



FORESTLAND STEWARDS

Dead and dying trees: part of a healthy forest

Richard Harris and Bill Laudenslayer

A “snag” is a standing dead tree. Snags provide habitat to innumerable organisms including fungi, insects and other invertebrates, and land animals such as amphibians, reptiles, birds, and mammals.

Logs and limbs from snags are important to the forest floor and streams. As they decay, they release nutrients essential to long-term soil productivity. Down logs and limbs also provide habitat for many animals including salamanders and carpenter ants.

There is a misconception that forest “health” is negatively affected by diseased, dying and dead trees. On the contrary, their presence is an important component of natural forest ecosystems

(although large quantities of these trees in some forests do suggest a decline in forest health). In this article, we suggest a few simple guidelines for managing and recruiting snags.

Why Are Snags Important?

Probably the single most obvious reason for a landowner to be concerned with snags is because they provide habitat for birds. Some birds, such as sapsuckers and woodpeckers, excavate their own nests in snags (primary cavity nesters). Other birds occupy abandoned nests or natural cavities (secondary cavity nesters). These secondary nesting birds comprise up to one third of the breeding birds found in some forests.

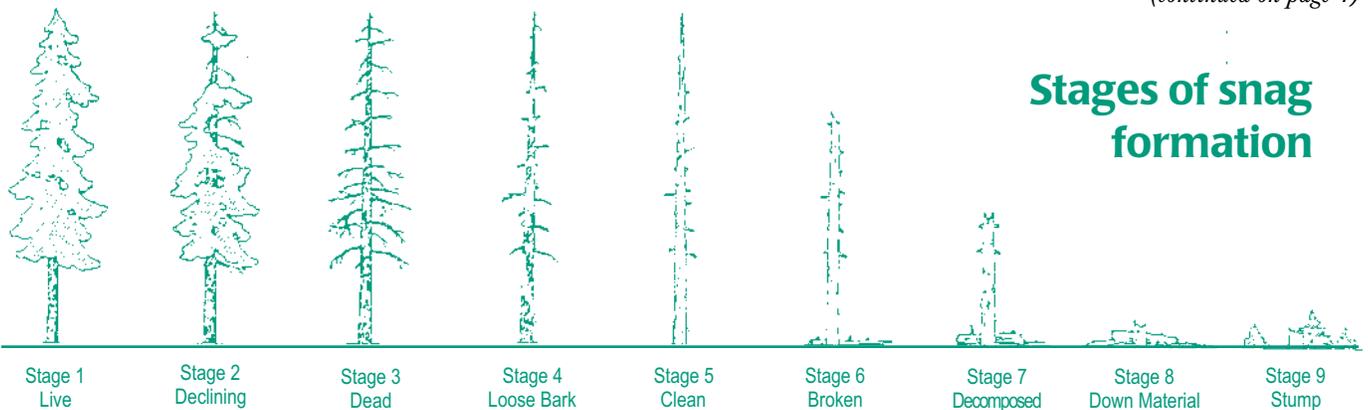
Most cavity-nesting birds consume large quantities of insects each year.

There is evidence that “biological control” by these birds can help keep populations of potentially damaging insects, such as bark beetles, below epidemic levels. Insect outbreaks often attract cavity nesting birds.

Snags are used in numerous other ways. Woodpeckers and sapsuckers communicate by “drumming” on dead branches. Squirrels and other small mammals use dying and dead trees as foraging sites, to store winter food supplies and for roosting and denning. Bats use loose bark and hollow tree trunks for roosting. A myriad of insects use dead trees as overwintering sites; some consume portions of dead trees, contributing to the decomposition process.

The death and eventual falling of

(continued on page 4)



Stages of snag formation

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New Directions

California Stewardship Program

by Jim Geiger

Landowner assistance programs in California have traditionally provided service to individual forestland owners. Programs were designed to assist individual landowners in improving the management and stewardship of their forestland by providing technical assistance and cost-share dollars.

However, since the dramatic reductions in the FY 95/96 allocations, the California Department of Forestry and Fire Protection (CDF) has recognized that it can no longer use the traditional approach to assisting landowners.

What has changed?

- 1) CDF landowner assistance staff has been reduced by over 75% since '95/'96. There are too few CDF staff to provide an adequate program by working with individual landowners.
- 2) Cost-share dollars have declined dramatically. There is just too much competition for too few dollars.
- 3) Working just with individual landowners does not focus on the bigger picture to help solve the larger watershed issues/problems.

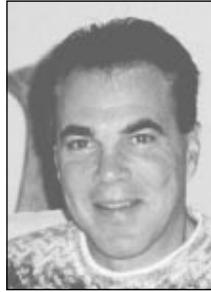
The bottom line

What has become very apparent since FY 95/96 is that in order to continue to help with changes within California's watersheds we will have to find another way of doing business with individual landowners.

What have we changed?

First we recognized that:

- Wildfire, forest health and water quality problems do not respect property boundaries.
- Individual landowners cannot typically solve their own forest management problems without considering other landowners and



Jim Geiger,
Stewardship Program
Manager

the community at large.

- Watershed problems can only be solved by the entire community that lives in the watershed.

Secondly, we recognized that we are a part of that watershed community. We are not in charge. We cannot dictate outcomes. We are just one of the many members of the community including landowners, watershed groups, RCDs, fire protection districts, environmental groups—all with a stake in the health of the watershed.

