



# **FOREST MANAGEMENT PLAN**

prepared for

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14525 Kincade Rd.  
Athens, Ohio 45701**

prepared by

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For forestland located in  
Section 20 FR 19 of Canaan Twp.  
Athens County, Ohio  
80.43 M/L acres in tract  
**62 M/L acres forestland**

## **Landowner Management Objectives**

1. Manage the property for all attributes and opportunities that exist in a forest ecosystem of interest to the owner including recreation, wildlife management, soil and water management, forest protection, timber products management, and other compatible conservation uses.
2. Develop and maintain favorable food and cover conditions for game and other wildlife.
3. Conserve the soil and water by installing and maintaining practices, which will reduce soil erosion. A properly managed stand of timber will hold more water and slow down flood waters better than any other crop.
3. Leave this forestland in better condition for future generations whose need will be greater than ours.

5. Maintain and improve the productivity of this forestland.
6. Create interest and appreciation in the many intangible values such as songbirds, wildflowers, plants, mushrooms, nuts, and flowering shrubs which are all a part of the managed forest land.
7. Employ the use of cultural treatments on the better forest land sites and thus shorten the time period necessary to produce a high quality sawlog or veneer product.
8. Conserve the soil from wind and water erosion.
9. Grow tree and plant species, which will provide products for sale.
10. Select tree species best suited to the soil and site's capability and long term management objectives.

## **GENERAL PROPERTY DESCRIPTION**

Athens County is located in the unglaciated hill country of southeastern Ohio. Slope and erosion hazard is the major land use limitations. Seasonal wetness, droughtiness, flood hazard, and the moderately slow to very slow permeability of some soils also limit land use.

Athens County is in the central hardwood forest region. Major forest types include Appalachian hardwoods, bottomland hardwoods, oak-hickory, successional, Virginia pine, and white pine plantations. Most of the woodland in Athens County is in areas of steep and very steep terrain. This terrain is well suited to trees. Pulp and lumber are important forest products in Athens County.

Athens County does have habitat suited to the Indiana bat and American burying beetle and timber rattlesnake. The U.S. Fish and Wildlife Service have listed these as endangered species.

## **THREATENED AND ENDANGERED SPECIES**

No specific threatened or endangered species were noted on this forest land. Some threatened or endangered species that may be found in southern Ohio include the Timber Rattlesnake, Indiana Bat and American Burying Beetle. Threatened and endangered species have certain habitat requirements. Habitat requirements for threatened or endangered species may or may not be found on this forest land. Specific information on threatened or endangered species may be obtained by contacting the Ohio Department of Natural Resources Division of Natural Areas and Preserves directly to access the Natural Heritage Database.

# **Thomas & Karen Riggs Tract**

## **Stand Identification and Mgt. Recommendations**

### **Stand No. 1 8.43 Acre Non-Forested Residential Area**

This area contains the residential structure, old barn, associated out buildings as well as mowed yard and a horse corral.

### **Stand No. 2 14.5 Acre Natural Reproduction Area**

This is an area that was once farm ground that utilized as either crop and/or pasture areas. This area is reverting back to forest cover by the natural succession progress.

Succession is the natural process of reforestation. This transition from grass to weeds to shrubs to trees may happen in one decade or it may take as long as a century to complete. Often, forests are cleared and farmed until it is no longer profitable to do so. This causes fields to be abandoned and lie fallow for many years.

During early succession the weeds are the first plants to appear in an abandoned field. Asters, goldenrod, honeysuckle, thistle, ragweed and blackberry are common weeds to quickly invade an abandoned field.

During middle succession the next wave of invaders to gain a foothold are the shrubs and small trees. Some common shrubs and small trees found on transition sites are multi-flora rose, sumac, poison ivy, highbush blueberry, dogwood, crabapple, persimmon and sassafras.

During late succession, if the seed source is close by, black locust, Virginia pine, black cherry, red maple, and tulip poplar soon become established. After five to ten years these intolerant and moderately tolerant trees will have overtopped and eliminated the shrubby plants. These intolerant trees usually reach maximum development at 60 to 75 years of age. Following this, at a slower pace, the intermediate tolerant oaks and tolerant sugar maple begin to occupy the understory. As the forest ages, the intolerants die and the tolerates take over the growing space vacated by the intolerants.

