

# Sustainable Management—One Acre or a Thousand

## A Checklist for Kentucky Woodland Owners

By Jeff Stringer

**Aesthetics:** A tree farm near Berea College Forest using an aesthetic buffer zone (AMZ) to visually shelter a small regeneration harvest along a much traveled county road.

Photo by Jeff Stringer

Sustainability is the buzz word in forestry and woodland management. Today's society is increasingly focused over "green" issues, as illustrated by *Newsweek* magazine's August 14, 2006, cover story titled "The Greening of America." The greening of America certainly includes woodlands, and society is concerned over how woodlands, even private ones, are being managed. All forestry organizations and industries have agreed, to one degree or another, that sustainable management of woodlands is a must.

Certification systems for private woodlands have arisen over the last 10 years, all touting aspects of sustainability. Even the respected American Tree Farm system recently reworked its framework, broadening the definition of

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**Protecting Water:** Protecting water is a critical part of sustainable management. Here rock and a PVC pipe are used to cross a small woodlands stream in western Kentucky.

*Photo by Tim Queary*

good forestry and of sustainability. The United States has signed onto the Montreal Process, a global agreement that defines sustainable woodland management. This resulted in the development of a “Roundtable on Sustainable Forests,” which is furthering the discussion of what good woodland management means here in the United States. Whether you like it or not, these big picture issues are changing how you will manage your woodlands.

## What Is Sustainable Management?

First, it is important to note that sustainable management applies to one acre or to a thousand. In its simplest form, sustainable woodland management means that you are using the woods today in a manner that does not impair its future use. This is not fundamentally different from the age-old definition of conservation that we have used for decades as our standard for proper woodland management. Today, nothing stays that simple. In the past, sustainable forest management meant that you were cutting timber in a manner that would allow for future timber production. Now, sustainability means that you are managing your woodlands in a manner that maintains ecosystem function and sustains a wide host of current and potential uses. In a recent article titled “Are Our Forests Sustainable?” in *National Woodlands* magazine, the authors provide a more current view of sustainable woodland management: woods are managed “. . . so that the results of management are ecologically sound, economically viable, and socially desirable.”

Consider how the use and management of your woodlands stacks up to this definition of sustainability. While many would believe that if you are not cutting timber, then you should not be worried or that if you only own five acres, this issue does not apply to you. With today’s threats from invasive species and urbanization of our woodlands, nothing could be further from the truth. Today’s pressures on our woodlands means that the owner of every acre must be a good steward of the resource, realizing that it is becoming scarce and coveted by society. The landowner is seen as responsible to ensure that the woods are managed sustainably.

The characteristics of ecologically sound, economically viable, and socially desirable cover a lot of

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ground, and the term “socially desirable” is not well defined. However, these characteristics of sustainability do have some common elements that most everyone agrees upon. The following will help you determine whether the use and planning for your woodlands are sustainable.

## Checklist for Sustainable Management

Progressive management of Kentucky’s woodlands requires plans to deal with a number of woodland issues including maintenance of tree and woodland health, protection from fire and unapproved uses, maintenance of wildlife habitat, protection of soil and water resources, protection of special ecological and historic/pre-historic sites, timber harvests that provide for proper regeneration or maintenance of the proper number of healthy trees, and proper maintenance of boundaries, trails, and roads. Does your management include consideration of all of these attributes of sustainability?

**1. Up-to-Date Written Management Plan.** If you don’t have one, you need one. The Kentucky Division of Forestry and approved consulting foresters can help landowners develop a Stewardship Plan for their properties greater than 10 acres in size, free of charge. The Stewardship Plan incorporates many aspects of sustainability covering a wide range of woodland attributes. A little known fact is that the Division will also help develop a plan for woodland owners who own less than 10 acres. For example, the Division would help a landowner develop a plan for the removal of invasive exotic species from a 2 acre woodland.

**2. Tree and Woodland Health.** You should have a good handle on the health of your trees. Many aspects of tree health relate to age, species, and the soils they are growing on. Foresters can help alert you to char-





**Protecting Soil:** Simple techniques such as using hay bales to control erosion on woods roads are a part of sustainably managing your woodlands.

*Photo by Charlie Blinn, University of Minnesota*

acteristics of poor health that you should be aware of and can manage for. Management is needed if you want to maintain a vigorously growing woods for many wildlife or timber species or to properly manage for an old growth forest. The latter will include a plan to deal with tree death as it naturally occurs and protect the woods for the inevitable invasion from invasive exotics. Unfortunately, many think that leaving the woodlands alone is good management. This is commonly referred to as benign neglect management and can be fatal to the health of a woodlands with today's threats from invasive exotics. Generally, the smaller the woodlands, the worse the threat from invasion. Do you have a plan to scout for invasive exotics and to deal with them when they occur?

