



FORESTLAND STEWARDS

WORKING TOGETHER FOR HEALTHY FORESTS

SPRING 2000

Doerksens work to create “the best forest in the whole world”

It's a dream property: 122 acres of gorgeous forestland just a few miles from busy Santa Rosa with a healthy creek running through it, a large stocked pond, wildflowers to die for, and lots of history. Charming homemade wooden signs mark the way to trails and other points of interest. The health of the land is a valid reflection of the love and care that has gone into it.

But it hasn't always been this way. When Jim Doerksen bought Rancho Mark West over 30 years ago, it was a badly damaged piece of property. Only about 30 acres were forested. The rest was grass, aged fruit orchards, and a tangle of brush where old vineyards had been. The Doerksens proceeded to turn vineyards into forestland.

With his boundless enthusiasm, Jim Doerksen describes how he got started. “I planted trees. Those were the drought years of '70 and '71 and they didn't make it so I planted again. I just kept planting trees.” He estimates he's



Douglas-fir planted in late 60s and early 70s. This area has been thinned and pruned.

planted about a million trees in the area.

A variety of cost share programs have played a major role in financing the forest improvements over the years. FIP (Forest Incentive Program), SIP

(Stewardship Incentive Program), and earlier programs helped pay for site preparation, planting, and later thinning activities. A forest management plan was developed in 1993 with

(continued next page)

California Dept. of Forestry & Fire Protection
Forest Stewardship Program
P.O. Box 944246
Sacramento, CA 94244-2460

ADDRESS SERVICE REQUESTED

Presort Standard
U.S. Postage
PAID
Stockton, CA
Permit No. 168

Doerksens *(continued)*

money from the Forest Stewardship Program. Work is currently underway on thinning, pruning, erosion control, and road maintenance using CFIP (California Forest Incentives Program). Jill Butler, CDF Forestry Assistance Specialist (FAS), has been instrumental in working with the Doerksens to find cost-share funding.

On a tour of the property, we pull up to a stand of Douglas-fir. This was the first hillside he planted, and Jim explains that “these trees are way too close—they should be about three times thinner for better growth.” Even so, the trees rings measure 3/4" per year.

Thinning is the secret. After release from competition (and thanks to the good site quality of the land), these trees have grown at a phenomenal rate. Growth rate more than doubled with thinning—the average growth of the entire Doerksen forest is greater than an inch in diameter a year! Visitors from the American Forestry Foundation claimed that the Doerksens are growing more timber per acre than anyone they



Impressive sprouts from a redwood stump. The Doerksens have placed much of their older-growth redwoods under a conservation easement to protect them from logging in perpetuity.

knew.

In addition to thinning, lower branches are pruned up to 25 feet to reduce fire hazard and to produce knot-

free wood. A Husqvarna pole saw (“my wonder tool!”) is used for this labor-intensive job.

A study in intensive management done on the Doerksen land by the UC Berkeley School of Forestry concluded that, with intensive management, forest growth could be increased up to 1000 percent. Jim Doerksen just says, “I wish I knew then what I know now. I could do twice as well.”

The Doerksens learned their forestry on the job. Jim is a civil engineer by training. He and his wife Betty were real estate partners, and Rancho Mark West was their weekend hobby at first. But since 1983 it has become a full-time vocation for both of them. Jim has continued his education with over

(continued next page)



Before and after. Much of the property was overgrown with brush which, besides competing with more desirable tree species, also constituted a fire hazard. The trees below have been thinned and pruned to allow better growth.



FORESTLAND STEWARD

Forestland Steward is a publication of the California Forest Stewardship Program
P.O. Box 944246
Sacramento, CA 94244-2460
(916) 653-8286
Fax (916) 653-8957
<http://ceres.ca.gov/foreststeward>

Governor
Gray Davis

Secretary of Resources
The Resources Agency
Mary D. Nichols

Director
Calif Dept of Forestry & Fire Protection
Andrea E. Tuttle

Editorial Committee
Laurie Litman, InfoWright
Claralynn Nunamaker
Richard Harris
Jim Geiger



Printed on recycled paper with soy ink



Doerksen Objectives

1. To simply have the best forest in the whole world. A very good management plan is a good start.
2. To have an aesthetically supreme forest from completion of the management plan.
3. To have an excellent habitat for wildlife. Our forest improvements have created this.
4. To prevent occurrence of a disastrous fire. Following the management plan will help meet this objective.
5. To leave the land in better shape than we found it.
6. To continue to spread the good word about responsible management through tree farming.

200 forestry workshops and seminars and makes all his own forest management decisions. Betty runs the 10-acre Christmas tree farm on the property.

The property has been a certified Tree Farm for 20 years. At first they weren't sure there was enough timber to join the program. It's hard to imagine that now.

Because of their great success in rehabilitating the forest, the Doerksens were honored as California Tree Farmer of the Year in 1999 and went on to become the Western Regional Outstanding Tree Farmer (the western region of American Tree Farm System includes all lands west of the Mississippi). They were also nominated for National Outstanding Tree Farmer where they came in as runners-up to the winner, a member of the Rolling Stones.

Along with human recognition, wildlife have proclaimed the health of the forest by their increasing diversity. An enthusiastic birdwatcher, Jim proudly lists his residents: "I have a whole slew of new birds—chickadees and bluebirds. And, man, do I have turkeys!" There are six pairs of pileated woodpeckers and even a pair of spotted owls. Over 100 species of birds have been identified on the property.