Thirdly, we recognize that as an equal partner we are expected to make a contribution to solving watershed problems and improving the stewardship and management of the forestland community.

What do we bring to the table?

- Leadership, including a statewide perspective and experience, and a large network of people and organizations that can help.
- Technical expertise from a staff of experts in pre-fire fuels management, forest health and water quality.
- Labor from inmate crews to perform labor intensive tasks on various community projects.
- Equipment, as appropriate, for specialized tasks on community projects.
- *Forestland Steward* quarterly newsletter to disseminate up-to-date

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New Committee

There is a new State Forest Stewardship Coordinating Committee (SFSCC). At the annual conference of the California Association of Resource Conservation Districts (CARCD) in November, the Forestry and Fuel Management Committee (F&FMC) formally agreed to accept the responsibility of the SFSCC. The responsibilities of the existing state committee were officially terminated by Director Wilson and transferred the F&FMC. This reassignment of responsibilities accomplishes several things:

- eliminates duplicate committees
- brings a broader perspective to Forest Stewardship in California
- creates a more diverse and community-based committee.

Watch this space for more on the activities of the new SFSCC.

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Assistance Update

Valuable funding information

RCD Area 9 has an excellent website at <http://www.cyber-sierra.com/area9/index.html> with extensive information on funding including sections and links on how to write grants, and sources of funding for watersheds, wetlands, wildlife, forestry, conservation education, rural communities, the environment and much more. Check them out for ideas.

Revised booklet

The "blue book," *Cost Share and Assistance Programs for Individual*

California Landowners and Indian Tribes, is now yellow. Even more significant is the updated information contained within along with several new programs of interest to forest landowners.

Environmental Quality Incentive Program (EQIP). Provides technical, financial and educational assistance. This program is delivered through priority areas recommended by local working groups and administered by the Natural Resources Conservation Service (NRCS). Contact your local NRCS, RCD, or Farm Service Agency office. (916) 757-8200.

Wildlife Habitat Incentives Program (WHIP). This program is for people who want to develop and improve wildlife habitat on private lands. It

provides both technical assistance and cost sharing to help establish and improve fish and wildlife habitat. Contact Ron Schultze, NRCS, RCD, or Farm Service Agency. (916) 757-8253.

CalFed Update

The next CalFed funding cycle is expected to be in March or April, 1998. More next issue, or call (916) 657-2666.

Stewardship Helpline

You can always get information and referrals on forestland-related topics including grant and cost-share opportunities through the Stewardship Helpline. Call 1-800-PET-TREE.

(continued from page 2)

landowner information/education on stewardship and watershed issues.

- Educational opportunities including fact sheets, workbooks, workshops, seminars, conferences, computer programs, videos, etc. to improve the forest stewardship/management capability of communities.
- 1-800 telephone helpline that provides "one-stop-shopping" for the caller who needs information, a referral or directions to help get a project started, obtain funding, or solve a problem.
- Limited project dollars from a variety of funding sources to assist with community watershed projects.

And fourthly, we are changing our paradigm and restructuring our programs.

Our new way of doing business

- We are relearning how to be a member of the community and an equal partner in community projects.
- We are becoming a better listener of client and community needs.
- We are encouraging community led/grassroots projects.

- We are avoiding duplication of effort by using the existing CARCD Forestry and Fuels Management Committee to take over the responsibilities of the Forest Stewardship Coordinating Committee.
- We are empowering RCDs and other local watershed groups to deliver assistance to landowners.
- We are integrating the delivery of forest landowner assistance through local CDF fire protection units.
- We are focusing our emphasis on management of pre-fire fuels, forest health and water quality.
- We are participating at the CDF unit level as an equal partner in community watershed projects by providing labor, equipment and dollars.

What results are expected?

This new approach is a radical departure from CDF's traditional landowner assistance approach. However, with so few federal dollars and staff to deliver the programs, continuing business as usual will only result in fewer and fewer landowners assisted. By adopting a locally-led strategy to program delivery and implementation,

a multitude of new partnerships can be formed (e.g. RCDs and CDF local units) to create local site assistance for landowners.

Under the current traditional delivery method, CDF is reaching less than 2% of the 346,000 landowners in California. By implementing the new partnership strategy, 50-75 RCDs and community groups will be assisting in the delivery of the landowner assistance programs and expand our ability to reach landowners to well over 50%.

By changing the way we do business and adopting this new approach to landowner assistance, we can expect...

Future state

- 1) Every forested community in California will have the capacity to carry out forest stewardship/management projects in their watershed on their own.
- 2) Improved cooperative relationships and channels of communication will exist between landowners and agencies.
- 3) Stewardship of individual forestland will be greatly improved in all California communities.
- 4) Partnerships will be a way of life.



Snags *(continued from page 1)*

trees provide forest openings that encourage regeneration of shrubs, trees and grasses. This leads to improved habitat for species such as deer and small mammals.

Ecology of Snags

The number of snags in a forest varies. The creation of new snags depends on agents of mortality including insects, disease and fire. Tree death in the forest is patchy, episodic and grouped reflecting the ways in which natural disturbances work.