This area offers little commercial value for a timber sale, but should be inspected for possible silvicultural work to improve species composition. This area will continue to naturally develop into forestland again but species can be controlled by T.S.I. work to encourage the development of the Oaks and Walnuts.

This area should be inspected in five years to determine what activity, if any, is warranted at that time.

This site is classified as medium in terms of the site's capacity to grow trees for commercial forest products. One may expect this management unit to continually produce firewood, pulpwood, and sawlogs and veneer logs as a result of the implementation of the forest management plan.

**Stand No. 3            14.0 Acre    Natural Reproduction / Wildlife area**

Again it appears that this area had been used as pasture in the past.

The development of woody stems puts this area in the late successional stage of development. Thick underbrush has developed, consisting of species such as; Sycamore, Elm, Maple, Locust, and Crabapple. This area offers little commercial value for a timber sale, but should be inspected for possible silvicultural work to improve species composition at a latter date.

Once again, wild grapevines are present in the management unit. In general, the number of vines is such that they are more valuable to wildlife than they are a detriment to timber productivity. There are, however, areas where grapevine numbers are heavier and could adversely affect future commercial timber productivity.

This area was discussed as a possible location for a small lake. Also, supplemental tree planting of Hemlocks/Spruce along the creek bank and Pines in the open grassed areas near the Walnuts.

This site is classified as medium in terms of the site's capacity to grow trees for commercial forest products. One may expect this management unit to continually produce firewood, pulpwood, and sawlogs and veneer logs as a result of the implementation of the forest management plan.

**Stand No. 4            4 Acre        Red Oak/ / Y. Poplar Type Pole Stand**

Trees in this stand range from pole sized trees 2" – 6" in diameter, to pulpwood sized trees, 8"-12" in diameter class. Species dominated by Ash, Elm, B. Walnut, Sycamore, with scattered Hickory and Maple trees present. The presence of all size class of trees means this is a healthy stand capable of being managed for long tern growth of quality trees. This area offers a very limited amount of volume that could be harvested at this time.

Vines should be cut out of the Walnuts as soon as possible to prevent damage to the tops of these valuable crop trees.

This site is classified as medium in terms of the site's capacity to grow trees for commercial forest products. One may expect this management unit to continually produce firewood, pulpwood, and sawlogs and veneer logs as a result of the implementation of the forest management plan.

**Stand No. 5            10 Acres    Non- Forested Area**

Non-forested openings are simply areas where the land is not supporting a forest community. A good rule of thumb to determine if an opening is truly a non-forested opening is to consider how long it has been since a forest covered the area and how long will it is until a forest is present again. If this spans more than 10 years, then you can consider the area a non-forested opening.

Fields and Meadows - These are openings that have very few trees or little water in them. They include fields, pastures, abandoned orchards, meadows, and spill ways.

**Ponds and Bogs** - These include all openings that are dominated by water and have very few trees around them. Marshes, streams, ponds, lakes, bogs, rivers, and reservoirs are included in this category.

**Other Non-forested Openings** - These are openings that are frequently used and changed by people and have very few trees in them. The opening could have houses or other buildings, playgrounds, gravel pits, utility right of ways, parking areas or roads, or spoil pits in them.

This area is currently a hay field. If this field is not mowed regularly, it will convert back to forest land quickly. Along the edges B. Locust, Hickory and Oak seedlings are present. This area should be considered for a supplemental tree planting of desired species if not used for an agricultural purpose.

**Stand No. 6                  6 Acre                  Oak / Hickory Type Poles/Pulpwood Stand**

This stand covers almost the entire Wooded slope located on the south side of this property. This stand consists of several benches (flat ground strips) and the small steep-to-moderate slope. Overall, this area should be considered a small diameter pulpwood sized stand consisting of trees 6" – 10" DBH in size.

This area was heavily harvested 5 - 7 years ago with the valuable trees being removed and the low grade/ low value trees left to populate the stand. Many of these residual trees have been damaged by the logging and show rot and decay. This area is heavily stocked with Hickories, Sugar Maple, and Black and Chestnut Oaks.

