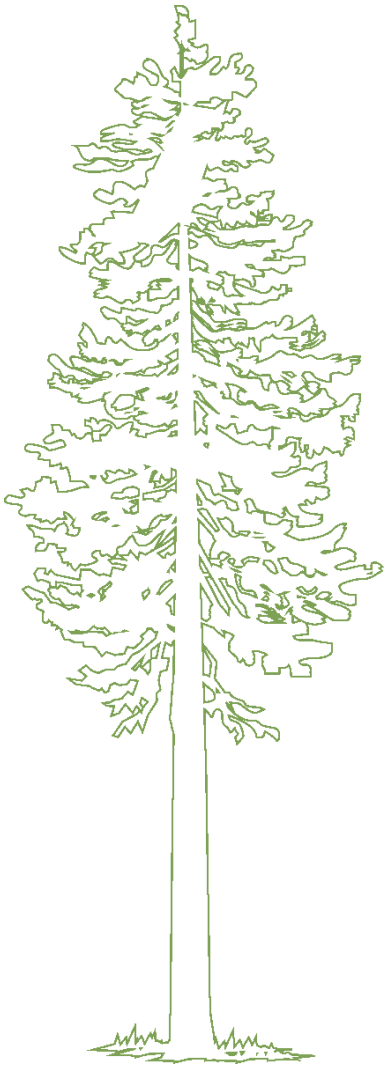
Oregon Forest Management
Planning System Guidelines



The Oregon Forest Management Planning System, or Uniform Plan, is a collaborative effort of public and private organizations dedicated to supporting the stewardship of Oregon's forests. Funding to develop and maintain the Uniform Plan has been provided by the USDA Forest Service. Contact information for these organizations can be found on the "where to get help page" of the Oregon Forest Management Planning System website listed on the next page.

Oregon Forest Management Planning System Guidelines

Revised March 2024

Management planning templates and resources referred to in this text are all available at the

Oregon Forest Management Planning website.

OregonForestManagementPlanning.org

Oregon Forest Management Planning System Guidelines

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Introduction

Why a forest management plan? A management plan is valuable for many reasons, including tax and business needs, cost-share programs, land use actions, markets for ecosystem services, and forest certification. While these are all important practical reasons to develop a plan, the process by which you write the plan will help you – the landowner – learn about your forest and develop or refine a course of action based on your objectives. A plan is also a good way to let your heirs or others who follow you know your vision for the future of your forest and the steps you have taken to achieve that vision.

While you may not realize it at first, learning about your forest and deciding what you want to do with it through a management plan is taking a step toward ensuring it will be managed sustainably for generations to come.

Who should write the management plan? You may choose to involve several people in the development of your management plan. Since much is learned about the forest through the management planning process, there is value in having whomever is involved in the day-to-day management of your forest serve as the primary plan developer. This may be you, as the landowner, or a professional forester, biologist or other natural resource specialist. It could also be a mentor who has the skills and energy to engage you in the planning process and link you with the necessary resources. You may be the lead author, or serve as reviewer. Regardless of who writes the plan, it must be your plan in the end.

Why a Uniform Forest Management Planning System for Oregon?

Oregon's Forest Management Planning System recognizes planning as a journey that involves several distinct steps (see Figure 1). A landowner's initial interest in management planning may be sparked by an interest in learning more about their land. Others might be looking to complete a specific project or action that is pressing, such as reducing hazardous fuels or eradicating an invasive species. Whatever the interest, the planning process begins with Woodland Discovery, which consists of gathering basic property information and solidifying management goals. The remaining steps to completing a plan are organized into specific planning modules. Each step results in the identification of specific actions you can take to improve conditions of your forest or otherwise meet your goals in owning forestland. Completion of your forest management plan opens up formal types of engagement such as forest certification and the enrollment of lands into specialized conservation programs that define a long-term commitment to sustainable forestry.

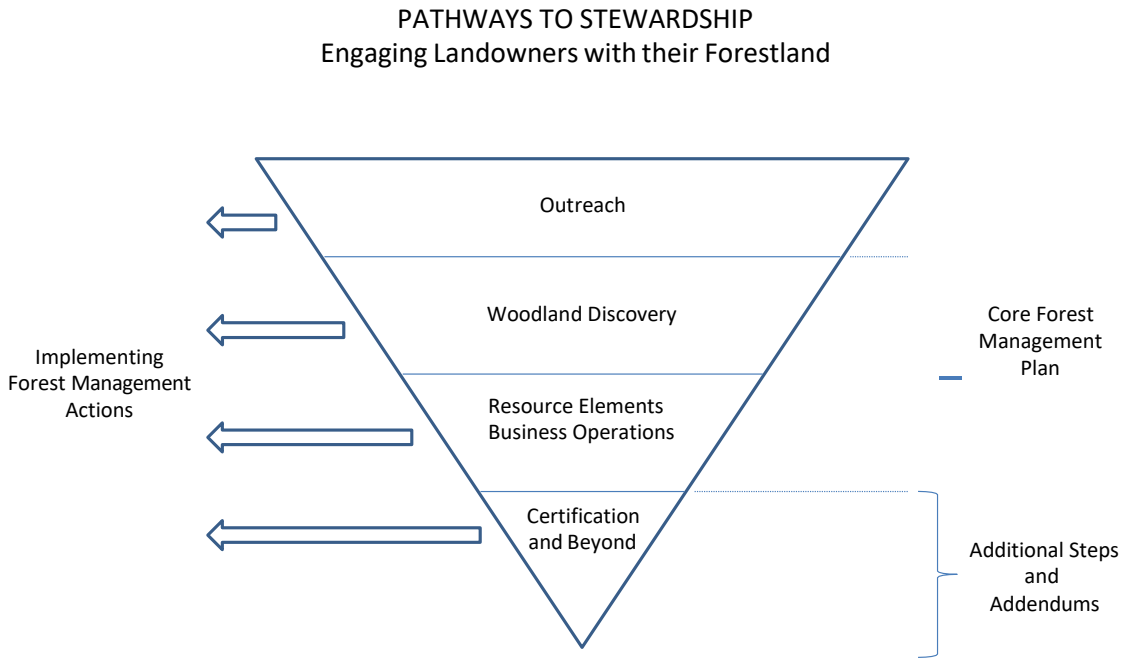


Figure 1: Pathways to Stewardship.

There is a diversity of agencies that require a management plan to qualify for the mentioned certification or conservation programs. As a result, a multitude of plan templates and criteria arose over the years. The Uniform Plan project is intended to simplify management planning for landowners by creating a single template that is accepted by many different agencies and programs. Find the program that you are writing your plan for in the management planning checklist on page 4 to identify which sections you are required to complete.

How often should the plan be reviewed and updated? The most important part of the plan is going through the planning process. The process allows you to articulate goals and objectives, discover what you have in your forest, think about what you want to have in your forest, and identify actions to get there. However, forests are dynamic and once you've made your plan, it is inevitable that things will change. Forest health conditions, forest product markets, and changes in family situations are all reasons you might consider reassessing your management goals and actions.

Thus, planning is a continuous and adaptive process, so it is beneficial to consider your plan is a living document. Be prepared to make notes, changes, and additions on an annual basis. You may want to keep it in a three-ring binder or save it electronically so it can be updated more easily.

Even if changes don't arise, it is a good idea to review your plan regularly. Review your plan at the beginning of each year to assess and plan activities scheduled for the year and to make adjustments for unforeseen events, such as large disturbances in forest health, that need to now be incorporated. Are there new market opportunities on the horizon? Are there planned actions that do not seem as promising or important? Another time to visit and review your plan is when an action is completed. This is the time to complete your record keeping, make

notes on modifications to the action, and record your satisfaction with the outcomes.

While Forest Management plans have a 10-year planning horizon, it is a good idea to redo the formal planning process every five years. This process begins with a re-assessment of your goals and objectives, and management unit boundaries. This is also a good time to think about , and ends with a new schedule of planned actions for the next five years.

