

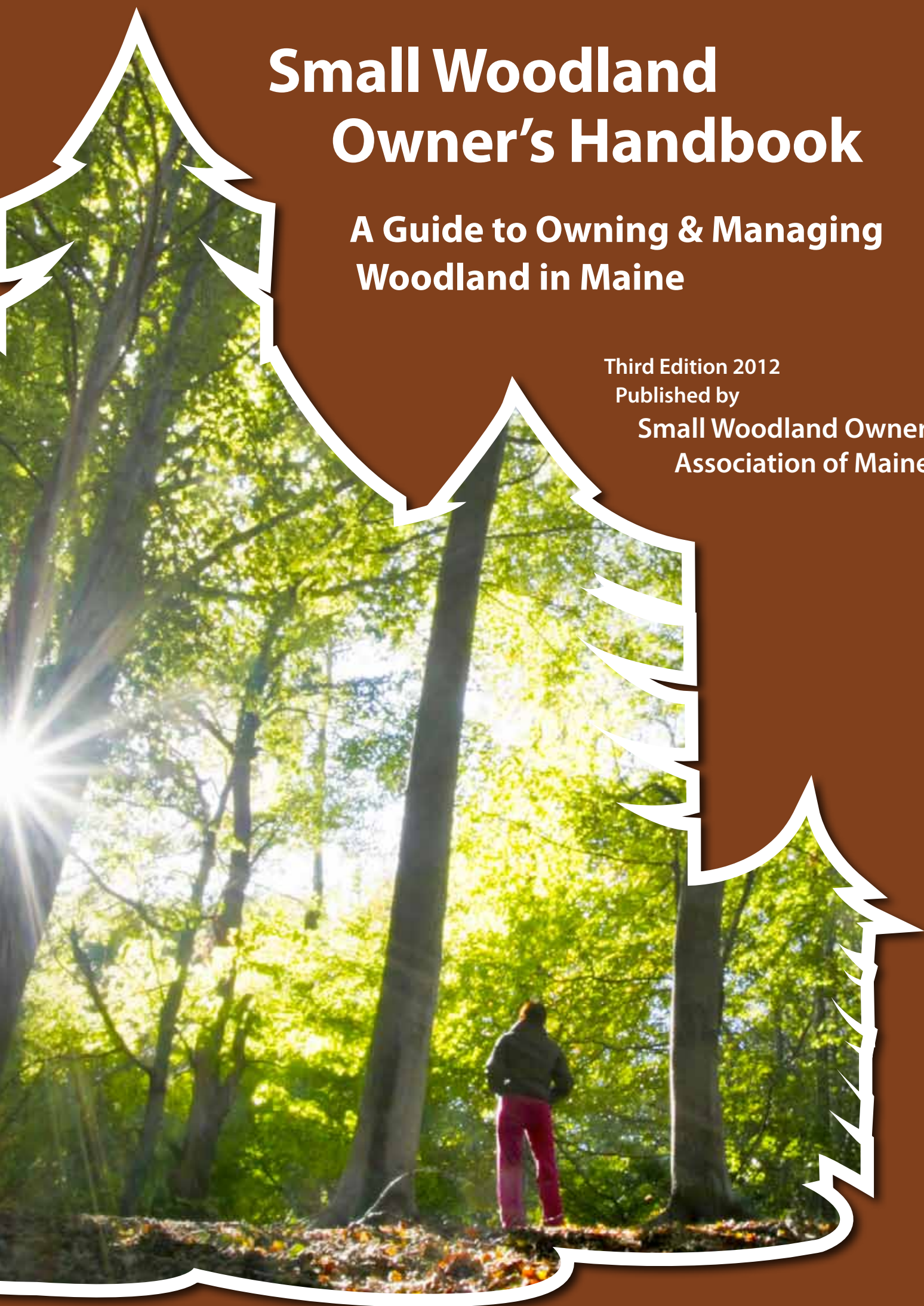
Small Woodland Owner's Handbook

**A Guide to Owning & Managing
Woodland in Maine**

Third Edition 2012

Published by

**Small Woodland Owners
Association of Maine**



You and the Small Woodland Owners Association of Maine (SWOAM): A Natural Partnership

While there are many rewards from owning woodland, there are also some challenges. Taxes, regulations, forest management activities and inheritance questions all require careful thought. Your decisions will also have a major impact on the future of the forest and the creatures living in it.

Knowledge makes a big difference. Members of the Small Woodland Owners Association of Maine receive a 16-page monthly newsletter filled with articles about the woods. Our 10 statewide chapters conduct more than 50 workshops each year on topics ranging from wildlife habitat to estate planning. Fact sheets and other printed material, an informative website and a highly

qualified staff give you the information you need to make good decisions.

The transfer of woodland to a new generation is one of the hardest decisions that many landowners will make. SWOAM can answer your questions about estate planning and inheritance taxes. We also have a land trust that, unlike many others, guarantees your woods will be actively and sustainably managed forever.

In addition, SWOAM is the only statewide organization representing the interests of small landowners at the State House. Whether the issue is property taxes, regulation, timber theft or vandalism, SWOAM is a strong voice for you in Augusta.



SWOAM
Small Woodland Owners
Association of Maine

Forest ownership is both enjoyable and complex. Whatever your goals or concerns, the Small Woodland Owners Association of Maine is here to help. For more information, visit our website at www.swoam.org or call us at 1-877-467-9626.



Table of Contents

Introduction	2
Chapter One	3
Small Woodlot Planning	
Chapter Two.....	8
Small Woodlot Management	
Chapter Three.....	17
Tax Aspects of Woodlot Management	
Chapter Four.....	22
A Successful Timber Harvest	
Chapter Five.....	28
Forestry Regulations	
Chapter Six.....	32
Resources Available to the Small Woodland Owner	



Introduction

Education for the small woodland owner is an important part of SWOAM's mission. The objectives of this Handbook, as well as all SWOAM educational offerings, are to impart knowledge to landowners and others who are interested in familiarizing themselves with good forestry practices, and enrich the work of landowners in concert with licensed foresters, professional loggers and other forestry professionals.



Chapter One

Small Woodlot Planning

In this first section, we explore the concepts of landowner objectives, management plans and the value of using resource professionals. These subjects should be addressed early in the planning process by a small woodland owner. Sound woodlot management is a long-term endeavor and should be looked at as a generational event. It can take up to 30 years to grow a firewood-size tree or one for aesthetics, 60 years to have good wildlife cavity trees and 100 years to grow a tree into sawlogs. Planning is the roadmap you design to help achieve your objectives as efficiently and economically as possible. Without good short- and long-term planning, your objectives may be forgotten or derailed before they can be attained.

Charting Your Objectives

Importance	High 10	9	8	7	Moderate 6 5 4 3				2	Low 1
Timber										
Wildlife										
Recreation										
Aesthetics										
Water Quality										
Ecosystem										
Certification										
Landscape Mgt.										
Long Term Own										
Coop Mgt.										
Perserve										
Easement										
Tax Programs										
Involvement	High A	B	C	D	Moderate E F G H				I	Low J

This form is designed to help you think about and evaluate objectives, priorities and your direct involvement in achieving them. Level of importance might not equal level of involvement.

- Water quality should always be important
- Ecosystem = Balance
- Landscape Mgt. = Consider surrounding land
- Long-Term Own. = Generational ownership
- Coop Mgt. = Managing as a cooperative with abutter
- Easement = Legal Restrictions
- Tax Programs = State Incentives

Example One

Art bought land 18 years ago because it seemed like a good investment. The seller told him that despite the recent substantial harvest he would be able to cut it again in 20 years.

He did not understand land ownership, thought that the next 20 years of forest growth would yield a good return, and even though his management plans had written objectives, he did not really understand them. He did allow a small harvest which returned minimal income and the current management plan calls for light removals in a few years (22 years after purchase) which will also return minimal income.

He is a landowner who did not have clear objectives and went into woodlot ownership not knowing which questions to ask or who could answer them. Art is disappointed, and not sure he wants to continue owning the land.

The first step in managing small woodlots is identifying your landowner objectives. Common objectives are:

- Aesthetics
- Recreation, hunting, and fishing
- Soil and water protection
- Timber production
- Wildlife habitat enhancement

Every small woodland owner has different interests and objectives. Each enjoys different activities in a forest, value different aspects of a forest and has different needs associated with land ownership. The best way to determine your objectives is to take a close look at why you choose to own this land and what you would like to achieve.

The objectives you choose are generally mutually beneficial. Activities that achieve one objective can often help improve the land in other ways. For example, timber harvesting may provide income, produce a healthier forest and create access roads, while benefiting wildlife and providing recreational trails.

Remember, too, that your objectives can change at any time. For example, it's not uncommon for timber production to become more important when financial needs arise. Keep in mind though, land management is a long-term proposition so try to plan accordingly. Too many changes may be counterproductive.

Drafting a Management Plan

Drafting a management plan is a good first step towards meeting your landowner objectives. It should contain at least the following elements:

- Clearly defined objectives
- Timber type map
- Inventory of resources – timber, wildlife, soil, water, etc.
- Recommendations for achieving objectives
- General timetable of activities – action plan

Management plans are roadmaps from today into the future that help landowners achieve their objectives in an efficient manner. The action plan should offer good information on priorities and how to do it yourself or get it done by others. It must be written to your specifications, so you can understand it and execute it as you see fit.

If you choose to draft your own plan, there are many resources available to help you, such as: the Maine Forest Service, U.S. Forest Service, SWOAM and The Maine Tree Farm Program. For the majority of small woodland owners, however it is more beneficial in the long run to have a professional forester draft the management plan.

Management plans are really never complete because the forest is always changing. So be sure to review and

update plans at 10 to 15-year intervals or after any significant change, such as harvesting or storm damage.

Inventorying Your Land

An inventory identifies the quantity and quality of resources on your land. This assessment helps you set reasonable goals and provides information to develop recommendations for future activities. An inventory of your land can collect information on any number of resources such as: trees, ground vegetation, animal signs, trails, forest health, water resources, archeological and historical sites and soil, etc. Checking with the MDIFW and its Beginning With Habitat Program (www.mefishwildlife.com) is a quick way to identify any significant wildlife habitat located on your property. For example, if one of your objectives is enhancing songbird populations, then identifying the most suitable areas of your woodlot for songbird habitat is essential. If, on the other hand, one of your objectives is timber harvesting, a timber inventory will define your wood resource. It will identify species, ages, condition, value, volume, location and other site information. An inventory is helpful in understanding a woodlot's value, planning a timber harvest, locating habitat, and establishing a cost basis for income tax purposes.

