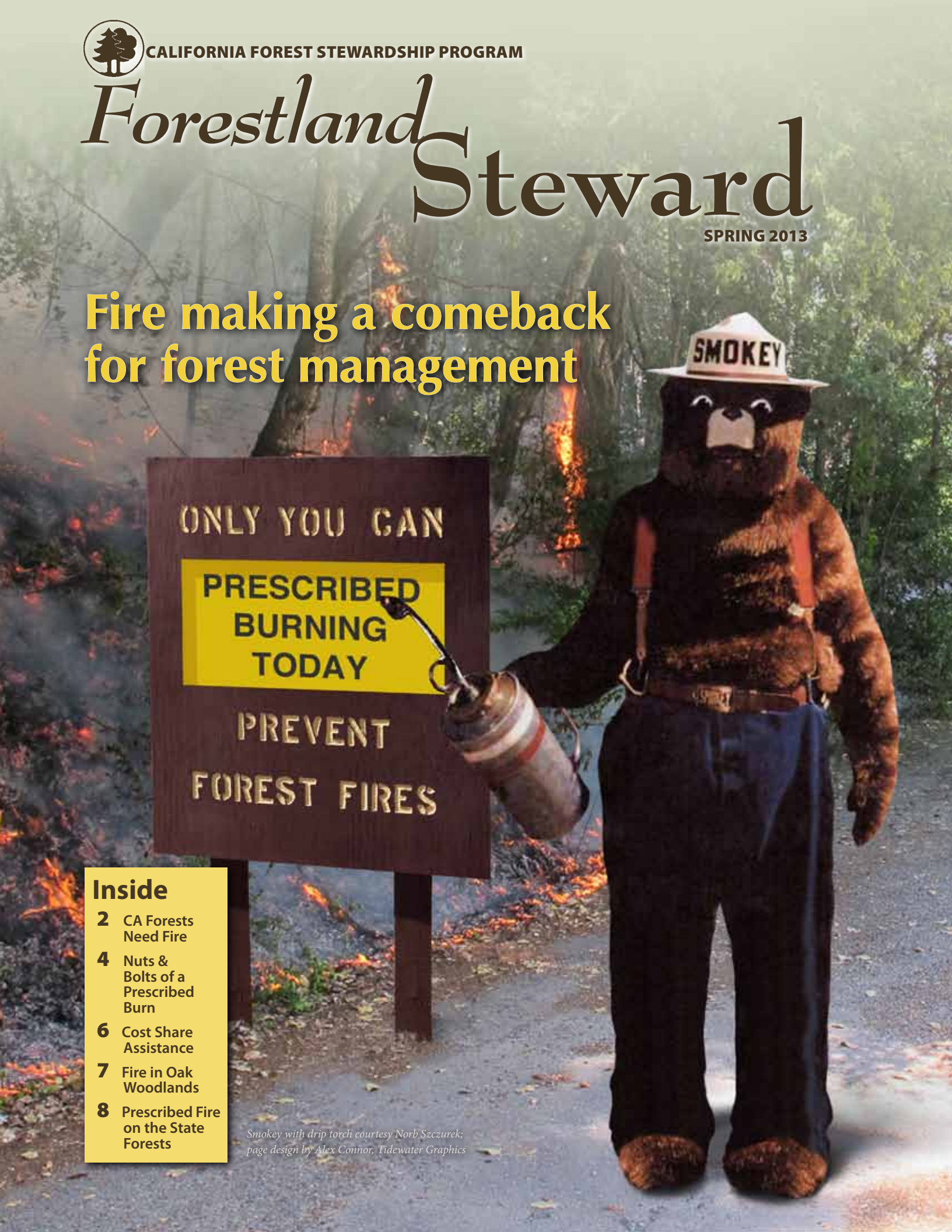
CALIFORNIA FOREST STEWARDSHIP PROGRAM

# Forestland Steward

SPRING 2013

## Fire making a comeback for forest management




### Inside



*Smokey with drip torch courtesy Norb Szczurek; page design by Alex Connor, Tidewater Graphics*

Forestland Steward

Forestland Steward is a joint project of the CA Dept of Forestry and Fire Protection (CAL FIRE), Placer County Resource Conservation District, UC Cooperative Extension, and USDA Forest Service to provide information on the stewardship of private forestlands in California.

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*Forestland Steward was produced under a grant from USDA Forest Service.*


# Fire: an important management tool

Smokey's message is still relevant today, but it has become more nuanced. Not all fire in the forest is bad. While it is still imperative to prevent catastrophic wildfires, fire is necessary for the proper functioning of California's forest ecosystems. So the challenge becomes: how can we safely bring fire back to the landscape to meet our management and restoration objectives?

