THE WOODLAND WORKBOOK

MANAGEMENT PLANNING

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Managment Planning for Woodland Owners: Why and How

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Contents

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Management planning—the words conjure up visions of gray suits, corporate boardrooms, and Ivy League business schools. Planning for the woodland owner need not be so intimidating. A plan, simply put, is a guide that tells what you have, what you want to do, and how to do it.

Good plans will change with time. As you learn more about forestry and your own objectives, keep improving your management plan to fit changing times, new situations, and expanding knowledge.

This publication describes both why and how to plan. OSU Extension publication EC 1126, *Management Planning for Woodland Owners: An Example,* presents and discusses a sample plan.

Why plan

There are several reasons why it is helpful for you to have a management plan for your property. Here are four primary reasons.

1. Plans help you consider what you might do on your property.
2. Efficient planning saves you time and money and helps you avoid costly mistakes that may not be correctable.
3. A management plan can be a handy way to organize your business records and record activities on your property.
4. Plans help you demonstrate to others your commitment and intent in continued woodlot management.

Let's look at each of these reasons in more detail.

Plans help you consider what you might do on your property. In this sense, planning requires careful thinking about why you own your property, what you would like to see happen to it, what it might produce, and how much time and money you will require. Thinking and learning about possible management options will go a long way toward helping you establish your objectives.

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Figure 1.—Wally and Wanda Holloway, owners of a tree farm near Scappoose, discuss their management plans.

When you set goals, you must consider your constraints or limitations. Personal and economic constraints might include limited time, money, and equipment. Biological and physical constraints might include poor drainage, steep ground, rocky soils, disease, and insect problems. These limitations may narrow your options and require that you set your objectives on a different, more attainable goal.

An integral part of setting attainable goals involves making a careful inventory of the resources on your property. Make your timber inventory accurate and reliable enough to meet your information needs. It is useful to know how much timber you have, how fast it is growing, and what its present and future value might be.

Efficient planning saves you time and money and helps avoid costly mistakes that may not be correctable. Unfortunately, most of us have limited amounts of land, time, and capital. This means that you must make careful use of the resources you do have.

By developing a well-organized management plan, you can prepare a logical sequence of forest operations rather than a hit-or-miss schedule. Plan what needs to be done—and how and when to do it—before you begin. For example, you can order seedlings at the correct time and complete the site preparation and weed control on schedule with little time, motion, and money wasted.

Planning also helps you work with forest advisers. A good plan shows the extent of your resources quickly and allows forest advisers to outline options and make suggestions based on your needs.

A management plan can be a handy way to organize your records and keep track of activities on your property. Good woodlot management requires good recordkeeping. Keep notes on all activities—reforestation, thinning, harvesting, and equipment purchases. For example, reforestation records should include notes about site preparation, planting dates, tree species, stock (size, nursery, etc.), herbicides, and animal protection methods.

Document your management results. Did the seedlings survive? Was the planting stock good quality? Was the herbicide effective? Answer these questions in as much detail as possible.

In addition, list all financial details such as costs, incomes, receipts, and bills of sale. Complete and accurate financial records are necessary to complete tax forms and when operating your tree farm as a business.

Good recordkeeping is one of the best ways to keep track of what you accomplish on your property. Your accountant can help you organize your financial records. OSU Extension publication EC 1126 shows one way to organize records in a forest management plan.

Plans demonstrate to others your commitment and intent in continued woodlot management. Lending agencies, banks, trusts, corporations, planning commissions, and the like often require some proof of your commitment to long-term forest management. Management plans can be one evidence of this commitment.

How to write a plan

Writing a management plan is no simple task. It not only requires gathering information about your needs and purposes for management, but it also requires knowing your property, its physical characteristics, and its biological potential. Once gathered, analyze this information to design a plan that directs tree farm activities such as tree planting, harvesting, and road building.

A plan also is a record of activities. Some landowners use their plans much as they would a diary, recording very specific activities. Others record only major events such as a harvest.

Most plans describe the property and its features—vegetation, streams, and soils.

As a landowner, you need to know the exact location of your property. Consult legal descriptions and deeds. Obtain property survey maps showing your boundaries and corners. Locate these points in the field to avoid possible boundary disputes.

