



# FORESTLAND STEWARDS

WORKING TOGETHER FOR HEALTHY FORESTS

## Taking it to the next level

You are doing all you can to be a good forest steward. You have developed a comprehensive stewardship plan and are taking steps to protect your property from various risks. But there are some things you just can't do alone. Fire, for example, doesn't recognize property boundaries. Realistic fire protection requires cooperation by the entire community.

It's time to take your stewardship planning to the next level and help make your community healthier and safer. In this issue we look at how you can create a Community Conservation and Wildfire Protection Plan (CCWPP) that balances fire planning and prevention with conservation of the natural environment.

You will see that a community fire plan provides a lot more than fire protection. It is an opportunity to identify community assets and risks, learn what resources are available, and get to know your community and neighbors as never before.

## Conservation Principles

### Remember the Vegetation

*(native trees and other plants)*

- Discover and monitor your forest and vegetation's dynamic changes.
- Act conservatively.
- Protect native species that share your home.
- Keep the oldest and biggest trees.

### Remember the Wildlife

- Provide local wildlife a place to live.
- Provide access to food and water.
- Protect future generations of wildlife.
- Value the standing dead trees.
- Conserve rare and endangered species.

### Remember the Soil

- Maintain the life in your soil.
- Ensure that your soil cover is fire-safe.
- Minimize erosion.
- Protect your soil after a fire.

### Remember the People

- Plan your actions with your neighbors.
- Find experienced workers and treat them well.
- Work with your local fire department.

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## Decisions, decisions

Should you create defensible space for fire safety or maintain cover for wildlife? Plant trees to sequester carbon or thin trees for forest health? Create brush piles for wildlife or remove brush to discourage seedling-gnawing rodents?

You may be feeling a little confused about the seemingly contradictory advice you get in these pages. As forest stewards you must make decisions that factor in numerous potentially competing and conflicting needs. All are important. What do you do?

In this newsletter we try to provide information, ideas, and concepts to help you make informed management decisions. How you balance the various needs and risks is ultimately based on your personal forest goals and objectives, unique forest situation, and community needs. The tools we provide, both in these pages and in the supplemental resources cited, can increase your understanding of your forest and your management choices. There are no right answers, only endless possibilities. It is your job to pick the best ones for your needs.

### Balance conservation with fire protection

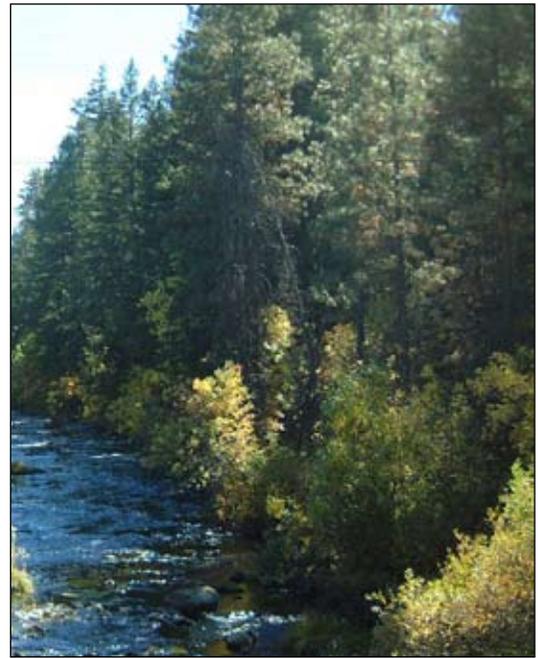
The Conservation Principles (*see page 5*) developed for the Community Conservation and Wildfire Protection Plan Guidebook (*see page 3*) provide a framework for making decisions. These principles, combined with the Basic Concepts for Living with Fire (*see page 8*), can give you ideas for balancing conservation principles and fire protection.

### The do-nothing option

Doing nothing may initially appear to be the most natural management option but as you learn more about the forest ecosystem you will realize there is much more to it.

Our California forests are not in a natural state. They have been highly altered and many are extremely unhealthy. After 150 years of fire suppression many forests are in grave danger from catastrophic wildfires.

Fire is both a blessing and a curse. Our forests require fire—many California native trees and plants are adapted to live with and survive fire, and many actually require fire to reproduce. Fire helps create the forest environment we love. However, today's catastrophic wildfires can also destroy a forest and everything in it,



including homes and wildlife. Forests can take a long time to recover from a large wildfire.

As more people move into forest environments (AKA Wildland-Urban Interface, or WUI), it becomes imperative to control fire in ways that don't impair the ecosystem.

There are things you can do. By taking some of the thoughtful steps presented in the Conservation Principles and Concepts for Living with Fire, you can help restore the ecosystem to a more healthy and natural state while making your property more fire safe.

Managing for a fire-permeable landscape and using the Precautionary Principle are two ideas to consider:

### Permeable landscape

A fire-permeable landscape is one way to approach your fire management activities. Knowing that fire is an inevitable part of the landscape, the goal becomes to increase the resiliency of the habitat, allowing fire to go through without damaging precious resources and assets. That means protecting your home, large trees, important wildlife habitat, and other areas of concern.

### Precautionary Principle

The Precautionary Principle recommends erring on the side of caution. Plan carefully when you remove trees and vegetation so that what you leave is healthy and resilient. You can always cut more later.

