# EASTERN REGION STATE FOREST LANDS ANNUAL WORK PLAN

FISCAL YEAR 2014

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1/16/1

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9/16/13 Date

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#### ANNUAL WORK PLAN SUMMARY

#### Introduction

This document summarizes the proposed activities that will occur on all public forest lands (84,702 acres) managed by the Maryland Forest Service within the Eastern Region during the 2014 fiscal year. These lands include the Chesapeake Forest, Pocomoke State Forest, Wicomico Demonstration Forest, Seth Demonstration Forest, and Fred W. Besley Demonstration Forest. The fiscal year runs from July 1, 2013 to June 30, 2014. 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.

#### Historic Forest Conditions and the Role of Fire

The average pre-European-settlement fire frequency was on the order of 7-12 years for forests of the Eastern Shore of Maryland, with higher frequencies of 4-6 years in the southeastern Maryland counties of Wicomico, Worcester, Somerset, and Dorchester (Frost, 1998). These frequencies are high compared to most areas of the Northeast. Since it is unlikely that lightning was a significant contributor to these fires, Native American populations must have been. A conclusion is that fire in the Northeast was predominantly a phenomenon associated with human activity (Pyne, 1982).

The forest that covered the Eastern Shore in Indian times was predominantly a hardwood one, though increasingly mixed with pine to the southward (Rountree & Davidson, 1997). The large patches of pine-dominated woods today are largely second growth, the result of extensive clearing in historic times. In aboriginal times, the woods of the Eastern Shore were likely to be oak-hickory, oak-gum, or oak-pine types, all of which still exist in second-growth form.

Captain John Smith said in the early seventeenth century, "A man may gallop a horse amongst these woods any waie, but where the creekes or Rivers shall hinder". Father Andrew White wrote that the woods around St. Mary's were so free of underbrush that a "coach and fower horses" could be driven through them (Rountree & Davidson, 1997). The open conditions could be partly attributed to the closed canopies of these mature forests, which shaded out undergrowth, but it is also likely that periodic fire helped to maintain the park-like conditions.

It is reasonable to assume that Eastern Shore tribes also used fire to periodically burn the marshes that were important sources of mollusks, fish, furbearers, waterfowl, edible tubers, and reeds for housing. Fire would have been useful for herding game, enhancing visibility or access, or retarding invasion of woody growth. More often than not, these fires would have spread into adjacent woodlands and, if of sufficient intensity, created the open seedbed conditions conducive to establishment of loblolly pine. Even today the pattern of loblolly pine "islands" and "stringers" in and adjacent to marshes of the lower Eastern Shore is common.

If, as Rountree and Davidson suggest, oaks were the most prevalent species in pre-settlement times, then the possible role of fire in maintaining these forest types must also be considered. Frost stated, "Light, understory fires may have been the norm for millions of hectares of eastern

hardwood forest..." (Frost, 1998). Oak species range from slightly tolerant to intolerant of shade, indicating that disturbance is desirable to promote regeneration and growth. Furthermore, acorn germination and initial seedling establishment are most successful where light understory burns have scarified the seedbed and reduced competition (Burns & Honkala, 1990). The extensive presence of oaks on the Shore was an indicator that low-intensity understory fires were common, either intentionally set by Indians to create "open woods" or drive game, or the incidental result of land-clearing.

Natural stands of loblolly pine (*Pinus taeda*) became much more widespread around the turn of the 20th Century, particularly in the counties south of the Choptank, largely due to the influence of economic factors. First was the abandonment of agricultural fields as farmers moved to more lucrative jobs in the towns and cities. Loblolly pine is an opportunistic species, which found the recently abandoned fields prime sites for reproduction by natural seeding. The second factor was the rise of large-scale commercial lumbering. Steam locomotives, often used to haul logs from the woods, were notorious for throwing sparks along the tracks and starting fires. Both the clearing of the forests by large-scale logging and the subsequent fires resulted in large areas of open, scarified land suitable for pine regeneration. By the middle of the twentieth century, loblolly pine had become the predominant forest cover type in the lower counties of the Eastern Shore.

#### **Forest Types and Size Classes**

Young loblolly pine forests mostly established since the early 1980's are what characterize a high proportion of the Chesapeake Forest. Mixed pine and hardwood forests still occupy some of the lands, and many riparian areas and flood plains contain stands of mixed hardwoods. In general, the mixed pine-hardwood and hardwood stands are older, mature forests.

Mature mixed pine-hardwood, bottomland hardwood, and bald-cypress forests comprise the majority of the Pocomoke State Forest. In general, the mixed pine-hardwood, hardwood, and bald cypress stands are older, mature forests, while loblolly pine stands are more evenly distributed across all age classes.

Table 1 provides a habitat diversity matrix of both Eastern Region State Forests that provides a current baseline from which future changes in age structure or forest type diversity can be assessed for potential habitat or biodiversity effects.

**Table 1. Forest Diversity Analysis** 

Acres of forest type and forest structure by structural groups, with percent of total area in each forest type/structure group combination.

|  | Structure stage |            |             |             |             |              |        |               |
|--|-----------------|------------|-------------|-------------|-------------|--------------|--------|---------------|
| Forest type                              | Open            | Sapling    | Growing     | Maturing    | Mature      | Big Trees    | Uneven | Total<br>Area |
|  | 0 - 5 yrs       | 5 - 15 yrs | 15 - 25 yrs | 25 - 35 yrs | 35 - 50 yrs | 50 - 75+ yrs | Aged   |               |
| Atlantic<br>White Cedar                  | 4               | 3          | 0           | 0           | 0           | 0            | 0      | 7             |
| (Percent)                                | 0.00%           | 0.00%      | 0.00%       | 0.00%       | 0.00%       | 0.00%        | 0.00%  | 0.01%         |
| Loblolly<br>Pine                         | 1,185           | 9,557      | 21,016      | 12,644      | 7,312       | 1,617        | 407    | 53,737        |
| (Percent)                                | 1.40%           | 11.28%     | 24.81%      | 14.93%      | 8.63%       | 1.91%        | 0.48%  | 63.44%        |
| Shortleaf<br>Pine                        | 0               | 0          | 0           | 0           | 0           | 255          | 0      | 255           |
| (Percent)                                | 0.00%           | 0.00%      | 0.00%       | 0.00%       | 0.00%       | 0.00%        | 0.00%  | 0.30%         |
| Mixed Pine/<br>Hardwood                  | 721             | 886        | 933         | 717         | 1,563       | 7,568        | 22     | 12,410        |
| (Percent)                                | 0.85%           | 1.05%      | 1.10%       | 0.85%       | 1.85%       | 8.94%        | 0.03%  | 14.65%        |
| Mixed<br>Hardwoods                       | 439             | 296        | 237         | 101         | 200         | 9188         | 12     | 10,471        |
| (Percent)                                | 0.52%           | 0.35%      | 0.28%       | 0.12%       | 0.24%       | 10.85%       | 0.01%  | 12.36%        |
| Bottomland<br>Hardwoods/<br>Bald Cypress | 0               | 0          | 0           | 0           | 20          | 3,855        | 0      | 3,875         |
| (Percent)                                | 0.00%           | 0.00%      | 0.00%       | 0.00%       | 0.02%       | 4.55%        | 0.00%  | 4.57%         |
| Marsh/Field/<br>Power lines              | 3,946           | 0          | 0           | 0           | 0           | 0            | 0      | 3,946         |
| (Percent)                                | 4.66%           | 0.00%      | 0.00%       | 0.00%       | 0.00%       | 0.00%        | 0.00%  | 4.66%         |
| Total                                    | 6,295           | 10,741     | 22,186      | 13,462      | 9,095       | 22,483       | 441    | 84,702        |
| (Percent)                                | 7.43%           | 12.68%     | 26.19%      | 15.89%      | 10.74%      | 26.54%       | 0.52%  | 100.00%       |

#### **Unique Community Types**

Xeric sand dunes are found primarily in the lower Eastern Shore counties. They are located on very well drained sand ridges deposited by historical flood tides. These sand ridges support a variety of rare and threatened insect and plant species. The species in this community consist of shortleaf pine (Pinus echinata), Virginia pine (Pinus virginiana), and southern red oak (Quercus falcata), with an understory comprised of lowbush blueberry (Vaccinium pallidum) and various ericaceous plants. Xeric sand dunes have been identified and mapped as either an Ecologically Significant Area (ESA) or as a Globally Rare (G3) Community.

**Pond pine** (*Pinus serotina*) **forests** are typically found in swamps and other poorly drained areas. Pond pine can be found along with pitch and loblolly pine, and it can hybridize with those species. During periods of drought, these forests can be subject to intense fires. Natural regeneration of pond pine needs fire to open the serotinous cones and release the seeds.

**Delmarva bays and associated life zones** are isolated depressional wetlands that serve the needs of wetland breeding animals and support several species of rare plants. Delmarva bays can vary

in their ecological quality, primarily due to past management practices. The hydrology of many bays was altered for agriculture or to attempt to increase forest production. Therefore, many of these bays may require restoration to get the bay back to a more natural state. Delmarva bays and the associated life zone have their own ESA designations identified and mapped.

#### Riparian swamps

**Atlantic white cedar** (*Chamaecyparis thyoides*) swamps are nontidal forests that border on rivers or headwaters of streams.

**Bald cypress** (*Taxodium distichum*) swamps and forests can be tidal or nontidal. These forests are known for their pronounced microtopography of hollows and hummocks.

*Vernal pools and seasonal wetlands* are temporary wetlands present in late winter and spring that support amphibian reproduction. These can be found throughout the eastern shore region.

#### **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.
- Maryland Conservation Corps (MCC) Assists in painting boundary lines, installing gates and trash removal.
- 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 Chesapeake Bay Foundation Identifies sites for future water quality improvement projects and assists in the implementation by providing volunteers for reforestation.
- 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.
- 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 the type of public access to the property. New acquisitions
  will be converted from their previous ownership markings to the DNR yellow band
  markings.
- 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:**

- Develop, improve and post public parking areas for the 50,000 acres designated for public use and establish a parking area on the WR45 Foster Estate Complex. A map showing the location of the parking area on the Foster Estate is located on page 88.
- Host the annual Chesapeake Forest 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, Geocaching, etc.
- Submit and execute Recreational Trails Grants. Appendix B contains copies of the following grant applications for Calendar Year 2012-13:
  - o Algonquin Cross County Trail
  - o Mattaponi Soft Boat Launch
  - Wicomico Demonstration Forest Trail Marking
- Following the FY2013 variable retention harvest on P06 Tract 20 Stand 1, establish a trail to connect the existing trails on the Hudson tract to Blades Road and the Tarr tract. A map of this project is located in Appendix C.
- Coordinate with the Maryland Park Service and the State Highway Administration to connect Pocomoke River State Park lands with Pocomoke State Forest lands via a foot bridge across Corker's Creek. A full description and map of the project is located in Appendix D.
- Build a foot bridge across Corker's Creek to connect the trail systems of the Chandler and Colburne tracts. The bridge will use the existing abutments and the historic road. A map and description of the project showing the approximate location of the bridge and trail is located in Appendix E.

#### **Special Projects:**

- Maintain dual forest certification from the Forest Stewardship Council (FSC) and the Sustainable Forest Initiative (SFI).
- Conduct information and educational opportunities on the forest.
- Update and maintain forest information in a GIS database, which will result in a new updated forest wide field map.
- Continue the effort to inventory and protect historic sites (i.e. cemeteries, old home sites, Native American Indian sites) using GPS and GIS technology.
- Collect native genotype pond pine (*Pinus serotina*) and short-leaf pine (*Pinus echinata*) on the forest in an effort to aid future management objectives on the Pocomoke and Chesapeake Forests.
- Provide assistance to the State Tree Nursery with maintenance of Seed Orchards on the Pocomoke State Forest.

#### SILVICULTURAL ACTIVITY OVERVIEW

Tables 1 and 2 summarize the proposed silvicultural activities for the 2014 annual work plan on approximately 1,694 acres (1.99%) of the Regional State Forests.

**Table 2.** 2014 Chesapeake Forest Silvicultural Activity Overview.

| Activity                   | Acres |
|----------------------------|-------|
| Final Harvest              | 96.4  |
| First Commercial Thinning  | 451.3 |
| Second Commercial Thinning | 349.9 |
| Pre-Commercial Thinning    | 49.1  |
| Total                      | 946.7 |

**Table 3.** 2014 Pocomoke State Forest Silvicultural Activity Overview.

| Activity                   | Acres |
|----------------------------|-------|
| Final Harvest              | 31.2  |
| Variable Retention Harvest | 36.8  |
| Seed Tree Harvest          | 48.1  |
| First Commercial Thinning  | 585.6 |
| Pre-Commercial Thinning    | 45.4  |
| Total                      | 747.1 |

#### Definitions of proposed management activities that occur within this plan:

- **Reforestation** Reforestation reestablishes forest cover either naturally or artificially (hand planting), and may be 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.
- <u>Site Preparation/Regeneration</u> 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 overcrowded 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 15-25 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.
- <u>Selection Harvest</u> 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 (Schulz, 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 (Schulz, 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 Harvest (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, about 20% of the two forests 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) within the stand. In many cases, a reduced rate (well below the manufactures 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 shows each pass of the aircraft and are provided by the contractor to demonstrate precision application. Aerial applications are not allowed over High Conservation Value Forest (HCVF) areas, riparian buffers or wetland areas on the forest.
- <u>Prescribed Fire</u> Prescribed fires are set deliberately by MFS personnel, under proper weather conditions, to achieve a specific management objective. Prescribed fires are used to enhancing wildlife habitat, encouraging fire-dependent plant species, reducing 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 bodies 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 thinnings may occur in these areas to encourage a mixed hardwood-pine composition.

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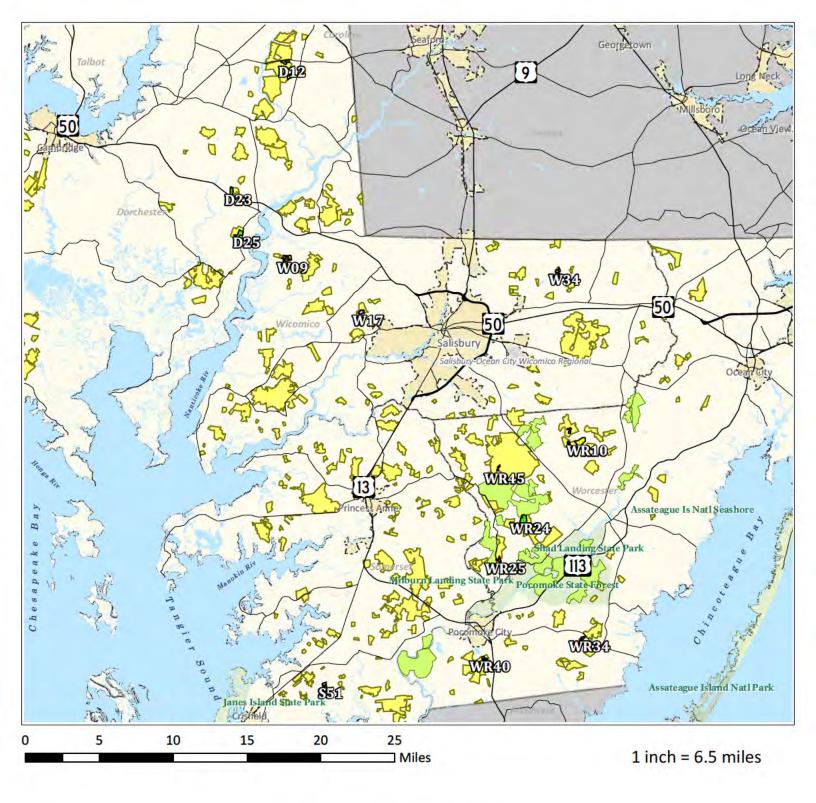
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Locations & Descriptions of Silvicultural Activities





# **Chesapeake Forest**

FY2014 Annual Work Plan Sites





#### Description of 2014 Activities - Dorchester County

#### <u>D12 – Marshy Hope Complex</u>

A second thinning is proposed for stand 2. The second thin area is 61.9 acres and is located in ESA Zone 3 Sawtimber and DFS Core management areas. This loblolly pine stand was planted in 1963, first thinned in 1995, sprayed and controlled for grass in 1996, and fertilized in 1997.

A first thinning is proposed for stand 17. The first thin area is 40.8 acres and is located in ESA Zone 1, ESA Zone 3 Sawtimber, Stream Buffer, and DFS Core management areas. This loblolly pine stand was planted in 1992.

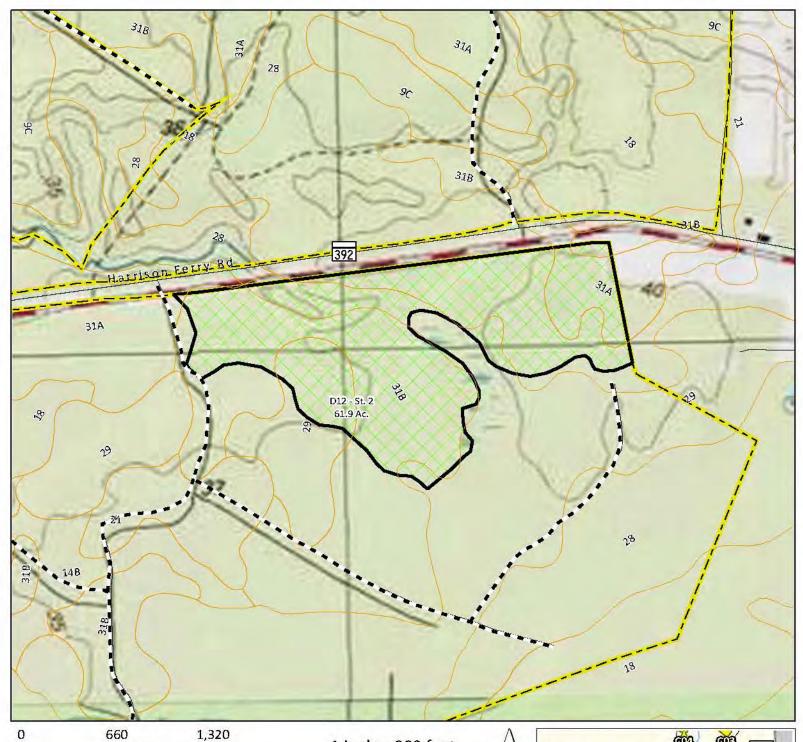
#### D23 – Bennett Complex

A second thinning is proposed for stand 2. The second thin area is 54.5 acres and is located in a DFS Core management area. This loblolly pine stand was naturally regenerated in 1983, sprayed and controlled for grass in 1983, and first thinned in 2002.

#### D25 – Hoernicke Oliphant Complex

A second thinning is proposed for stand 5. The second thin area is 99.9 acres and is located in an ESA Zone 3 Sawtimber, FIDS, and DFS Core management areas. This loblolly pine stand was planted in 1982, first thinned in 1998, and burned in 2007.

Soil series abbreviations shown on the following maps can be found in Appendix A of this work plan.



0 660 1,320 Feet

1 inch = 660 feet

# **Chesapeake Forest**

Dorchester County, MD D12 - Marshy Hope Complex FY2014 Annual Work Plan

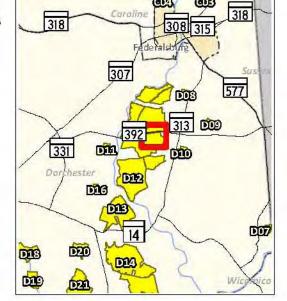
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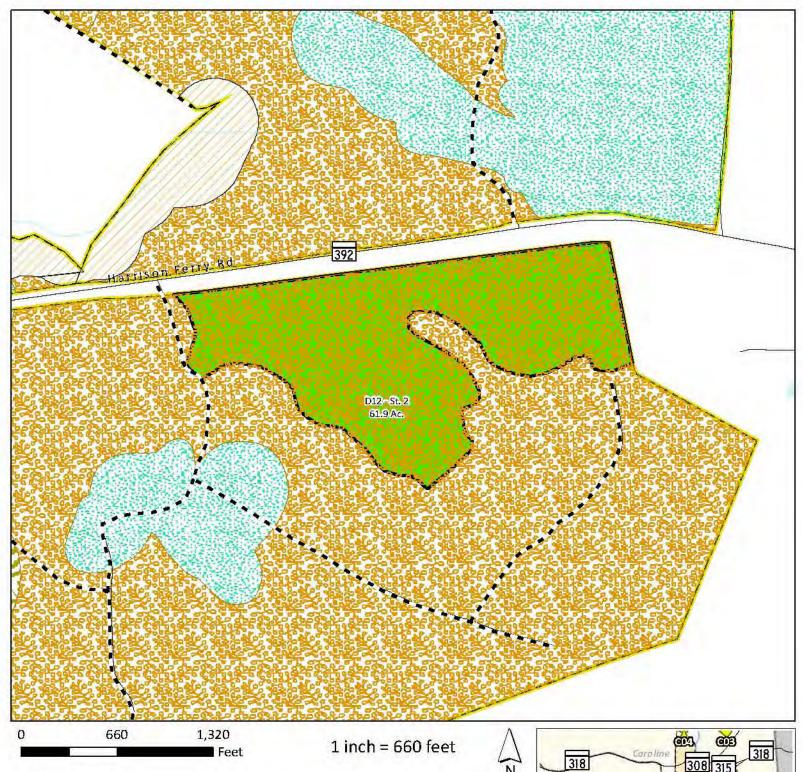
AWP Stands

Final Harvest
Pre-Commercial Thinning
First Thinning
Second Thinning











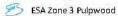
#### Management Zones

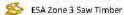














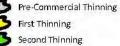




#### **AWP Stands**



Final Harvest



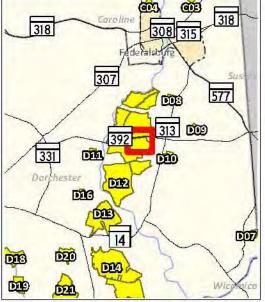
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Dorchester County, MD D12 - Marshy Hope Complex FY2014 Annual Work Plan

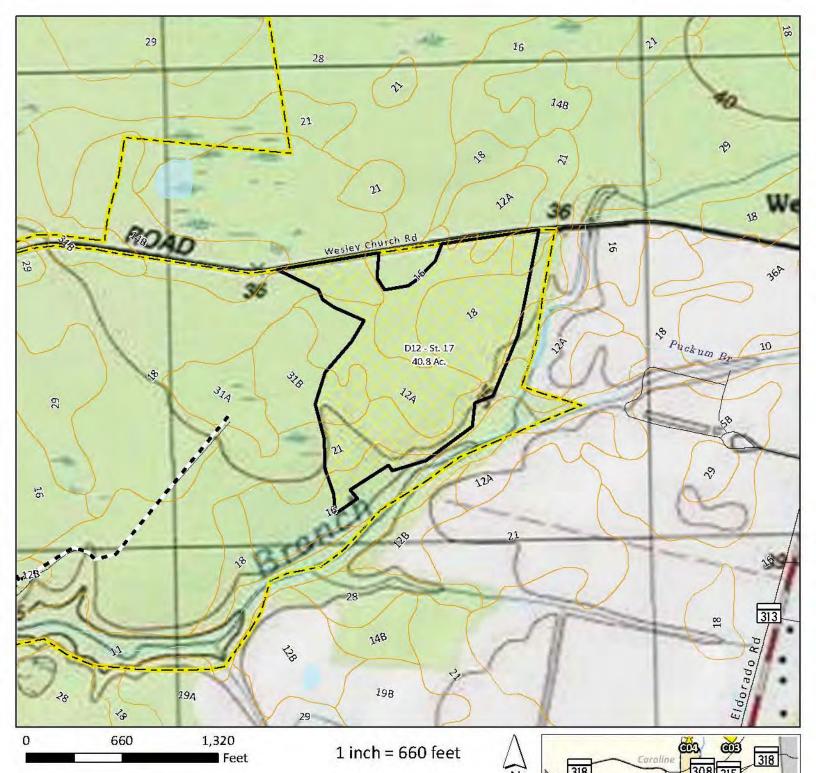
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Page 15 of 125



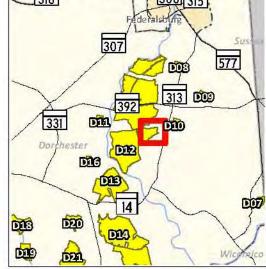
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Dorchester County, MD D12 - Marshy Hope Complex FY2014 Annual Work Plan

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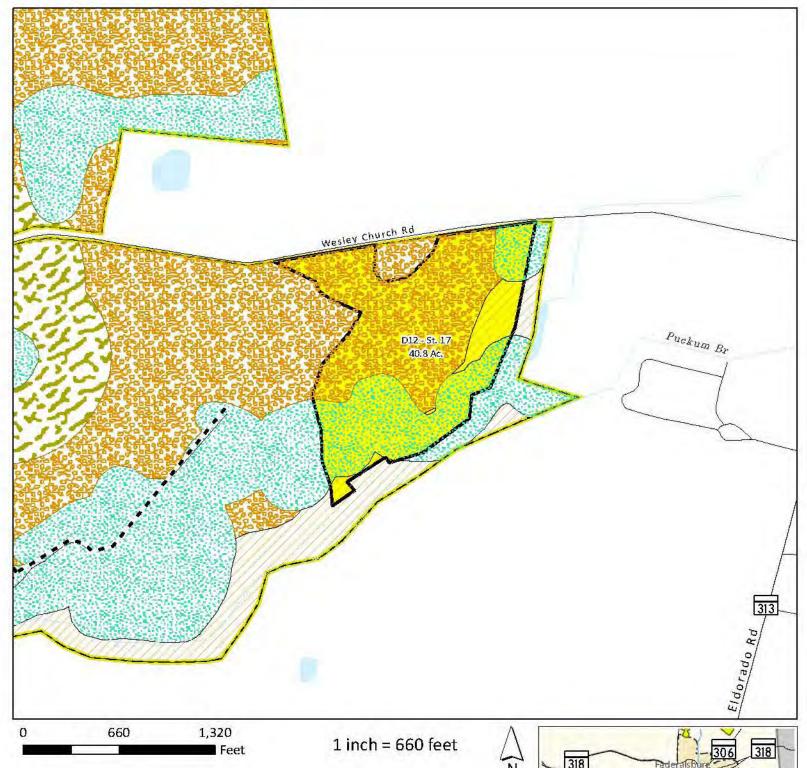


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**AWP Stands** 

Final Harvest
Pre-Commercial Thinning
First Thinning
Second Thinning

Page 16 of 125



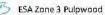
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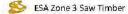
#### **Management Zones**

















#### **AWP Stands**



Pre-Commercial Thinning

First Thinning

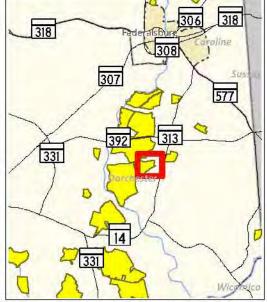
Second Thinning

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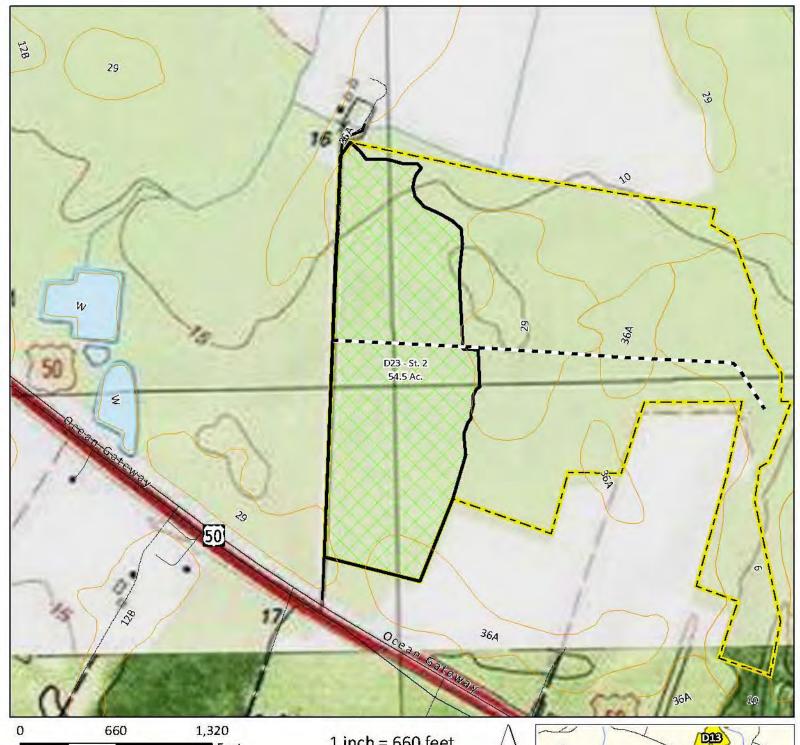
Dorchester County, MD D12 - Marshy Hope Complex FY2014 Annual Work Plan











