Understanding Your Plan

A Guide for Landowners using *Managing Your Woodlands:* *A Template for Your Plans for the Future*

Table of Contents

Introduction to the Template and Guide 3
Where to Begin? 4
Best Practices for your Management Plan 5
Recommendations on Implementing your Management Plan 5
Cover Page: Owner and Plan Author 7
Property Description 7
Property History 8
Forest Management Goals: Developing your goals 8
Property Maps 12
Forest Natural Resources Enhancement and Protection 13
- Special Sites and Social Considerations 13
- Air, Water, and Soil Protection 14
- Fish, Wildlife and Biodiversity 15
- Management of Forest Resources 15
- Other 16

Stand Level Information 16
- Stand Objectives 16
- Stand Current Conditions 16
- Stand Desired Future Condition 17
- Forest Management Activities 17

Management Activity Schedule and Tracking 18
Signatures and Approvals 19
References 20
Resources for You, the Landowner 20
Appendix 1: Glossary 21
Appendix 2 Tax and Business Management 29
Appendix 3 Timber Sale Contract Checklist for Private Landowners and Loggers* 30

Introduction to the Template and Guide

This guide was developed to assist landowners in using *Managing Your Woodlands: A template for your plans for the future* as you work with your forester or natural resource professional to develop a forest resources management plan. Landowner involvement in the development of a plan is very important, as you need to understand and agree with your plan to implement it. This guide includes useful information for landowners including description on what is necessary to include in the template. There is also a glossary with relevant forestry terms, and a list of resources available to you.

Your forester will be using the guide that was developed for them as they work with you to develop your plan.

Why this template?

This template allows you to participate in several different programs available to you as a woodland owner:

American Tree Farm System

The American Tree Farm System® (ATFS) is the largest and oldest sustainable woodland system in America, internationally recognized, meeting strict third-party certification standards.

For 70 years, ATFS has enhanced the quality of America's woodlands by giving forest owners the tools they need to keep forests healthy and productive. Stemming the loss of America's woodlands is vital to our country's clean water and air, wildlife habitat, recreational activities, and producing the wood and paper products we all need. ATFS provides landowners with the validation that they are doing right by their land, meeting the highest standards of sustainability and being good stewards for the future.

ATFS is a program of the American Forest Foundation.
The American Tree Farm System grows stewardship from the roots.

To participate in your state ATFS program, please visit
www.treefarmsystem.org/stateleaders

Forest Stewardship Program

The Forest Stewardship Program works through State forest agency and other partners to sustain and improve our Nation's private forest landscapes. The program develops and delivers appropriate technical and planning assistance to enable active, informed, long-term forest management. Forest Stewardship management plans provide landowners with practical guidance for achieving their own unique objectives in a way that also maximizes public goods and services provided by forests, such as clean drinking water, clean air, carbon sequestration, wood fiber, recreation, and scenic landscapes. Landowners who implement Forest Stewardship management plans are in a much better position to participate in certification programs and access emerging markets, such as those for ecosystem services and biomass for energy

Natural Resources Conservation Service (NRCS) assistance programs
NRCS provides financial assistance to private landowners to implement forestry and agroforestry related practices through Farm Bill and discretionary conservation programs. Assistance is also provided for multi-year and permanent easements to conserve forest land to meet program goals. There are several assistance programs including:

- *Environmental Quality Incentives Program (EQIP)* offers financial and technical help to assist eligible participants including forest owners with management practices on their lands; a forest management plan is required to participate.
- *Conservation Stewardship Program (CSP)* offers stewardship contracts to landowners who meet a certain threshold of land stewardship and agree to maintain and improve their land.
- *For more information about these and other programs refer to http://www.nrcs.usda.gov/programs/ or contact the local NRCS office.*

Where to Begin?

A management plan should be completed by a forester or other natural resource professional while you take an active role in the development of your plan. You should consider yourself a co-creator of the plan with your forester.

There are several sections of the template that you can either complete or begin before meeting with your forester:

- **Owner's contact information**
- **Property Description**: complete as much as possible and then review with your forester
- **Property History**: complete what is known and then review with your forester
- **Forest Management Goals**: identify the goals you have for your property
- **Property Maps**: you might have or be able to locate some of the appropriate maps of your property, if not; your forester will be able to help.
- **Forest Natural Resources Enhancement and Protection**: your forester will complete this section but you can start to think about your goals related to the different topic areas. Consider:
    - Are there any special sites that you and your family have that you want to protect?
    - You can do some preliminary research on what special sites, threatened and endangered species might be on your property using the www.treefarmsystem.org/woodlandresources

    - Review the other section descriptions within this guide and begin to think about goals or concerns that you might have for each of them. Be prepared to discuss these with your forester
- **Stand Level Information**: your forester will also complete this section. However you will need to work with him/her to identify your objectives for each stand, given the goals that you have outlined.
- **Management Activity Schedule and Tracking**: you and your forester, working together, will need to develop the schedule and you will be responsible for tracking activities (unless you have designated someone else to be in charge of implementing your management plan). Make sure you understand and are comfortable with the dates documented for the different activities that have been outlined in your plan.

When completing a section, review the requirements in the guide to ensure that you fill in all the appropriate information. When meeting with your forester initially, review what information you have compiled as he/she might be able to add more information or help clarify certain points.

Best Practices for your Management Plan

1. As a landowner, you should retain a copy of your management plan and store it in an easily accessible location.
2. Every time you complete an activity, be sure to make a note of it in your management plan. If you have decided not to do an activity, or have delayed implementation, be sure to make a note of the reasons why.
3. Informal updates to the plan can be made with handwritten notes. Be sure to include a date and initial these notes throughout the management plan.
4. Review your management plan annually; make sure that the goals in your plan are still the goals you have for your land, review your stand descriptions and update as necessary. An example of when you may need to update your stand descriptions could be if you have a disease or pest issue or some type of natural disaster that affects your stands (fire, wind, ice, etc). Check your desired future stand conditions to ensure that you are on track for your forest management.
5. Consult a forester if you have major changes to your plan or questions about your forest and your management.

Recommendations on Implementing your Management Plan

- **Annually**: (as needed)
    - Maintain property boundaries.
    - Maintain wildlife food plots and wildlife structures.
    - Maintain firebreaks/lines.
    - Monitor and control invasive species.
    - Review your management plan for needed changes – update accordingly.

        - Keep good records of the activities that you conduct on your property. Be sure to save relevant contracts and receipts. Records of these activities are needed for participation in some of the programs available to you with this plan.
        - Check your Management Activity Schedule and Tracking Table
    - **Within ten years:** It is a good idea to formally review your plan and your forest with your forester or natural resource professional every ten years.
    - **Questions?** Contact your agency forester or private consulting forester with any questions you have about implementing any part of your plan.