The management plan includes

protective measures for wildlife. Small areas of brush as well as openings in the forest are left to promote biodiversity. "We never cut a toyon—they produce berries that are badly needed by birds and animals."

The Doerksens are also stewards to a lot of fisheries habitat. Rancho Mark West includes 4000 feet of creek frontage which a three-year study by the California Department of Fish & Game concluded is probably the most ideal spawning area for coho in Sonoma County.

The rich history of Rancho Mark West goes back to the Native Miwok and Pomo residents who left numerous artifacts on the land. In 1834, it became part of General Mariano Guadalupe Vallejo's vast rancho. The Doerksen home dates back to Vallejo's time as does a blacksmith shop and a barn on the property. Owners in the 1930s were loggers, fruit growers, and bootleggers. In 1947, Rollie B. Newman, the inventor of the pay telephone, purchased the property and put in about \$250,000 worth of improvements including a water system that is still in use.

Jim and Betty are generous stewards of this land and history. They readily share their knowledge and time, as well as their land, with others. There are education demonstrations for both

children and adults. More than 3000 schoolchildren came to visit last year to learn about the forest and numerous organizations are invited to meet on the property. The Sonoma Wildflower Society comes for an annual visit—last year they counted 59 species of wildflowers on the property.

And what about the long-term future of Rancho Mark West? About five years ago the Doerksens decided to put their property into a conservation easement that will prevent subdivision and protect the old growth redwood from harvest. When asked why they did this, Jim answered immediately, "to protect against vandals in the future. It was the only thing to do to protect the property. It should stay as a good timber ranch."

Jim says, "I did a good job of managing this property. Anyone can get a logged over area and do what I did. You need to work hard—have to wait a while—but eventually you'll get an income. It's not glamour work but I can take a nice vacation every year." ▲



Forest management requires diverse skills. Here Jim Doerksen is working on road rehabilitation, knocking off the outside berm to allow water to drain. Some sections of the road have been rocked for erosion control.



Planning

Landowner objectives and the management plan

Every landowner has a unique vision of what they want their property to be and do. Have you thought about your objectives?

Some common objectives include:

- ◆ aesthetics
- ◆ income (timber, grazing, special products, etc.)
- ◆ biological diversity/wildlife habitat
- ◆ recreation (hunting, fishing, hiking)
- ◆ water quality and quantity
- ◆ fire safety
- ◆ protection of historical artifacts

Most of the time, landowners will have a number of objectives, each of which needs to be prioritized as to its relative importance. The best way to do this is with a management plan.

If your objectives are your vision, your management plan is the blueprint to make that vision a reality. This document will help you decide what you want from your land and the steps needed to achieve that. It also serves as a reference from which to check back periodically and see if you are on track or need to make changes to your management plans or goals.

The first step in developing a plan is to assess what you've got—to gather information about your land. You need to inventory what is there (e.g. wildlife, plants, structures), physical characteristics (e.g. slope and aspect, soil, habitat types, location in the watershed), historical background, etc.

There are constraints to what can be done on any property. Some of these are due to the characteristics of the land itself (size, location, soil types, etc.). In addition, every property exists in a social

context so there are regulations, public concerns, and other limitations that need to be addressed.

Armed with this background information and your objectives, you can then answer the all-important question, "What does it take to get from where I am to where I want to be?"

Your land may already be in the state you desire, in which case your management plan will emphasize maintenance. If not, you may need to make changes, restore or enhance your property to reach your objectives. Costs and a timeline for these can be included in your plan as can possible alternatives.

Management plans can be relatively simple or extremely detailed and complex—it depends on your goals and resources. You can do it yourself or hire a consultant, however, if you choose the latter, it is important to remain actively involved in all aspects of the plan development to make sure that the final plan reflects *your* objectives.

In some cases a management plan can be financed through cost share programs. Expert assistance is available through a number of agencies including Resource Conservation Districts (RCDs) and California Department of Forestry & Fire Protection (CDF). In addition, UC Cooperative Extension holds workshops to help forestland owners develop management plans. The Working in the Woods CD will also walk you through the steps of developing a plan. It is found online at <http://www.CNR.Berkeley.EDU/departments/espm/extension/ABOUT.HTM> and is currently being updated. For more information, call the Forest Stewardship Helpline at 1-800-738-TREE. ▲

Forest Stewardship Workshops for Family Forest Landowners

Co-sponsored by: University of California Cooperative Extension and Center for Forestry, Berkeley; California Department of Forestry & Fire Protection, Forest Stewardship Program

Are you interested in understanding more about your forest parcel? About protecting it from wildfire, insects and disease? Do you want to learn more about its ecology and use? How about finding out where to get money to do things on the land and how to deal with laws and taxes? If so, then contact us to find out more about a University of California Cooperative Extension workshop scheduled in your area.

Sample Workshop agenda:

- ◆ Local forest history—how did this forest come to be?
- ◆ Forestland ownership, laws, and regulations—Forest Practice Act
- ◆ Forest ecology, forest management, and forest products including timber
- ◆ Cost-share and assistance programs
- ◆ The Forest Stewardship Program in California
- ◆ Other education and information opportunities

At least one workshop for forest landowners is scheduled to be held in Southern California in the summer of 2000. Other workshops are tentatively scheduled for Trinity and Shasta Counties. For further information or to register contact Sherry Cooper at (530) 224-4902: shcooper@ucdavis.edu. ▲



Seasonal Stewardship

Protect your forest from wildfire

You know all about defensible space and how to make your home safer from fire, but what about your forest? What can you do to protect your forest from wildfire?