One way to gain the benefits of fire is through prescribed burns. These are intentional fires set under very controlled conditions to avoid adverse consequences. Prescribed burning is one of many options in the forest management toolbox. However, the widespread use of fire for forest management is somewhat controversial in California, and extremely complicated. Not only is fire behavior inherently complex, but talk about burning in our forests brings up an array of health, safety, and liability concerns.

## An old management technique

Prescribed burning is one of the oldest techniques used to manage California forests. Native Californians used fire extensively throughout the state, and this was continued by early settlers. In fact, it is estimated that before 1800 over a million acres of forest burned each year in California alone. Frequent fires meant less fuel accumulation on the ground and generally resulted in more than 80 percent survival of trees. It was not until the early 1900s that fire suppression became the rule.

Over the last few decades, wildfires have become more frequent and more intense for a number of reasons, including a century of fire suppression and changes in climate that result in a longer fire season and higher temperatures.

Fuel treatments such as thinning provide some of the benefits of fire, but not the full suite of benefits. One of the major arguments in support of prescribed fire is that frequent low- to moderate-intensity fires can prevent catastrophic wildfires by reducing the amount of fuel on the ground. Fire also provides a wide range of ecological benefits that cannot be achieved with other types of treatments.

## Ecological role of fire in California

Fire is infinitely complex. It burns in a mosaic of different intensities depending on topography, weather conditions, type and amount of fuels, season, and other parameters. Mosaic patterns are natural, and help create a heterogeneous forest of different age classes, successional stages, and species diversity.

In addition, each area of the state is different. Southern California's fire issues are different from northern California's, and each forest type (redwood, mixed-conifer, woodland, etc.) has its own unique relationship with fire. The type of fire, its ecological benefits, and the local fire issues are all dependent on location and habitat.

Fire in mixed-conifer forests, for example, recycles nutrients, prepares the seedbed for plants to regenerate, facilitates germination in some species, opens up the forest for pioneer species to establish, affects wildlife in numerous ways, creates a mosaic of habitats, influences pest populations and disease development, reduces wildfire risk, and much more.

## Undesirable effects

Besides the benefits of fire, there are also undesirable effects. Risks to life and property are primary concerns. Air and water quality can be impacted. In some cases, fire may allow the introduction of nonnative invasive plants.

All fires put carbon in the air. However, catastrophic wildfires release far more carbon than prescribed burns. The question becomes: which is better for the atmosphere, controlled carbon emission from prescribed fire in the short term, or a more destructive fire and more carbon released down the road?

## Fire as a management tool

Fire can be used for a number of management goals, including (but not limited to):

- restoring natural ecosystems
- reducing wildfire hazards
- improving wildlife habitat
- increasing regeneration of native species
- removing pests and diseased trees
- reducing invasive species populations

In addition, prescribed fire is less expensive and can treat larger areas than fuel-reduction treatments.

## Wildlife

The response of wildlife to fire varies greatly depending on species, fire intensity, season, and other issues. For example, deer may flourish after fire opens up the habitat and increases forage, while black-backed woodpeckers require large

tracts of high-intensity burn to thrive. When managing for wildlife, landowners need clear objectives that identify which species they are trying to recruit (learn more about management plans, page 12).

## Major obstacles to prescribed burning

There are a number of obstacles to the widespread use of prescribed fire including:

- **Public opinion.** Smokey has done his job well. Fire in the forest can arouse a great deal of concern and fear in the public. The risk of escaped fire can make prescribed burns very difficult, especially near communities. However, public support for prescribed fire is increasing as its benefits become better understood.
- **Air quality regulations and environmental laws.** California has very restrictive air quality regulations. There are efforts underway to revisit some of these to allow for the benefits of fire.
- **A narrow burn window.** There may be only a few days when conditions fall within the fire prescription, limiting opportunities to burn.
- **Lack of trained personnel.** There are a limited number of certified burn bosses and other qualified burners.
- **Lack of funding.** A prescribed burn requires preparation and equipment. Some cost-share programs and grants exist to assist landowners with these activities (see page 6).
- **Liability/insurance limitations.** Despite a cautious prescription, there is always the danger that the fire could escape. Liability is a major issue in California.

Photo: MKWC

*Prescribed burns are implemented under strict conditions to meet defined objectives.*

## What is prescribed fire?

Prescribed (Rx) fire is fire ignited under known conditions of fuel, weather, and topography to achieve specified objectives. Prescribed fire is an important tool in wildfire hazard reduction, ecosystem restoration, vegetation management, and wildlife habitat enhancement. It is also an important cultural resource, and has application in forest management and rangeland improvement.