This forestland stand is occupied by the oak-hickory forest type. On the drier sites (the ridges, upper north slopes and middle and upper south slopes) of this forest type commercial timber species commonly found include white oak, chestnut oak, black oak, scarlet oak, red maple, and hickory. On the moister sites (lower slopes and coves) common commercial species may also include tulip-poplar, sugar maple, beech, elm, black walnut, black cherry, and ash. Associated tree species may include blackgum, persimmon, black locust, dogwood, sourwood, sassafras, redbud, Virginia pine, and pitch pine. Commercial tree species found in this stand include white oak, shingle oak, red oak, black oak, hickory, red maple, sugar maple, and black cherry.

Any silvicultural system can maintain an oak-hickory forest cover type providing oak and hickory seedlings are present prior to a regeneration method. If the silvicultural systems used create only small openings or no openings in the canopy, this type will gradually convert to shade tolerant species such as hard maple, red maple and beech. Systems that create larger openings or completely remove the overstory within a short period of time will favor the oak-hickory and Appalachian hardwoods forest types.

Harvesting single trees as they mature is not a suitable silvicultural system for managing oaks. Although some oak reproduction will become established and persist for long periods under selection cutting, it will not survive and develop



Tulip poplar is a fast growing tree that grows best on deep, well drained soils of lower slopes and forest coves. The best growth usually occurs on north and east aspects, on lower slopes, and in coves. It is often a pioneer on abandoned old fields or clearcut land and may form pure stands on very good sites. More often it regenerates as a mixed type with other species.

In the seedling-sapling stage, dominant and codominant trees are little affected by thinning or cleaning. Cultural treatment of seedling-sapling stands is seldom needed or justified, except to remove vines. Grapevines can be extremely damaging to yellow-poplar, particularly on good sites that have been regenerated by clearcutting. The result is reduced growth, malformation of stem and crown, and sometimes mortality.

Yellow poplar expresses dominance well and seldom stagnates because of excessive stand density. It self prunes well in closed stands. By the time stands reach pole size at 20 to 30 years of age, the peak rates of growth and mortality are past and the crown canopy is closed. Crown size on surviving trees is reduced and diameter growth is considerably slowed. Thinnings to salvage or prevent mortality, increase the growth of residual trees, shorten rotations, and increase the yield of high value timber products is the essence of intermediate stand management. Board-foot growth is near maximum over a wide range of density. Thus, there is considerable leeway to manipulate stocking levels to achieve diameter growth and quality without sacrificing volume growth of the higher-value trees.

Harvest cuts ranging from removal of 30 percent of basal area to complete clearcuts have resulted in establishment and growth of large numbers of seedlings. Clearcutting, seed-tree cutting, and shelterwood cutting have all been used successfully to regenerate yellow-poplar. However, when partial cuts such as shelterwood are used, height growth is severely limited by the overstory. Seedlings in clearcuts may be two to three times taller than seedlings under a shelterwood after the first 5 to 10 year

Consider doing timber stand improvement (TSI) aimed at Autumn Olive eradication.

The site is classified as medium in terms of the site's capacity to grow trees for commercial forest products. One may expect this management unit to continually produce firewood, pulpwood, and sawlogs and veneer logs as a result of the implementation of the forest management plan.

Trees in this stand are classified as poles to small sawtimber with scattered large sawtimber. Pole size trees measure from 5 inches to 10.9 inches in diameter, measured at chest height. Small sawtimber size trees measure from 11 inches to 14.9 inches in diameter. Large sawtimber measures from 15 inches in diameter and larger.

The stand is adequately stocked with commercial tree species.

The site is classified as medium, in terms of the site's capacity to grow trees for commercial forest products. One may expect this stand to continually produce firewood, pulpwood, sawlogs and veneer logs as a result of the implementation of the forest management plan.

#### ***ADDITIONAL RECOMMENDATIONS FOR THIS FORESTLAND***

**Consider locating and clearly marking all property lines.** Having property lines clearly marked will help reduce the possibility of accidental trespass onto one's property by uninvited hunters, timber cutters and others. The possibility of becoming lost and wandering off of one's property will be reduced. It will also help ensure that one's forestland management activities are confined to one's own forestland and are not carried over onto the neighbor's property.