Cover Page: Owner and Plan Author

This section provides the contact information for you, the landowner. Be sure to keep it updated. If changes are made, be sure to inform your forester. If you participate in any of the programs available to you, you will need to update the supporting organizations if your contact information changes:

- Forest Stewardship Program: your state forestry contact or your State Forester's office (list of State Foresters is available at http://www.stateforesters.org/about_nasf)
- American Tree Farm System: your state American Tree Farm System contact (www.treefarmsystem.org/stateleaders)
- NRCS Technical and Financial Assistance: your local service center (http://offices.sc.egov.usda.gov/locator/app)

The Plan Author is the forester or natural resource professional (i.e. a wildlife biologist or other specialist) who worked with you to develop your plan. By having their contact information on the front page, you can easily follow up with them for assistance or questions that you might have when you are implementing your plan.

Note the date when the plan was originally completed. During your regular review of you plan, be sure to date and initial any updates or notes that you add to your plan. For example, if you notice on your Management Activity Schedule and Tracking that you were not able to complete an activity on its planned date, update the planned date, add your initials and include a brief note on why you made the change.

Property Description

The legal property description includes the name of the state, name of the county, township number, range number, section number, and portion of a section where relevant. This information can be found on your property deed. If you can't find your deed, you can go to your local county clerk's office or the land records office to get a copy.

The Tax Parcel Number is the number assigned to your property by your local tax assessor. This number is not required but it can be helpful to record all relevant property information in one location in your plan.

If you are planning on participating in a USDA Farm Bill assistance program, then you will need to register at your nearest USDA Service Center. After you take in your deed for the property, your forest management plan and an Adjusted Gross Income Statement, you will be given an FSA Farm and Tract Number. Again, it can be helpful to record that number here.

Your entire property may not have trees and not all of your woods may be eligible for this plan, but you can include cleared land in your plan area if you intend to plant trees on it. Hence the three acreage questions in this section:

- Total ownership acreage: the total acreage of the property
- Total forested acreage: the total acreage with trees
- Total acreage covered by plan: the portion of the acreage that will be described in this plan (forested or not).

Your forester will identify the number of stands within your property. Through the planning process, your woodland will be divided (on paper) into distinct management units called "stands." Usually stand boundaries will correspond to natural or constructed features such as streams, slope and/or aspect changes, ridges, roads, or fields. Stands can also be made up of groups of trees with similar characteristics, such as species, age, or condition that can generally be distinguished from adjacent groups.

For the topography and access information, these are estimates based on your experience on the property. Your forester can work with you to ensure an accurate description of this information. For the slope section, include what percentage of land is in each category.

For the road condition, the percentages represent how much of the roads are accessible to vehicles. For the estimates of road length, include estimated miles of road for each category.

A **watershed** is the area of land where all of the water that is under it or drains off of it goes to the same place. To find out information on your watershed, visit: http://cfpub.epa.gov/surf/locate/index.cfm. Your forester will be able to assist you with this section, including finding your watershed "address" – which watershed your property is in.

Property History

The Property History is a brief description of the history of the land and ownership including length of current ownership, past management activities, and surrounding environment (whether nearby property is developed, private woods, public forests, etc.). This information can be based on personal knowledge, property records, and local information sources. Your forester will also consider what evidence is seen on the ground, stumps, skid trails, etc. You may or may not know much about your property but working with a forester can help fill in some of this information.

Forest Management Goals: Developing your goals

Ownership Goals are at the heart of the plan and describes what you want to gain from your property and resources. Make a list of your goals and objectives that reflect your expectations, personal values, and the potential of your woods. Your goal statements should broadly summarize your vision for your land, but should be specific enough to know if you are reaching them. Goals can apply to either your woods as a whole or to

one stand of trees. When you have multiple goals for your woods, prioritization is needed. Goals serve as a guide to where you want to end up (Swenson, 2009).

To develop your goals, consider the following from the *Good Forestry in the Granite State: Recommended Voluntary Forest Management Practices for New Hampshire* (Bennett, 2010):

Developing goals is integral to managing forest land.

Your goals should be driven by the reasons you own your land. The duration of most plans is 10 years, short when compared with the life of the forest. When setting your goals, think big and long-term. List all that you would like to do with your property. Thinking long-term will help you develop short-term objectives that ensure you reach your long-term goals. Talking with UNH Cooperative Extension county foresters, other foresters, loggers, family, neighbors, and friends can help you develop your goals.

Your goals for the current and future use of your property should be specific. You will use your goals to formulate recommendations that then become a course of action to accomplish these objectives. The more specific and measurable your goals, the easier to monitor and track whether you are achieving them.

Clear goals help you decide what actions to take and what actions to avoid. Often landowners tell foresters, “I want to do what is right for the land and make a little money.” Foresters manage land based on a landowner's objectives. Without your specific instructions, the forester (or logger) can only make decisions based on their ideas of “what is good for the land,” which may not align with your intentions. Consider your wishes for the use of your land before talking with a forester. Be prepared to adapt or revise your goals as you learn more about your land from your research and from working with your forester.

Setting goals will help you:

- Invest your time, energy, and financial resources wisely.
- Communicate effectively with professionals who may help you achieve your objectives.
- Avoid undesired changes on your property.
- Think long term about your property and its resources.
- Avoid doing something that may not be in your best interest or in the best interests of your land

Consider and write down the answers to the following questions to help you develop goals and priorities:

General

- Why do you own your property?
- How long do you expect to own your property?
- How would you like it to be used or managed when you no longer own it?
- How do you currently use your land?
- Do you want to use it differently in the future?
- What is most important to you about your land?
- Are you enrolled in, or interested in current use taxation, Tree Farm, or an assistance program through the Natural Resources Conservation Service? Would you like to learn more about these and other programs?

Your interest and ability to work on the land

- Are you interested in working on your own land (pruning, clearing trails or vistas, cutting firewood, tapping sugar maples for syrup, etc.)? If so, how much time can you devote, and what skills do you have or are interested in developing?
- Do you have hand tools or power equipment such as a bow saw, pole saw, loppers, chainsaw, or tractor, etc?

Property Condition

- Are there any insect or disease problems?
- Have any natural disturbances such as ice storms, wind, fire, or flood affected your land?
- Are there special places on your property? A place may be special for sentimental reasons or because of an unusual geological formation, significant wildlife habitat, and many other reasons.
- Are there plants or a particular tree or group of trees you want to protect?

Timber

- Do you want to improve the health or economic value of the forest?
- Are you interested in managing for income from wood products?
- Do you have specific goals for the amount or timing of income?
- Are you willing to cut trees to enhance the timber, aesthetic, recreational, wildlife, or other nontimber resources?
- Do some aspects about timber harvesting concern you?

Aesthetics

- Do you want to maintain views to or from the property?
- Do you want to open up a view?
- If your property has road frontage or other areas viewed by the public, how important is maintaining the appearance to you?

Recreation

- Do you or others walk, hike, camp, fish, hunt, snowmobile, bird watch, swim, bike, ski, snowshoe, or enjoy your land in other ways?
- Do you want to enhance the ability to enjoy these or other activities?
- Would you like to improve the existing trails and roads?
- Do you want to prohibit any activities?

Water and Soil

- Do you want to give special attention to vernal pools, bogs, swamps, seeps, small streams, and wet areas?