One of the more helpful tools used in developing management plans is the aerial photograph. These are available as black and white or color prints in a variety of scales and sizes. One or more of these offices should have the photos you need:

- U.S. Department of Agriculture—Forest Service (USFS); Natural Resources Conservation Service (NRCS); and Agricultural Stabilization and Conservation Service (ASCS)
- U.S. Department of the Interior—Bureau of Land Management (BLM)
- State of Oregon—Department of Forestry; Department of Revenue; and Department of Transportation, Highway Division
- Your county assessor and surveyor
- Some forest industry firms

Aerial photos enable you to recognize and map vegetative cover (brush, trees, pasture, etc.) and may help locate property boundaries. They also help you map existing road systems and plan new ones. Using a stereoscope with the photos will give you a three-dimensional view of your property's hills, valleys, drainages, and general topography (Figure 3, page 4).

Other useful maps include topographic (topo) or contour maps and soil maps. Topo maps help you orient to the property and the lay of the surrounding land. They are especially useful with aerial photos for interpreting and checking land features.

Common features shown on topo maps are drainages, relief or contour lines, and constructed improvements such as roads and buildings (Figure 4, page 5). You can obtain topo maps from the U.S. Geological Survey and from local libraries, bookstores, and sporting goods shops.

Knowing the soils on your property is very important when developing a management plan. Details on soil properties that influence tree growth, such as soil depth, texture, and productivity, can be found in soil survey reports. Soil maps and reports may have information about your soils that could affect engineering activity such as

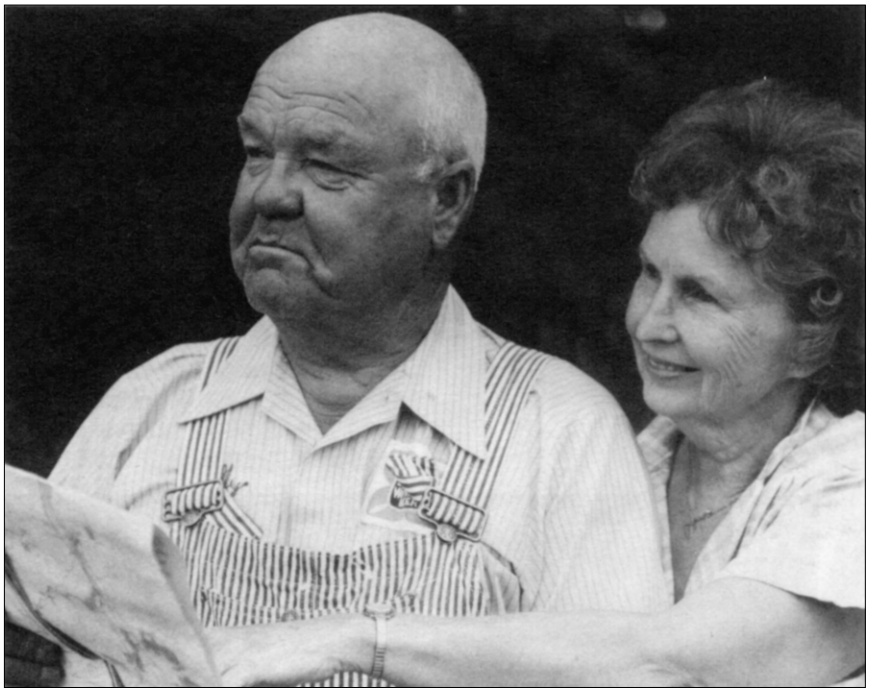

Figure 2.—The Holloways consider their management options.

logging and road building as well as data for other uses.

You can obtain valuable interpretations about your soils, maps, and reports at the local Natural Resources Conservation Service office and at the OSU Extension office in your county.

Once you divide your property into vegetative types, stands, or management units, you can begin the task of inventory. The field work preparation of your plan requires other tools besides maps and photos. For areas such as brushfields, a written description of the area listing common plants and their approximate age and size may be sufficient.

