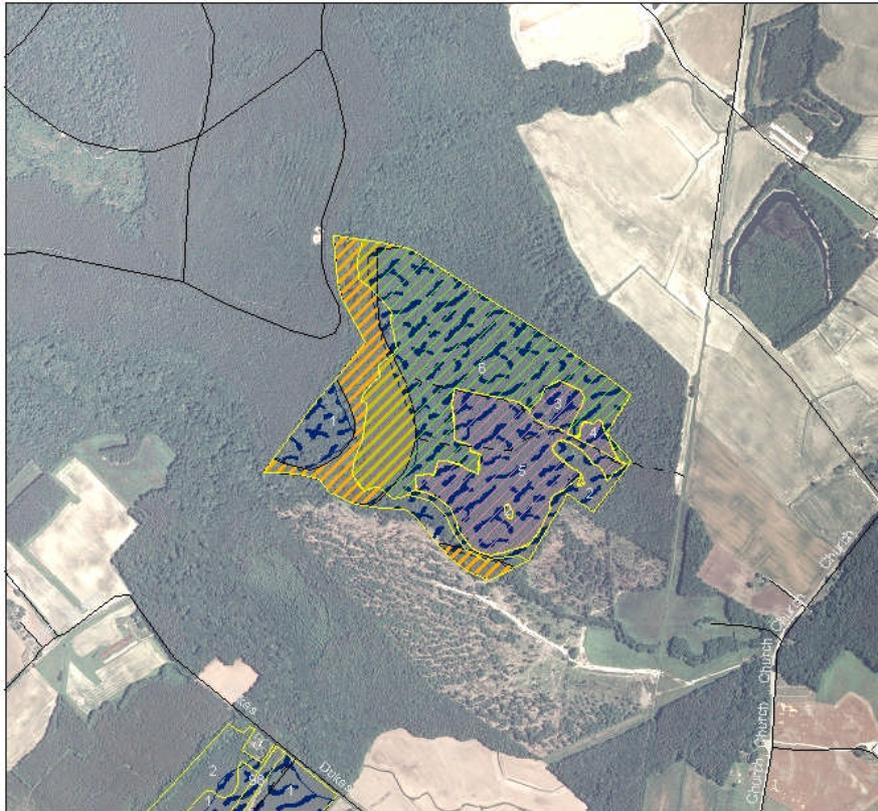
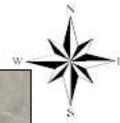
### Silviculture Prescription:

A first thinning is proposed for stands 25, 26 & 28. The stands are loblolly pine plantations, which range in age from 14 to 17 years old. The total area to be thinned is 168.1 acres. These stands are located within an ESA management area.

### Guidelines:

Blank area for guidelines.

# FY10 Annual Work Plan



1 inch equals 1,320 feet

Complex: WR28 Abe Hammond

DEB-DNR Forest Service 01/16/2008

## Silviculture Prescription:

An aerial spray & planting is proposed for stands 3, 4, & 5. This area was a 19 year old pine plantation that was harvested in 2007. Natural regeneration has resulted in a combination of grasses and sweet gum. Herbicides should be used to control the undesirable vegetation while the site is hand planted with a pine oak mixture. Total area to be treated in 42.3 acres. This site falls within a DFS management area.

A first thinning is proposed for stand 6. Stand 6 is a loblolly pine plantation, which was established in 1989. This thinning will improve the growth of residual trees while creating canopy openings, which will encourage the ingrowth of hardwood species. Stand 6 is 72.8 acres in size and is within a DFS & HCVF management area.

## Guidelines:

# FY10 Annual Work Plan



1 inch equals 1,320 feet

Complex: WR40 Dunn Swamp

DEB-DNR Forest Service 01/17/2008

### Silviculture Prescription:

A final harvest is proposed for stands 3, 12, 23, and 9. Each stand is a loblolly pine plantation ranging in age from 32 to 37 years old. The portion of stand 3 to be harvested is 27.3 acres, the portion of stand 12 is 13.1 acres, and the portion of stand 23 is 33.5 acres. Stand 9 is 10.3 acres. None of the proposed harvest areas are adjacent to one another. All of these stands are located within the General Management area.