Wildlife

- Do you know what wildlife use your property?
- Do you want to enhance the habitat for any of these species?
- Would you like to encourage a broader variety of wildlife by improving habitat for species not currently present?

Diversity

- Do you want to encourage a broad variety of plants and animals?
- Do you want to protect unusual plants and animals?
- Do you want to discourage invasive non-native species?

Cultural Resources

- Do you want to protect cultural features such as stone walls, foundations, cellar holes, or wells?

Other Nontimber Uses

- Do you harvest maple syrup, Christmas trees or other nontimber forest products? Do you want to?
- Are you interested in growing and harvesting non-traditional products such as mushrooms, herbs, and greens?
- Are you interested in using your property for educating others about forests?

Considerations

- UNH Cooperative Extension has forms to help you think through and write down your goals.
- Your goals might change as you learn more through personal exploration and interaction with professionals, as the land changes, or if your situation

changes. Goals often become more detailed and specific as you learn about your land.

- Your property is part of the larger landscape. Your goals and the opportunity to achieve them may be affected by the characteristics of the surrounding land. Conversely, your actions can affect conditions on nearby lands. Adopting the landscape perspective is especially important when considering wildlife habitat. Different wildlife species need different forest types and ages to meet their needs. Most birds and animals require distinct habitats during different parts of the year or during various stages in their lives. Not all forest landowners own enough acres to meet all the habitat needs of many wildlife species. The benefits of managing for wildlife on smaller tracts may only be realized if this management complements conditions and management on neighboring properties.

Recommended Practices

- Determine your goals and write them down.
- Involve family members in discussions about your land so they understand your goals and objectives, especially if you plan to leave your land to them.
- Discuss your goals with your forester and revise them as you learn more about your land, or if your situation changes. Include written objectives as part of your forest management plan.
- When wildlife habitat management is a goal, examine your land within its larger context to determine the habitat management that may be effective and reasonable to pursue within your woodlot.
- Refer to the appropriate chapters in the *Good Forestry in the Granite State: Recommended Voluntary Forest Management Practices for New Hampshire* manual to learn more about the resources that interest you.

Property Maps

Maps are a valuable tool for forest owners and many mapping tools are now available online. For your property maps you will need to do the following:

1. Delineate property boundaries, stands, special sites, threatened and endangered species present, water resources, roads, existing practices, future conservation practices, scale, and a directional arrow. Example of map types could include:
    - A Contour map
    - Aerial photo (for free aerial photo downloads http://earth.google.com/) Once you download the free software, you can enter in an address or coordinates to find your location. You can create an outline of your property or polygon of your property using the polygon tool.
    - GIS printout

2. Soil Information

- Soils Map: including legend, interpretations, etc.
  For soil maps, NRCS has developed a web-based map-making tool for private landowners: http://websoilsurvey.nrcs.usda.gov. You can search by address, state and county, latitude and longitude to develop a soil map and report for your property.
  Or you can check with your local NRCS office (http://offices.sc.egov.usda.gov/locator/app). Soil maps are required for NRCS assistance programs.

Multiple copies of the maps might be necessary to ensure the legibility of information. Some states agencies also have mapping tools available online, check with your state forestry agency for more information.

Forest Natural Resources Enhancement and Protection

This section relates to the natural resource elements found throughout the entire property. Some of the treatments related to these resource areas may qualify for federal and state assistance programs. Include appropriate activities and treatments in the Management Activity Schedule and Tracking table as well as on the map(s). Complete the Activity Schedule and draw and label the areas of management on the map if using this plan as part of an assistance program application. There is no need to repeat this information in the stand specific section.

For this section, consider the goals that you have identified for your woods. Your forester will be able address the following information for each section:

1. What treatments/ monitoring/ protection are planned?
2. When will you implement treatments (season, year), follow-up activities, etc?
3. Where will the management take place: entire stand, part of a stand, acres?
4. Do you have applicable permits, professional assistance, and applications for the assistance programs?

Special Sites and Social Considerations

Special Sites

Are there special sites, including historic, archeological, or environmental properties and high-conservation-value forests (HCVF) and landscapes on the property that should be delineated and taken into account? Special sites may include locales that are designated by the landowner, that represent places or things that are important to the landowner or their community. These may include, but are not limited to, private family cemeteries, gardens, road-side markers and other locales with special ecosystem, landscape, historic or commemorative meaning. The HCFV concept is used by various organizations, including ATFS, to identify forests of outstanding and critical importance due to their social or environmental-values.

This section should include notes on the assistance and information you utilized to help identify special sites and HCVF. There are online resources available to help identify special sites. A landowner may visit www.treefarmsystem.org/woodlandsresources to find information about their state.

Adjacent stand or ownership concerns

How does surrounding management affect your woods and how do your actions impact your neighbors? Consider aesthetic quality, wildfire concerns, privacy, wildlife movement and habitat, noxious weeds, urban encroachment, if applicable. Aesthetic qualities should be considered throughout this plan as it is being developed.

It might be appropriate to consider a modification of forestry practices in consideration of public view, including timber sale layout, road and log landing locations, intersections with public roadways, distributing logging residue, tree retention, timing of operations and other factors relevant to the scale and location of the project.

For more information on federal and state designated weeds, please visit http://plants.usda.gov/java/noxiousDriver

Recreation

If recreation is one of your goals for your woods, identify the resources and how they will be addressed in your management.

Access

Are property boundaries posted? How are they marked? Do you have legal access to the property? Is public access allowed? Address access for management purposes.

Air, Water, and Soil Protection

Soil protection

Consider steep slopes, woody debris retention, nutrient cycling, vehicle travel, soil compaction, flood runoff, livestock issues, silvopastures, and Best Management Practices (BMPs), if applicable. Include a soil map if desired (**Note**: required for NRCS assistance programs).

BMPs are essential to ensuring the benefits for air, soil and water that are made possible through sound management of your woods. To find the BMPs in your state, visit www.treefarmsystem.org/woodlandresources/ and search by your state to find the link to BMPs.

Roads

Consider general maintenance, erosion potential, BMPs, if applicable, road surface condition, road runoff, drain-dips, culverts, stream crossings, weed control, and time-of-year use.

Streams, wetlands, ponds, lakeshore

Consider BMPs, if applicable, riparian habitat, wildlife, and road crossings. If a wetlands delineation map is available, include as a reference.

Effects of Natural Disasters

Has your property been affected by floods, wildfire, wind, ice or other natural disasters? Are you at risk? Consider how you would react if a natural disaster occurred.

Rangeland Resources (if applicable)
If you have rangeland on your property then address that resource in this section.

Carbon sequestration (optional)
This is an optional resource that you might want to consider. Include a current estimation of the tons of standing carbon per acre plus growth rate–sequestration per year. Carbon sequestration consideration is not currently a requirement of the Forest Stewardship Program, American Tree Farm System or NRCS assistance programs.

Fish, Wildlife and Biodiversity

Fish &Wildlife
Consider desired species, habitat improvement, animal control, den sites, nest boxes, snag retention, access, hunting, and the current state of the habitat. What assistance did you seek or information did you gather?

