

# LIVING WITH WILDFIRE

IN HUMBOLDT COUNTY



**Living with Wildfire in Humboldt County**  
**A Volunteer Firefighter's Perspective**

The monumental 2015 fire season began with brittle dry vegetation and abnormally dry weather due to the drought. By July, Northern California was already experiencing several large fires and fire-fighting resources were becoming limited. Briceland VFD contracts with CAL FIRE to cover their local stations when needed. As fire conditions worsened, we were asked to cover the Thorn Station. I was assigned as captain on our type 3 engine; a big responsibility with concerns for safety, training, and morale.



each night when my friends were working 24-hour shifts in some very rugged country.

As we listened to radio reports from many fires requesting more resources, I had to remind my crew that we were covering a fire station and therefore would not be dispatched to the big fires as there were no resources to come behind us. To help keep up morale,

I baked goodies such as berry cobbler and apple crisps.

At the end of August, we suddenly got beeped out to a vegetation fire in the King Range, the Horse Fire, that was in very difficult terrain and grew to be 146 acres. We worked with limited resources in difficult conditions for 3 days until a fire management team came to take command. We shifted our focus to protecting Shelter Cove from the fire.

In early September we were finally released from fire duty, only to be called back 4 days later to cover the CAL FIRE Thorn station. We then got a call for an "immediate need" Strike Team assignment out of county. We don't generally leave the area during the height of fire season, but a major fire had developed in nearby Lake County, and we knew their situation was dire. We were able to staff a second engine to ensure the station was covered, and we headed down to the Valley Fire. We worked on the fire for two weeks, and saw first-hand the incredible devastation to the Middletown area.

We returned home in late September when the fire season finally began to wind down. Overall, I had spent over 80 days on fire assignment or on station coverage.

*Diana Totten, Captain  
 Briceland Volunteer Fire Department*



Over the next 3 weeks, the fires burned thousands of acres and firefighters were pushed to their limits. Except us. We had a daily routine of up at 6 am, do our physical training, engine checks, equipment checks, and station cleaning, to be ready for what the day might bring. I felt somewhat guilty to have slept in a warm bed

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“When a wildfire is headed straight for our house, it’s great to know **we’re ready** because we’ve **pulled together as a community**. We’ve **cleared flammable forest debris**, dug firelines, and **reintroduced fire** here during autumn controlled burns.

**We feel defensible and resilient** as a result.”

— *Malcolm Terence*

*Salmon River resident who experienced fire close to his home in 2006, 2008, and 2013.*

**Cover:** Top photo by Konrad Fisher/Klamath Riverkeeper. Heather Rickard of the Karuk Tribe uses a drip torch during the 2016 Prescribed Fire Training Exchange. Bottom photo: Willow Creek Fire Safe Council members help Redwood Valley residents during a County of Humboldt sponsored Firewise Day. **This Page:** Photo by Stephen Underwood. The Canoe Fire burned over 11,000 acres of coast redwood forest in Humboldt Redwoods State Park in 2003.

## Help Firefighters Help You

### Did you know...

- ✓ **Firefighters don't just fight fire** – they are usually the first at the scene of medical emergencies and traffic accidents which, in many cases, make up over 50% of their emergency responses.
- ✓ Volunteers in Northwestern California are a huge asset to local fire departments and the communities they serve. Almost ALL fire departments in this region – even those associated with a special district – rely on volunteers. In fact, many of them have ONLY volunteers, without any paid staff.
- ✓ Most local fire departments are in URGENT need of individuals interested in serving as volunteer firefighters, emergency medical responders, apparatus operators and/or logistics and administration support.
- ✓ Firefighting resources are NOT cheap, and most departments rely on grants, community donations and fundraisers to survive. Here are some reasons why...
  - All costs are increasing: equipment, insurance, apparatus and facility maintenance and repair, fuel, medical supplies, training, and more...
  - A new fire engine can cost over \$450,000. Even a used engine can cost up to \$150,000.
  - Personal Protective Equipment costs to outfit a SINGLE firefighter can exceed \$3,500.

### Local Fire Service Needs your Support

There are many ways you can support your local fire department!

- ✓ *Make a monthly, yearly, or one-time donation.*
- ✓ *Volunteer as a Firefighter! Fire departments are always seeking new recruits!*
- ✓ *Donate your time and abilities! Fire departments need volunteers for more than just firefighting. You can assist in fundraising efforts, administration tasks, and maintenance activities.*
- ✓ *Remember to drive safe, stay healthy, and maintain your defensible space.*
- ✓ *Use the following Fire Protection Agencies Directory pages to find a local fire department near you and find out how you can help. CALL TODAY!*



## Volunteer! Make a difference and enrich your own life.

Volunteering for your local fire department can: help you learn new skills; fulfill a family tradition; give you a sense of camaraderie as part of a team; help you gain experience; prepare you to pursue an exciting career as a firefighter; increase your sense of community identity and pride; and much more!

### Think you have what it takes to be a volunteer firefighter?

Get in touch with the local fire department nearest you and start your adventure.

### No Experience Necessary to Apply!

Local fire departments establish different selection criteria; however, many departments require that volunteers:

- Be at least 18 years of age.
- Have a valid driver's license.
- Be healthy and in good physical condition.
- Complete basic fire and emergency medical service training (sometime within the first year of service).
- Meet the minimum ongoing training requirements.
- Respond to a certain percentage of calls.

Not sure if firefighting or emergency medical services are for you, but still want to serve your community?

Fire departments are also in need of support volunteers who help with NON-firefighting duties such as logistics, traffic control, administration, public education and fire prevention, and fundraising.

## Fire Protection Services in Humboldt County

### IF YOU HAVE AN EMERGENCY, CALL 911.

#### 911 Calling Tips

- Know the **phone number** from which you are calling.
- Know **where you are:**
  - Use an address, cross street, name of a business.
  - If you don't know, ask someone or look for a piece of mail for the address.
  - Latitude and longitude/GPS points work great too.
- **Communicate** to 911 the nature of the emergency.
- **Listen** to the questions and instructions of the dispatcher.
- **Do not hang up** until instructed to do so.

CAL FIRE 911 Emergency Command Center, Fortuna, CA

For more information on Humboldt County Fire Agencies, see [humboldt.gov/FireProtection/Services](http://humboldt.gov/FireProtection/Services).

### ALDERPOINT VOLUNTEER FIRE DEPARTMENT

POB 164, Alderpoint, CA 95511  
707-923-1665

### ARCATA FIRE PROTECTION DISTRICT

631 9th Street, Arcata, CA 95521  
707-825-2000

[www.arcatafire.org](http://www.arcatafire.org)

### BLUE LAKE VOLUNTEER FIRE DEPARTMENT

POB 245, Blue Lake, CA 95525  
707-668-5765

[www.bluelakefire.net](http://www.bluelakefire.net)

**BRICELAND VOLUNTEER FIRE DEPARTMENT**  
POB 1249, BriceLand, CA 95560,  
707-923-7204



**BRIDGEVILLE VOLUNTEER FIRE DEPARTMENT**  
POB 51, Bridgeville, CA 95526  
707-777-3424

**CARLOTTA VOLUNTEER FIRE DEPARTMENT**  
POB 33, Carlotta, CA 95528  
707-768-1714

**FERNDALE VOLUNTEER FIRE DEPARTMENT**  
POB 485, Ferndale, CA 95536  
707-599-5382

<http://ferndalefire.org>

**FIELDBROOK VOLUNTEER FIRE DEPARTMENT**  
4584 Fieldbrook Road  
Fieldbrook, CA 95519  
707-839-0931

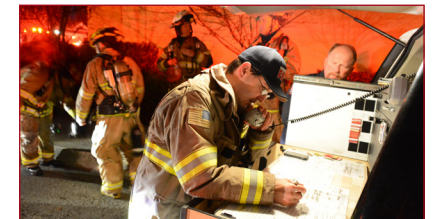
[www.fieldbrookfire.org](http://www.fieldbrookfire.org)



**FORTUNA VOLUNTEER FIRE DEPARTMENT**  
320 South Fortuna Boulevard  
Fortuna, CA 95540  
707-725-5021

**FRUITLAND RIDGE VOLUNTEER FIRE DEPARTMENT**  
POB 87, Myers Flat, CA 95554  
707-943-3402

**GARBERVILLE VOLUNTEER FIRE DEPARTMENT**  
POB 288, Garberville, CA 95542  
707-923-3196



**HUMBOLDT BAY FIRE**  
533 C Street, Eureka, CA 95501  
707-441-4000  
[www.hbfire.org](http://www.hbfire.org)

**HONEYDEW VOLUNTEER FIRE COMPANY**  
POB 74, Honeydew, CA 95545  
707-373-4631

**HOOPA FIRE DEPARTMENT**  
POB 369, Hoopa, CA 95525  
530-625-4366



**HOOPA VOLUNTEER FIRE DEPARTMENT**  
POB 1321, Hoopa, CA 95546  
530-625-1118  
[www.hoopa-nsn.gov](http://www.hoopa-nsn.gov)

**KNEELAND VOLUNTEER FIRE DEPARTMENT**

6201 Greenwood Heights Road  
Kneeland, CA 95549  
707-442-3252  
<http://kneelandfire.org/>

**LOLETA VOLUNTEER FIRE DEPARTMENT**

POB 119, Loleta, CA 95551  
707-733-5407

**MIRANDA VOLUNTEER FIRE DEPARTMENT**

POB 160, Miranda, CA 95553  
707-943-3023

**MYERS FLAT VOLUNTEER FIRE DEPARTMENT**

POB 131, Myers Flat, CA 95554  
707-223-3175

**ORICK VOLUNTEER FIRE DEPARTMENT**

101 Swan Road,  
Orick, CA 95555  
707-488-3093



**ORLEANS VOLUNTEER FIRE DEPARTMENT**

POB 312, Orleans, CA 95556  
530-627-3344

**PALO VERDE VOLUNTEER FIRE COMPANY**

POB 1381, Redway, CA 95560  
707-499-7570

**PETROLIA VOLUNTEER FIRE DEPARTMENT**

POB 169, Petrolia, CA 95558  
707-629-3558



**PHILLIPSVILLE VOLUNTEER FIRE DEPARTMENT**

POB 39, Phillipsville, CA 95559  
707-943-3555

**REDCREST VOLUNTEER FIRE DEPARTMENT**

POB 27, Redcrest, CA 95569  
707-722-1967



**REDWAY VOLUNTEER FIRE DEPARTMENT**

POB 695, Redway, CA 95560  
707-923-2617

**RIO DELL VOLUNTEER FIRE DEPARTMENT**

50 West Center Street  
Rio Dell, CA 95562  
707-764-3329  
[www.riodellfire.com](http://www.riodellfire.com)

**SALMON CREEK VOLUNTEER FIRE DEPARTMENT**

POB 662, Miranda, CA 95553  
707-943-3502



**SAMOA PENINSULA VOLUNTEER FIRE DEPARTMENT**

1982 Gass Street  
Fairhaven, CA 95564  
707-443-9042  
[www.samoafire.org](http://www.samoafire.org)



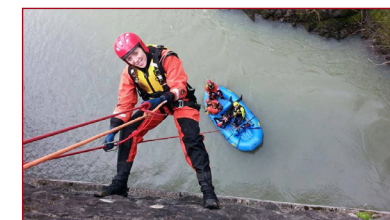
**SCOTIA VOLUNTEER FIRE DEPARTMENT**

145 Main Street,  
Scotia, CA 95565  
707-764-4322



**SHELTER COVE VOLUNTEER FIRE DEPARTMENT**

9126 Shelter Cove Road  
Whitethorn, CA 95589  
707-986-7507  
[www.sheltercove-ca.gov/fire/fire.htm](http://www.sheltercove-ca.gov/fire/fire.htm)



