

#### Stony Run Demonstration Forest Bald Eagle State Forest Trail Guide

#### GPS Coordinates: 40.907846, -77.211536



# Bald Eagle State Forest Forest District # 7

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# Stony Run Demo Forest Bald Eagle State Forest



# Stony Run Demonstration Forest Area Trail Guide

This demonstration area is one of many across Pennsylvania intended to introduce citizens to different methods of timber harvesting, along with their benefits and consequences.

The trail through the demo forest is a 6/10-mile loop. The trail goes through each of the 9 forest stands. There are interpretive signs along with 23 tree and shrub identification points, which were installed as part of eagle scout projects.

Parts of the trail are quite rocky and could be slick.



### The Demo Forest Project and Site

This area consists of 25 acres and has been broken down into 9 different blocks, ranging in size from 2 to 4 1/2 acres. Eight different harvesting methods are shown, along with a control block where no cutting was done. The blocks are separated by trees marked with blue bands. The timber harvesting alternatives do not all represent good forestry. Those not representing good forestry practices are often used on privately owned Pennsylvania forest lands.

More than half of Pennsylvania is covered by forests, and more than 70 percent of this forested land is owned by private landowners. Because PA's extensive forests contain high quality hardwoods, timber harvesting is an important part of the state's economy. The continued flow of high quality hardwoods depends on the management decisions PA landowners are marking today. We all depend on the forest for wood and paper products. Many others rely on the forests for their livelihood. Others simply enjoy the many forms of recreation and the natural beauty the forest provides.

Timber harvesting is frequently a controversial issue. A forest provides many different benefits, and the preference for how it should be used varies from person to person. The controversy about timber harvesting is often magnified by the fact that most people known little about timber harvesting and its role in maintaining sustainable forests.

With proper planning and careful management, timber harvesting can be beneficial by helping to maintain a vigorous, healthy, and productive forest. However, it is essential that any timber harvest be planned to consider potential consequences such as the species mix and the quality of the residual stand, and avoid negative impacts such as erosion.

### Stand 1 - Control

This dry oak stand allows you to observe how the forest appeared before any timber harvesting. In some cases, no timber cutting may be a preferred alternative. But remember: forests, even without cutting, are dynamic and ever-changing. The stand was established around 1900.

#### **Stand 2 - Group Selection**

The group selection method removes trees in a number of 1/10 to 1-acre areas to create openings in the forest canopy. It is another alternative for landowners wishing to establish an uneven-aged forest or brushy habitat, but not wanting large clear-cut areas.

### Stand 3 - Conifer Release



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In this stand most of the hardwood overstory was removed to allow free growth of the conifer trees. Evergreen cover provides year round wildlife escape cover and nesting sites for many species of birds.

The most common way to establish needed evergreen habitat is by planting seedlings. Planting the seedlings in small, irregular shaped clumps will provide better habitat than planting in rows or scattered individual trees.

# **Stand 4 - Thinning From Below**

The decision of which trees to remove in this block was determined only on the basis of diameter. All the trees below 12 inches in diameter were cut. The smaller trees that were cut were competing poorly with their larger neighbors and removing the small trees provided little increase in available sunlight, nutrient, and water to the larger ones. The resulting forest had a park-like appearance right after the harvest, which is pleasing to many people, but this gives little benefit to the residual trees and the detriment to wildlife could be significant.

### Stand 5 - High-grade

Again in this block, trees to be cut were selected only on the basis of diameter, 12 inches in diameter and up. Species, quality, and position in relation to other trees were not taken into account. This is called a "diameter limit cut" and is a form of "select cut". The trees that have been

left to regenerate the forest after a cut such as this are poor quality, slow growing, and genetically inferior. This timber sale maximizes short term profit, but limits the options for future forest management.



## Stand 6 - Clear-Cut

This is a controversial method of timber harvesting, and is often the target of public outcry. However, it can be justified as a good forestry practice if a good deal of preparation and followup is done to provide for good regeneration. The shelterwood method is another type of regeneration cut. It leaves a large number of trees standing long enough to establish and protect new seedlings and sprouts. After regeneration is well established, the sheltering trees are harvested, permitting the advanced regeneration to occupy the site fully. The northern part of this stand was cut again around 2012.

#### Stand 7 - Crop-Tree 20 trees/acre

The crop tree method can result in a very light thinning or a very heavy thinning, depending on how many crop trees are released. The more crop trees that receive a full crown touching release, the more trees will be removed in order to provide that release and the heavier the tree cutting will be.

It will also be beneficial to have different species of mast producing trees so when one crop fails, another will be available.

# Stand 8 - Area-Wide Thinning

The purpose of this treatment is to increase the growth of the better trees in the stand by removing some of the poor quality trees. Individual trees in this block were selected to cut or leave on the basis of species, spacing, and tree quality.

Because of the increased growth of the residual trees, board foot volume will accumulate faster on these trees than it would have without thinning.

### Stand 9 - Crop-tree 9 tree/acre



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In this block, crop trees were selected based on their ability to provide high quality timber products and/or enhance wildlife habitat. Crop tree management can

benefit wildlife by increasing production of mast from individual trees. When the

crown of the individual tree is free to grow on all sides the amount of mast the tree can produce also increases. Some trees may satisfy multiple crop tree selection criteria, which makes them very desirable choices.

## **Tree ID Posts**

At 23 points along the trail, posts are located in front of particular trees or shrubs. The sign on the post is covered. Once you identify the tree or shrub, flip up the cover to see if you were correct, and to learn more about the species. Our State Flower and State Tree are part of the course.

These identification posts were installed as part of an Eagle Scout Project. There is another tree identification course with 15 species at the Seven Mountains Rest Stop off of US 322.