State and Federal threatened or endangered species - plants or animals
What assistance did you seek or information did you gather related to state and federal threatened or endangered species? To search for site specific information visit www.treefarmsystem.org/woodlandsresources.

Management of Forest Resources

For the management described in this section include the general management that relates to the natural resource elements found throughout the entire property. For stand specific management activities, please include those in the **Stand Level Information** section.

Protection from Pests
Includes insects, diseases, weeds, and invasive species. What inventory, control, monitoring, prevention guidelines will be employed. Consider using a range of integrated pest management including mechanical, physical, biological, cultural or chemical management.

Reforestation and Afforestation
Consider natural seedling recruitment, planting, site preparation, and current conditions that might affect regeneration.

Prescribed Fire/Burns (optional)
Prescribed fires/burns can be a very useful management tool in certain locations and certain times. Consider using prescribed burns for stand/habitat improvement, fuel reduction, Home Firewise Safety (below), current fuel conditions, and degree of wildfire risk.

Home Firewise Safety: Home Firewise Safety is a program sponsored by the US Forest Service, US Department of the Interiors and the National Association of State Foresters to encourage local solutions for wildfire safety. For more information about this, please visit http://www.firewise.org/index.php

Firewise Communities Program: The National Fire Protection Association's (NFPA) Firewise Communities program encourages local solutions for wildfire safety by involving homeowners, community leaders, planners, developers, firefighters, and others in the effort to protect people and property from the risk of wildfire. The program is co-sponsored by the USDA Forest Service, the US Department of the Interior, and the National Association of State Foresters.

To save lives and property from wildfire, NFPA's Firewise Communities program teaches people how to adapt to living with wildfire and encourages neighbors to work together and take action now to prevent losses. We all have a role to play in protecting ourselves and each other from the risk of wildfire. For more information visit www.firewise.org

Management Plan Implementation Constraints
Consider available markets for wood products, your interest and time, financial limitations, land use ordinances, seasonal access, wildlife activity, insect activity, operability due to slope, etc.

Other

Use this space to include information on any other natural resource enhancements and protection that are not included in the sections above.

Stand Level Information

Your forester should develop this section, however you need to be involved in developing the stand objectives to ensure that they are in line with the management goals that you identified. Your forester will identify the number of stands within your property. Usually stand boundaries will correspond to natural or constructed features such as streams, slope and/or aspect changes, ridges, roads, or fields. Stands will also be made up of groups of trees with similar characteristics, such as species, age, or condition that can generally be distinguished from adjacent groups.

Stand Objectives

For each stand, write your management objectives for that stand. Your objectives should be linked to the management goals that you outlined in the **Forest Management Goals** section at the beginning of this plan.

Stand Current Conditions

General Description: This section includes the history, site index, elevation, slope, stand quality and health, average growth rate, summary of size classes, summary of heights, stocking level, density, risk rating, etc. for the stand in question. Further detailed inventory/plot data can be included and is desirable.

Current forest type and current age: For each forest type represented in your stand, include an estimate of its current age. The US government has a website that has some interesting maps showing the location of some of the main forest types within the US: http://www.nationalatlas.gov/articles/biology/a_forest.html. Your forester will be an

expert on the forests in your area and will be able to provide detailed information about your specific woods and the forest type and tree species found within it.

The bird's eye view of current stand conditions and structure are simple graphic representations of your woods. They are meant to provide you with an understanding of the different spacing and structures that can be found and what your stand looks like at the time you develop your plan. As you manage your stand for the objectives outlined above, this section will be a reference to show what your stand looked like when you first started your management. Current spacing shows how far apart different size trees are from each other.

Stand Desired Future Condition

This section outlines what you would like the stand to look like in the future. Your forester can develop this section based on the objectives that you have outlined. Most of the sections are the same as those in the Current Stand Condition section; however they will describe the future condition you would like to see.

Desired Forest Type and Expected Longevity: This section shows the forest type(s) you would like to see in this stand and the maximum age you expect trees to reach before they die of natural causes or they are harvested.

This section also addresses how the tree species would grow from seedlings in your woods. You could either plant the species you would like to see or they could naturally regenerate, or grow from seeds of trees already in the stand.

Forest Management Activities

Once your desired future stand condition has been identified, then this section will outline the forest management activities for each stand that will need to be done to ensure that you will reach that desired condition.

Forest Health Management Activities: These activities include pruning, pre-commercial thinning from above/below, prescribed fires, sanitation, salvage, etc.

Harvesting: For these activities, describe the type of treatment: even-aged (clearcut, thinning), uneven-aged (group select, single tree select, overstory removal, understory removal, etc), treatment methods (ground based or skyline), time of year, type of harvest; seed tree, multiage, sanitation, etc.

Slash management: For this section, discuss how the slash will be addressed after a management activity. Examples include: leave slash at the stump, jackpot pile, whole tree skid, chipping, pulp. Address the large woody debris and nutrient cycling.

Post management activities: These could include burning landings, piles, broadcast or seeding roads and landings and/or weed spray roadsides.

Permits: Include a list of permits for which you applied for or will need to apply for, if necessary for the management activities outlined here.

Best Management Practices: Is there a wetland or stream within your management activity area? Is it properly marked and are the appropriate laws being followed? BMPs are essential to ensuring the benefits for air, soil and water that are made possible through sound management of your woods. To find the BMPs in your state, visit www.treefarmsystem.org/woodlandresources/ and search by your state to find the link to BMPs.

Monitoring: After the management activity occurs, how often do you plan on evaluating the activity area to ensure your overall forest management goals are being met?

Repeat the Stand Level Information sections for each stand identified on your property.

Management Activity Schedule and Tracking

This section allows you, with your forester, to create a schedule of management activities for each stand and then you can track when they were completed, what assistance programs you used (if any) and what the net cash flow was for that activity. The net cash flow is optional and only a tool to help you track the financial costs/benefits for the different management activities. If your planned activity date changes, be sure to update and include the date and a signature of when the updates were made and why.

For information on what federal assistance programs are available to woodland owners, please look at the Woodland Owners Brochure for the 2008 Farm Bill: http://www.treefarmsystem.org/2008FarmBill/AFFFarmBillBrochure_web_lo.pdf

If you are planning on applying for NRCS assistance programs, then you will need to include the NRCS Practice Code. These codes can be found on the NRCS Conservation Practice Standards website (http://www.nrcs.usda.gov/technical/standards/nhcp.html). If you have a question about conservation practice codes, contact your local NRCS field office http://offices.sc.egov.usda.gov/locator/app.