1,320 660 Feet

1 inch = 660 feet

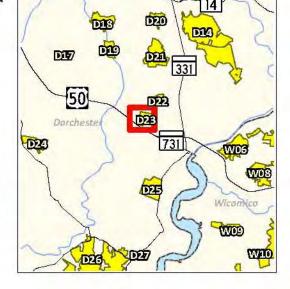
# **Chesapeake Forest**

Dorchester County, MD D23 - Bennett Complex FY2014 Annual Work Plan

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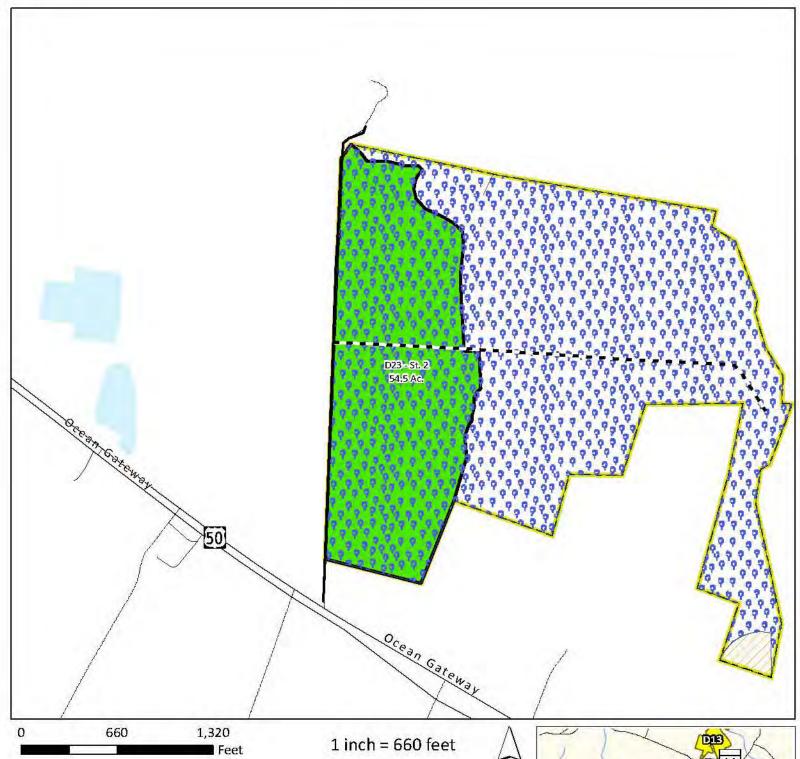
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**AWP Stands** 

Second Thinning

Final Harvest Pre-Commercial Thinning First Thinning

Page 18 of 125



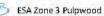
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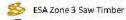
#### Management Zones











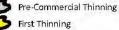




**AWP Stands** 



Final Harvest



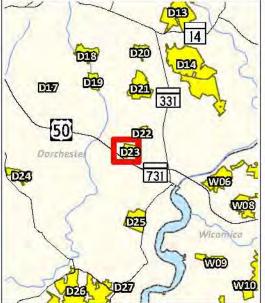
Second Thinning

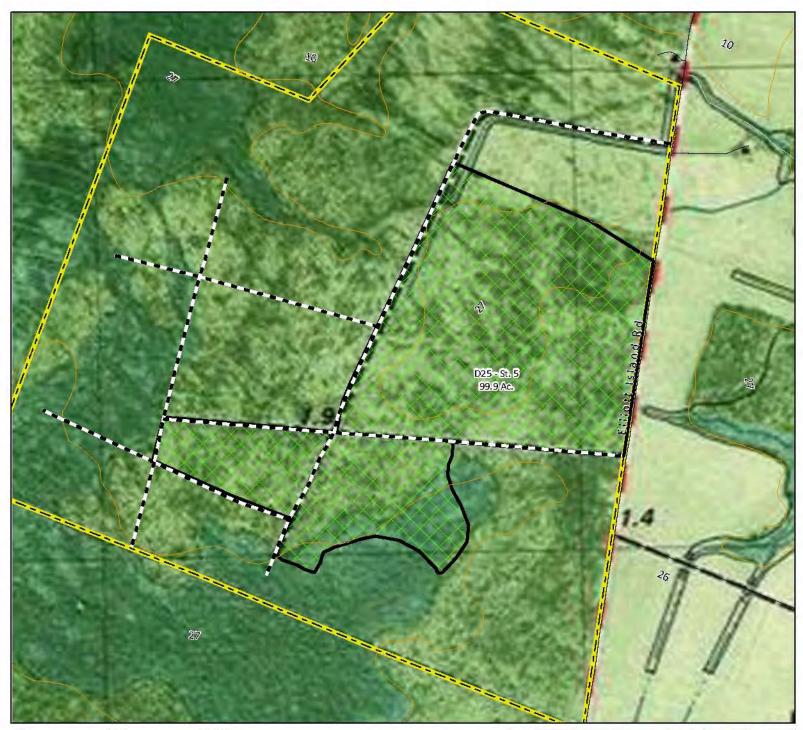
# **Chesapeake Forest**

Dorchester County, MD D23 - Bennett Complex FY2014 Annual Work Plan









0 660 1,320 Feet

1 inch = 660 feet

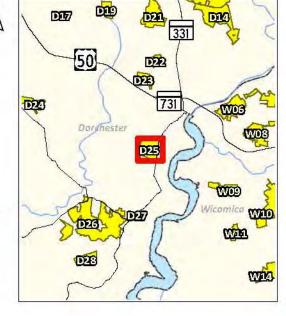
# **Chesapeake Forest**

Dorchester County, MD D25 - Hoernicke Oliphant Complex FY2014 Annual Work Plan

ASC-DNR Forest Service 3/2012







Legend

**AWP Stands** 

Final Harvest
Pre-Commercial Thinning
First Thinning
Second Thinning

Page 20 of 125



Legend

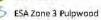
#### Management Zones

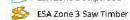


















#### **AWP Stands**



Final Harvest Pre-Commercial Thinning



# DEPARTMENT OF NATURAL RESOURCES

# **Chesapeake Forest**

Feet

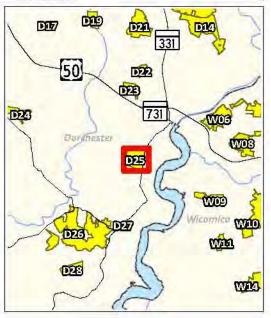
Dorchester County, MD D25 - Hoernicke Oliphant Complex FY2014 Annual Work Plan

1 inch = 660 feet

Page 21 of 125







#### Description of 2014 Activities - Wicomico County

#### W09 – Waller Taylor Complex

A first thinning is proposed for stand 3. The first thin area is 54.5 acres and is located within ESA Zone 1 and ESA Zone 3 Sawtimber management areas. This loblolly pine stand was planted in 1993.

A first thinning is proposed for stand 5. The first thin area is 38.5 acres and is located within ESA Zone 1 and ESA Zone 3 Sawtimber management areas. This loblolly pine stand was naturally regenerated in 1992, controlled for grass in 1993, and pre-commercially thinned in 2001.

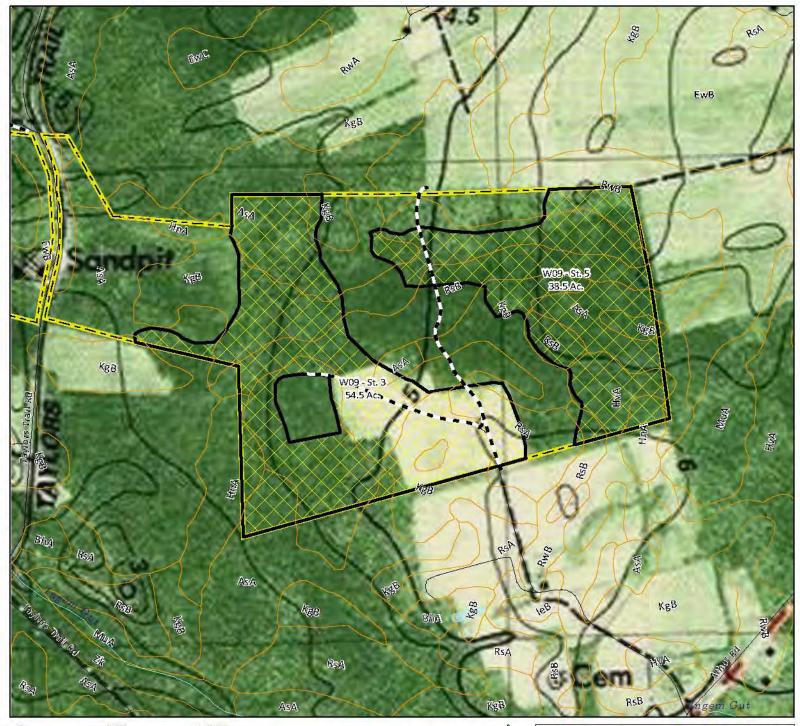
#### W17 – RF Richardson Complex

A pre-commercial thinning is proposed for stand 8. The pre-commercial thin area is 49.1 acres and is located in a General management area. This loblolly pine stand was regenerated naturally in 2006 and sprayed in 2008.

#### W34 – Herman-Hodson Complex

A first thinning is proposed for stand 1. The first thin area is 39.7 acres and is located within Stream Buffer and General management areas. This loblolly pine stand was planted in 1988, and sprayed and grass controlled in 1988.

Soil series abbreviations shown on the following maps can be found in Appendix A of this work plan.



0 660 1,320 Feet

1 inch = 660 feet

# **Chesapeake Forest**

Wicomico County, MD W09 - Waller Taylor Complex FY2014 Annual Work Plan

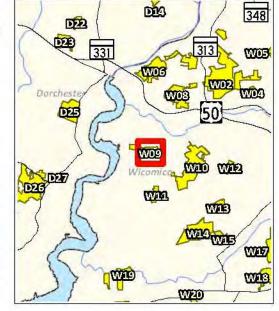
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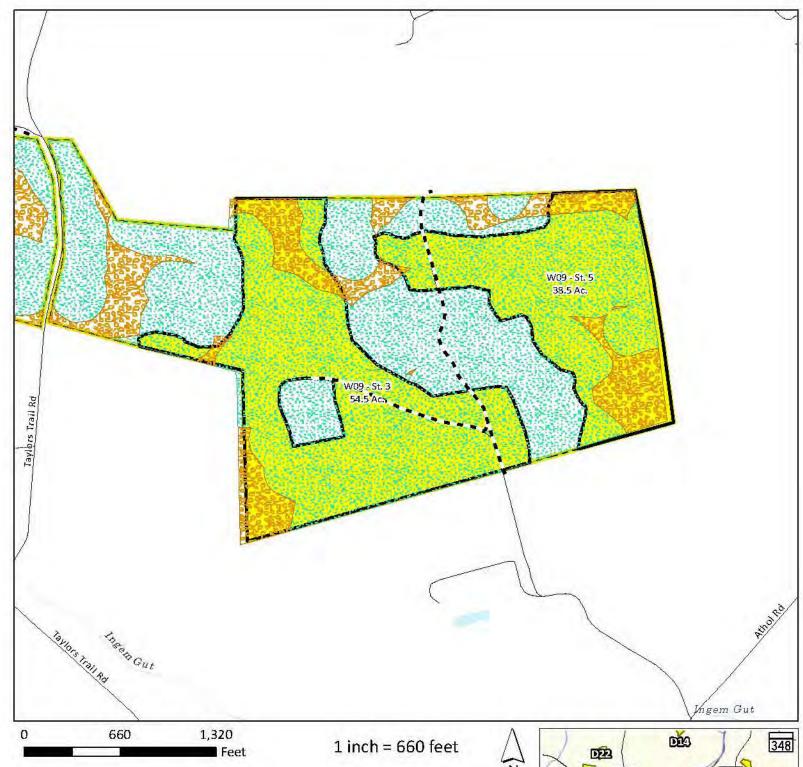
**AWP Stands** 

Final Harvest
Pre-Commercial Thinning
First Thinning
Second Thinning









Legend

#### Management Zones

595 DFS

ESA Zone 1

SA Zone 2

ESA Zone 3 Pulpwood

ESA Zone 3 Saw Timber



G3



#### **AWP Stands**



Final Harvest Pre-Commercial Thinning



**Chesapeake Forest** 

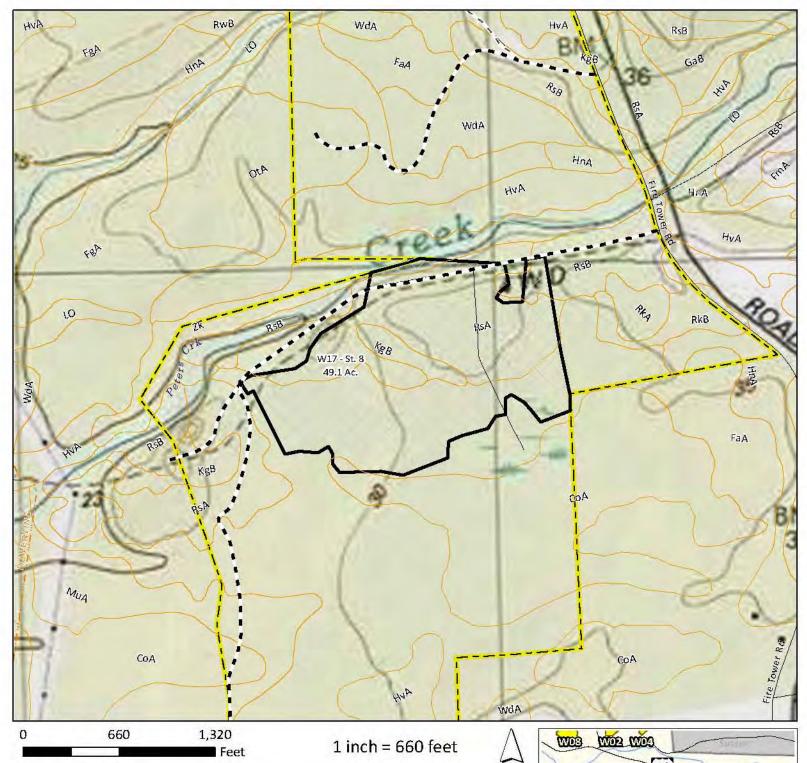
Wicomico County, MD W09 - Waller Taylor Complex FY2014 Annual Work Plan











# **Chesapeake Forest**

Wicomico County, MD W17 - R.F. Richardson Complex FY2014 Annual Work Plan

Legend

**AWP Stands** 

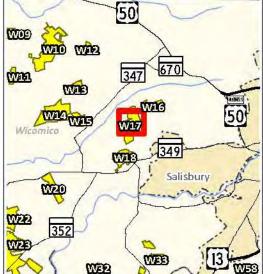
First Thinning Second Thinning

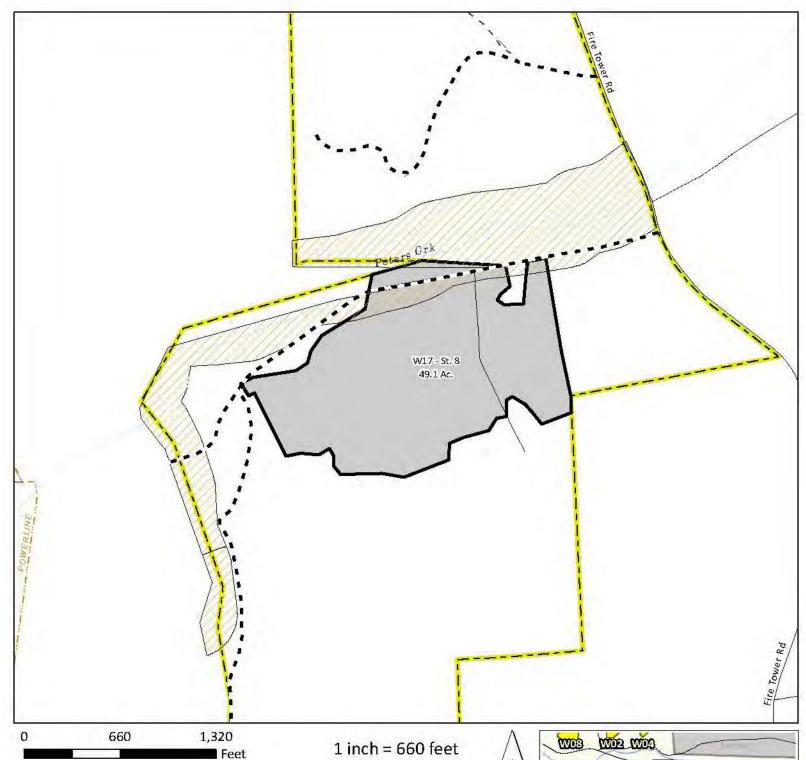
Final Harvest Pre-Commercial Thinning

DEPARTMENT OF NATURAL RESOURCES

ASC-DNR Forest Service 3/2012

MARYLAND





Legend

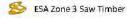
#### Management Zones







ESA Zone 3 Pulpwood









#### **AWP Stands**



Final Harvest



Pre-Commercial Thinning First Thinning Second Thinning

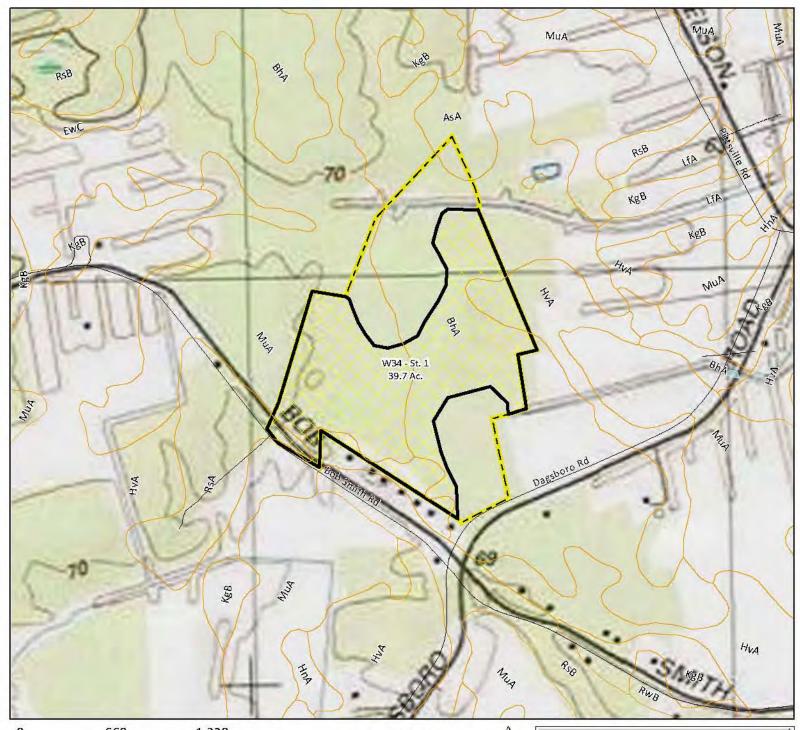
# **Chesapeake Forest**

Wicomico County, MD W17 - R.F. Richardson Complex FY2014 Annual Work Plan









0 660 1,320 Feet

1 inch = 660 feet

# **Chesapeake Forest**

Wicomico County, MD W34 - Herman-Hodson Complex FY2014 Annual Work Plan

Legend

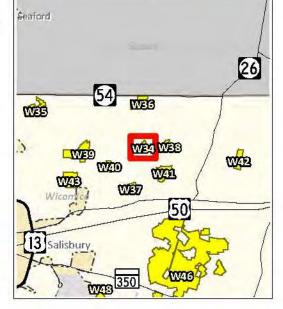
**AWP Stands** 

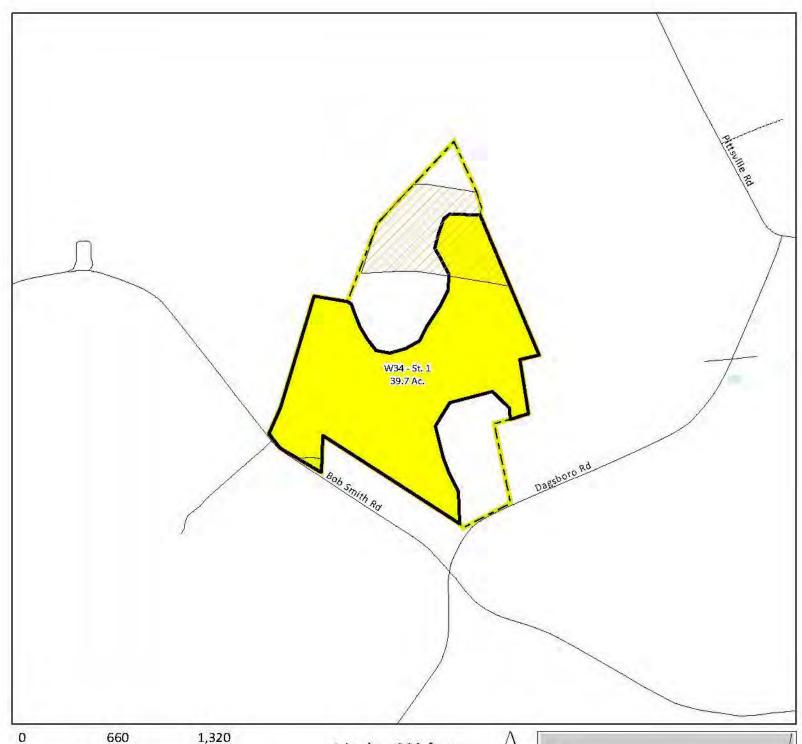
Second Thinning

Final Harvest Pre-Commercial Thinning First Thinning









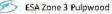
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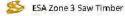
Management Zones

595 DFS















#### **AWP Stands**



First Thinning Second Thinning

# **Chesapeake Forest**

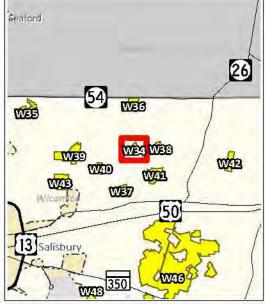
Feet

Wicomico County, MD W34 - Herman-Hodson Complex FY2014 Annual Work Plan

1 inch = 660 feet







#### Description of 2014 Activities - Worcester County

#### WR10 – Cordery Complex

A final harvest is proposed for stand 1. The final harvest area is 36.2 acres and is located in ESA Zone 1 and ESA Zone 3 Pulpwood management areas. This loblolly pine stand was planted in 1988. This site will be planted if adequate pine regeneration is not achieved.

A final harvest is proposed for stand 14. The final harvest area totals 24.9 acres and is located in ESA Zone 1 and ESA Zone 3 Pulpwood management areas. This loblolly pine stand was planted 1975 and first thinned in 1993. 11 acres on the west side of Mt Olive Church Rd was burned in 2007. This site will be planted if adequate pine regeneration is not achieved.

A first thinning is proposed for Stand 20. This first thin area is 154.5 acres and is in ESA Zone 1 and ESA Zone 3 Pulpwood management areas. This loblolly pine stand was planted in 1991 and sprayed and grass controlled in 1992. This stand will not be harvested until a restoration plan is created by Wildlife and Heritage and approved via the Annual Work Plan process.

#### WR24 – Johnson & Johnson Complex

A second thinning is proposed for stand 3. The second thin area is 133.6 acres and is located in ESA Zone 1, Stream Buffer, and DFS Future Core management areas. This loblolly pine stand was planted in 1966, first thinned in 1993, sprayed and grass controlled in 1995, fertilized in 1996, and burned in 2007.

#### WR25 – Creek Complex

A final harvest is proposed for stand 11. The final harvest area is 35.3 acres and is located in a DFS Future Core management area. This loblolly pine stand was planted in 1965, first thinned in 1994, sprayed and grass controlled in 1995, and fertilized in 1996. This stand will be regenerated naturally per the SFMP.

#### WR34 – Selby Complex

A first thinning is proposed for stand 18. The first thin area is 27.7 acre and is located in Stream Buffer and DFS Core management areas. This loblolly pine stand was planted in 1992.

#### WR40 – Dunn Swamp Complex

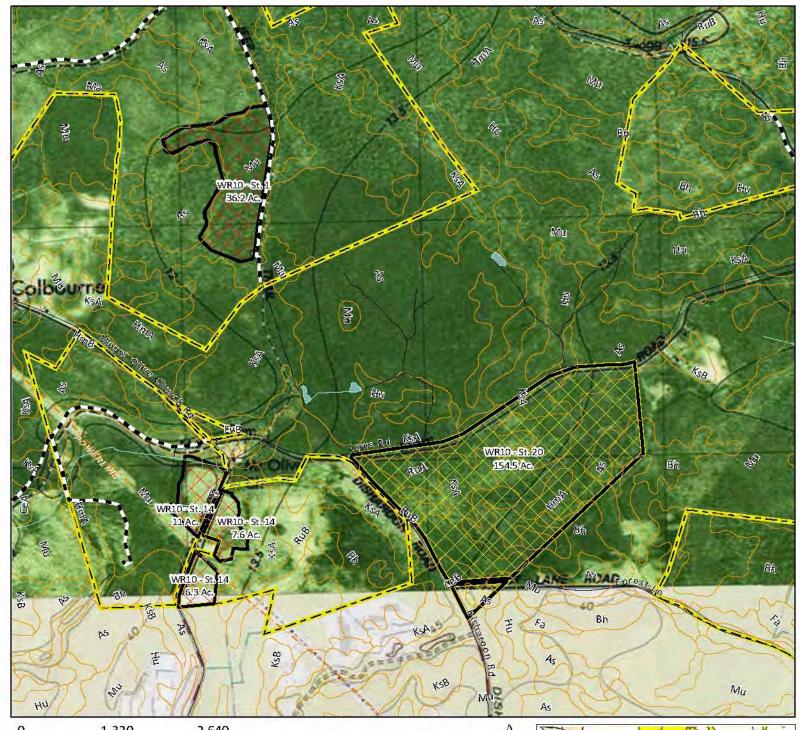
A first thinning is proposed for stand 25. The first thin area is 19.8 acres and is located in a General management area. This loblolly pine stand was planted in 1993.

A first thinning is proposed for stand 26. The first thin area in 22.4 acres and is located in Stream Buffer and General management areas. This loblolly pine stand naturally regenerated in 1990 and was sprayed and grass controlled in 1994.

#### WR45 – Foster Estate Complex

A first thinning is proposed for stand 64. The first thin area is 15.9 acres and is located in G3 Community, FIDS, and DFS Future Core management areas. This pine-hardwood stand naturally regenerated in 1977 and was burned in 1998.

Soil series abbreviations shown on the following maps can be found in Appendix A of this work plan.