The rate at which a dead tree deteriorates determines many of its ecological properties. Larger diameter trees persist longer than smaller ones. Decay rates also vary by species. For example, ponderosa pines generally persist longer than white fir of the same diameter. Large diameter snags appear to be more valuable because they stand longer and provide habitat for birds which require large trees to nest. It is the large trees and, consequently, large snags that are becoming more scarce in our forests.

Hard or Soft

Snags may be classified as "hard" or "soft." Hard snags are essentially sound wood while soft snags are in an advanced state of decay. Hardness depends on tree species, the nature of the decay agents and snag age. Some birds and insects may only excavate in soft snags. Others, including woodpeckers, require hard snags because of the stability they provide for nest cavities. As a snag progresses from hard to soft, pieces begin to fall to the ground. Eventually, the snag is reduced to a decomposed stump and collection of downed, decayed material—in essence, forest floor woody debris.

Each stage of deterioration has importance to certain wildlife. Early in the process when bark loosens, snags become important roosting sites for bats. Advanced stages of decay are most important for insectivorous birds and small mammals.

The successional stage of the community around the snag also influences the way in which they are used. For

example, some birds will require snags in open shrub or grass communities. Others avoid snags in the open and will only use those in the closed forest.

Snag Management Guidelines

Ecological stewardship should include preservation and recruitment of snags for the benefit of wildlife and long-term soil productivity. Landowners must weigh many factors when managing for snags, including fire hazard, hazards posed to developed areas and trade-offs of productive forestland for benefits other than timber production.

There is little reason to remove soft snags from a forest provided they are not posing safety or fire hazards. Soft snags have virtually no commercial value. Hard snags will gradually turn into soft snags so if adequate hard snags are provided, and most soft snags retained, requirements for all snag-dependent species should be met.

In general, it is most beneficial to provide a wide range of snag species and size classes. Both coniferous and hardwood snags are useful to wildlife. For example, large black oak snags are extensively used by cavity-nesting birds and small mammals. Of the conifers, ponderosa pine may be preferable to white fir. Deciduous trees such as aspen, cottonwood and willow are heavily used where available.

Snags should be well-distributed because of the territorial requirements of cavity-nesting birds. Clumping of snags in small patches has been shown to benefit some species, especially pileated woodpeckers. When selecting specific trees, suitable nest trees are indicated by signs of heart rot at the heights and diameters required by the target animal. Signs of heart rot include:

- conks of heart rot fungi,
- broken branch stubs with signs of rot,
- wounds or scars resulting from fire, lightning or mechanical damage,
- discolored or soft, decayed wood revealed in samples,
- existing woodpecker holes or cavities,
- dead areas on living trees.

It is wise to consider the position of a snag in the landscape and in relation to other trees. Snags in the lower parts



of slopes surrounded by other trees are at less risk from windthrow than isolated snags on ridgetops.

It is not advisable to give general prescriptions for the number and size of snags without considering the characteristics of the stand, including stocking levels and tree species composition and requirements of target wildlife species.

Snag guidelines for particular wildlife are available (contact Extension Forestry). For example, in a ponderosa pine forest, a minimum of 14 snags/100 acres with an minimum size equal to or greater than 20 inches dbh probably provides sufficient nesting habitat for pileated woodpecker assuming large diameter live trees are present and food supplies are adequate.

Large snags can often be substituted for smaller ones to meet habitat requirements but the reverse is not true. Caution against overly general prescriptions will prevent situations in which either too many or too few snags are provided in a specific forest type on a property.

Bottom Line

Large trees are increasingly scarce in California's forests. Without management to preserve and recruit large trees that eventually become snags, important wildlife may disappear from our forests. A landowner may find it useful to work with neighbors in trying to preserve and recruit large diameter snags so that no one person shoulders too much of a burden. Even one large snag over an area of several acres can provide significant benefits.

(Bill Laudenslayer is Research Wildlife Biologist, USDA-Forest Service, Pacific Southwest Forest and Range Experiment Station, Fresno, CA)



Seasonal Stewardship

After the storm

Storm damage can cause significant problems including:

- Safety hazards
- Economic loss and loss of forest aesthetics
- Damaged or blocked roads and culverts
- Build up of fuel which could result in future fire danger
- Potential for future loss due to increased susceptibility to insects,

decay, future storm damage, etc.

- Changes in fish and wildlife habitat (some habitat may be damaged, some created).

Checklist

Identify high priority problems

- Immediate safety hazards to people or structures
- Blocked or damaged ditches, culverts, and roads (may result in road

wash out, erosion, damage to water and fish habitat)

- Damaged trees and limbs that may fall onto roads or power lines (notify power company)
- Trees blocking forest access roads

Assess the damage

- Walk entire property—preferably with a forester (wear your hard hat)
- Make a simple map showing type and extent of damage (blocked roads and trails, trees with broken tops or broken limbs, fallen trees, trees severely bent over).

Determine objectives

- Consider salvage harvest of damaged trees.
- Consider retaining some storm-damaged trees and downed debris for wildlife habitat (see front page article on snags).
- Contact a professional consulting forester for advice.