Now, before the fire season begins, is the time to give serious consideration to that question. There are a number of things you may want to do. Some are simply common-sense measures, but it's a good idea to take some time and actually develop a fire plan for your property.

The approaches you take will depend on your unique situation—your property size, location, habitat, fuel load, forest health, and a host of other factors, including your own landowner objectives.

According to Wayne Mitchell, Fire Specialist with the California Department of Forestry & Fire Protection (CDF), there are three major strategies for protecting your forest. You can:

- ◆ prevent a fire from occurring in the first place
- ◆ suppress a fire quickly after it starts
- ◆ reduce the damage from any fire that does break out

You will want to consider all three. Start by trying to determine the fire risk for your property. Some areas of the property may be at higher risk than others. Identify the priority areas to protect. In addition, look at the fire risk for the surrounding area. If neighboring properties are at high risk, you may want to establish a fuel break or other barrier around your property to protect it from a fire that originates elsewhere.

A fire history of your area will also provide useful information. Your local CDF Unit has data on fires over the last 20 years and often longer.

There are a number of common-

sense steps that can be taken to reduce the risk of a fire breaking out in your forest. Make sure that all your equipment (e.g. chain saws, tractors) is fitted with spark arrestors. Be careful where you drive and park—especially avoid driving on dry grass which can catch fire from the heat of the engine. Certain activities, such as welding and burning in wildlands, are regulated by state law to help reduce the risk of fire.

If a fire should start on your property, you want to be prepared to put it out quickly. Know where your water sources are (map them out) and keep up-to-date on the condition of your roads to know what kinds of vehicles can get through.

It's important to have basic fire fighting equipment close at hand—shovels, axes, McLeods, rakes, pulaskis, personal safety gear, etc. A 5-gallon back pump can be mounted on your vehicle along with the tools so that you are always prepared for an immediate response to a small fire.

If a fire does occur, you want to minimize the damage to your forest. One way to do this is with fuel breaks in appropriate places. Fuel breaks are areas where the forest is thinned and the undergrowth removed—by cutting, prescribed burns, chipping, etc. Trees are pruned to get rid of lower limbs that could take the fire up the tree and any fuel ladders are removed. (Of course, any pruning and other material generated by this activity should be collected and chipped, burned, or lopped and scattered safely.) The goal is to keep the fire on the ground surface and out of the crowns of the trees.

If your forest is a large one, you may



want to break it into smaller chunks with strategic fuel breaks so any fire will be contained within a single portion. A good place for strategic fuel breaks is often along roads, which themselves act as fuel breaks. With smaller properties, the same concept is used, but the fuel break may be around the property to provide a barrier in case a fire starts on a neighboring property.

Remember that you don't have to do all this planning yourself. There are fire experts who are willing and eager to walk your property and give on-site advice. All CDF Units have personnel who are trained to help. Look in the phone book for the Unit (Gov't, State, Forestry & Fire Protection) nearest to you or call the Forest Stewardship Helpline, 1-800-738-TREE.

In addition, Fire Safe Councils are active in many communities. These valuable organizations provide a setting where people can get together to share ideas and experiences. Many councils also plan community projects and receive grants for larger jobs. You can find a Fire Safe Council in your neighborhood at their website, <http://www.firesafecouncil.org/>.



Basic Concepts

Silviculture: applied forestry

John LeBlanc

Applying ecological principles to a forest stand to enhance growth of desirable species or to promote regeneration is termed silviculture. Like a gardener tending a garden, removing weeds, encouraging the best plants, and finally harvesting the produce, you use silviculture to tend the forest.

Silvicultural treatments usually, but not always, involve felling trees. They are generally divided into procedures designed to reproduce forest stands and intermediate treatments that maintain vigor and desired composition and stand structure.

The descriptions of the silvicultural systems below are representative of ideal conditions. These techniques are often adapted to local conditions. For example, while a clear cut removes all of the trees in a stand, often landowners will leave a few trees in a clump to offer wildlife habitat or vertical structure. The California Forest Practice Act also strictly defines some of these silvicultural systems, usually in terms of how large an area the treatment can be applied to and the number of trees that must remain after the treatment.

Reproduction Cuttings

The goal of reproduction cuttings is to get new trees growing in the stand in an efficient manner. Reproduction may either be from natural seeding or by planting seedlings to regenerate the stand.

Reproduction cuttings are divided into even-aged systems, which produce trees of nearly equal age (but not necessarily of equal size) and uneven-aged systems designed to produce stands with a range of ages. The selection of a silvicultural system depends on the growth characteristics of the desired

species, which relate to the landowner's objectives. Outside factors, such as insect infestation, might dictate which system is best to control a particular problem.

Even-aged Reproduction Cutting

The goal of even-aged reproduction cuttings is to create a forest stand with trees that are roughly the same age. Even-aged stands of various ages can be distributed throughout the property to provide a continuous flow of products.

Clear Cut Method



With the clear cutting silvicultural system, all trees in a stand are cut at one time. Seeds from surrounding trees, root sprouts, or artificial seeding or planting are used to regenerate the stand.

