

Forestland Steward

SPRING 2019

Wildfire: Cleaning up, making plans

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Forestland owner Fred Massetti, right, reviews his latest CFIP project with CAL FIRE Forestry Assistance Specialist Zsolt Katay. See page 5.

Forestland Steward Learning from the past, working together to meet future fire threats

Forestland Steward is a joint project of 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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*Analysis: Susan Kocher
California Agriculture online, 2015*

In 1920, forester Charles Ogle issued a warning about the emerging consensus that all wildfires in forests should be suppressed. “Under natural fire conditions,” Ogle wrote in the July 1920 issue of *The Timberman*, “a proper amount of thinning was effected and the remaining trees were thereby given a better chance to mature.”

He predicted that trying to extinguish all wildfires would crowd the woods with small trees and leave forests prone to major fires and disease. He warned “a complete destruction of our standing timber of today and the elimination of possible second growth of practical value may be the result.”

Ogle and other prescribed-fire advocates lost the argument. Today their concerns seem prescient. After a century of fire suppression, California forests are denser and have fewer large trees. Severe fires are increasing in frequency and size throughout the Sierra Nevada (and Cascade Range.)

Natural regeneration is not a given for severely burned forests where seed trees have been killed across large areas.

Though land managers have understood for more than 40 years that fire has an important role in a functioning forest ecosystem, the use of fire to manage forests has remained limited. Letting wildfires burn now for ecological benefits and hazard reduction is considered too risky in most forests and weather conditions.

Reducing fire severity

Thinning forests of small trees and brush can reduce fire severity; however, paying for the work to get those materials out of the forest is increasingly difficult as the number of mills and biomass-burning facilities has waned in the last decade.

And, decades of successful fire suppression lulled regulators of residential and commercial development into permitting new construction in forested areas without regard to fire risk.

Moving toward a healthier role for fire in California forests will be difficult. One area where there is opportunity, however, is in post-fire landscapes.

Because today's wildfires tend to be so large and destructive, post-fire areas provide a large landscape on which to design a forest that will incorporate wildfire concerns from the beginning.

Reforestation can be developed to address fire

and warming climate concerns. Restoration sites can serve as ongoing laboratories for experimentation, so that forest managers can continue to learn from experience and adapt to change.

Restoration: An experimental approach

To address the current crisis, forest managers, researchers, policymakers and the public must work together to increase the resilience of our forests to climate change and wildfire.

We must do this even though we, just like the foresters from the turn of the last century, cannot predict the social and ecological conditions in the next century with any certainty.

Reducing fuels — by thinning, mastication or prescribed fire — is typically expensive, so owners of small forest tracts, which typically do not produce income, need technical and financial assistance in identifying and addressing their climate risks through forest fuels reduction, thinning, planting and disposing of dying trees.

Moving forward, post-fire restoration should incorporate four key approaches: planning for wildfire and prescribed fire, promoting a diverse forest landscape, anticipating climate change and investing in ongoing experimentation and monitoring.

Editor's Note: Recent legislation addresses many constraints related to managing small, privately owned forest tracts. See related stories in this and future issues for details. A longer version of this article was originally published in the California Agriculture journal, volume 69, number 1, at: <http://calag.ucanr.edu/archive/?article=ca.v069n01p5>



Author Susan Kocher, Forestry/Natural Resources Advisor, UC Cooperative Extension Central Sierra, also serves as co-leader of the state's Forest Management Task Force Working Group for Landowner Education and Outreach. Photo: Elëna Zhukova, University of California, (c)2018.

Actions to protect forestland property



The aftermath of the 2013 Rim fire, which claimed this family cabin along with nearly 260,000 acres of forest and grazing land in Tuolumne County.

A wet California winter means improved water supplies and healthier trees—but also increased vegetation growth that adds to wildfire risk. Wildfire experts say now's the time to focus on fire safety issues and undertake home protection and forestland improvement projects.

If considering rebuilding, start with the home site and work out to larger landscape planning, experts recommend. If professional help is needed, line up contractors as soon as possible. They're in high demand.

The National Fire Protection Association says that by working together residents can make their own property—and their neighborhood—safer from wildfire in the future.

Threats to homes during a wildfire

The association points to embers and small flames as the main way homes ignite in wildfires. Embers can be carried long distance by wind and can spread fire quickly.