Resource tip: Find additional information on management planning for woodland owners in the "General Management Planning Help" section on the "Resources" tab of Oregon's Forest Management Planning website at oregonforestmanagementplanning.org

How do I get started? These guidelines provide direction on the required information for completing the various planning elements that make up an Oregon Forest Management Plan. They are accompanied by a fillable and expandable planning template designed to help you better visualize what is needed in each element. Never be limited by the space available in the template or by its organization. Following or using the template is not a requirement. In the end, work with your plan writer to organize your plan in a way that works best for you.

The guidelines are organized to first describe the type of content and level of information that is required for your plan. *Additional, optional information that you may wish to consider is indicated in this color and font.* **In many cases, tips on how to organize your plan or where to go for further information are called out in this color and font.**

Appendix B lists management actions used to establish, treat or manage forest vegetation. The associated activity codes used by the Oregon Department of Forestry and the Natural Resources Conservation Service are also listed.

These guidelines, the fillable templates, and additional resources are all available on:

Oregon's Forest Management Planning Website

OregonForestManagementPlanning.org

Management Planning Checklist. The checklist on the following page lists the required elements that must be included in a complete forest management plan. Success is measured with each step you take along the journey; it's okay to pause and rest along the way; though you should enter each pause with a completed Action Plan for the management actions you are ready to take to improve the on-the-ground condition of your forest or that otherwise meet your goals in owning forestland.

CHECKLIST - Oregon Forest Management Planning System

CHECKLIST	SECTION NAME	REQUIRED SECTIONS FOR DIFFERENT SPECIALIZED ENROLLMENT PROGRAMS		
		ODF - FOREST STEWARDSHIP PLAN	OREGON TREE FARM PLAN	WILDLIFE HABITAT CONSERVATION AND MANAGEMENT PROGRAM
☐	Cover Page	REQUIRED	RECOMMENDED	OPTIONAL
☐	Table of Contents	REQUIRED	RECOMMENDED	OPTIONAL
	WOODLAND DISCOVERY			
☐	Landowner, Property and Plan Information	REQUIRED	REQUIRED	REQUIRED
☐	Property Description	REQUIRED	REQUIRED	REQUIRED
☐	Background and History	REQUIRED	RECOMMENDED	REQUIRED
☐	General Description	REQUIRED	REQUIRED	REQUIRED
☐	Terrain and Topography	REQUIRED	REQUIRED	OPTIONAL
☐	Current Uses	REQUIRED	REQUIRED	REQUIRED
☐	Forests of Recognized Importance (FORI)	REQUIRED	REQUIRED	OPTIONAL
☐	Maps & Photos	REQUIRED	RECOMMENDED	REQUIRED
☐	Goals & Actions	REQUIRED	REQUIRED	REQUIRED
☐	Where to Get Help	REQUIRED	RECOMMENDED	OPTIONAL
	CURRENT STAND & FOREST HEALTH CONDITIONS			
☐	Stand Characteristics	REQUIRED	REQUIRED	OPTIONAL
☐	Forest Health Conditions	REQUIRED	REQUIRED	OPTIONAL
☐	Management Objectives	REQUIRED	REQUIRED	REQUIRED
☐	Desired Future Conditions	REQUIRED	REQUIRED	REQUIRED
	RESOURCES & MANAGEMENT TOOLS			
☐	Soils	REQUIRED	REQUIRED	REQUIRED
☐	Water Resources	REQUIRED	REQUIRED	OPTIONAL
☐	Fish and Wildfire	REQUIRED	REQUIRED	REQUIRED
☐	Desired Wildlife Species	REQUIRED	REQUIRED	OPTIONAL
☐	Threatened and Endangered Species	REQUIRED	REQUIRED	REQUIRED
☐	Rare, Sensitive and Other Unique Resources	REQUIRED	REQUIRED	REQUIRED
☐	Wildlife Related Damage & Problem Species	REQUIRED	REQUIRED	OPTIONAL
☐	Roads	REQUIRED	REQUIRED	OPTIONAL
☐	Integrated Pest Management	REQUIRED	REQUIRED	OPTIONAL
☐	Prescribed Burning	REQUIRED	REQUIRED	OPTIONAL
	ACCESS AND WILDFIRE PROTECTION			
☐	Access and Security	REQUIRED	RECOMMENDED	OPTIONAL
☐	Wildfire Protection	REQUIRED	REQUIRED	OPTIONAL
	ADDITIONAL FOREST VALUES			
☐	Aesthetics and Recreation	REQUIRED	REQUIRED	OPTIONAL
☐	Cultural Resources	REQUIRED	REQUIRED	OPTIONAL
☐	Resiliency & Carbon Sequestration	REQUIRED	REQUIRED	OPTIONAL
	TAX AND BUSINESS			
☐	Tax and Business Management	REQUIRED	RECOMMENDED	OPTIONAL
	ACTION PLAN			
☐	Regulatory Compliance	REQUIRED	REQUIRED	OPTIONAL
☐	Schedule of Planned Actions	REQUIRED	REQUIRED	REQUIRED
☐	Monitoring Plan	REQUIRED	REQUIRED	OPTIONAL
☐	Signature Page	REQUIRED	RECOMMENDED	REQUIRED

Guidelines

COVER

Develop a cover for your forest management plan, and include the following:

Title – Give your plan a title. Perhaps your forest has a name. In that case, a simple title for your plan is "[Name of Your Forest] Forest Management Plan".

Photo: Provide a representative photo or collage of photos for your forest. You can be as creative as you want. One way to get younger children engaged is to have them draw a picture of what the forest means to them and use that on your cover. Older children can be assigned the responsibility of taking the cover photo.

Landowner Name: Put your name on the cover to indicate that this is your plan.

Period Covered by the Plan: This is the time period that you feel the plan will be in effect. Usually, this is no less than five years and no more than ten years.

TABLE OF CONTENTS

A Table of Contents or equivalent checklist needs to be in your plan to indicate which planning elements are covered. You can organize and label the sections of your plan however you'd like, but the elements outlined in the checklist on page 4 must be included in your plan. It may be easiest to use and follow the checklist.

WOODLAND DISCOVERY

LANDOWNER, PROPERTY AND PLAN INFORMATION

Landowner Information

List contact information for you (or for your property manager): Legal name of the person, business or entity owning the property, and name, address, phone and e-mail information for the primary contact person.

Property Information

Provide the following information about your property:

Resources tip: Use the "Property Information" section on the "Resources" tab of Oregon's Forest Management Planning website at oregonforestmanagementplanning.org to find the information listed below.

- Property Name, ***Address***, County in which property is located.
- Elevation
- Total Property Acres and Acres of Forestland
- Legal Description (Township, Range, Section) for each, if known
- Structural Fire Protection District [TIP: To identify your Structural Fire Protection District, consult your county property tax statement or contact your county tax assessor.]
- Forest Fire Protection District

- Sixth Field Watershed – The name of the sixth field watershed the property is located within. List all 6th field watershed names if the property lies in more than one watershed. If known, provide the corresponding 12 digit Hydrologic Unit Code. Some agencies and organizations are using the 6th field watershed as a means to prioritize eligibility for financial assistance. *[Tip: The term 6th field watershed refers to the level of* watershed classification. Sixth field watersheds are uniquely identified by their 12 digit Hydrologic Unit Code (HUC) – so the terms 6th field watershed and 12 digit HUC are used interchangeably. Hydrologic Unit Codes and watershed "fields" provide a hierarchy in terms of watershed size – the more digits in the code or the higher the field number, the smaller the sub-basin being identified.]
- Forest Seed Zone, for species included in the management plan
- Latitude and Longitude to the center of the property or key feature (such as a home or nearest recorded survey monument). This information is used by emergency responders.
- Is the property certified under a forest or agriculture certification program (Yes/No)
    - If yes, provide the certification program name and certification number.
- For each tax lot making up the parcel, provide:
    - Tax lot number.
    - Tax lot zoning (this is different from property tax classification)
    - Property tax classification **[Tip: Read How Forestland is Taxed]**

Property tax classification and zoning are two different things that often get confused. Zoning comes from county land use planning through the county's Comprehensive Land Use Plan. Zoning does not define a property's tax classification. A property (or portion thereof) zoned one way may have portions of that zoning that each fall under a different property tax classification. Examples of property tax classifications include: 1) Small Tract Forestland Option, 2) Forestland Program, 3) Riparian Land Assessment, 4) Farm Woodlot Program, 5) Conservation and Management Program and 6) Wildlife Habitat Conservation and Management Program.
Each piece of property must meet specific criteria in order to maintain its eligibility for a particular property tax program.