Clear cutting provides an open environment, with plenty of sunlight for trees to be reproduced in the regenerated stand. As such, clear cutting is desirable for regenerating shade-intolerant species. Tree species that require shade to regenerate successfully would be discouraged by clear cutting. Site preparation, which is the removal of woody logging debris and weed competition, is required for successful regeneration of either naturally seeded or planted trees.

Clear cutting alters wildlife habitat by replacing mature stands of trees with herbaceous plants, shrubs, and seedling trees. Different wildlife use these different forest stand structures. Clear

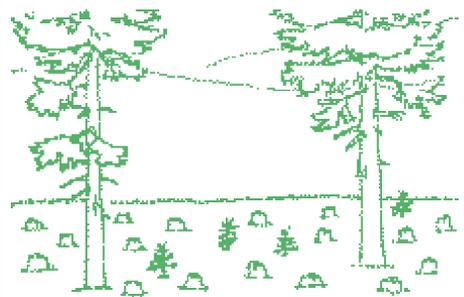
cutting can enhance habitat for a number of other species. In a small holding, it may be impossible to provide wildlife habitat for all species that inhabit a particular type. With a carefully executed schedule of clear cuttings, a variety of habitat types, including stands of young trees, middle-aged trees, and older trees, can be established.

The big disadvantage to clear cutting from a small landowner's point of view is visual. Clear cutting is a dramatic change in the character of the forest. The forest changes abruptly from a mature stand to a very young one. Logging debris is clearly evident.

One major advantage of clear cutting is efficiency in logging operations. It is relatively easy to lay out a clear cut block and there is little to no danger of damaging remaining trees. In addition, clear cut harvests are done less frequently than selective cuttings which can reduce the use of access roads and trails, thereby reducing erosion.

If you decide that clear cutting is the appropriate technique, consider keeping cut blocks small (*see discussion of group selection*). Design cut blocks with curved rather than straight edges. Leave islands of mature vegetation to provide hiding cover for wildlife and vertical structure and diversity in the future stand.

Seed Tree



The seed tree system is an even-aged regeneration method that removes most

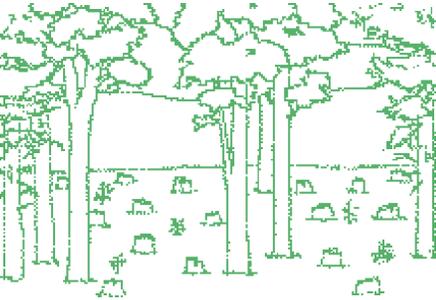


of the stand while leaving a few desirable trees to produce seed. Usually, but not always, the seed trees are removed after regeneration is established. The quality of the seed trees, their distribution, and the timing of the harvest are important considerations when using the seed tree silvicultural system.

The seed tree silvicultural system is also applied generally to shade-intolerant species that regenerate best in full sunlight. Often site preparation is required to remove logging debris and competing plants before the new stand becomes established.

Usually the seed trees are removed after the regeneration is well established. If you wait too long, however, the young trees can be damaged during seed tree removal. Seed tree silviculture has similar advantages and disadvantages to clear cutting. After the seed trees are removed, the new stand will closely resemble a regenerated clear cut block.

Shelterwood



When the species to be regenerated require some protection from direct sunlight to become established, the shelterwood system is applied. Depending on the initial condition of the stand, two or three cuttings are used to regenerate the stand. The objective of the initial cuttings is to improve the vigor and seed production of the remaining trees and to prepare the site for new seedlings. Shade and shelter from extreme conditions are provided by the remaining trees. Subsequent harvests remove the shelterwood trees and allow the regeneration to develop as an even-

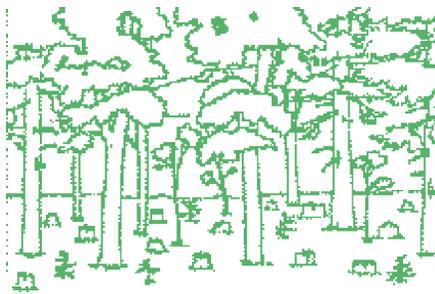
aged stand. The species favored by the shelterwood system are the more shade-tolerant species that naturally regenerate in the shade. Because the forest is removed in several stages, there is less direct visual impact until the final harvest.

Uneven-aged Reproduction Cutting

An uneven-aged forest has trees of all age and size classes. Frequent periodic cuttings occur to establish and maintain this structure. The residual stand must be considered when using this system. The possibility of residual trees being damaged from repeated harvesting operations makes careful logging crucial.

A disadvantage to the uneven-aged silvicultural systems are the number of roads that need to be opened and the frequency with which they are used. With uneven-aged silviculture, the entire forest is visited every cutting cycle—typically every 10 or 20 years. The entire road system must be activated for every harvest. With even-aged methods, only those stands that are actually operated upon need open roads.

Single Tree Selection



In single tree selection, a forester evaluates every tree in the stand. Undesirable trees are removed, overly dense areas are thinned, and mature trees are harvested. Seedlings of shade-tolerant trees develop wherever they can find space. Cuttings are more frequent, providing income on a regular basis but at a lower return per harvest to the landowner. Single tree selection systems are more

difficult to manage. Damage to the remaining trees is a consideration. Single tree selection rates high in visual quality.

A key temptation to avoid in single tree selection is removing only the biggest and best trees and leaving the rest. Known as high grading, this misapplication of single tree selection eventually reduces the quality of the trees that are growing on the site. A well-marked single tree selection harvest removes the less desirable trees, those with poor form or those injured by insects or disease along with the crop trees.