*—from the Northern CA Prescribed Fire Council, http://www.norcalrxfirecouncil.org/Prescribed_Fire.html*

# Air quality planning for prescribed burns

Smoke, a mixture of toxic particles and gases, is a major health concern, especially for sensitive people such as children, seniors, and those with respiratory diseases. To minimize these issues, prescribed burning is conducted under specific weather conditions.

The California Air Resources Board has adopted State Smoke Management Guidelines. Local air districts enforce local rules/regulations.

Before a prescribed burn, the burner must:

1. Register the burn with the local air district.
2. Obtain an air district and/or fire agency burn permit.
3. Submit a smoke management plan (SMP) to the air district. The SMP specifies the prescription, which is a set of air quality, meteorological, and fuel conditions needed before burn ignition is allowed.
4. Obtain air district approval of the SMP.

After the air district approves all the burn planning requirements, the burner may begin making final preparations. This includes putting in place the resources needed to conduct the burn, notifying the public, and obtaining final air district authorization to burn. The burner continues to work with the air district up to and including the day of the burn to update meteorology and air quality forecasts. Air district authorization to conduct a prescribed burn is provided no more than 24 hours prior to the burn.

During the burn, the burn manager (boss) is responsible for ensuring that all conditions in the SMP and burn permit are met. Once the fire has been ignited, burners must make all reasonable efforts to ensure it stays within its prescription. If a burn goes out of prescription, or adverse smoke impacts are observed, the burn boss will implement smoke mitigation measures as described in the SMP.

*—adapted from Prescribed Burning and Smoke Management Fact Sheet http://www.arb.ca.gov/smp/progdev/pubeduc/pbfs.pdf*

*Will Harling is Executive Director of the Mid-Klamath Watershed Council, Co-Coordinator of the Orleans-Somes Bar Fire Safe Council, and on the Steering Committee of the Northern CA Prescribed Fire Council. He has conducted prescribed burns on private land since 2003.*

# A talk with Will Harling: the nuts and bolts of implementing prescribed burns

## First of all, why do prescribed burning?

All species in California evolved with fire, and some need it more than others. Elk, for example, are limited by lack of winter foraging range in the Western Klamath Mountains. These lower-elevation areas are the hardest hit by fire suppression. Indigenous and settler fires provided browse for ungulates. Fire is critical to maintain habitats—meadows, grasslands, open areas—for wildlife. In addition, you can greatly increase the effectiveness of existing fuels treatments and maintain them over time with controlled burns.

## How do you pay for prescribed burns?

People in many areas of the state can set up a burn with the CAL FIRE Vegetation Management Program (VMP), which uses CAL FIRE resources (see page 6). We don't have CAL FIRE stations close enough to utilize this program efficiently. We have gotten grants from the Rocky Mountain Elk Foundation, US Fish & Wildlife Service's Partners in Wildlife Program, CAL FIRE, US Forest Service

*All photos courtesy MKWC*

*Private fire professionals and AmeriCorps members assist the Orleans/Somes Bar Fire Safe Council with controlled burns. Burning in a young tanoak stand helps improve its function as a fuelbreak, while creating conditions for a mature acorn gathering area.*

Community Protection Program, and Wyden Amendment authority.

## Tell us about your first burn.

In 2003, a local Forest Service wildlife biologist invited a bunch of landowners to his property to help implement a maintenance burn on 4 acres of oak woodland. It was a watershed moment for the 15 or so landowners who saw how efficient, safe, and effective prescribed fire can be for reducing fuels.

## When should you consider prescribed fire?

It depends on your objectives. It's best to implement controlled burns a few years after thinning. Fuels reduction allows for the safe introduction of prescribed fire in areas with excessive fuel loading, but stump-sprouting species will compromise the effectiveness of fuelbreaks if you don't burn again in 3–5 years.

## What should landowners know if they want to conduct a prescribed burn on their land?

First of all, people have the right to implement controlled burns on their property. However, you do need the appropriate permits and a Burn Plan.

The permits you need depend on your location and the season. Some counties require air quality permits throughout the year. Closer to declared fire season you need an LE-5 permit from CAL FIRE or the Forest Service (or a similar permit) depending on your area. The LE-5 permit specifies under what conditions you can burn. There is usually a site visit to make sure the area is prepped, hoses and fire lines are in place, etc.

## Tell us more about the Burn Plan

The Burn Plan is critical to make sure everyone is on the same page. At best it communicates the complexities of the burn to all who are participating. It covers everything: the goals and objectives of the burn, resources and equipment, prescription (the conditions under which the burn can be implemented), go/no-go checklist, the ignition pattern, fire behavior, communications plan, predicted weather, what will be said in the briefing, safety measures, medical plans, it lays out responsibilities, and, most importantly, the post-burn plan (who's going to stay for the next week and make sure the fire won't flare up and cross the line).