Plan Information

Indicate the time frame to be covered by your management plan (typically 10 years). If you received assistance from a natural resource professional such as a forester or wildlife biologist, or some other plan writer, provide that person's contact information. Indicate the date when you considered the plan "done." Usually, this is the date you sign off on the plan.

PROPERTY DESCRIPTION

Resources tip: Use the "Property Description" section on the "Resources" tab of Oregon's Forest Management Planning website at oregonforestmanagementplanning.org to find the information listed below.

Background and History

Answer the question: "This is what I know about the history of my property." Include such items as past owners, timber harvests, tree planting projects, conservation activities, road building, farming practices, and major disturbances such as wildfires, storms or insect attacks. Indicate when you acquired the property and what has happened to it since then.

General Description

Describe your forest as you would to a neighbor or friend. Is it dominated by evergreen or deciduous trees? Is it young or old? Are the trees uniform in size and age, or are there trees of all different sizes and species mixed together? Describe the pattern of forest and openings across your landscape. What does the forest floor look like? Does it have just moss, or herbs, grass and shrubs? Are there any water sources on your property?

Terrain and Topography

Describe the property's terrain in terms of slope, aspect and elevation. Describe landforms that the property is part of (e.g., coastal headlands, valley floor, foothills, or mountains).

Current Uses

Describe how you are currently using your property. Do you live on the property? If not, how often do you visit or work on it?

Landscape Context – Forests of Recognized Importance (FORI)

Indicate whether your forest is within or adjacent to a Forest of Recognized Importance (FORI) and if there are any actions to be taken to conserve or protect these forests. Forests of recognized importance (FORI) represent globally, regionally and nationally significant large landscape areas of exceptional ecological, social, cultural or biological values. These forests are evaluated at the landscape level, rather than the stand level and are recognized for a combination of unique values, rather than a single attribute.

Another way to think about this is to consider whether your property fits within a broader landscape assessment or initiative. For example, is your property within a Conservation Opportunity Area? Is there a larger initiative in your area that may focus on, for example, watershed health, invasive species control, reducing wildfire risks or insect and disease control? The Oregon Conservation Strategy is a good starting point to determine how your property interfaces with broader landscape-scale management initiatives. You may also consider reaching out to a local watershed council or soil and water conservation district.

Make note of any initiatives or strategies that may intersect your property. If your property falls within a known strategy and may contribute to a FORI, outline the management considerations necessary to help conserve and enhance the attributes identified by the initiative(s).

MAPS AND PHOTOS

Provide an aerial photo showing your property boundaries. Clearly distinguish the forest area of your property from non-forested areas. Areas that currently lack forest cover but you would like to see planted as forest should be included in your forest area. Also, create an aerial map of your property. Identify important property features such as roads, lakes and streams and property identifying features. Include county roads and/or highways that provide access to your property. *Overlay your aerial map on a topographic map or other terrain base that shows elevation contours to create a terrain map for your property.* Create separate photos and maps for each parcel making up your property.

Resources Tip: These photos and maps can be generated by a professional forester or other natural resource professional you have hired to help you with your plan, or by using Internet mapping software. Examples of mapping software can be found in the "Map and Photos" section on the "Resources" tab of Oregon's Forest Management Planning website at oregonforestmanagementplanning.org.

If available, you may also want to include a basic plat map of your property showing boundaries and major property features. You could also include a "Directions to Your Property" map that shows the location of your property from a well-known location or town.

GOALS AND ACTIONS

Goals relate to your reasons and interest in owning forestland. They also form the basis for your management plan, which helps to outline how you will achieve them. List the primary goals you have for your forest. Here are some examples:

- Improve forest health
- Protect against wildfires
- Provide and improve wildlife habitat
- Develop ponds or other water sources
- Learn about or study nature
- Establish new tree plantings
- Enhance tree growth and quality in your forest
- Hunting or fishing
- Generate income from harvesting timber
- Generate income from non-timber products
- Generate income from recreational access and use
- Restore native habitats
- Reintroduce or emulate the ecological role of wildfire in the forest
- Control invasive species
- Maintain and develop trails for hiking and skiing
- Develop and maintain trails for off-road recreational vehicle use
- Improve fish habitat, including stream-side forests
- Retain my land as a forest
- Opportunities to integrate agriculture and range use with forest management

- Provide benefits of trees to the environment
- Maintain a secluded place to live
- Pass property on to heirs
- Others...

For each goal, consider the following:

- Provide a general description, including your reasons for including it in the plan;
- Set the priority of each goal;
- Outline the general management actions necessary to achieve each goal; and, Describe how you will measure whether or not you have achieved the goal. You might outline some specific *objectives*, or benchmarks, to attain on the way to meeting your goal. Include how you are monitoring resource conditions and how well your actions worked.

Think of this as a preliminary list of what you would like to do with your property. Your objectives and actions will be further developed as you complete the forest management planning journey. For example, if you decide to divide your property into management units (see Appendix A), you will develop specific objectives for managing the stand as a means to attain your goals. Specific management actions (e.g., silvicultural treatments including commercial timber harvests; see Appendix B) that support your management unit objectives will then be identified. You can then cross reference your management actions with requirements of the Oregon Forest Practices Act. See the Regulatory Compliance and Schedule of Planned Actions sections for more information. Review the Oregon Forest Practices Act in the **"Regulations" section on the "Resources" tab of Oregon's Forest Management Planning website at oregonforestmanagementplanning.org.**

WHERE TO GET HELP

The natural resource professionals and other contacts who can help you create your plan and manage your forest are listed in this section. For the most part, these are likely local contacts, but you may also list online or other remote sources. Key examples and contact information of these can be found on **"Where to Get Help" tab of Oregon's Forest Management Planning website at oregonforestmanagementplanning.org.**

Some organizations may or may not charge a fee depending on the type of assistance provided and whether membership is required to gain access to assistance. You will need to do some searching or get help from a plan writer, other service providers, and local agency contacts to find the most appropriate places to get help. If you find a good contact or source of assistance – document it in this section of your plan for future reference.

CURRENT STAND & FOREST HEALTH CONDITIONS

CURRENT STAND CHARACTERISTICS

For each stand/management unit (or for your forest as whole if you have only one stand/management unit), describe the forest vegetation using the information below. (See Appendix A for more information about Management Unit Planning and stand delineation.) A thorough forest inventory or timber cruise is NOT* required. You do not have to disclose inventory information in your plan. If you have more than one unit, it is a good idea to list your management actions planned for that unit as part of your management unit description as well as listing them again in your Schedule of Planned Actions. See Appendix B – Forest

Management Actions – for a description of actions to consider.

*Management plans developed for NRCS Cost Share Programs DO require a plot inventory.

Review the websites in the "Current Stand Characteristics" section on the "Resources" tab of Oregon's Forest Management Planning website at oregonforestmanagementplanning.org.

Forest or Stand ID: If you have multiple management units (aka, stands), come up with a system for labeling them. It can be as simple as I, II, III…or perhaps a code based on the objective for the management unit (e.g., T = timber, W = wildlife, etc.) or some other system.

Area: The size of the forest area or management unit in acres. The online programs you use to delineate your stands, should also report the area of those stands.

Slope, Aspect and *Elevation*: Use your topographical map to determine slope and aspect for the management unit. Elevation is optional but can also be included.

Site Quality: One source is the Site Index value listed for the soils underlying the management unit (see Table 1).

Table 1. Site Indexes (feet) Grouped by Site Quality Class for Oregon

Species	Base Age	CLASS I	CLASS II	CLASS III	CLASS IV	CLASS V
		High		*Medium*	*Low*	
Douglas-fir	*50*	160 – 136	134 – 116	114 – 96	94 – 76	74 - 50
western hemlock	*50*		130 – 120	110 – 100	90 – 80	< 70
Douglas-fir	*100*	210 - 190	180 - 160	150 - 130	120 - 100	90 - 70
western Hemlock	*100*	210 - 190	180 - 160	150 - 130	120 - 100	90 - 70
red alder	*100*	210 - 190	180 - 160	150 - 130	120 - 100	90 - 70
ponderosa pine	*100*	160	140	120	100	80
lodgepole pine	*100*			120	100	80

Source: Oregon Department of Forestry, from information provided by Atterbury Consultants, Beaverton, Oregon.