Clean up problems

- At a minimum, remove hazardous debris accumulations (under 3" in diameter) within at least 100 feet of public roads and 500 feet of buildings (downed debris can result in forest fire hazard or increases in bark beetle populations).
- If debris will be burned, check burning regulations and obtain necessary permits.
- Consider pruning broken branches to reduce possibility of future decay.
- Leave broken limbs on trees that will be retained for wildlife habitat if they don't pose a safety hazard.
- Remove damaged trees when necessary and replant

Tips for creating snags

■ Snags may be created from living trees if there is a shortage of safe natural snags. Created snags can be expected to last for a long period of time. Poor quality or deformed trees, such as those with broken tops or large branches, make excellent snags.

■ Snags can be dangerous so locate them well away from trails, roads, buildings, and other structures.

■ Select both conifers and deciduous trees for snag creation. Snag trees should be at least 14" in diameter.

■ Top or girdle trees at or above the first whorl of branches, but at least 14 feet high (ideally, much higher). Smaller trees may be useful for some cavity nesters, as are stumps which are at least 3 feet high.

■ A jagged top will decay faster and supply more habitat than a smooth-topped tree.

■ Large branches, extending at least 2 feet out from the trunk can be cut to create foraging habitat on live trees not intended to be used as snags.

■ Roosting slits and cavity starts may be added to created snags at the time of topping or girdling. However, do not put these features, or bird boxes, on existing snags.

■ Roosting slits may be used by most bats and some birds. The slits should be at least 8" deep and 2" wide, and angled sharply upward into the cambium layer.

■ Cavity starts all allow decay-causing fungus to enter the tree wound. These cavities may be used by flying squirrels, swallows, kestrels, and small owls. They should be at least 6" deep and 4" high. In time, as rot progresses, these cavities may be used by a large variety of cavity nesters, such as pileated woodpeckers, nuthatches, and chickadees.

■ Bird boxes of varying sizes will host many species, such as wood ducks and swallows. They can be erected in most forest stands depending on target species and stand characteristics. Bird boxes, however, do not replace the need for snags.

—adapted from Backyard Forest Stewardship from the Washington State Dept of Natural Resources



Taxpayer Relief Act offers potential benefits For California forestland owners

Kurt Hupé

Socked away in the 1997 Taxpayer Relief Act (P.L. 105-34) are significant tax breaks for many forestland owners and their heirs, especially those who plan to place conservation easements on their property.

A conservation easement is a tool to protect productive forestland and to shelter it from various taxes, all while retaining ownership and management options on the land (see article below). Through an easement, which permanently attaches to the land deed, the owner voluntarily limits certain activities on the land, such as subdivision, forest degradation and conversion, or commercial development. Usually, the easement is donated to a land trust, which ensures that the owner's manage-

ment goals are adhered to...forever.

The landowner is then entitled to two very significant tax breaks: a reduction in the land's speculative value for estate taxes, and a charitable tax deduction for the full value of the easement (which, in the case of forest conversion and development rights in California, could be 40-60% of the land's market value). The charitable deduction is an immediate economic benefit and can be stretched out over six years. But the estate tax benefit—like the easement—is essentially permanent. It helps keep family land in the family, and forestland in forest.

The Taxpayer Relief Act sweetens the deal in several ways. For starters, if your working forestland is a family business, your exemption from estate

tax just jumped from \$600 thousand (the standard individual exemption) to \$1.3 million (individual plus family business exemption). That means that a forest property appraised at \$3 million could be almost completely sheltered from estate taxation with an additional, well-crafted conservation easement.

The Act provides greater conservation incentives for owners of certain priority lands—those under potentially high pressure from urban or suburban sprawl, and those near key natural or heritage sites. Such lands are defined as being within 25 miles of a metropolitan area, a national park or wilderness area, or within 10 miles of an urban national forest. Given the rapid growth of California's cities and

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Conservation easements on working forestlands?

Kurt Hupé

Since the 1930s, conservation easements have been popular tools for farmers and ranchers to protect their land. Unfortunately, traditional easements often ignored the value of productive forests, either failing to address forest management at all or simply "locking up" the forest, meaning that no timber harvesting would be allowed.

In the early 1990s, several landowners, foresters, and ecologists decided to change this. They crafted the first conservation easements specifically designed for working forestlands in the Pacific Northwest.

Working forestlands, which produce timber and other forest products, are perfectly compatible with conservation easements, as long as the forest ecosystem is managed

well. When landowners protect wildlife habitat, soils, special features, or watershed values in their forest, they are voluntarily providing a public service. Conservation easements are an official recognition of this public service, which is why the landowner is rewarded with direct economic compensation, in the form of federal and state tax relief.

Most owners of working forestlands want to keep their forest productive and keep it in the family, so the forest capital continues both to grow in value and to provide income. Most owners have no intention of liquidating the natural capital of their forest, and they would like to see the asset managed carefully by future generations as well. Conservation easements can both ensure this careful management and reward landowners for their wise decision not to liquidate the forest.

After all, a lot of public values are lost when this liquidation occurs.

In essence, conservation easements for working forestlands are a non-regulatory, market-based and voluntary method to serve the interests of the private landowner and the public. When carefully designed and managed, they can help to ensure increasingly healthy, beautiful and valuable private forestlands throughout the Northwest—all while accommodating stable and high-quality timber supply. If used extensively, they can serve as proof that forest landowners can protect public values without undue regulatory burdens. Above all, conservation easements are about the only way to guarantee that your forest won't someday end up as a parking lot or a subdivision.



suburbs, many private forestlands in the state qualify for this priority status. Owners of priority lands will qualify for additional exemptions from estate taxes if they establish a conservation easement on their property. These tax benefits are above and beyond the substantial savings that already exist for gifts of conservation easements.