# Make your own community conservation and wildfire protection plan

You don't have to wait for the experts. Everything you need for creating your own community wildfire protection plan can be found in the Sierra Nevada Community Conservation and Wildfire Protection Plan (CCWPP) Guidebook (see page 4 for contents).

The Guidebook is designed to help communities create a fire plan that addresses fire danger while protecting the conservation values that make the area so special. Although developed specifically for the Sierra Nevada, much of it can be adapted for other places.

The heart of the process is the set of Conservation Principles that encourage ecologically sound fire protection. These Principles, plus the Basic Concepts for Living with Fire, set the context for the fire plan.

## Why do you need a CCWPP?

Many areas in California are extremely vulnerable to wildfire. Dense vegetation, fuel ladders, and unhealthy trees can easily turn into conflagrations. The CCWPP addresses these concerns. It determines the wildfire threat to your community, identifies assets to be protected, then prioritizes areas for hazardous fuel reduction treatments, recommends the types and methods of treatments to be used, and looks at measures to reduce the ignitability of structures. In addition, the plan can meet the National Fire Plan requirements to receive government funding for fire management activities.

## What is a community?

The community part of the CCWPP is a self-defined area. It can be your neighborhood, watershed, firesafe council area, or whatever scale is practical or appropriate for what you are trying to accomplish.

The CCWPP is developed through a collaborative process by a planning committee that includes citizens, agency representatives, and fire professionals. The committee reaches out to get input from the greater community through community meetings and a survey.

## Step-by-step and fill-in-the-blanks

The CCWPP Guidebook can lead you through every step of this challenging process.

Everything you need is included: fill-in-the-blank templates, survey forms, background information, references, glossary, and much more (see page 4). There are even specific instructions on how to organize a town meeting, down to such details as what to bring and a sample agenda.

To make it easy, the Guidebook was created in Microsoft Word. Most of the plan can be created by filling in the blanks or adding or subtracting text from the template. Comprehensive directions include instructions, suggestions, and references for more information.

There is ample room for personalizing your plan. The Guidebook recognizes that "every community plan is different because it reflects its own unique community character." The documents are made to be tweaked and altered to suit the needs of the individual community.

Of course, certain parts of the plan are unique and require local analysis. Determining assets at risk, treatment methods, priorities, and other decisions are done by the planning committee and community. The plan provides guidance for all those tricky parts as well as a background information on the seven major vegetation types in the Sierra Nevada, fire behavior, and treatment methods.

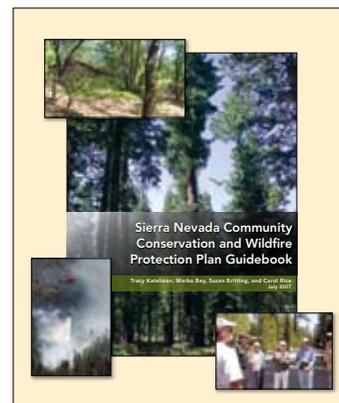
At the end of the process you have an official Fire Plan with an Action Plan that spells out how to implement the findings.

## Where do you get it?

The Guidebook is free and can be found at <http://www.forevergreenforestry.com/SierraConservationCWPP.html>.

In addition to the Guidebook, there is also a brochure/poster called *TAKING ACTION: Preparing for Wildfire in the Sierra Nevada: A landowner guide for balancing fire safety and conservation values*. This publication, made for posting on a wall or refrigerator, is a quick reminder of the Conservation Principles and Concepts for Living with Fire.

A short write-up can't do justice to this impressive project. Get your own copy. Even if you're not working on a CCWPP you will find lots of information of value to any forest landowner.



*There is also a brochure/poster, "TAKING ACTION: Preparing for wildfire in the Sierra Nevada, A landowner guide for balancing fire safety and conservation values" with a quick reminder of the Conservation Principles and Concepts for Living with Fire. Get your copy of the Guidebook and brochure even if you're not working on a CCWPP. You will find much of value to any forest landowner.*

*The Sierra Nevada Community Conservation and Wildfire Protection Plan Guidebook was developed by Tracy Katelman, ForEverGreen Forestry; Susan Britting; Marko Bey; and Carol Rice. It can be found at <http://www.forevergreenforestry.com/SierraCCWPP.html>. The guidebook was developed for the Sierra Nevada but can be easily adapted to other areas.*

## Sierra Nevada Community Conservation and Wildfire Protection Plan Guidebook

The CCWPP Guidebook is a remarkably well designed, organized, and comprehensive document. It has everything you need to develop your own CCWPP. Much of it is fill-in-the-blank. You just supply the community and ideas.

Get the Guidebook on the internet at <http://www.forevergreenforestry.com/SierraConservationCWPP.html>. The Guidebook was developed to fit in a 3-ring binder so it can be easily updated. Even the title page and spine are available for downloading.

The several sections may seem overwhelming because there is so much information but take your time and become familiar with the various sections. They are made to be used in steps.

**Section 1** is the introduction. It describes how to use the Guidebook.

**Section 2**, the Executive Summary and Action Plan, is the main part of your document. It contains signatures, the plan summary, and the action plan.

**Section 3** comprises the Appendices. These contain the detailed information that explain and support your action Plan.