Group Selection

A group selection silvicultural system requires harvest of small groups rather than individual trees. The openings resemble clear cuts, but since they are small (< 1 acre to 2.5 acres), the edge trees still provide a protected environment for the developing regeneration in the group opening. This method is similar to single tree selection in that harvests are frequent. Its advantage is that it is easier for the logger to avoid damaging the residual stand.

One final note about reproduction cuttings to keep in mind is that some of these silvicultural systems blend into one another. A seed-tree system leaving many trees per acre might be viewed as a shelterwood. Large areas removed in a group selection system might be misconstrued as small clear cuts. It is up to the landowner to work with the forester to ensure that the proper system is applied to meet the landowner's objectives. Environmental considerations, desired wildlife species, financial criteria, local market conditions, and stand conditions are all important aspects in determining the proper silvicultural system.

—from Working in the Woods: A Guide for California's Forest Landowners. This CD-ROM, produced by UC Cooperative Extension, is currently being updated. For more information, see the announcement on page 10. ▲



Silviculture (cont.)

Intermediate treatments

John LeBlanc

To reach its full potential, a tree needs room to grow and access to sunlight, nutrients, and water. The surrounding vegetation should be free of disease or harmful insects. The stand should be comprised of desired species to meet the landowner's objectives.

You may want a series of intermediate treatments to improve the quality of the existing stand. If these treatments produce revenue from the sale of the harvested trees they are called commercial. Pre-commercial operations occur when the trees removed cannot be sold. The cost of pre-commercial operations is justified by improved growth and stand characteristics which significantly increase the value of the stand at harvest.

Thinning

Thinnings are prescribed to reduce inter-tree competition and to accelerate growth on the trees that remain. Thinnings are grouped as commercial or pre-commercial. They might be termed as high thinnings (or thinning from above) where dominant and co-dominant trees are removed or low thinnings (thinning from below) where smaller trees below the dominant trees are removed.

The obvious question is how do you select which trees to take or leave. The answer depends on a lot of factors—species, landowners' objectives, and site conditions among others. Some rules-of-thumb might be helpful. Thinning early

The obvious question is
how do you select
which trees to take or
leave?

in the life of a stand is usually better than later. When tree crowns begin to touch is often used as an indicator that thinning could be considered. There is a balance between letting the trees develop full, long, and healthy crowns and having enough shade to prune lower branches which are shed to produce clear wood in the lower portions of the tree. Trees with less than one-third of their total height in live branches rarely respond well to thinning. Trees with poor form or showing evidence of damage, insects, or disease are usually removed.

Improvement Cuttings

Improvement cuttings are made to remove undesirable trees to favor desirable ones. The choice of species depends on the landowner's objectives for timber, wildlife, aesthetic appeal, or recreation. Many trees with little to no timber value might be left to favor these other uses.

Crown class is one method used to select trees for silvicultural prescriptions. Dominant trees are the largest trees in the forest stand. They have crowns over and above the other trees, receiving full sunlight on all sides of their crown. Co-dominant trees also receive full sunlight on much but not all of their crowns. They are mixed with other trees. Intermediate trees get full sunlight only on a small part of their crown; most is shaded. Suppressed trees receive almost no full sunlight. A wolf tree has an unusually large crown for the stand. Often wolf trees grew up in relatively open conditions and the rest of the forest stand filled

in around it.

The type of tree selected depends on the landowner's goals. For purely timber production goals, wolf trees use up too much space. But as they die and decompose, wolf trees can make excellent snags for wildlife. Some species, like white fir, can survive as suppressed trees and respond if the surrounding trees are removed. Others, like ponderosa pine, do not survive well as suppressed trees and will not respond after a point.

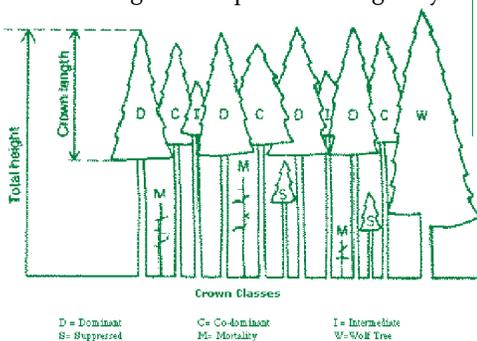
One way to gauge the health of a tree is to look at its live crown ratio. The live crown ratio is the percentage of the total height of the tree that is in live branches. In the example, the dominant trees have about a 50% crown ratio; the co-dominants about 40%; intermediates about 30%; and suppressed trees about 20%. The wolf tree has a crown ratio of about 80%. Larger crown ratios mean that the tree can produce more food from sunlight during a given day. Once a tree has less than about a 33% crown ratio, it usually cannot be released from competition. Trees with low crown ratios are more susceptible to insect attacks.

Silviculture in the Real World

The Forest Practice Act defines many of these silvicultural treatments with specific guidelines as to the amount of acres involved, the number and size of the trees that should be left, etc. The specifics vary by region. If you are planning any of these procedures, check with CDF and a Registered Professional Forester about the applicability of these treatments for your property.

Most of these silvicultural treatments can be adapted to the landowner's specific goals. Often the actual prescription will be a blend of treatments. Having clearly defined goals and objectives will help you create the forest structures that meets your needs.