Experiments, models and post-fire studies show homes ignite due to the condition of the home and everything around it—up to 200' from the foundation. This is called the Home Ignition Zone (HIZ).

Learn more about how wildfires spread and ignite homes in the association's online course "Understanding the Wildfire Threat to Homes." The free course provides an overview of fire history, fire basics, and how homes burn at: <https://bit.ly/2NDiwfU>

Spring tasks to prepare for wildfire threats

HIZs: Limit the amount of flammable vegetation. Choose fire-resistant building materials and construction techniques, along with periodic exterior maintenance in the three home ignition zones—The Immediate Zone: 0 to 5 feet around the house; Intermediate Zone: 5 to 30 feet; and

the Extended Zone: 30 to 200 feet.

Landscaping and yearly maintenance: To reduce ember ignitions and fire spread, trim branches overhanging the home, porch and deck. Prune tree branches up to (depending on their height) 6 to 10 feet from the ground. Remove plants containing resins, oils and waxes in the Immediate Zone (0 to 5 feet around the house) and replace with non-combustible options like crushed stone and gravel.

Roofing and vents: Class A fire-rated roofing products offer the best protection. Examples include: composite shingles, metal, concrete and clay tiles. Inspect shingles or roof tiles and replace or repair to prevent ember penetration. Box-in eaves, but provide ventilation to prevent condensation and mildew. Roof and attic vents should be screened to prevent ember entry.

Decks and porches: Never store flammable materials underneath decks or porches. Remove dead vegetation and debris from under decks/porches and between deck board joints.

Siding and windows: Embers can collect in small nooks and crannies and ignite combustible materials; radiant heat from flames can crack windows. Use fire-resistant siding such as brick, fiber-cement, plaster or stucco and dual-pane tempered glass windows.

Emergency responder access: Ensure your home and neighborhood has clearly marked street names and numbers. Driveways should be at least 12 feet wide with a vertical clearance of 15 feet, for emergency vehicle access. Notify local agencies if signs are damaged or missing.

Firewise® is a program produced in cooperation with the USDA Forest Service, US Department of the Interior and the National Association of State Foresters. Visit www.firewise.org for more information.

Steps to help improve home survival

- Remove leaves, pine needles and other flammable material from the roof, gutters, and on and under the deck to help prevent embers from igniting your home.
- Screen areas below decks and porches with 1/8" wire mesh to help prevent material from accumulating underneath.
- Cover exterior attic and soffit vents with 1/8" wire mesh to help prevent sparks from entering your home.
- Enclose eaves to help prevent ember entry.

For adjoining forestland acres:

- Assess tree survival.
- Evaluate for salvage.
- Inspect for erosion and road damage.
- Determine reforestation needs.

After a wildfire, landowner action is essential. A guide for first steps on the land is online at: <https://bit.ly/2HGHOcb>

CFIP cost-share activities

Pays for preparation of a Forest Management Plan by a Registered Professional Forester (RPF).

A RPF will help landowners with:

- Reforestation
- Site Preparation
- Tree Shelters
- Stand Improvement
- Pre-commercial thinning or release
- Pruning

CFIP can help with follow-up work, including mechanical treatment, herbicide application and slash disposal.

Supports forestland conservation practices to benefit fish and wildlife habitat.

FUNDING UPDATE

The CFIP grant application process is moving to an online system to better serve landowners. Look for announcements about funding and how to apply using the new process on the CFIP web page at: <http://bit.ly/2Y Ampao>

CFIP funding helps new landowners with their vision for a healthier forest

Visalia business woman Jane Kleinkramer had wanted to own forest property for some time, but hadn't found the right opportunity. Then several years ago 160 acres near Sierra National Forest came on the market.

She knew the property was right for what she had in mind—close to home, a place to build family memories, large trees, a year-round creek, wildlife and the quiet she sought.

"When we first bought the land, we couldn't walk through a lot of it," she said while bumping up the forest road to her property's homesite in BUB. The sturdy ranch vehicle her kids call the "Big Ugly Bronco" makes it possible to get in and out no matter the weather.

Her property sits on a sloping hillside and includes a mixed conifer forest, along with native shrubs and grasses. The land had promise, she said, "but, there were problems.

"For example, we learned the cedars were 80 years old, but the trunks were only 10-inches in circumference because of overcrowding."