A prescribe burn is proposed for stand 21. Stand 21 is a loblolly pine plantation that was established in 1971. This stand was second thinned in 1997. This burn will reduce fuel and eliminate undesirable species. The total area to be burned is 39.6 acres and located within the General Management area.

### Guidelines:

## *Description of 2010 Activities – Somerset County*

### Complex S24 Oriole

A first thinning is proposed for Stand 3. Stand 3 is a 112-acre loblolly pine plantation, which was established in 1987. This stand is located within the General management area.

### Complex S27 Wells

A first thinning is proposed for Stands 16 & 20. The combined adjacent stands make up a 135.1-acre loblolly pine plantation, which was established in 1988/1989. Dominant hard mast producing trees, such as oaks and poplars will be retained. These stands are located within a DFS Core management area.

### Complex S50 Landon-Batts

A pre-commercial thinning is proposed for stand 3. Stand 3 is a 54.3-acre loblolly pine plantation that was established in 1999. This stand is located in the General management area.

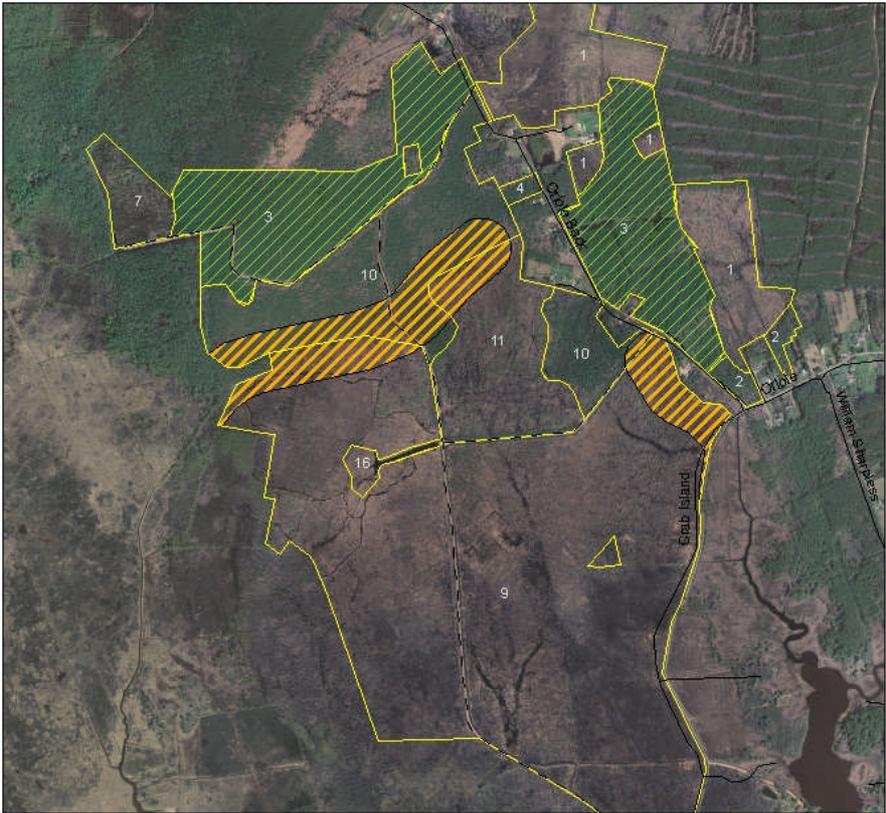
### Complex S55 Marumsco

A first thinning is proposed for Stand 22. Stand 22 is a 29.4-acre loblolly pine plantation that was established in 1992.

A final harvest is proposed for stands 27 & 33. Stand 27 & 33 are both loblolly pine plantations that were established in 1960 & 1975 respectfully. The total harvest area is 17.7 acres.