0 1,320 2,640 Feet

1 inch = 1,320 feet

 $\langle z \rangle$ 

# **Chesapeake Forest**

Worcester County, MD WR10 - Cordery Complex FY2014 Annual Work Plan

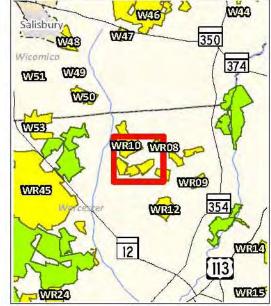
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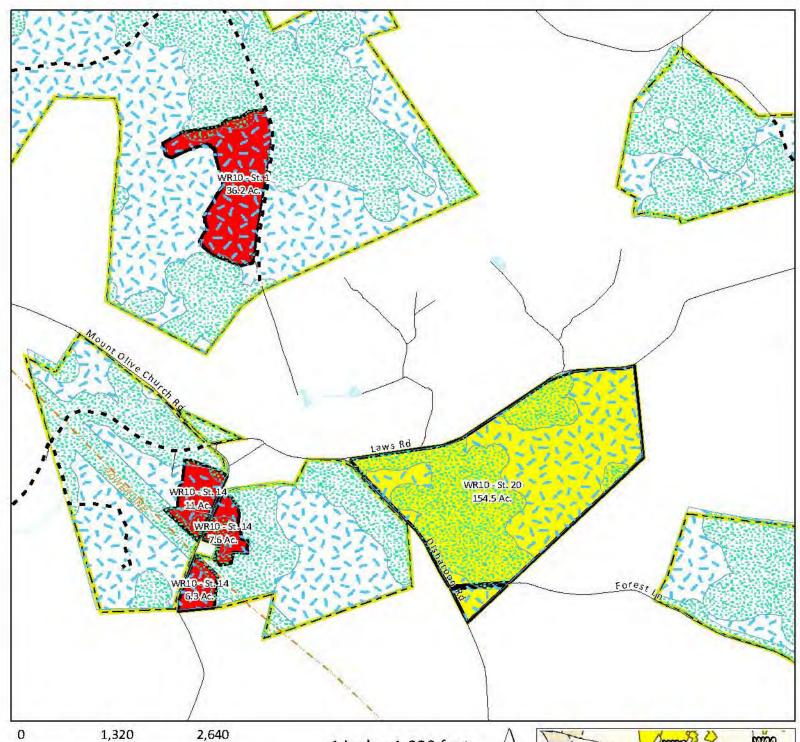
AWP Stands

Final Harvest
Pre-Commercial Thinning
First Thinning
Second Thinning









Legend

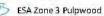
#### **Management Zones**

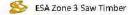
595 DFS

















#### **AWP Stands**



Final Harvest Pre-Commercial Thinning



**Chesapeake Forest** 

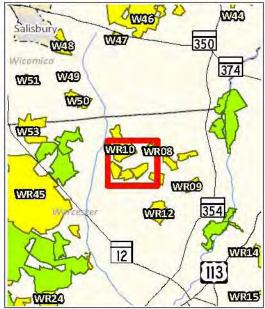
Feet

Worcester County, MD WR10 - Cordery Complex FY2014 Annual Work Plan

ASC-DNR Forest Service 3/2012

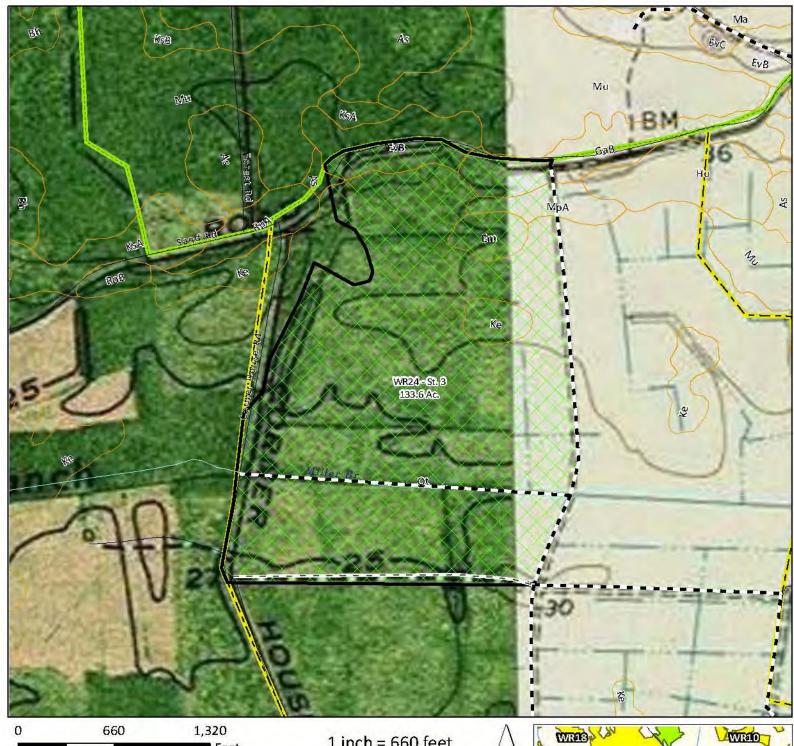






Page 32 of 125

1 inch = 1,320 feet



660 1,320 Feet

1 inch = 660 feet

## **Chesapeake Forest**

Worcester County, MD WR24 - Johnson & Johnson Complex FY2014 Annual Work Plan

ASC-DNR Forest Service 3/2012







WR20 WR45

WR21

GEO

WREE

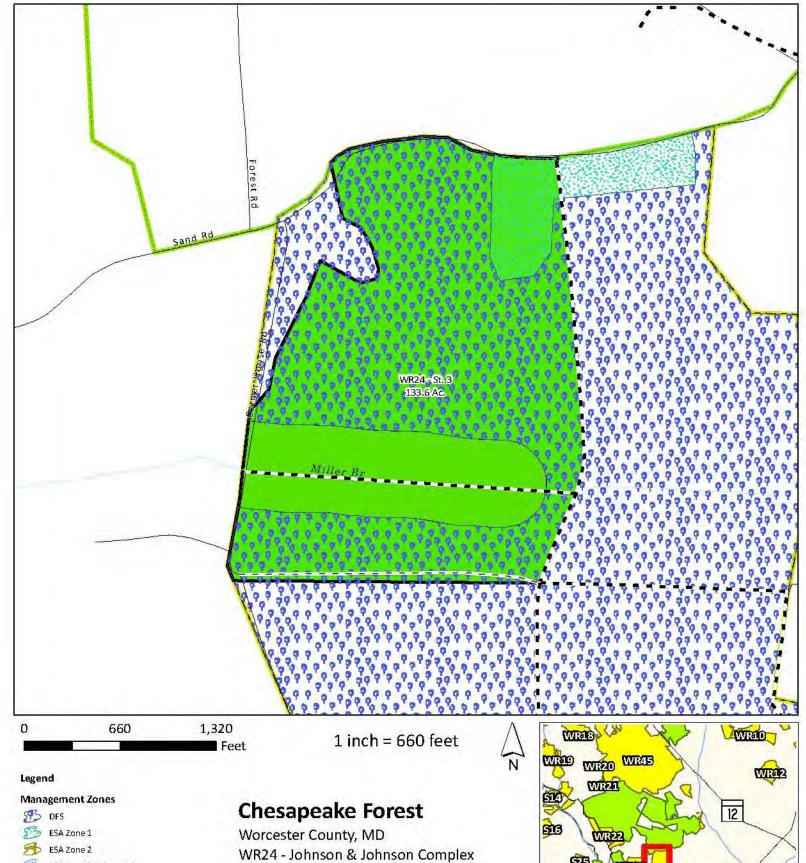
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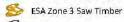
**AWP Stands** 

Final Harvest Pre-Commercial Thinning First Thinning Second Thinning

Page 33 of 125













#### **AWP Stands**



Pre-Commercial Thinning

First Thinning
Second Thinning

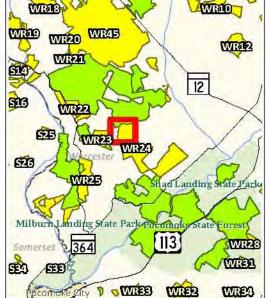
Stream buner



FY2014 Annual Work Plan

ASC-DNR Forest Service 3/2012

TOREST SERVICE



Page 34 of 125



660 1,320 Feet

1 inch = 660 feet

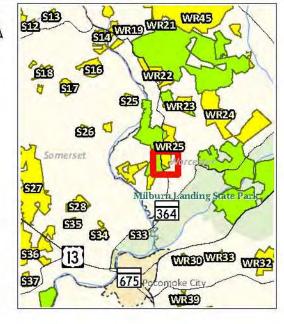
# **Chesapeake Forest**

Worcester County, MD WR25 - Creek Complex FY2014 Annual Work Plan

ASC-DNR Forest Service 3/2012







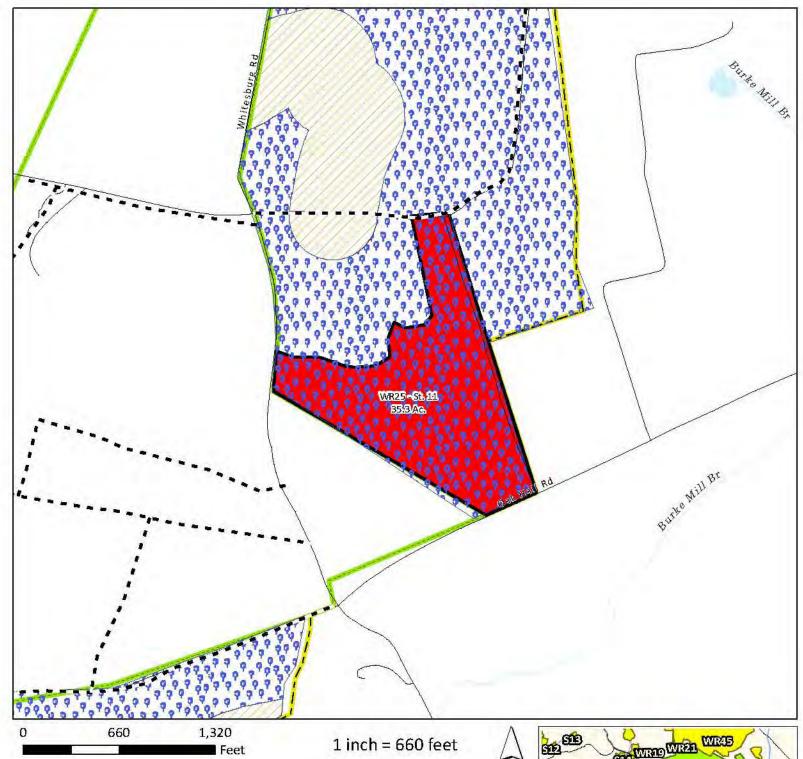
Legend

**AWP Stands** 

Final Harvest

Pre-Commercial Thinning First Thinning

Second Thinning Page 35 of 125



Legend

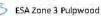
### Management Zones

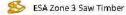




















Pre-Commercial Thinning

First Thinning

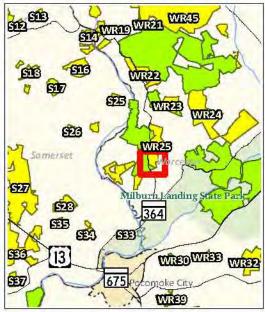
Second Thinning

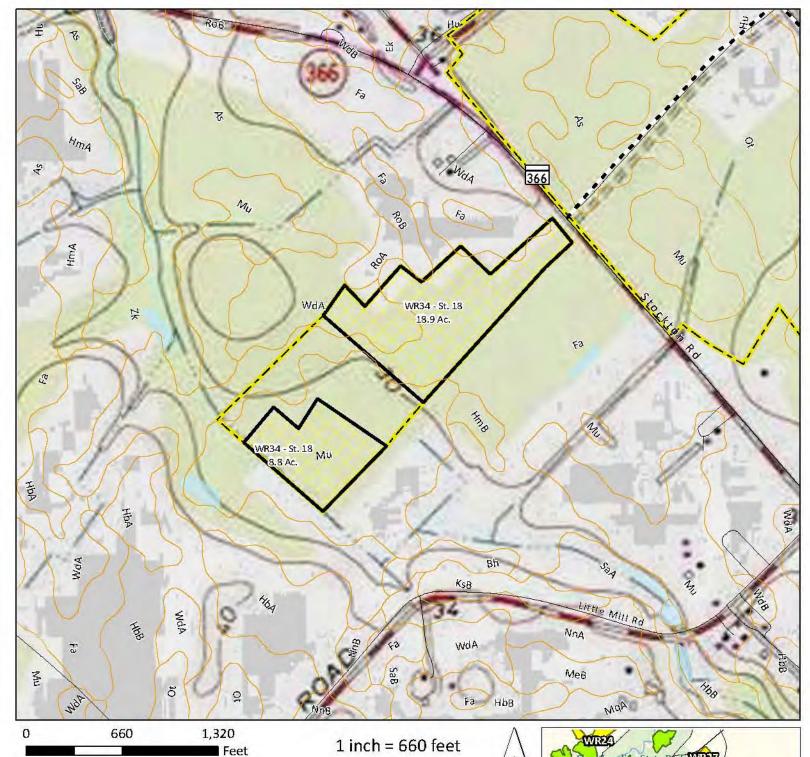
## **Chesapeake Forest**

Worcester County, MD WR25 - Creek Complex FY2014 Annual Work Plan









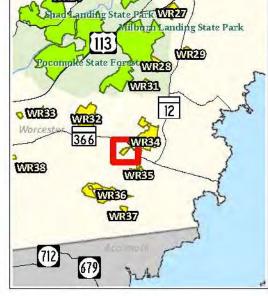
**Chesapeake Forest** 

Worcester County, MD WR34 - Selby Complex FY2014 Annual Work Plan

ASC-DNR Forest Service 3/2012







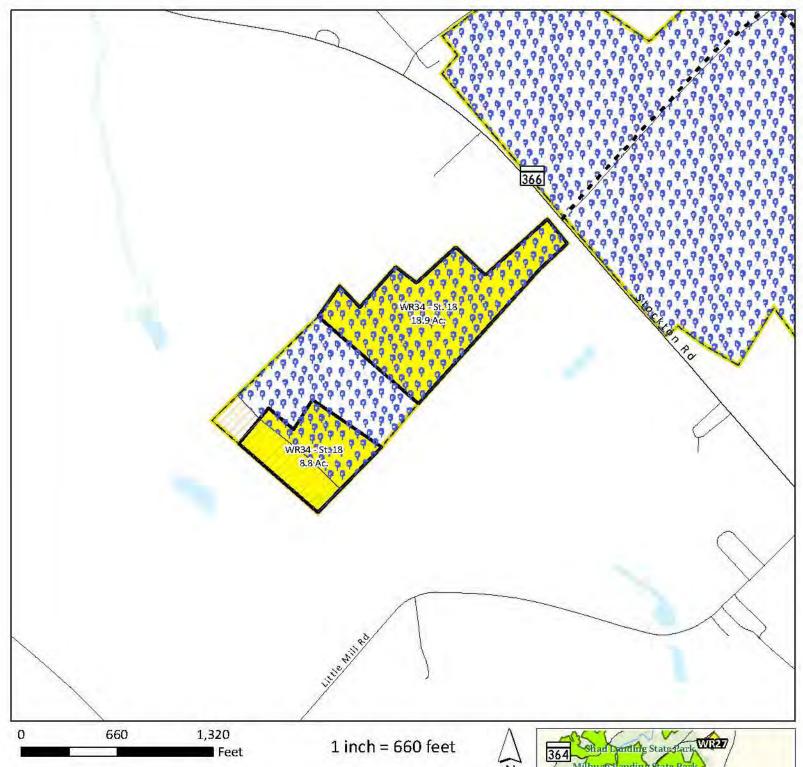
Legend

**AWP Stands** 

Final Harvest Second Thinning

Pre-Commercial Thinning First Thinning

Page 37 of 125



Legend

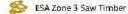
### Management Zones

575 DES

ESA Zone 1



ESA Zone 3 Pulpwood











Final Harvest Pre-Commercial Thinning

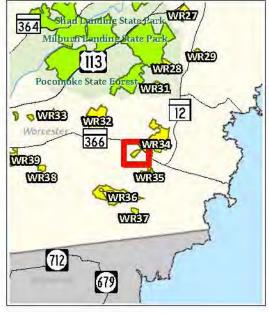
Second Thinning

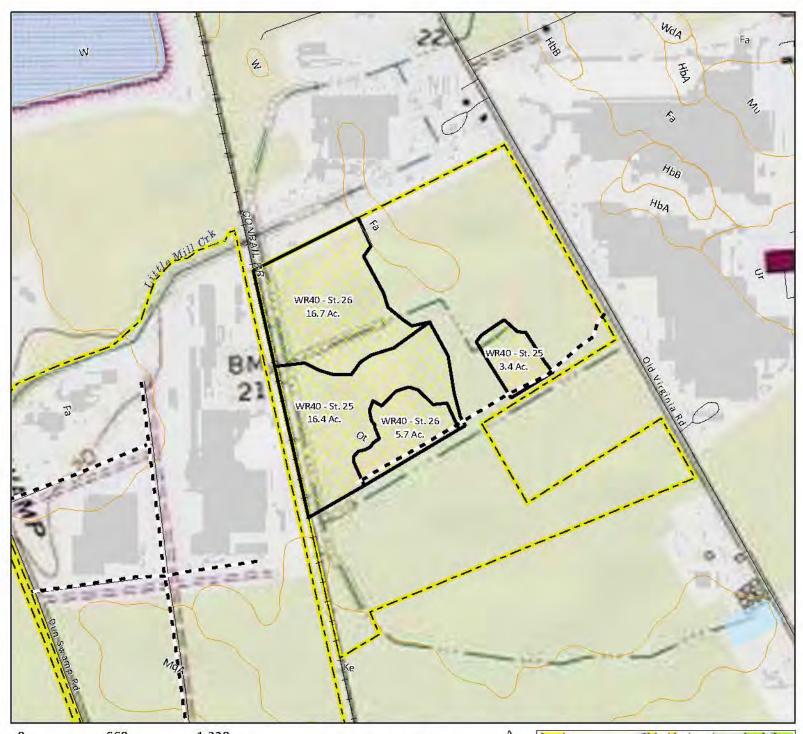
## **Chesapeake Forest**

Worcester County, MD WR34 - Selby Complex FY2014 Annual Work Plan









0 660 1,320 Feet

1 inch = 660 feet

# **Chesapeake Forest**

Worcester County, MD WR40 - Dunn Swamp Complex FY2014 Annual Work Plan

Legend

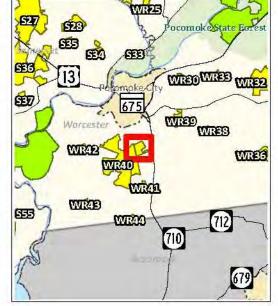
**AWP Stands** 

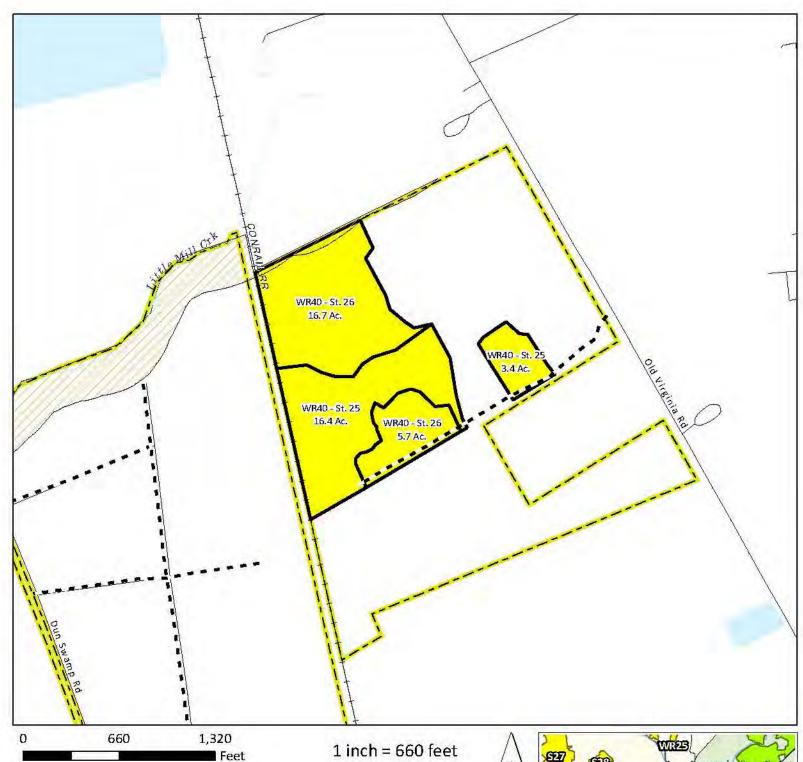
Second Thinning

Final Harvest Pre-Commercial Thinning First Thinning









Legend

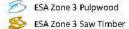
### Management Zones

















#### **AWP Stands**





Pre-Commercial Thinning First Thinning

# **Chesapeake Forest**

Worcester County, MD WR40 - Dunn Swamp Complex FY2014 Annual Work Plan









0 660 1,320 Feet

1 inch = 660 feet

## **Chesapeake Forest**

Worcester County, MD WR45 - Foster Estate Complex FY2014 Annual Work Plan

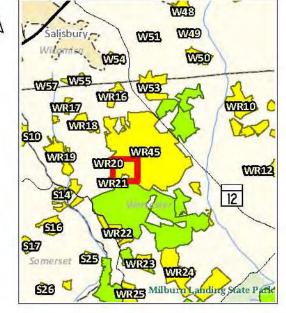
Legend

**AWP Stands** 

Final Harvest
Pre-Commercial Thinning
First Thinning
Second Thinning









### Legend

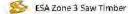
### Management Zones







ESA Zone 3 Pulpwood

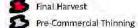








#### **AWP Stands**



Final Harvest

Second Thinning

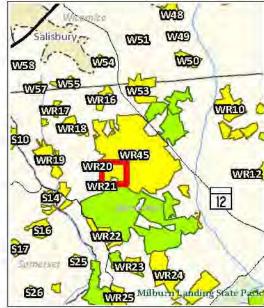


# **Chesapeake Forest**

Worcester County, MD WR45 - Foster Estate Complex FY2014 Annual Work Plan







### Description of 2014 Activities - Pocomoke State Forest

Note: All stands in Pocomoke State Forest fall under DFS Future Core management guidelines, so mast-producing species will be retained in all of the following harvests.

### <u>P01 – Sturges Creek</u>

#### Tract 2

A first thinning is proposed for stand 15. The first thin area totals 138.1 acres. As this is a recent acquisition, Heritage has not yet provided us with management layers. Until further guidance is given, we will consider this stand to be located in Stream Buffer and DFS Future Core management areas. This loblolly pine stand was planted in 1985.

### P02 - Nazareth Church

#### Tract 3

A first thinning is proposed for stand 3. The first thin area is 20.1 acres and is located in FIDS and DFS Future Core management areas. This loblolly pine stand was planted in 1992 and sprayed in 1991. The seed trees alongside the access road in the adjacent stand can be harvested when this site is thinned.

#### Tract 4

A first thinning is proposed for stand 4. The first thin area is 59.7 acres and is located in a DFS Future Core management area. This loblolly pine stand was planted and sprayed in 1969.

A pre-commercial thinning is proposed for stand 5. The pre-commercial thin is 19.1 acres and is located in a DFS Future Core management area. This pine-hardwood stand naturally regenerated in 2001.

A variable retention harvest is proposed for stand 19. The harvest area is 36.8 acres and is in a DFS Future Core management area. This loblolly pine stand naturally regenerated in 1917.

#### Tract 5

A first thinning is proposed for stand 3. The first thin area is 23.7 acres and is located in ESA Zone 1 and DFS Future Core management areas. This pine-hardwood stand was planted in 1994.

A first thinning is proposed for stand 17. The first thin area is 12.6 acres and is located in Stream Buffer and DFS Future Core management areas. This loblolly pine stand was planted in 1966, sprayed in 1968, and pre-commercially thinned in 1981.

### Tract 10

A first thinning is proposed for stand 5. The first thin area is 4.4 acres and is located in ESA Zone 1, G3 Community, and DFS Future Core management areas. This loblolly pine stand was site prepared and planted in 1965.

A first thinning is proposed for stand 9. The first thin area is 17 acres and is located in G3 Community and DFS Future Core management areas. This loblolly pine stand was planted in 1965.

A first thinning is proposed for stand 11. The first thin area is 26.1 acres and is located in ESA Zone 1, G3 Community, DFS Future Core management areas. This loblolly pine stand was site prepared and planted in 1965.

A first thinning is proposed for stand 12. The first thin area is 6.2 acres and is located in a DFS Future Core management area. This loblolly pine stand was site prepared and sprayed in 1964, and planted in 1965.

### P04 – Dividing Creek

### Tract 13

A final harvest is proposed for stand 7. The final harvest area is 31.2 acres and is located in ESA Zone 3 Sawtimber and DFS Future Core management areas. This pine-hardwood stand naturally regenerated in 1932. This stand will be regenerated naturally per the SFMP.

A first thinning is proposed for stand 19. The first thin area is 33.9 acres and is located in a DFS Future Core management area. This loblolly pine stand was planted in 1977.

### Tract 14

A first thinning is proposed for stand 3. The first thin area is 24.7 acres and is located in Stream Buffer and DFS Future Core management areas. This loblolly pine stand was burned in 1974, planted in 1975, and sprayed in 1976.

### P06 - Hudson and Tarr

#### Tract 19

A first thinning is proposed for stand 4. The first thin area is 2.9 acres and is located in FIDS and DFS Future Core management areas. This loblolly pine stand naturally regenerated in 1985.

A first thinning is proposed for stand 5. The first thin area is 1.6 acres and is located in a FIDS management area. This loblolly pine stand naturally regenerated in 1985.

A first thinning is proposed for stand 11. The first thin area is 12.2 acres and is located in FIDS and DFS Future Core areas. This loblolly pine stand naturally regenerated in 1967.

A first thinning is proposed for stand 23. The first thin area is 4.9 acres and is located in ESA Zone 1 and DFS Future Core management areas. This loblolly pine stand was planted in 1979.

A first thinning is proposed for stand 33. The first thin area is 7.5 acres and is located in FIDS and DFS Future Core management areas. This pine-hardwood stand naturally regenerated in 1975.

A first thinning is proposed for stand 34. The first thin area is 4.3 acres and is located in ESA Zone 1, FIDS, and DFS Future Core management areas. This loblolly pine stand naturally regenerated in 1975.

### Tract 20

A first thinning is proposed for Stand 5. The first thin area is 7.7 acres and is located in FIDS and DFS Future Core management areas. This loblolly pine stand naturally regenerated in 1969.

### P07 - Chandler

#### Tract 22

A seed tree harvest is proposed for stand 4. The harvest area is 3.7 acres and is located in G3 Community, and DFS Future Core management areas. This loblolly pine stand was burned and planted in 1965, and sprayed in 1968. The seed trees will be retained as a part of the new stand. The portion of this stand (0.7 acres) located in the Stream Buffer will be thinned.

A pre-commercial thinning is proposed for stand 6. The pre-commercial thin area is 26.3 acres and is located in a DFS Future Core management area. This pine-hardwood stand naturally regenerated in 1999.

A first thinning is proposed for stand 13. The first thin area is 79.1 acres and is located in G3 Community, Stream Buffer, DFS Future Core management areas. This pine-hardwood stand was planted in 1972.

A first thinning is proposed for stand 18. The first thin area is 16.5 acres and is located in G3 Community and DFS Future Core management areas. This loblolly pine stand naturally regenerated in 1974 and was pre-commercially thinned in 1982.

#### Tract 23

A first thinning is proposed for stand 1. The first thin area is 6.2 acres and is located in ESA Zone 1, Stream Buffer, and DFS Future Core management areas. This loblolly pine stand was planted in 1985.

A seed tree harvest is proposed for stand 5. The harvest area is 29.8 acres and is located in G3 Community, Stream Buffer, and DFS Future Core management areas. This loblolly pine stand was planted in 1962 and sprayed in 1964. On a reconnaissance visit to the site in January 2012, no water was present in the old field ditch that is shown as buffered. The seed trees will be retained as a part of the new stand.

A first thinning is proposed for stand 6. The first thin area is 13.6 acres and is located in a DFS Future Core management area. This pine-hardwood stand naturally regenerated and was sprayed in 1991.

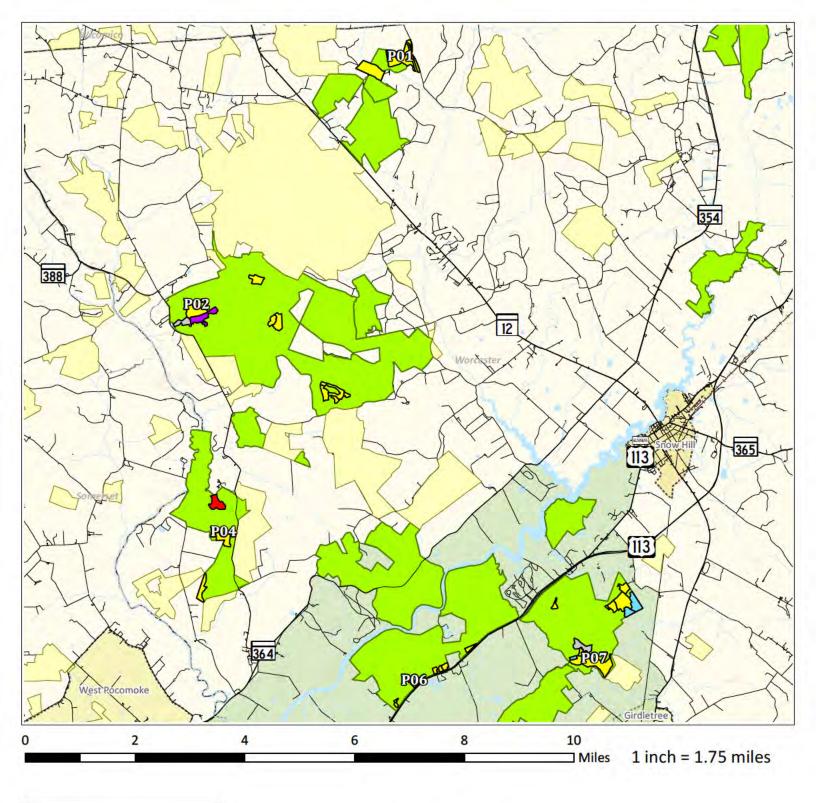
A first thinning is proposed for stand 11. The first thin area is 15.4 acres and is located in Stream Buffer and DFS Future Core management areas. This pine-hardwood stand naturally regenerated in 1994.

A first thinning is proposed for stand 15. The first thin area is 2 acres and is located in a DFS Future Core management area. This loblolly pine stand was planted in 1981 and precommercially thinned in 1992.