She and her husband set up a tent cabin on what they hope will one day be a homesite and got to work. They soon realized the scale of forest restoration needed was more than a husband-and-wife crew could manage by themselves.

Hiring contractors to help clear vegetation and cut trees was expensive. Getting heavy equipment in and out of the property using the narrow and rugged ranch road was impossible.

They looked into CAL FIRE's California Forest Improvement Program (CFIP) to see if they could find some financial help to help move their project—and their dreams—along.

The program encourages private and public investment to improve forest health and protect natural resources, which is what they wanted.

They connected with CAL FIRE Forestry Assistance Specialist Guy Anderson, who helps forestland owners manage their forest health improvement projects.

Anderson walked the land with the Kleinkramers to understand their vision for the property and talked about ways to make it a reality. He helped them apply for a CFIP grant and find a registered professional forester (RPF).

The CFIP program is available to private and public owners of 20 to 5,000 acres of forestland.

The Kleinkramers created a forest management plan, defined their projects and hired contractors to help with a range of tasks.

They qualified for a \$100,000 CFIP cost-share grant and will be responsible for supplying 10



Jane Kleinkramer checking progress on her CFIP forest health improvement projects.

percent of project costs.

They broke the work into two projects: 35 acres of brush clearing and 16 acres of thinning. They started the process in 2016.

"I've seen a tremendous increase in tree growth since selected trees were removed and the understory cleared," Kleinkramer said. "Getting to this point was a process and it took longer than expected, but we love the results."

Seedlings for reforestation were ordered about a year ahead of planting, but she laughed and said, "One thing we forgot was who would plant them."

The couple hurried to contract with a forest management service to do the planting, a reimbursable expense under their CFIP grant.

"Our next step is have our RPF write up another CFIP application for funding to clear additional acreage of brush and dead trees, and expand the planting area," she said.

They also want to apply for future CFIP funding to improve stream crossings, which will protect water quality in the creek.

Her advice to owners of newly acquired forestland: "There are a lot of hoops to jump through, but if you're persistent you can get through it and really make a difference on your land."

Landowner uses cost-share funding for projects with many benefits

Fred Massetti's father bought 400 acres of forestland below Deadwood Peak in eastern Madera County in the 1960s. The mountaintop above that land is publicly owned and used for communication towers and transmission equipment that provides a vital communications link for the region.

Forest improvement projects on Deadwood Ranch help protect the forestland and essential infrastructure the public relies upon.

Driving up a winding and well-graveled road to his property last fall, Massetti surveyed his land and said, "We need to make the land serve a purpose. If you clear it and don't replant, brush returns and all you have is a fire hazard."

Putting all the options to work

Since the 1980s, Massetti said he has been using every tool—mechanical and financial—to improve the health of his forestland.

The effort hasn't gone unnoticed. In 1993 and 1994, Massetti and his son, Patrick, received state "Take Pride in California" conservation awards for their environmental work on Deadwood Ranch.

Gov. Pete Wilson honored the father-son team for reforesting land burned during the 1961 Harlow Fire, noting they planted more than 37,000 ponderosa pine seedlings during the seven years after the 43,329-acre wildfire.

Now the stands need thinning, Massetti frets.

"We worked for seven years to achieve the results and, when I say we, I mean the collective effort of CAL FIRE to coordinate our CFIP (California Forest Improvement Program) grant, our Vegetation Management grant, along with grants from the other stewardship programs, there's more work to do.

Massetti submitted his first CFIP application in 1985, and said, "now anytime I can qualify for a CFIP grant, I apply. In my situation, with such steep terrain, almost every step has to be done by hand and the funding helps make the work possible."

The projects he's working on now are part of his ongoing forest management plan. And, he's looking forward to a revitalized statewide prescribed burn effort because, he said, if done right, "in a matter of a few hours the brush disappears. The only things left behind are Manzanita root systems that prevent soil erosion during winter rains."

Surveying the land from his mountaintop, Massetti said, "The progress we've made here is essential to forest health, but if we're ever going to reduce fire risk, CFIP is the only program to address the threat on this scale."

Before getting back in his truck for the drive down the mountain, he said with a twinkle in his eye, "You know, this is the forest CFIP built."



Current view from Deadwood Ranch decades after reforestation and other forest health improvement projects began.