One method of locating property lines is to follow old fence lines or other known landmarks and identify the property lines from those findings. A legal description of the property and a hand compass are useful with this method.

A land survey is another method of locating property corners and property lines. A list of registered, licensed surveyors may be found at the County Engineer's office or in the yellow pages of the telephone book.

Once the property lines are located they should be clearly marked. One method of marking property lines is to blaze trees along the lines. Use an ax to blaze, or chop off, the outer bark of trees along the property line. Make a blaze at about chest height or higher and about the size of a hand. Brush a brightly colored, durable paint onto the blaze mark. Blaze marks should be no farther apart than one chain (66 feet), but close enough so that one may see from one blaze to another when the leaves are on in the summer. Depending on conditions, this type of mark should last for several years.

Another method of marking property lines is to drive steel fence posts into the ground along the property lines. Use six-foot-long or longer steel fence posts and drive them into the ground about two feet. The posts should be placed no farther apart than one chain (66 feet). The top foot or so of the post may be painted with a durable, brightly colored paint so that the line may be easily seen from a distance.

**Consider maintaining existing trails and oil well roads and adding new ones** throughout the property. Better trail management will help reach goals relating to recreation and wildlife management. Hiking and walking on trails is much easier and more enjoyable than having to fight through the brush. Wildlife use trails for travel and grazing. In addition, ruffed grouse and wild turkey use trails as dusting areas and as places to catch insects ("bugging"). Hawks and owls watch trails in hopes of catching prey moving along the trails.

Better access through trails will aid in firewood cutting and other forestland management activities such as wildlife habitat enhancement and timber stand improvement.

Throughout the duration of this management plan, as time permits, remove or girdle undesirable / unhealthy trees to be used as firewood and wildlife brush pile construction. This will in effect be used as a Crop Tree release.

**Require the use of Best Management Practices (BMP's).** BMP's are measures taken in the planning and implementation of a logging operation and other silvicultural practices to reduce soil erosion and maintain water quality. BMP's will help meet the landowner management objective of conserving the soil and water resources. The Service Forester or a Consulting Forester is available to help identify BMP's to be used.

The booklet *BMP's FOR EROSION CONTROL ON LOGGING JOBS* is available to loggers through the Division of Forestry.

**In the future ( 20-25 yrs) consider a commercial timber harvest using the selection method. (See activities schedule).** Timber harvesting will help meet the landowner management objectives of generating income, keeping the forest healthy and productive, and improving wildlife habitat diversity. The Service Forester or Consulting Forester is available to mark trees that need to be harvested, estimate the volume of wood marked for harvest, and provide marketing assistance.