Putting Your Plan into Action

Once complete, the plan should be put into action. The chapters that follow will help you better understand specific considerations you will need to address as you implement your plan. Keep in mind, the plan establishes recommendations, and it pays to remain flexible.

Example Two

Ann is a landowner who has lived on the land her whole life and has consistently cut firewood and other forest products.

She has a management plan, well thought-out objectives, and often consults with resource professionals. Her forest offers diverse wildlife

habitat, higher quality forest products, recreational trails and a spiritual lift every time she uses her woodlot.

She is a very contented landowner who really enjoys her land and knows that her children will carry on the tradition of responsible forest management.

Choosing a Forester

Foresters have the technical skills that will significantly assist in the drafting and implementation of your forest management plan. All are individuals and can have different credentials, but generally they have a degree in forestry or another natural resource field and must be licensed by the state in order to practice forestry in Maine. The key for a landowner is to check references and choose a resource professional who will comfortably fit into a long-term relationship. A forester can be an integral part of your land management planning.

Foresters charge a fee for their services. Charges and fees vary depending on the job and specific situation, and can be in the form of an hourly fee, contract price or other agreed-upon schedule. However your forester charges, be sure to have the details described clearly in a written contract before you proceed. Foresters have time and money invested in their education and experience and are in business, just like any other professional. Typically, paying for that expertise will save you time and money. Studies have shown that the income and value of a woodlot increase when a forester has been hired. These gains generally more than offset the costs.

While not all foresters provide every service, the following are some services they typically offer:

- Land and timber appraisals
- Non-timber resource management, including wildlife habitat, recreation and resource protection
- Forest management planning, drafting and implementation
- Forestry taxation information
- Urban and community forestry services
- Expert witness in timber trespass cases
- Forest harvest operations planning, layout and supervision

Foresters can help you learn about woodland management in general and your own woodlot in particular.

What they shouldn't do, unless it's what you want, is make decisions for you regarding your land.

Foresters provide professional services and advice, but landowners should remain involved in implementing the plan. It's extremely important that the landowner's objectives and goals guide management activities. It's your woodlot, and it should continue being a source of enjoyment. Having fun with your land is a tremendous benefit of being a small landowner.

Finding a Forester

Friends, neighbors and others who have used professional foresters may recommend them to you. The Maine Forest Service also publishes a helpful list of forestry consultants who are eligible to provide services that qualify for cost-share assistance. When considering hiring a forester, we suggest that you contact more than one, and get a price quote for services. Competition is often a good thing.

Questions to Ask a Forester

Before you begin interviewing foresters, you should develop a list of questions that will help determine whether this is the right consultant for you. Following are some sample questions:

- Do you understand my objectives and are you willing to work with me to achieve them?
- Can you perform the services I require?
- What is your time frame?
- What are your rates?
- How do you charge?
- Will you supply a list of references?
- Can I see examples of your work?
- Can I see a sample contract?
- Do you set up and administer timber sales?
- What companies do you use for harvesting?
- Can I see their work and references?

Foresters all have the technical skills to get the job done, and a key is choosing one whose personality is compatible with yours.

MEETING GOVERNMENT GUIDELINES

If your land is enrolled in the Tree Growth Tax program, a basic management plan is required and must be signed by a licensed forester. The Tree Growth Tax Law will be discussed in detail in Chapter 3, Tax Aspects of Woodland Management.

If you participate in certain federal cost-share programs, a written management plan is required and must be prepared by a licensed, professional forester. You may be eligible to participate in cost-share programs that provide landowners with financial incentives to perform beneficial management practices, including timber stand improvement and wildlife habitat enhancement. For more information, contact the Maine Forest Service at 800-367-0223 (in-state only) or 207-287-2791.

The Natural Resource Conservation Service (NRCS) and Soil and Water Conservation Districts (SWCD) work together to offer cost sharing on some practices. Contact the NRCS office for your county for more information.

THE AMERICAN TREE FARM SYSTEM (ATFS)

focuses on family forests. ATFS has been active in Maine since 1952. ATFS started as a means to recognize good forest practices and this emphasis continues to this day. As the notion of certification gained hold, however ATFS expanded its focus to include certification. Currently, Maine has in excess of 700,000 acres certified as Tree Farms.

THE SUSTAINABLE FORESTRY INITIATIVE (SFI) was established in 1995. SFI focuses on forestland holdings larger than 10,000 acres and is the system covering the greatest number of acres of certified land in Maine. SFI is a North American standard with more than 200,000 million acres certified in Canada and the US, and is the largest single certification standard in the world. In 2011, Maine has in excess of 6.5 million acres certified under SFI.

Today ATFS and SFI-certified products enjoy recognition in markets all over the world through an affiliation with the Program for the Endorsement of Forest Certification (PEFC), an international recognition framework for forest certification. With less than 10 % of the world's forests green-certified,

Maine landowners enjoy a market advantage, since more than 50% of Maine forest lands are independently green-certified through one of these systems.

THE FOREST STEWARDSHIP COUNCIL (FSC) is an international system that certifies forestlands of all sizes. Founded in 1993, FSC's mission is to promote environmentally appropriate, socially beneficial and economically viable management of the world's forests. Maine has 3.5 million acres FSC certified.

FOREST CERTIFICATION

Forest Certification is a voluntary verification process administered by an independent third-party to ensure that the wood mills receive and process, originates on lands that are managed sustainably .

The assumption is that, faced with a choice, consumers will give preference to products from well-managed forests. By giving preference to certified products, consumers provide those landowners and mills who engage in certification with a market advantage. To date, most price premiums for certification have involved niche markets; broad-based market price premiums have not been realized. There are, however, indications that this may be changing, particularly for some paper products. In recent years a select few large publishing customers that source paper from Maine mills have underwritten the cost of certification for a group of Tree Farmers and larger SFI Landowners. The goal of this effort was discover efficiencies in the audit process and to remove cost barriers for additional growth in Maine's total certified acres. In North America, Maine has the highest total of privately owned certified forests, which can enhance marketability to customers seeking high percentages of certified content in their final products. Maine, with 50% of its forestlands certified, is well positioned to compete globally since less than 10% of the world's forests are certified green. Beyond a price premium and market access there are other possible advantages to certification, such as personal pride and the assurance to the landowner that the management being conducted is sustainable for future generations.

Of the available forestry certification systems, three are particularly active in Maine: ATFS, SFI and FSC.



Chapter Two

Small Woodlot Management

In this chapter, we will explore common tools and strategies small woodlot owners can use to put their plans into action. Also, we will discuss ways to protect and improve your woodland resources and how to address issues of public access.

Managing Woodlots in Maine - A Variety of Resources and Rewards

The forests of Maine encompass a wide range of conditions due to geology, soils, and climate. Historic human uses have also left their mark. Large portions of southern Maine forests are on former agricultural lands. Stone walls and old cemeteries are reminders of the former inhabitants. The most recent forest inventory indicates the volume of wood in Maine's forests has nearly doubled since 1952. Forests are truly a renewable resource.

In general, there are three major timber types: Northern Hardwood, Spruce-Fir, and Oak-Pine. Each forest type requires a different approach to management for the best results. Understanding your woods and the land they grow on is fundamental to management.

Silviculture

"Silvics" is the individual characteristic or personality of each tree species and "culture" is how we work with that personality to achieve our objectives, so "Silviculture" is the art and science of growing trees and managing a forest. Whether your objectives are growing more valuable trees, enhancing wildlife habitat, protecting water quality or something else, there is a series of individual practices used to help you achieve them. These individual practices, when planned and used over the life of a forest, are combined as silvicultural systems that can successfully take you through the repeating cycle of tending your forest.

Forest Regeneration

Stimulating forest regeneration means helping the establishment and growth of new trees. Every species is different: some need sunlight, others shade. Some species grow only from seeds, while others may sprout from a stump or roots. Of course there is always the option of planting seedlings. Planning for the next generation of trees is an important principle of sustainable management. By focusing on regeneration you can help bring about a healthy forest for years to come.

Species Composition

Some species tend to be financially valuable, some are better for wildlife, and some are more beautiful. Depending on your objectives and the characteristics of your woodland (slope, drainage, soils, etc.), you may want to encourage some species and not others. You may also want to encourage a variety of natural species based on the characteristics of your woodland and your objectives.

Creating Growing Space

Just as in a garden, trees need space to grow. If a forest becomes too crowded, vigor and health are negatively affected. On the other hand, too much space between trees may cause side branching and bushy-looking trees.

Crop Tree Management

Crop tree management involves identifying the trees in your woodlands that have the greatest potential to further your landowner objectives, whether it is generating income from your land, enhancing the wildlife habitat, etc. Once you identify your crop trees, silviculture can assist in making them the best they can be.

Common Silvicultural Practices

Pruning is the removal of limbs from a tree, generally on the lower 17 feet. The process prevents the creation of knots in the wood, which helps produce clear (knot-free), valuable lumber. Pruning is probably the most effective practice to improve tree value and appearance. Crop trees selected for their aesthetic or economic potential are important trees to prune.

Thinning is the removal of less desirable trees. The object of thinning is to improve the quality of those trees in a stand that will make up your future forest by reducing competition and providing more growing space. Thinning can also help stimulate regeneration by exposing the forest floor to more sunlight.

Harvesting is the commercial practice of removing trees. The most common harvesting systems used in Maine are selection, shelterwood and clearcut. Selection harvesting is the most common harvesting practice used in Maine, particularly by small woodland owners. Selection harvesting involves the removal of single trees or small groups of trees at regular intervals. Selected trees are harvested to further the landowner's objectives. Keep in mind, harvesting only high-quality trees may result in immediate financial returns, but it will significantly reduce long-term value. A good selection harvest will encourage regeneration, provide more growing space and maximize the productivity of crop trees (crop trees should remain for long-term value).

A shelterwood harvest occurs in several stages. First, a stand is thinned to increase the amount of light reaching the forest floor. This stimulates the establishment and growth of seedlings (regeneration). Thinning continues in intermediate stages, gradually exposing the area to additional light and promoting the rapid growth of seedlings. In the last stage, after the seedlings have become well established, all remaining trees are harvested. Following the final harvest, the seedlings that remain become the future forest. A shelterwood with reserves would leave some of the old large individuals standing to complete their life cycle and become part of the total ecological cycle.