What to expect from CFIP

The CFIP program typically covers up to 75 percent of project costs. A 90 percent cost-share rate may also apply to:

- Lands substantially damaged by fire, insects and disease within 10 years prior to the execution of a contract.
- 90 percent cost share rates for all Cooperative Forest Management Plans.
- 10 percent or more of the total cost of the project devoted to forest land conservation measures and/or fish and wildlife habitat improvement practices.
- Includes landowners with less than 500 acres of forestland in California.
- CFIP program participation is voluntary.
- In some cases, land use zoning may require a land use addendum with a 10-year requirement for maintenance of funded work.
- Landowners decide who to hire, and may do some of the work themselves.

Evolving with Fire:

A fresh take on flammability and burn windows



Fire enjoying fresh oak litter during a perfect December burn window.

*Story & Photos: Lenya Quinn-Davidson,
For Fire Adapted Communities Learning Network*

When was the last time you changed your mind about something important — something you thought you knew?

This question, posed at a recent conference I attended, has lingered with me since. I've been mulling it over and asking friends and colleagues to ponder it, too. I love the question because it's asking us to consider how open-minded we really are.

In this era of political and social divisiveness, where it's easy to become siloed, it's more important than ever to open ourselves to new ways of thinking and doing—even around topics we know well.

I had a revelation last year that seems, in hindsight, embarrassingly obvious. It concerns something I've thought and read about for almost a decade, a topic my husband, Eamon Engber, and several close friends have published articles about: litter flammability.

No, not litter on the side of the road—though I have actually considered writing a blog on how to use burn barrels! I'm talking about the flammability of leaf litter, and the traits various plants have evolved to either facilitate or discourage fire.

A few years ago, my husband and our colleague Morgan Varner published a paper on the role of leaf traits in the flammability of California oaks in the *Canadian Journal of Forest Research*. It's online at: <https://bit.ly/2DHiRfq>. They collected samples and conducted lab burning of litter from 18 different species of oaks, including deciduous and evergreen oaks and both tree- and shrub-form species.

They found leaf size accounted for most of the variability in the flammability of oak litter, and that California black oak and Oregon white oak—two deciduous species with large, lobed

leaves—were the most flammable of them all.

This finding corroborated what those of us who burn in these systems know to be true: big, lofty litter under black and white oaks burns really well, whereas only the hottest fires will burn through live oak litter, which typically consists of dense mats of small, thick leaves.

Other studies have done similar comparative analyses of tree species in various regions of the U.S., offering important insight on the relationships of these adaptive leaf traits to woody encroachment, moisture balance and fire management. Through this lens, we can see that fuels are not random—plants shape fire regimes, but fire also shapes plants.

Understanding flammability

More recent literature has delved even deeper into the topic of flammability. Recent findings urge us to move away from a focus on individual traits and toward a more holistic view using multiple scales of measurement.

Researchers Juli Pausas, Jon Keeley and Dylan Schwilk reported in a 2016 *Journal of Ecology* article that they found three “flammability strategies” for plants growing in fire-prone ecosystems: the non-flammable, fast-flammable and hot-flammable, which are defined by different degrees of ignitability, heat release and rates of fire spread. Their findings proposed a novel framework for thinking about flammability.

Non-flammable plants have special traits that allow them to persist in fire-prone environments, such as thick bark, plant architecture that prevents ignition, leaf structure that provides a dampening effect when it piles up at the base of the plant and high moisture contents. The authors give the example of some succulents that

live in fire-prone systems, but successfully avoid burning.

Fast-flammable plants are those with traits that promote quick, frequent burning, which then gives the plant a competitive edge over its neighbors. These plants produce fuels that ignite easily and burn quickly, fueling fires that spread rapidly but have relatively low heat release. Deciduous oaks and long-needle pines are good examples of fast-flammable plants.

Hot-flammable plants are those that burn hot and for which individual survival is sacrificed in the name of reproduction. These plants tend to be effective post-fire seeders and/or resprouters, and naturally include serotinous species, whose cones require high-intensity fire to open and release seed.

Intellectually, I find the flammability topic compelling. It's neat to think about how fire not only shapes the current distribution and composition of plant communities, but that it may also be the driving force behind the evolutionary structure of the plants themselves. How cool is that?!

Burning in oak woodlands

But from a management perspective, it can sometimes be hard to understand how these slightly esoteric concepts translate to our work on the ground. And that's where my revelation related to changing my mind comes in.