Cover Type: Indicate conifer, mixed conifer, mixed conifer/hardwood, hardwood or mixed hardwood as the primary cover type.

Number of Layers: See Illustration (Figure 2) – Vertical Structure for describing the layering of your forest – "One," "Two," "Three," or "Multiple" layers.

General Description: Provide a brief narrative description of your forest.

Photo: *Include a representative photo or photos of the management unit, especially of unique characteristics or features that define it.*

Primary Layer: Provide the following for the overstory or main layer of the stand:

- *Age: Indicate the age of the layer in years if known.*
- Growth Stage: Seedlings (< than 4.5 feet in height), Sapling (1-5" diameter breast

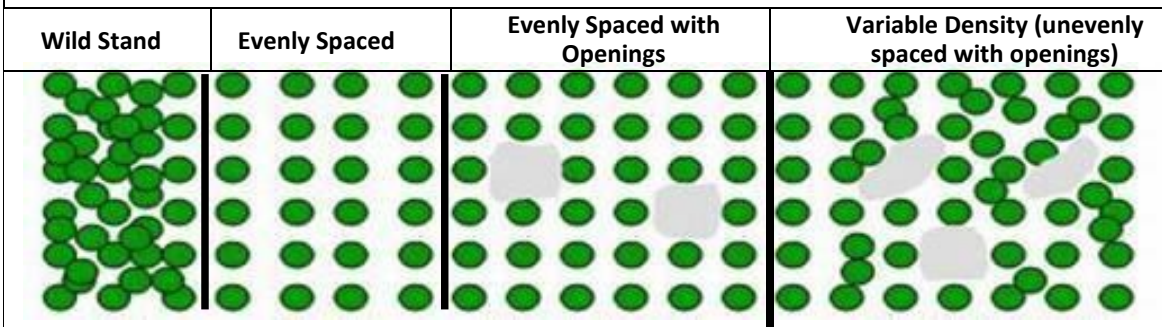
height (dbh)), Small Trees (6-11" dbh), Large Trees (12-29" dbh) and Very Large Trees (30" or more in dbh).

- Spacing: See Illustration (Figure 2) – Horizontal Structure for describing spacing.

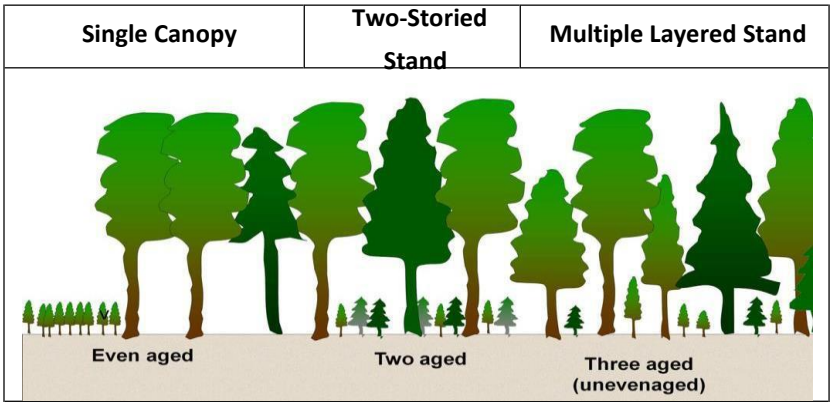
- Canopy: Provide a general description of the forest canopy. "Open" if the stand is young or the tree canopies do not overlap; "Closed" if the tree canopies touch each other or otherwise overlap and the ground is shaded; "Variable" if the canopy is open in some areas and closed in others.
- Stocking: A general description of tree stocking relative to what is desired (e.g., under-stocked, moderately-stocked, fully-stocked or overstocked). *Estimated trees per acre can also be used.*

Figure 2. Different Ways to Describe Forest Structure. Adapted from "Managing Your Woodlands – A Template for Your Plans for the Future." February 2011 (American Tree Farm System; USDA Natural Resource Conservation Service; USDA Forest Service).

A. Horizontal Structure (Spacing)



B. Vertical Structure (# of Layers)



- *Diameter Class/Height Class: Estimate the general diameter (at breast height) of the overstory trees to the nearest 5 inches and the general tree height to the nearest 10 to 25 feet.*

- Species: Indicate the tree species and the percent of the stand or layer the species occupy. Add species as appropriate for mixed species stands or layers. Species percent can be based on tree stocking, basal area or a visual estimate.

Secondary and Tertiary Layers: *For each additional layer, provide:*

- *Age: Indicate the age of the layer in years if known.*
- *Growth Stage: Seedlings (< than 4.5 feet in height), Sapling (1-5" diameter breast height (dbh)), Small Trees (6-11" dbh), Large Trees (12-29" dbh) and Very Large Trees (30" or more in dbh).*
- *Prevalence: Provide a description of the layer distribution in the stand. Is it "Uniform" and occurs throughout; or "Variable" occurring in some portions of the stand; or does the second or third layer "Fill Pockets" or "Fill Openings" in the overstory.*
- *Stocking: Rough estimate of the number of trees per acre.*
- *Species: Indicate the tree species and the percent of the stand or layer the species occupy. Add species as appropriate for mixed species stands or layers. Species percent can be based on tree stocking, basal area or a visual estimate.*

Understory Vegetation: Describe the forest understory in terms of woody species, herbs, grasses and other forbs, and structure (single or multiple layers), density (sparse, medium, heavy, or impenetrable) and whether it is desirable or competing.

Snags and Down Wood: Indicate if there are snags (standing dead trees) and down wood (logs, woody debris) in the stand in terms of average size, condition (e.g., hard or rotten; legacy from previous harvest) and prevalence (uniform or variable).

Range: If rangeland is present, indicate if it is part of the understory of a stand of trees or if it is an inclusion (one or more "meadows") in an area otherwise dominated by trees. Describe the vegetation (if not included in Understory Vegetation above) and indicate its density and weather it is desirable or competing. Include rangeland in the narratives for other sections (Stand History, Forest Health, Desired Future Condition, and Monitoring Plan) if forest grazing is one of your goals.

Stand History: Indicate the types of harvest or management actions that have taken place in the stand. For harvests, described what was removed. Also, include historical events (by year if known) for the stand, such as date of origin, if planted or natural and when the stand was impacted and incurred losses from wildfire, insects and diseases.

FOREST HEALTH

Indicate what conditions may be affecting the stand and whether the condition is isolated or widespread. Include future threats to the stand that may have not shown any signs, but may be an issue at the landscape level within your region. See *Appendix C – Insects, Disease and Other Damage Agents* for a list of damage agents. Describe any management actions that may be necessary to address these forest health concerns. Refer to your monitoring plan to demonstrate how you will document changes to forest heath that may interfere with your objectives. Examples of conditions that may impact forest health include:

- Insect and Disease Infestations
- Invasive Plant Species
- Wildlife Damage
- Storm Damage (from wind, ice or snow)
- Wildfire Fuels (size(s) and whether they form "ladder fuels")
- Drought
- Trespassers

Landslide Risk: *Indicate whether the management unit is subject to Division 623 – Shallow, Rapidly Moving Landslide and Public Safety provisions of the* Oregon Forest Practices Act.

MANAGEMENT OBJECTIVES

Using the following list as a guide to choose from, list your objectives for your forest by category and give a brief description of each as it relates to your forest:

- Timber Management
  - Establishment
  - Timber Stand Improvement
  - Commercial Harvest
- Managing Forest Structure
  - Uneven-Aged Management
- Fish and Wildlife
  - Desired Species and/or Habitat
  - Threatened and Endangered Species
  - Special Sites; Rare or Sensitive Species
- Forest Biomass
- Aesthetics/Recreation
- Monitoring of Resource Conditions
- Ecosystem Services (e.g. habitat, carbon sequestration, water quality)
- Wildfire Fuels Management
- Forest Health
  - Insects and Diseases Control
  - Invasive Plant Control
  - Wildlife Damage Control
  - Wildfire Rehabilitation
  - Storm Damage Salvage
- Forest Grazing
- Agroforestry (e.g., windbreaks, silvo-pasture, ally cropping and forest farming)
- Other_____(add as many as appropriate)

DESIRED FUTURE CONDITION

Describe how you would like to see the stand look in the next 5-10 years, and for the long-term.