Both proposals are within the General management area.

# FY10 Annual Work Plan



1 inch equals 1,320 feet

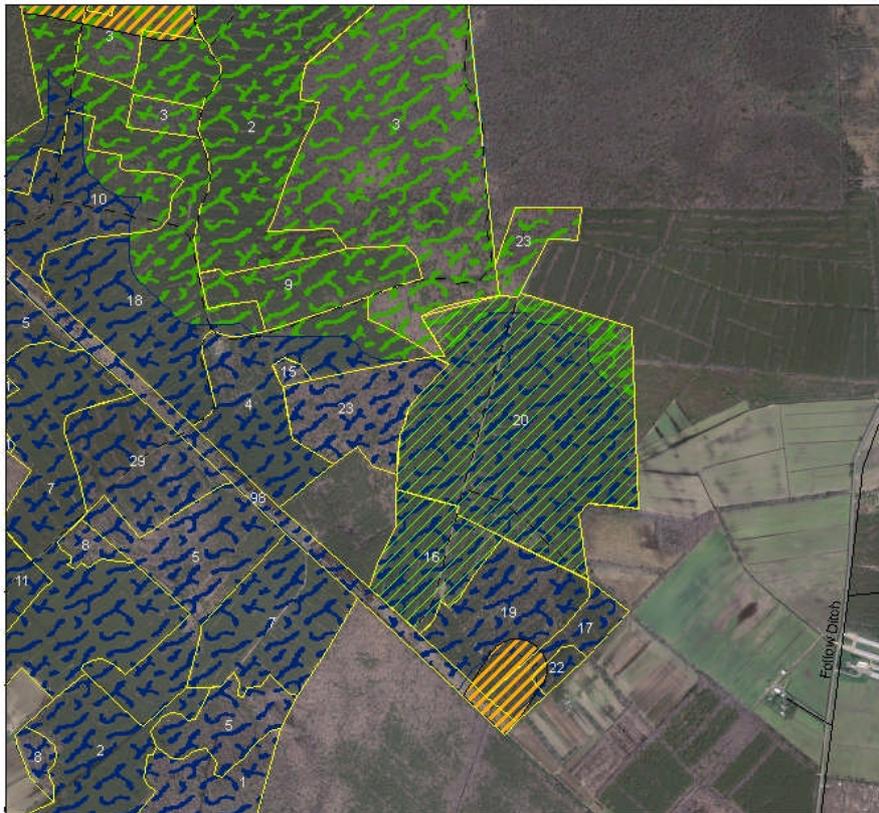
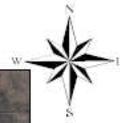
Complex: S24 Oriole

DEB-DNR Forest Service 01/16/2008

**Silviculture Prescription:**  
 A first thinning is proposed for stand 3. Stand 3 is a 112 acre loblolly pine plantation, which was established in 1987. This stand is located within the General Management area.

**Guidelines:**

# FY10 Annual Work Plan



1 inch equals 1,320 feet

Complex: S27 Wells

DEB-DNR Forest Service 01/16/2008

## Silviculture Prescription:

A first thinning is proposed for stands 16 & 20. The combined adjacent stands make up a 135.1 acre loblolly pine plantation, which was established in 1988/1989. Dominant hard mast producing trees, such as oaks and poplars will be retained. These stands are located within a DFS management area.