**SOUTHERN HUMBOLDT TECHNICAL RESCUE**

POB 458, Redway, CA 95560  
707-223-0042

**SPROWEL CREEK VOLUNTEER FIRE DEPARTMENT**

POB 2122, Redway, CA 95560  
707-223-3399



**TELEGRAPH RIDGE VOLUNTEER FIRE DEPARTMENT**

POB 1152, Redway, CA 95560  
707-986-7488

**TRINIDAD VOLUNTEER FIRE DEPARTMENT**

POB 390, Trinidad, CA 95570  
707-677-0224



**WESTHAVEN VOLUNTEER FIRE DEPARTMENT**

446/460 6th Avenue  
Westhaven, CA 95570  
707-677-0388

**CAL FIRE FOREST FIRE STATIONS**



**CAL FIRE HUMBOLDT-DEL NORTE UNIT - FORTUNA**

118 South Fortuna Boulevard  
Fortuna, CA 95540  
707-725-4413

**ALDERPOINT STATION**

19545 Alderpoint Road  
Alderpoint, CA 95511  
707-926-5353

**BRIDGEVILLE STATION**

38737 Kneeland Road  
Bridgeville, CA 95526  
707-777-3636

**ELK CAMP STATION**

Bald Hills Road, Orick, CA 95555  
707-499-2240

**GARBERVILLE STATION**

324 Alderpoint Road  
Garberville, CA 95542  
707-923-2645

**MATTOLE STATION**

44056 Mattole Road  
Petrolia, CA 95538  
707-629-3344

**THORN STATION**

13298 Briceland-Thorn Road  
Whitethorn, CA 95589  
707-986-7553



**WHALE GULCH VOLUNTEER FIRE DEPT.**

76850 B Usal Road  
Whitethorn, CA 95589  
707-986-7266



**WHITETHORN VOLUNTEER FIRE DEPT.**

POB 485, Whitethorn, CA 95589  
707-986-7561



**WILLOW CREEK VOLUNTEER FIRE DEPT.**

POB 51, Willow Creek CA  
95573  
530-629-2229

**YUOK VOLUNTEER FIRE DEPARTMENT**

POB 194, Hoopa, CA 95546  
530-625-9232



**TRINIDAD STATION  
COUNTY SERVICE AREA #4**  
POB 749, Trinidad, CA 95570  
707-677-3638

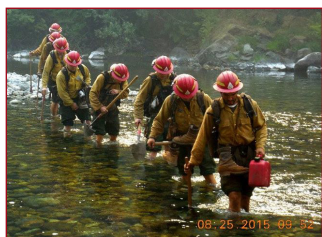


**WEOTT STATION**  
370 Newton Road, Weott, CA  
95571  
707-946-2215

**REDWOOD  
NATIONAL PARK**



**WOLF CREEK FIRE  
STATION**  
Orick, CA  
707-488-5125



**SIX RIVERS  
NATIONAL FOREST  
RANGER STATIONS**



**SIX RIVERS NATIONAL  
FOREST HEADQUARTERS**  
1330 Bayshore Way  
Eureka, CA 95501  
707-442-1721



**LOWER TRINITY**  
POB 68, Willow Creek, CA  
95573  
530-629-2118

**MAD RIVER**  
741 State Highway 36  
Bridgeville, CA 95526  
707-574-6233



**ORLEANS**  
POB 410, Orleans, CA 95556  
530-627-3291



**Humboldt County Fire  
Chiefs' Association**

The Humboldt County Fire Chiefs' Association (Fire Chiefs) works hard to improve the level of service throughout the county by increasing coordination, communication, standardization, and support. The desire to work together to improve interoperability is the driving force behind the efforts of the Fire Chiefs. At their monthly meetings, the group receives regular reports from committees and/or sub groups of the Association including fire instructors/training, fire prevention officers and a fire/arson investigation unit. Cal OES, CAL FIRE, Cal Chiefs, County OES, North Coast EMS, the Humboldt County Fire Safe Council (HCFSC), and others as available also contribute valuable information. These meetings provide a venue for sharing information about training, prevention, standards, legislation, grants, and new initiatives and innovations. Collaboration with these and other agencies has enabled the growth of productive and effective relationships that have proven to be beneficial to all parties.

**HUMBOLDT COUNTY'S EMERGENCY NOTIFICATION SYSTEM**

**Humboldt ALERT**

The Humboldt County Sheriff's Office of Emergency Services wants you to be safe and informed during emergencies in your area — including public health threats, dangerous weather, and safety incidents. Register now to be notified by land line, email, and/or cell phone about local disasters, hazards, and emergencies for free!



Register at:  
[humboldt.gov/alerts](http://humboldt.gov/alerts)



OR scan the QR Code on your phone!

Please contact the Humboldt County Office of Emergency Services if you have any questions, at 707-268-2500, or by email at [oes@co.humboldt.ca.us](mailto:oes@co.humboldt.ca.us).

**REMEMBER, WE CAN'T ALERT YOU IF WE CAN'T REACH YOU.**



**Hoopa Fire Department**

The Hoopa Fire Department strives to develop programs and processes for the protection of the Hoopa Indian Reservation and the community of Hoopa. This is accomplished through an aggressive suppression and prevention program. The Fire Department has developed and approved a Community Wildfire Protection Plan starting in 2016. With this plan the development and initiation of our Hoopa Fire Safe Council can now have direction and an opportunity to plan for and protect the community from wildfire within the WUI. Fire Prevention is also a large part of our daily activities. Helping land owners and working on Tribal Lands, we assist with land clearing, utilizing mechanical methods as well as burning. Public presentations, fire prevention drills and talks in the local schools, as well as

constantly sending out information to the community is at the top of our priority list for the prevention of catastrophic fire in Hoopa.

For more information about the Hoopa Fire Department and its Tribal Fire program, call the administrative office during normal business hours at 530-625-4366.



## Consider a Career with the USDA Forest Service



To view upcoming employment opportunities, visit the following Forest Service websites:

<https://fsoutreach.gdcii.com/Outreach>

[www.fs.fed.us/working-with-us/jobs](http://www.fs.fed.us/working-with-us/jobs)

For more information about the Six Rivers National Forest, visit:

[www.fs.usda.gov/srnf](http://www.fs.usda.gov/srnf) “like” us on Facebook at [www.facebook.com/USFSSixRiversNF](https://www.facebook.com/USFSSixRiversNF)

or “follow” us on Twitter at [www.twitter.com/SixRiversNF](https://www.twitter.com/SixRiversNF)



## Who Is the CAL FIRE Humboldt-Del Norte Unit?

The California Department of Forestry and Fire Protection, better known as CAL FIRE, Humboldt–Del Norte Unit (HUU) is one of 21 CAL FIRE administrative units statewide. We have a diverse and expansive list of duties that include emergency response, timber harvest administration, fire suppression, and



fire prevention planning. These duties are carried out by 11 fire stations, three fire crew camps, one air attack base, one helitack base, and one emergency command center. HUU maintains 14 frontline engines, two reserve engines, two dozers, 15 inmate fire crews, one helicopter, one air attack, and one air tanker. There are one hundred permanent fire-suppression personnel and six clerical personnel to staff these efforts. Additionally, approximately ninety limited-term and seasonal personnel supplement permanent staff during fire season. We also have 15 resource management foresters who evaluate timber harvesting practices and permitting.



CAL FIRE HUU has several programs funded through the SRA prevention fees (see next page.) Unit prevention efforts include communi-

ty fire safe exhibitions, open burning permits, fire patrols, structure and dooryard premises inspections, and participation on the Humboldt County Fire Safe Council.

The Unit’s goals are to reduce ignitions/fires through education, information, planning, and enforcement. Increasing public awareness helps focus efforts by individuals and communities to reduce human loss and property damage from wild-land fire. This mission is carried out through defensible space inspections, hazardous fuels reduction projects, fire prevention education and fire-safe building standards. Fire prevention programs are coordinated with Fire Safe Councils and local fire departments. While striving to achieve these goals, the Unit’s objective is to see reduced fire ignitions, property loss and damage to the environment.



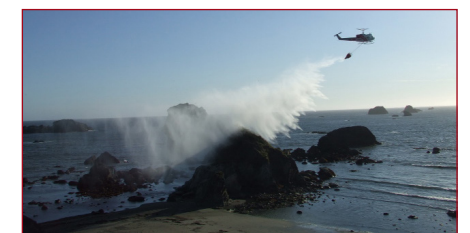
CAL FIRE is one of the largest fire departments in North America. We respond to over 340,000 incidents statewide annually. In Humboldt and Del Norte counties CAL FIRE responds to over 1,500 incidents annually. Over the past several years, emergency response to wildfire has increased due to drought, more construction, and land use activity in the wildlands. In Humboldt and Del Norte counties, calls for emergency service have increased dramatically. Most of Humboldt and Del Norte counties are served by volunteer



fire departments. On average, each volunteer department is committing to thousands of human-power hours each year. There are 44 volunteer fire departments between Humboldt and Del Norte counties. There are also three full-time career fire departments in the two counties. Over the last three years, the volunteers and career staff between both counties have responded to over 15,000 calls for service annually. CAL FIRE works with all the fire departments in both counties.



CAL FIRE is a signatory agency to several cooperative agreements. These are reciprocal, which allow CAL FIRE to receive and give mutual aid with state, local, and federal agencies. CAL FIRE’s local federal cooperators are US Forest Service, Bureau of Land Management, National Park Service, US Fish and Wildlife Service, and Bureau of Indian Affairs.



## We Live in a Wildfire Environment

The beautiful and scenic landscapes of northwestern California make this area an enticing place to live. For those who have experienced the spectacular natural resources this region has to offer, it is understandable why many residents have sought homes adjacent to or within woodland and back-country areas. The intermingling of human developments such as roads and houses with undeveloped wildlands, is known as the wildland-urban interface (or “WUI” for short). **It is critical that WUI residents are aware of their heightened vulnerability to damage from wildfire AND that they know what can be done to reduce their risk and prepare their homes against the threat of wildfire.** The goal of this publication is to raise awareness about wildfire hazards and provide tools and information that can help homeowners, their families, homes and properties survive and thrive in a wildfire-prone environment. Because in California, it’s not a matter of IF a wildfire will happen, but WHEN.

**Fire has traditionally been, and will continue to be, an integral part of northwestern California’s landscapes.** These ecosystems have adapted to and evolved with fire. Consequently, many native plants are adapted to burn periodically; they need fire to be healthy, reproduce, and survive. Many Native American tribes observed and understood the beneficial effects of fire on the environment and incorporated small, intentional burns in their landscape management. Such practices improved food and cultural resources, such as acorns, basketry material, and grasses favored by deer and elk, which were hunted for food. Agricultural settlers in the 1800s also used intentional burns to improve and maintain grasslands for pasture animals.

These more frequent, low-intensity fires helped keep forest ecosystems healthy by burning away dead vegetation, brush, and regeneration in the understory, which replenishes soil nutrients and prevents forests and shrublands from becoming too overcrowded. Overcrowding can make trees less vigorous and more

vulnerable to insects and diseases, such as the outbreak of Sudden Oak Death in our local hardwood forests.

A history of fire suppression since the early 1930s has interrupted the region’s natural cycle of fire, altering the composition of the landscape and allowing the accumulation of dense vegetation and dead fuels in forest understories. These large amounts of combustible materials, known as *high fuel loads*, increase the likelihood that wildfires will burn at a high intensity, with extremely hot temperatures and fast rates of spread. Such high-intensity wildfires are capable of destroying large areas of forest and threatening our communities. Historic logging and land management practices, as well as urban

and suburban development, have contributed to increased wildfire fuel loads in the WUI, which in turn, has increased the risk of catastrophic wildfires in the forestlands of northwestern California.

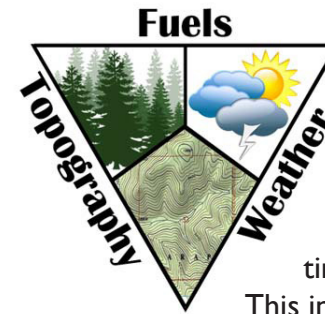
Over the last several years, this area has seen increasing numbers of catastrophic wildfires.

Climate change is causing us to swing between too little and too much precipitation, as well as extreme temperatures. The recent drought brought us some of the biggest and most damaging wildfires in our nation’s history. Excessive rain can lead to lots of grass and other flashy fuels (those that burn quickly). If rains are followed by hot, dry spells, it only takes a spark and some wind to create the scenario for another catastrophic fire.

Given these recent extremes in temperature and precipitation, it is especially important for residents to prepare their homes, communities, and neighborhoods for the eventuality of wildfire. Research on wildfires in California since the 1960s teaches us that there is much we can do to prepare ourselves to coexist with wildfire. Hardened homes with defensible space have a greater chance of surviving wildfire. Within these pages you will find information to ensure your home, family, neighborhood, and community can effectively coexist with wildfire.



## Fire Behavior: Do Fires Really Behave?



How quickly a fire spreads, and in which direction (whether horizontally or vertically), how hot it burns, how long its flame lengths are, are all aspects of what’s known as *fire behavior*. The faster, hotter, and bigger a fire becomes, the more difficult it is to control and more destructive it can be.

Knowing the attributes of fire behavior is important in order to communicate the various threats from any fire and the benefits of mitigation. Flame length, fire intensity, heat output, rate of spread, residence time, and whether it is a surface or a crown fire, are all aspects of fire behavior.

This information helps us to understand fire’s resistance to control, potential damage, and/or positive impacts.

### There are three major contributing factors that affect fire behavior:

#### Weather, Topography, and Fuel



**Weather** characteristics such as wind, temperature, and relative humidity (i.e., moisture in the air) will influence the way a fire behaves. In general, strong, erratic winds, high temperatures, and low relative humidity will increase fire behavior.



**Topography** refers to characteristics of the landscape, including slope, aspect, and surface configurations—such as mountains, valleys, canyons, and drainages. Fire behavior tends to increase with steepness of the slope is, particularly in narrow canyons and drainages, which can create a chimney

effect, where a convection column of heat drives the fire quickly upwards. Fire behavior also tends to be greater on slopes with south and southwest aspects, because they receive more sun during the hotter part of the day, drying out fuels and make them more ignitable.

**Fuels** are any combustible materials. In regard to wildfire, fuels generally consist of living vegetation (trees, shrubs, grass) and dead plant material (dead trees, dried grass, fallen branches, pine needles, etc.). Homes in the path of a wildfire can become fuel too. The amount, size, moisture content, and arrangement of fuels have an influence on fire behavior. Drier fuels ignite more easily, and the more dense and continuous the distribution of fuels is, the more extreme the fire’s behavior will be. Grass is considered a light, flashy fuel that burns quickly, while heavier fuels such as downed trees take longer to ignite and burn for longer periods of time. A fire burning through fuels that are spaced farther apart will not burn as quickly, while a fire burning through fuels that are crowded and continuous will tend to burn hotter and more rapidly.