A true clearcut removes all trees from an area in one single operation. While larger clearcuts are often not the choice of small woodland owners, smaller patch clearcuts (also called group selection when about 1/4 to two acres in size) can help introduce shade intolerant species (some species need a lot of sunlight) and regenerate desirable species. Diversifying species composition also helps create varied wildlife habitat.

Meeting Your Objectives

The action plan portion of your management plan suggests and directs activities that are efficient and timed effectively to achieve your objectives. Different objectives may call for similar activities, but their priority for implementation will vary. It is important to remain flexible but to remember the generational aspect of forest management when adjusting objectives.

Aesthetics

Beauty is truly in the eye of the beholder. In highly visible areas; implementing your action plan can lead to short-term unattractive results. Plan and use techniques in areas along roadsides, highly visible areas or areas of special concern to you, to improve the appearance of your woodlot. Some of the methods to consider using: clear out any trees that are not vertical, have broken tops or broken limbs hanging down; design trails with turns in them or are parallel to major viewsheds to break their visual impact; clean up and plant woodyards to a native herbaceous seed mix; release and shape flowering trees or trees with nice fall colors; to maintain a view, favor trees that will not grow too tall, or favor hardwoods so there will be view for at least part of the year; maintain a natural diversity of species and sizes where harvests are along ridge lines and, overall, think about how your activity will affect how the finished product looks. Training on the topic of aesthetics is often available through the Maine Sustainable Forestry Initiative (SFI).

Attractive features: Locate crop trees on your woodland that have beautiful flowers, colorful foliage or different shapes. Reducing competition will help these trees become more visible.

Unique features: Every ownership has unique features – scenic views or historical landmarks, for example. Identify the areas that add character to the woodlot and manage them individually.

Archaeological and historical resources can add to the pleasure of land ownership, and information on these subjects can be obtained from the Maine Historic Preservation Commission.

Soil Productivity

Soil is the medium which supports vegetative growth, and there are scores of different soil series, which are described in County wide Soil Surveys. Soil types and site productivity go hand in hand and this information is available from your County Soil and Water Conservation District.

Standard soil survey reports contain information for all land uses. The maps show the soil series that occur on your property and their general locations. The description of each series provides information on soil texture, wetness, depth, and the geologic parent material. These attributes affect tree growth and equipment use. A table is usually included that provides woodland interpretation including site index (indicates growth potential) and equipment limitations due to moisture or other factors.

Water

Forested watersheds are generally considered as sources of high quality water. Water quality varies, though based on a number of natural and human factors. These factors include geology, wetlands, historical land uses, and current uses. Studies show normal timber harvesting is compatible with all water uses, including municipal supply. The limited impact of normal harvesting on water resources and the effectiveness of forestry watershed practices called Best Management Practices (BMPs) has resulted in forestry's good record for pollution control. Producing wood and protecting water are compatible goals.

There are legal requirements for pollution control and it is incumbent on woodlot owners to assure use of forestry BMPs during and after harvesting. Forestry BMPs maintain shade on surface water and control runoff from areas of exposed soil. Forestry BMPs also stabilize landings and roads between periods of harvest.

(For more information on BMPs see Chapter 5)

Wetlands

Wetlands are areas with sufficient surface water or ground water to change vegetation and soils. Surface water is not present on all wetlands. These include forested wetlands, non-forested freshwater wetlands, or coastal wetlands. Their wet conditions influence vegetation, habitat, and restrict equipment use. Wetlands support different plant communities and provide habitat for waterfowl and amphibians. Wetlands can retard floodwaters and can affect water quality by increasing color levels and reducing dissolved oxygen. Wetlands are included in the dredge and fill requirements established by the Clean Water Act.

Riparian Areas

Land adjacent to water is called riparian and these areas include uplands and wetlands. Many of Maine's regulations and watershed guides address forestry activities on riparian lands. Riparian forests provide important wildlife travel corridors and habitat, along with many valuable functions. Trees increase floodplain roughness that slow floodwaters, the shade from trees maintains cold water habitats, the leaves and woody debris from trees provides food and habitat for aquatic life. Riparian forests remove pollutants from upslope land uses; and the floodplain function of riparian forests removes pollutants from upstream land uses.

Wildlife Habitats

Species Composition: The most important wildlife habitat factors are the tree species composition and forest structure following a harvest and how these two factors will continue to dictate wildlife habitat conditions as succession progresses. This must be considered to meet the specific wildlife management objectives of the landowner [e.g., boreal canopy warblers vs. snowshoe hare]. Woodlands with tree and plant diversity (biodiversity) benefit more species of wildlife. It is impossible to have every beneficial plant, but a good representation of species based on the land's location and characteristics is important. Understanding your forest vegetation and the corresponding habitat needs of particular wildlife or focus species will be very valuable in managing for wildlife.

Fruit and nut bearing trees: Species such as oak, apple, maples, beech, pin cherry, white birch, ash, and poplar are excellent food sources for a variety of wildlife species. Reducing competition from other trees will allow the crowns of these trees to develop more fully, helping to produce more fruits or nuts in subsequent years.

Cavity trees: Sometimes called den trees, good cavity trees are usually large, old, deformed trees. Often, it is tempting to remove them because they typically have little commercial value; however, many wildlife species, including small mammals and birds, need them for shelter.

Brush piles and coarse woody material: Creating brush piles following any silvicultural practice provides excellent cover for many smaller animals. Plant herbaceous vegetation following logging; mineral soil is generally exposed on roads and landings. Seeding these areas with a wildlife mix will enhance habitat.

Old Fields

Many woodland owners have fields that were once part of a farm. Those old fields can provide important wildlife habitat for many species. Mowing these old fields every two to three years is usually sufficient to keep them growing grasses. For maximum wildlife benefit, mowing should be done as late in the fall as possible, ideally not earlier than mid-August. The later mowing protects ground nesting birds and other wildlife.

Trail construction: Build a trail or road network to meet your objectives: hiking, skiing, snowmobiling. If you are planning to conduct a timber harvest, you can coordinate your efforts and use the harvest to create multiple use trails or roads.

Timber Production

Tree species: The best species vary by region and site but generally white pine, spruce, sugar maple, yellow birch, ash and oak tend to represent higher value. Many other species will grow and fit well into your objectives.

Tree quality: Regardless of species, high-quality trees are always more valuable than low-quality. Look for trees with healthy crowns, straight stems and few external defects on the lower portion of the tree, usually 17 feet. Remember, often 70% of the timber value is in the first log (16 ft.).

Competition: Identify crop trees with good financial potential. Use thinning or harvesting techniques to remove trees that are competing for sunlight, moisture and nutrients. This will help the crop trees reach their potential more rapidly. Ability of the crown to have sunlight reaching all four sides is likely the most important consideration.

Soils Productivity: Sites vary widely. Trees grow better on some soils than on others. Site index is used to indicate the productivity of forest land. It uses tree height at a specific age to index productivity. A site of 70-80 indicates a productive site, while 50-60 indicates slow growth. Soil surveys provide estimates of site index.

Think ahead: When conducting any management activity always consider what the forest will look like, or what you'd like to see, in five, 10 and 20+ years. You might also consider laying out roads and landings to serve future uses.

Woodland Protection

An important part of managing your small woodland is having a plan in place for dealing with natural and human-induced disturbances. You can plan ways to reduce the potential of having disturbances and what to do after they occur, but you can't stop them from happening. Although they generally occur on a small scale in Maine, the most common natural disturbances are insects, disease, fire and wind. The illegal harvesting of trees can also create unwanted disturbances.

Whether caused by nature or the hand of man, events can disrupt the natural balance of your forest and prevent you from achieving your landowner objectives.

Insects and Disease

Keep stands thinned and growing vigorously. Healthy trees are less susceptible to insects or disease. Harvesting trees as they mature and before they decline can reduce these problems. Even so, an infestation can occur, so here are some indicators to look for when assessing your woodlot for insects and disease. Balance any cleaning with safety and leaving snags for wildlife.

Compare the appearance of trees across your land and note any differences in them. Look for crowns that are thinner or those that gain leaves later or lose leaves sooner than neighboring trees of the same species. A very large crop of cones or seed could mean that the tree is under stress and is putting out a "panic crop" of seed to help assure regeneration as the parent declines.

Small dead branches in the crown, excessive pitch or bleeding, bulges in the stem or at branch connections and the presence of fungi indicate there may be hidden health problems.

Fire

You can take several steps to prepare your woodland for the possibility of a wildfire. Locate, as part of your inventory, reliable water sources. Ensure good road or trail access and maintain firebreaks, such as trails or property lines, to help separate areas. Be aware of the amount of fine fuels present especially during critical or dry times, and restrict access and other woodland activities during these times.

Fire danger is greater in spring before vegetation turns green and in the autumn before fallen leaves become matted and moist. The Maine Forest Service measures indicators of fire danger and makes those ratings available daily.

Wind

Wind is another hazard in Maine. Often trees are blown over because soils and root systems are shallow and a site is either high and exposed or low and wet.

Hardwoods are more wind-firm so growing them among softwoods can increase overall stand stability and diversity. Wind throw can be worse in spring and fall when ground conditions are wetter and hardwoods don't have leaves to buffer the winds for the shallow-rooted softwoods. White pine is stable in the wind where balsam fir, cedar and spruce are more apt to blow over.

Older trees are more susceptible to interior decay and are snapped off by wind much more easily.

Softwood stands thinned late in their development and those recently thinned are the most susceptible to wind damage.

Tailoring woodland activities for different sites is an important part of management. Your plan will identify this issue and offer ways to decrease your forest's susceptibility.

Non-Native Invasive Species

The trees, shrubs, and forest floor in your woodland can be a rich, productive, and vital mixture of species. However, sometimes invasive or exotic species – plants and other organisms brought to Maine from elsewhere – can discourage native plants and seedlings you want. Recognizing and dealing early with these species could be a very important task on your property, and could help you realize some of your other goals.

Information on exotic pests and diseases is available from the Maine Forest Service Forest Health and Monitoring Division. These agents of damage and disease have already had significant impacts on Maine's forests. The best known example is the near-elimination of American elms by Dutch elm disease – a fungal pathogen introduced from Europe in the early 1900s. However, other insects or diseases continue to have significant impacts today.