In a dramatic departure from past estate tax law, the Act provides heirs of priority forestland the option to place retroactive, or postmortem easements to protect their family's land. It used to be that, if a forest landowner died without appropriate estate planning, heirs had little choice but to pay taxes on the land's full liquidation value (for instance, what they might get for clear-cutting and subdividing). Even if the family had no intention of liquidating their land and wanted to continue practicing forest management, the survivors often had to cash in on some or all of the land just to pay the tax bill, which could be as high as 55% of appraised value, plus state taxes.

No more—thanks to the efforts of many conservation, forestry, and land trust interests. Now, survivors can keep the land in forest and avoid excessive estate taxation by retroactively placing a conservation easement on the property. [NOTE: At present, postmortem election only applies to heirs of priority forestlands in the Act.] In most cases, the easement matches the family's long-held management goals, such as maintaining productive and scenic forestlands—so the survivors are essentially donating away rights (like replacing the forest with a subdivision) that they never intended to exploit.

The ultimate result of this postmortem easement opportunity, and of all conservation easements, is to save family lands and preserve family legacies. After all, losing a loved one is trial enough; you shouldn't be forced to liquidate the family's forestland to pay the tax bill. And now, hopefully, you won't be.

Kurt Hupé is an Oregon forest landowner.

Tax information for forestland owners

It's about that time of year again so here are some resources to help you get your taxes in order. A professional tax advisor and an estate planner can help you understand the laws and how to make the best choices for your land.

Most of the applicable tax law remains the same as last year but there are some benefits to private forestland owners in this year's revisions to capital gains and estate tax. Some of the changes are noted here but the legislation is extremely complex so talk with a knowledgeable tax advisor to determine how these changes affect your unique situation.

Long-term capital gains have decreased from 28% to 20% for noncorporate taxpayers in the 28% or higher tax bracket and from 15% to 10% for those in the 15% or lower bracket. The decreases apply to assets sold after May 6, 1997; the holding period to qualify for long-term capital gains increases from 12 to 18 months for assets sold after July 28.

The portion of an estate excluded from estate taxes is going up incrementally over a period of time from the current \$600,000 to \$1 million by the year 2006. For years after 2006, the exclusion is indexed to the cost of living (increases to the next lower \$10,000).

There are some changes in the California state tax law as well, including increases in some provisions for exceptions for small family-owned businesses and increases in the excluded portion of estate taxes over time.



■ *The Forest Owners Guide to the Federal Income Tax; Agriculture Handbook #708* is still one of the best references available. A limited number of copies are available by request to Sandra Stone, USDA Forest Service, 630 Sansome Street, Room 1037, San Francisco, CA 94111. The complete 140-page handbook can also be read or downloaded from the Internet at <http://www.uga.edu/~soforext>.

■ The 152-page USDA Forest Service publication entitled *Estate Planning for Forest Landowners: What will Become of your Timberland* by Harry L. Haney, Jr. and William C. Siegel can also be downloaded at <http://www.uga.edu/~soforext>.

■ Tax questions related to the Stewardship Incentive Program (SIP) are answered at <http://www.forestry.uga.edu/docs/cfsu10-94.html>.

■ Tax Tips for Forest Landowners can be found at <http://www.uga.edu/~soforext/usdafsr8/spf/coopfor/taxtips.htm>. The 1997 Tax Tips are expected to be available soon at this location. The analysis is done by Larry Bishop, Forest Management and Taxation Specialist, for the USDA Forest Service, Southern Region, 1720 Peachtree Rd., N.W., Atlanta, GA 30367.



It's winter. You want to work on your land but it's cold and wet out there. So do something different. Here's a project that will benefit your property while allowing you to remain indoors guilt-free.

Develop your Stewardship Plan

Each piece of land is unique, as is each landowner's vision for his or her property. Most forestland owners want to be good stewards of their land and protect and enhance its resources. Doing this effectively requires careful planning and management. A good way to start is by developing a Stewardship Plan.

Why is a plan important?

Quite simply, your Stewardship Plan is the blueprint to achieving your goals. The plan contains background on the land, its resources and its potential. Goals and objectives are identified. Then a management plan is formulated to reach those goals. This kind of guide is invaluable for the long-term planning necessary for forestland stewardship.

Benefits of a Stewardship Plan

A good Stewardship Plan helps you reach your goals using the best possible techniques to do so. Gathering and organizing the information provides insights into your property and its potential. Defining goals helps identify priorities for the land and management techniques.

Goals should be clear and reasonable. There may be multiple

Even with the help of professionals, the goals and objectives should come strictly from the landowner.

objectives, for example, enhancing wildlife habitat while maintaining a profitable timber stand and decreasing the risk of wildfire.

It takes commitment

This is not a casual undertaking. A good Stewardship Plan requires thoughtful reflection, discussion with experts, field work, research and planning in order to be effective. The landowner should be involved in all aspects of creating the plan.

The first step is to develop a resource inventory of the property. One way to do this is through the use of aerial photographs (these may be available through your local CDF or NRCS office). Decide which resources are relevant to your plan and then map them. You may want to include bodies of water, roads and trails, structures, sensitive areas, soil types, etc.