For years, I've been burning in California black oak and Oregon white oak habitats here in northern California. The bulk of my prescribed fire experience is in these systems, where we burn to reduce competition from the native, invasive Douglas fir, a fast-growing conifer that is encroaching on oak woodlands at alarming rates.

And until last year, every burn I had ever done in an oak woodland was in or around October, when we can take advantage of dry grass from our Mediterranean summers and hope to kill as many small firs as possible before the rains come.

Everyone I know who burns in oak woodlands during this window, including my husband and his crew at Redwood National Park. The park probably has the most robust oak woodland burn program in the state. That fall window is the norm.

But guess what? In October, our deciduous oaks still have their leaves! Which means we—the very people who've nerded out on leaf flammability for the last decade—aren't taking advantage of the leaf litter that those trees have evolved to provide! In fact, it's not uncommon for these October burns to blaze beautifully through the open grass, only to peter out under the oaks. In December, I worked with some local ranchers and did my first winter burn in a white

oak woodland, and I finally got to see those fast-flammable leaves in their full glory. A hard freeze the night before sucked the moisture from the litter and one-hour fuels, and without their leaves in the canopy, the trees let in plenty of sun to dry the winter dew.

The fresh, fluffy litter was crunchy by mid-morning. The forest adjacent to the unit was wet from fall rains, and the surrounding grasslands were imperviously green from the first flush of winter grass.

The fire moved quickly through the woodland, roasting every last conifer seedling and posing little threat of slop-over, escape or overstory damage. It was the perfect burn window, and one that came again in short spurts over the next two months.

My friends at Redwood National Park were green with envy, because their burn plans don't allow burning after Dec. 31, and most of their crews are unavailable after fire season ends in late October.

So that's my example of the last time I changed my mind about something important—something I thought I knew well. The information had been in front of me the whole time, but it took me opening my mind to let the information in, to think outside the social norm.

And this has me wondering: what else am I missing? What other enlightenment—social, political, scientific—lies in wait for me to evolve my thinking? And it has me asking everyone I know, now including you: what's your example?



Lenya Quinn-Davidson is director of the Northern California Prescribed Fire Council and works with the Fire Learning Network to coordinate the prescribed fire training exchange (TRES) program. She's the UCCE Fire Adviser for Humboldt, Trinity, Siskiyou and Mendocino counties. This story originally appeared on the Fire Adapted Communities Learning Network blog. Find the original post at <https://bit.ly/2zWodiQ>. To have stories like this delivered to your inbox weekly, visit <https://bit.ly/2DnKTfZ>.

How fire benefits forest management

- Helps restore natural ecosystems.
- Reduces wildfire hazards.
- Improves wildlife habitat.
- Increases native species regeneration.
- Removes pests and diseased trees.
- Reduces invasive species populations.

In addition, prescribed fire can be less expensive than other fuels reduction efforts and can be used to treat larger areas.

Online guides

Vegetation Management Guide:

<https://bit.ly/2EMFYFL>

Brush Management Guide:

https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1046834.pdf

Forestland Steward

newsletter, Spring 2013: <http://calfire.ca.gov/foreststeward/pdf/news-spring2013b.pdf>

CFIP program scope

The California Forest Improvement Program (CFIP), offered through the California Forest Stewardship Program, offers cost-share funding to private forestland owners.

What's funded?

Developing management plans, project supervision by RPFs, site prep, reforestation, pre-commercial pruning, fuels treatment, habitat improvement and more.

Who's eligible?

Landowners must have 20 acres minimum (less if zoned TPZ) to 5,000 acres max of forestland in California.

Any use restrictions?

The landowner must agree to keep their land in a forestry compatible use without conversion and in forest management for a minimum of 10 years.

How much is offered?

It varies by project. Land must be zoned for Timber Production (TPZ) or for uses compatible with forest resource management. Land in Agricultural Preserve (Williamson Act) also qualifies.

Online at: <https://bit.ly/2DfO2f9>

Dale Meese named Stewardship Forester

Growing up in California's forests and back country, Dale Meese, the new CAL FIRE Stewardship Forester, decided a profession involving the outdoors would help him stay connected to what he valued—healthy forests, hunting, fishing and exploring the back country.

He graduated in 1990 from California State University, San Luis Obispo, with a degree in forestry and resources management. The first half of his career was spent in the private sector working as a Registered Professional Forester (RPF).