A seed tree harvest is proposed for stand 16. The harvest area is 13.9 acres and is located in a DFS Future Core management area. This pine-hardwood stand was site prepared and naturally regenerated in 1961 and planted in 1962. The seed trees will be retained as a part of the new stand.

A first thinning is proposed for stand 17. The harvest area is 45.2 acres and is located in G3 Community, Stream Buffer, and DFS Future Core management areas. This loblolly pine stand naturally regenerated in 1993 and was pre-commercially thinned in 2001.

Soil series abbreviations shown on the following maps can be found in Appendix A of this work plan.





### 2014 AWP Stands



**Final Harvest** 



Variable Retention Harvest



Seed Tree Harvest



**Pre-Commercial Thinning** 



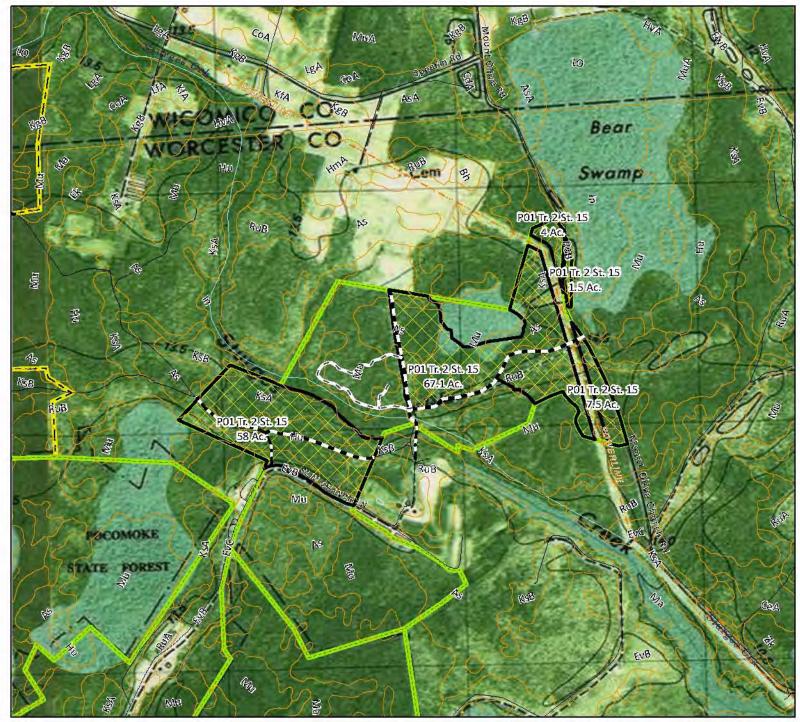
First Thinning

# **Pocomoke State Forest**

FY2014 Annual Work Plan Sites







0 1,320 2,640 Feet

1 inch = 1,320 feet



### **Pocomoke State Forest**

Worcester County, MD P01 - Sturges Creek - Tract 2 FY2014 Annual Work Plan

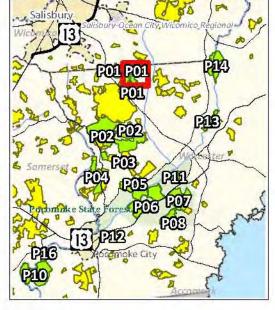
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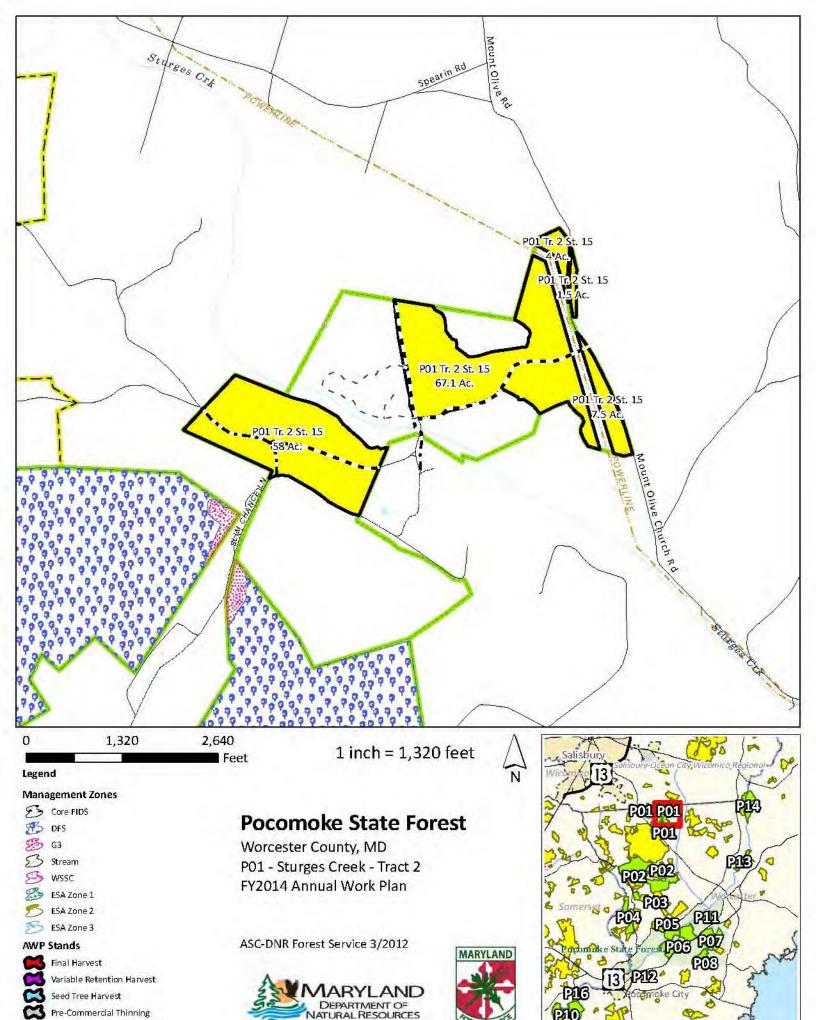
**AWP Stands** 

Final Harvest
Variable Retention Harvest
Seed Tree Harvest
Pre-Commercial Thinning
First Thinning









Page 49 of 125

First Thinning



0 660 1,320 Feet

1 inch = 660 feet

### **Pocomoke State Forest**

Worcester County, MD P02 - Nazareth Church - Tract 10 FY2014 Annual Work Plan

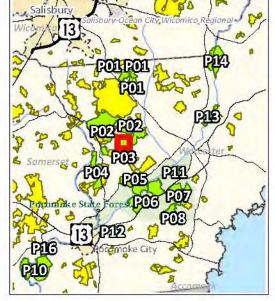
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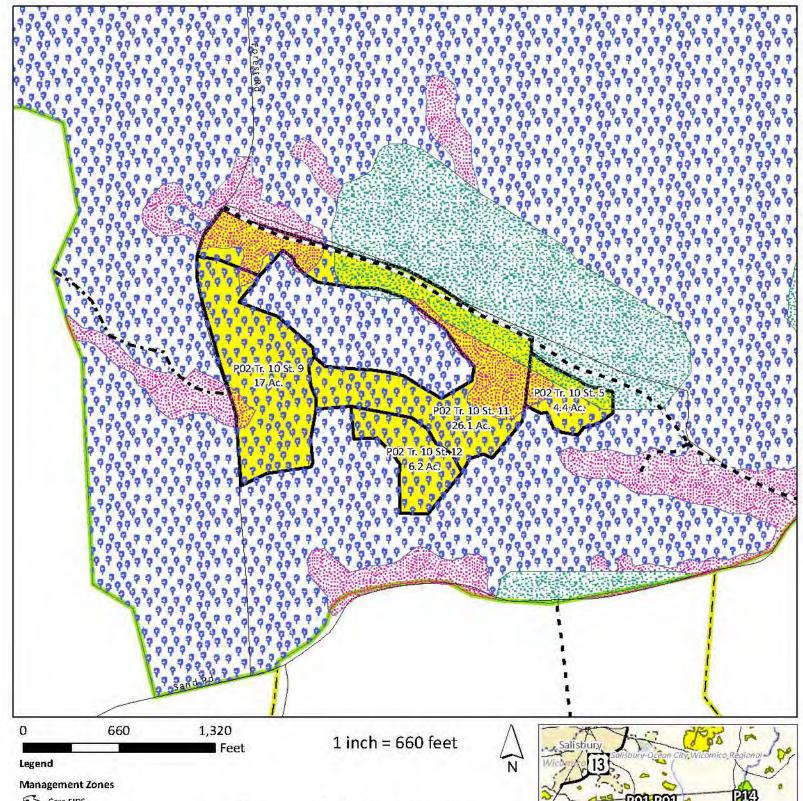
**AWP Stands** 

Final Harvest
Variable Retention Harvest
Seed Tree Harvest
Pre-Commercial Thinning
First Thinning









53 Core FIDS





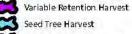


ESA Zone 1



ESA Zone 2 ESA Zone 3





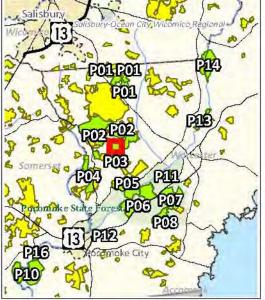
Pre-Commercial Thinning First Thinning

### **Pocomoke State Forest**

Worcester County, MD P02 - Nazareth Church - Tract 10 FY2014 Annual Work Plan









0 660 1,320 Feet

1 inch = 660 feet



### **Pocomoke State Forest**

Worcester County, MD P02 - Nazareth Church - Tract 3 FY2014 Annual Work Plan

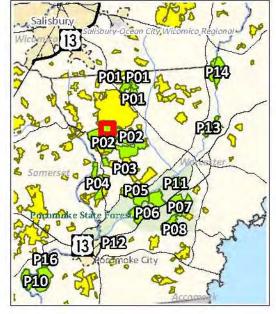
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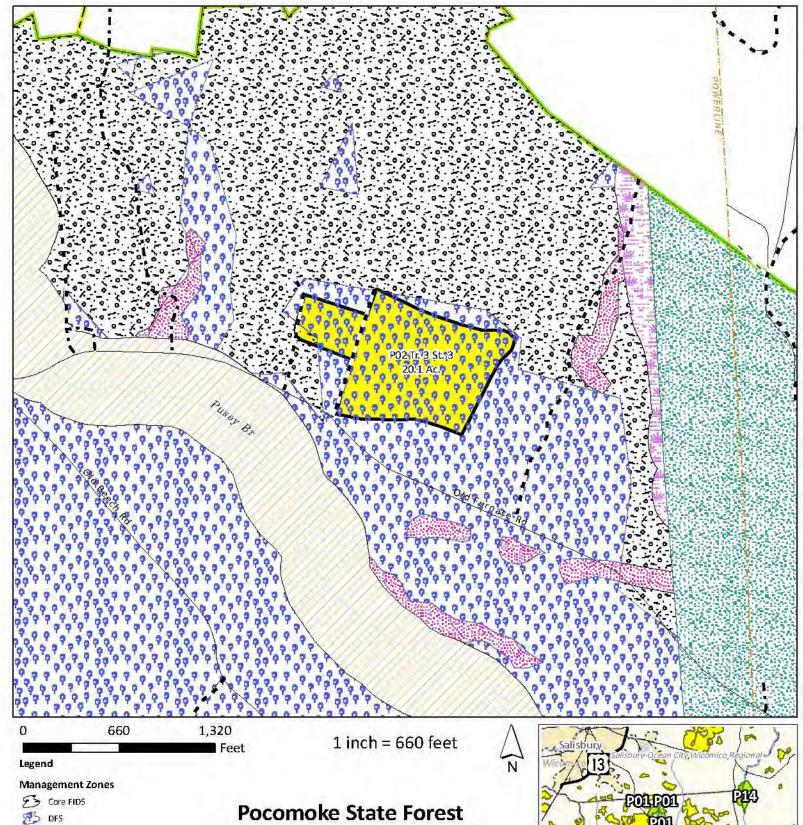
**AWP Stands** 

Final Harvest
Variable Retention Harvest
Seed Tree Harvest
Pre-Commercial Thinning
First Thinning











53 Stream



S ESA Zone 1



ESA Zone 2



SA Zone 3





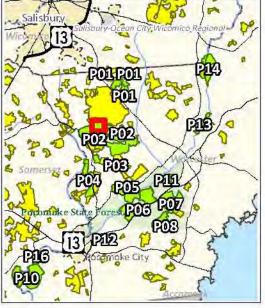


First Thinning

Worcester County, MD P02 - Nazareth Church - Tract 3 FY2014 Annual Work Plan









0 660 1,320 Feet

1 inch = 660 feet

## **Pocomoke State Forest**

Worcester County, MD P02 - Nazareth Church - Tract 4 FY2014 Annual Work Plan

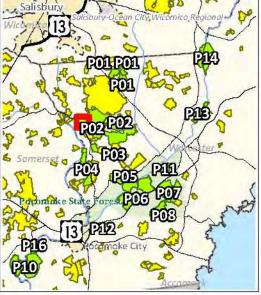
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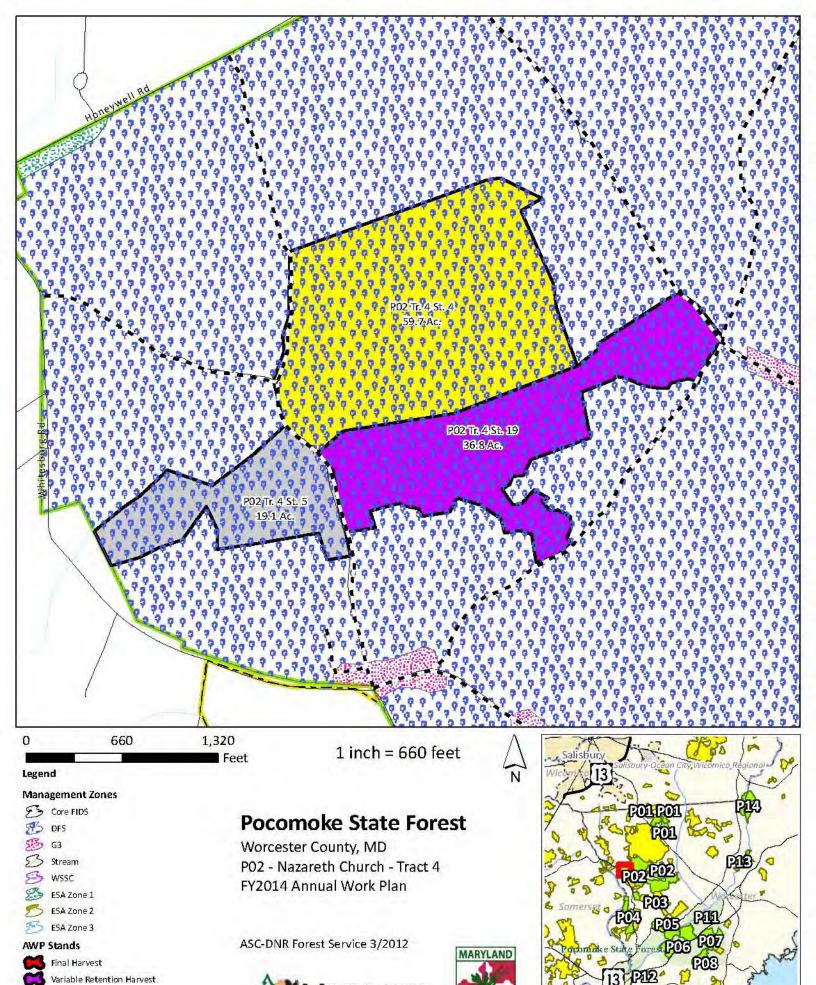
**AWP Stands** 

Final Harvest
Variable Retention Harvest
Seed Tree Harvest
Pre-Commercial Thinning
First Thinning









DEPARTMENT OF NATURAL RESOURCES Page 55 of 125

Pre-Commercial Thinning

First Thinning



## **Pocomoke State Forest**

Worcester County, MD P02 - Nazareth Church - Tract 5 FY2014 Annual Work Plan

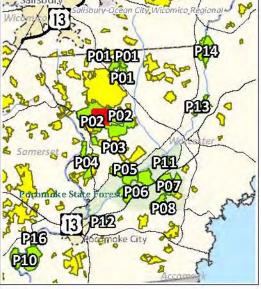
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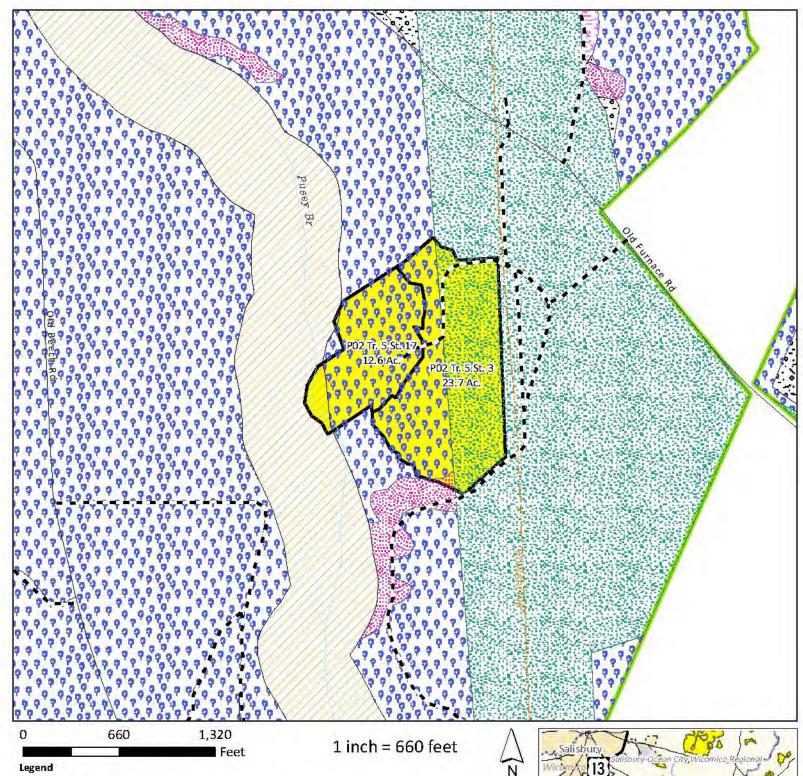
**AWP Stands** 

Final Harvest
Variable Retention Harvest
Seed Tree Harvest
Pre-Commercial Thinning
First Thinning









### **Management Zones**

53 Core FIDS

ESA Zone 1 ESA Zone 2

ESA Zone 3

### **AWP Stands**



First Thinning

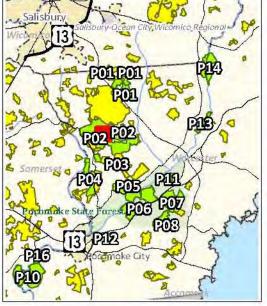
## **Pocomoke State Forest**

Worcester County, MD PO2 - Nazareth Church - Tract 5 FY2014 Annual Work Plan

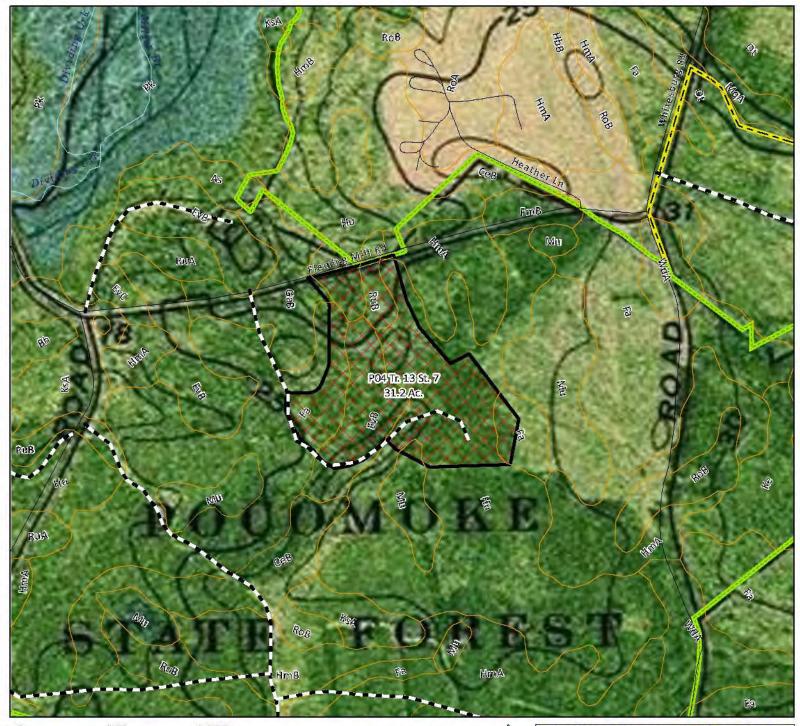
ASC-DNR Forest Service 3/2012







Page 57 of 125



0 660 1,320 Feet

1 inch = 660 feet

## **Pocomoke State Forest**

Worcester County, MD P04 - Dividing Creek - Tract 13 FY2014 Annual Work Plan

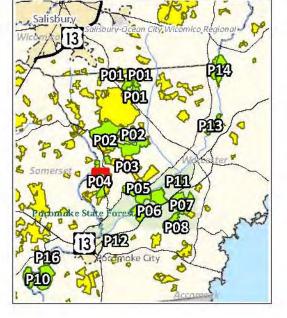
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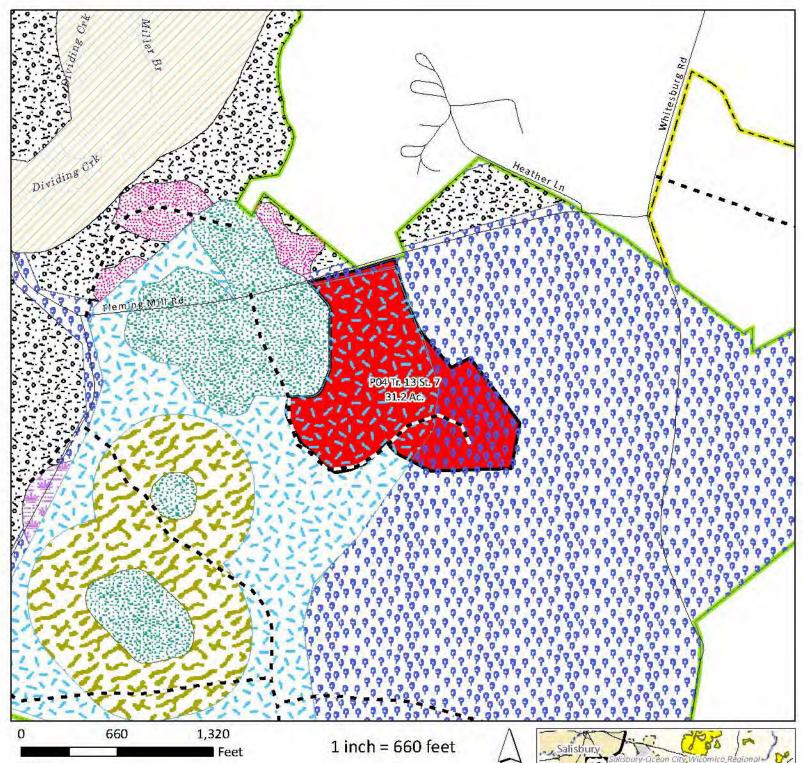
**AWP Stands** 

Final Harvest
Variable Retention Harvest
Seed Tree Harvest
Pre-Commercial Thinning
First Thinning











### Management Zones

53 Core FIDS



















Final Harvest

Variable Retention Harvest

Seed Tree Harvest

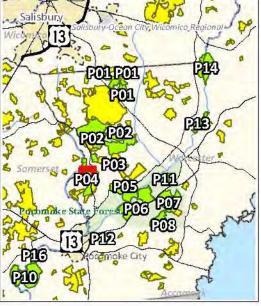
Pre-Commercial Thinning First Thinning

### **Pocomoke State Forest**

Worcester County, MD P04 - Dividing Creek - Tract 13 FY2014 Annual Work Plan









0 660 1,320 Feet

1 inch = 660 feet

 $\Delta$ 

### **Pocomoke State Forest**

Worcester County, MD P04 - Dividing Creek - Tract 13 FY2014 Annual Work Plan

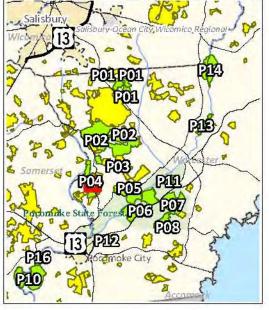
### Legend

**AWP Stands** 

Final Harvest
Variable Retention Harvest
Seed Tree Harvest
Pre-Commercial Thinning
First Thinning









### Management Zones

53 Core FIDS











### **AWP Stands**



Variable Retention Harvest Seed Tree Harvest

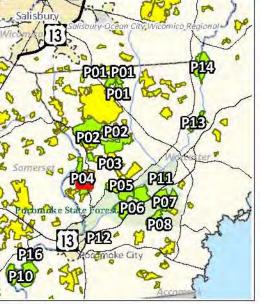
Pre-Commercial Thinning First Thinning

## **Pocomoke State Forest**

Worcester County, MD P04 - Dividing Creek - Tract 13 FY2014 Annual Work Plan









0 660 1,320 Feet

1 inch = 660 feet

## **Pocomoke State Forest**

Worcester County, MD P04 - Dividing Creek - Tract 14 FY2014 Annual Work Plan

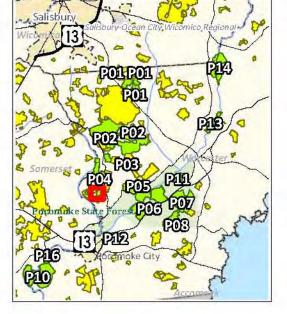
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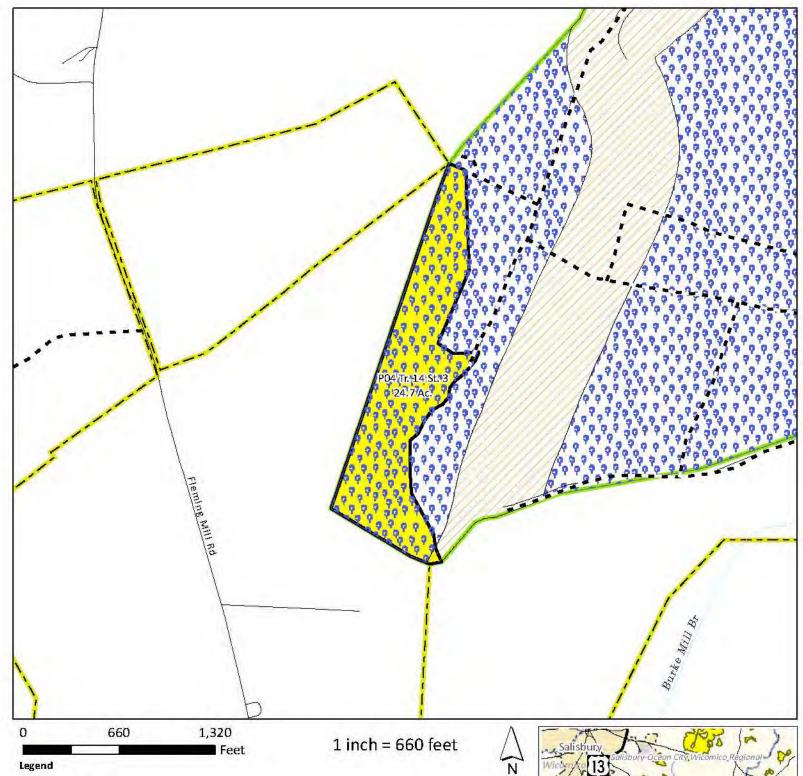
**AWP Stands** 

Final Harvest
Variable Retention Harvest
Seed Tree Harvest
Pre-Commercial Thinning
First Thinning