Professionals

Managing forestland requires an understanding of the methods and techniques available. Consulting with experts may be necessary to make the best choices.

Professionals are available to help you. You may need a forester, wildlife biologist, hydrologist, range specialist, or other appropriate expert, depending on the resource emphasis. The professional's job is to work with you, the landowner, to come up with recommendations for management practices that are consistent with your objectives and the needs of the land.

Long-term plan

A Stewardship Plan sets the direction for management of the property for the next ten years and

Your Stewardship Plan is the blueprint for achieving your goals.

gives at least a general five-year activity schedule.

The format on the next page suggests some elements you might want to include in your plan.

Help is available

First stop for assistance is always the Stewardship Helpline:

1-800-738-TREE

Contact local agencies: California Department of Forestry and Fire Protection (CDF), Resource Conservation District (RCD), or Natural Resource Conservation Service (NRCS).

If you are interested in participating in California's Forest Stewardship Program, you can submit your plan for certification. Once your plan is certified, you may be eligible for cost-share assistance for projects listed in your five-year activity schedule. For further assistance with plan certification, contact your local CDF forester or call the stewardship coordinator, Jim Geiger, at (916) 653-8286.



Writing the Plan: a suggested format

1. Introduction and History of Land

Uses. Describe the property, including legal description, topography, location, brief land-use history, and means of road access. State number of acres owned and acres of forestland.

2. Landowner's Goals. These will guide the plan development and involvement of agency staff or other needed professionals.

3. Professionals and Agencies

Consulted. Indicate all contacts made with name, agency, license or other registration or certification, area expertise, address, and telephone number. Discuss the procedures and methods used by resource professionals contributing to the plan.

4. Registered Professional Forester

(RPF) Involvement. Include name, address and telephone number of the RPF. Explain involvement with the project, such as review only, site visit, etc.

5. Cultural and Historic Resources.

Summarize and attach results from any records check and project review from the appropriate Information Center for the California Historical Resources File system. List measures to protect archaeological or historical resources to meet existing laws and landowner's objectives and indicate how and when. [Archaeological data base checks and other assistance may be obtained through CDF.]

6. Fish and Wildlife Habitat.

Give a general description of present habitat and species on the property. At minimum, document protection measures during scheduled activities. List possible habitat enhancement activities, with emphasis on those species which meet the landowner's objectives. Discuss habitat maintenance over time.

7. Threatened and Endangered

Species. Describe the results from a National Diversity Data Base check or state that one will be obtained prior to

any activities that will disturb habitat. Discuss any project assessments performed or needed. List identified or known threatened and endangered species on the property and include protection measures. Describe any activities to enhance threatened and endangered species habitat. At minimum, document how any threatened and/or endangered species, known or discovered, will be protected.

8. Soils. Briefly discuss the major soil types and their suitability for carrying out the management activities being proposed. If needed, list any special management considerations (such as unstable soils and wetlands). Information on published surveys is available at some Resource Conservation District (RCD) offices and the USDA Natural Resource Conservation Service (NRCS) field offices. Document how soil will be protected and erosion minimized.

9. Water, Wetlands, Riparian Areas.

On a map, show springs, streams, ponds, and riparian areas. Include a discussion of actions needed to protect these areas. Emphasize those activities which will enhance water quality.

10. Recreation and Aesthetics.

Describe potential recreation income, viewsheds, and related activities or values. At a minimum, document how aesthetics within public view will be protected or enhanced.

11. Forestry and Agroforestry

(includes timber management, grazing, native plant propagation, etc.). Describe existing timber stand or woodland and describe future stand based on landowner objectives. (A detailed inventory is not required nor appropriate.) List those activities that will enhance management for wood products and other commodities consistent with landowner objectives. If this is a primary objective, provide suggestions for future harvesting and suggested timing.

12. Cover-Type. Describe existing vegetation (in general only). List major tree species and any other dominant cover type and approximate percentage of each. Suggest management strategies. Key this section to a map of cover type as appropriate for projects suggested.

13. Forest Health and Protection.

List any significant animal, insect, disease and wildfire hazard problems. Include associated management strategies to resolve the problem(s) and enhance management consistent with objectives.

14. Project Schedule. Summarize recommended management activities. Describe (in general) by season and year, each planned activity for at least five years, referencing areas affected on the map. Scale the scope of the activities to a realistic project size. Clearly show priorities for projects, sequence, and recommended completion dates.

15. Assistance Available. Give a brief description of sources of technical, financial and educational assistance available, and include contacts.

16. Maps. Include maps and data that may be useful for plan clarity, understanding conclusions reached, or future planning. Attach a planimetric map with a scale of at least 4"=1 mile, showing ownership and project boundary. If a USGS Quad Map is used, use the largest scale available. At minimum, show forestland, property boundary, existing and proposed roads, vegetative cover types, streams and other sensitive areas, as well as areas for any ground-disturbing activities. The map(s) must show the general location of proposed practices with a legend, scale, and compass orientation.

17. Optional Items. Include if useful: economic/tax/zoning issues; resource inventories (very general); permits, requirements, constraints; practice specifications; financial assistance applications; glossary; recent plans or maps.