Other invasive plants are often overlooked, even though they may be of equal or greater concern than insects or pathogens. Invasive plants, especially woody shrubs, are found in a wide variety of forests, but often take over or out-compete regeneration of native species. Most have been introduced over recent decades as ornamental landscaping plants. Such species can have long-term and far-reaching impacts beyond the area where they are first found. There are treatments available to eliminate these species, but they are often expensive, dependent on chemical herbicides and/or extremely labor-intensive. Eradicating invasive species becomes increasingly difficult the longer they are established. While some of these species can still be purchased at gardening and landscaping stores, planting such species, even in a lawn or landscaping situation, is discouraged, unless you are certain that individuals you have purchased are sterile (cannot reproduce by seeds) and do not propagate vegetatively (from root suckers or sprouts).

Be alert to the presence of these invasive species. Contact your Maine Forest Service District Forester if you need help. Descriptions of the following species and additional information are available from the Department of Agriculture, Conservation and Forestry's Maine Natural Areas Program.



Invasive plant species found in Maine:

Alliaria petiolata (garlic mustard)
Berberis thunbergii (Japanese barberry)
Celastrus orbiculatus (Oriental bittersweet)
Cynanchum louiseae (black swallowwort)
Elaeagnus umbellata (autumn olive)
Fallopia japonica (Japanese knotweed)
Frangula alnus (glossy buckthorn)
Hydrilla verticillata (hydrilla)
Lonicera morrowii (Morrow's honeysuckle)
Lonicera tatarica (tatarian honeysuckle)
Lythrum salicaria (purple loosestrife)
Myriophyllum heterophyllum (variable watermilfoil)
Myriophyllum spicatum (Eurasian watermilfoil)
Phragmites australis (common reed)
Poa nemoralis (wood bluegrass)
Potamogeton crispus (curly pondweed)
Rhamnus cathartica (common buckthorn)
Rosa multiflora (multiflora rose)

Threatened and Endangered Species

The Maine Endangered Species Act was passed by the Legislature in 1975 due to concern that various species of fish and wildlife were in danger of disappearing from the state. This act provides the foundation for Maine's Endangered Species Program. Authority to oversee implementation of the act resides with the Commissioner of the Department of Inland Fisheries and Wildlife.

There are 61 species of fish and wildlife listed as endangered or threatened in Maine, either under Maine's Endangered Species Act, the U.S. Endangered Species Act (1975), or both. While the federal Endangered Species Act looks at species status from a national or range-wide perspective, Maine's act

is concerned only about species disappearing from within Maine. The purpose of Maine's Endangered Species Act is to insure that our native species continue to survive. The Maine Endangered Species Act applies only to animals – plants are not included in the legislation. The Maine Natural Areas Program maintains an official list of rare and endangered plant species. Maine is also home to globally rare species and “forests of exceptional conservation value, referring to critically imperiled G1 and imperiled G2 species and ecological communities. The chance of encountering a global, federal or state endangered, threatened or rare species or natural community on your woodlot is fairly small, but it is important to check on their existence so you can formulate appropriate management strategies. Conservation of these species is an important component of maintaining biodiversity and of responsible long-term woodland stewardship. In addition, the presence of threatened or endangered wildlife species may carry with them legal requirements for the woodland owner. Checking with Maine Natural Areas Program, the Maine Department of Inland Fisheries and Wildlife and/ or the town office and their Beginning With Habitat maps are relatively simple and effective ways to identify what may exist on your land.

Timber Trespass

Timber trespass occurs when someone intentionally, knowingly or recklessly crosses a boundary or property line and cuts another person's trees without their permission then fails to pay for all or part of the stumpage proceeds. Common examples include when a logger on an abutting lot inadvertently cuts over the line, or when persons hired to cut a woodlot forget the harvest prescription and cut more than they should. Sometimes the “contract” is unwritten or poorly written and the owner and the operator have different interpretations of the job.

Example Three

Lou is an informed landowner who had set his wildlife management objectives back in the late 1960's.

At the time it was recommended to plant Autumn Olive, Japanese Honeysuckle, Oriental Bittersweet,

Buckthorn and Multiflora Rose as very good for wildlife. Today the plants still provide benefits to wildlife but other attributes of Lou's woodlot are being destroyed by them and he is working very hard to control them and restore a balance of uses to his land.

A person found to have committed timber theft or timber trespass can be charged with theft, criminal mischief, aggravated criminal mischief or unlawful cutting of trees, depending upon which violation is committed.

If you feel that you are a victim of timber theft or timber trespass, you could contact the responsible landowner to see if an understanding and agreement of damages and compensation can be reached. You can also contact the nearest Maine Forest Service Regional Office immediately and ask for a Forest Ranger to investigate your complaint. Recently, Forest Rangers have had numerous successes in the prosecution of these violations. In most of these cases, once the violator has been found guilty, the Maine Forest Service has requested that restitution be paid to the victim for the value of the forest products taken and/or damage to their forest resources. If there is insufficient evidence for a criminal prosecution, the Forest Ranger can advise you of how you may be able to file a civil action against the violator. This could involve your hiring of a licensed forester, an attorney and perhaps even a surveyor.

The best way to deal with timber theft and timber trespass is to prevent it. Here are some tips. Deal with recommended and reputable resource professionals; check, or have someone check the woodlot regularly; be extra mindful if harvesting is taking place adjacent to your land; talk with neighbors to see if they have harvest activities planned or if they know of activities planned in the area; make sure your boundaries are clearly and accurately marked. If you are asked to provide a right-of-way, be very specific and put the details into writing.

If you are planning a timber harvest, check the logger's references, have a written timber sales agreement and retain all scale slips and other documents for future reference.

Public Access

In Maine, there is a long tradition of public access on privately owned lands. Still, as a landowner, you have the right to determine who uses your property and what uses, if any, you will permit.

If you do post your land, it is not necessary to use totally prohibitive posting that warns of prosecution.

Maine Forest Service

Insect and Disease Lab

The Maine Forest Service operates an insect and disease lab, where you can get information that will help you identify and cope with an infestation. For more information, call:

MFS Insect and Disease Lab

207-287-2431

www.maine.gov/doc/mfs/idmhome.htm

You can choose to use Access by Permission on sections where access and some uses are allowed. Providing your name and address on signs will make it easy for people to contact you.

When you post your land, posting should indicate what access or uses are prohibited or are allowed with landowner permission.

The Maine Department of Inland Fisheries and Wildlife has a Landowner Relations Program to help you post and manage access to your land. They have many different signs available for posting and all of the signs are either free or low cost.

In lieu of signs, paint used to post property that access is prohibited without permission of the landowner or the landowner's agent must be: of a quality sufficient for long-term exterior exposure (including, but not limited to 100% exterior acrylic latex, alkyd oil based, acrylic lacquer, modified alkyd solvent based, or specially formulated boundary marking paint); the color "OSHA Safety Purple," or a close match thereto; and paint markings must be maintained so as to be conspicuous at all times.

Please note: Even when you post your land, access is allowed in certain circumstances, such as guests, public officials in the performance of their duties (e.g., a forest ranger assessing a fire or checking a harvesting operation on your land) or possibly for designated foot access to a great pond, a pond greater than 10 acres.

State, county and local law enforcement officers are authorized to enforce all trespass laws. Game wardens and forest rangers also enforce most trespass incidents.

Landowner Liability Explained: Rights and Responsibilities

Maine has a strong law to protect woodland owners, known as the “landowner liability” law (or the recreational use statute), Title 14, M.R.S.A. Section 159-A.

If someone uses your land or passes through your premises you assume no responsibility and incur no liability for injuries to that person or that person’s property. You are protected whether or not you give permission to use the land. Your legal protection is the same whether or not the land is posted.

Maine law specifically protects you from liability by anyone involved in “recreational or harvesting activities” which is defined as recreational activities conducted out-of-doors, including, but not limited to, hunting, fishing, trapping, camping, hiking, sight-seeing, bird-watching, operating snow-traveling and all-terrain vehicles, skiing, hang-gliding, noncommercial aviation activities, dogsledding, equine activities, boating, sailing, canoeing, rafting, biking, picnicking, swimming or activities involving the harvesting or gathering of forest, field and marine products. It includes entry of, voluntary maintenance and improvement of, use of and passage over premises in order to pursue these activities. “Recreational or harvesting activities” does not include commercial agricultural or timber harvesting.

It is still possible for you to get sued by someone injured on your property in spite of the landowner liability law. However, it is very unlikely for two reasons: (1) a person who brings suit and loses must pay the landowner’s reasonable legal fees and court costs, and (2) the law protects landowners so clearly that there is little opportunity for the injured person to win. In fact, there has not been a single reported successful case against a landowner where the Maine Landowner Liability law applied.

The landowner liability law does not provide protection if a person is injured because of the landowner’s “malicious” failure to guard or warn against a dangerous

Maine Forest Service

Fire Danger Hotline

The Maine Forest Service maintains a statewide listing of fire danger conditions and a second toll-free fire emergency hotline:

**Forest Fire
Conditions
207-287-2275**

**Fire Emergency
Hotline
1-888-900-3473**

condition. “Malicious” does not mean that you must have a conscious dislike for the person. Malicious intent may be inferred when the landowner has knowledge of a highly dangerous situation, usually man-made, that would have been simple to remedy or warn against and the landowner failed to do so, knowing that people would be likely to be hurt.

In general, landowners running commercial recreation on their land are not protected under the Landowner Liability Law. For example, commercial campgrounds or ski areas cannot expect to be protected by the law. However, landowners do not automatically lose their protection if they charge fees. The landowner liability law applies to landowners who charge fees for entry as long as the land is not used mainly for commercial recreation or as long as the payment is not for exclusive use, such as club membership or rental for an event or campsite.

A Word of Caution: Use common sense. Avoid creating or allowing clearly dangerous situations. If you wish to block a road or path with a gate or other obstacle, do so with markings that are clearly visible, day or night. The best advice regarding fees under the Landowner Liability Law is, if you are considering charging fees, you should be aware that you may not be covered. You may have to prove that the land is not used primarily for commercial recreation and that the user did not gain any exclusive right to use the land.



Chapter Three

Tax Aspects of Woodlot Management

The most common taxes you must deal with as a small woodland owner are property, income, capital gains and estate taxes. Success in addressing the tax aspects of your small woodland ownership may be the difference between holding onto your property and having to sell it. A brief description of the various taxes affecting small woodland owners follows, and we recommend you contact an accountant or lawyer specializing in taxes for further information.

Property Tax

Tree Growth Tax Law

Current-use taxes assess land based on how it is being used, rather than how it could potentially be used. This can help small landowners afford to own and manage woodlands by reducing their tax burden. There are two current-use tax laws in Maine that apply to woodland: the Tree Growth Tax Law and the Farmland & Open Space Law.