Common forest practices for NRCS programs:

- Forest stand improvement
- Tree or shrub site preparation
- Tree or shrub establishment
- Forest trails and landings
- Road/Trail/Landing Closure and Treatment
- Forest slash treatment
- Firebreak
- Fuel Break
- Prescribed burning
- Tree or shrub pruning

- Riparian forest buffer
- Silvopasture establishment
- Multi-Story Cropping
- Windbreak or shelterbelt establishment
- Windbreak or shelterbelt renovation
- Integrated Pest Management
- Wetland restoration
- Restoration and Management of Rare and Declining Habitats
- Early Successional Habitat Development/Management
- Upland Wildlife Habitat Management
- Access Control
- Access Road

Descriptions of the conservation practices are available at:
http://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/technical/cp/ncps/?cid=nrcs143_026849

Each state NRCS office adds state specific information to these standards and specifications and can be viewed at the state's field office technical guide:
http://www.nrcs.usda.gov/technical/efotg/index.html

Some states also provide assistance programs; for information on them, please contact your state forester (http://www.stateforesters.org/about_nasf).

Signatures and Approvals

This template is provided as a tool to help you develop and then accomplish the objectives that you have for your woods. This plan will guide you in achieving the benefits of managing your woods and its related resources. With this plan, you are eligible to participate in the US Forest Service's Forest Stewardship Program, the American Forest Foundation's American Tree Farm System and NRCS assistance programs. This plan will need to be reviewed and approved by representatives for each of the programs if you chose to participate in the programs. This section provides the space for your signature and the necessary signatures to participate in your state's Tree Farm System, Forest Stewardship and NRCS assistance programs.

References

Bennett, Karen P. editor. 2010. *Good Forestry in the Granite State: Recommended Voluntary Forest Management Practices for New Hampshire (second edition)*. University of New Hampshire Cooperative Extension, Durham, N.H. www.goodforestry.org

Swenson, Steve, 2009. *My Healthy Woods: A Handbook for Family Woodland Owners managing woods in Southwest Wisconsin.* A publication of the Aldo Leopold Foundation and the American Forest Foundation, Baraboo, WI. https://www.aldoleopold.org/Programs/myhealthywoods.shtml

Resources for You, the Landowner

- Forest Stewardship Program: http://www.fs.fed.us/spf/coop/programs/loa/fsp.shtml
- List of State Foresters and their contact information: http://www.stateforesters.org/about_nasf
- American Tree Farm System: www.treefarmsystem.org
- Your state American Tree Farm System contact: www.treefarmsystem.org/stateleaders
- Natural Resources Conservation Service: http://www.nrcs.usda.gov/
- 2014 NRCS Farm Bill Conservation Programs: http://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/programs/financial/?cid=stelprdb1242382
- NRCS Conservation Practice Standards: http://www.nrcs.usda.gov/technical/standards/nhcp.html Provides information on all the different Conservation Practices and their codes.
- NRCS Field Office Technical Guide: http://www.nrcs.usda.gov/technical/efotg/index.html Technical guides are the primary scientific references for NRCS. Technical guides used in each field office are localized so that they apply specifically to the geographic area for which they are prepared..
- Woodland Owner Resources: http://www.treefarmsystem.org/woodlandresources/ Provides information on fish, wildlife, biodiversity, special sites and Best Management Practices for you state.
- To find information about you your watershed, visit: http://cfpub.epa.gov/surf/locate/index.cfm
- **The attached appendices are additional resources for landowners.**

Appendix 1: Glossary

Acceptable Growing Stock: Saleable trees that are of good form, species and quality and would be satisfactory as crop trees. .

Adaptive management: A dynamic approach to forest management in which the effects of treatments and decisions are continually monitored and used to modify management on a continuing basis to ensure that objectives are being met (Helms et al, The Dictionary of Forestry, Society of American Foresters, 1998)

Adverse regulatory actions: Written warning, citations or fines issued by law enforcement or regulatory bodies.

Aerial Photo: Photo taken from an elevated position like on an aircraft.

Afforestation: the establishment of a forest or a stand in an area where the preceding vegetation or land was not forest. (Helms et al, The Dictionary of Forestry, Society of American Foresters, 1998)

Age Class: A distinct aggregation of tree that originated at the same time, from a single natural event or regeneration activity or a grouping of trees (e.g. ten year age class) as used in inventory or management. (Helms et al, The Dictionary of Forestry, Society of American Foresters, 1998)

Aspect: The direction that a slope faces (north, south, etc.)

Basal Area: The cross-sectional area of a tree, in square feet, at 4.5 feet from the ground (at breast height). When the basal area of all the trees in a stand are added together, the result is expressed as square feet of basal area per acre, which is a measure of a stand's density.

Biomass: A renewable energy source of biological materials derived from living, or recently living organisms, such as wood, waste, and crop residues.

Biodiversity: The variety and abundance of life forms, processes, functions and structures of plants, animals and other living organisms, including the relative complexity of species, communities, gene pools and ecosystems at spatial scales that range from local through regional to global (Helms et al, The Dictionary of Forestry, Society of American Foresters, 1998).

Board Feet: A unit for measuring wood volumes. It is commonly used to express the amount of wood in a tree, sawlog, or individual piece of lumber. A piece of wood 1 foot long, 1 foot wide, and 1 inch thick (144 cubic inches).

Broadcast: to spread or apply seed, fertilizer, or pesticides more or less evenly over an entire area. (Helms et al, The Dictionary of Forestry, Society of American Foresters, 1998)

Canopy: The more or less continuous cover of branches and foliage formed collectively by the tops, or crowns of adjacent trees.

Carbon sequestration: the incorporation of carbon dioxide into permanent plant tissue. (Helms et al, The Dictionary of Forestry, Society of American Foresters, 1998)

Chip: a small piece of wood used to make pulp or wood composite or fuel. (Helms et al, The Dictionary of Forestry, Society of American Foresters, 1998)

Clearcut: 1. a stand in which essentially all trees have been removed in one operation – *note* depending on management objectives, a clearcut may or may not have reserve trees left to attain goals other than regeneration. 2. a regeneration or harvest method that removes essentially all trees in a stand. (Helms et al, The Dictionary of Forestry, Society of American Foresters, 1998)