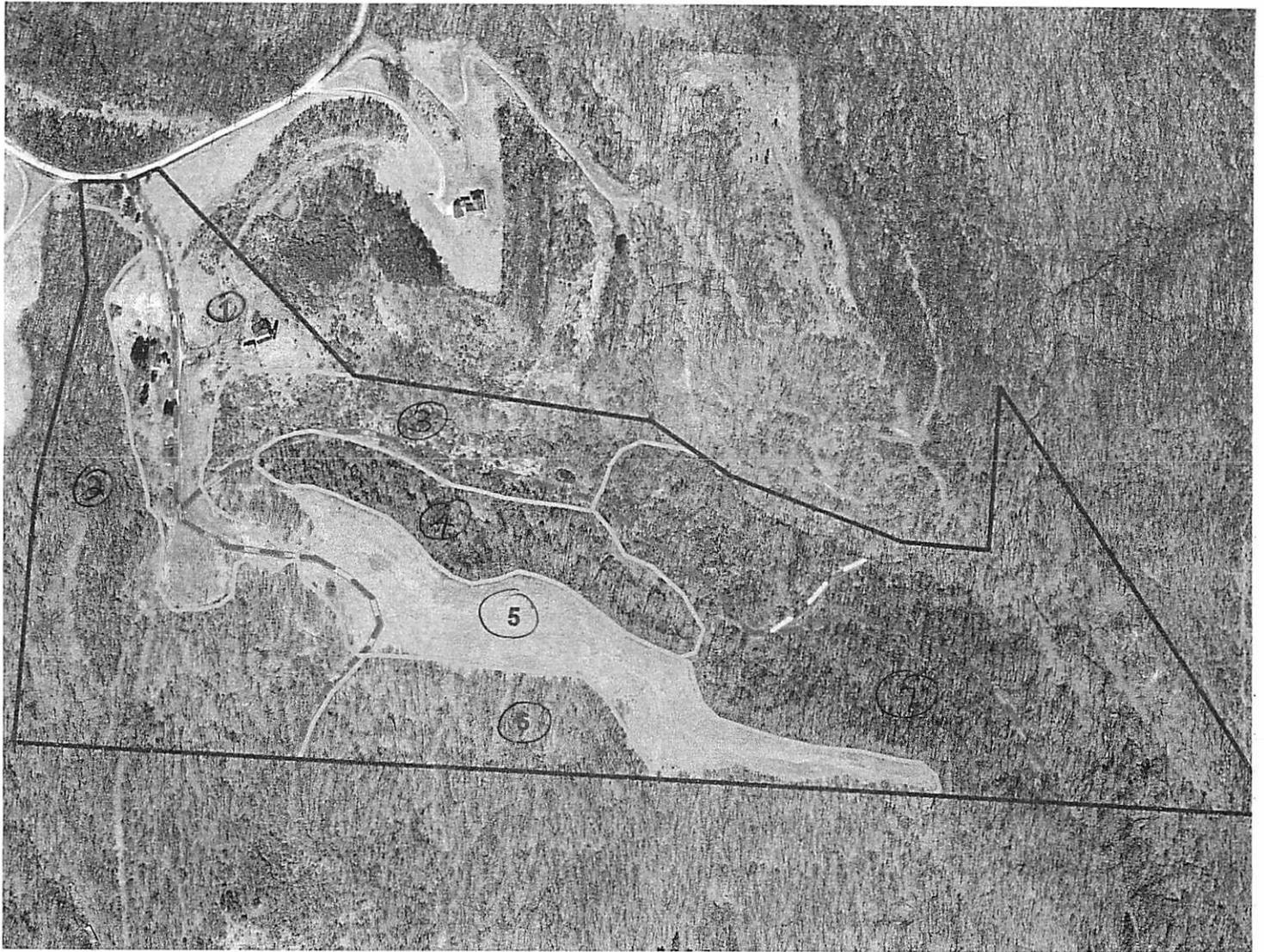
**Consider doing wildlife habitat enhancement practices.** Wildlife habitat enhancement will help meet the landowner management objectives of improving wildlife habitat for hunting and wildlife observation, improving wildlife diversity, and improving recreation. Wildlife habitat enhancement practices may include creating forest openings, creating habitat linkages, snag creation and recruitment, artificial nesting structures, greentree marsh establishment and management, releasing trees beneficial to wildlife, and building brush piles.

**The entire forest area should be inspected in 5 years to determine what activity, if any, is warranted at that time.** Based upon the landowner management objectives and the condition of the trees in this management unit, a commercial singletree and group selection timber harvest should be considered at that time. If landowner management objectives change or changes in the health or condition of the trees are noticed, activity could take place sooner.

## TEN YEAR ACTIVITY SCHEDULE

Stand #	Year	Activity	Acres
	2006	mark all property lines	
4	2006 - 07	T.S.I., Grape Vine/Autumn Olive Control	5.5
3	2008	T.S.I., Grape Vine Control Plant Pines/Hemlocks	8
2	2009-11	T.S.I. Autumn Olive Control	14.5
All Stands	All Years	BMP's on Access Roads and maintain trails to prevent erosion	3
6	2012	T.S.I., Grape Vine Control	4
5 & 3	2012- 13	create food plots and improve habitat	2+
7pt	2014-15	T.S.I., Grape Vine Control	14
7pt	2016-17	T.S.I., Grape Vine/Autumn Olive Control	14

# Thomas & Karen Riggs Tract Aerial View Forest Stands



**Riggs Property Boundary**



**Riggs Forest Stands**



**Roads**