The Tree Growth Tax Law offers woodland owners the opportunity to have their forested land assessed on the basis of productive forest value rather than on the basis of potential, more intensive uses. Annually, the state establishes forestland values for each county. Generally, the assessed value of land enrolled in Tree Growth is less than land not enrolled in Tree Growth. Depending on the location of your land this difference can be significant.

To be eligible for Tree Growth status, you must have 10 or more forested acres being **used primarily for growing trees or other forest products which are planned for commercial use**. Tree size on these acres can range from small seedlings to mature trees. Commercial trees or forest products include logs, pulpwood, fuelwood, Christmas trees, maple syrup, nursery products, tips, cones and others. Commercial activity is required in accordance with your management plan.

In addition to the requirements above, landowners must have a tree growth management plan prepared by or reviewed and approved by a licensed forester. Every 10 years, a licensed forester must certify that the plan is being followed or the landowner risks involuntary removal from the program.

Plan requirements are basic and include the owner's name, address and objectives, location of the land, forest type map and an outline of forest activities to regenerate, improve and harvest. Cost for preparing this plan will vary based on the forester you select along with the land's acreage and characteristics. Maine provides up to a \$200 income tax credit every 10 years to help offset the cost.

Tree Growth is a tax incentive program and enrollment is voluntary. The tax status remains attached to the land unless it's purposely removed. Landowners can withdraw their land for any reason or the municipality can withdraw it for non-compliance. **If you are not committed to actively managing your forest, you are not eligible for this program.** Withdrawal triggers a monetary penalty that is based on a percentage of the difference between the fair market value and the valuation under Tree Growth. This percentage declines over 10 years from 30% to its lowest rate, currently 20%.

Application generally needs to be made on or before April 1 of the first year for which classification is requested. In organized towns the application is submitted to the municipality; in the unorganized territories it goes to the State Tax Assessor. Application forms can be obtained from the State Tax Assessor, the Maine Forest Service, or municipal offices.

Before enrolling your property in the Tree Growth or the Farm and Open Space Program, make sure you fully understand the requirements. The tax savings can be significant, however, the penalties for failure to comply with all the program requirements are very high.



Farm and Open Space Law

The Farm and Open Space Law values property either as farmland or as open space. While the law offers these two different land uses, you'll need to choose one or the other when applying. Both programs have a withdrawal penalty and value forestland at a rate no lower than Tree Growth.

Open space, forest or field, means that the land is preserved or use on the land is restricted in such a way as to create a public benefit. Public benefits recognized under the law include: conserving scenic resources, enhancing public recreation opportunities, promoting game management or preserving wildlife habitat.

There is no minimum acreage required for this program. The land valuation is reduced by 20 to 95 percent, depending on the level of land protection and amount of public benefit it is deemed you are providing.

To earn farmland classification, your land must be used for farming, agriculture or horticultural activities. Horticultural means producing vegetables, tree fruits, small fruits, flowers and woody or herbaceous plants. To qualify, the tract must contain five contiguous acres and must generate income. The tract needs to contribute to a gross income per year of \$2000 in one or two or three in the five years preceding application. There is also a provisional classification offered when previous income isn't documented. To remain in the program, income derived from the land must be reported to the assessor every five years.

Please note: *As long as you meet the requirements of the new program, you can move your land between the tree growth, open space and farmland programs without incurring a penalty.*

Income/Capital Gains Taxes

As a small woodland owner you must pay income taxes on earnings from your land. One of the first things to consider when acquiring woodland is preparing for federal income taxes. There are a few key concepts you should be aware of when you report income from your woodlot: the cost basis, your purpose for ownership (personal, hobby, business or investment) and the nature of your income (ordinary or capital). Too often small woodland owners do not understand how to treat income from harvesting. The most common mistake is treating income as ordinary income instead of as a long-term capital gain. This results in paying more federal income tax than required. (Maine does not recognize timber income as a long-term capital gain for income tax purposes.) Taxation can be very complicated in practice, so it is advisable to consult a tax specialist as you proceed.

Establishing a Cost Basis

When purchasing woodland you may obtain assets such as land, buildings and timber. Allocating fair market value to each asset establishes their basis. The basis can include your purchase price and other costs associated with the transaction. It may also include a number of carrying costs associated with the property, such as insurance and interest. Establishing a basis in your timber early in your ownership is very beneficial. To report the cost basis on your land, use Form T (Timber), Schedule B.

When you sell timber, this cost basis, and other management costs, can be allocated to the volume sold and subtracted from sale income to reduce your taxable income. Inherited properties establish an adjusted cost basis at the time of transfer. It usually is a higher value than that of the previous ownership. For gifted properties, you will assume the basis of the previous owner.



Business vs. Investment

If you own woodland mainly to produce income but have infrequent business, it may qualify as an investment. If your activities are frequent and are a principal source of income, then the IRS most likely will consider you as a business. If your woodlot is a business, you can be either a passive or a materially active participant.

Passive vs. Active

Materially active participation means being a regular, continuous and substantial contributor to the business, where participation by both you and your spouse is considered. It is essential to keep good records to show material participation. Passive participation is when others contribute more than you and your spouse. The distinction affects how and when expenses are deducted. Usually, it is more beneficial to be considered materially active, since most of your woodlot expenses are fully deductible annually.

Qualifying as an Investment

Investors can claim expenses as itemized deductions, along with other deductions, to the extent they exceed 2% of adjusted gross income, on Form 1040, Schedule A.

Qualifying for Capital Gains Treatment

Treating timber income as a capital gain rather than ordinary income will reduce your tax liability. To qualify for capital gains treatment you must consider three factors: 1. your primary purpose for holding the timber investment: personal use, trade or business; 2. how you dispose of it – you must sell the timber lump-sum, under a pay-as-cut contract (section 631(b)) or harvest yourself and sell products reporting under Section 631 (a); and 3. how long you've held it – minimum period is more than one year. In some cases, if you hold the timber for more than 18 months you will receive an even lower capital gains tax rate.

Estate Planning

This is only an introduction to common terms associated with estate planning, and it is recommended you work with an estate planning professional. Estate planning focuses on: keeping ownerships intact and in the family, minimizing tax burden to beneficiaries, and providing for heirs. The earlier you plan your estate the better.

Estate planning is the process used to determine how assets are handled during your life and where they go upon your death. It is particularly important for woodland owners who want to ensure that their beneficiaries will not be overburdened with estate taxes and can continue managing the land. In 2012, the top estate tax rate for federal purposes is 35%.

The first step in estate planning is to conduct a thorough inventory of assets, liabilities and personal and business information, including your own expected needs. Many types of assets, including financial holdings, life insurance policies and real estate may be taxable. However, the amount a decedent's estate may exclude from federal estate taxes is \$5 million in 2012. This amount may change in future years. These are individual levels and double with a spouse. State of Maine levels are lower, so you could have no federal tax but still owe a state tax.

A spouse may leave all or part of his/her "individually" owned assets to the other by will without incurring any estate tax. Assets that are owned jointly avoid taxation, as well.

There are a number of devices that exist, including: trusts, conservation easements, gifts and charitable bequests. Depending on an individual's unique situation, objectives, assets and liabilities, one device may be more beneficial than another. You should consult with a professional to obtain the best results and to understand all options.

Conservation easements are a way for landowners to specify future uses of the land while retaining most of their ownership. Conservation easements are donated, or sold, to a non-profit conservation organization or public agency, which inspects the land periodically and enforces the easement in perpetuity. Each easement is tailored to fit the characteristics of the land, the

personal needs of the owners and the objectives of the conservation organization or agency. An easement can reduce the market value of a property, which in turn lowers estate taxes.

Trusts are legal devices designed to hold property for the sake of one or more beneficiaries. A trust can bridge the gap between life and death. It is recognized as a separate legal entity under the law. Trusts are either “revocable” or “irrevocable.” Each kind has many variations.

Revocable trusts may be changed at any time by the person who sets up the trust (grantor). The grantor

controls the trust and may be both a trustee and a beneficiary. The assets in the trust are still part of the grantor’s estate.

Irrevocable trusts cannot be changed once they have been established. The grantor gives up control to the trustees. By putting assets into this trust, the grantor may be making a taxable gift.

Charitable bequests are gifts made through a will to charitable organizations. Such gifts can help to reduce your taxable estate.

SWOAM Land Trust

With an eye on preserving Maine’s working forest, the Small Woodland Owners Association of Maine (SWOAM) established its Land Trust in 1990.

We became concerned about the lack of a place for landowners to secure the permanent protection of their land from development while ensuring long-term, sustainable forest management. In order to keep forest land productive, the Land Trust accepts gifts of land and holds conservation easements.

Why Consider Our Land Trust

Our Land Trust is different from almost all others in Maine in that we only accept lands and easements where active forest management is allowed. We work with woodland owners who are seeking permanent protection of their land, but who also want responsible forest management to be part of their legacy. SWOAM’s Land Trust can provide assurance that your treasured woodlot will be productive and well-managed forever.

Benefiting Donors

For donors, there usually are tax advantages. Aside

from a favorable impact on current real estate taxes, there are income tax benefits from gift deductions, as well as estate tax savings. These monetary advantages are in addition to the satisfaction and comfort donors derive from knowing their objectives for a working forest will be fulfilled.

Benefiting Society

Donors to the land trust are making a gift to society for which the tax benefits are a reward. A forested landscape, wildlife, clean water, and recreation are among the benefits derived from donated land. Further, sustainable forestry supports Maine people, the wood products industry, and the rural economy in general.

Benefiting SWOAM

Lands donated to SWOAM provide learning experiences for members and the public. The woodlots are managed using sound, long-term management principles consistent with the donor’s wishes. Income generated from harvesting on lands donated to SWOAM also can provide funds to help support the work of the organization.





Chapter Four

A Successful Timber Harvest

In this chapter, we offer a step-by-step summary of key considerations you should be aware of when conducting a timber harvest. This process can be a significant challenge, particularly if you only harvest timber once or twice during your ownership.

Think in terms of a three-legged approach – a landowner, forester and logger, – with each offering expertise and help toward a common goal. Planning, regulatory awareness, and communication among these parties are important elements of a successful timber harvest.