RESOURCES AND MANAGEMENT TOOLS

SOILS

You will need a soils map for your property and a description of each soil type. The description of each soil type should include parent material and geologic origin. As applicable for the soil type, also include suitability and hazard information as part of your description, such as: Erosion hazard, harvest equipment operability, suitability for mechanical site prep/treatment, potential for damage by fire/seedling mortality, suitability for hand or mechanical planting, suitability for log landings, suitability for roads and rutting hazards. Also, provide vegetative productivity ratings for soils suitable for woodland management, either in terms of cubic feet of volume growth per acre per year, site index, site class or some combination.

Finally, list and describe any unique geologic sites on your property such as talus slopes, cliffs, rock pits and outcrops.

WATER RESOURCES

- List the streams and rivers that border or run through your property and provide their classification in terms of size (Large, Medium or Small) and use (SSBT, fish, non-fish, or domestic water) under the Oregon Forest Practices Act – Division 635. **[Tip: Not sure of the stream or wetland classification? Contact your local office of the Oregon Department of Forestry using the "Resources" tab of the website.**
- Identify on an aerial photo or map, or otherwise list, other important water features such as lakes, ponds, springs and wetlands. For wetlands, indicate their classification under the Oregon Forest Practices Act – Divisions 645 and 655. Include ponds and other water sources that may be useful for fire protection.
- Identify domestic sources of water on the property and any water rights from streams. If applicable, note registered domestic downstream water use as describe in the Oregon Forest Practices Act. Identify any easements for water rights.

FISH AND WILDLIFE

Describe any monitoring of fish and wildlife populations and habitat conditions that you are currently undertaking.

Desired Fish and Wildlife Species and Habitats

- Describe the different wildlife species and habitats that are present on the property and desired in the future.

- Describe species and habitats that are not currently present, but that you would like to see in the future. **[Tip: Check out the Oregon Conservation Strategy – Oregon's statewide blueprint for conserving fish and wildlife]**

Threatened and Endangered Species

- Identify federally or state listed threatened and endangered species that may occur on or near your property. **[Tip: A comprehensive list of threatened and endangered species in Oregon can be found on the Oregon Department of Fish and Wildlife website. Your legal obligations for a species vary depending on whether it is federally, or state listed, so it is good to know if a particular species is only listed at the state level.]**
- List sources (resource professionals, databases, etc.) used to learn more about state and federally listed threatened and endangered species.
- Identify actions you will take to protect the threatened or endangered species present on your land.

Rare, Sensitive and Other Unique Resource Sites

- Identify other sensitive and rare species, unique habitats, and other unique resource sites. **more information.]**
- List sources (resource professionals, data bases, etc.) used to learn more about rare species, unique habitats, and other unique resource sites and the dates these sources were accessed

[Tip: The Oregon Forest Practices Act has specific provisions for protecting some resource sites when conducting a forest operation See Regulatory Compliance for more information. Online resources can be found in the Resources and Management Tools section of the "Resources" Tab on Oregon's forest management planning website at oregonforestmanagementplanning.org]

Wildlife Related Damage and Problem Species

- Identify pest species causing problems that you need to manage or control.

ROADS

- Your plan needs to contain a description of the roads and their characteristics that lie within your forest based upon an onsite review of the roads. This information can be in the form of a map with a legend, a list, or a narrative.
- Roads should be identified as to their purpose (i.e. primary access, secondary - all weather, secondary - seasonal), their surface (paved, gravel or dirt), their length, their drainage type (i.e. out sloped, water bars, ditches and cross-drains), number and type of stream crossings (i.e. fjord, bridge, culvert, temporary crossing) and indicate whether they are gated or not.
- Main roads, especially those providing access to your property and/or that are important for firefighting, should be identified and labeled on your aerial photo or topographic map.

For larger properties, mapping your roads and streams on separate maps that cover portions of your property allows you to provide more information about each road with respect to length, surface type, location of gates and stream crossings. Separate copies of these maps should be readily accessible for firefighting purposes.]

- Problem areas – poor drainage, rutting, clogged ditches and culverts, culvert failures, and road failures – need to be called out and flagged for taking action.

The plan's review of roads and their condition can be guided by the following checklist:

1) Are there any roads on the forest tract? Yes/No
   a) If yes, does water drain properly from the roads? Yes/No
      i) If no, indicate location(s) of issues in your road descriptions (or on a road map). Make recommendation(s) for repair in the description or on the map.
2) Are there cross drains or stream crossings (culverts/bridges) present? Yes/No
   a) If yes, are these structures functioning properly? Yes/No
      i) If no, indicate location(s) of issues in your road descriptions (or on a road map). Make recommendation(s) for repair in the description or on the map.

INTEGRATED PEST MANAGEMENT

Provide a statement that warrants you will apply Integrated Pest Management (IPM) principles when addressing animal control, vegetation control, insect and disease outbreaks, invasive species and other pests affecting your forest's ability to achieve your management goals and objectives. This statement may include alternatives to the use of pesticides.

When pesticides are to be used as part of an IPM strategy, it is required that they be approved for forestry use by the Environmental Protection Agency and that the applicator follows the approved label for application, storage, and disposal. Chemical application records must be maintained according to the applicable statues under the Oregon Department of Agriculture and Oregon Department of Forestry. An example form of daily application record is available in Appendix D

Daily records must be kept whenever pesticides are aerially applied or applied using a pressurized, ground-based, broadcast application system on forestland and should be maintained by the applicator. If a professional consultant (applicator) is hired to apply pesticides, they should be licensed by the state and will keep the application records. If possible, maintain copies of these records with your plan.

PRESCRIBED BURNING

- Identify appropriate areas where prescribed burning may be used as a management tool to achieve the desired goals and objectives on your property. Any successful prescribed burning will require thoughtful planning and there are many considerations such as: the site, the season, firebreaks and safety equipment, smoke management, the burn crew and obtaining the required permits and notifications.

- Restrictions and permits vary widely throughout the state depending on the fire jurisdiction (both wildland and structural) that is responsible for fire protection on your property. Hiring a professional and consulting with your local ODF field office will help ensure any burning is completed safely and is successful in meeting your objectives.
- Indicate if you plan to use fire in the management of your land; if so, how? Do you plan to conduct prescribed or broadcast burns, burn piles or slash, etc.? Warrant that you will follow all applicable laws and rules prior to conducting a prescribed burning operation on your property.

ACCESS AND WILDFIRE PROTECTION ACCESS & SECURITY

- Identify the legal access you have to your property from the nearest county road or highway and indicate whether this access is owned outright or through an easement. If the access is not owned outright, confirm that your access easement gives you access to the property for forest management purposes such as harvest.
- Identify any road easements surrounding ownerships may have across your property. If you have powerline or pipeline easements crossing your property, discuss and map these as well.
- Identify the steps you have taken to ensure the boundaries of your property are clearly marked and allowable access/use (or no trespass) is properly signed. If you are an absentee landowner, indicate how often you (or a representative) will inspect the property for unauthorized use.

WILDFIRE PROTECTION

- Know who to call in a wildfire emergency.
- Develop (and practice) an evacuation plan to be used in the case of a wildfire. Include family, neighbors or friends that need to be contacted. Plan for as many evacuation routes as available depending on the location and direction of the fire. If possible, all routes should allow for ingress and egress at the same time; otherwise, know which ones do not. Evacuation planning should be done even if you do not live on the property. The evacuation plan should be readily accessible and kept separate from your forest management plan.
- If not addressed in other sections of your plan, provide an overview of which roads and water sources (including access to them) can be used for fighting wildfire. Whomever is responsible for providing wildfire protection can come out and assess your property with respect to the desired infrastructure for fighting wildfire on your property (e.g., roads, turn around areas, defensible space around your home and other buildings, access ways, fuel breaks and water sources).
- Describe where hazardous fuel conditions occur on your property and on neighboring properties. If you are using *Management Unit Planning*, you can address hazardous fuels in the *general description* of each management unit as applicable, and summarize in this

section. Concerns about hazardous fuels on neighboring properties can be expressed in the Landscape Context portion of your *Property Description*.