We fill out the National Interagency Fire Center (NIFC) Burn Plan Template used by federal agencies. We plan our own prescription; if the permitting agencies see something they don't like they'll change it.

## What about air quality concerns?

As an extra step to show we care about smoke issues we purchased eight home air purifiers for nearby residents potentially affected by our controlled burns. During recent large wildfire events, the elderly, sick, and disabled were given priority, and the purifiers were checked out and rotated family to family all summer long.

(*continued next page*)

Mid-Klamath Watershed Council *http://mkwc.org/*

Orleans-Somes Bar Fire Safe Council *http://mkwc.org/programs/firefuels/index.html*

Northern California Prescribed Fire Council *http://www.norcalrxfirecouncil.org*

*Orleans/Somes Bar Fire Safe Council controlled burn, October 2010.*

*Controlled burns along access routes can be used as fuelbreaks, and provide safe egress to residents during wildfire events.*

## Safety clothing

Everyone actively involved in a prescription fire should wear safety clothing that does not melt or flame easily (no nylon, polyesters, plastics). You should have, at minimum:

- hightop leather boots/work shoes with nonslip soles and leather laces (no steel-toed shoes).
- Cotton or wool socks
- Nomex pants, loose fitting, with the hems lower than shoe tops
- Nomex long-sleeved loose-fitting shirts
- Cotton undergarments
- Leather gloves
- Hard hat
- Leather belt/natural fiber suspenders
- Belt pack case with emergency fire shelter
- Goggles

Additional safety clothing or equipment may include:

- AM radio
- Flashlight
- Canteen
- Wire cutters
- Compass
- First aid kit
- Flares
- Extra batteries
- Lip balm
- Ear plugs
- Map
- Handkerchief
- Knife
- Ear muffs
- Food
- Face shield
- Matches
- Crash helmet

## Nuts and bolts (*continued from page 5*)

### How do you prepare for a burn?

Prepping is highly variable based on fire ecology and the forest type and condition. Mixed conifer, for example, needs a thinning from below first. We selectively thin thickets and ladder fuels. Sometimes you can harvest to pay for the treatments but we don't do that because the mill is too far away. Instead, we cut firewood and pile and burn slash. Landowners can burn the piles as part of their in-kind contribution to the grants.

We put in fire lines and pull back duff and vegetation from snags, cavity trees, and larger trees and down logs—things we don't want to burn.

Before the burn we advertise for volunteers; our program is heavily based on volunteers. We use a phone tree and alert adjacent landowners of the burn. We put signs on the highway and notices on bulletin boards. We drop off air purifiers to people with health concerns.

### Describe what happens the day of the burn.

First we call the Air Quality District to make sure it's a burn day, and call the Forest Service if we are burning under an LE-5 permit. We get there a couple of hours before ignition for a briefing to talk about safety, logistics, roles, and responsibilities; give everyone participating the worse-case scenario; and talk about medical emergency and escape.

We take weather readings to make sure they're within prescription. A 10'x10' or 20'x20' test burn is conducted on a representative patch. Then the lighters and holding crew begin, starting at the top of the unit on the upslope edge. They typically burn 5–10' strips from the top of the unit and continue down.

### Have you ever had to call off a burn?

Yes. You have to keep an eye on the prescription and the burn objectives. We've had to call off a burn because it wasn't hot enough to burn the stump sprouts; we don't want to waste the ground fuels and not achieve our objectives. Also, when the humidity drops below 20% embers can ignite spot fires and we have to cut off the burn. Good relative humidity for burns varies widely by region and depending on weather and vegetation. You have to know your weather—it's a huge part of fire behavior.

### Any last words?

We will continue to have intense large wildfires until we get enough good fire on the ground. Historically, most of our forests burned every 5–25 years. If it doesn't burn in a prescribed fire, it will burn in a wildfire, with less desirable effects.

# VMP assists with prescribed burning

CAL FIRE's **Vegetation Management Program (VMP)** is a cost-share program that assists public and private landowners in implementing wildland fuel reduction projects. The primary tool for the program is prescribed fire, although it may be used for mechanical treatments as well.

The great advantage of using VMP from a forest landowner's point of view is that CAL FIRE provides the personnel, equipment, expertise, and liability insurance for the burn. They have trained staff who are very experienced in prescribed burning.

The program is a cost-effective tool that is used to treat vegetation where physical and social conditions allow. VMP is used to establish fuel breaks and eliminate heavy fuel accumulations in many areas of the state, and has proven well suited for controlling invasive weeds, improving wildlife habitat, and reducing wildfire risk, among other goals.