1. Follow Your Management Plan

In Chapter 1, we discussed the creation of a management plan. This management plan might recommend timber harvests to help you meet your landowner objectives. Of course, there are always situations that occur which may cause you to change your management or harvest plans. Natural disasters can alter the forest landscape, or economic needs may encourage you to harvest earlier or harder. No matter the change, you will produce a healthier and more productive forest for a longer period of time if you schedule timber harvests in accordance with your management plan.

2. Resource Professionals

WORKING WITH A FORESTER

While the decision to use a forester is up to an individual landowner, and each landowner has a different level of knowledge, studies have shown that landowners who use a forester generally benefit more from a timber harvest than those who do not. The benefits include financial return and the condition of the forest following the harvest. A forester also can be extremely helpful in addressing other issues you'll encounter: harvest options, regeneration, long-term planning, record-keeping, complying with regulations, and offering other resource-based opinions.

CHOOSING A LOGGER

Since most small woodland owners lack the skills and equipment to conduct their own timber harvest, choosing the right logger can be a very important decision. You should approach loggers as you would any professional, realizing that as in other professions, some loggers are better than others. The more homework you do, the better off you will be. Remember, once the trees have been cut, a long time will pass before similar-sized trees are growing there again.

Here are a few tips for choosing and contracting with a logger:

Always require a signed, written contract. This helps assure that you both have the same interests in mind. Make sure the logger is insured for general liability

and/or workers' compensation. Landowners can wind up with liability issues if the contractor is not insured. **Ask for references.** Good loggers have satisfied customers.

Never grant permission to harvest over the phone or through the mail. The better loggers usually have a waiting list and follow customary business practices.

Check out your logger's work. Visit harvested areas the logger has worked on in the past. They should be proud to show off their good work.

Competition is a good thing. If you are working with a forester, that person will typically get bids from more than one logger. However, if you are contracting directly with a logger, consider getting multiple bids.

Ask questions. What kind of reputation does the logger have? Ask other landowners, foresters, mill owners and people in the community. What kind of price is the logger offering? Very high and very low prices are warnings. Is the logger using high pressure tactics: panic or emergency sales pitches, unsolicited offers to pay for your timber before the job starts, or offers to pay one price for all your timber? Keep in mind, if a deal sounds too good to be true, it probably is.

Check their training: There are two logger training programs in Maine, Certified Logging Professional (CLP) and Qualified Logging Professional (QLP) and a logging firm certification program called the Master Logger Certification (MLC). CLP and QLP both require four days of training involving safety, business practices, water quality best management practices, forest ecosystems, visual impacts, environmental and forestry laws, silviculture and felling techniques. MLC requires their employees to be CLP or QLP trained, initiates field and office visits, requires the logger to follow high performance standards, and is based on continuous improvement. All programs require recertification visits and, continuing education, and are subject to random audits by the respective administrative bodies.

The logger training programs have made great strides in enhancing the professionalism and performance of timber harvesting to the benefit of the land and landowners. Landowners should inquire on a logging firm's training and certification status.

3. Understanding Workers' Compensation & Insurance

Small landowners may not realize that they could be liable for injuries to people working on their land. The key issue is whether that worker is an employee or an independent contractor.

The Workers' Compensation Board asks a number of questions to determine which workers are independent contractors. No one answer is determinative. Instead, the board looks at the answers together.

The Questions Are:

- Does a contract exist for the worker to perform a certain piece or kind of work at a fixed price? Does the worker employ assistants with the right to supervise their day-to-day activities?
- Does the landowner have an obligation to furnish tools, supplies and materials?
- Does the landowner have the right to control the progress of the work, except as to final results?
- Is the work a part of the worker's regular business?
- Is the worker's business or occupation typically of an independent nature?
- How long will the worker be employed?
- How will the worker be paid, by time or by the job?

The board can determine a worker is independent

at any time. However, to ease liability concerns, it is wise to ask the board for a predetermination before work begins. Landowners can request a conclusive presumption that a logger they wish to hire is an independent contractor. For other contractors, such as a trucker hauling the wood or a forester, a landowner can request a rebuttable presumption. Both presumptions can help landowners in the case of a lawsuit.

For a conclusive presumption to be valid it must be accompanied with a contract between the landowner and the contractor that expressly states "the independent contractor will not hire any employees to assist in the wood harvesting without first providing the required certificate of insurance to the landowner."

Loggers who always act as independent contractors may file a form with the Workers' Compensation Board to request an annual predetermination of independent contractor status. If they receive an annual determination, they are given a certificate. If they present the certificate to the landowner and include language in the contract concerning the hiring of other employees (see above), the landowner receives the same protection as if they received a conclusive presumption.

Without appropriate contractual language, landowners who contract to have wood harvested from their property are responsible for providing workers' compensation to all individuals the contractor hires.



4. Timber Sales Contract

As a landowner, you should insist on a signed written contract that clearly identifies responsibilities and protects each party before granting permission for anyone to begin work on your land. The Small Woodland Owners Association of Maine offers a sample contract free of charge that serves as a good guide. The minimum requirements are:

Date of the contract.

Name, address and phone numbers of parties.

Property Location/Access/Boundaries: location and description of the ownership, designation of the area to be cut, how access to the woodlot will occur, and how boundaries will be marked.

Term: when the harvest will begin and end.

Description of Timber to Be Cut and Removed: what forest products will be removed, in what manner and how often the landowner will be paid, units to be used and the price per unit.

Status of Parties: designation of a forester as an agent of the landowner (if applicable) and a description of the responsibilities of each party. Require all changes be in writing and signed.

Forestry Practices: who is responsible for filing the Forest Operations Notification Form with the Maine Forest Service; what wood scaling and measurement rules will be used; in what manner will the harvest be conducted (examples: cut only the marked trees, stumps should not exceed six inches in height, trees shall be skidded to minimize damage to remaining trees); what are the requirements for roads, bridges, skidder trails and Best Management Practices; during and after the operation; what should be done with slash; and which forestry, land use and environmental laws are applicable. Close or maintain roads following the operation.

Default/Enforcement of Obligations: what the landowner can do if the contract is not being followed.

Insurance: language regarding public liability, property and workers' compensation (or independent contractor predetermination).

Indemnity: allows landowner to recover damages for actions in violation of the contract, if the actions resulted in liabilities on the part of the landowner.

Assignment: prohibits contracting with a third party to perform the responsibilities in the contract without written consent from the landowner.

5. Utilization vs. Marketing

Utilization and marketing are interrelated, but they are not the same. Marketing requires understanding the marketplace, deciding what products to produce and sell, keeping track of changes, finding and comparing places to sell the product, understanding different scaling methods, negotiating pricing, understanding quality and forming a relationship with buyers. Utilization is determining how to use a tree to best fit the landowner's objectives. To satisfy financial goals it generally means having the tree cut into the highest value products possible. Achieving wildlife and soil productivity objectives may mean leaving a tree standing, or keeping some parts of the tree on the forest floor.

6. Marketing

Marketing should take place before the first tree is harvested on a woodlot. There are four key elements to marketing: a) understanding proper utilization; b) grades and prices; c) method of scale; and d) delivering wood to an available market.

Woodland owners generally market their harvested trees in one of three ways.

Mill Delivered: The landowner cuts the wood, finds and negotiates markets and designates where it is to be delivered. This requires the landowner to prepare products to mill specifications and concentrate the wood in an area that is suitable for a truck to come in and load. The landowner pays for trucking but receives all other income.

Roadside: The landowner sells the wood roadside in tree length or log form and the buyer markets and delivers it. The landowner receives a negotiated price

for the wood and the services of cutting and getting it roadside.

Stumpage: The landowner sells the standing tree, called stumpage, and a logging contractor cuts, hauls and delivers it to the mills. In this scenario the contractor does all the work and the landowner receives an agreed-upon price for the products. The contractor does the actual marketing. This is the most common method for small woodland owners.

Wood buyers determine price by taking into consideration the scale and grade of each log. “Log scale” is the amount of board feet in a log. “Gross scale” accounts for total volume. “Net scale” results from subtracting any defect, such as rot, from the gross. Net scale is used to determine landowner payment. There are formulas for calculating defect, but determining the measurements of a defect area requires as much art and experience as science.

There are many scale rules or ways to determine board feet in a log. In Maine the state standard is the International 1/4 rule. Different scale rules will yield different volumes in the same log, so understand the scale rule used, and price offered, to accurately compare returns.

There are various classifications that will determine the price for your trees. “Specialty” or figured wood is the top grade and the least often found (less than 1/2 % of all wood cut). It includes bird’s eye and curly maple. When cutting sugar and red maple it pays to know something about identifying these. “Veneer” comes next in quality (+-4% of all wood cut). It’s sliced or peeled in thin sheets to make high value door skins or paneling. “Sawlogs” are those that are sawn into lumber for furniture or other higher value finished products (+- 25% of all wood cut). “Boltwood” is peeled or sawn to make turned or stamped products like dowels, golf tees or popsicle sticks (+-10% of all wood cut). “Tie logs” are sawn into railroad ties and pallet logs are used to make pallets (+-10% of all wood cut). “Pulpwood,” “firewood” and “chips” are lower quality products (+-51% of all wood cut). Time spent by the small landowner to improve tree quality is more than repaid as their objectives are achieved.

Specialty, veneer, sawlogs and boltwood are further broken down into multiple grades using a number of factors. Generally, the determining factors are: species, small-end diameter, heart size, clear faces (or surface defects), interior defect and sweep (or curve).



7. Delivery to the Mill

A successful timber harvest culminates with delivery of the harvested trees to the mill. During this process, the landowner can receive two different forms – the trip ticket and the scale slip – that document the timber's journey from the woodlot to the mill, and the mill's acceptance of that load of timber.

A trip ticket is a form that follows a load of wood from the property to the mill. It contains information such as: date wood hauled, harvest notification number, landowner's name, town where wood was cut, name of contractor who cut the wood, name of trucker and destination of the wood. All roundwood (except firewood) being transported in the state of Maine must be accompanied by a trip ticket. This paperwork helps prevent wood theft and can be cross referenced with Maine Forest Service's Forest Operations Notifications. There is no official trip ticket design, but landowners or harvesters can contact the Maine Forest Service for a suggested format. Only one copy is required by law

and that copy stays at the mill with a scale slip. If a landowner wants a copy of the trip ticket, they need to request it from their contractor or the mill.

Mill operators are required to provide scale slips whenever a load of wood is measured and accepted at a mill. The scale slip provides a written record of the transaction and shows gross, deduction and net volumes. Your logging contractor is required to provide you a copy of the scale slip to accompany payment. Read them and understand them; they are your key to understanding how your trees are being utilized and marketed, how much volume is being removed from the land, and confirming correct payment for trees removed.