## Guidelines:

# FY10 Annual Work Plan



1 inch equals 1,320 feet

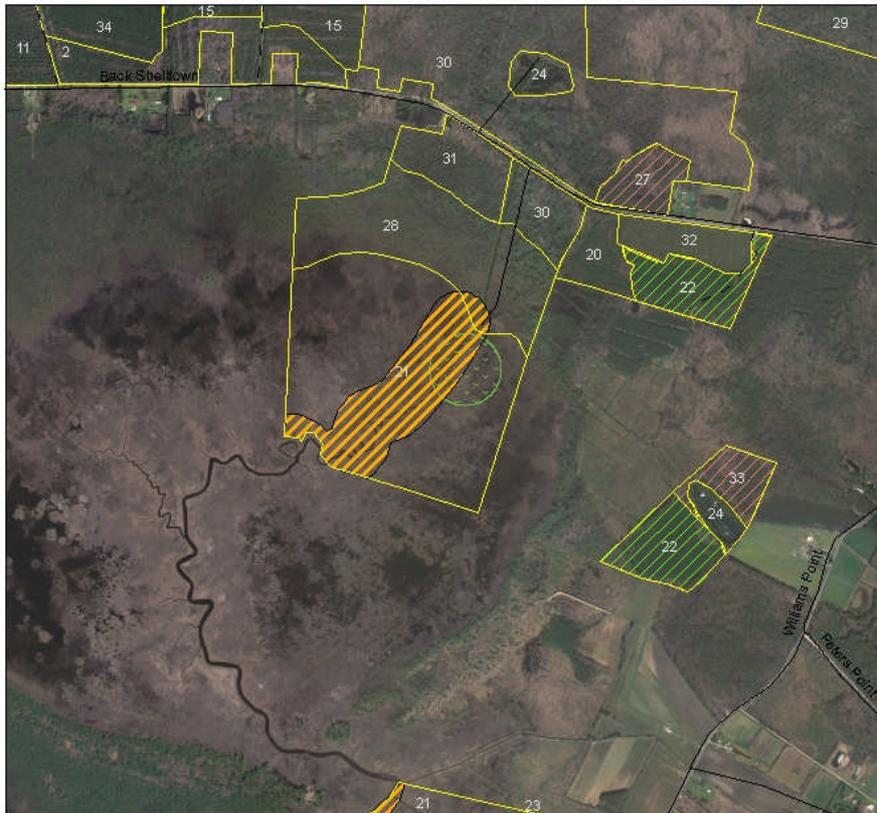
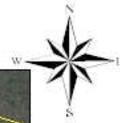
Complex: S50 Landon-Batts

DEB-DNR Forest Service 01/16/2008

**Silviculture Prescription:**  
A pre-commercial thinning is proposed for stand 3. Stand 3 is a 54.3 acre loblolly pine plantation that was established in 1999. This stand is located in the General Management area.

**Guidelines:**

# FY10 Annual Work Plan



1 inch equals 1,320 feet

Complex: S55 Marumsco

DEB-DNR Forest Service 01/16/2008

### Silviculture Prescription:

A first thinning is proposed for stand 22. Stand 22 is a 29.4 acre loblolly pine plantation that was established in 1992.

A final harvest is proposed for stands 27 & 33. Stands 27 & 33 are both loblolly pine plantations that were established in 1960 & 1975 respectively. The total harvest area is 17.7 acres.

Both proposals are within the General Management area.

### Guidelines:

## **Projected Annual Budget**

## CHESAPEAKE FOREST FY 2010 PROJECTED BUDGET

<i>Cost of Management</i>	
<i>(*Costs will vary from year to year)</i>	
State CF Salaries & Contract Management	\$ 300,000
Land Operation	\$ 400,000
Inventory & Monitoring Program	\$ 70,000
Sustainable Forest Certification	\$ 15,000
Watershed Improvement & Other Restoration Projects	\$ 80,000
County Payment (15% of revenues)	\$ 160,000
Fixed Cost (ditch drainage payments to counties)	\$ 8,000
<b>TOTAL COST</b>	<b>\$1,033,000</b>

<i>Operating Revenues &amp; State Funding</i>	
Forest Product Sale Revenues	\$ 750,000
Hunt Club Revenues	\$ 280,000
State Funding	\$ 100,000
<b>TOTAL REVENUES &amp; FUNDING</b>	<b>\$1,130,000</b>

This plan was posted on the Chesapeake Forest web site during a 30-day comment period. The Maryland Forest Service did not receive any comments from the public.