Contour Map: A map where each line represents a change in elevation.
Crop Tree: A tree identified to be grown to maturity for the final harvest cut, usually on the basis of its location with respect to other trees and its timber quality.
Cull: A tree, log, lumber or seedling that is rejected because it does not meet certain specifications for usability or grade. (Helms et al, The Dictionary of Forestry, Society of American Foresters, 1998)
Culvert: a device used to channel water. It may be used to allow water to pass underneath a road, railway, or embankment for example. Culverts can be made of many different materials; steel, polyvinyl chloride (PVC) and concrete are the most common. Formerly, construction of stone culverts was common.
Den Tree: A living tree with a cavity large enough to shelter wildlife.
Desired species: Those species of flora and fauna designated in the landowner's management plan and not known to cause negative impacts on the local environment.
Diameter Breast Height (DBH): The diameter of a tree at 4.5 feet above the ground.
Endangered Species: Any species of plant or animal defined through the Endangered Species Act of 1976 as being in danger of extinction throughout all or a significant portion of its range, and published in the Federal Register. (Helms et al, The Dictionary of Forestry, Society of American Foresters, 1998)
Even-Aged Management: Forest management with periodic harvest of all trees on part of the forest at one time or over a short period to produce stands containing trees all the same or nearly the same age or size.
Forest owner: Landowner or designated representative such as, but not limited to, professional resource manager, family member, trustee, etc.
Forest product: [Forest Produce] Any raw material yielded by a forest. Generally defined in Forest Acts or Ordinances, and subdivided conventionally into major forest products, i.e. timber and fuelwood, and minor forest products, i.e. all other products including leaves, fruit, grass, fungi, resins, gums, animal parts, water, soil, gravel, stone and other minerals on forest land (F. C. Ford –Robertson, Terminology of Forest Science Technology, Practice, and Products, Society of American Foresters, 1971.
Forest Stand Improvement: See timber stand improvement.
Forest type: A category of forest usually defined by it trees, particularly its dominant tree species as based on percentage cover of trees, e.g. spruce fir, longleaf-slash pine, Douglas fir.
Forest vitality: The health and sustainability of a forest.
Fuel management: the act or practice of controlling flammability and reducing resistance to control of wildland fuels through mechanical, chemical, biological, or manual means, or by fire in support of land management objectives. (Helms et al, The Dictionary of Forestry, Society of American Foresters, 1998)
Group Select: trees are removed and new age classes are established in small groups – *note* – 1. the width of groups is commonly approximately twice the height of the mature trees with smaller openings providing microenvironments suitable for tolerant regeneration and larger openings providing conditions suitable for more intolerant regeneration – *note* 2. the management unit or stand in which regeneration, growth, and yield are regulated consists of an aggregation of groups. (Helms et al, The Dictionary of Forestry, Society of American Foresters, 1998)

Girdling: Completely encircling the trunk of a tree with a cut that severs the bark and cambium of the tree. Herbicide is sometimes injected into the cut to ensure death of the tree.

GPS (Global Positioning System) Coordinates: a commonly hand held, satellite based navigational device that records x, y, z coordinators and other data allowing users to determine their location on the surface of the earth. (Helms et al, The Dictionary of Forestry, Society of American Foresters, 1998)

Hack-n-squirt: A tree treatment method where an axe or hatchet is used to make "hacks" (injections) into the tree's cambium layer. A plastic "squirt" bottle is used to spray a specific amount of herbicide into the cuts placed around the tree.

Harvesting: the felling skidding, on-site processing, and loading of trees or logs onto trucks. (Helms et al, The Dictionary of Forestry, Society of American Foresters, 1998)

High conservation value forests (HCVF): Forests of outstanding and critical importance due to their environmental, social, biodiversity or landscape values. Due to the small scale and low-intensity of family forest operations, informal assessment of HCVF occurrence through consultation with experts or review of available and accessible information is appropriate.

High-grading: Cutting only the high-value trees from a forest property, leaving a stand of poor quality with decreased future timber productivity.

Assistance Programs: State and federal agencies will offer landowners the opportunity to apply for assistance programs that provide technical support and financial assistance to implement forestry and agroforestry related practices through conservation programs. Assistance can also be provided for multi-year and permanent easements to conserve forest land to meet program goals. For more information on the federal programs, see Appendix 4.

Integrated Pest Management: The maintenance of destructive agents, including insects, at tolerable levels by planned use of a variety of preventative, suppressive, or regulatory tactics and strategies that are ecologically and economically efficient and socially acceptable (Helms et al, The Dictionary of Forestry, Society of American Foresters, 1998). A pest control strategy that uses a variety of complementary strategies including: mechanical devices, physical devices, genetic, biological or cultural management and chemical management (US EPA).

Intermediate Cut: Removing immature trees from the forest sometime between establishment and stand harvest to improve the quality of the remaining forest stand. Contrast this technique with a harvest cut.

Invasive species: Non-native species whose introduction does or is likely to cause economic or environmental harm or harm to human health (Executive Order 13112 (Feb. 3, 1999). **Invasive Species**: is a species that is 1) non-native (or alien) to the ecosystem under consideration and 2) whose introduction causes or is likely to cause economic or environmental harm or harm to human health. Invasive species can be plants, animals, and other organisms (e.g., insects, microbes, etc.). Human actions are the primary means of invasive species introductions. (Invasive Species Definition Clarification and Guidance White Paper Submitted by the Definitions Subcommittee of the Invasive Species Advisory Committee (ISAC), Approved by ISAC Apr 27, 2006.)

Landings: a cleared are in the forest to which logs are yarded or skidded for loading onto trucks for transport. (Helms et al, The Dictionary of Forestry, Society of American Foresters, 1998)

Landowner: Entity that holds title to the property for which the management plan is being written.

Large woody debris: any piece(s) of dead woody material, e.g. dead boles, limbs and large root masses, on the ground in the forest stands or in streams. (Helms et al, The Dictionary of Forestry, Society of American Foresters, 1998)

Log Rules: A table showing estimated amount of lumber that can be sawed from logs of given lengths and diameters. Two log rules are commonly used in Missouri:

> ***Doyle Rule*** is a simple formula rule used in the eastern United States. It underestimates the amount of lumber in small logs and overestimates large logs.
>
> ***International 1/4-inch Rule*** is a formula rule allowing 1/2 –inch taper for each 4 feet of length and 1/16-inch shrinkage for each one-inch board. This measure approximates the actual sawmill lumber tally.

Management plan: Documents that guide actions and that change in response to feedback and changed conditions, goals, objectives and policies. Management plans may incorporate several documents including, but not limited to, harvest plans, activity implementation schedules, permits, research, etc. For the purposes of the American Tree Farm System® eligible management plans, plan amendments may include letters, notes, and other forms of informal updates in addition to formal plan revisions.

Mast: Nuts of trees, such as oak, walnut, and hickory, that serve as food for many species of wildlife.

Mature Tree: A tree that has reached the desired size or age for its intended use.

MBF: Abbreviation for 1,000 board feet.

Noxious plant (weed): a plant specified by law as being especially undesirable, troublesome and difficult to control (Helms et al, The Dictionary of Forestry, Society of American Foresters, 1998)

Nutrient cycle: the exchange or transformation of elements among the living and nonliving components of the ecosystem. (Helms et al, The Dictionary of Forestry, Society of American Foresters, 1998)

Overstocked: A forest stand condition where too many trees are present for optimum tree growth.

Overstory: That portion of the trees in a stand forming the upper crown cover.

Overstory removal: the cutting of trees constituting an upper canopy layer to release trees or other vegetation in an understory. (Helms et al, The Dictionary of Forestry, Society of American Foresters, 1998)

Pesticide: Pesticides include chemicals commonly known as herbicides and insecticides.

Pole Timber: Trees from 6 inches to 12 inches in diameter at breast height.

Prescribed Burn/Fire: To deliberately burn natural fuels under specific weather conditions, which allows the fire to be confined to a predetermined area and produces the fire intensity to meet predetermined objectives. A fire ignited by management to meet specific objectives (Helms et al, The Dictionary of Forestry, Society of American Foresters, 1998).

Pruning: Removing live or dead branches from standing trees to improve wood quality.