The cost-share is based on the ratio of public-to-private benefit, as determined by CAL FIRE. For more information about participating in VMP, contact your local CAL FIRE unit (see page 10).

*Photo: MKWC*

# Oak woodlands well-adapted to fire

Fire is a natural part of California's oak woodland ecosystem. Frequent fires play a vital role, creating an open woodland structure, facilitating oak regeneration, reducing conifer encroachment, providing wildlife habitat, cycling nutrients through the ecosystem, and benefitting domestic livestock.

Ecological effects of fire vary depending on frequency, intensity, patch sizes, and other fire parameters. Wildlife appears to respond well to low- and moderate-intensity fire in oak woodlands. Fire reduces nonnative grass competition and stimulates acorn production and ecosystem health, providing net benefits to woodland species.

Oaks are extremely well-adapted to summer fires. Mature oaks can survive regular low-intensity ground fires, and most oak seedlings and saplings can resprout after being top-killed by fire.

Native Californians used fire in oak woodlands to enhance habitat for game, improve access, and manage plant materials for baskets and other uses. European settlers continued these practices, burning at 8–15 year intervals to keep stands open for livestock and encourage forage production. Neighbors came together annually to help conduct burns. Ranchers continued to use fire extensively until the 1950s, decades after fire suppression became standard practice in conifer forests.

Higher fire frequencies may create conditions conducive to oak regeneration. Oak recruitment has been rare since fire suppression. Stagnant oak stands with little sapling recruitment is partially a result of the unnatural removal of fire from the ecosystem.

Oak woodlands, like other California forests, are experiencing an increasing number of stand-destroying fires, largely due to the historical exclusion of fire from these habitats. The probability of large-scale losses to wildfire due to fuels accumulation within woodlands increases each year. To address these concerns, there is a new focus on finding ways to include fire in management activities to sustain the economic and ecological values of oak woodlands.

Photo: Eamon Engber

*Fire in oak woodlands provides many benefits. Low-intensity fires do relatively little damage to oaks, while severe fires can kill even massive trees.*

## Steps to a successful oak woodland prescribed burn

**Set management objectives:** A critical preliminary step in any management activity is to determine the objectives for the project area.

**Develop partnerships:** Prescribed burning is most successful where partnerships have been developed. Groups of landowners, adjacent public land managers, and representatives of resource management agencies should all be brought together.

**Develop an assessment of current vegetation and fuel conditions:** Conduct a survey to prioritize areas for treatment. Identify and map out existing vegetation cover types, the fuel loads of each, important ecological zones such as riparian areas and locations of sensitive species, and areas prone to erosion.

**Design the burn program:** Your plan should consider the size of the burn unit, the time of year for burning, weather conditions necessary to obtain the appropriate fire intensity, the location of firebreaks and equipment, and much more.

**Conduct the burn:** After all of the preceding steps have been accomplished, the actual burn can be carried out. Make sure all participants and equipment are lined up well in advance, and all prep work has been completed. Build enough contingency into planning so the project can respond to weather variability that will certainly affect when the burn takes place.

**Monitor the results:** Information on the effects of different prescribed burning strategies on oak woodlands is limited. A system of evaluating the impacts of the burn and whether the objectives are met must be in place. This provides feedback for future years and helps refine future management decisions.

*—the information on this page came from:*

The Role of Fire in California's Oak Woodlands *http://ucanr.edu/sites/oak_range/Oak_Articles_On_Line/Oaks_and_Fire/The_Role_of_Fire_in_Californias_Oak_Woodlands/*

Oaks and Fire *http://ucanr.edu/sites/oak_range/Oak_Articles_On_Line/Oaks_and_Fire/*

Fire in California's Oak Woodlands *http://ucanr.edu/sites/oak_range/files/59574.pdf*

***June 28, 2013***

**Caspar Creek Research Project: 50 Years of Discovery *What are the Implications for Forest Management?***

**Location:** Jackson Demonstration State Forest

**Contact:** Lynn Webb, 707 964-5674 or Lynn.Webb@fire.ca.gov

**Website:** Links to the agenda and registration at *http://www.fs.fed.us/psw/topics/water/caspar/caspar50/*

# Prescribed fire on the State Forests

***by Jill Butler and Gerri Finn***

Controlled burning is a management tool that is used on most of the State Forests. Prescribed fire can accomplish a broad assortment of goals, including slash disposal, fire safety, forest health improvement, improving regeneration and growth of commercial conifers and other native plants, and training fire crews. This article focuses on use of prescribed fire at Boggs Mountain Demonstration State Forest.