### **Management Zones**

Core FIDS DFS



9 63















Variable Retention Harvest

Seed Tree Harvest

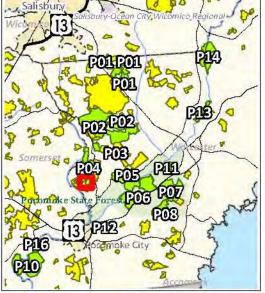
Pre-Commercial Thinning
First Thinning

## **Pocomoke State Forest**

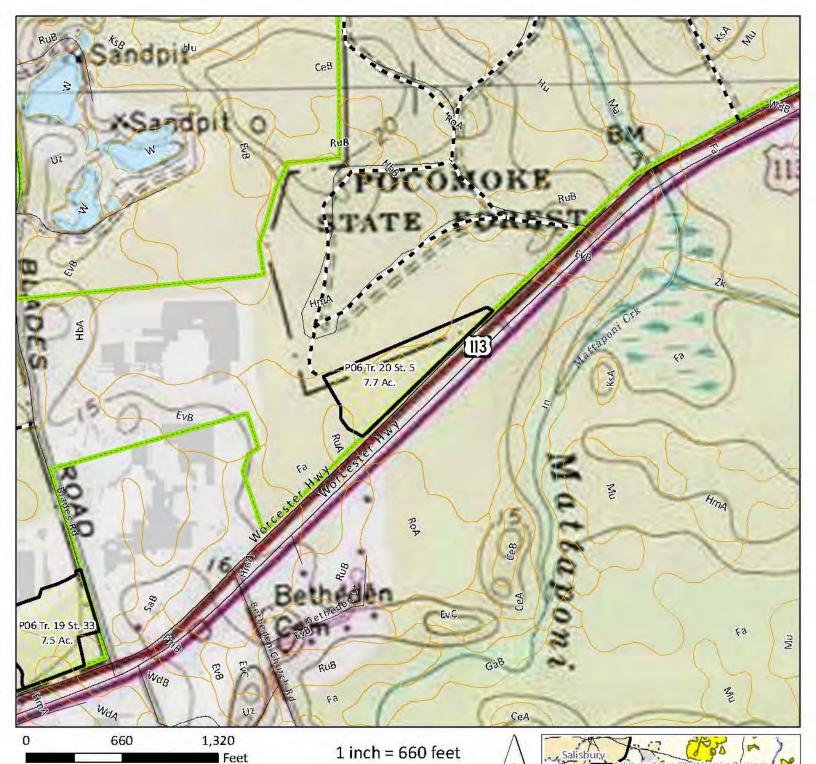
Worcester County, MD P04 - Dividing Creek - Tract 14 FY2014 Annual Work Plan











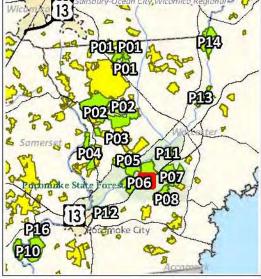
**Pocomoke State Forest** 

Worcester County, MD P06 - Hudson - Tract 20 FY2014 Annual Work Plan

ASC-DNR Forest Service 3/2012





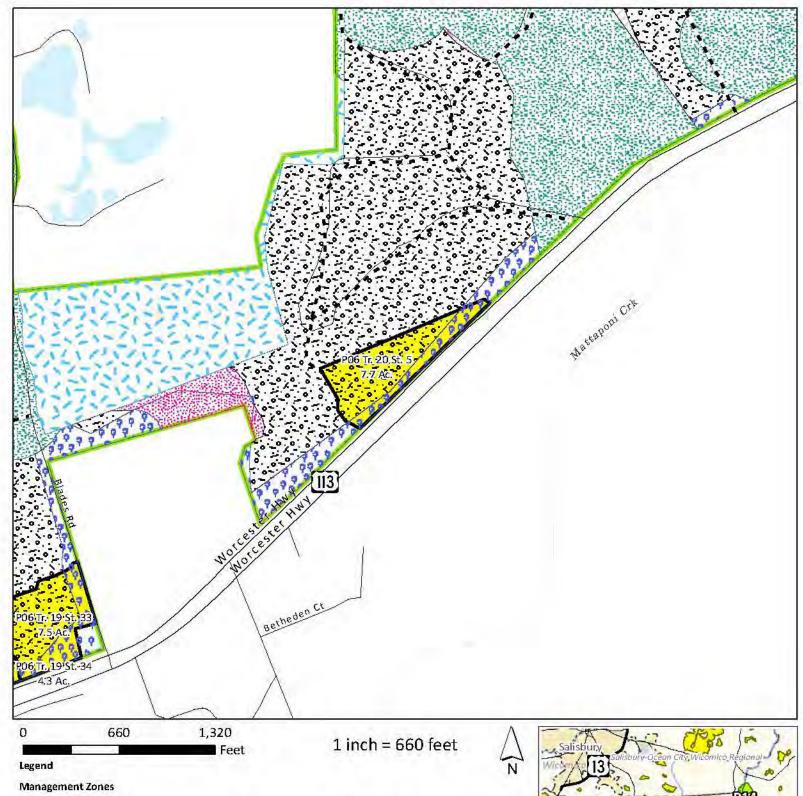


Legend

**AWP Stands** 

Final Harvest Variable Retention Harvest Seed Tree Harvest Pre-Commercial Thinning First Thinning

Page 64 of 125



5 Core FIDS 575 DFS

















Variable Retention Harvest

Seed Tree Harvest Pre-Commercial Thinning

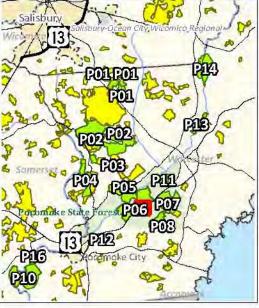
First Thinning

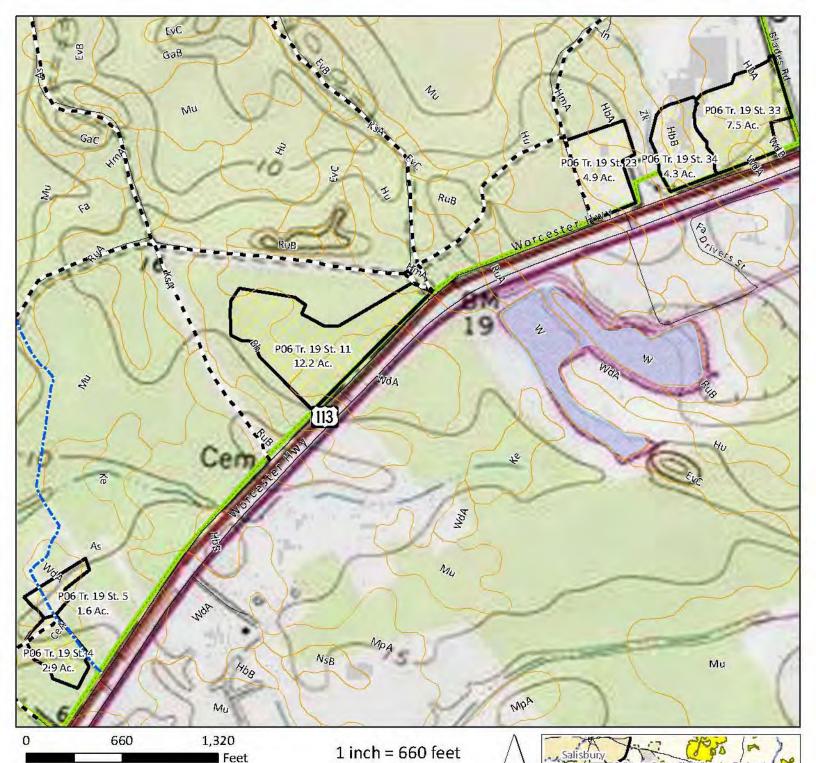
### **Pocomoke State Forest**

Worcester County, MD P06 - Hudson - Tract 20 FY2014 Annual Work Plan









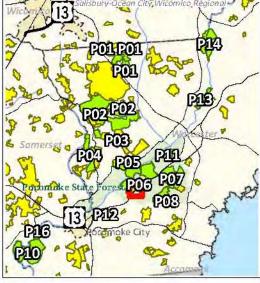
Pocomoke State Forest

Worcester County, MD P06 - Tarr - Tract 19 FY2014 Annual Work Plan

ASC-DNR Forest Service 3/2012





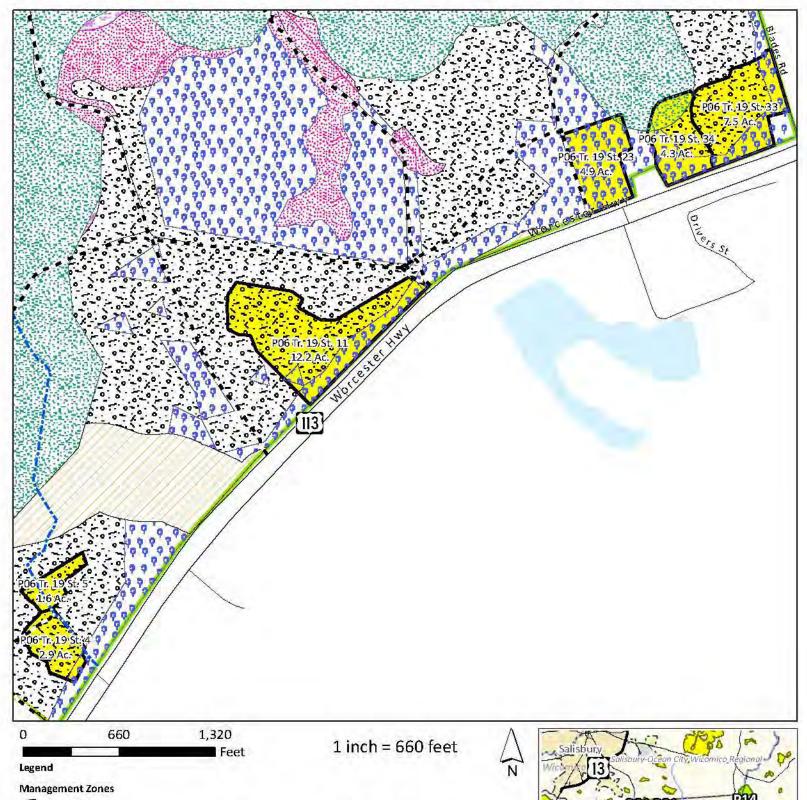


Legend

**AWP Stands** 

Final Harvest
Variable Retention Harvest
Seed Tree Harvest
Pre-Commercial Thinning
First Thinning

Page 66 of 125



53 Core FIDS



















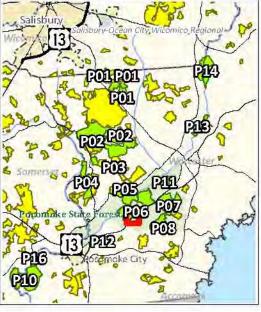
First Thinning

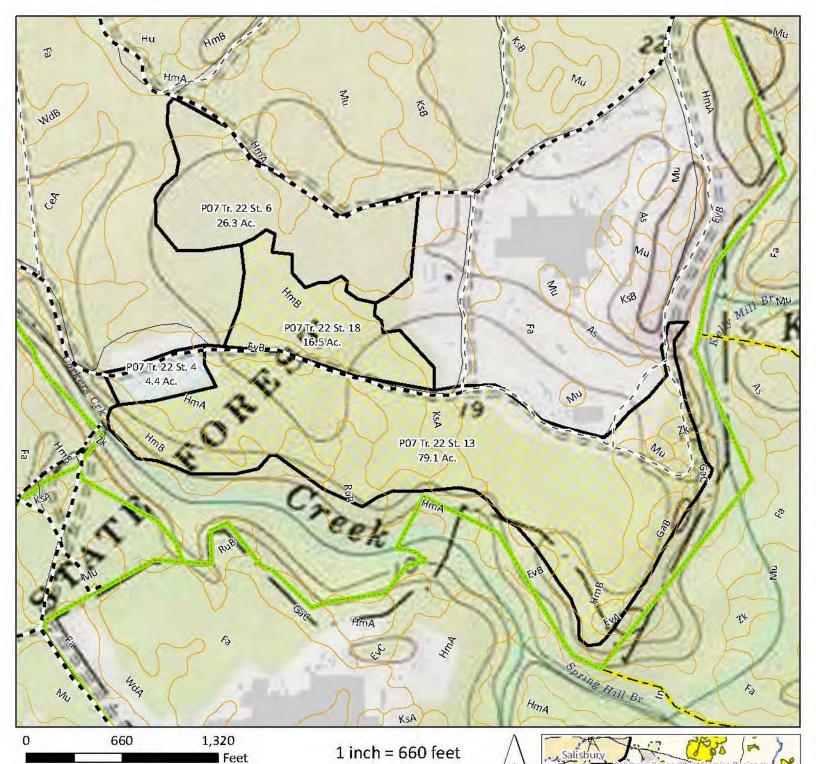
## **Pocomoke State Forest**

Worcester County, MD P06 - Tarr - Tract 19 FY2014 Annual Work Plan









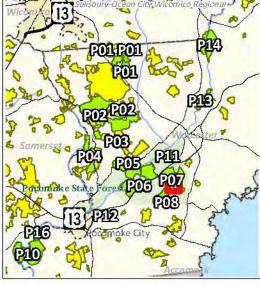
**Pocomoke State Forest** 

Worcester County, MD P07 - Chandler - Tract 22 FY2014 Annual Work Plan

ASC-DNR Forest Service 3/2012





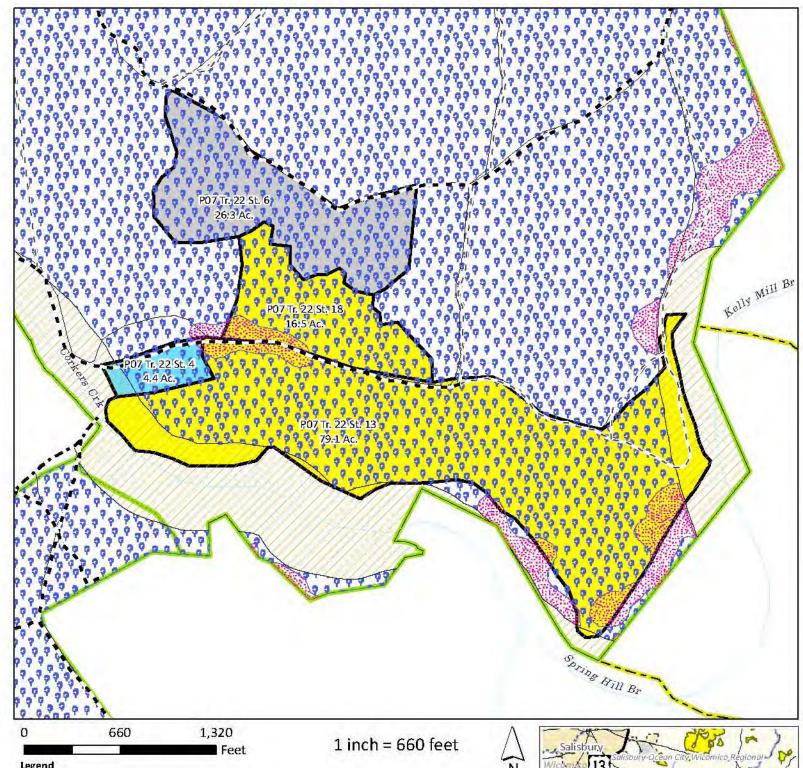


Legend

**AWP Stands** 

Final Harvest
Variable Retention Harvest
Seed Tree Harvest
Pre-Commercial Thinning
First Thinning

Page 68 of 125





53 Core FIDS

ESA Zone 1

ESA Zone 2

ESA Zone 3

### **AWP Stands**



Variable Retention Harvest

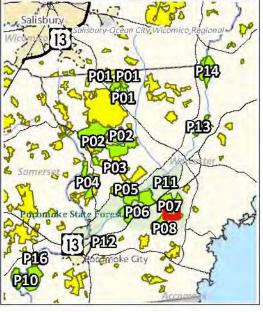
Pre-Commercial Thinning First Thinning

## **Pocomoke State Forest**

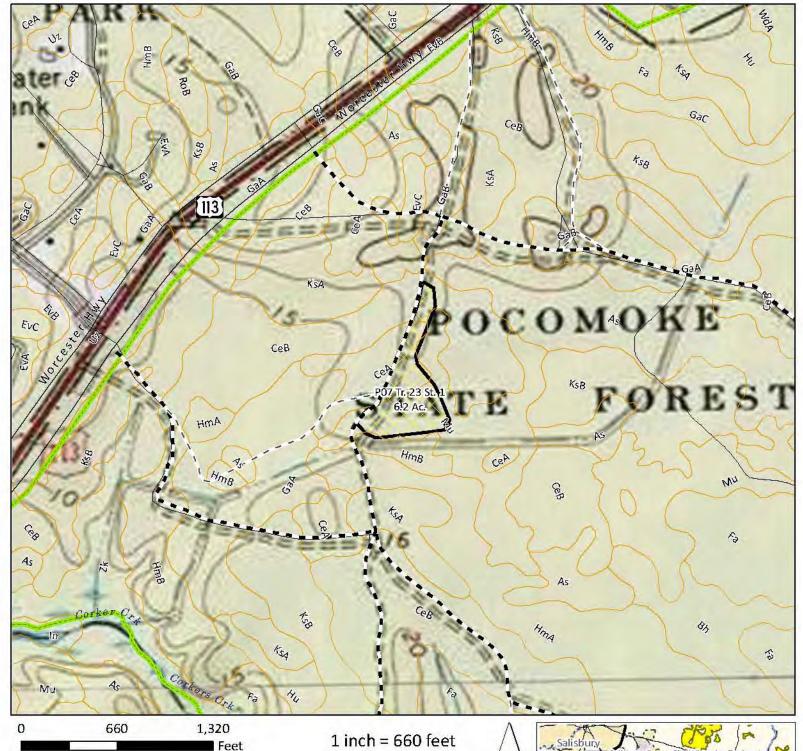
Worcester County, MD P07 - Chandler - Tract 22 FY2014 Annual Work Plan











### **Pocomoke State Forest**

Worcester County, MD P07 - Chandler - Tract 23 FY2014 Annual Work Plan

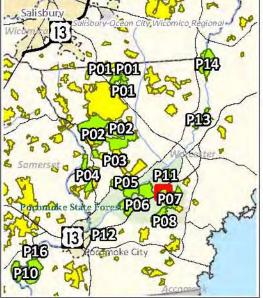
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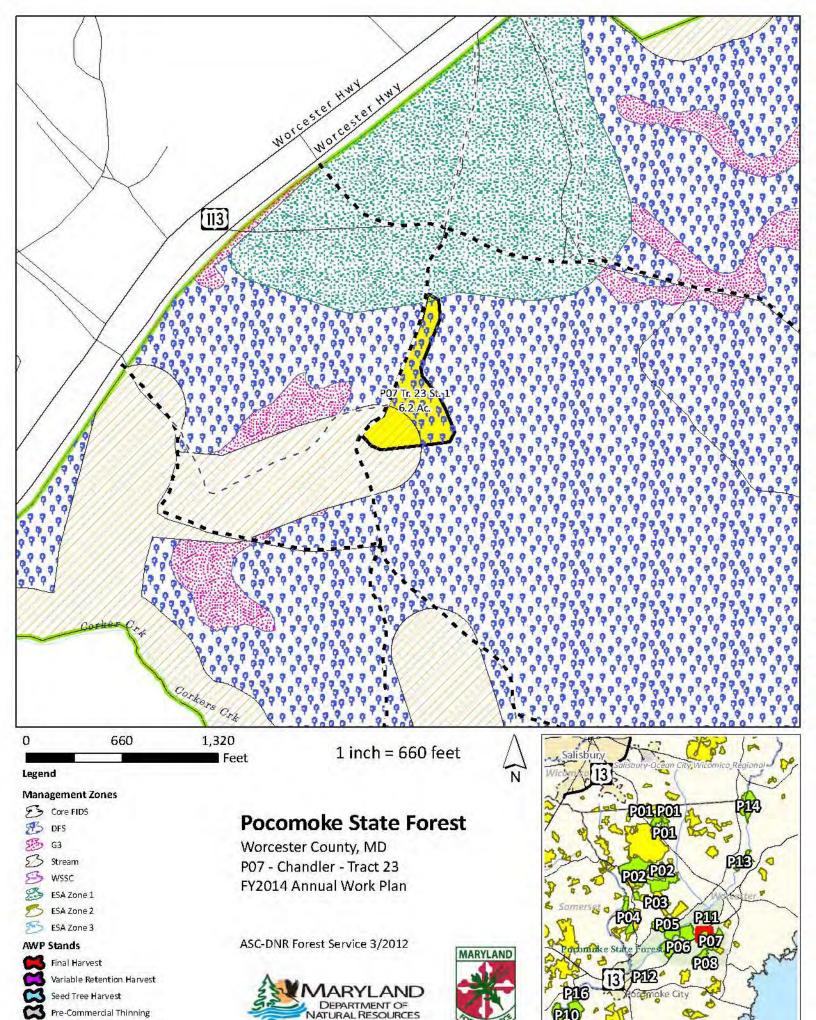
**AWP Stands** 

Final Harvest
Variable Retention Harvest
Seed Tree Harvest
Pre-Commercial Thinning
First Thinning



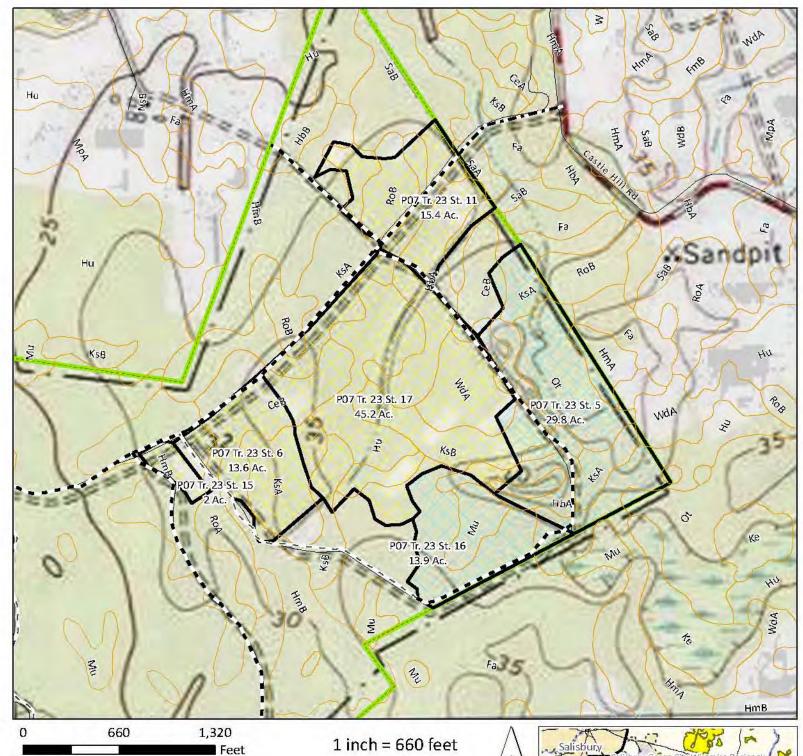






Page 71 of 125

First Thinning



## **Pocomoke State Forest**

Worcester County, MD P07 - Chandler - Tract 23 FY2014 Annual Work Plan

#### Legend

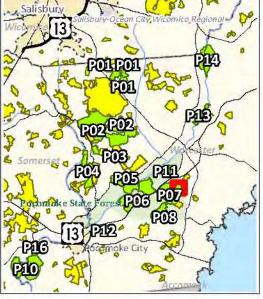
**AWP Stands** 

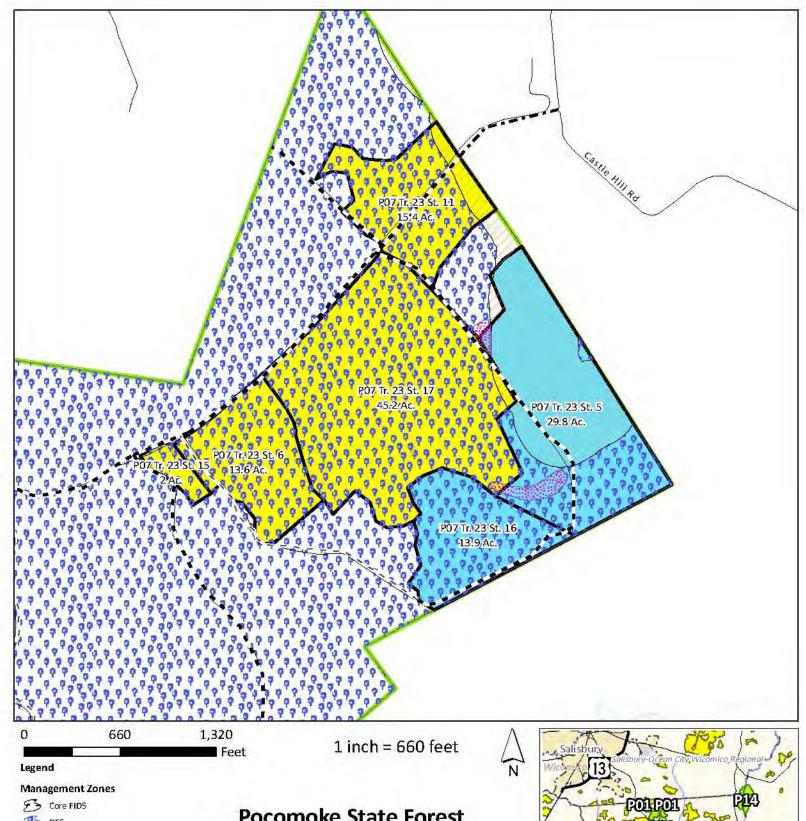
Final Harvest
Variable Retention Harvest
Seed Tree Harvest
Pre-Commercial Thinning
First Thinning

ASC-DNR Forest Service 3/2012





















## **AWP Stands**



Pre-Commercial Thinning First Thinning

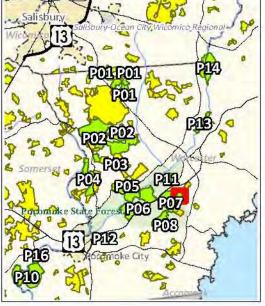
## **Pocomoke State Forest**

Worcester County, MD P07 - Chandler - Tract 23 FY2014 Annual Work Plan

ASC-DNR Forest Service 3/2012









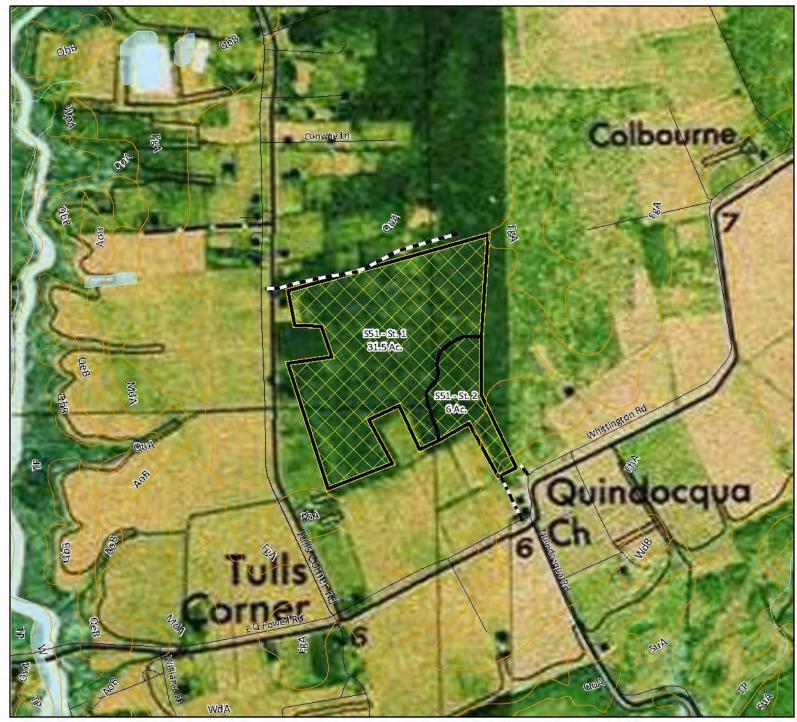
## Description of 2014 Activities - Somerset County

## S51 – Dimino Complex

A first thinning is proposed for stand 1. The first thin area is 31.5 acres and is located in a General management area. This loblolly pine stand naturally regenerated in 1989, sprayed and grass controlled in 1989, and was pre-commercially thinned in 1998.

A first thinning is proposed for stand 2. The first thin area is 6 acres and is located in a General management area. This loblolly pine stand was planted in 1990.

Soil series abbreviations shown on the following maps can be found in Appendix A of this work plan.