- On one of your maps, identify structures, fire breaks, water sources, power lines, cell towers, roads and turn around areas on your property and have an extra copy of this map readily available for firefighters. Similarly, on a separate version of this map, identify sensitive cultural or other sites that you want firefighters to be aware of but you do not necessarily want mapped as part of your management plan.

ADDITIONAL FOREST VALUES

AESTHETICS AND RECREATION

- Is managing for visual aesthetics and recreation one of the goals for your property? If so, this section of your plan should provide the details of what you mean or envision. Be specific about the types of recreation you want to manage for. *List trails, picnic and camping spots that occur on your property. Indicate allowable uses on the trails (motorized, non- motorized, horses, biking, etc.).*
- If managing for aesthetics and/or recreation is not one of your goals, then simply state so and move on.
- Is the property to be used solely by family and invited guests, or is it a goal to provide public access? If public access is to be allowed, discuss where, for what purpose and whether access will be seasonal or year round. Include whether you would like to provide for outdoor and woodland owner education.

CULTURAL RESOURCES

- Provide a description of the historic sites, artifacts or other remnants that are important to you, your family or of local community significance. Indicate the degree of antiquity, whether they are above ground or subsurface in their location.
    - Above ground examples include old or heritage roadbeds or railroad grades, spring board stumps, blazed or otherwise modified trees, remnants of telegraph lines, and old foundations and other structure footprints.
    - Subsurface examples include old dumps, remnant debris from old timber harvests such as rusted iron, and unusual presence and arrangement of rocks that survive an old activity such as a hearth or below ground oven.
- Include descriptions of any known cultural resource sites that occur on or near your property such as old cemeteries, buildings and American Indian burial grounds. Graves or elements of human remains are a rare but possible resource that might be encountered. Tip: The suspected presence of Native cultural materials might require a visit with the Oregon State Historic Preservation Office in Salem for advisement. Recorded cultural sites that are registered require a higher level of sensitivity in management.

- Identify management practices for protecting cultural resources such as those designed to avoid or minimize impacts. Record and document sites if avoidance is not possible and significant impact is likely. [Tip: Photographs and specific description and location information of cultural resources within a management unit are important elements for their survival. Those responsible for conducting forest management actions must accurately understand the presence and extent of the site so as to best avoid or minimize impacts to it.]
- Include statements describing who or what sources of information you consulted about the presence, absence or possibility of historic or cultural resource sites including the date or dates the information was obtained. [Tip: Useful information sources are county records at either the courthouse (county surveyor) or the local county museum. Another productive tool is consulting with local genealogical societies to determine locations of old Donation Land Claim titles. Very early government surveys frequently show improvements and can be accessed at U.S. Department of the Interior Bureau of Land Management offices.]

RESLIENCY AND CARBON SEQUESTERATION

Maintaining healthy, resilient forests over time will require a clear appraisal of the risks and opportunities presented by climate change, including consideration of how local site conditions and management history might make a particular property more or less vulnerable to changes in environmental factors and the impacts they may have on your forest. Tools and resources are available to help foresters and landowners consider climate change information and develop management recommendations that will help adapt, or prepare forests for any expected changes in the future.

Forests play a vital role in the earth's carbon cycle, as they remove carbon from the atmosphere and store it in biomass (trunks, branches, foliage, and roots) and soils. Sustainable forestry practices can increase the ability of forests to sequester atmospheric carbon while enhancing other ecosystem services, such as improved soil and water quality. In some instances, there may be opportunities to receive compensation for carbon sequestered in your forest.

If you would like to include these elements in your management plan you may do so in the corresponding section of the template.

TAX AND BUSINESS MANAGEMENT

Describe how you will treat your forest land for income tax purposes: for personal use, as an investment, or as a business. Verify you know your basis in both your land and timber accounts.

- Summarize how you are going to approach record keeping and timber harvest reporting (volume and value).
- If applicable, describe what steps you have taken for estate planning and transfer of your property to your heirs.
- List best business practices required for landowner recognition and/or certification programs.

REGULATORY COMPLIANCE

- Provide a statement warranting that you (the landowner) will comply with all applicable local, state, and federal laws regulating private forest land. List the laws that specifically apply to your land and the management activities proposed in your Schedule of Planned Actions.
- *If applicable, list legal encumbrances such as conservation easements, assignment of mineral rights, road and utility easements and other long-term binding contractual obligations that affect your property.*

SCHEDULE OF PLANNED ACTIONS

- List your planned management actions for the next 5 years. Include the following:
  - The type of management action (see *Goals & Actions* for a list of categories)
  - General description of the action including your reasons for taking it
  - Priority for taking the management action
  - If applicable, indicate the management unit(s) where the action will take place
  - Acres to be treated by the action
  - Cost Share (Indicate 'yes' if the plan is to seek cost share assistance; 'no' otherwise)
  - Include a place to record actual starting and completion dates
  - Include a place to record cash flow (cost and revenues)
  - Check if permits from and notification to the Oregon Department of Forestry apply
  - Reference relevant Oregon Forest Practices Act and other regulations that apply
- Describe any suggested monitoring of: Resource conditions, practice implementation and/or resource condition response to practice implementation. Indicate the type of monitoring activity, its frequency and by whom (e.g., landowner, cooperating organization or natural resource professional).
- Summarize your "To Do" list for specific tasks to be taken over the next 5 years addressing needs under other management planning elements such as Roads, Access and Security, Fish and Wildlife, Wildfire Protection, Aesthetics and Recreation, Cultural Resources, Marketing Ecosystem Services, Regulatory Compliance, and Tax and Business Management. Include any needed or desired landowner education and training needs.
- ***Besides listing actions to be completed over the next 5 years, make a list of those actions and tasks that you are considering over the long-term.***

MONITORING PLAN

Articulate a plan to monitor your forest on a regular basis (at least annually) in order to check on forest resource conditions, the detection of insects, diseases, and other pests, the implementation of management actions, and the response of forest resource conditions to the implementation of scheduled actions outlined in your management plan. Document the monitoring results, including any needed changes to planned management activities to address needs or deficiencies.

SIGNATURE PAGE

A signature page that contains the landowner's (or representative's) signature, the plan preparer's signature (if there is one) and applicable agency or certification program approvals. Signing the plan also affirms the following:

- This forest management plan describes the existing vegetation, soils, and wildlife/fisheries habitat and addresses the opportunities for the management and protection of all natural resources according to landowner objectives with no long-term adverse impacts.
- The forest management planning elements that have been checked are addressed.
- Planned actions are voluntary and subject to change. This plan does not limit or reduce any existing rights of the landowner.
- Carrying out the recommended actions contained in this plan will likely enhance long-term carbon storage through sustainable management of the land for forestry uses, even if short- term carbon storage capacity may be diminished by some actions.

APPENDIX A

MANAGEMENT UNIT PLANNING

Identifying Management Units

Properties that are complex in the different types of forests they contain will need to be delineated into management units – specific areas where different actions (or no action) are necessary to support overall management objectives. You may also decide to manage different parts of your property for different objectives (i.e., some areas emphasize timber production, while others provide wildlife habitat, or a fuel break around your home).

Identifying management units begins with looking at aerial photos of your property. First, draw lines around the non-forest use areas of your property – home, garden, other structures, corrals, agricultural fields, etc. What remains is your forest. [Tip: The area of forest on your photo should represent the same area of forestland acres reported under property information.]

Looking at your forest, delineate areas that have similar conditions with respect to tree size, species mix, structure and age. Foresters call this stand typing – drawing lines on an aerial photo around forest in similar condition. Stands could by themselves define a management unit or be further divided into separate management units if one part of the stand is to be managed differently than another part of the stand. Slope, aspect and underlying soil type are other reasons why one area of your forest may be managed differently from another. Similarly, the identification of unique areas such as geologic, historic or family sites; or important ecological habitats, can also define management units. Give each management unit a unique label or name to be used as a reference. [Tip: Create an aerial photo "map" that shows and labels the management units that make up your property.]