## Introduction to Boggs Mountain Demonstration State Forest

Boggs Mountain Demonstration State Forest is located in Lake County and named after Henry C. Boggs, a local pioneer and former owner of the property. Most of the Forest's 3,493 acres had been recently logged when the State purchased the property in 1949. This Forest serves as a case study for managing cut-over land to develop a healthy working forest where a diversity of tree species and age classes are present.

Boggs Mountain consists of rolling terrain that ascends to summits at the north and south ends of the property. Elevations range from 2400 to 3750 feet. Most of the vegetation is a mixed conifer forest occupied by ponderosa pine, Douglas-fir, and sugar pine. Other species present include canyon live and black oak, madrone, dogwood, and manzanita.

*Young pine stand thinned using chainsaws.*

*Foreground shows chainsaw thinning; the slash was piled and burned. Background is an untreated stand.*

## What are the objectives and advantages of using fire on the forest?

The objectives of burning have varied over the years and include the following:

- **Improving pine regeneration.** Ponderosa pines need sun to regenerate and grow. Burning can accomplish this by reducing duff, killing competing plants, and reducing mid-level shade canopy.
- **Fuels reduction and fire safety.** Prescribed fire is a cost-effective means of thinning understory trees and shrubs and reducing ladder fuels.
- **Manzanita management.** Burning or cutting will eliminate mature shrubs, as the local species are nonsprouting. Burning can also stimulate seed germination, producing healthy young manzanita plants.
- **Timber stand improvement.** Burning thins stands by eliminating seedlings and small saplings. This approach has been used successfully on the forest in both Douglas-fir and ponderosa pine stands.
- **Reducing competition from shrubs** and invasive species following logging.
- **Keeping the area surrounding the helipad open** for air operations. This area is burned every year.

## How is prescribed fire used at Boggs?

Boggs Mountain has been a State Forest for almost 65 years. Historical records on the prescribed fire program are incomplete, but at least 500 acres were treated by prescribed burning between 1985 and 1999. Most burn units were located on southwest-facing slopes in the

*Repeated underburning gave this mature stand a park-like appearance and eliminated most of the manzanita present formerly in Boggs Forest.*

*Photos: Jill Butler*

northwest quadrant of the forest.

Vegetation Management Program burns are conducted in the fall, after the first rains. Ideally, burns occur after understory vegetation is dry enough to burn, but the duff layer is still damp enough that it will not be totally consumed by the fire. Fires are generally ignited using drip torches.

The burn prescription calls for conditions with high relative humidity, low wind speeds, and moderate fuel moisture. Flame lengths for fires on forestland under these conditions are predicted to remain at 3 feet or less.

Standard mitigations include retaining all vegetation within Watercourse and Lake Protection Zones, protecting oak woodlands and large woody debris (such as downed logs) by constructing hand lines around them, and avoiding archeological sites.

## What lessons have been learned?

- Hot fires can damage trees, causing die-back or contributing to bark beetle attacks. Most fires on the forest have been kept small and cool, and resulting mortality has been minimal.
- Burning to eliminate manzanita competing with mid-size ponderosa pines may also eliminate pine seedlings.
- Best success for controlling shrubs and invasive species after an area is logged is obtained when burns occur both before and after logging. The first burn treats existing plants and stimulates re-growth and sprouting; the second burn eliminates this new flush of undesirable vegetation.
- Burning benefits regeneration and growth of native wildflowers and bunch grasses.
- Burning, as well as manual thin and release work, produces a more open stand. Visitors and forest staff enjoy the increased exposure to the sun, improved visibility, and park-like appearance that results!

## To visit Boggs Mountain

Boggs Mountain is accessed from Highway 175, and is about 10 miles northwest of Middletown. Results of the prescribed burning program at Boggs Mountain may be viewed by driving Roads 520, 210, and 501; or by hiking trails in the northwest area of the forest, such as a loop following the Shaker, Berry's, Thinner's and Gail Trails. A large shaded fuelbreak project can be viewed along Road 300 between Roads 100 and 400.

For more information on Boggs Mountain or other Demonstration State Forests, visit *http://www.fire.ca.gov/resource_mgt/resource_mgt_stateforests.php*

# Resources

# Prescribed Fire Councils and a Consortium

***Video***
**Catching Fire: Prescribed Burning in Northern CA**

This engaging video tells the story of over a century of fire suppression and land managers who are now bringing back the use of prescribed fire as a tool to protect communities and ecosystems.