**The Wildland-Urban Interface (WUI)**

Human developments in the WUI create additional wildfire hazards. Vehicles, electrical wiring, appliances, chimneys, other potential ignition sources, and these developments put more values—such as lives, pets, property, and natural resources—at risk. People living in the WUI are at an increased risk of structure fires resulting from wildland fires and, vice versa, causing structure fires that ignite wildland fires. That is why it is especially important for residents living within the WUI to develop an understanding of fire behavior, fire risks, and how to take precautions to harden homes against destruction from wildfire. The pages that follow elaborate on these topics.



**Negative Environmental Impacts of High-Intensity Wildfires**

The forests of Northern California are valuable ecosystems that sustain a wealth of biodiversity, offer viable wildlife habitat, provide sanctuary for many special status species, and support healthy watersheds by retaining massive amounts of water in their robust soil compositions.

When high-intensity wildfires occur, they can kill wildlife, scorch entire forests, and destroy microbes in the soil, causing negative impacts to ecological functions.

Erosion following wildfires can also cause large amounts of sediments to be deposited into streams and rivers, which can damage aquatic habitat and threaten fish species. Aquatic species can be further impacted when wildfires destroy vegetation that provides shade for water bodies. This causes water temperatures to rise, which can promote algae blooms and limit habitat suitable for fish spawning. Firefighting methods can also have negative impacts on local water. Fire retardant and foam suppressants are toxic to many aquatic species.

Bucket dipping, or drawing water from rivers and creeks for fire suppression, can deplete stream flows that are typically already low during the late summer months when native salmon and steelhead populations are most vulnerable.

Therefore, it's important we prepare our homes and communities so we don't start fires that can spread to our nearby precious wildlands and threaten native flora and fauna.

**Ignition Sources, or How Do Fires Start?**

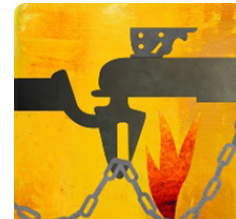
Simply put, fire is a rapid combination of fuel, heat and air. When enough heat is applied to a fuel, the result is fire. Heat is necessary to begin the reaction. Once started, fire produces its own life-giving heat and the reaction becomes spontaneous. As long as there is fuel, air and heat present, the fire will continue to burn.

**Summer storms** – with or without rain – can produce lightning strikes, which have long been among the most common fire starters, or “ignition sources,” in Northern California. Many lightning-caused fires occur in remote, forested areas with few homesteads nearby; however, a single storm can generate numerous wildfires through multiple lightning strikes. Multiple, simultaneous wildfires can spread firefighting resources thin and limit suppression capabilities. However, even when wildfires are remote enough that they do not immediately threaten any human communities, the build-up of hazardous fuels from decades of dramatic fire suppression can produce high-intensity wildfires that have harmful effects on the environment.

**Humans Cause 94% of Wildfires in California!**

Today, the majority of wildfires are caused by humans. However, most human-caused fires are started by accident. This means that the number of wildfires started by humans can be significantly reduced with some prevention education and by increasing awareness of the actions and conditions that tend to spark accidental wildfires.

**HUMANS ACCIDENTALLY CAUSE WILDFIRES BY...**



**VEHICLES AND TOWING** – For many of us, the vehicles we drive become second nature to us, and it is easy to forget that they are potentially dangerous machines that require constant vigilance. Vehicles can create sparks that can lead to wildfires in many ways, and it's the driver's responsibility to be mindful of and take action to prevent that from occurring. See page 16 for more information on how to avoid vehicle-caused wildfire ignitions.



**EQUIPMENT AND MACHINERY USE** – Lawn mowers, weed whackers, chainsaws, and other machinery are useful tools for managing vegetation on your property, among other tasks. However, it is important to always be mindful of fire hazard conditions when operating equipment and machinery outside. If it is a hot, dry or windy day, it is not a good time to mow your lawn. These conditions cause low moisture levels in vegetation, making them highly combustible, and all it takes is a single spark from your equipment to ignite a fire. Early morning, when the air is cooler and the wind is calmer, is a better time to use equipment during fire season. See page 18 for more information on avoiding equipment and machine-caused wildfire ignitions.



**CAMPFIRES** – Camping is a great way to enjoy and experience firsthand the scenic landscapes and natural resources Northern California has to offer. Campfires are an all-time favorite part of the camping experience, but it's important to remember that summer—the most popular time for camping—is also fire season. Campfires are the 3rd leading cause of human-caused wildfires. Safe and responsible management of campfires is crucial to protecting yourself and others, as well as the natural surroundings you're there to enjoy. See pages 16 to 17 for more information on appropriate campfire use.



**DEBRIS BURNING** – Debris or pile burning is one way to dispose of debris from vegetation management on your property. However, there are sensible regulations on how and when this is done, and for good reason. Unattended or oversized burn piles can “escape” and cause wildfires that put homes and people directly at risk. See pages 19, 25, and 34 for more information on how to pile burn safely.

**Unfortunately, not all human-caused fires start by accident...**

Arson is a serious problem for some communities in this region. Grave consequences ensue for perpetrators who endanger countless lives and properties and cause potentially millions of dollars in damages. If you have information about arson behavior, or suspect someone of arson, don't hesitate... Make a report!

**Call the CAL FIRE Arson Hotline: 1-800-468-4408**



# OPEN CAMPFIRE SAFETY RULES

Campfire Safety to Prevent Wildfire

LEARN HOW TO BUILD AN OPEN CAMPFIRE, MAINTAIN IT DURING THE BURN TIME AND HOW TO EXTINGUISH AN OPEN CAMPFIRE WHEN FINISHED:

## BUILD

TO BUILD AN OPEN CAMPFIRE



SELECT A LEVEL, OPEN LOCATION AWAY FROM HEAVY FUELS SUCH AS LOGS, BRUSH OR DECAYING LEAVES AND NEEDLES.

5 FT

CLEAR AN AREA AT LEAST 5 FEET FROM FIRE'S EDGE (LOCAL REGULATIONS MAY VARY).



SCRAPE AWAY GRASS, LEAVES OR NEEDLES DOWN TO THE MINERAL SOIL.

## 7

CUT WOOD IN SHORT LENGTHS, PILE WITHIN CLEARED AREA AND LIGHT THE FIRE.



SCOOP A DEPRESSION IN THE CENTER OF THE CLEARED AREA IN WHICH TO BUILD THE FIRE AND PUT A RING OF ROCKS AROUND IT.



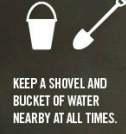
THE FIRE SHOULD BE BUILT NO LARGER THAN NECESSARY FOR COOKING OR PERSONAL WARMTH.



YOUR FIRE MUST NEVER BE LEFT UNATTENDED AND THE FIRE MUST BE EXTINGUISHED COMPLETELY BEFORE LEAVING.

## BURN

THE FIRE IS BURNING



KEEP A SHOVEL AND BUCKET OF WATER NEARBY AT ALL TIMES.



WHILE THE FIRE IS BURNING, BE SURE THERE IS A RESPONSIBLE PERSON IN ATTENDANCE OF THE FIRE AT ALL TIMES.



NEVER LEAVE CHILDREN AROUND A FIRE UNATTENDED.

## OUT

COMPLETELY EXTINGUISH AN OPEN CAMPFIRE



USE THE "DROWN, STIR AND FEEL" METHOD: DROWN THE FIRE WITH WATER, THEN STIR AROUND THE FIRE AREA WITH YOUR SHOVEL TO WET ANY REMAINING EMBERS AND ASH.



FEEL THE AREA WITH THE BACK OF YOUR HAND TO ENSURE NOTHING IS STILL SMOLDERING.



TURN WOOD AND COALS OVER AND WET ALL SIDES.



MOVE SOME DIRT ONTO THE FIRE SITE AND MIX THOROUGHLY TO FULLY SMOTHER IT.



FOR MORE INFORMATION AND A PRINT-READY CAMPFIRE PERMIT VISIT: [PREVENTWILDFIRECA.ORG](http://PREVENTWILDFIRECA.ORG) #PREVENTWILDFIRE #ONELESSSPARK

BROUGHT TO YOU BY THE CALIFORNIA WILDLAND FIRE COORDINATING GROUP (CWCG)

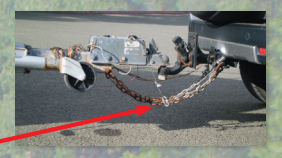
# ONE LESS SPARK ONE LESS WILDFIRE

## ONE LESS SPARK ONE LESS WILDFIRE

### CAUSED BY: VEHICLES

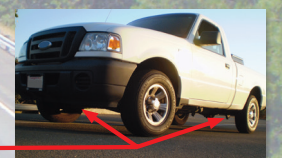
#### Safe Towing

Dragging chains will throw sparks. Never substitute parts when towing. Only use appropriate safety pins & hitch ball.



#### Nothing Dragging

Make sure your vehicle is properly maintained, with nothing dragging on the ground.



#### Be Wheel Safe

Check tire pressure. Driving on an exposed wheel rim throws sparks.



Only You Can Prevent Wildfires.



California Wildfire Coordinating Group  
Produced in cooperation with the USDA Forest Service, which is an equal opportunity service provider and employer.  
Photography by Forest Service: Mark Thibodeau and Ron Hodgson  
62-49-000 June 2013



## Visitors - Please be safe when enjoying our backyard! CAMPFIRE SAFETY

### How to Pick Your Spot

Follow these steps when picking your burning site to promote wildfire safety:

- DO NOT build a fire at a site in hazardous, dry conditions. DO NOT build a fire if the campground area or event rules prohibit campfires.
- FIND OUT if the campground has an existing fire ring or fire pit, and if there are any current campfire restrictions. If there is not an existing fire pit, and pits are allowed, look for a site that is at least 15 feet away from tent walls, shrubs, trees or other flammable objects. Also, beware of low-hanging branches overhead.

### Building Your Campfire Pit from Scratch

Whether building a campfire pit yourself, or preparing a pit that you found on your campsite, there are some important safety tips you should follow. Some campsites have unsuitable pits or may not offer pre-made pits at all. If this is the case:

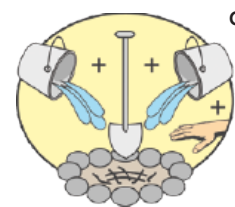
- Choose a spot that is downwind, protected from wind gusts, and at least 15 feet away from your tent and gear.
- Choose a 10-foot-diameter area around the site. Remove any grass, twigs, leaves and firewood. Also, make sure there aren't any tree limbs or flammable objects hanging overhead.
- Dig a pit in the dirt, about a foot deep.
- Circle the pit with medium-large rocks.
- Your pit is built and ready for your campfire!
- Remember to always keep a bucket of water and a shovel ready.

Note: In some areas, digging pits is not allowed because of archaeological or other concerns. Please find out the rules in your area before digging.

### Extinguishing Your Campfire

When you're ready to put out your fire and call it a night, follow these guidelines:

- Allow the wood to burn completely to ash, if possible.
- Pour lots of water on the fire, drown ALL embers, not just the red ones.
- Pour water on fire until all hissing sounds stop.
- Stir the campfire ashes and embers with a shovel.
- Scrape the sticks and logs to remove any embers.
- Stir and make sure everything is wet and they are cold to the touch.
- If you do not have water, use dirt. Mix enough dirt or sand with the embers. Continue adding and stirring until all material is cool.
- Do NOT bury the fire as the fire will continue to smolder and could catch roots on fire that will eventually get to the surface and can start a wildfire.



**REMEMBER: If it's too hot to touch, it's too hot to leave!**

### Do Not Burn Dangerous Things!

- NEVER burn aerosol cans or pressurized containers, as they may explode.
- NEVER put glass in the fire pit. It is unlikely that it will get hot enough to melt and more likely that it will heat up and shatter, creating broken slivers of glass that are dangerous.
- DO NOT put aluminum cans in the fire pit. They are unlikely to break down completely and inhaling aluminum dust can be harmful to your lungs.

Get Your California Campfire Permit for Free Online at: [www.preventwildfireca.org/Campfires/](http://www.preventwildfireca.org/Campfires/)

# ONE LESS SPARK ONE LESS WILDFIRE

## ONE LESS SPARK ONE LESS WILDFIRE

### CAUSED BY: HOMEOWNERS

#### Use the Right Equipment

Use string vegetation trimmers to cut tall, dry grass.



#### Remove Rocks

Remove rocks from dry grass or weeds. Metal mower blades hitting rocks start wildfires.



#### Be Ready!

Have water and a fire extinguisher readily available.



Only You Can Prevent Wildfires.



Produced in cooperation with the USDA Forest Service, which is an equal opportunity service provider and employer. Photography by Forest Service: Mark Thibodeau and Ron Hodgson. July 2013



## EQUIPMENT SAFETY

Practice Using Equipment Safely

LEARN HOW TO USE OUTDOOR EQUIPMENT PROPERLY TO HELP KEEP FROM SPARKING A WILDFIRE:

**MOWING**

- MOW BEFORE 10 A.M., BUT NEVER WHEN IT'S WINDY OR EXCESSIVELY DRY.
- LAWN MOWERS ARE DESIGNED TO MOW LAWNS, NOT WEEDS OR DRY GRASS.
- METAL BLADES STRIKING ROCKS CAN CREATE SPARKS AND START FIRES.