—from *Working in the Woods CD-ROM*.



Estate Planning

Conservation easement FAQs (frequently asked questions)

What is a conservation easement?

A conservation easement is a voluntary agreement with a nonprofit land trust or government agency that allows a landowner to limit the type or amount of development on their property while retaining private ownership of the land. When completed, the conservation easement becomes part of the property deed.

A way to visualize this is to think of owning land as holding a bundle of sticks. Each stick represents the landowner's right to do something with their property—the right to build a house, to extract minerals, to harvest timber, allow hunting, etc. A landowner may give up certain rights, or sticks from the bundle, associated with their property through a document: the conservation easement.

How does it work?

Conservation easements are tailored to the needs of the landowner and the recipient organization (which must be a qualified nonprofit organization or government agency). The recipient agrees to hold, but not use, the transferred rights. A landowner may either donate the conservation easement or sell it for partial or full appraised value. The terms of each conservation easement are negotiated by the landowner and the recipient organization.

Who owns and manages easement protected land?

The landowner retains full rights to control and manage their property within the limits of the easement. The landowner continues to bear all costs and liabilities related to ownership and maintenance of the property. The organization that owns the easement will monitor the property to ensure compliance with the easement's terms, but has no other management responsibilities and exercises no direct control over other activities on the land.

Why do people grant conservation

easements?

People grant conservation easements because they want to protect their property from future unwanted development and damaging land uses, while retaining ownership of their land. By granting a conservation easement, a landowner can assure that the property will be protected forever, regardless of who owns it in the future. An additional benefit is that the donation of an easement may provide significant financial advantages.

What kind of financial advantages result from donating an easement?

Many landowners receive a federal income tax deduction for the gift of a conservation easement. The Internal Revenue Service allows a deduction if the easement is perpetual, is donated "exclusively for conservation purposes" and meets certain criteria for those conservation purposes. The amount of the tax deduction is determined by the value of the conservation easement. In addition, the landowner may have estate and property tax relief because the value of the property is reduced.

What activities are allowed on land protected by an easement?

The activities allowed depend on the landowner's wishes and the terms of the easement. In some cases, no further development is allowed on the land. In others, some additional development is allowed, but the amount and type is restricted. Conservation easements may be designed to cover all or only a portion of a property, and specific restrictions can vary for different parts of the property. Every easement is unique, tailored to each landowner's goals and land characteristics.

Can the landowner still sell or give the property away?

The landowner continues to own the

property after executing an easement. Therefore, the owner can sell, give, or lease the property as before. However, all future owners assume ownership of the property subject to the conditions of the easement.

Does the public have a right of access to easement-protected property?

Not unless the landowner who grants the easement specifically allows it. Most easement donors do not want, and therefore do not allow, public access to their property.

How long does an easement last and who upholds it in the future?

To be eligible for a federal income tax deduction the easement must be "perpetual," that is, it must last forever. The property is monitored by the land trust or government agency selected by the landowner as the easement grantee to assure that the easement is not being violated. If the easement has been breached, steps must be taken to uphold the terms of the easement. Land trusts typically require the landowner to make a financial contribution (also tax deductible) to cover long-term management costs.

Does the easement have to cover all of the landowner's property?

No, some easements only cover a portion of the property. Again, it depends on the landowner's wishes. For example, if someone owns 80 acres, of which 35 acres are wetlands, the landowner may decide to restrict development only on these 35 acres. The remaining 45 acres would not be affected by the easement.

What kind of land can be protected by conservation easements?

IRS regulations require that the property have "significant" conservation values. This includes forests, wetlands, endangered species habitat, scenic areas and more. ▲



Resources

American Tree Farmers

The American Tree Farm System is a nationwide program that has been active for more than 50 years. The program focuses on working forests that provide timber in a manner that will protect watersheds and wildlife habitat, conserve soil and provide recreation.

To qualify as a Tree Farmer, landowners generally manage at least 10 acres of forest land. They must prepare a written plan that details their management objectives and shows how they will provide for wildlife, recreation, water and soil conservation while producing timber. After their land is inspected by one of the foresters who volunteer time to the American Tree Farm System, landowners are certified

and can display a Tree Farm sign. Every five years thereafter, Tree Farms are reinspected to assure that landowners continue to meet the rigorous forestry certification criteria of the Tree Farm System.

The California Tree Farm program is sponsored by Forest Landowners of California, an association of individual or family forest owners. The national program is sponsored by American Forest Foundation.

For more information, contact:
California Tree Farm Committee
5441 Shelley Way
Carmichael, CA 95608
(916) 488-8322
<http://www.caltreefarm.com/> ▲

ATTN: Working in the Woods CD Users

If you received a copy of the UC Cooperative Extension's Working in the Woods program CD-ROM, call 530-224-4902 (shcooper@ucdavis.edu) for a survey form and to be placed on the waiting list for the new and improved version due out later this year.

UCCE needs your input so that they can upgrade and improve this informative program for California forest landowners. If you haven't had the opportunity to check it out, the entire CD curriculum is on the Internet at <http://www.CNR.Berkeley.EDU/departments/espm/extension/ABOUT.HTM>. Let us know what you think. ▲

Technical Assistance Resources

Many agencies are available to provide technical assistance, referrals, information, education, land management plan assistance, and advice.