**Producers:** Will Harling/Jenny Staats

**Narrator:** Peter Coyote

**Info:** will@mkwc.org, 530-627-3202

**Watch:** *http://www.youtube.com/watch?v=LWriDpfZnXQ*

**Prescribed Fire Councils** have formed across the country in the last few decades. The first was created in Florida in the 1980s, with more established every year. Though prescribed fire councils were once unheard of in the western United States, that is changing, with formation of the Northern California Prescribed Fire Council in 2009, a Washington statewide council in 2011, and a new council in California's southern Sierra Nevada region in 2012.

The **Northern California Prescribed Fire Council's** mission is to provide a venue for practitioners, state and federal agencies, academic institutions, tribes, coalitions, and interested individuals to work collaboratively to promote, protect, conserve, and expand the responsible use of prescribed fire in northern California's fire-adapted landscapes. *http://www.norcalrxfirecouncil.org/*

All are welcome to attend the upcoming spring meeting in Hopland April 25–26; $40; speakers and field trip. Information at *http://www.norcalrxfirecouncil.org/Spring_2013_Meeting.html*

The new **Southern Sierra Nevada Prescribed Fire Council** (SSNPFC) will serve as a venue to work collaboratively to promote, protect, conserve, and expand the responsible use of prescribed and cultural fire in southern Sierra Nevada fire-adapted and fire-dependent landscapes, and promote public understanding and acceptance of the ecological and cultural importance of burning. The council is currently working on their strategic plan, and will host a field trip this summer and a larger meeting around November. For more information contact Tim Kline, *tkline@berkeley.edu*.

The **California Fire Science Consortium** is working to improve the quality and timeliness of communication among scientists, land managers, and stakeholders in the state's fire community. The Consortium is divided into five teams that undertake diverse activities including: webinars, field visits, seminars, and workshops; summarizing research; synthesizing information; and improving access to experts. The website is the hub of Consortium activities. *http://www.cafiresci.org*

# 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

**California Dept of Forestry & Fire Protection**
Forest Landowner Assistance Programs
Jeffrey Calvert; jeff.calvert@fire.ca.gov

**Forestry Assistance Specialists**
Guy Anderson (Mariposa/Madera/Merced) 209-966-3622 x218
Adam Frese (Calaveras) 209-754-3831
Herb Bunt (Glenn, Shasta, Tehama, Trinity, Redding) 530-224-1420
Jill Butler (Santa Rosa) 707-576-2935
Ed Crans (Placer/Yuba/Nevada) 530-889-0111 x128
Damon Denman (Siskiyou) 530-842-3516
Adam Frese (Tuolumne) 209-532-7429 x109
Ivan Houser (Lassen) 530-257-4171
Mary Huggins (S. Lake Tahoe) 530-541-1989
Ken Kendrick (Butte) 530-872-6334
Al Klem (Plumas) 530-283-1792
Patrick McDaniel (El Dorado) 530-647-5288
Jonathan Pangburn (San Benito/Monterey) 831-333-2600
Alan Peters (San Luis Obispo) 805-543-4244
Jim Robbins (Fortuna) 707-726-1258
Tom Sandelin (Fresno/King) 559-243-4136
Tom Tinsley and/or Patrick McDaniel (Amador) 530-647-5200

**California Association of RCDs**
916 457-7904; staff@carcd.org

**Natural Resources Conservation Service (NRCS)**
Stephen Smith, State Forester
(530)792-5655

**UC Cooperative Extension Forest Advisors**
Mike De Lasaux (Plumas, Sierra) 530-283-6125; mjdelasaux@ucdavis.edu
Ryan DeSantis (Shasta, Siskiyou, Trinity) Counties; 530-224-4900; rdesantis@ucanr.org
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Yana Valachovic (Humboldt, Del Norte) 707-445-7351; yvala@ucdavis.edu

**USDA Forest Service**
707-562-8875

# Calendar

## March 25, 2013
**Webinar: Finding the trees in the forest**—Kelly
**Website:** http://ucanr.edu/ucbresearchwebinar/

## March 27
**Webinar: Incorporating tribal traditional knowledge and community values with wildland fire management**—Frank Lake, USFS
**Registration**: www.cafiresci.org/2013-webinars

## April 4
**FRASC: Challenges of CA Wildfire: Balancing ecological needs with societal demands**
**Location:** Davis, CA
**Website:** http://frap.fire.ca.gov/frasc.html

## April 9–10
**Board of Forestry Meeting**
**Location:** Resources Building, Sacramento
**Website:** http://www.bof.fire.ca.gov

## April 10
**Assessing Residential Wildfire Hazards**
**Location:** Duarte, CA
**Registration:** Katie Ziemann, 626-335-7426 or kziemann@cafiresafecouncil.org
**Website:** http://www.firesafecouncil.org/view_article.cfm?article=599