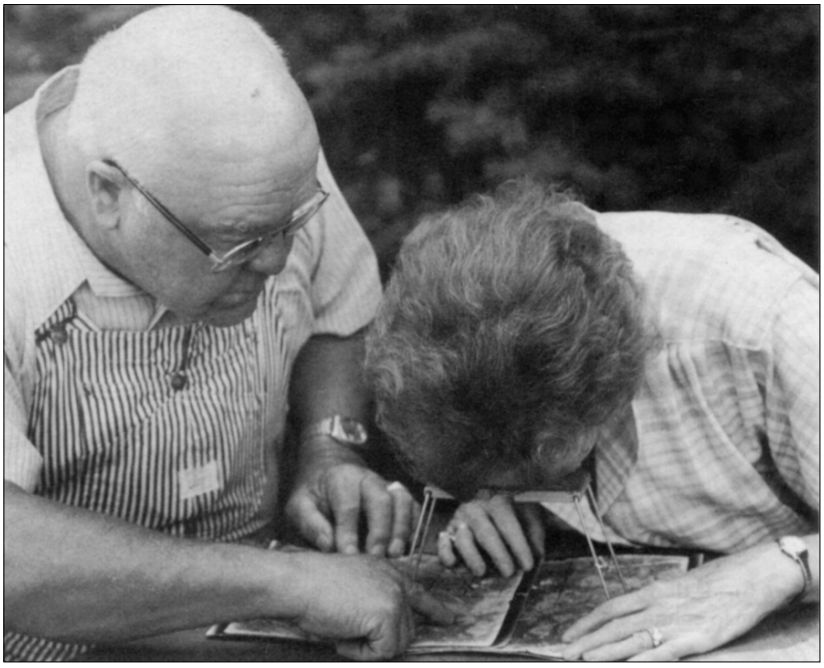

Figure 3.—A stereoscope helps the Holloways distinguish features on an aerial photograph of their property.

On young forest stands, you can use a stocking survey to evaluate the condition of the plantation and to indicate replanting or animal protection needs. This survey requires only a count of the seedlings present and their condition. For older forest stands, your inventory might require measuring tree diameters and heights plus information about age and growth rate.

Other useful resources for developing management plans include textbooks and publications about woodland management (see Figure 5 and "For further reading"); cruising or inventory guides; and OSU Extension, community college, and Small Woodlands Association programs designed to address specific woodland questions.

You can have plans prepared for you by forestry consultants, industrial forest companies, and various public agencies (see OSU Extension publication EC 1120, *Technical Assistance in Forestry)*.

Sections to include in your management plan are: objectives, woodlands descriptions, inventory, management recommendations, and recordkeeping.

Objectives

Perhaps the most important part of any plan is listing your objectives. By taking a hard look at what you expect to do with your land, you can begin to identify which resources are most important (trees, soil, water, recreation, development sites, fish, wildlife, etc.), what kind of inventory you will have to make, and whether what you want from your land is really possible.

Objectives will vary with the individual landowner and the condition of the property. Whatever your goals, make them as specific as possible. Examples of some common objectives follow; the italicized text suggests specifics to provide.

Increased income. You may need income immediately, on a regular basis (yearly or every few years), or at some future time to help with special needs (for example, a child's education, retirement, travel plans, or trust funds). *Specify how much income you will need from your property and when you will need it*.

Forest products. Some landowners need particular forest products from their tree farms such as lumber, posts, shakes or shingles, firewood, and rock. *Specify what kinds of forest products you need and in what quantities*.

Work commitment. Full- or part-time employment for you, members of your family, or others may be possible on your woodland property. *Specify how much work is needed. Also, consider how much time and effort you care to devote to field management activities.*

Other farm activities. Agricultural operations are often important activities of tree farms. In some cases, the same portion of land may provide different resource needs. *Specify the farming objectives you wish to pursue.*

Protect soil and water resources. This is essential to maintaining your land's productivity. Proper planning will protect these resources during management operations. *Specify your soil protection and water development needs.*

Recreational use. This may provide you with income opportunity as well as personal satisfaction. *Specify your recreational needs or desires and the types of developments you envision.*

Wildlife habitat. Enhancing wildlife populations through habitat development may be possible by certain forest management activities. *Specify your wildlife management goals.*

Woodland descriptions

Once you state your goals clearly and assemble your tools, it's time to prepare a description of your forest property. This description will pull the important documents together and help you or the person who is managing the property. The following sections usually are included.

Land location and identification. Give a legal description of your property (township, range, section, etc.), including total acreage.

Forest property map. Show boundaries, including fence lines, corners, survey posts, and markers.