- Appendix 1. Community Conservation and Wildfire Protection Plan Introduction
- Appendix 2. Fire Safe Planning Process
- Appendix 3. Wildfire: Current Environment and Behavior
- Appendix 4. Fire Ecology and Management of Sierra Nevada Vegetation Types
- Appendix 5. Community Features
- Appendix 6. Fire Protection Organizations
- Appendix 7. Risk Assessment: Identifying and Evaluating Assets at Risk
- Appendix 8. Meeting Your Objectives: Fire Safe Action Plan
- Appendix 9. Facilitating Fire Safety in the Long Term

**Section 4** is the project files the contain records and data. These include planning process materials and notes, public comments, outreach survey results, maps, agency surveys, and other information collected and generated during the process.

**Section 5** is the reference section.

- Reference A – Glossary
- Reference B – Internet Links for Further Information
- Reference C – Literature Cited

**Section 6** is conservation and wildfire background materials that explain the conservation principles (see page 5), wildfire safety and defensible space, and methodologies and prescriptions, and other important background information.

**Section 7** provides detailed instructions.

- Instructions A – How to Organize Community Fire Safety Meetings
- Instructions B – Community Meeting Outreach Mailing and Survey
- Instructions C – Community Meeting Mapping Instructions
- Instructions D – Creating Maps with the Fire Planning and Mapping Tools Website
- Instructions E – Fire Protection Survey Form
- Instructions F – Updated Project List and Plan Update Signature Page
- Instructions G – Sierra Fire Safe Councils
- Instructions H – Sierra Community Fire Plans

# Conservation Principles

Consider these Conservation Principles in how you approach fire safety and defensible space. It's all about balance. It is possible to have an aesthetically pleasing landscape that is fire-safe, supports local plant and animal species, and still provides you with privacy and plantings.

## 1. Remember the Vegetation (native trees and other plants)

### Discover and monitor your forest and vegetation's dynamic changes

Plan for the future of your forest. Because you are the conservation steward of your land, your work in the forest will be ongoing. Watch the wild areas on your property and learn from them as they grow and change with your stewardship. Think both in the short term (what will happen this year) and the long term (what will happen over time). Document those changes as the years go by; keep notes and records. Learn how to monitor the ecological changes on your property and use that information for adaptive management of your wildlands. To live with wildfire we need to take the responsibility to manage, adapt, and guide the vegetation around our homes. See [http://www.michigandnr.com/publications/pdfs/huntingwildlifehabitat/Landowners\\_Guide/Habitat\\_Mgmt/Planning/Evaluating\\_Land.htm](http://www.michigandnr.com/publications/pdfs/huntingwildlifehabitat/Landowners_Guide/Habitat_Mgmt/Planning/Evaluating_Land.htm).

### Act conservatively

We are manually recreating a more fire-resilient landscape. In doing this, we need to apply the general concepts of the precautionary principle while implementing fuel treatments: you can always remove more trees and



*Look at the native vegetation around your property to see what plants share your home.*

vegetation at a later time, but you cannot immediately replace what you have cut. The vegetation you leave is ultimately most important. Be sure that what you remove is

done with careful planning and consideration to ensure that what you leave standing is healthy and resilient. See [www.mindfully.org/Precaution/Precautionary-Principle-Common-Sense.htm](http://www.mindfully.org/Precaution/Precautionary-Principle-Common-Sense.htm).

### Protect native species that share your home

Look at the native vegetation around your property—or ask a local plant or forestry specialist for help—to see what different plants share your home. There may be plants that are rare. If so, protect them by providing defensible space (while keeping in mind their needs, such as shade). Find out if those plants exist in other areas within your watershed and how they are being managed there.

Watch for invasive weeds. Follow vegetation treatments with invasive weed removal. Minimize the introduction of exotic plant species near your home, especially those that can spread into adjacent wildland areas. Invasive species can change your fire hazard very quickly and be difficult to manage.

Avoid unnecessarily introducing water into your landscape, as water will generally help non-native plants out-compete native plants. See <http://www.cnps.org/cnps/nativeplants/>, [www.cal-ipc.org](http://www.cal-ipc.org), and [www.ipm.ucdavis.edu/PMG/weeds\\_common.html](http://www.ipm.ucdavis.edu/PMG/weeds_common.html).

### Keep the oldest and biggest trees

Generally, most of the oldest trees in the forest are no longer present. If you have old or very large trees, create defensible space around them so they will survive wildfire. This may include raking away thick duff at the base of the trees. Notice that these trees often have thick bark so they are generally fire-resistant (they have evolved with fire). Think about their protection in terms of building a fire in your woodstove: A big log won't start burning without a lot of smaller kindling (e.g. small trees, shrubs, branches, etc.). In your forest, make sure that the smaller kindling isn't around the bottom of your big trees, and generally the trees will make it through a wildfire on their own. In some cases, you'll need to remove smaller trees that touch the crown of the tallest trees. At the same time, you don't want to remove all of the small trees in your forest. Small trees are the next generation of large trees. Keep enough regeneration, possibly in small patches, to provide for the future forest, while still providing adequate space between all the trees

These Principles were developed by the Steering Committee for the Sierra Nevada Community Conservation and Wildfire Protection Plan Guidebook:

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*If you have old or very large trees, create defensible space around them so they will survive wildfire.*

you keep standing. An additional benefit of keeping your biggest trees is that they can break up the wind as it's moving through, which can slow down fire spread.