660 1,320 Feet

1 inch = 660 feet

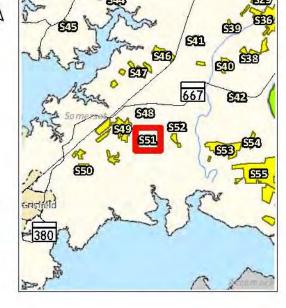
# **Chesapeake Forest**

Somerset County, MD S51 - Dimino Complex FY2014 Annual Work Plan

ASC-DNR Forest Service 3/2012







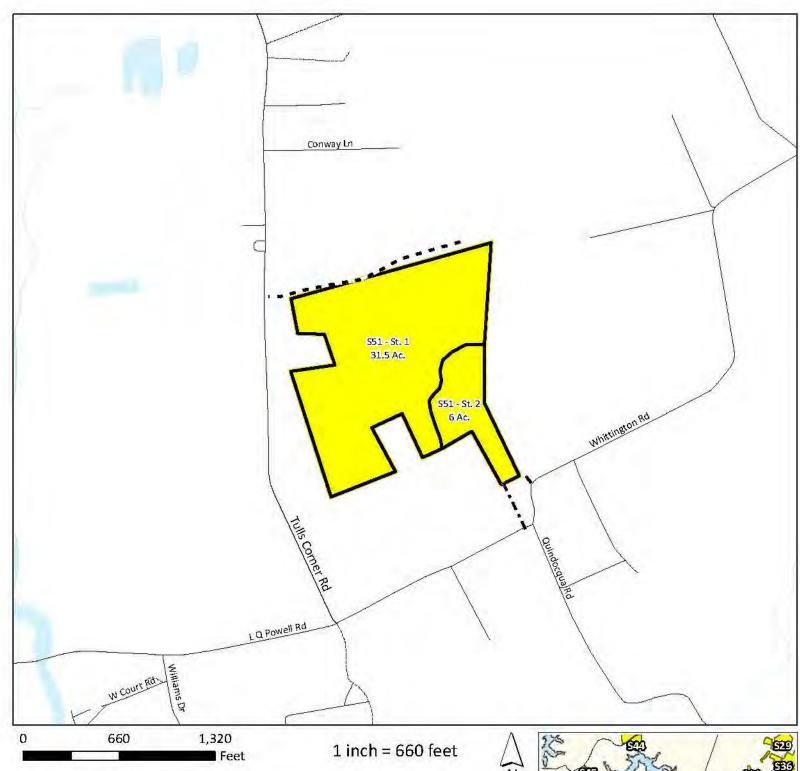
Legend

**AWP Stands** 

Final Harvest

Pre-Commercial Thinning

First Thinning Second Thinning



## Legend

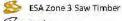
## Management Zones

595 DFS

ESA Zone 1

SA Zone 2

ESA Zone 3 Pulpwood





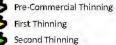
G3

Stream Buffer

#### **AWP Stands**



Final Harvest



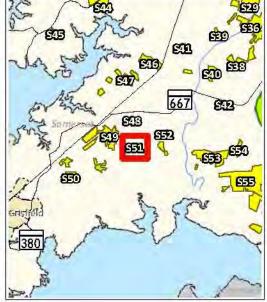
# **Chesapeake Forest**

Somerset County, MD S51 - Dimino Complex FY2014 Annual Work Plan

ASC-DNR Forest Service 3/2012







Locations & Descriptions of Restoration Projects

**Special Projects** 

To: Schofield, Mike

**Subject:** RE: Tom Tyler Nature Trail Restoration

From: Tyler Walston [mailto:twalston97@gmail.com]

Sent: Tuesday, September 11, 2012 1:23 PM

To: Schofield, Mike

Subject: Tom Tyler Nature Trail Restoration

#### Good Afternoon.

I wanted to contact you to give you a preliminary idea of what my plan is for the Tom Tyler Nature Trail Revitalization. As part of the Chesapeake Conservation Corps I will have funding for a small project that raises awareness about conservation projects for the Chesapeake Bay in Maryland. I will have at least \$1,000 available for the project. However, if my project is selected for our "All Hands on Deck" competition, I will be given an additional \$1,500 for my project and all other CCC members will have to attend the date for the revitalization.

If I do not win the "all hands" competition I will use volunteers in the Nanticoke Watershed Alliance's Lower Shore Stewardship Institute and ask members from the CCC to volunteer their time throughout the year.

I hope to use the money to plant a native species garden near the bulletin board on the trail. I would like to also plant native trees and shrubs throughout the trail that attract wildlife. The rest of the money will go to creating new signs. I would like to create a sign near the proposed garden that talks about the CCC and the service project. I would then like to place another sign that demonstrates best management practices (BMPs) for visitors to implement at home. There is already information about forestry BMPs on bulletin board, so I was hoping to place this new sign near the existing bulletin board.

The trail is also in need of significant maintenance. The parking lot is overgrown with weeds, obstructing the signs and some of the smaller trails have limbs and branches blocking the path. This portion of the project will not cost any money, since I have access to volunteers and tools and I imagine it won't take too much time.

Of course, all of this is subject to DNR's approval but my hope is that there is some overlap between my goals and the needs of DNR. I am thinking that this has the potential to be a great project and a tremendous opportunity to promote the Chesapeake Bay Trust and the DNR (which has two CCC volunteers currently working in other departments). My ultimate goal is for more people to visit the trail and get interested in conservation.

Let me know what your thoughts are. My office is only 5 minutes from the trail, so if you would like to schedule a time to meet there, I can show you which areas I was thinking about. I look forward to working on this project and I hope to hear from you soon.

Thanks,

Tyler Walston 410-430-9207 **Projected Annual Budget** 

# **EASTERN REGION FY 2014 PROJECTED BUDGET**

| Cost of Management (*Costs will vary from year to year) |             |
|---|-------------|
| 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    |
| Total   | \$1,033,000 |

| Operating Revenues & State Funding |             |
|------------------------------------|-------------|
| Forest Product Sale Revenues       | \$ 650,000  |
| Hunt Club Revenues                 | \$ 400,000  |
| State Funding                      | \$ 100,000  |
| Total                              | \$1,150,000 |

# Appendix A - Soil Series Abbreviations and Symbols

| Soil Series  | Dorchester | Wicomico          | Worcester      | Somerset |
|--|------------|-------------------|----------------|----------|
| Acquango sand                                      |            |                   | AcB, AcC       |          |
| Annemessex-Manokin complex                         |            | 111               |                | AoA, AoB |
| Askecksy loamy sand                                |            | AsA               | As             |          |
| Beaches  | 1          | Be                | Be             | Be       |
| Berryland mucky loamy sand                         |            | BhA               | Bh             |          |
| Bestpitch and Transquaking                         | 2          |                   |                |          |
| Boxiron  |            |                   | BX             |          |
| Boxiron and Broadkill soils                        |            |                   |                | BX       |
| Broadkill mucky silt loam                          |            |                   | Br             |          |
| Brockatonorton sand                                |            |                   | BkA, BkB       |          |
| Cedartown loamy sand                               |            | CdA               | CeA, CeB       |          |
| Chicone mucky silt loam                            | 3          |                   | Ch             |          |
| Corsica and Fallsington soils                      |            |                   | 197            | CRA      |
| Corsica mucky loam                                 |            | CoA               |                | 1,500.0  |
| Downer loamy sand                                  | 4C         |                   |                |          |
| Downer sandy loam                                  | 5A, 5B     |                   |                | DoA, DoB |
| Elkton loam  | 6          |                   |                | ,        |
| Elkton mucky silt loam                             | 8          |                   |                |          |
| Elkton sandy loam                                  |            |                   | Ek             |          |
| Elkton silt loam                                   | 7          |                   | Em             | EmA      |
| Endoaquepts and Sulfaquepts                        |            | EQB               |                | EQB      |
| Evesboro loamy sand                                |            | EwA, EwB, EwC     | EvA, EvB, EvC  | 242      |
| Evesboro sand                                      | 9C, 9E     | Emily Emply Emily | Dirit Libitor  |          |
| Evesboro-Galestown complex                         | 50, 52     |                   |                | EzB      |
| Fallsington loam                                   |            | FgA               |                | FgA      |
| Fallsington sandy loam                             | 10         | FaA               | Fa             | FaA      |
| Fallsinston-Glassboro complex                      | 10         | Tur               | 14             | FhA      |
| Fluvaquents  | 11         |                   |                | 1 III 1  |
| Fort Mott loamy sand                               | 12A ,12B   | FmA, FmB          | FmA, FmB       |          |
| Fort Mott, Evesboro, and Downer soils              | 13E        | rina, rina        | riizi, riib    |          |
| Galestown loamy sand                               | 14A, 14B   | GaA, GaB          | GaA, GaB, GaC  | GaB      |
| Glassboro loam                                     | III, IID   | Oan, Gab          | Gari, Gab, Gac | GIA      |
| Hambrook loam                                      | 15A, 15B   |                   |                | HcA      |
| Hambrook sandy loam                                | 137, 130   | НьА, НьВ          | HbA, HbB       | НьВ      |
| Hammonton loamy sand                               |            | Hori, Hob         | HmA, HmB       | HmA      |
| Hammonton sandy loam                               | 16         | HnA               | Times, Times   | HnA      |
| Hammonton-Glassboro complex                        | 10         | THUL              |                | HgB      |
| Honga peat   | 17         | Но                |                | Ho       |
| Hurlock loamy sand                                 | .,         | 110               | Hu             | HuA      |
| Hurlock sandy loam                                 | 18         | HvA               | 114            | HvA      |
| Indiantown silt loam                               | 10         | IIVA              | In             | IIVA     |
| Ingleside loamy sand                               |            | IeA, IeB          | III            |          |
| Ingleside toatily saild                            | 19A, 19B   | ICA, ICD          |                | IgA, IgB |
| Ingleside Sandy toam<br>Ingleside-Runclint complex | 137, 130   |                   |                | IkC      |
| Kentuck mucky silt loam                            |            |                   | Ke             | IKC      |
| Keyport fine sandy loam                            |            | KfA, KfB          | IXE            |          |
| Keyport fille sandy foam<br>Keyport silt loam      | 20         | MA, MD            |                | KpA      |
| Klej loamy sand                                    | 20         |                   | KsA, KsB       | кри      |
| Klej-Galloway complex                              |            | KgB               | Non, Non       | KgB      |
| raej-Ganoway complex                               |            | KgD               |                | RgD      |

| Soil Series                       | Dorchester | Wicomico            | Worcester                               | Somerset                        |
|-----------------------------------|------------|---------------------|---|---------------------------------|
| Klej-Hammonton complex            | 21         |                     |   |                                 |
| Lenni loam                        |            | LgA                 |   |                                 |
| Lenni sandy loam                  |            | LfA                 |   |                                 |
| Longmarsh and Indiantown soils    |            | LO                  |   | LO                              |
| Manahawkin muck                   |            | Ma                  | Ma                                      | Ma                              |
| Mannington and Nanticoke soils    |            |                     | MC                                      |                                 |
| Manokin silt loam                 |            |                     |   | MdA. MdB                        |
| Matapeake fine sandy loam         |            |                     | MeA, MeB                                |                                 |
| Matapeake silt loam               | 22A, 22B   | Co. J.              | MkA, MkB                                |                                 |
| Mattapex fine sandy loam          | 23         | MpA                 | MpA, MpB                                |                                 |
| Mattapex silt loam                | 24A, 24B   | MtA, MtB            | MqA, MqB                                |                                 |
| Miscellaneous water               |            | M-W                 |   | M-W                             |
| Mullica-Berryland complex         |            | MuA                 | Mu                                      | MuA                             |
| Nanticoke and Mannigton soils     |            | NM                  |   | NM                              |
| Nanticoke silt loam               | 25         | Transmission of the |   |                                 |
| Nassawango fine sandy loam        |            | NnA, NnB            | NnA, NnB                                |                                 |
| Nassawango silt loam              |            | NsA, NsB            | NsA, NsB                                |                                 |
| Othello and Kentuck soils         | 27         | OKA                 |   | OKA                             |
| Othello silt loam                 | 26         | OtA                 | Ot                                      | OoA, OtA                        |
| Othello-Fallsington complex       |            |                     |   | OvA                             |
| Pepperbox-Rockawalkin complex     |            | PrA, PrB            |   |                                 |
| Pone mucky loam                   | 29         |                     |   |                                 |
| Pone mucky sandy loam             | 28         |                     |   |                                 |
| Puckum mucky peat                 | 30         | Pk                  | Pk                                      | Pk                              |
| Purnell peat                      |            |                     | Pu                                      |                                 |
| Queponco loam                     |            |                     |   | QbB                             |
| Queponco silt loam                |            |                     |   | QeA, QeB                        |
| Quindocqua silt loam              |            |                     |   | QuA                             |
| Rockawalkin loamy sand            |            | RkA, RkB            |   |                                 |
| Rosedale loamy sand               |            | RoA                 | RoA, RoB                                |                                 |
| Runclint loamy sand               |            | RuA, RuB            | RuA, RuB                                |                                 |
| Runclint sand                     | 31A, 31B   | RsA, RsB            | 1                                       | RsB                             |
| Runclint-Cedartown complex        |            | RwA, RwB            |   | RwB, RwC                        |
| Runclint-Evesboro complex         |            |                     |   | RxB                             |
| Sassafras Ioam                    | 32         |                     |   |                                 |
| Sassafras sandy loam              |            |                     | SaA, SaB, SaC                           |                                 |
| Sunken mucky silt loam            | 33         | SuA                 | Su                                      | SuA                             |
| Tangier mucky peat                |            |                     |   | Ta                              |
| Transquaking and Mispillion soils |            | TP                  | TP                                      | TP                              |
| Transquaking mucky peat           |            |                     | Tk                                      |                                 |
| Udorthents                        | 34         | UbB, UfB, UoB       | Uz                                      | UbB, UfB, UfF,<br>UgB, UoB, UwB |
| Water                             | W          | W                   | W                                       | W                               |
| Woodstown loam                    | 35         |                     |   | WoA                             |
| Woodstown sandy loam              | 36A, 36B   | WdA                 | WdA, WdB                                | WdA, WdB                        |
| Woodstown-Glassboro complex       | 55.1, 55.5 | 1,500               | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | WpA                             |
| Zekiah silt loam                  |            | Zk                  | Zk                                      |                                 |

## Appendix B - Recreational Trails Grants

## 2013 NATIONAL RECREATIONAL TRAILS FUNDING APPLICATION

## 1. Project Sponsor (Applicant):

Please provide contact information for entity and project manager.

Government / non-profit entity: State of Maryland DNR - MFS

Name of project manager: Michael G. Schofield

Title: Forest Manager

Organization: Maryland Forest Service

Address: 6572 Snow Hill Road, Snow Hill, MD 21863

Phone: (410)632-3732 Fax: (410)632-3730

E-mail: mschofield@dnr.state.md.us

2. Project name: Algonquin Cross County Trail

## 3. Project location

The project is located within the Chesapeake Forest, the Pocomoke State Forest and the Pocomoke River State Park in Worcester County, Maryland. The site is located just 10 miles south of Salisbury, Maryland (population 30,343).

## 4. Trail Type

| May check more than one.   |
|--|
| ☐ Motorized Trail  |
| ☐ Diversified Trail  |
|  |
| Transportation Trail (diversified trail designed for bicyclists and pedestrians to connect destinations. Go to |
| http://www.mdot.maryland.gov/Planning/Trails/trails.html for more information)                                 |
| 5. Project Type  |
|  |
| □ Construction of new trails   |
| ☐ Relocation of existing trail   |
| □ Development and rehabilitation of trailside facilities and trail linkages                                    |
| ☐ Purchase and lease of trail construction equipment   |
| Lease or acquisition of easements or property for recreational trails or corridors                             |
| ☐ Implementation of interpretive/educational programs to promote intrinsic qualities,                          |
| alternative transportation, safety, and environmental protection, as those objectives                          |
| relate to the use of recreational trails   |

## 6. Abstract

This project will provide non-motorized trail users with a new 13 mile long opportunity, which will cross the entire county on State owned land. Several new trail sections (2.3 miles total) will need to be constructed to connect existing multi-use trail systems together. The new trail segments will benefit users by keeping them off 3.2 miles of county roadways as existing trail systems are connected. This project will also benefit the users by providing an additional trail head 13 miles north of the Milburn Landing State Park, which is closer to the city of Salisbury.

## 7. Project Summary

This project will create the longest forested trail system in existence on the Eastern Shore/Delmarva Peninsula. Existing Park and Forest trail systems can joined together by constructing 2.3 miles of new trail. The new trail sections will be approximately 4 feet in width and built using hand tools and small equipment such as the UTV purchased under RT11-32. Existing trails will be brushed back with hand tools and a side mount brush cutter where possible. The trails associated with the recently completed Recreational Trail Grant, RT07-46 & RT10-31 will become a part of this new 13 mile cross county network. The new trail system will be marked with carsonite posts indentifying the route. Trail head signs will also be posted at both ends of the trail. A new gravel parking area will be created on the north end of the trail on the Chesapeake Forest, Foster Tract and posted with signs. Updated trail maps highlighting the new 13 mile designated trail will be available at the Pocomoke River State Park (150,000 annual visitors) and the Forest Service Public Lands Office in Snow Hill, Maryland.

## 8. Project property ownership

This project is located on State of Maryland property, which is managed by the Department of Natural Resources, Maryland Forest Service (Project Sponsor).

## 9. Project Length, Width, Surface

The project consists of enhancing 11.5 miles of existing trail, which are approximately 8 to 10 feet wide. The project will also create 2.3 miles of new trail, which will be 4 feet in width. The surfaces of all trails are dirt.

## 10. Prior Projects

**RT07-41** Tom Tyler Demonstration Forest & Nature Trail, \$3,500 reimbursed for trail enhancement supplies & materials.

**RT08-26** WDF & CF Trail Enhancement Project, \$28,000 reimbursed for labor used to maintain and enhance existing horseback trails

**RT09-25** CF 2009 Green Hill Trail Enhancement Project, \$26,052 reimbursed for labor used to maintain and enhance existing multi-use trails.

**RT07-46** Foster Trail Enhancement Project, \$12,000 reimbursed for labor used to enhancement trail system.

**RT10-31** Milburn Landing, Dividing Creek & Whitesburg Trail Enhancement Project, \$30,000 reimbursed for labor used to enhance existing trail system.

**RT11-32** UTV Trail Enhancement Project, \$20,000 reimbursed for the purchase of a utility vehicle and attachments used for trail maintenance and construction.

All the grants listed have been complete and closed out except RT10-31. RT10-31 will be closed out by June 30, 2012.

## 11. Work Plan

The following table is provided as a guide to developing a realistic project schedule.

Although program does not cover, please include planning and design, if not completed yet.

Please consider all required permits discussed within these guidelines.

| Milestone/     | Start       | Duration  | Responsible    | Justification                         |
|----------------|-------------|-----------|----------------|---------------------------------------|
| Task           | Date        |           | Party          |                                       |
|                |             |           |                |                                       |
| NEPA Started   | June 1      | 3 Months  | Ken Jolly      | Grant List submitted                  |
|                | 2012        |           |                |                                       |
| PCA Assigned   | Dec. 1 2012 | 1 month   | Shanika Allen  | Shanika applies to Acct for number    |
| Forest S.      | Jan. 2013   | 1 month   | Mike Schofield | Go through procurement process        |
| contract labor |             |           |                |                                       |
| for trail work |             |           |                |                                       |
| Work Starts    | Feb. 2013-  | 11 months | Mike Schofield | Work done on Trails by contract labor |
|                | Dec 2014    |           |                |                                       |
| Match of Labor | Feb. 2013-  | 11 months | Mike Schofield | Match logged and time scheduled       |
|                | Dec. 2014   |           |                |                                       |
| Paperwork      | Dec. 2014   | 1 month   | Mike Schofield | Paperwork tabulated checked acct.     |
| Completed      |             |           |                | sent to Regional for review           |
| Paperwork      | Jan. 2014   | 1 month   | Kip Powers     | Paperwork reviewed for accuracy and   |
| Reviewed       |             |           |                | sent to Forest Service HQ             |
| Regional       |             |           |                |                                       |
| Paperwork      | Feb. 2014   | 1 month   | Ken Jolly      | Paper checked-closeout sheet match    |
| Processed      |             |           |                | expenditure sent to SHA               |
| Grant Closed   | March 2014  | 1 month   |                | Checks over paperwork                 |

## 12. Budget

# Funds requested for projects cannot exceed \$40,000 for trail construction and \$30,000 for non-construction. Cost Breakdown for Federal Funds Requested (80%)

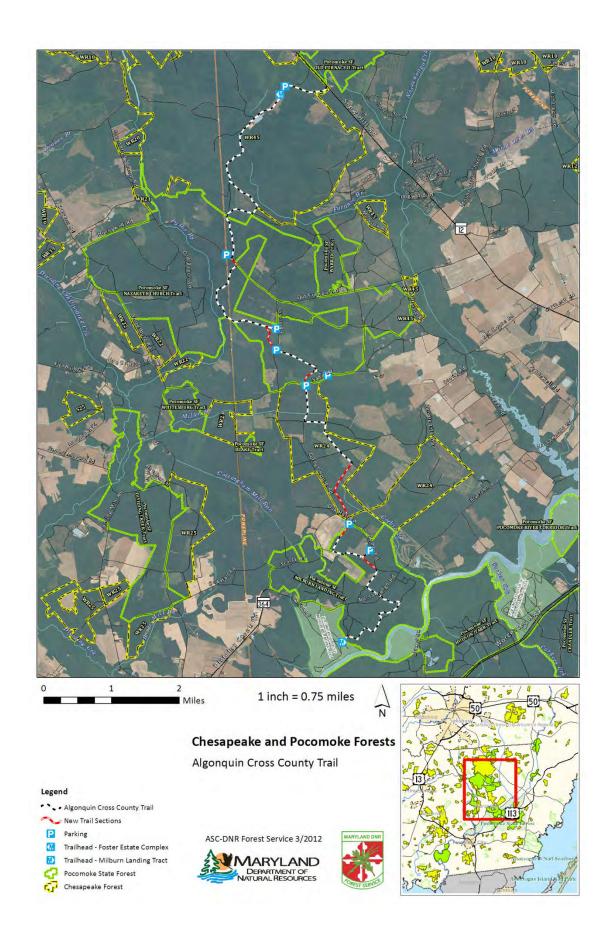
|   |   | Amount<br>Requesting<br>(80%) | Required<br>Match<br>(20%) | Total<br>(100%) |          |
|---|---|-------------------------------|----------------------------|-----------------|----------|
| 2 | Contractual labor @ \$12.50/hr X 2,400hrs |                               | \$20,000                   | \$5,000         | \$25,000 |
| 4 | Signs                                     |                               | \$1,600                    | \$400           | \$2,000  |
|   | Gravel @ \$200/load X 15 loads            |                               | \$2,400                    | \$600           | \$3,000  |
|   | Total                                     |                               | \$24,000                   | \$6,000         | \$30,000 |

## Matching Funds (20%)

| Source            | Type (cash or in-kind) | Description including Hours and rate                                  | Total   |
|-------------------|------------------------|---|---------|
| MD FS Staff Labor | In-kind                | Project Supervision @ \$25/hr X 72hr                                  | \$1,800 |
| MD FS Staff Labor | In-kind                | Project Implementation (heavy equipment operation) @ \$25/hr X 168hrs | \$4,200 |
|                   |                        |   |         |
| Total             |                        |   | \$6,000 |

## 13. Location Map

See attached map.



## 2013 NATIONAL RECREATIONAL TRAILS FUNDING APPLICATION

## 1. Project Sponsor (Applicant):

Please provide contact information for entity and project manager.

Government / non-profit entity: State of Maryland DNR - MFS

Name of project manager: Michael G. Schofield

Title: orest Manager

Organization: Maryland Forest Service

Address: 6572 Snow Hill Road, Snow Hill, MD 21863

Phone: (410)632-3732 Fax: (410)632-3730

E-mail: mschofield@dnr.state.md.us

2. Project name: Mattaponi Landing Soft Launch

## 3. Project location

The project is located within the Pocomoke State Forest along the Pocomoke River between Milburn Landing State Park and Shad Landing State Park in Worcester County. The site is located just 23 miles south of Salisbury, Maryland (population 30,343).

## 4. Trail Type

| May check more than one.   |
|--|
| <ul> <li>Motorized Trail</li> <li>Diversified Trail</li> <li>Non-motorized Trail</li> </ul>  |
| Transportation Trail (diversified trail designed for bicyclists and pedestrians to connect destinations. Go to <a href="http://www.mdot.maryland.gov/Planning/Trails/trails.html">http://www.mdot.maryland.gov/Planning/Trails/trails.html</a> for more information) |
| 5. Project Type  |
| <ul><li>☑ Maintenance / Restoration of existing trail</li><li>☑ Construction of new trails</li></ul>   |
| Relocation of existing trail   |
| <ul><li>☑ Development and rehabilitation of trailside facilities and trail linkages</li><li>☐ Purchase and lease of trail construction equipment</li></ul>   |
| <ul> <li>☐ Lease or acquisition of easements or property for recreational trails or corridors</li> <li>☐ Implementation of interpretive/educational programs to promote intrinsic qualities,</li> </ul>  |
| alternative transportation, safety, and environmental protection, as those objectives relate to the use of recreational trails   |

## 6. Abstract

This project will provide river access for canoe and kayak users to Maryland's first Wild & Scenic River. This strategic location will enable paddlers to travel 1.9 miles south to Milburn Landing State Park or 2.4 miles north to Shad Landing State Park (150,000 visitors annually). A soft launch will be located at the abandoned Gibb's Ferry crossing. Parking for 4 to 6 cars is possible along an existing road that leads directly to the water's edge. This project benefits recreational paddlers by providing an entry/exit point to the historic and scenic Pocomoke Rive system.

## 7. Project Summary

This project was suggested by the Pocomoke State Forest Citizens Advisory Committee during the 2013 Annual Work Plan review process. The site is located entirely within the Critical Area. The establishment of a soft launch will have minimal environmental impacts as most of the necessary infrastructure currently exists and no trees will need to be removed. Additionally, current vehicular access will be eliminated within 200 feet of the river by installing a heavy duty gate. The access road is an extension of Blades Road located off US Highway 113. The extension has numerous large pot holes which will be filled in with gravel. Brush along the shoulder of the access road will be mowed back to provide vehicle clearance, but without creating new canopy gaps in the forest. Four gates will be installed in to restrict vehicular traffic and to establish parking for approximately 6 cars. Signs will be installed, identifying the launch site and the 2 parking areas.

This launch site provides a spectacular view of Maryland's first Wild & Scenic River. At low tide you can see rotting pilings; all that remain of the Gibb's Ferry and Mattaponi Landing.

In 1666 this area was the Western-most part of Mattaponi Hundred in Somerset County and was an established landing for travelers on the Pocomoke River. It was carved away in 1742 to become part of Worcester County. In the mid-1700's Abraham Gibbs operated a ferry crossing here. In 1794 the land on both sides of the river was sold to the Cottingham family, who were licensed to operate the ferry through 1816. It is not known when the ferry ceased operation.

Before roads were established between communities almost all passengers and freight traffic was carried on the river. Vessels of all kinds made stops at established landings, including Gibb's Ferry (aka Mattaponi Ferry or Mattaponi Landing). Special steamships called 'side-wheelers' were built from after the War of 1812 until about 1920 to make traveling the narrow and crooked Pocomoke River easier. Now few commercial ships are seen and the old landings are rotting and the roads leading to them are becoming overrun by forest.

## 8. Project property ownership

This project is located on State of Maryland property, which is managed by the Department of Natural Resources, Maryland Forest Service (Project Sponsor).

## 9. Project Length, Width, Surface

The project consists of a 1/3 mile long dirt and gravel road, approximately 20 feet wide.

## 10. Prior Projects

**RT07-41** Tom Tyler Demonstration Forest & Nature Trail, \$3,500 reimbursed for trail enhancement supplies & materials.

**RT08-26** WDF & CF Trail Enhancement Project, \$28,000 reimbursed for labor used to maintain and enhance existing horseback trails

**RT09-25** CF 2009 Green Hill Trail Enhancement Project, \$26,052 reimbursed for labor used to maintain and enhance existing multi-use trails.

**RT07-46** Foster Trail Enhancement Project, \$12,000 reimbursed for labor used to enhancement trail system.

**RT10-31** Milburn Landing, Dividing Creek & Whitesburg Trail Enhancement Project, \$30,000 reimbursed for labor used to enhance existing trail system.

**RT11-32** UTV Trail Enhancement Project, \$20,000 reimbursed for the purchase of a utility vehicle and attachments used for trail maintenance and construction.

All the grants listed have been complete and closed out except RT10-31. RT10-31 will be closed out by June 30, 2012.

## 11. Work Plan

The following table is provided as a guide to developing a realistic project schedule.

Although program does not cover, please include planning and design, if not completed yet.