**SPARK ARRESTERS**

IN WILDLAND AREAS, SPARK ARRESTERS ARE REQUIRED ON ALL PORTABLE GASOLINE-POWERED EQUIPMENT. THIS INCLUDES TRACTORS, HARVESTERS, CHAINSAWS, WEEDEATERS AND MOWERS.

KEEP THE EXHAUST SYSTEM, SPARK ARRESTERS AND MOWER IN PROPER WORKING ORDER AND FREE OF CARBON BUILDUP.

USE THE RECOMMENDED GRADE OF FUEL AND DON'T TOP IT OFF.

**EQUIPMENT USE**

- KEEP A SHOVEL AND A FIRE EXTINGUISHER READY TO USE.
- IN WILDLAND AREAS, GRINDING AND WELDING OPERATIONS REQUIRE A PERMIT AND 10-FEET OF CLEARANCE.

DON'T DRIVE YOUR VEHICLE ONTO DRY GRASS OR BRUSH. HOT EXHAUST PIPES AND MUFFLERS CAN START FIRES THAT YOU WON'T EVEN SEE—UNTIL IT'S TOO LATE!

KEEP A CELL PHONE NEARBY AND CALL 911 IMMEDIATELY IN CASE OF FIRE.

**TERRAIN**

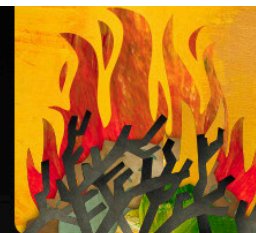
- TO PROTECT WATER QUALITY, DO NOT CLEAR VEGETATION NEAR WATERWAYS TO BARE SOIL.
- VEGETATION REMOVAL CAN CAUSE SOIL EROSION, ESPECIALLY ON STEEP SLOPES.
- KEEP SOIL DISTURBANCE TO A MINIMUM.

**ONE LESS SPARK ONE LESS WILDFIRE**

FOR MORE INFORMATION AND A PRINT-READY CAMPFIRE PERMIT VISIT: [PREVENTWILDFIRECA.ORG](http://PREVENTWILDFIRECA.ORG)  
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[www.preventwildfireca.org](http://www.preventwildfireca.org)



## LANDSCAPE DEBRIS BURNING

Proper Debris Burning Prevents Wildfire

LEARN THE HOW, WHAT AND WHEN OF PREVENTING WILDFIRES FROM IMPROPER BURNING:

**HOW**

- DON'T BURN UNLESS WEATHER CONDITIONS (PARTICULARLY WIND) ARE SUCH THAT BURNING CAN BE CONSIDERED SAFE.
- KEEP A WATER SUPPLY AND SHOVEL CLOSE TO THE BURNING SITE.
- A RESPONSIBLE ADULT IS REQUIRED BY LAW TO BE IN ATTENDANCE UNTIL THE FIRE IS OUT.

LANDSCAPE DEBRIS PILES MUST BE IN SMALL 4-FEET BY 4-FEET PILES.

4FT

10FT

CLEAR ALL FLAMMABLE MATERIAL AND VEGETATION WITHIN 10-FEET OF THE OUTER EDGE OF PILE.

**WHAT**

- NO HOUSEHOLD TRASH OR GARBAGE CAN BE BURNED OUTDOORS AT RESIDENCES.
- DRY, NATURAL VEGETATION, GROWN ON THE PROPERTY CAN STILL BE BURNED OUTDOORS IN OPEN PILES, UNLESS PROHIBITED BY LOCAL ORDINANCES.

**WHEN**

DON'T BURN IF IT IS WINDY AND THE SURROUNDING VEGETATION IS VERY DRY.

**PERMITS**

BURNING CAN ONLY BE DONE AFTER OBTAINING REQUIRED PERMITS FOR PERMISSIVE BURN DAYS. CHECK BURN DAYS BY CONTACTING YOUR LOCAL AIR DISTRICT.

**ONE LESS SPARK ONE LESS WILDFIRE**

FOR MORE INFORMATION AND A PRINT-READY CAMPFIRE PERMIT VISIT: [PREVENTWILDFIRECA.ORG](http://PREVENTWILDFIRECA.ORG)  
#PREVENTWILDFIRE #ONELESSSPARK

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## How to Safely Burn Landscape Debris

Burning yard waste is unfortunately a major cause of fire in our region. All burning requires a permit. Follow the requirements of your burn permit and the information below to safely burn your yard waste.

- ✓ On a burn day, yard waste piles for a Standard permit up to 4 feet and Non-Standard up to 10 feet, may be burned.
- ✓ Clear all flammable material and vegetation within 10 feet of the outer edge of the debris pile.
- ✓ Keep a water supply and shovel close to the burning site.
- ✓ A responsible adult is required by law to be in attendance until the fire is out.
- ✓ No burning shall be undertaken unless weather conditions (particularly wind) are such that burning can be considered safe.

It is important for residents to stay mindful of current weather conditions when burning. If it's windy and the surrounding vegetation is very dry, it may be best to wait and burn landscape debris another day.

*Continued on page 25.*



To find out if it is a Permissive Burn Day, or to get your permit, contact your local Air Quality District at 707-443-3093. For more information, visit: [www.preventwildfireca.org/Debris-Burning](http://www.preventwildfireca.org/Debris-Burning) and see page 23.

## How Homes Catch Fire

Three factors are required for fire: fuel, oxygen, and heat; together they comprise what we call the fire triangle. If any one of these elements is missing, a fire won't start; or should it start, it won't spread. Fuel is the one element of the fire triangle that we can modify. For this reason, the general principle behind making an area "fire safe" (making it as safe as possible for when a fire does pass through) is to reduce the amount of fuel that a fire could consume and to alter its arrangement and type. In other words, you do not want anything near your home that could ignite, burn, or spread fire. The fuels closest to a home – including the home itself – are often what make the difference between surviving a wildfire or not. Wildfire ignites homes through transferring heat in three ways: flying embers, radiant heat, or direct contact by flame.



### Three Ways Your Home Can Be Exposed to Fire\*

#### Burning Embers

Burning needles, leaves, branches and cones create embers or brands in a "blizzard" during a wildfire, and land on combustible materials on the home or enter the home through vents and other openings.

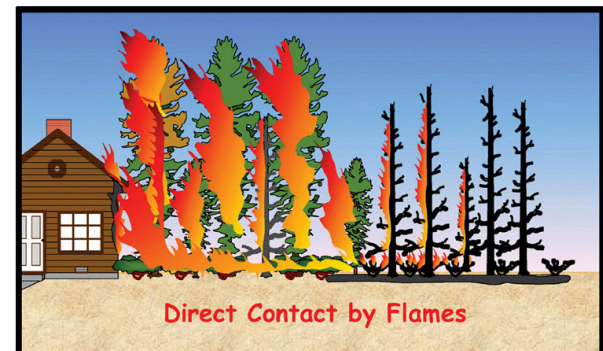
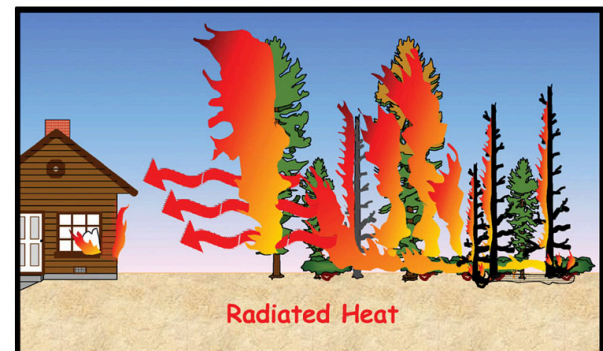
#### Radiated Heat

Heat from burning vegetation or structures ignites the home's roof, siding, decks, or porches, or breaks windows, allowing ignition of the interior of the home.

#### Direct Flame

Combustible fuels (e.g., grass, pine needles, dry leaves, woodpiles, furniture, doormats) on or immediately adjacent to the home ignite and spread the fire to the home itself. This is also referred to as "Flame Impingement," which is the transfer of heat through direct flame exposure.

\* Reprinted from "Safer From the Start: A Guide to Firewise-Friendly Development," produced by the NFPA in cooperation with the US Forest Service. Available at: [www.firewise.org/wildfire-preparedness/teaching-tools/brochures-and-booklets.aspx](http://www.firewise.org/wildfire-preparedness/teaching-tools/brochures-and-booklets.aspx).



## Know the Law for Defensible Space and Hardening Your Home

If you live in a State Responsibility Area (SRA), you are responsible for ensuring that your property is in compliance with California's building and fire codes that call for homeowners to take proactive steps to protect their property from a wildfire.

California law requires that homeowners in an SRA clear out flammable materials such as brush or vegetation around their buildings to 100 feet (or the property line) to create a defensible space buffer. This helps halt the progress of an approaching wildfire and keeps firefighters safe while they defend your home.

The law also requires new homes to be constructed with fire-resistant materials. By building your home with materials like fire-resistant roofing, enclosed eaves and dual-paned windows, you are hardening your home and giving it a fighting chance to survive a wildfire.

By following the law, you will help prevent buildings from being ignited by flying embers, which can travel as much as a mile away from a wildfire.

Make sure to check with your local fire station about laws in your area, as many local jurisdictions may have more stringent requirements.

Want to know more? Check out CAL FIRE and the State Board of Forestry's *General Guidelines for Creating Defensible Space*, [http://bofdata.fire.ca.gov/PDF/Copyof4291finalguidelines9\\_29\\_06.pdf](http://bofdata.fire.ca.gov/PDF/Copyof4291finalguidelines9_29_06.pdf)



### Winners & Losers?

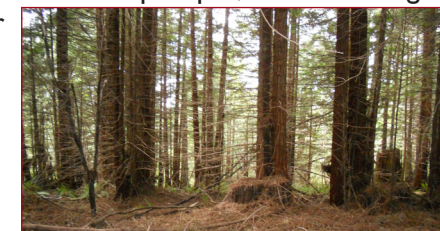
Firefighters used to use the terms "winners" and "losers" – preferable terms now are "defendable" and "not defendable" – to distinguish between those houses with defensible space versus those that do not have it. In a larger emergency situation (where many homes are threatened), homes without defensible space may get passed over in favor of protecting those with defensible space, which have a greater chance of survival and offer firefighters a safer environment. Firefighter safety is often more threatened in structure protection (i.e., homes and buildings), than in wildland situations. Homeowners should provide an inviting condition; after all, firefighters may be your friends, neighbors, or relatives. If it is too dangerous for firefighters to get in and out of an area, they are instructed not to risk their lives and equipment to save something that is not defensible.

### What Are Ladder Fuels?



Ladder fuels are the continuous line of vegetation from the ground into the canopy (or upper branches) of trees, which allows fire to climb up into the tree canopy. The concept of fuel continuity is similar and includes both vertical and horizontal directions. Vertical continuity is the fuel ladder concept; horizontal fuel continuity is a continuous horizontal line of fuel (usually on the ground). In the latter case, the fuel extends from something – like your house – continuously out into the wildland. A

good example of this is seen with decks on steep slopes, where the edge of the deck is next to the crowns or tops of the trees (forest canopy). If a fire started either at the house or in the forest, it would have a continuous line of fuel to spread from one to the other via the deck.



## Being Ready—Preparing Your Home and Property for Wildfire

Being ready for wildfire starts with maintaining an adequate defensible space and by hardening your home by using ignition-resistant building materials.\* Defensible space is the buffer you create by removing dead plants, grass and weeds. This buffer helps to keep the fire away from your home. Hardening your home means using construction materials that can help your home withstand flying embers finding weak spots in the construction, which can result in your house catching fire. It takes the combination of both defensible space and the hardening of your home to really give your house the best chance of surviving a wildfire.

Flying embers can destroy homes up to a mile from a wildfire. “Harden” your home now before a fire starts by using ember-resistant building materials.

Here are some things you can do to harden your home and make it more fire resistant.



### Roof

The roof is the most vulnerable part of your home. Homes with wood or shingle roofs are at high risk of being destroyed during a wildfire.

- Build your roof or re-roof with materials such as composition, metal or tile.
- Block any spaces between roof decking and covering to prevent embers from catching.

### Vents

Vents on homes create openings for flying embers.

- Cover all vent openings with 1/8-inch to 1/4-inch metal mesh. Do not use fiberglass or plastic mesh because they can melt and burn.

## Hardening Your Home

- Protect vents in eaves or cornices with baffles to block embers (mesh is not enough).

### Eaves and Soffits

Eaves and soffits should be protected with ignition-resistant\* or non-combustible materials.

### Windows

Heat from a wildfire can cause windows to break even before the home ignites. This allows burning embers to enter and start fires inside. Single-paned and large windows are particularly vulnerable.

- Install dual-paned windows with one pane of tempered glass to reduce the chance of breakage in a fire.
- Consider limiting the size and number of windows that face large areas of vegetation.