## 2. Remember the Wildlife

### Provide local wildlife a place to live

Become familiar with the animals that share your property. Talk to local wildlife experts and/or bird watchers. Learn what wildlife need in terms of shelter, food, water, and reproduction. Remember that your property is their home too. Find ways to balance your land management activities with their needs, and leave some areas untreated for the birds and wildlife using them. Protect them as you would your home by creating defensible space while still considering their needs for cover. If you watch quietly you may see animals using those areas. See [www.fs.fed.us/psw/rsl/projects/wild/verner/psw\\_37.html](http://www.fs.fed.us/psw/rsl/projects/wild/verner/psw_37.html), and [cetuolumne.ucdavis.edu/newsletterfiles/Master\\_Gardener\\_Articles\\_20044858.doc](http://cetuolumne.ucdavis.edu/newsletterfiles/Master_Gardener_Articles_20044858.doc).

### Provide access to food and water

Protect and retain trees with nests and cavities, or where obvious wildlife feeding or nesting activities are occurring. Leave some plants that have berries or other fruit or mast used by wildlife. Act especially carefully and leave cover around streams, seeps, or other wet areas to keep those areas cool and wet; this will provide wildlife the protective cover they need when they are using those places or moving to and from them. Make sure all natural water supplies are clean by keeping any poisons and sediment away

from any water that could drain into them. See [www.dnr.state.mi.us/publications/pdfs/huntingwildlifehabitat/Landowners\\_Guide/Habitat\\_Mgmt/Backyard/Backyard\\_Intro.htm](http://www.dnr.state.mi.us/publications/pdfs/huntingwildlifehabitat/Landowners_Guide/Habitat_Mgmt/Backyard/Backyard_Intro.htm).

### Protect future generations of wildlife

Find out when local species are nesting and/or breeding and avoid working in and around

your wildlands during those times. Learn what kind of habitat local species might use for nesting and breeding, and be sure to protect those areas during your management activities. See [www.paws.org/about/emailnetwork/archive/wildagain/wild\\_2004\\_06\\_02.html](http://www.paws.org/about/emailnetwork/archive/wildagain/wild_2004_06_02.html) and [www.audubon.org/bird/at\\_home/SafeMisc.html](http://www.audubon.org/bird/at_home/SafeMisc.html).

### Value the standing dead trees

Standing dead trees—or snags—are especially important for wildlife. They provide both shelter and food to many birds and other animals. However, they can also be a wildfire hazard if they are near enough to fall on your home or fall and block an evacuation road during a fire. Balance the needs of wildlife with your need for fire safety. Think about your home within the landscape; if you've got snags in the area, you don't need them next to the house. Take the time to find the most appropriate actions for your unique place. See [www.nwf.org/backyard/snags.cfm](http://www.nwf.org/backyard/snags.cfm).

### Conserve rare and endangered species

One of the bonuses—and responsibilities—of living in the Sierra is living with the many rare and endangered species with which you share habitat. Find out if there are rare or endangered species in your area by talking to your local Cooperative Extension Agent or Forest Service wildlife biologist. Plan your fuel reduction actions around the needs of these species. Often by a fairly minor refinement of your activities, such as timing, technique, or extent, you can protect species while realizing your fuel reduction goals. See [http://www.dfg.ca.gov/wildlife/species/t\\_e\\_spp/](http://www.dfg.ca.gov/wildlife/species/t_e_spp/) and [http://www.dfg.ca.gov/wildlife/WAP/region-sierra\\_nevada-cascades.html](http://www.dfg.ca.gov/wildlife/WAP/region-sierra_nevada-cascades.html).

## 3. Remember the Soil

### Maintain the life in your soil

There is as much or more activity below the ground on your property as there is above the ground. Keep this in mind in terms of what you do above ground. Talk to your Cooperative Extension Agent or local gardeners to find out what soil types are on your property. Some soil types can tolerate much more disturbance than others. Minimize activities that could compact, flood, or poison your soil. The health of your land is directly dependent on the health of your soil. As such, the soil is one of the most valuable assets of your property. See [managingwholes.com/new-topsoil.htm](http://managingwholes.com/new-topsoil.htm).



*Learn what wildlife need in terms of shelter, food, water, and reproduction. Find ways to balance your management activities with their needs, and leave some areas untreated for the birds and wildlife using them.*



*The health of your land is directly dependent on the health of your soil.*

### Ensure that your soil cover is fire safe

Replace cover that burns easily (such as dry or dead vegetation) with cover that is less flammable (e.g., gravel, fleshy green plants, etc.). The objective is to ensure that if and when a fire comes through, it is not so hot that it kills the life in your soil. Rather, it should move through without a lot of fuel to consume in its path. For example, a very light layer of pine needles can help with soil erosion (see below), but too much can be a fuel problem. See [http://www.laspilitas.com/classes/fire\\_burn\\_times.html](http://www.laspilitas.com/classes/fire_burn_times.html).

### Minimize erosion

Protect your soil by keeping it covered. Cover helps to prevent erosion, especially on ground that is not flat; it keeps the soil in place. Don't let soil move across your property, most importantly not into streams or other natural water sources. Keep ground-disturbing activities away from unstable areas and riparian areas. Pay special attention on steep slopes. The steeper the slope, the faster the soil can move downhill if it's disturbed, and the faster a fire can climb uphill under the right (or wrong!) conditions. See <http://www.uri.edu/ce/healthylandscapes/tips/6.html> and [http://www.pfimt.org/fire/topos\\_effect.htm](http://www.pfimt.org/fire/topos_effect.htm) for more information.