California Stewardship Helpline (800) 738-TREE; ncsaf@mcn.org

California Department of Forestry & Fire Protection

Forest Landowner Assistance Programs

Jim Geiger
(916) 653-8286

jim_geiger@fire.ca.gov

Forestry Assistance Specialists

Jill Butler
(707) 576-2935

Tom Porter
(909) 782-4140

Tom Sandelin
(559) 243-4108

California Association of RCDs

Thomas Wehri
(916) 447-7237
carcd@ns.net

California Resources Agency:

California Environmental Resources
Evaluation System (CERES)
Deanne DiPietro
(916) 653-8614
deanne@ceres.ca.gov

Natural Resources Conservation Service

Jerry Reioux
(530) 792-5655
jerry.reioux@ca.usda.gov

Farm Service Agency

Larry Plumb
(530) 792-5520

California Dept of Fish & Game

Marty Berbach
(916) 327-8839
mberbach@dfg.ca.gov

U.C. Cooperative Extension Forestry

Richard Harris
(510) 642-2360
rrharris@nature.berkeley.edu

Gary Nakamura
(530) 224-4902
gmnakamura@ucdavis.edu

USDA Forest Service

Sandra Stone
(707) 562-8918
sstone/r5@fs.fed.us

Find it all at about.com

What do you want to know about forestry: Information on silviculture? Timely tax tips? Tree identification? What to do about various forest pests?

The best collection of forestry-related web sites can be found at about.com where your guide will answer forestry questions, recommend books, and evaluate useful websites. Besides connections to hundreds of valuable websites, the site contains a bulletin board, a forestry newsletter, and a chat group that convenes every Sunday night.

Check it out at <http://forestry.about.com/education/forestry/>. ▲

Maps!

You can now get topo maps free on the internet at TopoZone. Go there for any USGS 1:100,000, 1:25,000, and 1:24,000 scale map for the entire United States. <http://www.topozone.com>. ▲



Calendar

May 30, 2000

Wetland Plants

Hopland R&E Center
UC Integrated Hardwood Range Mgmt.
Program
Kerry Heise 707-744-1424;
kheise@nature.berkeley.edu; \$35
<http://danr.ucop.edu/ihrmp>

June 1, 2000

Weeds

Hopland R&E Center
UC IHRMP
Kerry Heise 707-744-1424;
kheise@nature.berkeley.edu; \$35
<http://danr.ucop.edu/ihrmp>

June 1–2, 2000

Advances and Challenges in Forest Regeneration

Tigard, OR
OSU Nursery Technology Cooperative
and West. Forestry & Conservation Assn.
Freida 888-722-9416 or 503-226-4562
freida@westernforestry.org
\$195 before 5/26; \$235 after 5/26
<http://www.westernforestry.org/Reforestation.htm>

June 2, 2000

Management of Water in California

San Francisco, CA
UC Berkeley Extension
510-642-4111, fax 510-642-0374; \$295
<http://amber.berkeley.edu:4243/em/nr1.html>
Course EDP 263038

June 2–3, 2000

Stream Biological Monitoring

Berkeley, CA
UC Berkeley Extension
510-642-4111, fax 510-642-0374; \$415
www.unex.berkeley.edu/enroll

June 10, 2000

AmeriCorps Watershed Stewards Festival

Mendocino, CA
Dept of Fish and Game and many others
Ky Carnell or Sarah Adams at (707) 964-5831; watershedfest@yahoo.com
<http://watershedfestival.homestead.com>

June 18–21, 2000

Forest Products Society's 54th Annual Meeting

S. Lake Tahoe, NV

Forest Products Society
608-231-1361 ext. 208, fax 608-231-2152
\$225-\$635; www.forestprod.org

June 18–24, 2000

Forestry Institute for Teachers

Shasta County, CA
No. Calif Society of American Foresters
707-467-0600 or 707-467-1871;
ncsaf@mcn.org
<http://www.toshop.com/forestry> or
<http://www.humboldt.edu/~csy1/NorCalSAF/FIT.html>

June 22–23, 2000

Wood Adhesives 2000 Symposium

S. Lake Tahoe, NV
USDA FS, Forest Products Lab
608-231-1361 ext. 208; \$475
www.forestprod.org

July 20, 2000

CFPC's Insect and Disease Field Meeting 2000

Mt. Shasta area, McCloud Flats
California Forest Pest Council
Dave Schultz 530-242-2335
dschultz01@fs.fed.us; Free

July 16–22, 2000

Forestry Institute for Teachers

Humboldt County, CA
No, Calif, Society of American Foresters
707-467-0600 or 707-467-1871
ncsaf@mcn.org
<http://www.toshop.com/forestry> or
<http://www.humboldt.edu/~csy1/NorCalSAF/FIT.html>

July 25–26, 2000

California Forest Pest Council's Summer Week Tour

Lake Almanor, CA
California Forest Pest Council
Ed Fredrickson 530-365-7669
edf@rfpco.com

July 27–29, 2000

CFSC Summer Field Meeting: Visit the Area Where the Cascade & Sierra Nevada Ranges Meet

Butte County, CA
California Forest Soils Council
Dean Burkett 530-343-2731,
dean.burkett@ca.usda.gov; David Howell
707-822-7133, david.howell@ca.usda.gov

July 28–29, 2000

NorCal SAF Summer Meeting

Scotia, CA
NorCal Society of American Foresters

Barry Dobosh 707-764-4307,
dobosh@mail.northcoast.com; Sherry Cooper
530-224-4902, shcooper@ucdavis.edu

