

106 Reforestation Research

106 Reforestation suggests preparing a Forest Stewardship plan

What will you do with your forest? Some landowners choose to “let nature take its course.” They believe that nature, left to its own processes, will be a better manager than they ever could be. While this may be true in some situations, many of the natural processes that formed today’s forests have been impaired by human activity. Wildfires that once renewed certain types of forest have been curtailed. Non-native insects and diseases have decimated populations of some tree species. Introduced plants and animals have replaced native species. Residential, commercial, and industrial development has fragmented forests into smaller, more isolated pieces. Wildlife populations are substantially different from a century ago. Centuries of human influence and disruption of natural processes have impaired forest ecosystems. Doing nothing is not the same thing as “allowing nature to take its course.” The alternative is to become a forest steward by actively managing for wood, wildlife, or recreation while protecting the quality of your natural resources (soil, water, wildlife, trees, and other plants) for future generations to enjoy. 106 Reforestation will help with this decision.

Your forest is a renewable resource; however, trees are long-lived and take many years to mature. Decisions you make now about wildlife management, harvesting trees, or controlling invasive species will influence the character of your forest for many years into the future. As a forest owner you need to plan for the long term because whatever you do—or don’t do—will have long-term effects.

Start by developing a forest stewardship plan. This process will help you determine objectives; use your time, energy, and money efficiently; make informed decisions; avoid costly errors; and evaluate your progress.

What Is a Forest Stewardship Plan?

A forest stewardship plan typically is a written document that:

- Clearly states why you own your property and your management goals.
- Is tailored to help you meet your goals within the capability of the land.
- Is based on a clear understanding of ecological processes.
- Offers recommendations for sustainable forest management practices.
- Provides a timetable for carrying out the forestry practices needed to reach your objectives.
- Is concise, including information that is relevant and accurate.
- Avoids technical forestry terminology or defines all technical terms.

Incorporates publications or other attachments to describe forest management practices and inform you about sustainable forest management and explains where you can get help to follow through with the plan.

106 Reforestation will help you work with a Forester

Forestry is a science that requires an understanding of how trees grow, reproduce, and respond to changes in the environment, as well as how to manipulate forest to meet a landowner’s goals. Foresters are professionals with knowledge of forest ecosystems and processes and experience in managing forests. Work with a forestry

professional to develop a stewardship plan for your property. Depending on your interests and resources, you also may need to work with other experts in fields such as wildlife, soil, water, and recreation. Some forestry services are free, while others require payment, but their value is enormous compared to the costly errors with long-term consequences that you could make on your own.

Your state department of natural resources and some soil and water conservation districts have foresters available to visit your forest, answer your questions, and help you prepare a forest stewardship plan. They also administer other planning, property tax incentive, and cost-share programs.

Extension foresters at universities offer educational conferences, workshops, field tours, publications, web sites, and other materials to better inform you about forestry options.

106 Reforestation Forest Stewardship Plan Basics

The six steps that follow are designed to guide you through the forest stewardship planning process.

1. Identify Your Goals

The first step in developing a stewardship plan is to identify your forest goals. How did you come to own your forest property? What do you and your family do when you are there? What outcomes do you seek from owning your forest?

Sample goals may be to:

- Create habitat for a wide range of wildlife species.
- Maximize income from wood production.
- Provide the best possible deer or elk habitat.

If you have multiple goals, prioritize them or determine where they apply to your land. Your broad, property-wide goals may require you to develop more specific objectives in different areas of your forest. Sharing a list of clear, specific goals and objectives with a forester guides them when recommending appropriate management practices to you. Consider your management plan a living document that you can refine as you learn more about your forest and its capabilities, or as your needs change.

2. Inventory and Evaluate Your Property

Work with a forester to inventory and evaluate your property. Begin by accurately locating your property boundaries and marking them with a fence, paint marks on trees, rock piles, stakes, or other means. Clear brush from your property lines to avoid trespassing when you or your neighbors carry out forestry practices. If the boundaries are not clearly identifiable, you may want to have your land surveyed.

Gather historical facts concerning previous land use or management activities that could have influenced the development of your forest. Such activities might include livestock grazing, agricultural cropping, timber harvesting, tree planting, fires, and pest outbreaks. Foresters use information about these events and their timing to analyze the development of existing forest and to predict the results of future management practices.

A written forest stewardship plan may include these components:

- Your name and contact information.
- Legal description of the property.
- Your management goals.
- Description of the ecosystem in which your property is located and ecological issues of local concern.
- Inventory of known or potential historic and cultural resources (for example, cemeteries, burial mounds, foundations). Your forester may be able to obtain this information from a state- wide database of such resources.
- Inventory of known or potential threatened, endangered, or special interest species that are or may be present on your property. Your forester may be able to obtain this information from a statewide database of such species.