Identifying management units is an iterative process – meaning that you start with one set of units, then work through developing your management plan, and modify as you go along. Some of the management units you first identified may be lumped together, while others may be split apart.

If you have more than one management unit on your property, then the Forest Vegetation section of your plan should address each management unit individually.

APPENDIX B

FOREST MANAGEMENT ACTIONS

There are several broad categories of management actions designed to establish, treat or manage forest vegetation.

A list of actions with activity codes used by the Oregon Department of Forestry and the Natural Resources Conservation Service follows this overview (below).

- ❒ Forest Establishment: Preparing a site by clearing slash, debris and brush; planting trees (or planning for natural regeneration); protecting seedlings; and controlling competing grass and brush so the new forest has room to grow are the steps to establishing a forest. Forest establishment needs to be planned for if an existing forest is going to be harvested, as replanting after timber harvest is your legal obligation under the Oregon Forest Practices Act.

- ❒ Timber Stand Improvement: Forests that are past the forest establishment stage may still need to be managed to meet landowner goals. Are there too many trees that may need to be pre-commercially thinned to maintain growth and vigor or to allow for the establishment of a native plant understory? Are there invasive plant species that need to be controlled? Are there pockets of brush that could be cleared and replanted? What about hazardous wildfire fuel treatments? Answers to these types of questions will identify timber management opportunities in young forests.

- ❒ Forest Health Treatments: One or more treatments can be employed to enhance the resiliency of a forest to a serious insect or disease outbreak or wildfire. Typically, a healthy forest will have a low level of insects, disease or other damage that does not interfere with your ability to meet your objectives. In contrast, an unhealthy forest will have insects, diseases, or other damaging agents that interfere with your ability to meet your objectives. Forest health treatments are those that are explicitly designed to prevent outbreaks by lowering the risk of your forest to damaging agents.

- ❒ Commercial Timber Harvest: The commercial harvest of timber is an opportunity to generate income and get a return on your forest investment. While there are developing market opportunities in special forest products, recreation leases, carbon offsets, wetland banking and other ecosystem services, the bread and butter of the profitability of owning forestland still comes from its timber value. Even if timber harvest is not an objective, knowing the value of your forest is still important to track. People's financial circumstances change and nature can have the tendency to prompt you to salvage harvest after windstorms, wildfire and insect and disease infestation. Further, timber stand improvements, controlling invasive species, managing for fish and wildlife all entail out-of-pocket expenses; so some harvest consistent with these other uses generates the needed capital to cover these costs.

  Commercial timber harvest comes in two forms – the partial removal (or selection) of trees that leaves a residual forest in place following the harvest (e.g., commercial thinning, sanitation/salvage, selection harvest, variable retention harvest) and a final or regeneration harvest (aka, clear-cut) that requires the planned establishment of a new forest after the harvest is completed. Clearcutting can also meet some wildlife management objectives for those species dependent on openings and herbaceous forage that newly regenerated forests can provide. Which type of harvest is appropriate

depends on the physical condition and location of your forest, your goals and objectives and the

market in terms of logging costs (and the availability of a logger) and timber prices. Identifying planned harvest opportunities may be more of an exercise to determine what set of circumstances need to be met (e.g., stand conditions and market opportunity) in order for the harvest to meet your objectives rather than setting an exact year for the harvest.

- ❒ Managing Forest Structure: It is not uncommon for timber production and revenue to be a secondary objective for a particular forest; where aesthetics, wildlife, or ecology is the primary objective. That does not mean the forest will not need to be harvested or other planned actions identified. Commercial thinning specifications can be set as means to achieve a particular "look" to a forest – both visually as well as in terms of wildlife habitat. Commercial thinning can be used to favor a particular tree species in the forest, to improve forest health, or to create openings for the establishment of native forage and brush for wildlife. Actions can also be conducted at the individual tree scale. As a forest gets older, the amount of dead wood in the forest is important to wildlife – both standing (snags) and down (down logs); and when proximate to a stream important to fish and other aquatic life. Do you want your forest to have more snags and down wood?
  Topping a tree, girdling a tree (killing it without cutting it down) or dropping a large tree and leaving it are management actions that can be conducted (perhaps coincident with a commercial thinning operation) to increase this type of structure in your forest.
- ❒ Uneven-aged Management: Some types of forests – namely those containing tree species that can establish themselves and grow in partial shade – can be managed on a uneven- aged rotation; meaning that trees are commercially removed periodically and new trees established to take their place – without clearcutting. This can be employed on an individual tree basis (individual tree selection) or on a patch-cut basis (removing small groups of trees; also called group selection). The result is the continual presence of mature trees and with the aggressive control of invasive plants, a native understory very suitable for some wildlife. Uneven-aged management systems need to be carefully monitored. The system can fail if natural regeneration or tree plantings fail. As is always the case when thinning, wind events can cause serious damage in the form of wind throw and broken tops. Invasive plants can become very aggressive, curtailing the development of desired native plant understory important to wildlife and stand diversity.

Other management actions relate to fish and wildlife habitat improvements, recreation and cultural resources, wildfire prevention and fuels management and actions to improve roads and infrastructure. A complete table of management actions, as classified by the Oregon Department of Forestry and Natural Resources Conservation Service, follows.

Title	Description	NRCS Practice Code[(2)]
Broadcast Burning	Broadcast burning used for site preparation for direct seeding or planting of trees.	
Mechanical, Chemical, Hand	Mechanical, chemical, and hand site preparation including piling and burning, and aerial, tractor, and hand application of chemicals needed for direct seeding or planting of trees.	490
Slash Reduction	Slash reduction on projects with a primary purpose of timber production. Include slash piling and crushing. Includes slash reduction here for wildlife habitat projects.	384
Voluntary Reforestatio n	Seeding, planting, replanting, or interplanting of lands suitable for supporting forests but currently not in a forestry use.	612
Interplanting	Planting to improve the stocking of an existing stand.	612
Reforestation	Seeding, planting, replanting or interplanting of lands to meet stocking levels required by the Oregon Forest Practices Act.	612
Moisture Conservation	Moisture conservation measures to protect recently planted trees. Include hand and aerial application of herbicides, mulching, weed barriers, etc.	612
Chemical/Mechanical	Stand release by mechanical or chemical methods including both aerial and ground applications.	666
Animal Protection measures	Protection of seedlings from animal damage. Includes bud capping, tubing, and big game repellents, etc.	612
Fertilization	Fertilization of forest stands.	
Pre-Commercial Thinning	Removal of non-merchantable trees to redistribute growth and improve vigor of the residual stand.	666
Pruning	Pruning where the primary purpose is improving timber quality. Also includes pruning done in conjunction with wildlife habitat improvements where the trees are still available for future timber harvesting and the pruning meets specifications for log height and wood quality.	660
Vegetation Enhancement	Enhancing forest vegetation in an established stand through mechanical and chemical control methods.	
Nesting Boxes, Snags	Creating cavities, nesting boxes, roosts, platforms and snags.	645
Wildlife Water Facilities; Spring Development	Creating wildlife water facilities. Includes guzzlers, cisterns, wildlife ramps, and the development of forest springs.	645
Create/Enhance Wildlife Habitat	Activities with a primary purpose of enhancing wildlife habitat. Include creating forest openings with a primary purpose for wildlife use. Record activities such as site preparation, slashing, burn piles, noncommercial thinning, etc., used in the process of creating a forest opening and not under site	645