August 13–19, 2000

Forestry Institute for Teachers

Plumas County, CA
No. Calif. Society of American Foresters
707-467-0600 or 707-467-1871
ncsaf@mcn.org
<http://www.toshop.com/forestry> or
<http://www.humboldt.edu/~csy1/NorCalSAF/FIT.html>

September 6–8, 2000

Cumulative Watershed Effects

Sacramento, CA
University of California, The Forestry
Center and the UC DANR N.
Coast & Mtn. Region (Kim Rodrigues)
Contact: Joni Rippee 510-642-0095, fax
510-643-3490
rippee@nature.berkeley.edu

October 26–29, 2000

SERCAL'S 7TH Annual Conference: Trends and Lessons in Ecological Restoration

Santa Barbara, CA
The Society for Ecological Restoration
California Chapter (SERCAL)
Susan Clark 661-634-9228
smclark@lightspeed.net; www.sercal.org

November 27–30, 2000

Managing Watersheds in the New Century

Monterey, CA
Watershed Management Council
Rick Kattelmann 760-935-4903
rick@icess.ucsb.edu or
510-273-9066
<http://watershed.org/wmc>

For more information on these calendar items, call the number given or the California Forest Stewardship Helpline, 1-800-738-TREE. To submit an event or to receive this calendar by e-mail, contact Sherry Cooper, 530-224-4902; shcooper@ucdavis.edu.

ONLINE CALENDAR!

You will find a more comprehensive calendar, updated regularly, at the Calif. Forest Stewardship website:
<http://ceres.ca.gov/foreststeward>



Terminology

The language of silviculture

canopy—a layer or layers of branches and foliage at the top or crown of a forest's trees.

clearcut—regeneration technique that removes all the trees regardless of size.

co-dominant—trees that receive full sunlight on much but not all of their crowns.

commercial—treatments that produce revenue from the sale of the harvested trees.

crown ratio—the percentage of the total height of the tree that is in live branches.

dominant—the largest trees in the forest stand. They have crowns over and above the other trees, receiving full sunlight on all sides of their crown.

even-aged stand—stands in which the trees started together and are all of one age.

forest—a collection of stands administered as an integrated unit, usually under one ownership.

high grading—timber harvest in which larger, commercially valuable trees are removed with little regard for the quality of trees and regeneration left on the site.

intermediate treatment—forest cutting treatments between regeneration harvests; includes thinnings and timber stand improvement.

intermediate trees—crown class that gets full sunlight only on a small part of their crown.

pre-commercial—treatments that do not produce revenue.

prescription—the silvicultural treatment recommended by the forester or other manager.

release—removal of trees to allow others to grow in response to increased light.

regeneration—replacement of one forest stand by another as a result of natural seeding, sprouting, planting, or other methods.

regeneration method—harvest approach designed to promote natural establishment of trees. Even-aged stands are perpetuated by three regeneration methods: seed tree, shelterwood, and clearcutting. Uneven-aged stands are perpetuated by selecting individual or small groups of trees for removal.

reproduction cuttings—systems to get new trees growing in an efficient manner.

residual stand—trees remaining following any cutting operation

rotation—the period during which a single crop or generation is allowed to grow.

salvage cut—removal of dead, damaged, or diseased trees to decrease threat of infestations and/or reduce economic loss.

sawlog—log large enough to yield lumber.

seed tree method—regeneration technique where mature trees are left standing in a harvested area to provide seed for regeneration.

selection method—regeneration technique

designed to create and perpetuate an uneven-aged forest. Trees may be removed singly or in small groups.

shelterwood method—removing trees in a series of two or more cuttings so new seedlings can grow from the seed of older trees. This method produces an even-aged forest.

silviculture—the art, science, and practice of establishing, tending, and reproducing forest stands.

silvicultural treatment—altering the existing composition and structure of a stand to achieve a given management objective.

stumpage—the commercial value of standing trees.

site—all the environmental characteristics of a location including biotic, climatic, topographic, and soil conditions.

stand—a contiguous group of trees sufficiently uniform in composition, arrangement of age classes, site quality, and condition to be a distinguishable unit.

stand dynamics—the development of stands over time.

stand structure—the vertical and horizontal arrangement of plant communities in a stand.

succession—the replacement of one plant community by another over time.

suppressed trees—trees in a stand that receive almost no full sunlight.

sustained yield—a timber management concept in which the volume of wood removed is equal to volume of growth within the total forest.

thinning—selective removal of trees to reduce competition and encourage growth of remaining trees. May be commercial or pre-commercial.

timber stand improvement (TSI)—intermediate treatments designed to improve growth and composition of the forest.

treatments—procedures used to regenerate forest stands or tend existing stands; often involves felling trees.

understory—smaller vegetation within a forest stand (shrubs, seedlings, small trees).

uneven-aged stand—a group of trees of varying ages and sizes growing together on a site.

wolf tree—tree with an unusually large crown for the stand.

How can the *Forestland Steward* newsletter help you?

I'd like to see more information on _____

My suggestion is _____

Add me to the mailing list / Change my address:

Name _____

Address _____

City, Zip _____ Phone _____

e-mail _____

Send to CDF, Forestry Assistance, P.O. Box 944246, Sacramento, CA 94244-2460.
Phone: (916) 653-8286; Fax: (916) 653-8957; e-mail: jim_geiger@fire.ca.gov