Absent a written contract that indicates different payment terms between a landowner and the person conducting a harvest operation, payment for trees harvested and delivered to a wood processing facility must be made within 45 days of that delivery. If you do not receive payment within 45 days, contact the Maine Forest Service for assistance.





Chapter Five

Forestry Regulations

Statewide, regional and municipal jurisdictions are confusing. The Forest Practices Act (FPA) is statewide and enforced by the Maine Forest Service (MFS). Included in the FPA are statewide standards for timber harvesting and related activities in shoreland zones and Liquidation Harvesting Rules; Best Management Practices (BMPs) are statewide recommendations used by all agencies; Shoreland Zoning as it deals with issues other than forestry, Natural Resource Protection Act and Protection and Improvement of Water Law are effective in organized towns and enforced by The Department of Environmental Protection (DEP) and town governments; the Land Use Planning Commission (LUPC) is the authority in unorganized towns except for issues included in the FPA.

The numerous rules and guides that are developed for forestry also cause confusion. Maine has more rules for forestry than most other states and many rules include their own set of practices. This results in conflicting guidance to woodland owners. The Legislature recognizes the existence of conflicting advice and requires landowners to find and use the most restrictive rule.

Maine Forest Practices Act (FPA)

The (FPA) is the most comprehensive forestry law in Maine. It requires landowners to notify the Maine Forest Service prior to conducting a commercial timber harvest and to submit a landowner report to them after conducting a commercial timber harvest. However, its primary roles are to regulate clearcutting, insure forest regeneration, control forestry activities in shoreland zones and restrict liquidation harvesting. Landowners may request a copy of the rules by contacting the Maine Forest Service at 800-367-0223 (in-state only) or 207-287-2791 or the Small Woodland Owners Association of Maine at 877-467-9626 (toll-free).

The law requires every clearcut to be regenerated, to be surrounded by separation zones and, for clear-cuts greater than 20 acres, to be accompanied by a plan. Landowners with less than 100 acres statewide are exempt from everything except the regeneration standards.

Notification requirements: The Forest Practices Act requires landowners to file a Forest Operations Notification with the Maine Forest Service and to post a copy of that form at the site of the timber harvest. In some instances, the landowner is not required to file notification of the harvest.

Those exceptions are:

Harvests undertaken for the owner's personal use or products not sold or offered for sale where in any calendar year clearcutting does not exceed two acres or a non-clearcut does not exceed five acres. This does not apply to areas used or planned for use as conversion to residential or other development.

Houselot clearing under very limited conditions. This exemption applies only to land on which a person resides; to lot clearing operations for a landowner who possesses a building permit, or where such lot clearance does not exceed the necessary construction footprint.

The information on the notification form is fairly straightforward: name, address and phone number of the landowner, designated agent and harvester; checkoff for purchase date of property, name of licensed consultant on the job; municipality or township and county of harvest; name of nearest public or private all-weather road; approximate dates the harvest will begin and finish; anticipated acreage to be harvested; whether the land will be converted to another use within two years and, if so, what use will it be and what permits in place;

signatures of the landowner or designated agent; a map locating the harvest site and the date of notification. Once filed, the notification is valid for two years from the date of issue. Maps should be good, readable quality so they can be used to locate the property.

The FPA and clearcuts: A clearcut is defined as a harvested site of more than five acres that retains less than a certain amount of residual trees. For example, sites with fewer acceptable trees per acre than: 270 trees with 4.5 inch diameters or 38 trees with 12 inch diameters are classified as clearcuts. On a typical woodlot there would be a mixture of different size trees.

Harvest reports: Reports must be filed with the Maine Forest Service by January 1 following the year in which a commercial timber harvest has been conducted, and includes species, volumes, stumpage price per unit of measure; harvest location; harvest acreage and the harvest method used. The MFS produces two statewide annual reports using information compiled from landowner returns. Your specific information is kept confidential and is used in aggregate to represent statewide and regional averages. These reports are very important in helping hundreds of landowners manage their forests and understand Maine's forest as a whole.

Liquidation Harvesting Rules

The purpose of these rules is to substantially eliminate the practice of liquidation harvesting. The Legislature has defined liquidation harvesting as "the purchase of timberland followed by a harvest that removes most or all commercial value in standing timber, without regard for long-term forest management principles, and the subsequent sale or attempted resale of the harvested land within five years."

Unless one of 12 exemptions apply, it is a violation of the rule if you purchase the land after January 1, 2005, harvest inconsistently with sound forest management principles, and sell or attempt to sell the land without having owned the property for at least five years. Exemptions include: landowners owning less than 100 acres statewide; parcels of less than 20 acres; land inherited, where the wood products are harvested for personal use; where the land has received third-party certification; or on harvests of less than 1000 acres conducted by a Master Logger.

For a complete set of rules, including the full list of exemptions, call the Maine Forest Service or visit their website.

Water Quality

Federal pollution control law (the Clean Water Act) requires: water quality standards, practices to prevent pollution (BMPs), and permits for significant dredge-and-fill activities in streams and wetlands. The most pertinent part of Maine's water quality standards (Title 38 Maine Revised Statutes Annotated) with regard to forestry is the requirement to protect aquatic life. The Maine Forest Service Best Management Practices (BMPs) and similar LUPC standards have proven effective in preventing pollution and protecting aquatic life. Landowners should ensure that professional foresters and loggers use BMPs during and after harvesting. While the greatest risk of pollution occurs during a harvest, unmaintained roads that are left open for recreation use after the harvest can become long-term sources of pollution.

Forestry BMPs are used during and after harvest to prevent stream sedimentation, maintain water temperature, and stabilize roads between harvests. BMPs prevent sedimentation by controlling surface runoff from roads and other areas of exposed mineral soil. The water is diverted onto the forest floor where it can infiltrate into the ground. Forestry BMP were developed and tested on watersheds with slopes of 30-40%. BMP effectiveness studies have been repeatedly done over the last 40 years. BMPs also assure proper use of chemicals, and they limit activities near water.

Some watershed guides include advice that conflicts with forestry BMPs. Vegetative buffers/filters are an example. They were developed for cropland and are distinctly different from forestry BMPs:

The Forest Filter BMP relies on the organic litter of the forest floor to trap eroded soil and to provide for the

infiltration of surface runoff from roads and landings. Its effectiveness is based on surface roughness and width. The Maine Forest Service BMP requires shade retention.

Vegetative buffers/filters are designed to trap eroded soil and pollutants in surface runoff from cropland. This practice requires spreading the runoff as sheet flow, and running it through living vegetation. The practice includes non-native species. Shade is generally not considered.

Forestry BMPs should be used on forest land. They are based on a great body of forest science and their effectiveness has been proven by numerous studies. Forestry's low rank as a source of pollution to lakes and streams indicates their effectiveness. The best way to protect water resources is to increase the use of forestry BMPs.

The regulations for U.S. Army Corps of Engineers permits related to dredge-and-fill activities in streams and wetlands provide exemptions for minor sources of impairment, such as most forestry activities. Forestry has two exemptions: Silviculture is exempt with no provisions. There is also an exemption for forest roads, provided Forestry BMPs are used. The road exemption does not apply to roads built for recreation or wildlife purposes.

Shoreland Zoning

Shoreland zoning protects water quality, limits erosion, conserves wildlife habitat and vegetation and preserves the natural beauty of Maine's shorelands. Shoreland zones are areas surrounding great ponds, rivers, non-forested freshwater wetlands, tidal areas and most streams. Shoreland zones are defined as areas within 250 feet of great ponds, rivers, and tidal areas; and within 75 feet of streams.

Best Management Practices

Best Management Practices (BMPs) are not regulations. They are recommended procedures that, when used appropriately will result in the greatest protection of the environment before, during and after a harvest operation. BMPs are designed to mimic or protect the natural functions of forests and should be incorporated in all management activity on your woodland.

For more information about Best Management Practices, contact the Maine Forest Service (800-367-0223 in-state only or 207-287-2791). The agency has good information on Best Management Practices and can help with information which outlines in detail steps that landowners can take to protect and enhance water quality on their land.

Shoreland zones limit the amount of harvesting within a 10-year period and require a well-distributed stand of trees, and shade on the water. Cleared openings up to 250 square feet are allowed within 100 feet of a great pond. No cleared openings are allowed within 75 feet of streams. Shoreland Zoning rules supercede BMPs where they apply. Some of the requirements exceed those of BMPs because they include considerations for aesthetics and wildlife.

These are standards that towns must adopt and many individual towns pass more restrictive standards. Before proceeding with any shoreland projects, speak with the town's code enforcement officer.

Protection and Improvement of Water

Law: This law prohibits placing any material – soil or logging debris, – into waters of the state or in places where they can be washed into these waters.

Natural Resource Protection Act (NRPA):

Covers the landscape and protects rivers, streams and brooks; great ponds; freshwater wetlands; coastal sand dunes and mountainous elevations above 2,700 feet. Forestry activities that come under NRPA include all activities that disturb soil within 100 feet of a protected resource, such as road building, excavating, filling for log yards, removing stumps and bulldozing, crossing streams, rivers, or other water bodies, and timber harvesting at elevations greater than 2,700 ft.

Activities not impacted by NRPA, include: Any repair, maintenance, or replacement of an existing culvert, provided the replacement is not more than 25% longer than the old one and not more than 75 feet in total; activities that do not disturb soil or place fill; and use of a temporary structure, which means having it in place for less than seven months.

Most projects subject to NRPA are approved through a Permit-by-Rule (PBR). Projects with great potential impacts require the more lengthy permit process. The practices required are those which will help prevent the erosion of soil and are very similar to BMPs. To file a PBR, contact the Maine Department of Environmental Protection (800-452-1942 (in-state only) or 207-287-7688). They will send you a form to fill out, along with the guidelines you will need to follow. The one-page form must be signed and returned via certified mail, with a map and

photographs showing your project's location.

Landowners most frequently encounter NRPA restrictions on stream crossings – when moving timber, using a skidder and building or repairing a stream crossing. Under NRPA, streams are defined broadly to include most channels between two banks, even if they lack water much of the year. Bridges, culverts or other methods are needed for stream crossings. It is possible to cross streams without these structures if the ground is frozen or if the stream banks and bottom are ledge or rock. However, this can be a risky option.