## April 22
**Webinar: Gap-based silviculture in mixed conifer forests**—Rob York, UC Berkeley
**Contact:** 510-643-5428 standifo@berkeley.edu
**Website:** http://ucanr.edu/ucbresearchwebinar/

## April 23
**Webinar: Using fire to increase the scale, benefits, and pace of forest management**—Malcolm North
**Registration**: www.cafiresci.org/2013-webinars

## April 25–26
**No. CA Prescribed Fire Council Spring Meeting**
**Location:** Hopland, CA
**Website:** http://www.norcalrxfirecouncil.org/Spring_2013_Meeting.html

## May 7–8
**Board of Forestry Meeting**
**Location:** Resources Building, Sacramento
**Website:** http://www.bof.fire.ca.gov

## May 20
**Webinar: The population dynamics of dead and dying trees—** John Battles, UC Berkeley
**Website:** http://ucanr.edu/ucbresearchwebinar/

## June 28
**Caspar Creek Research Project: What are the Implications for Forest Management?** (*see page 8*)
**Website:** http://www.fs.fed.us/psw/topics/water/caspar/caspar50/

## *FREE Webinar Series:* Ecology and Active Management of Riparian Vegetation

Explore the functions of riparian ecosystems to understand how and where active management can achieve benefits. Field trips will complement the series.

**Time:** 11–1 pm
**Contact:** Dr. Richard Harris at rrharris2464@sbcglobal.net or 707-685-5508
**Website:** http://ucanr.edu/riparianwebinar

**May 1—Foundation for Active Management of Riparian Vegetation**
- Riparian ecology and functions in forested landscapes
- Natural disturbances affecting riparian vegetation in forested landscapes
- Potential benefits of site-specific riparian management

**May 8—Selecting Sites for Active Riparian Management**
- Tools for spatially explicit riparian management
- Site-specific riparian management using the Section V guidance document

**May 15—Active Riparian Management Case Studies**
- Effects of management on microclimate and water temperature
- Increase large woody debris in streams: wood placement techniques

**May 22—Active Riparian Management Case Studies**
- Managing to reduce wildfire hazards in riparian zones
- Managing for plant species composition and improved nutrient loading

**May 29—Active Riparian Management Case Studies**
- Active management to reduce sediment production
- Monitoring and evaluation of active riparian management

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For address changes, please send this box or contact Jeff Calvert via email, standard mail, or fax…be sure to reference Forestland Steward newsletter.

*NOTE: For address updates or to make comments or suggestions about this newsletter, please contact jeff.calvert@fire.ca.gov. A limited number of extra printed copies may be available. Please send your shipping information and the number of copies you would like to jeff.calvert@fire.ca.gov or mail your request directly.*

**CAL FIRE & Placer County RCD**
Forest Stewardship Program
c/o P.O. Box 162644
Sacramento, CA 95816

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# Stewardship planning for family forests

A management plan is a key component of stewardship. For family forests, it provides an opportunity to develop a strategic course of action to accomplish the family's goals for their forest. Goals can include a wide variety of areas: amenities/ aesthetics, recreation, financial return, risk reduction, and biodiversity maintenance to name a few.

UC Cooperative Extension Forestry has developed educational tools and workshops to help landowners develop a management plan that meets their individual goals.

## E-Learning tool

Start your family management planning process through self-paced e-learning at: *http://ucanr.edu/forestplan*.

This site provides a broad overview of the importance of management plans, general information on how to assess your forest property, a general overview of forest ecology and management tools, and illustrates the importance of connecting with a Registered Professional Forester (RPF) to put your dreams into practice. The site also introduces some of the state and federal programs that help offset the cost of developing a forest management plan.

For more information, please contact either Rick Standiford or Greg Giusti of UC Cooperative Extension.

Photo: L. Litman

*What are your goals for your forestland?*

## Workshop Dates & Locations

May 18, 2013 - Ukiah, CA
May 29, 2013 - Redding, CA
June 15, 2013 - UC Berkeley Campus
June 22, 2013 - Auburn, CA

## In-person workshops

Workshops will complement the e-learning module (see dates above). Participants should complete the online course first, and come prepared for more detailed followup and to get questions answered by UC Cooperative Extension forestry staff, and other RPFs.

At the workshop you will:

- Determine the objectives that are possible for forest land management
- Learn about forest ecology and forest management for your area
- Learn about the importance of working with Registered Professional Foresters
- Find out about state and federal programs to help pay for developing management plans.

**Registration:** The workshop costs $25 per person to cover handout materials and refreshments.

**Website:** *http://ucanr.edu/sites/forestry/Workshops/Managing_Family_Forests_in_California_A_Guide_to_Stewardship_Planning*