Please consider all required permits discussed within these guidelines.

| Milestone/                                    | Start                   | Duration  | Responsible    | Justification   |
|---|-------------------------|-----------|----------------|---|
| Task  | Date                    |           | Party          |   |
| NEPA Started                                  | June 1<br>2012          | 3 Months  | Ken Jolly      | Grant List submitted  |
| PCA Assigned                                  | Dec. 1 2012             | 1 month   | Shanika Allen  | Shanika applies to Acct for number                            |
| Forest S.<br>contract labor<br>for trail work | Jan. 2013               | 1 month   | Mike Schofield | Go through procurement process                                |
| Work Starts                                   | Feb. 2013-<br>Dec 2014  | 11 months | Mike Schofield | Work done on Trails by contract labor                         |
| Match of Labor                                | Feb. 2013-<br>Dec. 2014 | 11 months | Mike Schofield | Match logged and time scheduled                               |
| Paperwork<br>Completed                        | Dec. 2014               | 1 month   | Mike Schofield | Paperwork tabulated checked acct. sent to Regional for review |
| Paperwork<br>Reviewed<br>Regional             | Jan. 2014               | 1 month   | Kip Powers     | Paperwork reviewed for accuracy and sent to Forest Service HQ |

| Paperwork    | Feb. 2014  | 1 month | Ken Jolly | Paper checked-closeout sheet match |
|--------------|------------|---------|-----------|------------------------------------|
| Processed    |            |         |           | expenditure sent to SHA            |
| Grant Closed | March 2014 | 1 month |           | Checks over paperwork              |

## 12. Budget

Funds requested for projects cannot exceed \$40,000 for trail construction and \$30,000 for non-construction. Cost Breakdown for Federal Funds Requested (80%)

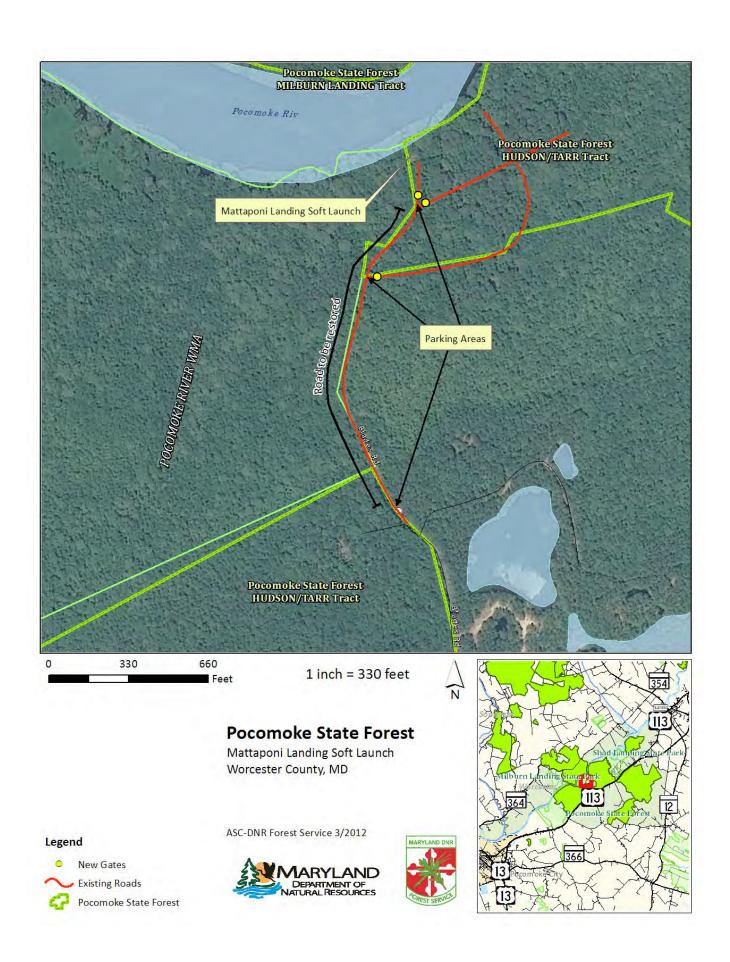
| #  | Description                          | Amount<br>Requesting<br>(80%) | Required<br>Match<br>(20%) | Total<br>(100%) |
|----|--------------------------------------|-------------------------------|----------------------------|-----------------|
| 1  | Contractual labor @ \$12.50/hr X 960 | \$10,000                      | \$2,000                    | \$12,000        |
| 40 | Gravel fill @ \$200/load X 40 loads  | \$6,400                       | \$1,600                    | \$8,000         |
| 4  | Signs                                | \$800                         | \$200                      | \$1,000         |
|    | Total                                | \$18,200                      | \$3,800                    | \$21,000        |

## Matching Funds (20%)

| Source            | Type (cash or in-kind) | Description including Hours and rate                                  | Total   |
|-------------------|------------------------|---|---------|
| MD FS Staff Labor | In-kind                | Project Supervision @ \$25/hr X 51hr                                  | \$1,275 |
| MD FS Staff Labor | In-kind                | Project Implementation (heavy equipment operation) @ \$25/hr X 101hrs | \$2,525 |
|                   |                        |   |         |
| Total             |                        |   | \$3,800 |

## 13. Location Map

See attached map.



## 2013 NATIONAL RECREATIONAL TRAILS FUNDING APPLICATION

## 1. Project Sponsor (Applicant):

Please provide contact information for entity and project manager.

Government / non-profit entity: State of Maryland DNR - MFS

Name of project manager: Michael G. Schofield

Title: Forest Manager

Organization: Maryland Forest Service

Address: 6572 Snow Hill Road, Snow Hill, MD 21863

Phone: (410)632-3732 Fax: (410)632-3730

E-mail: mschofield@dnr.state.md.us

2. Project name: Wicomico Demonstration Forest Trail Marking Project

## 3. Project location

The project is located within the Wicomico Demonstration Forest in Wicomico County, Maryland. The site is located just 10 miles east of Salisbury, Maryland (population 30,343).

## 4. Trail Type

| May check more than one.  |
|---|
| <ul> <li>Motorized Trail</li> <li>Diversified Trail</li> <li>Non-motorized Trail</li> <li>Transportation Trail (diversified trail designed for bicyclists and pedestrians to connect destinations. Go to <a href="http://www.mdot.maryland.gov/Planning/Trails/trails.html">http://www.mdot.maryland.gov/Planning/Trails/trails.html</a> for more information)</li> </ul> |
| 5. Project Type   |
| Maintenance / Restoration of existing trail   |
| Construction of new trails  |
| Relocation of existing trail  |
| Development and rehabilitation of trailside facilities and trail linkages   |
| ☐ Purchase and lease of trail construction equipment  |
| Lease or acquisition of easements or property for recreational trails or corridors  |
| ☐ Implementation of interpretive/educational programs to promote intrinsic qualities,   |
| alternative transportation, safety, and environmental protection, as those objectives   |
| relate to the use of recreational trails  |

## 6. Abstract

This project will identify 4 individual trails on the ground using colored carsonite posts and the 3 designated trail heads and parking areas with new signs. This project will benefit trail users by helping them to identify the various trail segments throughout the 3,308 acre forest.

## 7. Project Summary

This project will install trail markers within the forest, identifying 4 distinct trail loops.

| 1. | Green Trail | 0.81 miles |
|----|-------------|------------|
| 2. | Blue Trail  | 1.97 miles |
| 3. | Red Trail   | 2.63 miles |
| 4. | White Trail | 6.38 miles |

Carsonite posts will be used every 100 feet along the trails and at intersections and road crossings. Highly visible trail head signs will also be posted, identifying the entry points. Parking sings will also be posted. This project will benefit trail users by reducing the risk of getting lost, reducing confusion and making it more convenient to explore the forest. The entire trail system was brushed open using funds from the RT08-26 grant. The UTV and post hole auger purchased under RT11-32 will be used in the transportation and installation of the signs and posts.

## 8. Project property ownership

This project is located on State of Maryland property, which is managed by the Department of Natural Resources, Maryland Forest Service (Project Sponsor).

## 9. Project Length, Width, Surface

The project consists of marking 4 existing trails totaling 9 miles, which are 8-10 feet wide. The surfaces of all trails are dirt.

## 10. Prior Projects

**RT07-41** Tom Tyler Demonstration Forest & Nature Trail, \$3,500 reimbursed for trail enhancement supplies & materials.

**RT08-26** WDF & CF Trail Enhancement Project, \$28,000 reimbursed for labor used to maintain and enhance existing horseback trails

**RT09-25** CF 2009 Green Hill Trail Enhancement Project, \$26,052 reimbursed for labor used to maintain and enhance existing multi-use trails.

**RT07-46** Foster Trail Enhancement Project, \$12,000 reimbursed for labor used to enhancement trail system.

**RT10-31** Milburn Landing, Dividing Creek & Whitesburg Trail Enhancement Project, \$30,000 reimbursed for labor used to enhance existing trail system.

**RT11-32** UTV Trail Enhancement Project, \$20,000 reimbursed for the purchase of a utility vehicle and attachments used for trail maintenance and construction.

All the grants listed have been complete and closed out except RT10-31. RT10-31 will be closed out by June 30, 2012.

## 11. Work Plan

The following table is provided as a guide to developing a realistic project schedule.

Although program does not cover, please include planning and design, if not completed yet.

Please consider all required permits discussed within these guidelines.

| Milestone/     | Start       | Duration  | Responsible    | Justification                         |
|----------------|-------------|-----------|----------------|---------------------------------------|
| Task           | Date        |           | Party          |                                       |
|                |             |           |                |                                       |
| NEPA Started   | June 1      | 3 Months  | Ken Jolly      | Grant List submitted                  |
|                | 2012        |           |                |                                       |
| PCA Assigned   | Dec. 1 2012 | 1 month   | Shanika Allen  | Shanika applies to Acct for number    |
| Forest S.      | Jan. 2013   | 1 month   | Mike Schofield | Go through procurement process        |
| contract labor |             |           |                |                                       |
| for trail work |             |           |                |                                       |
| Work Starts    | Feb. 2013-  | 11 months | Mike Schofield | Work done on Trails by contract labor |
|                | Dec 2014    |           |                |                                       |
| Match of Labor | Feb. 2013-  | 11 months | Mike Schofield | Match logged and time scheduled       |
|                | Dec. 2014   |           |                |                                       |
| Paperwork      | Dec. 2014   | 1 month   | Mike Schofield | Paperwork tabulated checked acct.     |
| Completed      |             |           |                | sent to Regional for review           |
| Paperwork      | Jan. 2014   | 1 month   | Kip Powers     | Paperwork reviewed for accuracy and   |
| Reviewed       |             |           |                | sent to Forest Service HQ             |
| Regional       |             |           |                |                                       |
| Paperwork      | Feb. 2014   | 1 month   | Ken Jolly      | Paper checked-closeout sheet match    |
| Processed      |             |           |                | expenditure sent to SHA               |
| Grant Closed   | March 2014  | 1 month   |                | Checks over paperwork                 |

## 12. Budget

# Funds requested for projects cannot exceed \$40,000 for trail construction and \$30,000 for non-construction. Cost Breakdown for Federal Funds Requested (80%)

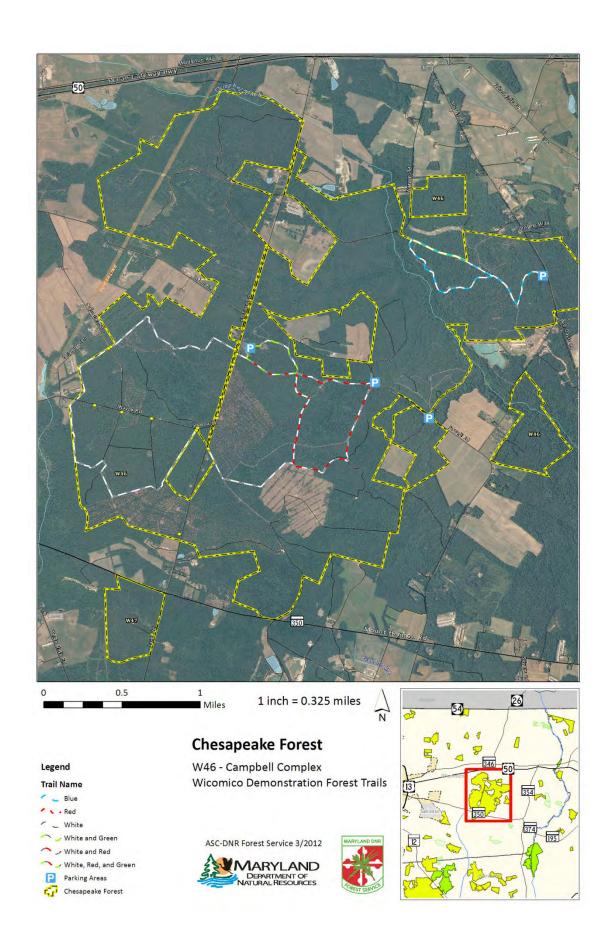
| #   | Description                              | Amount<br>Requesting<br>(80%) | Required<br>Match<br>(20%) | Total<br>(100%) |
|-----|--|-------------------------------|----------------------------|-----------------|
| 1   | Contractual labor @ \$12.50/hr X 480 hrs | \$9,600                       | \$2,400                    | 12,000          |
| 3   | Trailhead Signs                          | \$3,200                       | \$800                      | \$4,000         |
| 3   | Parking Area Signs & Road Crossing Signs | \$800                         | \$200                      | \$1,000         |
| 378 | Carsonite Posts @ \$18.00/post           | \$6,800                       | \$1,700                    | \$8,500         |
|     | Total                                    | \$20,400                      | \$5,100                    | \$25,500        |

## Matching Funds (20%)

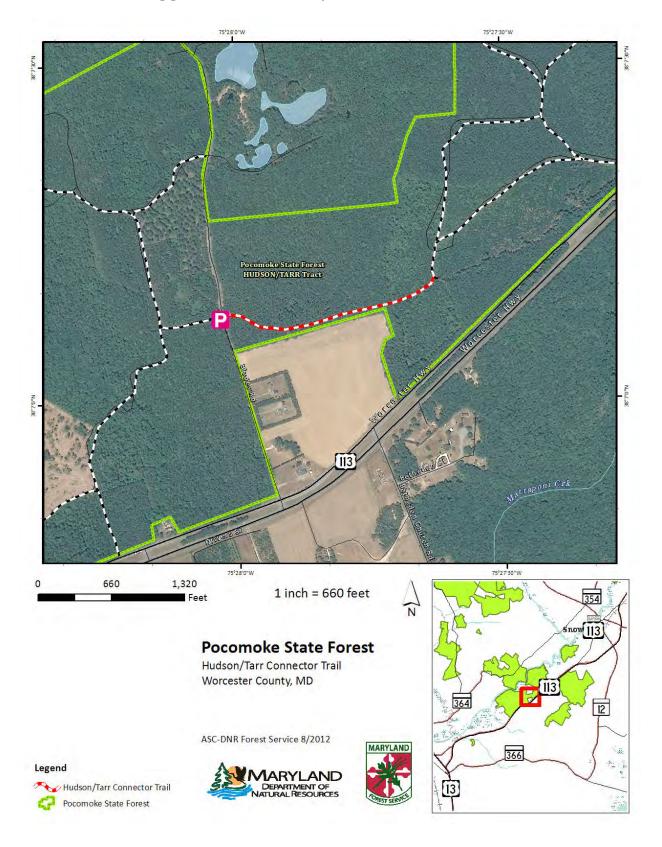
| Source            | Type (cash or in-kind) | Description including Hours and rate                                  | Total   |
|-------------------|------------------------|---|---------|
| MD FS Staff Labor | In-kind                | Project Supervision @ \$25/hr X 51hr                                  | \$1,275 |
| MD FS Staff Labor | In-kind                | Project Implementation (heavy equipment operation) @ \$25/hr X 153hrs | \$3,825 |
|                   |                        |   |         |
| Total             |                        |   | \$5,100 |

## 13. Location Map

See attached map.

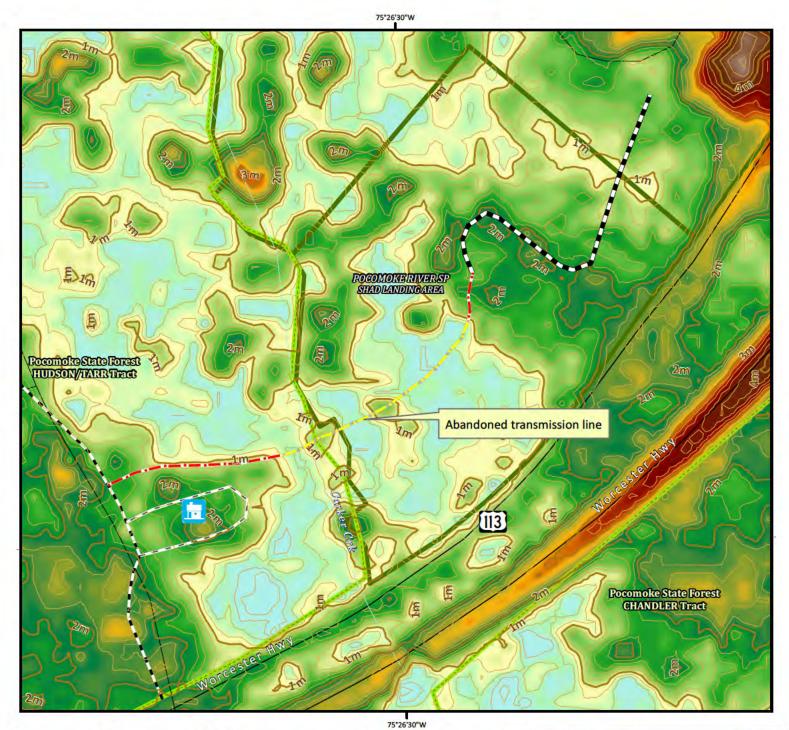


## Appendix C - Hudson/Tarr Connector Trail



## Appendix D: Corkers Creek Bridge Project

- Connects Pocomoke River State Park and Pocomoke State Forest
- Uses 645 feet of existing trails in PRSP
- 415 feet of new ground trail will be constructed on both PRSP and PSF
- 380 feet of boardwalk trail will be constructed on an abandoned transmission line through the Corkers Creek floodplain and across Corkers Creek using a screw pile system
- New trail sections use existing open understory areas from the abandoned transmission line and historic roads.
- Trails through the critical area are arranged to go through areas that eliminate/limit cutting of trees greater than 2 inches diameter
- The wildland shapefile has been adjusted to reflect its actual location according to the deed description (see the attached Pocomoke River Wildland Boundary document and map for detail)
- The bridge will connect the State Park to the State Forest's trail network of nearly 15 miles of trails in the Hudson and Tarr Tracts





Existing Trail (~645 ft)

New Trail (~415 ft)

New Boardwalk (~380 ft)

165

330

Feet

1m Contour

- 0.2m Contour

## **DNR Lands**



State Park
Pocomoke State Forest

LIDAR Elevation
High: 10.81m

Low: 0m

# Pocomoke State Forest Pocomoke River State Park

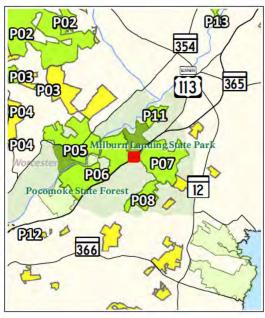
1 inch = 165 feet

Corker's Creek Trail and Crossing Topographic Map

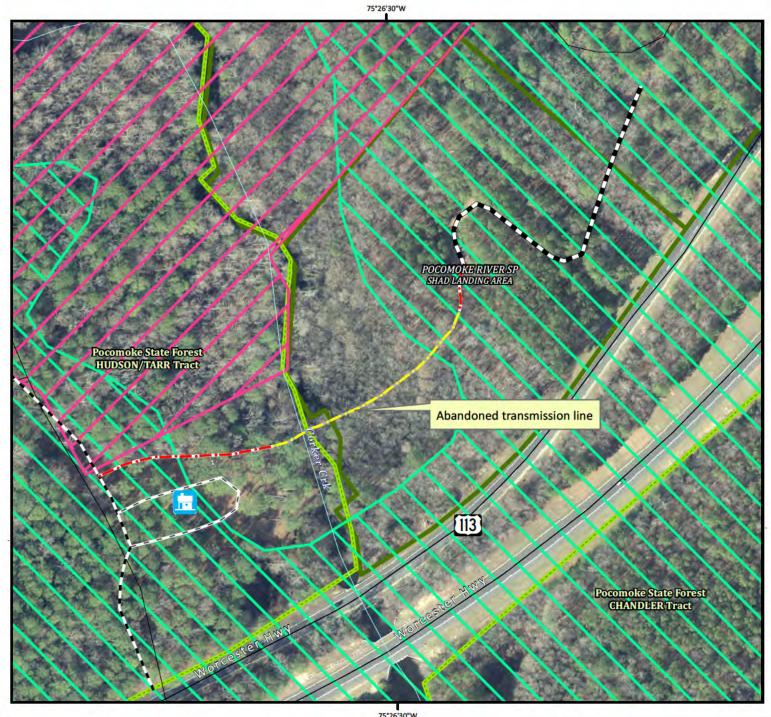
ASC-DNR Forest Service 9/2012







Page 101 of 125



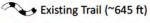
0 165 330 Feet

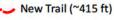
1 inch = 165 feet

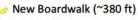
# Pocomoke State Forest Pocomoke River State Park

Corker's Creek Trail and Crossing Aerial Photo Map

## Legend



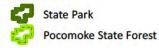








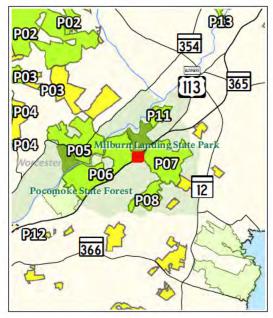
## **DNR Lands**



ASC-DNR Forest Service 9/2012







Page 102 of 125

#### POCOMOKE RIVER WILDLAND. -

(1) Pursuant to the provisions of subsection (a) of this section that property situated in Worcester County containing approximately 2,481 acres and described as follows is a Type 2 State wildland and shall be named the "Pocomoke River Wildland":

#### Parcel 1:

Beginning with the first part at a point on the west bank of Corkers Creek where it joins the Pocomoke River and proceeding clockwise, then generally southerly with said west bank approximately 6,200 feet to the rear line of the clearing for the forest manager's residence, then leaving the creek and with said rear line southwesterly **400** feet to a forest road, then with said forest road and with its meanders, northwesterly then southerly and then northwesterly approximately 11,500 feet to the Pocomoke State Forest boundary, and with it northwesterly about 2,200 feet to the Pocomoke River, then with the south bank thereof to the beginning point.

#### Parcel 4 (Shad Tract, Parcel A):

Beginning at the intersection of Corker's Creek and a ditch running in a northeasterly direction, said point also being on the boundary line of Shad Landing State Park and then running, along said ditch in a northeasterly direction to its intersection with the Pocomoke River, then running along the south bank of the Pocomoke River to Corker's Creek, then running with Corker's Creek to the point of beginning.

#### Parcel 8:

Beginning at a point in the intersection of Corker's Creek and a ditch running in a northwesterly direction, said point being in the northeastern boundary of Pocomoke State Forest and the Shad Landing State Park boundary line, then with said ditch in a northeasterly direction 700.00 feet more or less, then leaving said ditch and running in a southeasterly direction 850.00 feet to a State park loop road at a campground, then running along said road **4,000.00** feet more or less, to a point **opposite a 90 degree bend in said road**, then leaving the park road and running in a southwesterly direction **650.00** feet more or less, to Corker's Creek, then running along Corker's Creek in a northwesterly direction to the point of beginning.

#### Saving and excepting all portions of the Pocomoke River.

- (2) Within the part of Pocomoke River Wildland lying north of the Pocomoke River and east of Milburn Landing area, Pocomoke River State Park, safety zone signs may be posted to protect the State park camping area in hunting seasons.
  - (e) Maintenance and improvement of boundary roadways. -- If a county or State road is the boundary of any area designated a wildland pursuant to subsection (a) of this section, the county or State is exempt from the requirement to obtain approval from the General Assembly for activities within the wildland, which are 200 feet of the road edge, if they are necessary for the maintenance or improvement of the roadway for public safety. These activities are subject to normal review, permit, and approval actions as required by law.
- § 5-1210. Effect of designation of woodland areas upon State forests and State park and wildlife refuge systems

The purposes of Part II of this subtitle are supplemental to the purposes for which State forests and units of the State park and wildlife refuge systems are established and administered. Nothing in Part II of this subtitle may interfere with either the purpose for which State forests are established or modify the statutory authority under which units of the State park system are created and continued. The designation of any area of any park, monument, or other unit of the State park system as wildlands may not lower the standards evolved for the use and preservation of the park, monument, or other unit of the State park system.

§ 5-1211. Responsibility of unit for administering areas; wildland areas to be devoted to public purposes

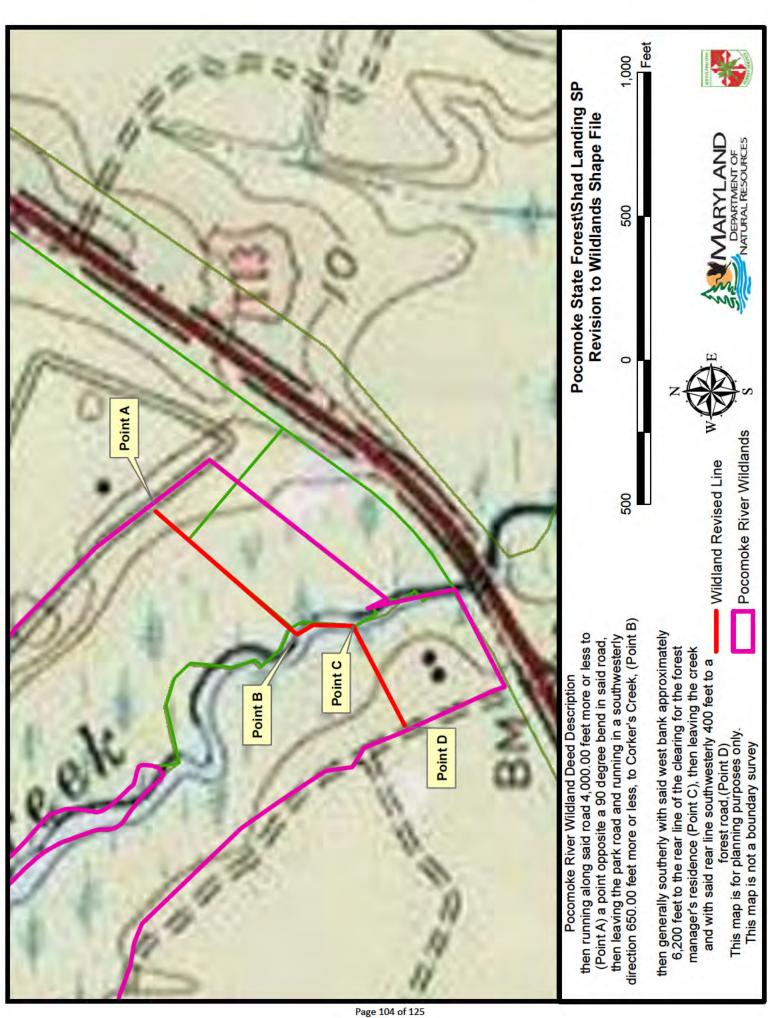
Except as otherwise provided in this part, each unit administering any area designated as wildlands is responsible for preserving the wildland character of the area and administering the other purposes for which it was established in order to preserve its wildland character. Except as otherwise provided in Part II of this subtitle, wildland areas shall be devoted to public purposes for recreational, scenic, scientific, educational, conservation, and historical use.

§ 5-1211. Responsibility of unit for administering areas; wildland areas to be devoted to public purposes

Except as otherwise provided in this part, each unit administering any area designated as wildlands is responsible for preserving the wildland character of the area and administering the other purposes for which it was established in order to preserve its wildland character. Except as otherwise provided in Part II of this subtitle, wildland areas shall be devoted to public purposes for recreational, scenic, scientific, educational, conservation, and historical use.

#### § 5-1212. Restrictions on certain uses

Except as provided in Part II of this subtitle, and subject to existing private rights, a commercial enterprise or permanent road, except fire roads, may not exist within any wildlife area designated by Part II of this subtitle. Except as necessary to meet minimum requirements for the administration of the area for the purpose of Part II of this subtitle, including measures required in emergencies involving the health and safety of persons within the area, there shall be no temporary road, use of motor vehicles, motorized equipment, motorboats, landing of aircraft, or other forms of mechanical transport, and no structure or installation within any area.