Municipal regulations

You should be aware of local zoning regarding all activities on your land. Always check with your town office before starting land management activities – some may have a waiting period before you can begin. Towns can make timber harvesting (FPA) and shoreland regulations more stringent than the mandatory state standards. Landowners must be notified before changes are made in harvesting laws, but you may not be aware of other zoning changes. Planning boards can grant variances to these rules depending on forest conditions, operational limitations and involvement of a resource professional.

Maine Land Use Planning Commission (LUPC)

The Maine Land Use Planning Commission (LUPC) was created by the Legislature in 1971 (Formerly Land Use Regulation Commission) to serve as the planning and zoning authority for the state's townships, plantations and unorganized areas. The commission has land use regulatory jurisdiction over these areas because there is no form of local government to administer land use controls.

LUPC was established primarily in response to a recreational building and land development boom in these areas during the late 1960s. Its purpose is to extend the principles of planning and zoning; to preserve public health, safety, and welfare; to encourage the well-planned, multiple use of natural resources; to promote orderly development; and to protect natural and ecological values.

LUPC applies only in unorganized towns and standards differ from shoreland zoning in organized towns.



Chapter Six

Resources Available to the Small Woodland Owner

This handbook is intended as a primer for small woodland owners, and to remind you of issues that should be addressed for the successful management of your land. As you begin to develop a management plan and cope with those issues, you'll need more detailed information.

Please do not hesitate to contact us, Small Woodland Owners Association of Maine, toll-free at 1-877-467-9626 or through the web site: www.swoam.org for more information. We can help answer any questions you may have about the subjects discussed in this guide. SWOAM urges you, if you are not already a member, to consider becoming one. Through our monthly newsletter, 10 regional chapters, workshops and meetings held throughout the year, SWOAM membership will help you become better informed about small woodland owner issues.

Appendix I

Facts About the Maine Forest

Maine is the most heavily forested state in the nation with 90% (17.8 million acres) of its land base growing trees. Maine's forests provide many benefits to the state, the region, and the nation:

- A home to more than 20,000 species of wildlife;
- An economic resource that directly employs nearly 23,000 people.
- An annual \$1.7 billion contribution to Maine's Gross State Product through forest-based manufacturing.
- A renewable energy resource for wood-burning electricity generating plants, as well as fuelwood for thousands of homes. Wood provides over 20% of electrical needs and 25% of Maine's energy needs.
- \$1.15 billion in revenues from forest-related recreation and tourism activities.
- The largest and most diverse forest products industry of the states in the Northern Forest region.

Additional Facts about Maine's Forests

- 95% of Maine timberland is privately owned, with small, non-industrial private forest landowners holding more than 6.2 million acres.
- Over 7.6 million acres of forestland are certified as well-managed.
- Maine's forested watersheds provide clean water that fills rivers, streams, lakes, and wetlands, sustains fisheries, and flows from faucets of homes and businesses. Maine's forests are critically important to the supply of clean and affordable drinking water.
- Maine's forest industry harvests 6 - 7 million cords of wood each year to build homes, make furniture, paper, and other products. Replanting of trees is rarely necessary, as Maine's forests reseed themselves naturally with an abundance of trees.
- Of the 65 tree species in Maine's forests, only 20 are primarily used commercially for paper, lumber, and other products. These include:

- Spruce, fir, and hemlock for structural lumber and paper production;
- Eastern white pine for interior (finish) wood;
- Cedar for its weathering qualities; and
- Hardwoods, such as maple, birch, and oak, for flooring, furniture, paper production, and dozens of specialty wood products.

Tree and Forest Facts:

- Trees are a renewable resource. Forest products are also recyclable and biodegradable.
- Each American uses the equivalent of a 100-foot tall tree each year.
- The average single-family home (2,000 sq. ft.) can contain 15,824 board feet of lumber and up to 10,893 square feet of panel products.
- A large healthy tree may have as many as 200,000 leaves on it. Over a 60-year life span, such a tree grows and sheds 3,600 pounds of leaves, returning about 70% of their nutrients back to the soil.
- A tree can be a natural air conditioner. The evaporation from a single large tree can produce the cooling effect of 10 room-size air conditioners operating 20 hours a day.
- Sustainably managed forests provide insurance against pollution from roads, sewers and storm water runoff. Put simply, the surface and groundwaters flowing out of forests are less contaminated than the rain and snow that falls on the forest.

And there's more...

- To grow a pound of wood, a tree uses 1.47 pounds of carbon dioxide and gives off 1.07 pounds of oxygen. An acre of trees might grow 4,000 pounds of wood in a year, using 5,880 pounds of carbon dioxide and giving off 4,280 pounds of oxygen in the process. Each person needs 365 pounds of oxygen every year.
- For every pound of wood which decays (or burns), the process reverses: 1.07 pounds of oxygen is used up and 1.47 pounds of carbon dioxide is put back into the air.
- Each year, paper is used to publish more than two billion books, 350 million magazines, and 24 billion newspapers in the United States.

Appendix II

Glossary of Terms

Biomass: A product produced in the woods by chipping the entire tree, or sometimes only the branches and tops. Usually used as energy fuel, they may also be suitable for sludge composting, playground padding, and mulch.

Cavity trees: Standing trees, either live or dead, which contain hollowed out areas. They are used as shelter for a variety of animals.

Clearcutting: A silvicultural method in which all trees in a given area are removed, followed by planting or natural regeneration. This even-aged management method is often used to encourage shade-intolerant species such as birch and aspen.

Coniferous: Trees that bear their seeds in cones. Usually refers to trees with needles.

Cord: A unit of measure for wood sold as firewood and pulpwood; it's a volume four feet by four feet by eight feet.

Deciduous: Trees that annually lose all their leaves. In Maine, this includes all broadleaf tree species, plus the coniferous Larch, or Tamarack.

Even-aged stand: a stand of trees composed of a single age class

Forest management: The practical application of scientific, economic, and social principles to the administration of a forest.

Hardwood (interchangeable with broadleaf or deciduous): Trees with broad, flat leaves.

Herbaceous: Plants that die at the end of the growing season, generally, grasses and flowers.

Mast: Seeds and fruits from trees and shrubs consumed by wildlife. Hard mast is seeds such as acorns and beechnuts. Soft mast is fleshy fruit such as blueberries, black cherries, and apples.

MBF (thousand board feet): A unit of measure for wood sold as saw timber and veneer. It's a hypothetical board, one inch thick, 12 inches wide and a thousand feet long.

Overstory removal: The final stage of harvest in a shelterwood system, where the last stems of the previous stand are cut to release established understory trees. See Shelterwood System.

Pulpwood: Timber that is cut and processed into pulp for paper and other products.

Regeneration: The renewal of vegetation by natural or artificial means. Regeneration of desired species is an integral part of a forest management plan.

Sawtimber: Trees that are cut and processed to make lumber, boards or other sawn wood products.

Seed tree System: A silvicultural method in which all trees are removed except for certain individual stems or groups of stems left to provide seed for establishing the next stand. One variation of even-aged management.

Selection system: A silvicultural method that promotes or maintains an uneven or all-aged stand. This method usually involves periodic cuttings of individual stems or small groups of stems from the full range of diameter, age, and quality classes.

Shelterwood system: A silvicultural method that gradually removes all the stems in a stand over a series of partial harvests, while allowing for regeneration to become established. A variation of even-aged management. See overstory removal.

Silviculture: The science and art of cultivating forests to produce a variety of products and uses that benefit humans and other species.

Softwood (interchangeable with conifer, coniferous): A tree with needle-like leaves.

Stand: A group of forest trees of sufficiently uniform species composition, age, and condition to be considered a homogeneous unit for management purposes.

Stumpage: The value of standing trees in a forest.

Succession: The natural evolution of a forest from short-lived, sun-loving plants to longer-lived, shade-tolerant species.

Appendix III

Conversion Table/Weight Equivalents for various Maine Commercial Tree Species

Species	Cords	Tons	Pounds
Spruce Fir	1	2.1	4,200
White Pine	1	2.15	4,300
Red Pine	1	2.15	4,300
Hemlock	1	2.4	4,800
Cedar	1	1.7	3,400
Tamarack (Larch)	1	2.4	4,800
Beech	1	2.25	4,500
White Birch	1	2.25	4,500
Yellow Birch	1	2.7	5,400
Sugar Maple	1	2.7	5,400
Red Maple	1	2.25	4,500
White Oak	1	2.7	5,400
Red Oak	1	2.7	5,400
Ash	1	2.25	4,500
Aspen/Poplar	1	2.15	4,300
Softwood	1	2.3	4,600
Hardwood	1	2.7	5,400
Mixed Wood	1	2.3	4,600

For purposes of comparing volumes, a rough conversion of 1 MBF = 2 cords is commonly used.

These conversions factors are handy for making estimates and for forest inventory purposes, but are advisory only. The weight of a particular volume of

wood varies greatly by species, time of year and other factors.

It is illegal in Maine to convert from one system of measurement to another for the basis of payment (e.g. convert a mill payment for pulpwood in dollars per ton to a landowner payment in dollars per cord).

Why Become a Member of the Small Woodland Owners Association of Maine?

All of SWOAM's activities are open to the public and all landowners and people interested in private land ownership and sound, long-term land management are cordially invited to attend and take part. There are several services that SWOAM offers only to members, such as the monthly newsletter and discount buying programs. Everything else we do or offer is available to everyone, and all that we ask in return is that you consider joining the organization to help support these activities.

SWOAM Offers:

- Statewide chapters that are the backbone of the organization and hold scores of workshops and field days throughout the year around the state; these meetings are either free or low-cost, and members can see a price advantage
- Opportunities to meet with resource professionals and experienced landowners and discuss land management ideas and practices
- Benefit from our legislative program, which monitors and testifies on bills that can have an effect on small landowners
- Hands-on educational activities, such as safely cutting trees, pruning, thinning, insect and disease control, planting, trail and road building and much more
- Opportunities to become involved with many partners with similar ideals: Maine Forest Service, U.S. Forest Service, county agencies, other non-profit organizations, other landowners, watershed organizations
- A land trust that actively manages woodlands around the state, and benefit from learning about land ownership and conservation easements
- A place to ask your land management questions that will offer options for you to choose from, and be a conduit to other good references
- Opportunities to learn about woodland certification and understand the options available to small landowners

All in all, membership is being part of an active and growing organization, working for over 35 years.

Learn more about us or contact us today through our web site at www.swoam.org. Call our office at 1-877-467-9626 or write to us at SWOAM, P.O. Box 836, Augusta, ME 04332-0836





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