Topography. Develop a brief written description or a map of your land. List features such as the nearest towns or communities, lay of the land, elevation, steepness, and streams.

Soils. Describe those on your property. Give their series name, characteristics, and relation to forest management. Include a soil map or overlay to go with the property map if there are several soils.

Climate. Briefly describe climatic conditions. Include annual precipitation, winter weather conditions, length of the growing season, and temperature patterns.

Figure 4.—Topographic maps show contour lines, constructed improvements, and other features.

Access. Show the existing road system on your property and adjacent properties; include rocked and summer roads. Again, you can use a map or overlay.

Forest protection. Discuss any disease or insect problem known to be in the area. Carefully assess any animal damage problems related to forest management. Note special areas that have frost pockets and high winds and that have water for fire protection and emergency use.

Inventory

Include information about all your land's resources in this section of your plan. A detailed inventory examines your property's timber management potential, recreational possibilities, wildlife habitat, and other resources (Figure 6).

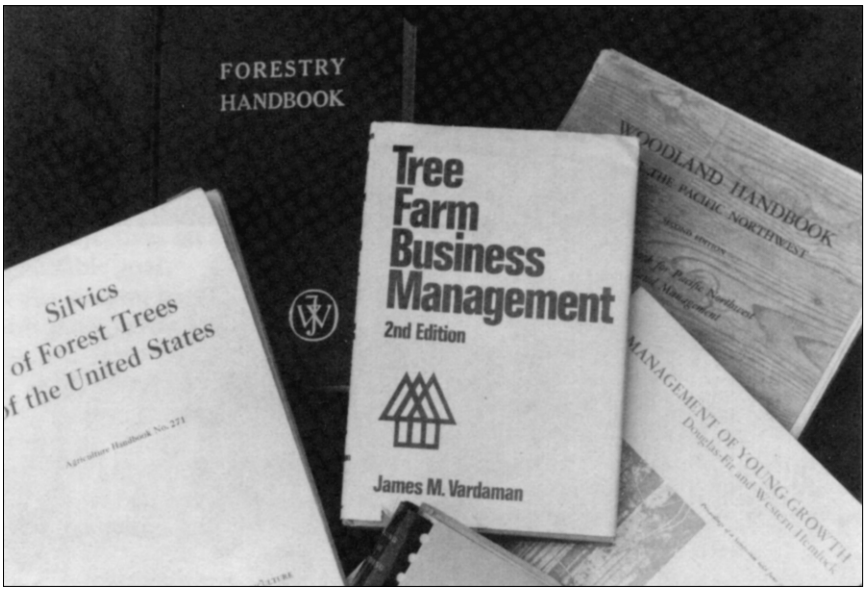

Figure 5.—Textbooks and publications offer key tips on woodland management. Use them to refine your knowledge about your property.

OSU Extension publications EC 1127, *Measuring Timber Products Harvested from Your Woodland,* and PNW 31, *Measuring Trees,* provide additional inventory background.

The inventory section usually includes a woodlands map. This map shows the different vegetation areas of your property. Timber types often are separated by species composition and tree size.

Timber types include commercial conifer areas, pasture or grasslands, swampy ground, brushfields, cutover lands, and hardwood stands. They can vary in size from small (1 or 2 acres) to large (5, 10, or more than 20 acres), depending on the intensity of management.

Further subdivide forested sites by tree size classifications (large, medium, or small timber based on average diameter). Also indicate the stocking level—the number of trees per acre in each management unit. Check to see whether your timber stands are stocked well, poorly, or about average.

Finally, summarize in text and table form the condition of each management unit. Include in the text the acreage of each unit mapped. On timbered sites, include the average diameter of the trees, their condition, growth rate, volume, and site class. You also can include detailed information about timber product values and logging costs.

The table merely provides a quick and easy way to summarize what you have in a few lines. OSU Extension publication EC 1126 shows such a table.

Management recommendations

The essence of any woodland management plan is the recommendation section. Everything discussed thus far leads to the question "What should I do on my property?"

The answers are not always simple. Often you have several choices. However, having the best possible information about your property will help you establish priorities and decide what to do this year, next year, and the year after that.

