



**HISTORIC
NEW ENGLAND**

Defining the past. Shaping the future.

Property Care White Papers

Tree Care: Forest Management

Tree Care, Forest Management

Proper stewardship of a historic property includes the management of woodland resources. Good management will weigh both the cultural and ecological ramifications of forest management for the property and the local region. The goal is creating an approach that yields the desired environmental, cultural, social and economic benefits a well managed woodlot creates for the local community.

The potential benefits require further explanation. Environmental benefits include the creation of new habitat leading to the diversification of both flora and fauna and harvested material is often targeted for local consumption as a renewable heating source. Forest management practices can be used to open up fields for interpretive reasons or to keep stone walls and fence lines clear. Roads and trails created for management purposes can be used as recreation trails to open up sections of the property previously inaccessible. And the management of woodlots can be a source of income to help offset the costs of managing the cultural resources.

Guidelines for Forest Management

- Continually monitor the overall condition of the woodlot paying special attention after major natural events like wind and ice storms.
- Research and document the history and evolution and overall cultural significance of the wood lot prior to making any management decisions.
- Have an up to date boundary survey with the property lines well marked.
- Define the institution's general environmental, cultural, social and economic goals for management of the woodlot.
- Work with a licensed forester to create a forest management plan for each woodlot in the collection to understand the parameters in which the resource will be managed.
- Forest management techniques can be startling to those not familiar with them. They can also have an impact on the interpretation of the site. Review the Forest Management Plan with appropriate parties to determine the approach to be followed.
- Implement the forest management plan. A plan could look at a 20 year cycle so there are short and long term actions.

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Technical Information on Forest Management

Continually monitor the overall condition of the woodlot paying special attention after major natural events like wind and ice storms.

- Natural events such as wind and ice storms can damage the woodlot in a variety of ways including fallen trees and branches.
- Of greater concern is the danger presented by the prevalence of weakened trees, partially fallen trees, and loose branches.

Research and document the history and evolution and overall cultural significance of the wood lot prior to making any management decisions.

Have an up to date boundary survey with the property lines well marked.

- See the property care white papers on “Boundary Survey” and “Monitoring Boundary Lines.”

Define the institution’s general environmental, cultural, social and economic goals for management of the woodlot.

- Some of these may be broad goals to be defined as you work with a forester as part of the planning process.
- There is the potential for income to be generated as part of this process but there are many factors at play.
 - Income might be offset by other land management practices that do not generate income such as trail generation or stone wall clearing.
 - Even as a non-profit you may be obligated to pay local or state taxes on the income generated through the process.
- Define the vision for the lot in 5, 10, or 20 years and how that fits within the interpretation of the greater cultural landscape.

Work with a licensed forester to create a forest management plan for each woodlot in the collection to understand the parameters in which the resource will be managed.

- The recommended sections of a forest management plan are included in Appendix A.

Forest management techniques can be startling to those not familiar with them. They can also have an impact on the interpretation of the site. Review the Forest Management Plan with appropriate parties to determine the approach to be followed.

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- Make sure the management practices will result in a product that matches the cultural, environmental and fiscal goals of the organization.
- Visit different sites with the consulting forester and interested parties that illustrate the management techniques in question at different stages of the cycle (e.g just cut, 5, and 10 years).
- Consult with local government, county or state forester to ensure recommendations are consistent with accepted practices.
- States have different laws about harvesting, lumber taxes, etc. Be familiar with the local regulations.
- Discuss the project with internal and external groups as necessary.

Implement the forest management plan. A plan could look at a 20 year cycle so there are short and long term actions.

- Prepare press and neighbor communication for when work is to start.
- Work with a licensed forester to mark and manage the harvesting process. Tasks may include:
 - Securing permits
 - Marking trees for harvesting
 - Blazing or otherwise marking the property lines
 - Identifying harvesting companies with which to work
 - Identifying staging areas
 - Managing the financial process
- Work with a harvesting company with experience in the process.
- Proper planning should result in a good product. A proper harvesting project will result in:
 - Minimum residual damage to the mid-size trees being retained for a future harvest.
 - Avoid damaging the soil with deep ruts by harvesting during the winter when the ground is frozen or mid-summer when the ground is frozen or dry.
 - The cutting of trees close to the ground leaving low stumps. High stumps are a sign of a careless harvesting company.
 - A reduced or controlled amount of slash (un-merchantable wood) left on the property.
 - Small limbs and tree tops will be left behind however, if done properly, the debris will be broken down and close to the forest floor by vehicles and chain saw use.
 - A larger amount of slash might be left behind in areas of high deer populations to help protect the saplings.
 - The full utilization of the trees harvested from the woodlot with little waste.

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Appendix A: Forest Management Plan

A forest management plan should be created with a certified forester in conjunction with staff involvement. Below are suggested sections one should request to be included in a forest management plan.

- The objectives for the management of the feature
- The history, evolution, and intent of the woodlot in both the original form and the period of interpretation. This will include:
 - Historic land use and how the property evolved.
 - Identification of the original species in the wood lot, the current species and the species, if any, during period of interpretation.
 - Discussion of past land management practices including land clearing and harvesting.
- Identification of cultural resources within the woodlot.
 - Wells, walls, fences, structures, paths and roads
 - Zones of archeological sensitivity
 - Zones of interpretive sensitivity
- An overall inventory and conditions assessment of the condition and quality of the trees of the woodlot. Taking specific note of:
 - Identification of the current tree species
 - The potential risks facing the wood lot
 - Weather damage to the trees in the woodlot
 - The existence or potential for insects and disease to infect the woodlot
 - The existence of any invasive species in the lot or on local lands that may threaten the lot
 - The overall integrity of the lot
- An understanding of land and land use including:
 - Boundaries of the property and of the different management zones.
 - Locations of wetlands and water features within the property
 - Current use of the land for recreational purposes
 - Passive recreational uses (e.g. walking).
 - Hunting and the local laws pertaining to hunting.
 - Active recreational uses (e.g. hiking, cross country skiing, mountain biking).
 - Vehicle use on the property (e.g. ATV, 4 wheel drive).
- Description of any restrictions on the property
 - Wetlands
 - Conservation Easements
 - Agricultural Preservation Restriction
 - Preservation or Historic Restrictions
 - Restrictions related to funding (e.g. federal management grants such as WHIP or EQIP)
- Description of any endangered species on the woodlot

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- Identification of the distinct stands of trees and the appropriate data to determine the feasibility of different land management techniques:
 - Acreage for each stand
 - Species composition within the stand
 - Size classes within the stand
 - Soil composition and its affect on the quality of wood
 - Expectations of woodlot regeneration based on soil quality
 - Estimation of volume and value by species and size group
- Recommendations for land management including an exploration of the options available for management. Each option should include an exploration of:
 - The potential effects to cultural resources.
 - The potential effects to natural resources.
 - Environmental sustainability
 - The potential affects to visitors and the community
 - The potential for income including estimates for cord wood, board feet of wood and value.