**3. Protection and Maintenance.** Do you have proper boundary markings, and are trails and roads in your woodlands maintained to prevent erosion? Do you have adequate forest fire protection in the form of fire breaks or maintained roads, and is the local fire department and Division of Forestry aware of your property and your concern over arson? Intrusions from unwanted

uses, including four-wheeling, dumping, and other illegal activities, are a problem for many woodland owners (large or small). There are some practices that can help with these problems, are you aware of them?

**4. Wildlife Habitats.** Maintenance of wildlife habitats for both game and non-game species is a priority for many woodland owners. Often this is for the pure love of wildlife as well as for recreation and hunting. Regardless, does your planning consider what type of habitats you are providing and how they fit into your neighbor's landscape? Do you leave dead snags standing, and have the proper amount of rotten logs for wildlife habitat?

**5. Rare Species and Special Areas.** Would you know a rare ecological area, plant species, or historic or pre-historic site if it was on your property? For example, do you know what native flowers in your area are rare, or do you know what a glade is and how to manage for it? What about telltale signs of buffalo watering holes, Indian ceremonial grounds, and indicators of historic use? All of these need to be delineated in the management plan and managed for and protected.

**6. Proper Timber Harvest.** Harvesting timber is one of the more intensive management practices and should be viewed as a tool for achieving multiple management objectives. Foresters recommend harvests to help woodland owners achieve objectives such as providing income, improving forest health, altering wildlife habitats, and improving safety, recreational and aesthetic uses. If harvests are selective, are they improving the woodlands for future use? Are you so scared of a timber harvest that you are not optimizing regeneration of your woodlands and using harvesting as a tool for proper management? All of these issues must be considered. Nowadays foresters know much more than in years past about how to use a timber



**Woods Roads:** What do your roads look like when a harvest is completed? Proper and complete use of Kentucky's Forestry Best Management Practices is a requirement of sustainable woodland management.

*Photos by Jeff Stringer*



**Historic Preservation:** Dr. Greg Kuhns continues to preserve and protect this historic iron furnace on his family's tree farm north of Elizabethtown, KY. They have signed the furnace and it is open to the public.

Photo by Jeff Stringer



harvest to gently encourage proper regeneration and improve the health of your woodlands. Of course, the use of Best Management Practices to protect water quality is required, and woodland owners with 10 or more acres must have a Forestry Water Quality Plan for their property.

**7. Your Neighbors and Community.** Ensure that your practices are not interfering with your neighbors; for example, use aesthetic buffers where appropriate. Take your planning to the next level, and work with your neighbor to improve your piece of the county or neighborhood. Many ownership objectives can only be maximized by working with your neighbors. Examples include trespass, wildlife management, and control of invasive exotics.

While the checklist above provides woodland owners with general guidelines for sustainability, a thorough evaluation and plan for all aspects of sustainability can be lengthy and involved. Large ownerships have to consider many more societal aspects than small ownerships. Issues of aesthetics, effects on local economies, allowable cut, and monitoring for changes in woodland conditions become important. Regardless, all owners should think hard about their management and ask the question "Am I really managing my one acre or my thousand acres in a way that is sustainable?"

**Take your planning to the next level and work with your neighbor to improve your piece of the county or neighborhood.**

## Resources on Sustainability

Kentucky Division of Forestry: [www.forestry.ky.gov](http://www.forestry.ky.gov)

Montreal Process: [http://www.mpci.org/home\\_e.html](http://www.mpci.org/home_e.html)

Roundtable on Sustainable Forests: <http://www.sustainableforests.net>

National Report on Sustainable Forests-2003: <http://www.fs.fed.us/sustained>

Buck, M., O'Laughlin, J., and A. Robbins. 2006. Are Our Forests Sustainable? *National Forestry* 1(1):9-10.

Stringer, J., and A. Thompson. 2000. *Forestry Water Quality Plan: Preparing an Agriculture Water Quality Plan for Your Woodlands (FOR-96)*. University of Kentucky Cooperative Extension Service. 12 pp. Available at: [www.ukforestry.org](http://www.ukforestry.org).

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**Special Habitats:** Betty and Dan Williamson have identified and are actively protecting a limestone cliffline and its prickly pear cactus associated with a glade on their Caldwell County tree farm.

Photos by Aaron Stringer