Pulpwood: Wood cut primarily for manufacture of paper, fiberboard, or other wood fiber products.
Qualified contractor: Forest contractors who have completed certification, licensing, recommended training and education programs offered in their respective states.
Qualified natural resource professional: A person who by training and experience can make forest management recommendations. Examples include foresters, soil scientists, hydrologists, forest engineers, forest ecologists, fishery and wildlife biologists or technically trained specialists in such fields.
Qualified Tree Farm inspector: A natural resource professional who has completed ATFS required training for certifying forested properties and is eligible to inspect properties on behalf of ATFS. ATFS requires all trained inspectors meet approved eligibility requirements.
Rangeland: Land on which the historic climax plant community is predominantly grasses, grasslike plants, forbs, or shrubs. Includes lands revegetated naturally or artificially when routine management of that vegetation is accomplished mainly through manipulation of grazing. Rangelands include natural grasslands, savannas, shrublands, most deserts, tundra, alpine communities, coastal marshes, and wet meadows
Rare species: A plant or animal or community that is vulnerable to extinction or elimination.
Reforestation: the reestablishment of forest cover either naturally (by natural seeding, coppice, or root suckers) or artificially (by direct seeding or planting) – *note* reforestation usually maintains the same forest type and is done promptly after the previous stand or forest was removed. (Helms et al, The Dictionary of Forestry, Society of American Foresters, 1998)
Regeneration: The number of seedlings or saplings existing in a stand. The process by which a forest is renewed by direct seeding, planting, or naturally by self-sown seeds and sprouts.
Regeneration Cut: Any removal of trees intended to assist regeneration already present or to make regeneration possible.
Release: To free trees from competition by cutting, removing, or killing nearby vegetation.
Riparian: related to, living or located in conjunction with a wetland, on the bank of a river or stream but also at the edge of a lake or tidewater – *note* the riparian community significantly influences and is significantly influenced by, the neighboring body of water. (Helms et al, The
Dictionary of Forestry, Society of American Foresters, 1998)
Riparian Zone: The area adjacent to or on the bank of rivers and streams.
Sapling: Trees from 2 inches to 6 inches in diameter at breast height.
Sawtimber: Trees at least 12 inches in diameter at breast height from which a sawed product can be produced.
Scale: The extent of forest operations on the landscape/certified property.
Seedling: a young plant.
Seed-tree Harvest: A harvest and regeneration method where nearly all trees are removed at one time except for scattered trees to provide seed for a new forest.
Selection Harvest: Harvesting trees to regenerate and maintain a multi-aged structure by removing some trees in all size classes either singly or in small groups.

Shelterwood Harvest: A harvesting and regeneration method that entails a series of partial cuttings over a period of years in the mature stand. Early cuttings improve the vigor and seed production of the remaining trees. The trees that are retained produce seed and also shelter the young seedlings. Subsequent cuttings harvest shelterwood trees and allow the regeneration to develop as an even-aged stand.
Single Tree Selection: Individual trees of all size classes are removed more or less uniformly throughout the stand, to promote growth of remaining trees and to provide space for regeneration. (Helms et al, The Dictionary of Forestry, Society of American Foresters, 1998)
Site Index: An expression of forest site quality based on the height of a free-growing dominant or co-dominant tree at age 50 (or age 100 in the western United States).
Skid: 1. to haul a log from the stump to a collection point (landing) by a skidder. 2. a load pulled by a skidder. (Helms et al, The Dictionary of Forestry, Society of American Foresters, 1998)
Skid Trail: A road or trail over which equipment or horses drag logs from the stump to a landing.
Skidding: Pulling logs from where they are cut to a landing or mill.
Skyline: harvesting a cableway stretched tautly between two points, such as yarding tower and stump anchor, and used as a track for a block or skyline carriage. (Helms et al, The Dictionary of Forestry, Society of American Foresters, 1998)
Slash: the residue, e.g., treetops and branches, left on the ground after logging or accumulating as a result of storm, fire, girdling, or delimbing. (Helms et al, The Dictionary of Forestry, Society of American Foresters, 1998)
Snag: a standing, generally un-merchantable dead tree from which the leaves and most of the branches have fallen – *note* for wildlife habitat purposes, a snag is sometimes regarded as being at least 10 inches in diameter at breast height and at least 6 feet tall; a hard snag is composed primarily of sound wood, generally merchantable, and a soft snag is composed primarily of wood in advanced stages of decay and deterioration. (Helms et al, The Dictionary of Forestry, Society of American Foresters, 1998)
Soil Compaction: The process by which the soil grains are rearranged, resulting in a decrease in void space and increasing bulk density. Can occur from applied loads, vibration or pressure from harvesting or site preparation equipment. Compaction can cause decreased tree growth, increased water runoff and soil erosion. (Helms et al, The Dictionary of Forestry, Society of American Foresters, 1998)
Soil map: A map showing the distribution of soils or other soil map units in relation to prominent physical and cultural features of the earth's surface. (Helms et al, The Dictionary of Forestry, Society of American Foresters, 1998)
Special sites: Those areas offering unique historical, archeological, cultural, geological, biological or ecological value. Special Sites include:

A. Historical, archaeological, cultural and ceremonial sites or features of importance to the forest owner;
B. Sites of importance to wildlife such as rookeries, refuges, fish spawning grounds, vernal ponds and shelters of hibernating animals;
C. Unique ecological communities like relic old-growth, springs, glades, savannas, fens and bogs; and
D. Geological features such as terminal moraines, cliffs and caves.

Stand: A group of trees with similar characteristics, such as species, age, or condition that can be distinguished from adjacent groups. A stand is usually treated as a single unit in a management plan.
Stand Density: A measure of the stocking of a stand of trees based on the number of trees per area and diameter at breast height of the tree of average basal area.
Stand Management Recommendations: The recommended management activities that should be done in that stand, based on the landowner's goals and objectives.
Stand Structure: The horizontal and vertical distribution of plants in the forest, including the height, diameter, crown layers, and stems of trees, shrubs, understory plants, snags and down woody debris. (Helms et al, The Dictionary of Forestry, Society of American Foresters, 1998)
State forestry best management practice(s) (BMPs): Forestry BMPs are generally accepted forest management guidelines that have been developed by state forestry agencies with broad public stakeholder input.
Stocking: An indication of the number of trees in a stand in relation to the desirable number of trees for best growth and management.
Sustainability: The capacity of forests, ranging from stands to ecoregions, to maintain their health, productivity, diversity and overall integrity, in the long run, in the context of human activity (Helms et al, The Dictionary of Forestry, Society of American Foresters, 1998).
Sustainable forest management: The practice of meeting the forest resource needs and values of the present without compromising the similar capability of future generations (Helms et al, The Dictionary of Forestry, Society of American Foresters, 1998). *Note* – AFF's Standards of Sustainability reflect criteria of sustainability based on the Montreal Process, 1993, and the Pan-European Operational- Level Guidelines (PEOLGs).
Thinning: a cultural treatment made to reduce stand density of trees primarily to improve growth, enhance forest health, or recover potential mortality. Types of thinning include: chemical, crown, free, low, mechanical, selection. (Helms et al, The Dictionary of Forestry, Society of American Foresters, 1998)
Threatened Species: A plant or animal species that is likely to become endangered throughout all or a significant portion of its range within the foreseeable future. A plant or animal identified and defined in the Federal Register in accordance with the Endangered Species Act of 1976. (Helms et al, The Dictionary of Forestry, Society of American Foresters, 1998)
Timber Stand Improvement (TSI): A thinning made in immature stands to improve the composition, structure, condition, health, and growth of the remaining trees.
Undesirable Growing Stock: Trees of low quality or less valuable species that should be removed in a thinning.
Understocked: Insufficiently stocked with trees.
Understory: all forest vegetation growing under an overstory. (Helms et al, The Dictionary of Forestry, Society of American Foresters, 1998)
Uneven-Aged Management or Stand: A stand of trees containing at least three age classes intermingled on the same area.
Visual quality measures: Modifications of forestry practices in consideration of public view, including timber sale layout, road and log landing locations, intersections with public roadways, distributing logging residue, tree retention, timing of operations and other factors relevant to the scale and location of the project.