### Walls

Wood products, such as boards, panels or shingles, are common siding materials. However, they are combustible and not good choices for fire-prone areas.

- Build or remodel your walls with ignition-resistant\* building materials, such as stucco, fiber cement, wall siding, fire-retardant-treated wood, or other approved materials.
- Be sure to extend materials from the foundation to the roof.

### Decks

Surfaces within 10 feet of the building should be constructed with ignition-resistant,\* non-combustible, or other approved materials.

- Ensure that all combustible items are removed from underneath your deck.

### Rain Gutters

- Screen or enclose rain gutters to prevent accumulation of plant debris.

### Patio Cover

- Use the same ignition-resistant\* materials for patio coverings as a roof.

### Chimney

- Cover your chimney and stovepipe outlets with a non-combustible screen.

**\*Ignition-resistant building materials** are those that resist ignition or sustained burning when exposed to embers and small flames from wildfires. Examples of ignition-resistant materials include “non-combustible materials” that don’t burn, exterior grade fire-retardant-treated wood lumber, fire-retardant-treated wood shakes and shingles listed by the State Fire Marshal (SFM) and any material that has been tested in accordance with SFM Standard 12-7A-5.

## Hardening Your Home to Survive Wildfire

- Use metal screen material with openings no smaller than 3/8 inch and no larger than 1/2 inch to prevent embers from escaping and igniting a fire.

### Garage

- Have a fire extinguisher and tools such as a shovel, rake, bucket, and hoe available for fire emergencies.
- Install weather stripping around and under the garage door to prevent embers from blowing in.
- Store all combustible and flammable liquids away from ignition sources.

### Fences

- Consider using ignition-resistant\* or non-combustible fence materials to protect your home during a wildfire.



### Driveways and Access Roads

Driveways should be built and maintained in accordance with state and local codes to allow fire and emergency vehicles to reach your home. Consider maintaining access roads with a minimum of 10 feet of clearance on either side, allowing for two-way traffic.

- Ensure that all gates open inward and are wide enough to accommodate emergency equipment.
- Trim trees and shrubs overhanging the road to allow emergency vehicles to pass.

### Address

- Make sure your address is clearly visible from the road

### Water Supply

- Consider having multiple garden hoses that are long enough to reach all areas of your home and other structures on your property.
- If you have a pool or well, consider getting a pump.

### Useful Links

There are many great online resources for fire-safe construction, several from the University of California, Berkeley. Their *Homeowner Wildfire Assessment* is a simple questionnaire to assess your home’s preparedness. Their *Homeowner’s Wildfire Mitigation Guide* is an easy-to-use guide showing the different areas of your home and what you can do to make each one fire safe.

[Fire Information Engine – Homeowner Wildfire Assessment: http://firecenter.berkeley.edu/homeassessment/home\\_assess\\_intro.html](http://firecenter.berkeley.edu/homeassessment/home_assess_intro.html)

[Homeowner’s Wildfire Mitigation Guide: http://ucanr.edu/sites/Wildfire/](http://ucanr.edu/sites/Wildfire/)



### Additional Home Fire-Safety Steps

are available at: [www.readyforwildfire.org/Hardening-Your-Home](http://www.readyforwildfire.org/Hardening-Your-Home).

### What is a Hardened Home?



“Fire hardened” means your home is more secure from wildfire threats. It does NOT mean fireproof; rather that you have protected the weakest parts of your home’s vulnerabilities with proven building materials and/or techniques to resist some heat and flame along with the ember storm that accompanies large wildfires. A common misconception is that buildings burn randomly during wildfire events, this is not the case. It is the most vulnerable homes, those built or retrofitted without consideration for fire-safe construction, that have the greatest likelihood of burning.

Part of learning to live with wildfire is cultivating an understanding that we have much control regarding how we address this vulnerability, and how we can prepare and manage for fire in our individual communities. Hardened-home features are mandatory for new construction, yet these suggested standards are also useful when remodeling or making improvements to your home to enhance its fire safety. Three priority considerations and target areas for hardening your home to wildfire are: the roof, the vents, and materials immediately surrounding the home.

Visit **Wildfire Protection Building Construction**, <http://osfm.fire.ca.gov/codedevelopment/wildfireprotectionbuilding-construction> for detailed legal requirements in California.

## Maintaining Defensible Space Around Your Home

### Protect Your Family, Home, and Property by Creating and Maintaining Defensible Space Now

Creating defensible space is essential to improve your home's chance of surviving a wildfire. CAL FIRE defines defensible space as: "...the buffer you create between a building on your property and the grass, trees, shrubs, or any wildland area that surrounds it. This space is needed to slow or stop the spread of wildfire and it protects your home from catching fire—either from direct flame contact or radiant heat. Defensible space is also important for the protection of firefighters defending your home."



**Defensible space is your property's front-line defense against wildfire. Creating and maintaining defensible space around your home can dramatically increase your home's chance of surviving a wildfire and improves the safety of firefighters defending your property. One hundred feet of defensible space is required by law.**

Defensible space and clearing does not mean that you denude or clearcut your property. Rather, your goal is to remove the most flammable materials. Balance your fire-safety actions with general ecosystem health. Don't disturb the ground around streams or you will cause erosion that will harm fish. If you have the good fortune to live along a stream or river with fish in it, make sure you stay at least 100 feet away from the stream or outside of the Streamside Management Area in your clearing activities. It's okay to remove some dead vegetation there (like pruning in your garden); however, don't take out live vegetation—especially trees—near streams or rivers. Always maintain a dense shade canopy for fish. Finally, many species of wildlife—such as bear, fox, bobcat, songbirds, and others—use streams as corridors in which to move from one area to another. Leave them some cover to be able to do this without disturbing you, or vice versa. If you feel that more intensive treatment is necessary near a stream (which may be the case in some instances), in Humboldt County, contact the Planning and Building Department to determine if a Special Permit is required for work within the Streamside Management Area. County Planning and Building may be reached by calling 707-445-7245 or visiting [www.co.humboldt.ca.us/planning](http://www.co.humboldt.ca.us/planning).



## Defensible Space Basics

You will learn how to create your defensible space in the following pages. Here is a summary of some of the basics to keep in mind.

- ✓ Provide a minimum 100 feet of clearance of flammable materials around your home. Clearance does not mean dirt or gravel—it's about flammability—so remove things that are easily ignitable from this area. If you live on a hill, you should extend this up to 200 feet, depending upon the steepness of the slope and the presence of surrounding fuel.
- ✓ Landscape your defensible space with fire-resistant plants. While no plant is immune to fire, certain plants do exhibit traits that can slow or reduce the spread of fire. Most deciduous trees and shrubs are fire-resistant. Fire-resistant plants generally look green (not brown), healthy, and vibrant. In addition, they have:
  - Leaves that are moist and supple;
  - Little dead wood, and tend not to accumulate dry, dead material within the plant;
  - Sap that is water-like (versus thicker or stickier) and does not have a strong odor.
- ✓ Keep your gutters and roofs clean of vegetation and debris, especially redwood, Douglas-fir, and/or pine needles.
- ✓ Move all flammable materials (such as firewood or propane tanks) at least 30 feet from homes or structures.
- ✓ Remember the other species that share the land. Leave a vegetation buffer around streams and other wild-life corridors.



Continued from page 17.

## What to Do with the Materials from your Defensible Space Activities

More on Landscape Debris Burning

### What can be burned?

Dry, natural vegetation, grown on the property can still be burned outdoors in open piles, unless prohibited by local ordinances. No household trash or garbage can be burned outdoors at residences.

### When can you burn?

Burning can only be done on permissive burn days. Burning permits are only valid on "Permissive Burn Days" as determined by the State Air Resources Board or the local Air Quality District. To find out if it is a Permissive Burn Day, contact your local Air Quality District. For more information, see [www.preventwildfire.ca.org/Debris-Burning](http://www.preventwildfire.ca.org/Debris-Burning) and page 32.



## Defensible Space Zones

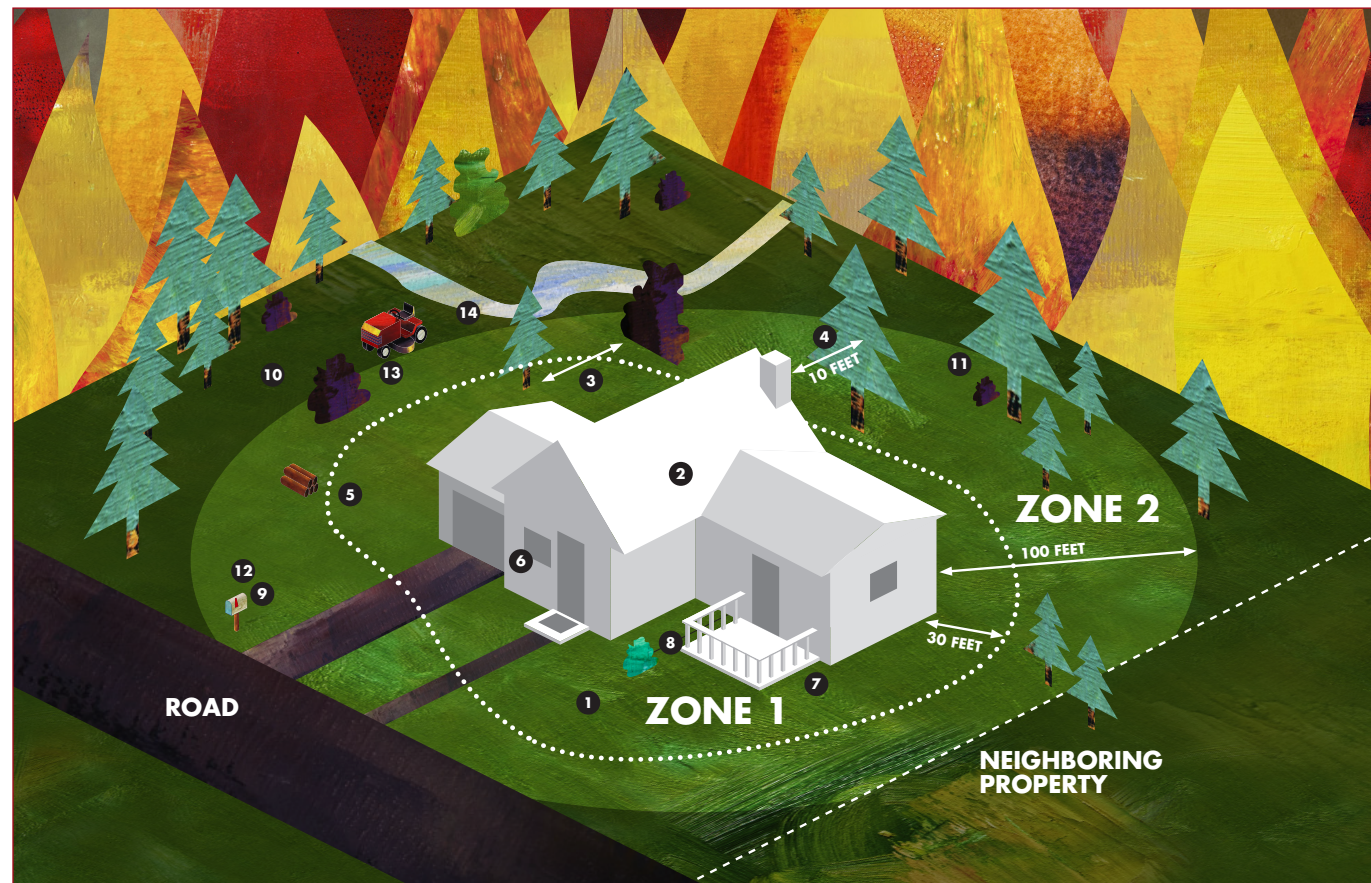
Two zones make up the required 100 feet of defensible space.

### Zone 1—extends 30 feet out from buildings, decks, and other structures

- 1 Remove all dead plants, grass and weeds.
- 2 Remove dead or dry leaves and pine needles from your yard, roof and rain gutters.
- 3 Trim trees regularly to keep branches a minimum of 10 feet from other trees.
- 4 Remove dead branches that hang over your roof. Keep branches 10 feet away from your chimney.
- 5 Relocate exposed woodpiles outside of Zone 1 unless they are completely covered in fire-resistant material.
- 6 Remove or prune flammable plants and shrubs near windows.
- 7 Remove vegetation and items that could catch fire from around and under decks.
- 8 Create separation between trees, shrubs and items that could catch fire, such as patio furniture, swing sets, etc.

### Zone 2—extends 30 to 100 feet from buildings and other structures

- 9 Cut or mow annual grass down to a maximum height of 4 inches.
  - 10 Create horizontal spacing between shrubs and trees. (See diagram next page.)
  - 11 Create vertical spacing between grass, shrubs and trees. (See diagram next page.)
  - 12 Remove fallen leaves, needles, twigs, bark, cones, and small branches. However, they may be permitted to a depth of 4 inches if erosion control is an issue.
- Both Zones—0 to 100 feet from buildings and other structures**
- 13 Mow before 10 a.m., but never when it's windy or excessively dry.
  - 14 Protect water quality. Do not clear vegetation near waterways to bare soil. Vegetation removal can cause soil erosion—especially on steep slopes.