Resources

Workshops for forestland owners

Over the past year, UC Cooperative Extension Forestry has been developing a continuing education curricula for California forestland owners under a contract with the Forest Stewardship Program. The curricula includes basic principles of ecology, land stewardship and management.

Three workshops were held at Shasta Community College in September, 1997, using the draft curricula as teaching tools. The 14 attendees were required to attend all three workshops because the workshops represented a comprehensive course covering a number of topics.

Attendance at only one or two workshops would have given participants a partial education.

Part of the intention in conducting the workshops was to test the efficacy and usefulness of curricula materials. Because of this, participants were sought who had little background or knowledge in natural resources management.

The format for each workshop included two to three hours of classroom instruction followed by six or more hours of field study. The first workshop focused on land ownership responsibilities; the second on ecology and the third on management options

and planning. Homework assignments were given after each workshop. The capstone assignment, handed out at the third workshop, involved the preparation of a stewardship plan. Each participant was asked to use the information provided in the workshops and curricula to prepare a plan for his/her property.

The workshops are still being evaluated. The stewardship plans prepared by participants will be the basis for assessment and future improvement. The curricula and workshops will be refined and offered at several locations over the next couple of years. Watch this newsletter for announcements on upcoming workshops.

For more information on the curricula and the tentative schedule for workshops in the future, contact John LeBlanc, Gary Nakamura or Richard Harris at Cooperative Extension.

Technical Assistance Resources

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

California Department of Forestry and Fire Protection

Forestry Assistance Program
Jim Geiger
(916) 653-8286
jim_geiger@fire.ca.gov

California Association of Resource Conservation Districts

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

Coastal Conservancy

Neal Fishman/Carol Arnold
(510) 286-4181

Farm Service Agency

Larry Plumb
(916) 498-5300

Natural Resources Conservation Service

Jerry Reioux
(916) 757-8256
(209) 946-6229
jerry.reioux@ca.nrcs.usda.gov

California Dept of Fish & Game

Terry Mansfield
(916) 653-1921
tmansfie@hq.dfg.ca.gov

U.C. Cooperative Extension Forestry

John LeBlanc
(510) 642-6678
jleblanc@nature.berkeley.edu

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

USDA Forest Service

Sandra Stone
(415) 705-2587

California Stewardship Helpline

(800) 738-TREE

Forestland Steward Website

Looking for technical or financial assistance? Stewardship tips? Upcoming events? Tax information for forest landowners? Now you will be able to get information on any aspect of the California Forest Stewardship Program simply by going to our website.

The Stewardship Program website includes articles from *Forestland Steward* newsletter, a regularly updated calendar of events, technical assistance contacts, and myriad links to related sites from all over the country and world.

The Stewardship Program will be on the Internet at the beginning of the year. Look for a link from the California Department of Forestry & Fire Protection home page at <http://www.fire.ca.gov>.



Calendar

January 20–22, 1998

19th Annual Forest Vegetation Mgmt. Conference—Wildfire Rehabilitation
Redding, CA
FVMC; \$80
Sherry Cooper 530-224-4902
<shcooper@ucdavis.edu>

January 20–23, 1998

Wetlands Restoration Design & Techniques
San Francisco, CA
UC Berkeley Extension; \$895
510-643-7143, fax 510-643-8290 <http://www.unex.berkeley.edu:4243/em>

January 21–22, 1998

California Plant And Soil Conference: Ag Challenges in an Urbanizing State
Sacramento, CA
Cal. Chapter of American Society of Agronomy and California Fertilizer Assn.; \$40-\$75
Steve Oakley 805-746-3366, fax 805-746-6905

January 22, 1998

California Forest Soils Council Annual Winter Meeting
Redding, CA
California Forest Soils Council
Todd Ellsworth 209-962-7825
Professionals, academics, general interest

January 22–23, 1998

Planning in California: Overview and Update
Davis, CA
UC Davis Extension; \$490
800-752-0881 <http://universityextension.ucdavis.edu>

January 23–24, 1998

SAF Winter Conference: Forestry Certification—What & For Whom?: Forest, Forest Products, and Forest Manager Certification
Folsom, CA
N. Cal. Society of American Foresters
\$35 - \$105; Before 1/9/98 save \$20
Sherry Cooper 530-224-4902
<shcooper@ucdavis.edu>

January 31, 1998

Annual CLFA Gil Murray Memorial Ski Race
Mt. Shasta, CA
CLFA; \$30-\$75
Hazel Jackson 209-293-7323, fax 209-293-7544 <clfa@volcano.net>

February 7–8, 1998

Mushrooms: Farming, Spawn Production, and Marketing
Berkeley, CA
UC Berkeley Extension
510-642-4111, fax 510-642-0374 <http://www.unex.berkeley.edu:4243/em>

February 12–14, 1998

The Wildlife Society—Western Section Annual Conference
Sacramento, CA
The Wildlife Society - Western Section
510-465-4962
Professionals, academics, general interest

February 12–15, 1998

Salmonid Restoration Conference
Santa Rosa, CA
Salmonid Restoration Federation; \$40+
Jud Ellinwood, SRF, 707-444-8903
<salrestfed@aol.com>

February 19–20, 1998

Planning in California: Overview And Update
Davis, CA
UC Davis Extension; \$490
800-752-0881 <http://universityextension.ucdavis.edu>
Professionals, academics, general interest