"I spent years creating timber harvest plans and managing timber stands," Meese said. "The second half of my career has been with CAL FIRE's Forest Practices Program."

Through the years, he has become an expert when it comes to creating forest improvement plans, applying for grants and cost-share funding, and managing timber harvests and vegetation reduction projects.

In his new role as Stewardship Forester, Meese is responsible for overseeing the California Forestry Assistance Program (CFIP). In addition to tracking changes to CFIP, he checks and approves all landowner CFIP agreements with the state.

"The CFIP program has significantly changed since I was involved in the program 10 years ago," he said. "The funding has gone from a few hundred thousand dollars a year to millions of dollars a year now."

This increase in funding has resulted in a temporary shortage of staff to implement the program, he said, especially in the Northern Interior counties/units.

"One of my major goals as the Stewardship Forester is to increase staffing to help implement the expanded program," Meese said.

In the meantime, he continues to meet with landowners in his role as a Forestry Assistance Specialist (FAS) for Siskiyou, Modoc, Lassen, Plumas, and now Butte counties. In addition, he assists with FAS responsibilities for Shasta/Trinity counties.

When asked about the best approach forest landowners should use to improve forest health, Meese doesn't hesitate, "Be committed to long-term management and develop solid relationships with professionals and other landowners.

"If you're a relatively new forest landowner, it's initially tough to find people to help with projects. Creating a relationship with an RPF is the best place to start," he said.

"Otherwise it's easy to get balled up and go around in circles. But, honestly, the biggest



New CAL FIRE Stewardship Forester Dale Meese brings a wealth of skills in forest planning, harvest management and CFIP cost-share funding. Photo: CAL FIRE.

mistake I see landowners make is not building relationships with their neighbors."

About a third of California's land mass is forested—nearly 31 million acres. About half of these acres are managed by federal and state agencies.

The remainder, about 14 million acres are in private ownership, managed for a variety of purposes. Industrial timber companies own about 5 million acres, the remainder—about 9 million acres—are owned and managed privately by individuals and families, 90 percent them owning less than 50 acres.

"We all understand the health of California's forests has deteriorated and that we need to take action to address this situation," Meese said. "By reaching out to neighbors who are working on the same issues and problems, private land owners can learn how to tap into the best local resources for help."

"There are so many experts, it can get confusing," Meese said.

"As the new Stewardship Forester, I'll be providing advice that will help private landowners clear funding hurdles and try to make their jobs easier. That's very satisfying to me."

Based in Redding, Meese may be contacted by e-mail at: Dale.Meese@fire.ca.gov or by phone at (530) 224-2480.

Tree removal: What to know, Who to call

When trees need to be harvested or removed, answers to some key questions help forestland owners decide who to hire for the job.

If the resulting wood is sold, bartered, exchanged or traded, it's a commercial timber operation subject to California's Forest Practice Act and Rules.

All commercial timber operations must be conducted by a Licensed Timber Operator, or LTO. The California Department of Forestry and Fire Protection (CAL FIRE) issues LTO licenses.

There are three classes of forestry licenses: The (A) license entitles timber operators to conduct any kind of timber operation on any timberland. A (B) license is limited to cutting or removal of minor forest products, like firewood and Christmas trees. A (C) license allows the licensee to conduct timber operations only on property they own.

However, even if trees being cut aren't sold, a tree service with a specialty license issued by the California Contractors State License Board (CSLB) is required for tree removal or pruning, if the value of the work is more than \$500 or if trees removed are 15 feet or taller.

How do I know whether the harvest is a commercial timber operation or not?

If the trees are removed for cash, it's a timber operation subject to the Forest Practice Act and Rules. And, if a forestland owner allows an LTO to retain the timber to offset some of the harvest costs, that also constitutes a commercial purpose.

If the facility where the logs are taken charges the contractor to dispose of them, is it considered a commercial harvest?

No. If cutting or removal of timber or other solid wood forest products is not being performed for commercial purposes, then the harvesting is not subject to the Forest Practice Act.

Can a contractor with a C-27 Landscaping Contractor license, a certified arborist, or a registered professional forester (RPF) be used instead of a contractor with a C-61/D-49 license?

No. A C-27 Landscaping Contractor license allows tree removal as part of a greater landscaping project, but they're not eligible to do so in a forestry context.