## Plant and Tree Spacing in Your Defensible Space

The spacing between grass, shrubs, and trees is crucial to reduce the spread of wildfires. The spacing needed is determined by the type and size of brush and trees, as well as the slope of the land. For example, a property on a steep slope with larger vegetation requires greater spacing between trees and shrubs than a level property that has small, sparse vegetation.

### Vertical Spacing

- ✓ Remove all tree branches at least 6 feet from the ground.
- ✓ Allow extra vertical space between shrubs and trees. Lack of vertical space can allow a fire to move from the ground to the brush to the tree tops, like a ladder.

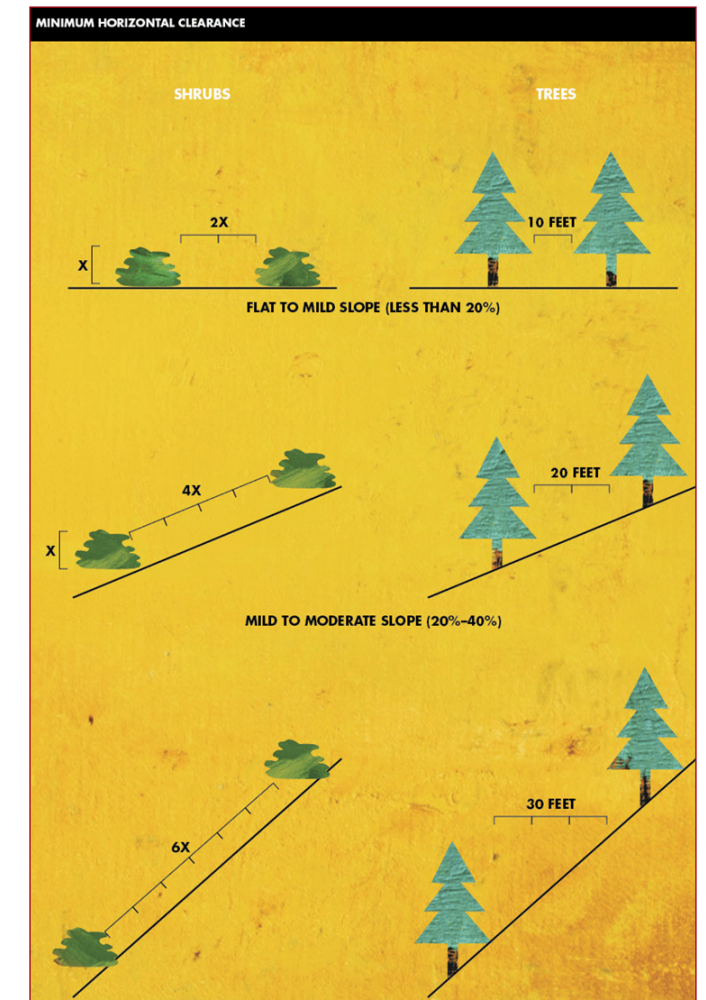
### Minimum Vertical Spacing Between Trees and Shrubs

- ✓ For the proper vertical spacing between shrubs and the lowest branches of trees, create at least three times the shrub height in space between the top of the shrub and the bottom of the tree.
- Example: A five-foot shrub is growing near a tree.  $3 \times 5 = 15$  feet of clearance needed between the top of the shrub and the lowest tree branch.



### Minimum Horizontal Spacing for Trees and Shrubs

Horizontal spacing depends on the slope of the land and the height of the shrubs or trees. Check the diagram below to determine spacing distance.

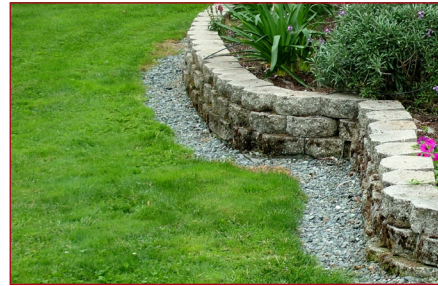


## Fire-Resistant Landscaping

A fire-resistant landscape isn't necessarily the same thing as a well-maintained yard. A fire-safe landscape uses fire-resistant plants that are strategically planted to resist the spread of fire to your home. The good news is, you don't need a lot of money to make your landscape fire safe. And you will find that a fire-safe landscape can increase your property value and conserve water while beautifying your home.

### Choose Fire-Resistant Plants and Materials

- ✓ Create fire-safe zones with stone walls, patios, decks and roadways.
- ✓ Use rock, mulch, flower beds and gardens as ground cover for bare spaces and as effective firebreaks.
- ✓ There are no "fire-proof" plants. Select high-moisture plants that grow close to the ground and have a low sap or resin content.
- ✓ Choose fire-retardant plant species that resist ignition such as rockrose, ice plant and aloe.
- ✓ Select fire-resistant shrubs such as hedging roses, bush honeysuckles, currant, cotoneaster, sumac and shrub apples.
- ✓ Plant hardwood, maple, poplar and cherry trees that are less flammable than pine, fir and other conifers.
- ✓ Check your local nursery, landscape contractor or county's UC Cooperative Extension service for advice on fire-resistant plants that are suited for your area.



### Fire-Resistant Plant Characteristics\*

Remember, any plant can burn under the right conditions. For all plants, make sure to trim back and remove any dead vegetation and litter. When choosing species to plant or keep when performing fuel modification, look for plants with fire-resistant characteristics:

- ✓ Able to store water in leaves and stems
- ✓ Produce limited dead and fine material
- ✓ Extensive, deep root systems for controlling erosion
- ✓ Maintain high moisture content with limited watering
- ✓ Low-growing or prostrate form
- ✓ Open loose branches with a low volume of total vegetation
- ✓ Low levels of volatile oils or resins
- ✓ Ability to re-sprout after a fire
- ✓ Slow growing with little maintenance needed
- ✓ Not considered invasive.

The moisture content of plants is important because high levels of plant moisture can lower fire risk and act as a heat sink, reducing the intensity and spread of fire.

### Characteristics of Flammable Plants

Consider removing plants from your property and avoid purchasing new plants that tend to retain large amounts of dead material within the plant, produce a large volume of litter, and contain volatile substances such as oils, resins, wax, or pitch.

For More Information:

- ✓ Home Landscaping for Fire

[http://firecenter.berkeley.edu/docs/CE\\_homelandscaping.pdf](http://firecenter.berkeley.edu/docs/CE_homelandscaping.pdf) University of California Division of Agriculture and Natural Resources (UCANR)

- ✓ Fire-Resistant California Friendly® plants

[www.bewaterwise.com/gardensoft/gardensoft\\_backup\\_03-18-2015\\_vh/tips\\_06.html](http://www.bewaterwise.com/gardensoft/gardensoft_backup_03-18-2015_vh/tips_06.html)

- ✓ Fire-Resistant Plants for Home Landscapes: Selecting plants that may reduce your risk from wildfire (Oregon), [www.firefree.org/wp-content/uploads/2016/02/Fire-Resistant-Plants.pdf](http://www.firefree.org/wp-content/uploads/2016/02/Fire-Resistant-Plants.pdf)

\*UCANR (2009). Making Your Property Fire-Safe. Los Angeles County: UCCE. <http://ucanr.edu/sites/safelandscapes/files/79454.pdf>

## FLASH: Fire-Adapted Landscapes and Safe Homes

### Reducing Wildfire Hazards One Property at a Time

Humboldt County's landscape is made up of dense forests and rural country stretched over 110 miles of coastline. Living among the beautiful redwoods and various other vegetation means that residents need to consider ways to keep their homes and driveways clear of hazardous fuels that could ignite their homes in the event of a wildfire. To assist homeowners with recommendations on hazard reduction around their homes, the Humboldt County Fire Safe Council (FSC) helped create and supports the Fire-adapted Landscapes and Safe Homes (FLASH) program: a cost-share program designed to assist property owners with the job of reducing their risk to wildfire by thinning flammable vegetation around their homes and along their access routes.

To participate in the program, property owners can contact the Humboldt County FSC, and a representative will schedule a site visit. During site visits, local field technicians assess wildfire hazards, make fuels reduction treatment recommendations, and once the work is completed, verify that it meets the standards of the program. Rebates, based on a per acre rate, are awarded for successfully completed work. Each interaction between property owners and FLASH technicians provides an opportunity to discuss topics such as local fire history, forest health, wildlife habitat, homestead fire preparedness, thinning techniques, and disposal of hazardous materials, and serves as a means to widely share the fire safety message. In addition to fuels reduction, some landowners have followed through with fire safety measures as recommended during the home risk assessments, such as hardening their homes and developing water sources.

To help cover costs of this program, Humboldt County applied and received funding from the California Fire Safe Council State Clearinghouse program funded by the US Forest Service. These federal dollars are matched by local in-kind and cash support, with federal funding covering approximately 50% of the cost of the work with a rebate and the property owner's payment or labor for the balance counted as a funding match. Over the past seven years, the FLASH program has supported 263 landowners, conducted 627 site visits and 227 risk assessments, and helped to treat and reduce fuel hazards on 751 acres in Humboldt County.

To receive more information on this program, contact: Cybelle Immitt, [cimmitt@co.humboldt.ca.us](mailto:cimmitt@co.humboldt.ca.us), 707-267-9542.



## Water Needs to Protect your Home from Fire

### Prepare to Put Out Fires Fast!

If you find yourself faced with a fire emergency, be it a barbeque tipped over into dry grass, a nearby vegetation fire, an ember storm from a wildfire, or a fire in your home, you need to be prepared to act fast. Always call 911 first to alert firefighters. Then, if it's safe and you have the skills and proper gear, you can try to put the fire out on your own.

Water is your best weapon when you need to quickly put out a fire. To save precious time when fighting a fire around your home it's a good idea to have 5/8- or 3/4-inch garden hoses attached to faucets with enough hose length to reach both inside and around your home and outbuildings.

Good-quality, variable stream garden hose nozzles are adequate.

A high-flow "fireman's" nozzle is better.

A nearby hose with a nozzle can quickly be grabbed to put out a small grass fire caused by a tipped-over barbeque, for example. This could prevent a fire that could easily get out of control if time had to be spent finding a hose and hooking it up.



High-flow fire nozzle.

Always keep strategically placed fire extinguishers in your home.

### Ensure Firefighters Can Make Good Use of Your Emergency Water Supply

A fire engine's water tank will often need to be filled several times during a firefighting event. If your home is not included in a community water/hydrant system, it is important to maintain a water supply reserved **ONLY** for fire protection. **Firefighters need to be able to quickly and safely find your water source and get close enough to transfer the water from your tank to theirs.** Some basic guidelines for your fire water storage are:

- ✓ **Have a clearly marked source of firefighting water near your home or driveway.** If you are not on a community water system, the law requires you have a water tank with at least 2,500 gallons of water available for fire suppression. The two common installations of fire water storage are: 1) an elevated tank with a water line delivering pressurized water to the home site, or 2) a fire water "suction tank" near the home that can be pumped out of by a fire truck.

- ✓ **An elevated pressure tank** should ideally be at least 100 feet in elevation above the home to give adequate pressure at the standpipe to directly connect fire hoses to fight the fire or fill a fire engine. Because of the cost of larger pipes, the supply line from the tank to the house site is usually a 1 1/2- or 2-inch-diameter pipe leading to a standpipe located 50 feet or more from the house. The standpipe/hydrant is equipped with a "fire valve" with a 1 1/2-inch or 2 1/2-inch National Hose Thread (NHT) discharge outlet. Some landowners buy their own lightweight 1 1/2-inch fire hose, usually 100 feet or more, with a variable stream fire nozzle. One hundred feet of such hose with a nozzle fits nicely into a 5-gallon waterproof bucket. For isolated rural residents, this can give serious firefighting capacity until a local fire department engine can arrive. In some areas it can take a 1/2 hour or more for a fire engine to arrive – long enough for a fire to dramatically increase in size and intensity.



Fire valve.

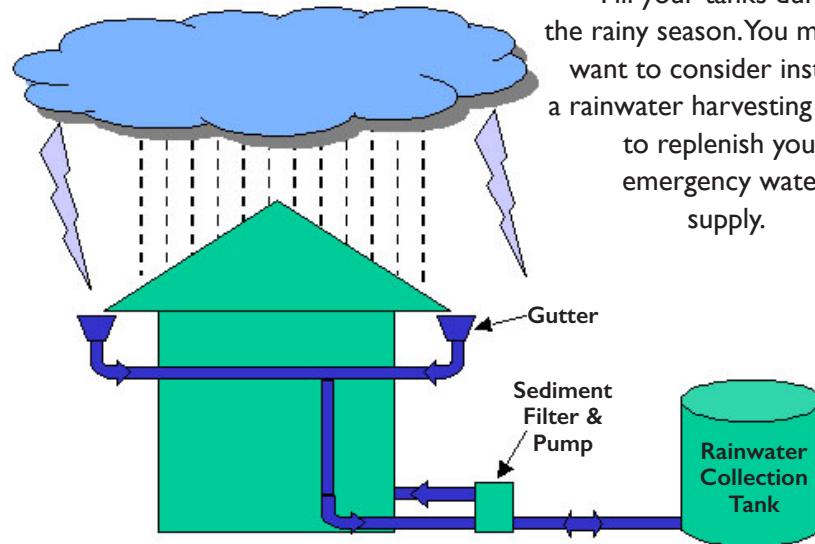
- ✓ A "suction" tank should be sited no closer than 50 feet from the house, and 4 to 12 feet from a place where a fire engine can park, to effectively pump water from the tank. For maximum flow to the fire engine, 3- to 4-inch pipe should be used for the short distance to connect between the 2 1/2-inch fire valve standpipe/hydrant and the tank.