March 2–5, 1998

18th Vertebrate Pest Conference
Costa Mesa, CA
Vertebrate Pest Council
Paul Gorenzel
<wpgorenzel@ucdavis.edu>, Rex Baker
909-869-2179

March 5, 1998

CLFA Spring Workshop—21st Century Fuels Management
Sacramento, CA
California Licensed Foresters Assn.
\$95-\$125
Hazel Jackson 209-293-7323, fax 209-293-7544 <clfa@volcano.net>

March 6–7, 1998

CLFA Annual Conference—Federal Laws & California Forests
Sacramento, CA
\$115-\$130
Hazel Jackson 209-293-7323, fax 209-293-7544 <clfa@volcano.net>

March 12, 1998

The Resource Regulators: Who Are They, What They Do, and Why They Do It?
San Francisco, CA
UC Extension; \$275
510-642-4111, fax 510-642-0374; <http://www.unex.berkeley.edu:4243/em>

March 26–27, 1998

Six Decades of Dedication To Forests & Families
Ukiah, CA
Redwood Region Logging Conference (RRLC)
Claudia Lima 707-443-4091

March 27, 1998

Watersheds of California: A Statewide Conference
Sacramento, CA
University Extension, Davis
Elizabeth Grassi 916-757-8577; 800-752-0881; <http://universityextension.ucdavis.edu>

April 22–24, 1998

California Envirothon Competition
Yucaipa, CA
RCDs, California Envirothon Committee, USDA Nat. Res. Cons. Svc.
Sharon J. Boyce 209-723-3714; Brian Hockett 805-861-4129
Notes: Call to register high school teams

For more information, call the number given or the Stewardship Helpline, 1-800-738-TREE. To submit an event or to receive this calendar by e-mail, contact shcooper@ucdavis.edu

ONLINE CALENDAR!

A more comprehensive and updated calendar will soon be available at the California Forest Stewardship website.

In accordance with applicable State and Federal laws and University policy, the University of California does not discriminate in any of its policies, procedures, or practices on the basis of race, religion, color, national origin, sex, marital status, sexual orientation, age, veteran status, medical condition, or handicap. Inquiries regarding this policy may be addressed to the Affirmative Action Director, University of California Division of Agriculture and Natural Resources, 300 Lakeside Drive, Oakland, CA 94612-3560; telephone 510/987-0097.



Stewardship Tips



Encourage wildlife on your forestland

Most people enjoy watching wildlife in their yards and forests. Nature's creatures depend on your property for food, living space, shelter from predators and adverse weather, and a place to rear their young. There are a number of things you can do to help improve wildlife habitat on your property.

■ **Plant native berry-producing trees and shrubs.** Avoid planting near the home or buildings for fire safety reasons. Plant in sunny areas at the edge of your yard or in forest openings.

■ **Maintain dead or dying trees (snags).** Snags can also be created by cutting the tops off live trees. Snags should only be retained or created where they will not pose a safety hazard.

■ **Encourage habitat diversity.** Maintain or plant a variety of plant species and sizes.

■ **Thin forest stands.** This will allow sunlight to reach the forest floor to stimulate the growth of plants beneficial to wildlife. Leave some dense clumps of

unthinned, unpruned trees to provide places for animals to hide from predators and the elements.

■ **Spread a wildlife seed mix on trails, roads, and openings.** Seeding is normally done in the spring or fall.

■ **Retain understory vegetation and downed logs** in your forest unless they pose an excessive fire hazard. Sometimes landowners unwittingly remove these important habitat components in an attempt to create a tidier park-like appearance to their forest.

■ **Protect (or establish) trees and shrubs along streams.** Streamside vegetation is very important for fish, wildlife, and water quality. Be very selective in cutting in riparian areas or, better yet, do not cut at all.

■ **Maintain corridors that will enable wildlife to move between blocks of habitat.** Especially important are those corridors that connect feeding and watering areas.

■ **Provide nest boxes for birds, mammals, and bats.** Many forest areas need additional habitat for cavity nesting species. Wooden boxes are best.

It works both ways

Interdependence between trees and wildlife may be extremely complex. Take oaks for example. Small mammals eat mycorrhizal fungi and pass the spores into the soil where they may attach to young oak tree roots. These fungi are believed to enhance the oak's uptake of inorganic soil nutrients. Small burrowing mammals and other soil organisms contribute to overall soil development by digesting and depositing plant material and mixing and aerating the soil. Animals, especially scrub jays, magpies, and western gray squirrels, store acorns in the ground, enhancing dispersal and germination possibilities.

Place them in areas protected from heat and wind.

■ **Use bird feeders only if you are committed to keeping them filled** continuously during harsh weather months. Birds can become dependent on feed and will suffer if the supply is suddenly shut off.

References:

Backyard Forest Stewardship by the Washington State Department of Natural Resources (DNR). The DNR will send copies of their stewardship kit to neighbors in California if you contact them at 1-888-STEWKIT or e-mail: forest_stewardship@wa.dnr.gov.

Wildlife Among the Oaks: A Management Guide for Landowners by Sharon G. Johnson. Copies available from the Integrated Hardwood Range Management Program, 160 Mulford Hall, University of California, Berkeley, CA 94720; (510) 643-5428.

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 _____

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