History of your property's management.

Map or aerial photograph of the property

- Property boundaries
- Forest boundaries
- Land uses
- Roads and trails
- Utility wires, pipelines, or other rights-of-way or easements
- Buildings
- Water resources
- Unique natural, historical, or archaeological resources

Aerial photographs are especially helpful as a foundation for the map. They usually are available from local offices or from your state forestry agency.

If the property is large and hilly, topographic maps may help you assess slope and aspect as they relate to forest access and tree growth. Topographic maps are available from the U.S. Geological Survey, but also may be available online or sold on CDs and DVDs at outdoor stores.

Inventory of forest resources such as:

- Location of timber stands
- Estimates of timber quantity, quality, size, product potential, regeneration potential, and other characteristics by species and stands (A stand is an area of the forest [usually 2 to 40 acres] that is sufficiently uniform in its tree species composition, spacing, and size; topography; and soil conditions that it can be managed as a single unit. Management practices such as planting, thinning, and harvesting are carried out more or less uniformly across a stand.)
- Site factors affecting tree growth including soil depth, texture, moisture, fertility, and chemical properties, and landscape position (such as north or south slope, ridge or valley).
- Location of trails, roads, and equipment landings.
- Water resources including perennial and intermittent streams, lakes, wetlands and seasonal ponds, seeps, and springs.
- Location of stream crossings.
- Wildlife habitat (including location and quality of food, cover, water, breeding, and nesting sites for significant wildlife species or groups of species).

Your forest may be just one piece of a large forested landscape, but the cumulative effects of the management decisions you and other landowners make can greatly alter the forested landscape over time. Identify land uses on adjoining property and find out what plans your neighbors have for managing their land. This will help you to evaluate the potential impact of your forest management activities on the whole forested landscape. Coordination among neighbors can produce a forested landscape that meets individual landowner objectives without adversely affecting the environment.

3. 106 Reforestation Developed Stand Objectives and Management Alternatives

An inventory shows the current condition of your forest, but a forester can use the inventory to predict the future development of each stand by considering:

- Which tree species currently dominate the over-story (overhead canopy of trees)?
- Which species are present in the understory (trees, shrubs, and herbaceous plants beneath the over-story)?
- Considering site characteristics, which tree species show the greatest potential to dominate the site in the future? (A site is an area of forest with relatively uniform growing conditions such as soil, moisture, and slope.)
- What undesirable tree species are currently competing for the resources on the site?
- How will the tree species that are present respond to different management practices?
- What damaging agents are present or likely to occur in the stand and how will they affect the stand in the future?

More than one management practice is usually available for each stand, but it may not be easy to reach your property goals, given the forest resources and sites on your property. A forester will ask you to choose a management objective for each stand. Knowing your objectives will help narrow your choice of potential management practices for each stand. **Such practices may include:**

- Planting trees.
- Improving the timber stand (thin, weed, cull, and prune).
- Harvesting timber.
- Fencing out livestock.
- Improving wildlife habitat.
- Installing erosion control structures on roads.
- Constructing access roads.
- Developing trails.
- Developing recreational facilities.
- Establishing fire protection or controlled burning.
- Controlling pests (insects, diseases, animals).
- Controlling weeds and brush.

4. 106 Reforestation Assess Management Constraints

Consider these management constraints when choosing which practices to implement:

- The amount of time you have available to do the work.
- Your experience and expertise levels.
- The availability of skilled contract labor.
- The equipment available.
- Your financial limitations.
- The availability of government financial aid.
- The potential economic return, including the tax implications.
- The presence of cultural resources and threatened, endangered, or special interest species that are regulated by state or federal law.
- The zoning laws or forest practice regulations in effect in your area.
- The prevailing attitudes of neighbors or the general public.

5. 106 Reforestation Management Practices and List Them on a Schedule

Prepare an activity schedule, covering at least five to ten years, that lists management practices and the approximate dates when they should occur. If your forest is large perhaps several hundred acres activities may occur every year. If it is smaller, management activities may occur less of than ten, perhaps only once every ten years. Regardless of its size, inspect your forest at least annually. Walk through the forest and look for damage by pests, fire, or wind, unauthorized harvest, damaged fences, and soil erosion.

6. Keep Good Records

It will be easier to update your forest stewardship plan and make sound decisions about the future when you keep accurate records of what you have done. Records also will be important when filing income tax returns, selling property, or settling an estate. **Management records may include:**

- Management plan
- Timber inventory
- Management activities accomplished (what, when, where)
- Sources of forestry assistance (name, address, telephone, e-mail addresses and web sites)
- Association memberships
- Suppliers of materials and equipment
- Contracts
- Insurance policies
- Forestry income and expenses
- Deeds and easements