- ✓ Clean water from nearby streams, ponds, and swimming pools can also be used for firefighting, as long as a fire truck can get close enough to pump water (the water source must be 7 to 12 feet from a firm parking surface).

- ✓ Make sure the area around your water source is clear of flammable vegetation.



- ✓ Finally, make sure that your emergency water system is maintained and tested several times a year. Finding an empty water tank or water that cannot be easily accessed can seriously hinder firefighters' ability to save your home!



### Fill Your Tanks in the Rainy Season

Do your part to keep water flowing in streams and rivers during the critical dry season.

Fill your tanks during the rainy season. You may even want to consider installing a rainwater harvesting system to replenish your emergency water supply.

### Help Firefighters Find Your Water!

Emergency water supplies must be easily seen and visibly signed from the nearest road.

Here are some tips to help:

- ✓ Install round blue reflectors on your address post and leading to your water supply.
- ✓ Paint the word FIRE or FIRE WATER in large letters on a sign near where firefighters can hook up their hoses. You can even write FIRE right on your water tank. For odd-sized tanks and underground cisterns, mark how many gallons they hold.
- ✓ Let your local fire department and CAL FIRE personnel know where your water supply is, long before they might need to use it.

### Find Out About Emergency Water Standards

Consult your local fire department, CAL FIRE, and your local County Planning and Building Department when developing water supplies for firefighters to ensure you are complying with local building standards and that your system's fittings are compatible with the needs of local fire engines. Some types of new development require emergency water supplies to meet very specific local standards. Contact your local planning and building department for details: [www.humboldt.gov/156/Planning-Building](http://www.humboldt.gov/156/Planning-Building), [www.trinitycounty.org/index.aspx?page=73](http://www.trinitycounty.org/index.aspx?page=73), and [www.co.del-norte.ca.us/departments/commu-nity-development-department](http://www.co.del-norte.ca.us/departments/commu-nity-development-department).



### Water Theft

Water theft is a sad reality, especially in times of drought. If you feel it is necessary to hide, fence, or lock up your firefighting water supply, please consult with your fire department and CAL FIRE to make sure they can still find and access your water.

**Tour a Wildfire-Ready Home**

**Home Site and Yard:** Ensure you have at least a 100-foot radius of defensible space (cleared vegetation) around your home. Note that even more clearance may be needed for homes in severe hazard areas. This means looking past what you own to determine the impact that a common slope or neighbor's yard will have on your property during a wildfire.

Cut dry weeds and grass before noon when temperatures are cooler to reduce the chance of sparking a fire.

Landscape with fire-resistant plants that have a high moisture content and are low growing.

Keep woodpiles, propane tanks, and other combustible materials away from your home and other structures, such as garages, barns, and sheds.

Ensure that trees are far away from power lines.

**Roof:** Your roof is the most vulnerable part of your home because it can easily catch fire from wind-blown embers. Homes with wood-shake or shingle roofs are at high risk of being destroyed during a wildfire.

Build your roof or re-roof with fire-resistant materials such as composition, metal, or tile. Block any spaces between roof decking and covering to prevent ember intrusion.

Clear pine needles, leaves and other debris from your roof and gutters.

Cut any tree branches within ten feet of your roof.

**Vents:** Vents on homes are particularly vulnerable to flying embers.

All vent openings should be covered with 1/8-inch or smaller metal mesh. Do not use fiberglass or plastic mesh because they can melt and burn.

Attic vents in eaves or cornices should be baffled or otherwise protected to prevent ember intrusion (mesh is not enough).

**Windows:** Heat from a wildfire can cause windows to break even before the home ignites. This allows burning embers to enter and start internal fires. Single-paned and large windows are particularly vulnerable.

Install dual-paned windows with the exterior pane of tempered glass to reduce the chance of breakage in a fire.

Limit the size and number of windows in your home that face large areas of vegetation.

**Inside:** Keep working fire extinguishers on hand. Install smoke alarms on each level of your home and near bedrooms. Test them monthly and change the batteries twice a year.

**Garage:** Have a fire extinguisher and tools, such as a shovel, rake, bucket and hoe, available for fire emergencies.

Install a solid door with self-closing hinges between living areas and the garage. Install weather stripping around and under door to prevent ember intrusion.

Store all combustibles and flammable liquids away from ignition sources.

**Driveways and Access Roads:**

Driveways should be designed to allow fire and emergency vehicles and equipment to reach your house.

Access roads should have a minimum 10-foot clearance on either side of the traveled section of the roadway and should allow for two-way traffic.

Ensure that all gates open inward and are wide enough to accommodate emergency equipment.

Trim trees and shrubs overhanging the road to a minimum of 13 1/2 feet to allow emergency vehicles to pass.

**Chimney:** Cover your chimney and stovepipe outlets with a non-flammable screen of 1/4-inch wire mesh or smaller to prevent embers from escaping and igniting a fire.

Make sure that your chimney is at least 10 feet away from any tree branches.

**Non-Combustible Boxed-In Eaves:**

Box in eaves with non-combustible materials to prevent accumulation of embers.

**Rain Gutters:** Screen or enclose rain gutters to prevent accumulation of plant debris.

**Water Supply:** Have multiple garden hoses that are long enough to reach any area of your home and other structures on your property. If you have a pool or well, consider a pump.

**Address:** Make sure your address is clearly visible from the road.

**Walls:** Wood products, such as boards, panels, or shingles, are common siding materials. However, they are combustible and not good choices for fire-prone areas.

Build or remodel with fire-resistant building materials, such as brick, cement, masonry, or stucco.

Be sure to extend materials from foundation to roof.

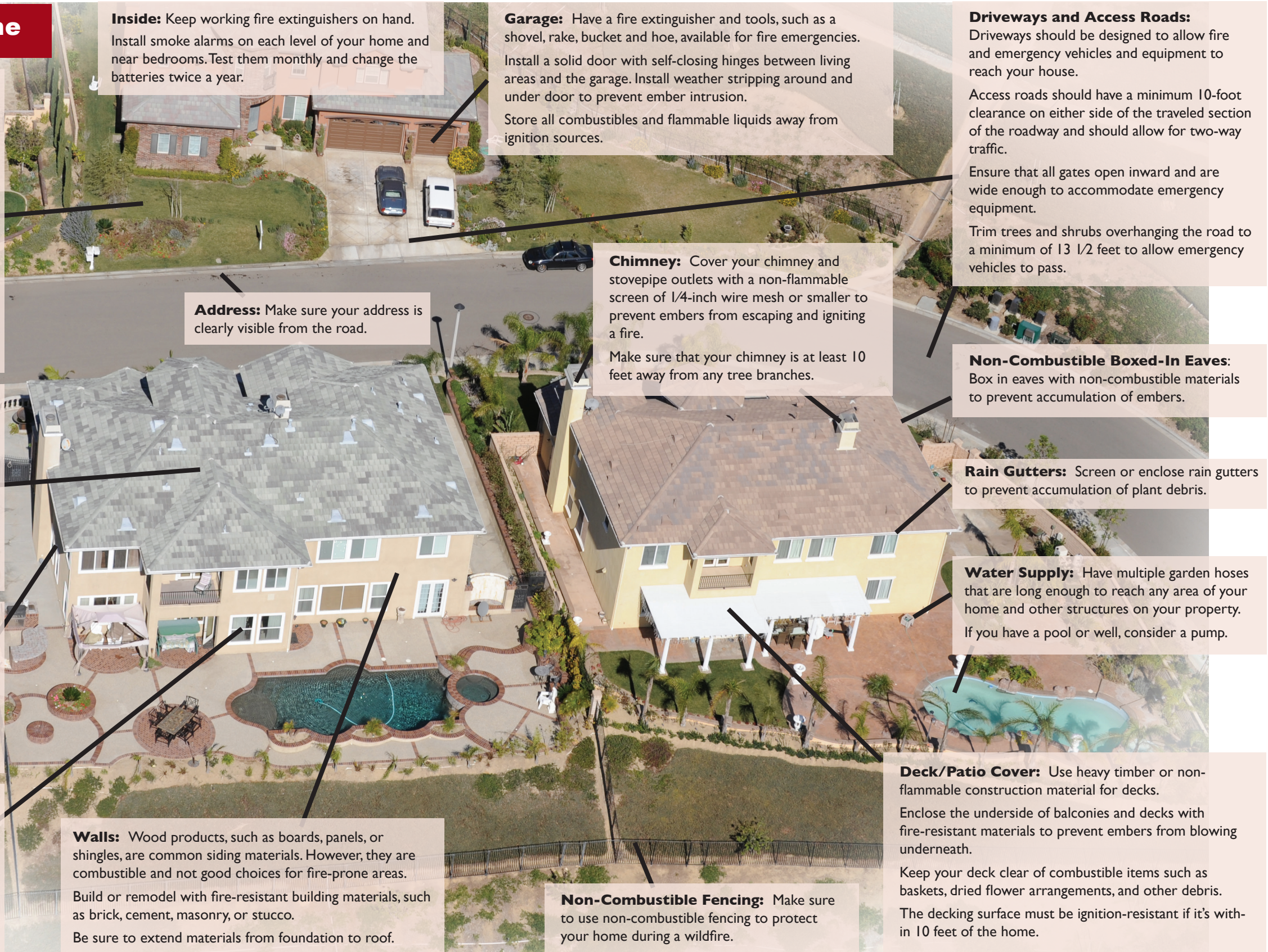
**Non-Combustible Fencing:** Make sure to use non-combustible fencing to protect your home during a wildfire.

**Deck/Patio Cover:** Use heavy timber or non-flammable construction material for decks.

Enclose the underside of balconies and decks with fire-resistant materials to prevent embers from blowing underneath.

Keep your deck clear of combustible items such as baskets, dried flower arrangements, and other debris.

The decking surface must be ignition-resistant if it's within 10 feet of the home.



## Burn Permits and Air Quality



**Planning to do any burning of vegetation on your property? If so, you will need a burn permit issued by the**

**North Coast Unified Air Quality Management District (AQMD), 707 L Street, Eureka, CA 95501. A permit can be obtained online at [www.ncuaqmd.org](http://www.ncuaqmd.org) or by calling 707-443-3093.**

The two most common types of burn permits issued in the District (Humboldt, Del Norte and Trinity counties) are:

**Standard** permits are for residents with less than a 1/2 acre. It allows for one 4-foot-diameter pile with burn hours of 6 am to 12 noon on permissive burn days in Humboldt and Del Norte. In Trinity, burn hours are 6 am to one hour before sunset until CAL FIRE declares “fire season”. After fire season is declared, fires must be out at noon. This permit is for residential properties only and costs \$20 per calendar year.

**Non-Standard** permits are for residents, commercial burners, land

managers, and businesses. It allows for one maximum 10-foot-diameter burn pile between 6 am to one hour before sunset on a permissive burn day. You must have at least a 1/2 acre of property to qualify. If you are burning more than one acre of material, have a Timber Harvest Plan, or 3-acre exemption, please contact AQMD staff to discuss additional permit requirements.



Your permit will contain all information needed to burn your vegetation. Be a good neighbor and burn responsibly.

### Burn Days

The goal of a burn day is to ensure that any smoke produced gets up and out of the breathing zone. A permissive burn day is determined daily by the California Air Resources Board (ARB) and provided via the **Burn Day Status phone line 866-287-6329**,

[www.ncuaqmd.org](http://www.ncuaqmd.org) or on Facebook at NCUAQMD.

Air Resources Board meteorologists assess weather and criteria from the Health and Safety Code to issue each day’s decision. This may include inversion layers, wind direction, and temperature from ground level to 5000 feet.

### In Case of a Fire Event

If a fire event occurs in your area, be aware that generated smoke can affect your health. The AQMD works with state, federal and local fire agencies, public health, and tribal entities to provide air quality public service announcements, advisories, and alerts during a fire event. **To be included on the daily PSA list-serve during a wildfire event, contact AQMD staff at 707-443-3093 or [support@ncuaqmd.org](mailto:support@ncuaqmd.org).**



Particulate matter size comparison.

Air Quality Guide	
Air Quality	Protect Your Health
Good	None
Moderate	Unusually sensitive people should consider reducing prolonged or heavy exertion.
Unhealthy for Sensitive Groups	People with heart or lung disease, older adults, and children should reduce prolonged or heavy exertion.
Unhealthy	People with heart or lung disease, older adults, and children should avoid prolonged or heavy exertion.
Very Unhealthy	People with heart or lung disease, older adults, and children should avoid all physical activity outdoors. Everyone else should avoid prolonged or heavy exertion.
Hazardous	Everyone should avoid all physical activity outdoors; people with heart or lung disease, older adults, and children should remain indoors and keep activity levels low.