Volume: The amount of wood in a tree, stand of trees, or log according to some unit of measurement, such as board foot, cubic foot, etc.

Watershed: the area of land where all of the water that is under it or drains off of it goes into the same place. For example the Mississippi River watershed includes all the land that drains into the Mississippi River. This watershed is the fourth largest in the world and includes water from 31 states.

Wetland: A transitional area between water and land that is inundated for periods long enough to produce wet soil and support plants adapted to that environment. (Helms et al, The Dictionary of Forestry, Society of American Foresters, 1998)

Wolf Tree: A very large, overmature tree that is or was open grown. These trees tend to have large full crowns and numerous branches.

Woody Debris: Any piece(s) of dead woody material (e.g. dead tree trunk, limbs, large root ball) on the ground in the forest or in streams. (Helms et al, The Dictionary of Forestry, Society of American Foresters, 1998)

Appendix 2 Tax and Business Management

Woodland owners have to deal with property taxes, income tax for timber harvests and other revenue generating activities, and estate taxes when properties are passed on to future generations. This section was developed to help you consider the tax implications for your property when you are planning for the management of your property.

Some states have special tax programs that can be used by woodland owners to help minimize their tax liability. Be sure to include the program information here in your plan if you choose to participate.

Consider addressing the following in your plan:

1. Property tax: The forest management plan should document the current tax status of the property. Your state might have specific property tax programs that you may be eligible to participate in. Please be aware of the program rules and regulations.
2. Income tax: Include a statement that timber harvest and other revenue generating activities generally produce a federal and state income tax liability. Tax credits may be available for some management activities.
3. Federal and State Assistance Programs: There are tax implications for participating, so be aware of those implications.
4. Estate tax: Good estate planning can help to lessen tax liability when passing land to heirs. Landowners should seek good planning and tax advice.
5. Record keeping: Good record keeping can help landowners manage their assets, increase their revenues, and minimize their tax liability.
6. Land Use: Document the land use classifications of the property from the county land use plan.

It is recommended that you work with a professional tax advisor who can assist in developing this section.

Appendix 3 Timber Sale Contract Checklist for Private Landowners and Loggers*

This is a checklist of issues private landowners and logging contractors may want to consider when preparing a logging contract. Each of the items should be addressed in a contract to allow for a minimum probability of a dispute. **Issues can be as detailed as both parties find acceptable and economically feasible.**

___ **Property location and legal description are clearly defined**
Include Tree Farm certification number if applicable.

___ **Property boundaries and harvest units are clearly and accurately marked**
Logging trespass can result in a minimum cost of 3x value of trees.

___ **Property ownership is documented and type of ownership is specified**
Ownership may be individual, partnerships, corporations, etc.

___ **Insurance is documented**
Any contractor working for a landowner must have Commercial General Liability $1-million, Loggers Broad Form Property Damage Liability $1-million, Workers' Compensation $100,000 or an Independent Contractor Exemption, and Automobile Liability $1-million. If they do not have these, the landowner will be held liable for any damage or personnel injury that may occur. Insurance can be written to include owner and consulting forester.

___ **Access to the property/harvest unit are specified and documented**
To avoid trespass or the disturbance of sensitive areas, access routes should be clearly delineated. If access across other ownerships is required, written and notarized documentation of access permission should be obtained.

___ **Type of harvest is <u>clearly</u> specified for each stand**
Typically, trees are marked both at eye level and on the stump, or harvest tree characteristics are defined by species, diameter, crown characteristic, or residual tree spacing.

___ **Timing of harvest is specified**
Identify the dates when harvesting and/or other treatments need to be conducted or completed.

___ **Residual property specifications should be defined**
Conditions after the timber sale should be described in as much detail as the landowner and contractor can foresee. Issues to address can include the completeness of residual logging debris disposal, burn pile rehabilitation, grass seeding, skid trail rehabilitation, weed control, tree planting, noncommercial thinning, access roads (must the logger repair or improve roads to a particular standard, or obliterate them and remove culverts?).

___ **Best Management Practices (BMP's) responsibilities are designated**
Compliance with state BMP's is ultimately the landowners responsibility, but should be specified in the contract.

___ **Performance bond or contract penalty**
Create provisions for compensation to the landowner for harvesting activities that deviate from specifications. Having the contractor post a bond is the best protection for the landowner, but imposes a risk on the contractor.

___ **Method of payment is clearly defined**
The payment method could be:

- **Lump sum,** or one payment for the entire estimated log volume. This method may over- or under-estimate actual value, but is simple and can be secured in advance of the actual harvesting.
- **Payment by unit,** where payment for logs occurs based upon log scaling at the mill. Either the contractor pays an agreed-upon percentage to the landowner, or the mill pays agreed-upon percentages separately to the contractor and landowner. A pitfall of this method is that when dead and dying trees are being salvaged, a delayed harvesting job can result in losses of standing tree value.

___ **Method of scaling is defined**
Either direct scaling or weight scaling are used. Direct scaling tends to be more accurate, though each mill may use different defect deductions. Weight scaling works well for large volume sales where trees are of similar species and diameters. In general, logs should be trucked to the mill quickly following harvest or they lose significant water weight, or, for the most accurate conversions, a continuous representative sample of logs should be check-scaled and weighed.

___ **Notification**
Describe if and when the contractor or landowner needs to notify the other party about activities starting or ending. Specify the type of communication desired – written, e-mail, or telephone. This is to avoid issues with blocked access, noise, special sites, etc.

___ **Expiration date**
Any contract should have a defined end date after which the contract is no longer valid.

___ **Notarization**
Any legally binding document should have signatures notarized.

* This is a suggested checklist compiled from a variety of sources including the Montana Logging Association. Any contract can be challenged. It is recommended that contracts be reviewed by your attorney. You may also want to include an attorney's fees recovery statement in the document, to allow for recovery of legal fees should a dispute require legal action.