Title	Description	NRCS Practice Code[(2)]
	preparation etc. This practice also includes planting trees, shrubs, grass, forbs, done separately or in combination with noncommercial thinning, slash reduction, under burning, or release.	
Fisheries Habitat Enhancement	Fisheries habitat enhancement. Accomplishments include the placement of large wood, the creation or enhancement of pools, riffles, side channels and backwaters.	380
Riparian –Tree and Shrub Establishment	Establishment of trees and shrubs to create a riparian buffer along streams flowing through agriculture and range lands.	
Riparian Enhancement	Protection and improvement of riparian areas. Includes site preparation, planting trees, shrubs, grass, and release.	391
Wetland Restoration	Restoration of wetlands. Includes release, site preparation, planting willow sprigs, seedlings and restoring original hydrology.	659
Threatened & Endangered Species	Projects that include protection or enhancement of threatened & endangered species. This includes all wildlife and non-wildlife projects that involve threatened and endangered species protection and enhancement.	
Create Trails	Development and construction of forest trails for recreational purposes.	655
Create/Enhance Recreation Area	Development or enhancement of recreation areas. Include planting, pruning, thinning, slash removal etc., with a primary purpose of recreation.	
Cultural Resource Site Protection	Protection or enhancement of cultural sites.	
Fire Prevention	Fire lanes or pond construction.	
Prescribed Burning	Prescribed burning in existing stands to control brush, reduce slash hazard, control insect or disease problems, etc.	338
Fuels Reduction	Includes one or more of the following: noncommercial thinning, chipping, pruning, slash disposal, “slash busting”.	666,660, 384
Fire and Fuel Breaks	A permanent or temporary strip of bare or minimally vegetated land that is managed and maintain to stop the spread of fire.	394, 383
Surveys for Insects or Disease	Ground surveys, aerial surveys, traps and other baiting.	
Invasive Species Control	Control of invasive plant species.	595
Coordinated Suppression	Coordinated Suppression for Insects or Disease across Ownership Boundary	
Integrated Pest Management	Combines chemical, mechanical, biological or cultural means for controlling a pest such as unwanted wildlife, insects,	595

Title	Description	NRCS Practice Code[(2)]
	diseases and invasive plants instead on relying one single means.	
Species Conversion	Conversion of a stand through thinning or planting to a more insect or disease resistant species based on the insect and disease agent present	612, 666
Pre-Commercial & Commercial Thinning	Removal of non-merchantable trees to reduce stress and improve vigor and resistance of the residual stand.	666
Conifer Thinning from Above	Commercial thinning of conifer stand where overstory and canopy trees are removed releasing a healthy, well-stocked residual stand.	
Conifer Thinning from Below	Commercial thinning of conifer stand where suppressed and intermediate trees are removed for the purpose of maintaining and redistributing growth remaining well distributed dominant and co-dominant trees.	
Hardwood Thinning	Commercial thinning of hardwood.	
Mixed Stand Thinning	Commercial thinning of selected species in mixed conifer hardwood stand.	
Sanitation Thinning	Removal of dead or dying trees from a stand.	
Conifer Salvage Harvest	Salvage harvesting of fire, wind, insect or disease-damaged conifer timber.	
Hardwood Salvage Harvest	Salvage harvesting of fire, wind, insect or disease-damaged hardwood timber.	
Conifer Final Harvest	Final harvesting of conifer.	
Hardwood Final Harvest	Final harvesting of hardwood.	
Create standing dead and/or down wood.	Girdling, blasting or dropping live trees to provide habitat features in the form of broken tops, snags and down wood.	
Variable Retention Harvest	The selection harvest of individual trees to maintain and enhance structurally complex forests.	
Group Selection Harvest	Complete removal of a group of trees in small patches for the purpose of allowing regeneration of new trees in those patches.	
Selection Harvest	The partial removal of trees in an uneven-aged stand based on the specified removal of a number of trees from each diameter (or age) class.	
Road Work	Design, construction, maintenance, and improvements of forest roads.	560
Road Removal	The closure, decommissioning, or abandonment of roads, trails and/or landings and associated treatment to protect resources.	654

Title	Description	NRCS Practice Code[(2)]
Stream Bank Protection	Protection of stream banks and shorelines. Includes bio-engineering approaches.	380
Windbreaks	Installation and renovation of windbreaks.	380, 650
Irrigation Systems	Installation of irrigation systems in conjunction with windbreaks or forest establishment efforts.	
Fencing	Installation of fencing to protect riparian forests or plantations from animal damage.	382
Critical Area Planting	Planting critical areas with grass, shrubs, or trees to control erosion	342
Agroforestry Establishment	Establishment of agroforestry projects for agriculture or range.	311, 381
Agroforestry Improvement	Improvement of agroforestry projects (includes grazing and noncommercial thinning).	379

APPENDIX C

INSECTS, DISEASES AND OTHER DAMAGE AGENTS

Category	Agent	
Bark Beetles	Mountain Pine Beetle	
	Western Pine Beetle	
	Ips sp.	
	Fir Engraver	
	Douglas-fir Beetle	
	Other Bark Beetles	
	Wood Borers (round, flat headed, Horntail Wasps)	
Defoliators and Other Insect Pests	Spruce Budworm	
	Douglas-fir Tussock Moth	
	Other Defoliators (Sawflies, needle miners, Pandora Moth)	
	Aphids/scales	
	Shoot/tip borers, weevils	
	Exotic Pests	
Diseases	Dwarf Mistletoe/true mistletoe	
	Cankers (Phomopsis, Cytospora)	
	Foliage (Swiss Needle Cast, Rhabdocline, Elytroderma)	
	Root Diseases (Laminated, Armillaria, Annosus, Black Stain)	
	Decay/rot (Indian Paint Fungus, Pini conks)	
	Rusts (White Pine Blister, Western Gall)	
Other Damage Agents	Drought/Water Stress (including excess moisture)	
	Extreme Temperatures (freezing, heat, sunscald)	
	Fire Injury	
	Mechanical Injury (logging, lightning, wind, soil compaction, animal damage)	
	Chemical Injury (herbicides, pollutants)	

Daily Chemical Application Record Form

Revised October 2018

ODF	ODA	USDA	
			This form outlines daily chemical application information an applicator must record to meet requirements of the Oregon Departments of Forestry (ODF)[1] and Agriculture (ODA)[2], and the U.S. Department of Agriculture (USDA)[3]. An applicator may use a different form if the required information is included. ***The applicator must retain the ODA and ODF-required records for 3 years, and the USDA-required records for 2 years.***
			Landowner and Location
	✓		Name, address, and telephone of person or business who owns or controls the property:
✓	✓	✓	Legal Description of Application Area (Township/Range/Quarter-quarter section):
*			Notification # : Unit # :
			Applicator
✓	✓	✓	Applicator(s) (Name(s) of Person(s) Applying Chemical, Including Supervisor if Trainees or Apprentice):
	✓	✓	Applicator License Numbers for persons applying chemical (Including Supervisor if Trainee or Apprentice:
✓			Applicator Contractor:
			Application Information
	✓		Supplier of Pesticide Product:
✓	✓	✓	**Pesticide** EPA Registration Number: Manufacturer, Product Name, (Formulation*):
✓			**Fertilizer** Formulation:
✓	✓	✓	Number of Acres Treated with chemicals:
✓	✓		Chemical Product Application Rate (Per Acre):
		✓	Total Amount of Chemical Product Applied:
✓			Carrier Used: ☐ Water ☐ Other_____ Carrier Rate (Gal./Acre):
	✓		Identification of Application Equipment Used (Truck #, Sprayer #, Backpack #, Etc.): If Aerial, F.A.A. Aircraft Number:
*			Application Method: ☐ Aerial ☐ Ground (☐ Pressurized & Broadcast ☐ Other_____)
	✓	✓	Crop or site of application (enter "forest" for forestry applications):
✓	✓	✓	Date of Application: Beginning Time: Ending Time:

***ODF Only*: For Aerial Pesticide Applications Measure and Record Weather Information Hourly;**
For Ground-Based Pressurized Broadcast Pesticide Applications Measure and Record Weather Information at the Beginning and End of Each Day's Application:

Time:										
Air Temperature (°F)										
Relative Humidity (%)										
Wind Speed (mph)										
Direction wind coming from (e.g., N or NNW)										

Applicator Signature:

[1] Oregon Department of Forestry requirements (per OAR 629-620) for all chemical applicators.
[2] Oregon Department of Agriculture requirements (per OAR 634.146 for commercial and public pesticide applicators, commercial operators, pesticide consultatns, and private applicators using restricted-use pesticides or power driven equipment.
[3] U.S. Department of Agriculture requirements for private pesticide applicators using restricted use products.
* Optional information for ODF