Certification as an arborist or registration as a professional forester does not allow for tree removal work, unless the arborist or RPF also has the required contractor's license from CSLB or an LTO license from CAL FIRE.

How do I verify a contractor or timber operator is properly licensed?

Verify licensure of a timber operator through CAL FIRE's website: <https://bit.ly/2UxnMEa> or by contacting CAL FIRE's LTO Program by phone at (916) 653-7211 or (916) 651-6025 or by email at calfire.ltoprogram@fire.ca.gov.

Check the status of a licensed contractor on the CSLB's website: <https://bit.ly/1SVUfkT> or by calling their help line (1-800-321-CSLB). The CSLB website also has information to assist consumers in selecting licensed contractors, available at: <https://bit.ly/2b4uAp4>.

Besides having a proper license, are there other requirements related to timber harvesting contractors?

Yes. Commercial timber operations subject to the Forest Practice Act and Rules also require a timber harvesting plan or an equivalent harvest document. You can learn more about the requirements of the Forest Practice Act & Rules at:

<https://bit.ly/2UxojpE>

And don't forget to check if other state and local laws also apply to timber removal.

What about insurance?

An LTO with an (A) license is required by law to maintain at least \$1 million in commercial general liability insurance.

LTOs with a (B) or (C) license are not required to maintain commercial general liability insurance.

A contractor licensed by the CSLB is required to maintain a \$15,000 license bond and workers compensation insurance, unless the contractor certifies he does not have any employees.

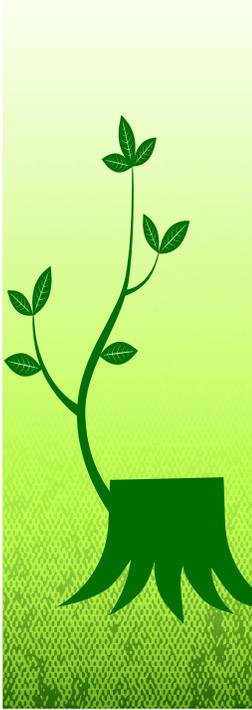
A (C) license does not require commercial general liability insurance in any amount.

It's a good idea to ask a contractor about their insurance and request copies of certificates of insurance before starting work.



Plan ahead to hire timber operators with the proper licenses for the job—whether commercial harvest or tree removal work.

Funding for fire recovery and forest health



There are sources of cost-sharing or incentive funding to help repair forestland after disasters and prepare for reforestation.

Cost-share funds rarely provide immediate aid or cover all costs, but they do provide support for many types of forest health improvement projects.

Some programs may even allow work to start work before awards are finalized.

Here are some options:

USDA Environmental Quality Incentive Program (EQIP) A cost-incentive program for working lands

that can address fire preparation or damage, including fuel reduction, reforestation, soil erosion control and water quality protection, on parcels with natural resource concerns.

USDA Catastrophic Fire Recovery EQIP Fund Pool A

Cost-incentive program for working lands that address fire recovery.

Priority resource concerns include immediate soil erosion protection, noxious and invasive plant proliferation, water quality protection and restoring livestock infrastructure.

Interested landown-

ers are encouraged to work with their local NRCS office to create a conservation plan and apply for assistance.

Cal Fire Forest Health Greenhouse Gas Reduction Fund (Forest Health GHG)

A cost-share program for landscape-scale forest improvement projects, including projects of 10,000 acres or more.

Forest health restoration and greenhouse gas reduction projects qualify.

Neighbors and communities can collaborate to meet acreage requirements.

USDA FSA Emergency Forest Restora-

tion Program (EFRP) provides cost-share to eligible landowners for emergency work to restore land damaged by natural disaster.

Fire Recovery Assistance from the USDA Farm Service Agency includes emergency low-interest loans to replace farm and ranch buildings and structures, make repairs or replace livestock or feed. Must meet disaster/emergency criteria.

For more information, visit <http://disaster.fsa.usda.gov>

To find your local FSA county office, visit <http://offices.usda.gov>

California Dept. of Forestry & Fire Protection

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California Association of RCDs

916 457-7904; staff@carcd.org

Natural Resources Conservation Service (NRCS)

State Forester; 530-792-5655

UC Cooperative Extension Forest Advisors

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USDA Forest Service

Matt Brown, Forest Legacy and Stewardship 707-562-8937; matthewdbrown@fs.fed.us



Calendar

June 4

Invasive Species Lunchtime Talks

Location: Online, webinars offered by experts using Zoom Video Communications.