### Protect your soil after a fire

Soil can be most fragile after a wildfire. This is often exacerbated when winter rains come soon after a fire. The potential for erosion and loss of soil is huge with this combination of conditions. If you have experienced fire on your property, get cover onto your soil as soon as you can to prevent erosion. Remember, your soil is alive, so help it grow. See [www.ext.colostate.edu/PUBS/NATRES/06308.html](http://www.ext.colostate.edu/PUBS/NATRES/06308.html) and [www.cnr.uidaho.edu/extforest/AftertheBurnFINAL.pdf](http://www.cnr.uidaho.edu/extforest/AftertheBurnFINAL.pdf).

## 4. Remember the People

### Plan your actions with your neighbors

Talk to your neighbors. Find out what they are doing on their land. Find ways to cooperate in your land management actions. Your defensible space will likely impact your neighbor's chances of surviving a wildfire and vice-versa. Talk about what to do in an emergency and how to most safely evacuate. Find out if there is a Fire Safe Council (FSC) in your community, and if so, get involved. Help make your community a Firewise community. Coordinated work amongst neighbors will have a greater impact on your individual fire safety. See [www.firesafecouncil.org](http://www.firesafecouncil.org), [www.fire.ca.gov/about\\_content/downloads/Evacuation2006.pdf](http://www.fire.ca.gov/about_content/downloads/Evacuation2006.pdf), and [www.firewise.org](http://www.firewise.org).

### Find experienced workers and treat them well

Forestry workers with chainsaws in hand are key decision-makers as to what stays or goes—what lives or dies—in your forest. If your objective is to reduce fuels while still maintaining ecological integrity and diversity on a site, your workers must have the knowledge and experience to help you achieve this. Involve the workforce in the design, planning, and monitoring of projects. Talk to your local FSC or neighbors and check references to find reputable contractors. Pay workers well and maybe even bring them chocolate chip cookies; this will achieve better ecological outcomes on the ground. Happy, respected people do the best work. See [ewp.uoregon.edu/programs.html](http://ewp.uoregon.edu/programs.html).

### Work with your local fire department

Talk to your local firefighters. Find out what they need to safely get to your house and back out. Make sure that your access roads are safe; maintain your fuel treatments along all roads, both for firefighter safety in protecting your home and your safety in case of evacuation. Let firefighters know where you live and what's on your property; invite them out to see it. Have street and address signs visible so out-of-town firefighters can find you if there is a big fire. Make sure you have a water supply they can find and use. Know where and how to turn off any fuel sources such as natural gas or propane. See [www.projectahs.org/pdf/firedepartment.doc](http://www.projectahs.org/pdf/firedepartment.doc).

—from the CCWPP Guidebook

*It's all about balance. It is possible to have an aesthetically pleasing landscape that is fire-safe, supports local plant and animal species, and still provides you with privacy and plantings.*



*Talk to your local firefighters. Find out what they need to safely get to your house and back out.*

# Basic concepts for living with fire in the Sierra Nevada

*“Fire always has been and always will be an ecological force in the Sierra Nevada. Decades of fire suppression have changed this role, allowing stands to thicken and fuels to accumulate, especially in the foothills and lower montane zone, where developments are increasing. We either manage fire and live with fire on our terms or let fire dictate the terms. The choice is ours.”*

–Jan W. van Wagtenonk, *Wildfire* (2006)

Most Sierra Nevada residents choose to live here because of the natural beauty. What many don't realize is that living within these forests and wildlands carries a responsibility. We need to be good stewards of the land, learning to live in balance with the natural world, of which fire is a significant part. You've chosen to live here, and with your choice comes a stewardship responsibility.



*The landscape in which you live has changed drastically over the last 150 years. In preparing your property for fire, you can help restore it to a more ecologically appropriate state.*

*Photo of placer mining work at Dutch Flat, Placer County, by L.V. Compton, 1933. With permission of The Museum of Vertebrate Zoology, University of California, Berkeley. © Archives of the MVZ, UC, Berkeley.*

**Fire is a dynamic element of the Sierra.** Your property has likely burned before and will burn again. The landscape where you live today may seem “natural.” In fact it has changed drastically over the last 150 years as we have attempted to manage fire. In preparing your property for fire, you can help restore it to a more ecologically appropriate state. In doing so, you will learn how to be prepared for wildfire—it is not only possible, it's smart. While it is rarely practical, or ecologically appropriate, to completely “fire proof” your property,

there are many steps you can take to survive inevitable wildfire. For more information see [http://www.fire.ca.gov/education\\_content/downloads/live\\_w\\_fire.pdf](http://www.fire.ca.gov/education_content/downloads/live_w_fire.pdf).

**One size does not fit all in terms of homeowner fire safety.** Every place is unique. Work with your local Fire Safe Council, fire department, Cooperative Extension Agent, Registered Professional Forester, and/or contractors to design the appropriate fire-safe practices and defensible space for your property. See [www.fire.ca.gov/education\\_100foot.php](http://www.fire.ca.gov/education_100foot.php) and [www.firesafecouncil.org/homeowner/index.cfm](http://www.firesafecouncil.org/homeowner/index.cfm) for more information.

**Your home exists within a larger watershed.** It is located in the midst of a much larger landscape. Think about where your property is on the slope. Are you on top of a ridge where fire will easily burn toward your home? Is your slope steep or gentle? Fire moves quickly up steeper slopes, which means that you may need to treat a larger area to create your defensible space. What is below and above you? What direction, or “aspect,” does your property face? Generally, south-facing properties are hotter and drier; they can therefore be more susceptible to fire. Are there any natural firebreaks around you such as streams, rivers, or rocky outcrops where a fire might naturally slow or go out? Do wildlife use or move through your property to get to food, shelter, or water? In what watershed are you located? Do the roads in and out of your property follow ridges or rivers? Look beyond your property lines to understand the ecological perspective of your place. See [www.audubon.org/bird/at\\_home/Explore.html](http://www.audubon.org/bird/at_home/Explore.html) for more information.