The recommendations part of a management plan can be difficult to write. It requires a background in several forestry subjects and experience with the practical aspects of land management. As you interpret the information from your woodland inventory, be sure to seek the advice

of other tree farmers and professional foresters. Their help and ideas may spell the difference between success and failure.

Remember, too, that plans are meant to change with your needs. Knowing all you can about the biological potential of your property and what is on the ground today will make your job easier.

There are usually two types of management recommendations: those that deal with *what* to do and those that deal with *when* to do it. The first category summarizes the cultural operations needed for each management unit. It may include recommendations for salvage logging and conversion of an area, precommercial or commercial thinning (and necessary tree-spacing guidelines), or harvesting and regeneration, including site preparation, planting, and spacing.

Figure 6.—The woodland stick is a handy tool to use in forest inventory.

In any case, each recommendation should describe specifically what is to be done, what special equipment will be needed, and what follow-up practices you must plan.

The second category (when to do it), includes a management activity schedule, which is your timing, budget, and priority list. You will need to describe work needs for each management unit for the next 2, 5, or 10 years or longer. Estimate the person-days of labor and cost for each job. To be most useful, this account should include estimates of income and expenses for each project.

Some management activities need to be completed by certain deadlines; others are more flexible. An example might be a planting project that, for best success, needs to be in the first or second winter after harvest. However, you could delay reclaiming a 15- or 20-year-old brushfield as a lower priority, because converting it won't be any different this year, next year, or in 5 years.

Recordkeeping

The importance of good records is difficult to overstate. They will be valuable as you review results of practices, update your tax accounts, and plan new activities.

Two main groups of records tree farmers should maintain are forest management and financial records. Some suggestions for these are shown below. Obviously, they will vary with every property and circumstance.

Forest management records

- **Reforestation**. For each area you plant, describe the site preparation (method, operator, costs), seedling establishment, and maintenance records (planting contractor, costs, species planted, survival, animal protection, etc.).
- **Thinning**. For areas you thin, record previous stand history and condition, stems per acre, tree spacing, operator, costs, and the material you remove.

- **Harvesting**. List logging details such as the quality, quantity, and values of the products you remove. Also show gross and net receipts and the harvest method, operator costs, contractor, and dates.

Financial records

- Depletion. This establishes the initial value of your land and the buildings and equipment on it at the time of purchase. It is essential for calculating taxable incomes following harvest and depreciation on equipment.
- Operating expenses. This documents the current year's operating expenses such as trips to the tree farm, costs of materials and supplies, fees for professional services, and other items for income tax purposes. Keep the bills, receipts, and bank statements that document these expenses in this file.

Summary

Include a good recordkeeping system as a working part of your overall management plan. That way, the records, notes, and experiences covering your entire forestry operation are available to place beside your blueprint for action.

Once you finish your plan, remember that it should not be cast in stone. Your woodlands and your needs will change with time; so should your plan.

Remember that forest management is a long-term process. It's difficult enough to predict product values next year, not to mention in 50 or 60 years. A management plan can help you look at your options, make decisions, and plan for tomorrow.

For further reading

OSU Extension publications

Bell, J. *Measuring Trees,* PNW 31 (revised 1982). 75¢

Green, D., M.C. Bondi, and W.H. Emmingham. *Mapping and Managing Poorly Stocked Douglas-Fir Stands,* EC 1133 (published 1983, reprinted 1997). $1.50

Landgren, C. and M.C. Bondi. *Management Planning for Woodland Owners: An Example,* EC 1126 (published 1983, reprinted 1998). $1.50

Oester, P. *Measuring Timber Products Harvested from Your Woodland*, EC 1127 (revised 1999, reprinted 2002). $2.50

Shearer, M. and R. Fletcher. *Technical Assistance in Forestry,* EC 1120 (revised 1989, reprinted 1993). 75¢

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Other publications

Bell, John F. and J.R. Dilworth, *Log Scaling and Timber Cruising* (Oregon State University Bookstores, Inc., Corvallis, 1988).

The Woodland Workbook is a collection of publications prepared by the Oregon State University Extension Service for owners and managers of private, nonindustrial woodlands. Information has long-range and day-to-day value for anyone interested in wise management, conservation, and use of woodland properties. The Workbook is organized in sections in a 3-ring binder with tabbed dividers for each section. To order, and to get a current list of titles and prices, inquire at the OSU Extension Service office that serves your county.

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