Details: What's killing California's trees? Webinar answers questions about invasive species and the impact they have on the state's forest ecosystems. [Http://bit.ly/2WoZQrd](http://bit.ly/2WoZQrd).

Note: Online free event, links to the Zoom online meeting space will be posted on web pages before webinars begin.

June 13-14

Multi-age Forestry Group Spring Field Tour 2019

Location: Jackson Demonstration State Forest, Fort Bragg CA 95437

Details: Technical tour focuses on recent and on-going multi-age redwood forestry research. \$40 registration fee includes dinner, refreshments and continental breakfast

Contact: Nick Kent, Redwood Empire Sawmills at (707) 894- 8839 or Yana Valachovic, UCCE at (707) 445-7351.

September 20-21

Symposium on Climate Change and the Ecology of Sierra Nevada Forests

Location: UC Merced, 5200 North Lake Rd. Merced, CA 95343

Details: Free event focuses on the responses of Sierra Nevada forest organisms and ecosystems to increasing climate stresses, featuring scientific studies, natural history observations and forest-adjacent ecosystems, such as meadows and rivers

Register online: <http://bit.ly/2VNo8qC>

Coming Soon!

Reforestation workshops are being planned for tree mortality areas. Contact Stewart McMorrow for details: stewart.mcmorrow@fire.ca.gov.

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Fill out this box and send it to CAL FIRE, Forestry Assistance, P.O. Box 944246, Sacramento, CA 94244-2460. Fax: (916) 653-8957; e-mail: Stewart.McMorrow@fire.ca.gov. For address changes, send this box or contact Stewart McMorrow. Be sure to reference *Forestland Steward* newsletter.

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Free fact sheets for building wildfire-resilient homes

Living in California's wildfire-prone forests and brushlands offers great rewards, but also risks—dangers that can be anticipated and addressed through ignition-resistant building techniques. The National Fire Protection Association has prepared nine fact sheets that cover many property owners' questions about constructing or retrofitting fire-resilient structures.

The Wildfire Research Fact Sheet Series is produced by the National Fire Protection Association's Firewise USA® program, as part of a NFPA/U.S. Department of Agriculture Forest Service cooperative agreement, with additional research provided by the Insurance Institute for Business and Home Safety.

The fact sheets cover a wide range of issues that forest landowners who live on their properties may find helpful when considering construction of homes and outbuildings. All fact sheets can be downloaded for reference during building projects.

Topics include how to secure attic and crawl space vents, coatings, decks, fencing, roofing, exterior treatments, skylights and under-eave construction.

Whether property owners are doing the structural work

WILDFIRE RESEARCH FACT SHEET

Roofing Materials:

Roofs are a highly vulnerable part of a home during wildfires

HOMEOWNERS NEED TO IMPLEMENT RISK REDUCTION ACTIONS THAT MAKE HOMES BETTER ABLE TO SURVIVE A WILDFIRE - AND THE ROOF IS A GREAT PLACE TO BEGIN!

HOW HOMES IGNITE
Homes ignite in one of three ways: ember/intruders, radiant heat exposure to direct flame contact. An example of an ember ignition is when wind-blown embers accumulate on combustible materials such as a wood shake roof. An embered wood shake or shingle roof covering is the greatest threat to a home.

ROOF COVERINGS AND ASSEMBLIES
Roof coverings for 1619ps are Class A, B, C, or unlisted, with Class A providing the best performance. Common Class A roof coverings include asphalt/fiberglass composition, slate, concrete and fiber-cement-shield tiles. Some materials from a "by assembly" Class A fire rating which owners, additional materials must be used inherent the roof.

REDUCE YOUR ROOF'S VULNERABILITY TO WILDFIRE

- 1 Roofs should be Class A fire-rated with no market composition shingles. If you're unsure about your roof's rating, hire a professional roofer to make a determination.
- 2 Remove debris on the roof area in the gutters or downspout area, or more often if necessary.
- 3 Remove tree branches that overhang the roof.

themselves or hiring a contractor, the fact-sheet series offers practical information on best practices for planning and building in fire-prone landscapes.

Find the series online at: <https://bit.ly/2FN5Lyl>

The California fire marshal's office keeps a code-compliant materials list online at: <https://bit.ly/2HvkdMd>