**Fire can behave both predictably and unpredictably.** We can generally predict fire direction and behavior; it will go the way the wind is blowing and burn as much fuel as is available. Predicting the exact time and place where fire will burn is less obvious. As fire moves across the landscape it can climb up into your trees. A key fire safety objective is to prevent that spread. Dead leaves and branches on the ground (surface fuels) act as a wick to

move fire horizontally across the land. Shrubs, small trees, and live branches (ladder fuels) can carry fire vertically into the larger trees. Too much of these surface and ladder fuels can cause the overstory trees to burn up in what is called a “crown fire”—when fire spreads from tree to tree in the forest canopy (or tree tops). One of the main principles in creating defensible space and reducing hazardous fuel conditions is to create physical space between vegetation layers (both vertically and horizontally) so a fire cannot climb easily from the ground into the trees or to your home. See <http://bcwildfire.ca/FightingWildfire/behaviour.htm> for more information.

**Timing is everything.** There are appropriate times for different actions on your property, much as there are different seasons of work in your garden. Do your defensible space and fuel reduction work well before fire season, to avoid having sparks from equipment start fires in dry vegetation. Avoid ground-disturbing activities in your forest or wildland when the ground is too wet or when birds and animals are nesting. Don't try to do everything at once—think about your fire safety seasonally: plan your activities in the winter and spring; start clearing when the ground begins to dry (when it's not saturated) or when there is snow on the ground; finish treatments by early summer before the vegetation is dry; do your defensible space maintenance around and inside your home in the fall; and burn your piles after the rains begin in the winter.

Your house is likely a fuel source. Many Sierra homes are located in places where a fire can start and spread into surrounding vegetation. The more you prepare your house and other structures, the less you will have to treat the surrounding vegetation. The biggest improvement you can make to reduce your fire risk is to build or remodel your house to resist the millions of tiny embers created by ember-attack from wildfires. When wildfires burn in extreme conditions they send burning firebrands (embers) ahead of them; these firebrands ignite new fires. Using fire-resistant building materials and appropriately designed structures will give you the best chance to survive wildfire. Replace wood shake roofs with fire-resistant materials. Don't let your home be part of the problem.

If you are building a new home, consider

slope, aspect, surrounding fuels, and your potential environmental impacts before deciding where to site your home. This may be more important than the view

in the long term. Talk to your local planning department to learn about local fire-safe building regulations, or see <http://www.fire.ca.gov/wildland.php> or [cdfdata.fire.ca.gov/pub/fireplan/fpupload/fppguidepdf99.pdf](http://cdfdata.fire.ca.gov/pub/fireplan/fpupload/fppguidepdf99.pdf) for more information about state regulations.

**Know your legal obligations.** Learn the legal requirements regarding defensible space and fire-safe building and construction. Discover how to balance these with the ecological needs of your place.

**Firefighters need your help to protect your home.** Make it safe for them and their equipment to get to and from your house. Be sure they can find you with visible road and address signs. Remember that fire-safe landscaping and construction greatly improves firefighters' ability to protect your home. See [www.livingwithfire.info/beforethefire/accesszone/index.php](http://www.livingwithfire.info/beforethefire/accesszone/index.php) for more information.

—from the CCWPP Guidebook



*The more you prepare your house and other structures, the less you will have to treat the surrounding vegetation. Choose fire-resistant materials for roofs and decks, and learn how you can make your home more fire safe. A checklist is available at <http://www.firesafecouncil.org/education/checklist.cfm>. The brands shown above are used to evaluate various roof coverings and assemblies.*

## Homeowner's toolkit

Get the Fire Information Engine Toolkit from UC Center for Fire Research and Outreach. This is an interactive source of information to help you make decisions to reduce your risk in the wildland-urban interface. See <http://firecenter.berkeley.edu/toolkit/homeowners.html>. See also the UC Extension's Homeowner's Wildfire Mitigation Guide <http://groups.ucanr.org/HWMG/index.cfm> and <http://firewise.org/resources/files/wildfr2.pdf>.

*For more information on fire safety in general, contact your local Fire Safe Council or go to [http://www.fire.ca.gov/education\\_homeowner.php](http://www.fire.ca.gov/education_homeowner.php)*

## Resources

# Create your maps with online mapping tool

<http://wildfire.cr.usgs.gov/fireplanning/>

Maps are essential for creating a useful fire plan. With good maps you can identify the area covered; pinpoint assets, areas of concerns, resources; share information with community members and professionals; and other uses.

Thanks to the internet, there are some amazing new tools available for developing community maps. You can do this yourself, without the need to hire a GIS specialist.

The Fire Planning and Mapping Tools Website provides much of the data and capability to make your community fire plan maps. This is a powerful program and a high-speed internet connection is necessary.



To get started, go to <http://wildfire.cr.usgs.gov/fireplanning>. Run the Fire Planning and Mapping Tools Viewer to get into the program. Find your county and define your planning area, then choose the layers desired for your base map. These can include county lines, roads, streams, water bodies, shaded relief, 2006 fire perimeters, and more. The CCWPP Guidebook suggests you use the same base map for all your maps.