## Appendix E: Chandler-Colburne Recreation Enhancement Projects

## Chandler-Colburne Corkers Creek Bridge

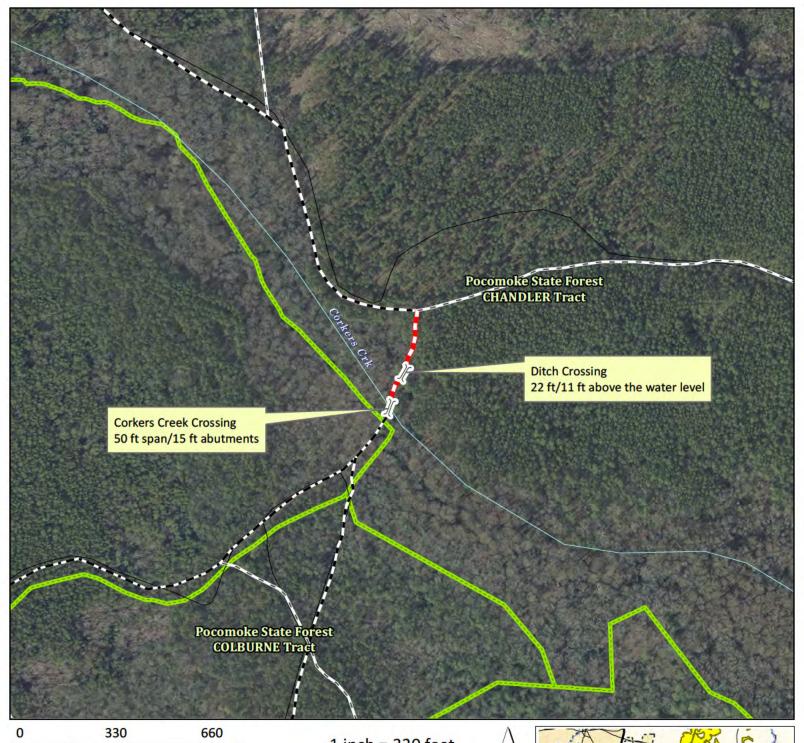
- This bridge will restore a connection between the P07 Chandler and P08 Colburne tracts
- Crosses Corkers Creek at an abandoned county road crossing point
- Bridge over Corkers Creek will use existing embankments
  - o 50 foot bridge span, embankments are 15 feet above the high water mark
- A second bridge/crossing is needed for a manmade ditch parallel to Corkers Creek
  - o 22 foot crossing, 11 feet above water level
- 230 feet of historic trail will be cleared to complete the connection to the Chandler tract
- A survey may be needed to determine the property lines as they relate to the existing road

## Chandler Tract

- Part of the former ORV Red Trail east of the Colburne connector trail to its terminus at the Blue
   Trail will be permanently closed (1.5 miles)
- 3 stream crossings/culverts will be improved, and 4 culverts may be removed if possible and where appropriate
- 3.2 miles of other unused and unnecessary trails will be closed to all traffic
- The entire tract will be cleaned of all unnecessary or outdated signage, posts, gates, etc.
- The south parking area (directly across from the Shad Landing Park entrance) will be expanded to accommodate more vehicles
- We will coordinate with SHA to install signage and improve the entrance to the parking area
- New signs and maps will be created to reflect these changes and show the 7 miles of trail

## Colburne Tract

- 4.4 miles of existing roads will be closed
- Approximately 4 miles of existing roads will be brushed open and maintained as multi-use nonmotorized trails
- The existing parking area on Onley Road will be expanded



Feet

1 inch = 330 feet

## **Pocomoke State Forest**

Chandler - Colburne Bridge

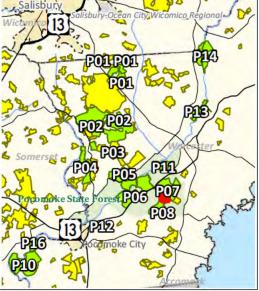
ASC-DNR Forest Service 9/2012











Interdisciplinary Team Comments



Martin O'Malley, Governor Anthony G. Brown, Lt. Governor John R. Griffin, Secretary Eric Schwaab, Deputy Secretary

## October 3, 2012 FY2014 AWP ID Team Sign-in

| 1.  | SGT. STEPHEN PAYNE (NRP)    |      |
|-----|-----------------------------|------|
| 2.  | Jok for Dus (MS)            |      |
|     | Brett Coakly (Fish)         |      |
| 4.  | Stay Ehun (PFS)             |      |
| 5.  | Russ Hice (WHS)             |      |
| 6.  | Wester Knyp (LHS)           |      |
|     | Mike Schofield FS           |      |
|     | JOHN CONNORS PARKER FOR, S  | ERU, |
| 9.  | Gary Adelhardt MPS          |      |
|     | Anne Hairston- Strong (MFS) |      |
|     | Alexapolar Club (FS)        |      |
| 12. |                             |      |
| 13. |                             |      |
| 14. |                             |      |
| 15. |                             |      |

From: Payne, Stephen W.

Sent: Friday, October 05, 2012 11:10 AM

**To:** Schofield, Mike **Subject:** Suggestions

Here are the suggestions we talked about;

-It would be nice for enforcement if there were forest rules/regulations posted at all parking areas. I know there is a problem with vandalism on the bulletin boards, but being able to tell the judge that a regulation was posted at the access point they used goes a long way.

- -I think the trail work is a great idea. From a safety standpoint I would like to see the trails be marked with a post that has a post number and GPS position on it so if someone gets lost or hurt they could call 911 and give that information to EMS. Trail maps with this info would also be a big help. You may also want to consider a few places along the trails that a helicopter could land for emergencies. Having those areas marked a plotted would be a good idea.
- -When building these trails it would be nice if they were cleared enough, and any bridges built to support an ATV/UTV for patrol purposes or in cases of lost or injured persons.
- -Along the lines of special use interests such as horses/ATV/Bikes, I would suggest setting areas up on a rotating use system so areas would have a chance to recover and the users would still have places to go. I think the best way to control the numbers would be thru some type of permit system like they used with the ATV's. This would also generate some income for the trail maintenance. I do think it would be a good idea to have a person from these interests on this committee
- -I do not like the idea of just opening up all of the forest to ATV's during hunting season. I do think creating some interior parking areas on large properties would be a good idea to make access easier. The problem here would be the ability to maintain the roads to these areas.

#### Thanks

Sgt.Stephen W.Payne
District 2 / Worcester County

NRP Area 1 / Johnson Office 32144 Mt Olive Rd Salisbury, Md. 21801 410-548-7070 443-366-5742





From: Hairston-Strang, Anne

Sent: Tuesday, October 09, 2012 5:40 PM

To: Schofield, Mike; Adelhardt, Gary; Beth Cole (bcole@mdp.state.md.us); Clark, Alexander S;

Coakley, Brett; Hill, Russ; Jolly, Kenneth; Knapp, Wesley M.; McLaughlin, Erin; Payne, Stephen

W.; Perdue, Jack; Powers, Kip; Skip Jones; Smith, Kevin M.; Wilson, John F.

**Subject:** RE: CF/PSF AWP ID Team Review

Mike,

Following the field review, I have the following comments:

The proposed trail connections in the FY14 Annual Work Plan would significantly increase the quality and scope of recreational opportunities adjacent to Pocomoke State Park, something that would increase value to the local community, nature-based recreation, and multi-purpose function of these public lands and support the social and economic aspects of sustainable management principles. To avoid undesirable environmental impacts, designs should avoid interfering with water flow, avoid erosion and sedimentation (especially with direct connections to water bodies), and minimize disturbance of natural vegetation. Of the Corker's Creek footbridge crossing options, the location in the wooded areas would be preferable, primarily for safety reasons. The design discussed was using pilings and boardwalk to avoid changing hydrologic flow patterns, and progressive construction working from the boardwalk to avoid heavy equipment on the wet soils. With the provision that these kinds of techniques will be used to minimize the disturbance and footprint of the crossing, I would recommend choosing the woods trail option. The other location we reviewed was adjacent to Rt. 113, a heavily traveled, high-speed highway; concerns with that location include safety of recreation users (including small children and pets), possible need for installing guard rail if the trail were located there, and steeper slopes on the embankment and ditch slopes that are likely to create more persistent erosion problems with direct ditch connections to the creek.

The proposed trail route on the Chandler Tract takes advantage of previous road and bridge locations, minimizing disturbance and expense for trail construction. Care should be taken when establishing stable bridge abutments to avoid erosion and sediment flow into the creek.

After trail and bridge construction, I would recommend monitoring impacts to resources (including unauthorized trails) and controlling level of usage if needed.

I support continuing the sustainable management practices embodied by the proposed silvicultural work, and participation in both of the current certification programs.

Thanks for the opportunity to review and comment.

Anne

Anne Hairston-Strang Forest Hydologist MD DNR Forest Service 410-260-8509 astrang@dnr.state.md.us



Register all newly planted trees today! www.trees.maryland.gov

**Subject:** FW: CF/PSF AWP ID Team Review

From: Coakley, Brett

Sent: Tuesday, October 16, 2012 10:28 AM

**To:** Hairston-Strang, Anne; Schofield, Mike; Adelhardt, Gary; Beth Cole (bcole@mdp.state.md.us); Clark, Alexander S; Hill, Russ; Jolly, Kenneth; Knapp, Wesley M.; McLaughlin, Erin; Payne, Stephen W.; Perdue,

Jack; Powers, Kip; Skip Jones; Smith, Kevin M.; Wilson, John F.

Subject: RE: CF/PSF AWP ID Team Review

#### Mike,

I think Anne does a great job summarizing the concerns of many of the Divisions, so no need to re-write them in my opinion. There is one additional comment however. Fisheries would request that no work be conducted from February 15-June 15 for the fish spawning season. These closures are required for any in-stream work where anadromous fish are present.

Brett Coakley Fisheries Service Citizen Advisory Committee Comments



Martin O'Malley, Governor Anthony G. Brown, Lt. Governor John R. Griffin, Secretary Joseph P. Gill, Deputy Secretary

# CHESAPEAKE & POCOMOKE FOREST FY2014 ANNUAL WORK PLAN MEETING ATTENDEES FRIDAY, NOVEMBER 9, 2012

\*If you have any changes in your address, telephone numbers or email please fill them in below. Thank you

| Participant Name: (Please Print)  | Address & phone numbers:   |
|-----------------------------------|--|
|                                   | 410 430 1743   |
| Joe Fabrer                        | Email address:   |
|                                   | Address & phone numbers:   |
|                                   | 850 ZH 6837  |
| David Rug<br>Mary Pines           | Email address: d-vay & fine. ovg   |
|                                   | Address & phone numbers: 31881 Mitchell Rd<br>Frincess Anne, MD218<br>(410) 726-8300                             |
| Mary tines                        | (410)726-8300  |
|                                   | Email address: Mary pines a hughes net   |
| Lany Beauchamp                    | Address & phone numbers:<br>32484 Rehabeth Rd, 443-614-3879<br>Pocenale, Md. 21851<br>Email address:             |
|                                   | 11 beauchamp @ hotmall.com<br>Address & phone numbers:   |
| Anthony DiPasto                   | Address & phone numbers: 3733 Rigu Rd. Snow Hill MJ. 410-726-7680 21863  |
| /                                 | Email address: tonydoz@comcast.net   |
| Cal Lubben                        | Address & phone numbers:  3227 Aydelotte Road  Pocomoke Cty MD 21851  Email address:  clubben@ harvest power.com |
| MI SI Call                        | Address & phone numbers:   |
| Mite Schotiell<br>Alexander Clark | DNR-MES  |
| Kip Powers                        | Email address:  DNR-Forest Senus   |

Chesapeake and Pocomoke State Forests - 6572 Snow Hill Road, Snow Hill, Maryland 21863
Telephone (410) 632-3732 Fax (410) 632-3730 • www.dnr.maryland.gov • TTY users call via Maryland Relay

## **Mary Pines**

From: "Mary Pines" <marylpines@hughes.net>

To: <mschofield@dnr.stste.md.us>
Sent: Tuesday, January 08, 2013 7:04 PM

Subject: Fw: annual report plan

---- Original Message -----

From: Mary Pines

To: mschofield@dnr.stste.md.us

Sent: Monday, January 07, 2013 1:52 PM

Subject: annual report plan

Mike, the holidays have been brutal, please forgive me for taking so long, but I did read the plan and had a few ideas. You may have already done these, and I am just reinventing the wheel, but it is food for thought. Of course we discussed marking the trails so new comers can find their way around without fear of getting lost. Would it be possible to set a date where members of the equestrian group could meet with a representative from DNR and take a tour of the trails most utilized, especially the new tract you have told me about. We discussed using smaller stone on the road, which is more conducive to horses feet. I also thought it might be beneficial to hold a class, possibly thru the Maryland Cooperation Extension Office, discussing endangered plants in the region and or trail edicate. This might help unify the environmental and equestrian groups, and begin a dialogue between the two groups. If it's been done before. let's do it again, maybe late winter or early spring? My BIGGEST concern is to stay in the loop. and make sure public land stays public land, and hunting on Sundays does not come into fruition. Lastly, I was thinking more about the idea of having a place for the equestrians to stay over night. This is a monumental undertaking, but could be could be brillant. There is not anything available close by except Fair Hill and Patapsaco. We have so many wonderful trails in the area in close proximity, that so many could utilize. Keep it on the burner, if you agree. The name of the person to contact about bridges in State Highway is Mr. Fredman @(410) 545-8060. Good Luck! Thanks for removing the big tree downed on the trail behind my house. I'm ready, when you're ready to finish the trail in the woods around the hunting camp. Happy New Year!

#### **26 November 2012**

Mike Schofield MD DNR Forest Service Chesapeake Forest Manager

Find below my comments on the 2014 Annual Work Plan for the Eastern Region State Forest Lands. A meeting was held on 11/9 between DNR Forestry Staff and reps of the Citizens Advisory Committee to go over the plan and answer questions/concerns. Thank you for the opportunity to provide this feedback.

### **Proposed Harvest Activities**

In general I don't have any issues with the harvests proposed in the plan for FY-2014. The area indicated for harvest at 1,694-ac is a modest proportion of the total ownership, and relatively few of these acres are being regenerated (212 ac) compared to receiving intermediate treatments (1,481 ac). I do, however, question the treatment of Stand 7, Tract 13 located within the Dividing Creek Complex on the Pocomoke Forest. Here, a final harvest is proposed for a 32-ac mixed pine/hardwood stand that is relatively old (approx. 80 yr) and located in an area designated as DFS future core. Given these circumstances I wonder why some form of legacy retention or VHR is not being used?

In terms of describing the proposed harvest you might consider characterizing the regeneration treatments (seed tree, VRH, final harvest) as variable retention (VRH) in cases where legacy trees are being retained, something that seems to be the case more often than not these days. This description would encompass clearcuts, seed-tree and shelterwood harvests with permanent retention (see Mitchell and Beese 2002 for justification, paper attached). If creating a balanced distribution of age classes for managed pines is no longer an objective of management (my take, based on the conversation we had at the meeting), as stated in the SFMP, then that document should be amended to reflect this change in thinking. My concern, from an ecological perspective, would be if not pursuing a balanced age class distribution within the more intensively managed portion of the ownership would result in heavier/more frequent cutting on acres being managed primarily for habitat values. Finally, you should revisit the numbers presented as projected harvest income in the budget and adjust those accordingly, as they appear to represent an unrealistically high per acre value.

## **Special Projects.**

I really applaud your efforts to develop multi-use trails on the forest, and look forward to seeing these projects completed. Hunting is clearly the dominant recreational use on the property, and unlike other uses generates substantial income that is needed to support of various management and upkeep activities on the forest. Hunting is also important for regulating deer populations and reducing the negative impacts of herbivory when population densities are too high. While recognizing the important benefits of hunting, potential conflicts with other user groups related to safety may present issues at

certain times of year. There is significant overlap in the ideal times to engage in trail based recreation and hunting in this part of the country due to weather and insect pest related concerns. To minimize this risk DNR might consider creating no-hunt buffers along selected high-use recreational trails so a diversity of users can enjoy the woods in safety at times when both groups are active.

#### **General Comments**

While I appreciate seeing the information contained in the section on natural disturbance regimes and vegetation community types of conservation concern because it suggests you are considering these factors as they relate to land management, it seems unnecessary and a bit out of place in the sense that there is no further mention in the plan of particular activities that would flow from it. For example, I could see the background on fire regimes and dependent communities if you were planning to carry out prescribed burns in the coming year, in particular for restoration/ecological purposes. If you plan to use fire in the coming year(s) it would make sense to highlight where that will be happening in the work plan along with the other activities. There is some recent research that takes advantage of better data and modeling approaches than were available to Frost (Guyette et al. 2012, a copy is attached). Also, the relationship between fire and oak regeneration appears not to be as straightforward as once thought and there is an accumulating literature on this as well (see Arthur et al 2012, also attached).

Similarly, you include a section on inland dune habitats but there is no mention of related management activities in the plan. If you intend to do any of this type of work in FY2014 then you should include it in the plan, perhaps even if it was something that got proposed in the previous year but is still in process. And I think the origin of the inland dunes has been misinterpreted here- according to the geologists who did the work the dunes of the Parsonsberg Sand Formation were created by NW winds pushing that material towards the coast in front of the retreating glacier (see Denny and Owens 1979, attached), not a paleo-coastline. Same general comment goes for the other categories of special habitats that did not get developed in as much detail. Again, it would be appropriate to include them if there were related activities taking place, otherwise we know they exist in the SFMP.

I like having a glossary for terms used frequently in the activity descriptions and associated maps, this is easier than searching for them in the SFMP. So, in addition to the silviculture terms, you might also include descriptions of the various land classifications, i.e. ESAs, DFS, FIDS, etc. that constrain management options on a given acre. To avoid confusion I suggest using established definitions for the silviculture terms (from Smith et al. 1996, Dictionary of Forestry, SAF Silviculture working group)- to the extent that the way you apply them differs from these standards you can add a clarifying sentence. Related to this, I believe you have defined VRH too narrowly in the plan (see attached pub, Mitchell and Beese 2002, and definition in DoF). Because these prescriptions are always flexible in the field based on unique conditions on the ground there is no need to specify a percent retention, which is never going to be met precisely anyway. And the verbiage about using VRH to regulate age-class distributions is suspect in my opinion because that treatment creates multiaged stands, and we have relatively little experience with VRH as a silvicultural system and as a result don't know much about associated growth and yield.

The more traditional regeneration methods are designed accomplish this but you make no mention of that aspect in their definitions?

Other types of information that I would like to see in the leading section of these plans, because it would help provide needed context, include things like a summary table of activities proposed in the prior year (or most recent available) and how those were met- which could be as simple as acres in each category of silvicultural treatment that was proposed. Summary of the prior year's audit results focusing on any CARs or substantial recommendations received, and how earlier ones have been resolved or not, basically on a rolling basis (e.g. open and closed issues). I think it would be useful to have this information summarized in this report (specifically for this region) because reviewers won't necessarily look at the copy on the web- at a minimum consider providing a link in this document. This could also be an opportunity to highlight some praise an auditor might have had for your management at the past visit. Including this type of dynamic information seems much more relevant to have than a repeat of the general background that already appears in the SFMP and which does not change from year to year.

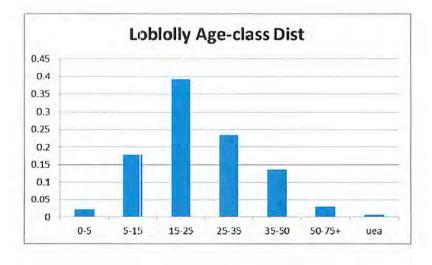
I really like having the 'forest diversity analysis' presented in Table 1 as part of the plan, and think it is something that will become increasingly valuable to reviewers as new inventory data become available and you can show shifts in the different categories that are occurring as a result of management. I have the following suggestions for improving its utility: (1) the age class ranges presented are probably only relevant to loblolly pine, e.g. I don't think an Atlantic white-cedar or bald cypress stand would be considered mature at 35-50 years of age. A more useful quantity to use in this type of table would be QMD, if that was available. (2) need to define what the 'big trees' category means, is this simply more mature versions of even-aged stands for that species, seems so? (3) I'm suspicious of the uneven-aged category- do you mean to suggest that these stands meet the definition of having a minimum of three ages classes (and based on the row variable, of the same species) intermingled within a single stand, and 407 acres of loblolly pine on the forest meet this definition? If not, consider changing this heading to multiaged, which just means two or more age classes are present.

Sincerely,

David Ray
The Nature Conservancy
Ecological Representative for CAC

#### Notes for meeting:

- Include more in terms of long-view information- rolling coverage of past years activities and audit results. Progress towards overall goals with implications for habitat restoration and connectivity issues.
- Summary of cut/sustainability information
  - Supply numbers related to regeneration cuts in relation to sustainable forestry area, not the size of the forest in total.
  - Concerns about age class distribution in SFMP don't appear to be addressed in work plan (opportunities to do this on the Pocomoke Forest, older first thin stands)?
  - Clarify silviculture terminology particularly related to regeneration cutting, Final Harvest, VRH, etc. Use Dictionary of Forestry defs, when possible
- Table 1 is a nice inclusion
  - Age range is really only applicable to managed loblolly (consider using Oliver and Larson structure classes instead).
  - o Issues with Loblolly age-class distribution (above), VRH offered as pathway to this??
  - Question of high per acre income-\$400/ac
- Refer to list of project areas and comments
  - Include basic inventory information for stands, BA, TPA, QMD, RD, age is not enough
- Special projects
  - Status of the seed collection effort for shortleaf and pond pine (pond pine not a forest type)
  - o Are there no restoration projects planned this year?
  - o Any prescribed fire planned, and if so where?
  - o If no restoration/habitat enhancement type projects are planned this may be a problem.
  - o Operations in ESAs, DFS FC areas, etc seem to be pretty conventional- no statement about retaining hardwoods preferentially in these operations in the workplan.
- Cudos on all the multi-use trail work!
  - o Are these proposals funded?
  - o Are MTBs allowed?
  - o What about a no hunt buffer on the Algonquin Cross Country Trail?



# **Public Comments**

## Chesapeake Forest / Pocomoke State Forest FY 2014 Annual Work Plan Public Comments

2013-03-22

Sent: Friday, February 15, 2013 11:03 AM

Subject: State Forest Work Plans

Thank you for the opportunity to review the draft work plans for Maryland's state forests. We have reviewed them as posted on the DNR web site at: http://dnr.md.gov/forests/workplans/index.asp

We support the DNR's adoption of standards reflecting the FSC and SFI Forest Certification programs. It is wise to manage these publicly owned forests under sustainability principles as described in those programs. This will bring benefits to the health of Maryland's lands and waters and also qualify the forest products for sale under the FSC and SFI certifications.

We applaud DNR's care in reviewing potential offroad vehicle (ORV) routes very cautiously. That is the best way to avoid further degradation of state forest lands and deter ORVs from trespassing on adjoining lands under other ownerships. The DNR Offroad Vehicle Report dated February 2011 showed widespread damage on state lands from unmanaged ORV usage. The state forests should not encourage abusive ORV riding like that described in the 2011 report.

There is one serious ORV problem in the work plans – a proposed ORV route in the Savage River work plan at page 4. We are not aware of any public review of this proposal. After the public review of the 2011 report, I (George) spoke on March 7, 2012, with Paul Peditto, of DNR. He told me there would be public review and comment before any new ORV routes would be opened on state lands. We are not aware of any such review on the ORV route mentioned in the Savage River work plan. No new ORV routes should be built or opened in the state forests until a thorough public review and comment period has been held at the statewide level. Please notify us if any such comment period is held.

Our comments on specific work plans follow.

## Green Ridge State Forest

Pp. 7-8. We support the rehabilitation of East Valley Road by reconstructing the surface and installing drainage features to eliminate excessive erosion from the road surface and safely divert road runoff before it enters the streams. We agree that this road should remain closed to ORVs. Only passenger vehicles licensed for highway travel should be allowed.

Pp. 19-20. Town Hill potential ORV route. We note that DNR's interdisciplinary team concluded that this 6-mile route would be unsustainable. We support that conclusion. No such route should be considered further. However, if the Town Hill route continues to be

considered, DNR should conduct a statewide public review and comment on the proposal before any more time or money is devoted to it.

### Savage River State Forest

P. 4. A new ORV route is mentioned, to be installed in FY 2014. DNR should hold statewide public review and comment on this route before any further work is done, meeting the commitment made by Paul Peditto in 2012.

Pp. 52-53. The description of the field visit reveals several serious problems with the St. Johns Rock proposed ORV trail. Those problems found by the CAC are a good example of the impacts that can result from an unsustainable ORV trail. One of the problems is trespass onto adjoining private lands. We urge DNR to abandon this proposed ORV route. If it is to be considered further, a statewide public review and comment period should be provided, so all stakeholders can take a look at the project.

Chesapeake and Potomac State Forests
We heartily support two projects described in the work plan:

(P. 84 ff.) Algonquin Cross County Trail: a non-motorized trail 13 miles long, which will be the longest forested trail system on the Eastern Shore and Delmarva Peninsula. The trail will foster recreational use in Chesapeake SF, Pocomoke SF, and Pocomoke River State Park. The project consists of adding 2.3 miles of trail to existing trails now totaling 11.5 miles.

(P. 89 ff.) Mattaponi Landing Soft Launch: a 1/3 mile dirt and gravel road to provide river access for canoe and kayak users to Maryland's first Wild & Scenic River. This access will enable paddlers to go north to Shad Landing State Park or south to Milburn Landing State Park. I (George) canoed on the Pocomoke many years ago and remember it as an excellent way to enjoy the area and see wildlife close up.

Please keep us informed of any further action on these work plans. We can be reached at the email address below.

George & Frances A

Sent: Friday, February 15, 2013 4:00 AM

Subject: DNR Welcomes Public Input On State Forest Annual Work Plans

Motocross riders account for hundreds if not thousands of active off-road motorcyclists who have very few places to ride on private land, and NONE on Public land. There is really no reason that this should be the case as they contributed to the Fund. Our stakeholders have been looked over for 40 years, and while the state has benefitted from us, we haven't benefitted from the State.

While Rules and Regulations have been written around our activity since the motocross boom of the '70s, they have only succeeded in limiting us, and not allowing us to reap the benefits of Liberty that many other user groups have had such as equestrians, mountain bikers, or even model airplane flyers! We are a unique user group that gets combined with trail riders, unartfully.

I have identified a gap in Maryland law that seeks to regulate all ORV activity but does not apply to our form of recreation. Our sport is motocross, involving the racing of highly tuned motorcycles not at all like the trail bikes envisioned by the ORV legislation that defines an ORV as a cross-country vehicle with a headlight and taillight. We ride on closed courses.

The reason for my letter is to have Motocross Race Bike "use" be made exempt from existing laws. Exempting this special class of "vehicle" is possible with the authority of the Secretary of the DNR. I will attempt to make an argument for this special exception by demonstrating how our chosen sport uses a "vehicle" in a way not anticipated by current ORV law.

Motocross bikes are used in the sport of motocross, on private land, either in competition or for recreational purposes on land used for training for the sport. These are not cross-country trail bikes used for travel; they do not have headlights or license plates, or green DNR stickers, or mufflers of the kind one would expect a trail bike to be equipped with. They shouldn't be considered vehicles.

Additionally, there are no Public "designated lands" for our use. We would like to be welcome on State DNR land, on Public Land! Our motocross tracks take up only about 30-40 acres. Ample parking is a major factor in those 40 available acres because motocross events are so well attended. Governor O'Malley, John F. Wilson and Paul Peditto know about our needs.

Our case is made in the attached file addressed to Secretary John Griffin. It looks at existing wording of law and specifically shows how it is inappropriately applied to our "Use". We are requesting a special exception to allow the use called "motocross" on Unclassified or Undesignated land, along with the exemption from being required to display a green sticker.

The Motocross Council is actively working to provide riders with private facilities to ride motocross, however being incorporated into the general "Trails" discussion is incongruous without discussion of our needs. Our chosen sport is not, nor does it appear that it ever will be, an accepted "Use" for planning authorities who cite noise, soil disturbance, and high speed as reasons to forbid our activity.

Working with the ORV Stakeholders Workgroup has shown promise in gaining ground (figuratively and literally), but we need a special exception to create community motocross parks on land remnants, in every county, where our stakeholders can have the recreation and the practice that is required to succeed in this challenging pursuit. We want an exemption from the sticker requirements mostly.

And finally, we want to be afforded the same opportunities horse riders have when accessing Public Land. Out of 1000 miles of DNR trails in Maryland, there are none for motocross. A motocross loop is only 1-1/2 miles, and only needs about 30-40 acres to accomplish that. We don't need hundreds of acres. We need meaningful support by the DNR to access our Public Lands.

As you contemplate miles of recreational trails on Public land or through the use of Public Private Partnerships, please remember that our sport has contributed to the technology, Moto culture, bicycle culture, Olympic culture (BMX), the economy, and the sports and entertainment industry all through private land use. Don't you think it is time to get back to the simple "lot on the corner"? Public Land?

Wind O

Sent: Thursday, February 14, 2013 1:44 PM

Subject: Re: Public Comments for State Forest Annual Work Plans

First of all I want to thank the DNR and you for giving us, the Public, the opportunity to review and comment on the Work Plans. This was my first experience participating in the endeavor. With that said, I apologize up front if I missed the mark and/or offend anyone with my comments. That was/is not my intention. All the Forest Managers and their staffs did a phenomenal job building their plans. I have consolidated my comments in the attached Word document. I tried to keep it short and to the point and hope you do have the time to review it. Please let me know if you cannot open the attachment and I will get the info to you another way. Again, thank you for this opportunity.

## I. Eastern Region State Forest

a. Great plan just a little convoluted. Plan does not include IFC or CAC reports/comments. Why isn't ORV use reconsiderations addressed?

Sent: Tuesday, February 12, 2013 1:44 PM

Subject: Public comment on the proposed 2014 fiscal year work plan

As a resident of Maryland that enjoys off-roading I would like to say that I am in favor of working with unimproved roads left from timber and mining operations and I would like to see more access available to OHV users in Maryland.

David F