Then comes the fun part—add overlays (or layers) for your individual maps: fire history, fuel hazard, ignitions, weather, vegetation, fuels, assets at risk, level of service, fire projects, etc. Presto... a professional map. Download or print your maps or download your data to use in other GIS applications.

This program is user-friendly although there may be a bit of a learning curve to get proficient at it. There is a help button that explains the tools, and the CCWPP Guidebook has a set of instructions in Section 7, Part D.

This website was developed by the California Fire Alliance, Bureau of Land Management (BLM), California Department of Forestry and Fire Protection (CAL FIRE), US Forest Service, and the United States Geological Survey (USGS).

## Technical Assistance

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

**California Stewardship Helpline**  
1-800-738-TREE; [ncsaf@mcn.org](mailto:ncsaf@mcn.org)

**California Dept of Forestry & Fire Protection**  
Forest Landowner Assistance Programs  
Jeffrey Calvert  
916-653-8286; [jeff.calvert@fire.ca.gov](mailto:jeff.calvert@fire.ca.gov)

**Forestry Assistance Specialists**  
Jill Butler (Santa Rosa) 707-576-2935  
Tom Sandolin (Fresno-King) 559-243-4136  
Ed Cranz (Placer) 530-889-0111 x128  
Mary Huggins (S. Lake Tahoe) 530-541-1989  
Patrick McDaniel (Ama/EI Dorad) 530-647-5288  
Dale Meese (Plumas) 530-283-1792  
Alan Peters (Calav/Tuol) 209-754-2709  
Rick Carr (Yuba/Nevada) 530-265-2661  
Jim Robbins (Fortuna) 707-726-1258  
Herb Bunt (Red Bluff) 530-528-5108  
Brook Darley (Tehama/Glenn) 530-538-5199

**California Association of RCDs**  
916-447-7237  
[staff@carcd.org](mailto:staff@carcd.org)

**California Dept of Fish & Game**  
Scott A. Flint  
916-653-9719; [sflint@dfg.ca.gov](mailto:sflint@dfg.ca.gov)  
**Natural Resources Conservation Service**  
Jerry Reioux  
530-792-5655; [jerry.reioux@ca.usda.gov](mailto:jerry.reioux@ca.usda.gov)

**U.C. Cooperative Extension Advisors/Specialists**  
Mike DeLasaux, Plumas-Sierra counties  
530-283-6125; [mjdelasaux@ucdavis.edu](mailto:mjdelasaux@ucdavis.edu)  
Greg Giusti, Mendocino-Lake counties  
707-463-4495; [gagiusti@ucdavis.edu](mailto:gagiusti@ucdavis.edu)  
Richard Harris  
510-642-2360; [rrharris@nature.berkeley.edu](mailto:rrharris@nature.berkeley.edu)  
Gary Nakamura  
530-224-4902; [nakamura@nature.berkeley.edu](mailto:nakamura@nature.berkeley.edu)  
Bill Stewart  
510-643-3130; [stewart@nature.berkeley.edu](mailto:stewart@nature.berkeley.edu)  
Yana Valachovic, Humboldt-Del Norte counties  
707-445-7351; [yvala@ucdavis.edu](mailto:yvala@ucdavis.edu)

**USDA Forest Service**  
Jim Geiger  
530-752-6834; [jgeiger@fs.fed.us](mailto:jgeiger@fs.fed.us)

## Calendar

### November 9-10

#### If You Own Or Want To Own Rural Land, What Are Your Economic And Stewardship Options?

**Location:** Eureka

**Sponsors:** UC Coop Ext, CAL FIRE, USDA Forest Service

**Cost:** \$30. Mail a check payable to UC Regents c/o UCCE, 5630 South Broadway, Eureka, CA 95503 by November 6

**Contact:** 707-445-7351

**Notes:** limited to 30 participants. A classroom session is scheduled for November 9, 8:00am to 5:30pm, followed by a field trip on Saturday November 10 from 9:00am to 3pm.

### November 10, 2007

#### Forest Management for Small Landowners

**Location:** Weaverville, CA

**Sponsors:** UCCE, Center for Forestry–Berkeley, Trinity County RCD

**Cost:** Free

**Contact:** 530-628-5495

**Notes:** Space is limited, pre-registration requested.

### December 4–6

#### California Board of Forestry Meeting

**Location:** Sacramento

**Contact:** 916 653-8007

**Notes:** [http://www.bof.fire.ca.gov/board/board\\_current\\_docs.aspx](http://www.bof.fire.ca.gov/board/board_current_docs.aspx)

### December 5, 2007

#### Sierra Nevada Conservancy Symposium on Climate Change in the Sierra

**Location:** Miners Foundry in Nevada City

**Sponsor:** Sierra Nevada Conservancy

**Cost:** Free. Register at the website.

**Contact:** [symposium@sierranevada.ca.gov](mailto:symposium@sierranevada.ca.gov)

**Notes:** <http://www.sierranevadaconservancy.ca.gov/html/symposium.html>

### December 6–7, 2007

#### Woody Biomass Utilization: Techniques & Economic Considerations for the North Coast

**Location:** 5630 South Broadway, Eureka

**Sponsor:** UC Cooperative Extension, CA RC&D, US Forest Service

**Cost:** \$30

**Notes:** <http://groups.ucanr.org/WoodyBiomass/Eureka%5F2007%5Fworkshop/>

### January 22, 2007

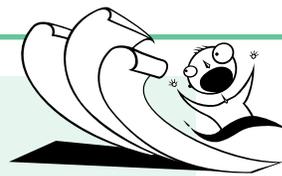
#### California Biodiversity Council

**Topic:** California Wildlife Action Plan

**Location:** Sacramento

**Notes:** <http://ceres.ca.gov/biodiv/meetings.html>

## 'Tis the season



Tax time is just around the corner. To help you get into the mood, *Tax Tips for Forest Landowners for the 2007 Tax Year* is available now at The Timber Tax Website. This two-page publication covers some of the most important tax considerations for forestland owners.

Among the many new resources at the site is a revised IRS taxpayer publication on estate and gift tax. Publication 950, *Introduction to Estate and Gift Taxes*, was just updated in August 2007. If you are working on your estate plan or settling an estate, this is must reading.

Check the website regularly as tax season approaches to stay current with any changes in the tax law that might affect you. The Timber Tax Website is at <http://www.timbertax.org/>.

The Timber Tax Website is at <http://www.timbertax.org/>

For more information on calendar events call the number provided or the Forest Stewardship Helpline, 1-800-738-TREE. To submit an event, contact Sherry Cooper, 530-224-4902; [slcooper@nature.berkeley.edu](mailto:slcooper@nature.berkeley.edu).

### January 30–February 1, 2008

#### California Forestry Assoc. Annual Meeting

**Location:** Fisherman's Wharf, SF

**Sponsor:** CA Forestry Association

**Contact:** 916 444-6592, [loriv@foresthealth.org](mailto:loriv@foresthealth.org)

**Notes:** <http://www.foresthealth.org/>

### April 2008

#### Oak Management Workshop for Landowners

**Location:** tentatively planned for the San Diego or Julian areas.

**Notes:** If you're interested, contact Sherry Cooper, [slcooper@nature.berkeley.edu](mailto:slcooper@nature.berkeley.edu), 530-224-4902, or check the website at <http://danr.ucop.edu/ihrmp/>.

## You have choices

We offer Forestland Steward in both hard copy and electronic (pdf) versions. There are pros and cons to each. The electronic version arrives several weeks earlier and has clickable links to resources, but is harder to read and can get lost in the glut of emails. Hard copy is easier to read, share, and archive, but is more expensive, uses paper resources, and is slow to arrive.

Consider how you use this newsletter. If the electronic version meets your needs, please let us know and we will move you to that list. If you prefer the traditional newsletter we will continue to send you the hard copy. You are also welcome to receive both formats: an electronic copy to access links and email on to others, and the hard copy to hold in your hands.

*Book Review: Year Of The Fires, Stephen J. Pyne, Penguin Putnam, Inc. NY, 2001*

## Fire debate continues 100 years later

*Jeff Calvert*

Histories can sometimes be difficult to wade through, but *Year of the Fires* kept my interest with well-crafted narratives and dialogues.

Set in the late 19th and early 20th centuries, Pyne recreates the story of the beginnings of the Forest Service and the development of fire fighting methods and organizations still used today in wildland fires. The author shows the nation's "first" forester, Gifford Pinchot, as both

snake-oil salesman and visionary genius with evidence into his methods for discrediting his critics and those that would oppose his creation of a Federal entity that would "kill every fire" and protect and assemble a vast forest reserve.

However, as hard as he is on Pinchot, Pyne goes to extraordinary lengths to show the heroism and daily dedication of the field foresters of the time who were charged with patrolling vast areas of wilderness and organizing and supervising early fire-fighters.



*Photos from Forest Service Historical Photograph Collection, National Agricultural Library, Special Collections Oregon.*

I only knew of Ed Pulaski because of the ubiquitous fire/forestry tool he invented, but he is shown as a hero, a man committed to family, staff and the Service as well as the memories of all those who died in the great fires of the northern Rockies in 1910.

Of most interest to me was the national debate over fires and forest management—eerily similar to today, 100 years later. But the players had different roles. California's *Sunset Magazine* was very much pro-fire, while the *New York Times* remained silent on the "so-called horrors of chronic woods burning." But the Forest Service's Chief Forester, Henry Graves, in 1911 was convinced that given enough money, roads, telegraph lines, men and tools every smoke could be extinguished from the National Reserves.

And the author paints a compelling argument for the present organization of fire fighting in the modern world:

"...Had not the National Academy of Sciences believed the work imminently suitable for military duty and wanted forestry taught at West Point? Had not the cavalry in the national parks shown the value of disciplined force—as a moral presence, no less—in combating fire? Had not the call-out of regular troops and militia demonstrated that at the bottom, the firefight was paramilitary campaign? Did not Elers Koch, in writing the fires' history insist that 'a forester in the Northwest dates the events of his life by fire years.....in each year there are individual fire campaigns which the forester remembers as the soldier recalls the separate engagements of war?'"

While not as easy to read as Grishom or Clancy, I would highly recommend this book to those interested in the management of our forests and the history of fires and fire-fighting, Forest Service personnel, foresters and fire-fighters.



*Man in vehicle of fire patrol forest service on railroad tracks between 1910 and 1923.*

### How can Forestland Steward newsletter serve you?

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Send to CAL FIRE, Forestry Assistance, P.O. Box 944246, Sacramento, CA 94244-2460. Phone: (916) 653-8286; Fax: (916) 653-8957; email: jeff.calvert@fire.ca.gov