## Some Steps You Can Take to Protect Yourself During a Fire Event

- 1. Pay attention to air quality information issued by the AQMD.** This information is online at [www.ncuaqmd.org](http://www.ncuaqmd.org) or by calling 866-287-6329. Radio, TV, or newspaper reports will include information about outdoor activities and safety measures.
- 2. Keep indoor air as clean as possible.** Close all windows and doors. Use your air conditioner if you have one with the fresh air intake closed and the filter clean. Don’t use a swamp cooler if smoke is visible outside. If you don’t have air conditioning or a swamp cooler, consider visiting a clean air shelter or area with clean air. Avoid smoking, vacuuming, frying food, or burning candles as they increase the amount of particulates.
- 3. Use common sense.** If it is smoky outside, do not exercise or work outdoors. Keep children occupied with indoor activities. Keep windows closed while driving and run the air conditioner on the inside air setting.
- 4. Children, the elderly, pregnant women, and people with heart and lung problems are more likely to be affected by health threats from smoke.** Talk to your doctor about whether and when you should leave the area affected by smoke.
- 5. Air cleaners can help – but buy them before a fire!** Air cleaners can help reduce particulate levels indoors. Get the right type and size for your home. Do not use an air cleaner that generates ozone. For more information about air cleaners, go to [www.epa.gov/iaq/pubs/residair.html](http://www.epa.gov/iaq/pubs/residair.html).
- 6. Dust masks aren’t enough!** Use a “particulate respirator” instead. Paper “comfort” or “dust” masks are designed to trap large particles and they will generally not protect your lungs from the fine particles in smoke. Use a mask called a “particulate respirator” and make sure it is labeled “NIOSH” and either “N95” or “P100” to protect you from the fine particulates in smoke.
- 7. Use visibility guides, where they’re available.** Not every community has a monitor to measure particulate levels in the air. The AQMD provides the following guide to help estimate air quality level based on visibility. Often, it is difficult to assess “the point at which even high-contrast objects (e.g., a dark forested mountain viewed against the sky at noon) totally disappear.” Instead, it may be more useful to use known landmarks at a given distance away to assess possible visual ranges. For example, target A is 2 miles away and visible, but target B, which is 4 miles away, is not visible. Therefore, the visual range is somewhere between 2 and 4 miles.

Use the table below to identify the range of actions to consider to reduce smoke exposure.

	You Are:		OR	You Have:
<b>Distance You Can See</b>	A Healthy Adult, Teenager, or Older Child	Age 50 and Over, Pregnant, or a Young Child		Asthma, Respiratory Illness, Lung or Heart Disease
>10 Miles	Watch for changing conditions and moderate outdoor activity based on personal sensitivity.			
5-10 Miles	Moderate outdoor activity.			Minimize or avoid outdoor activity.
< 5 Miles	Minimize or avoid outdoor activity.			Stay inside or in a location with good air quality.

### The AQMD may issue any of the following during a wildfire event.

- Public Service Announcement (PSA)** – issued when smoke conditions from a fire event are expected to remain below levels considered Unhealthy, (139-351 ug/m3 on a 3-hour average).
- Advisory** – issued when smoke conditions from a fire event are expected to reach levels considered Unhealthy to Very Unhealthy, (139-526 ug/m3).
- Alert** – issued when smoke conditions from a fire event are expected to reach Hazardous levels, (greater than 526 ug/m3).

## Sheriff's Work Alternative Program (SWAP)

As an alternative to jail, qualified offenders may apply to serve their sentence on the Sheriff's Work Alternative Program or SWAP. Participants on SWAP, under supervision, are assigned to a variety of manual labor work projects, including brush removal to reduce community wildfire hazards. This program allows individuals to live at home with their families, maintain employment or continue their education, while serving out their sentence in a productive manner that also benefits the community. In addition to SWAP, there are work crews made up of inmates housed in the Humboldt County Correctional Facility who work on projects outside the facility under the supervision of a correctional officer. The majority of their time is dedicated to roadside vegetation management under a contract with CalTrans but they are also available to assist with community wildfire hazard reduction projects, on a case-by-case basis. Inmates are screened by the Sheriff's Department staff before they are allowed outside the facility.

Over the past six years, the Sheriff's Department has made a seven- to eight-member crew available to help the Willow Creek Fire Safe Council (FSC) remove brush to eliminate wildfire hazards in and around the



community of Willow Creek. During this time, the crew worked in the community once or twice a month from September to May, under the supervision of officers from the Sheriff's Department and with guidance and support from the Willow Creek FSC. These crews removed brush (wildfire fuel) from local parks, from around downtown businesses and businesses along Highway 96, as well as a critical area behind the Trinity Valley Elementary School. Recently, crews helped establish the Patterson Road wildfire emergency evacuation route. Residents of more than 300 homes use Patterson Road as their only access route. For

that reason, the Sheriff's Department is supportive of continually making crews available to help maintain a 50-foot firebreak on either side of this important evacuation route. The Willow Creek FSC cannot express enough thanks to the work crews and the county officers who help keep the community fire safe.

*For more information, please contact the Humboldt County Sheriff's Department:*

Lieutenant Marco Luna, [mluna@co.humboldt.ca.us](mailto:mluna@co.humboldt.ca.us)  
Sargent Mitch Gratz, [mgratz@co.humboldt.ca.us](mailto:mgratz@co.humboldt.ca.us)  
707-441-5113



## Prescribed Fire/Controlled Burning: USING FIRE AS A TOOL

Prescribed fire, or controlled burns, is one of the tools used to remove unhealthy and dangerously overgrown vegetation for ecosystem restoration, to improve the growing conditions of native plants, enhance wildfire habitat, and prevent catastrophic wildfire.

Prescribed fire can be complex in nature. Successful implementation requires careful planning, adherence to specific weather conditions, public support, and compliance with the laws and regulations designed to protect public health. Prescribed fire practitioners navigate these planning and permitting steps to protect communities from wildfire and restore cultural resources.

Regulators at the federal, state, and local levels, and prescribed burners continue to explore workable solutions to address the increased fuels, costs, and severity of wildfire, while still protecting the public.

As concerns increase about the destructive potential of wildfire in California, the use of prescribed fire is



an important tool to reduce hazardous fuels around communities and prepare for managing wildfires differently.

### How is a prescribed fire burn implemented?

A prescribed fire project is only ignited if all conditions – weather, fuel, equipment, personnel, and regulatory compliance – designated in the burn plan are met. Fire engines and crews must be available to monitor and manage the burn. It can't be too hot or windy, and humidity levels must be within prescribed limits. How the burn is ignited can significantly affect fire behavior and



Will Harling, a local leader in prescribed fire, igniting a fire with his drip torch.

fire effects on the landscape and vegetation. Some projects can be ignited from the ground using fairly simple devices such as drip torches.

Large or complex burns can be ignited from specially equipped helicopters.

### What are the benefits and drawbacks of prescribed burns?

#### Benefits:

- ✓ By reducing the risk of destructive wildfires, prescribed fire reduces the threat to life, property, and natural resources.
- ✓ Prescribed burns also increase firefighter safety by creating defensible space from which bigger blazes can be battled.
- ✓ Controlled burning can improve native plant and animal habitat, stimulate the growth of culturally significant plants, restore productivity of grazing lands, and control the spread of noxious and invasive weeds.
- ✓ Appropriate burning conditions can be chosen, which can result in less impacts to air quality and public health as compared to wildfire.



#### Drawbacks:

- ✓ Smoke is often the main complaint against prescribed burning. However, while wildfires can burn for weeks generating heavy smoke, prescribed burning allows the practitioner to choose the time, location and weather conditions that will minimize smoke impacts. Most prescribed burn projects only last one or two days.
- ✓ Fire is difficult to control. Even with all the planning, preparation, and staffing that is part of a prescribed fire project, fires can escape.

In recent years, Prescribed Fire Training Exchange (TREX) events throughout our region have improved our ability to manage prescribed fire. See the following pages for more information on TREX.



## The Vegetation Management Program (VMP)

CAL FIRE conducts a Vegetation Management Program (VMP), a cost-sharing program with landowners that focuses on the use of prescribed fire and mechanical means for addressing wildfire fuel hazards and other resource management issues on State Responsibility Area (SRA) lands. Although acres treated under the program have decreased in recent years, it remains a means of controlling invasive weeds, improving wildlife habitat, and maintaining strategic fuel breaks where the practice is physically possible and socially acceptable.

### How is a VMP prescribed burn planned?

- After an interested landowner contacts CAL FIRE, the Department takes the following steps:
1. *Evaluates the feasibility of the project.* Will it meet our goals? What is the size of the project? What are the potential problems, such as homes in the area? What type of vegetation and terrain are in the area? What are the expected weather conditions, costs, etc.?
  2. *Gathers information from other involved agencies.*
  3. *Designs a prescription, or detailed burn plan, for the project.*

All prescribed burns are developed in compliance with state and federal rules and regulations including the California Environmental Quality Act (CEQA), and California and Federal Clean Air and Rare and Endangered Species Acts. Pages 34-35 contain additional information regarding required air quality burn permits for all burn projects.

4. *Signs a contract with the landowner.*
5. *Notifies the community of the project.*
6. *Submits plan to local air quality district and obtains approval.*
7. *Implements the burn when conditions meet the prescription.*

Because there is a risk of prescribed fires escaping control, the state assumes liability for an escaped fire when conducting prescribed burns with private landowners through the VMP program. Landowners who contract with CAL FIRE for prescribed burns are thoroughly briefed on the potential for an escape. This includes an assessment of risk of an escape compared to the risk of leaving hazards untreated on the landscape.

## Cultural Fire Management Council

The Cultural Fire Management Council (CFMC), [culturalfire.org](http://culturalfire.org), was formed out of a Building Healthy Communities program in 2013 by Yurok tribal and community members to put fire back into the ecosystem. Yurok and other local tribes have for generations used fire in local ecosystems to achieve important benefits, ranging from cultivating new forage for animals to propagating strong basket materials, controlling pests, and protecting communities from out-of-control wildfire. *The CFMC's mission is to facilitate the practice of cultural burning on the Yurok Reservation and Ancestral lands, which will lead to a healthier ecosystem for all plants and animals, long-term fire protection for residents, and provide a platform that will in turn support the traditional hunting and gathering activities of Yurok.* The group is guiding the implementation of a long-term plan of cultural burning with support from: The Nature Conservancy, Northern California Indian Development Council, US Forest Service, Fire Storm Inc., Terra Fuego, Mid Klamath Watershed Council, and the Yurok Tribe.



Wildfire Protection Plan to guide the landscape-level restoration effort that encompasses the ancestral territory of the Yurok people. Returning fire to the land in a good way enables us as Yurok people to continue the traditions of our ancestors. Educating and enabling the local community on the proper use of fire is of paramount importance. Restoring a traditional fire regime to the land is a generational endeavor. The CFMC is using multiple strategies to achieve these long-term goals.

The CFMC offers entry-level fire training, and opportunities to increase fire qualifications at all levels on a yearly basis. Our goal is to have fully trained and qualified local crews, equipped with all necessary equipment to implement prescribed burns at the landscape level. We also provide a Citizen Burner workshop for community members to reinforce safe burning practices. The goal of the workshop is to help families assume responsibility for safely burning their own private land. Fire curriculum in the schools and field trips to observe prescribed burns help ensure an intergenerational transfer of knowledge.

The CFMC is developing a Community Health and

## Northern California Prescribed Fire Council

In fall of 2009, the Northern California Prescribed Fire Council held its first meeting in a room at Humboldt State University. Since then, the Council – a collaborative group that includes federal and state fire management agencies, tribes, non-governmental organizations, researchers, and others interested in prescribed fire – has hosted conferences and workshops all over the northern part of the state, and has worked on important policy issues with partners throughout California. The Council has also focused on providing innovative training opportunities for fire practitioners, including not only fire professionals, but also private landowners and others.

In 2016, the Council hosted its fourth annual Northern California Prescribed Fire Training Exchange, or “Nor Cal TREX.” The TREX is a two-week, hands-on prescribed fire training event that welcomes participants from diverse backgrounds and gives them an opportunity to gain skills and experience in prescribed fire. During the event, Nor Cal TREX participants travel throughout northwestern California, burning with different host agencies and organizations in a wide variety of landscapes and fuel types. In 2016, the Nor Cal TREX had a special focus on women in fire, and brought women and men from 11 states and 4 countries to burn together, work on leadership skills, and foster a support network for women with careers in fire management. This event, WTREX, was



an unprecedented training event, and sent positive ripples throughout the fire management world. Plans are already underway for Nor Cal TREX 2017.

In addition to TREX, the Council is providing training events for private landowners, volunteer fire departments, and other local groups. In 2016, the Council worked with University of California Cooperative Extension, CAL FIRE, and other partners to host three workshops in Humboldt County, and more are planned for 2017, including live-fire trainings in Bridgeville and Shelter Cove. These events are intended to rekindle local landowners' connections with fire, which was historically a very important tool for Native Americans, ranchers, and others in our region, and is an undeniably important part of our local landscape.

Council training events are supported by the Fire Learning Network, a partnership between the US Forest Service, Department of the Interior agencies, and The Nature Conservancy. *For more information on the Council's events and trainings, visit [www.norcalrxfirecouncil.org](http://www.norcalrxfirecouncil.org) or email Lenya Quinn-Davidson, Council Director, at [nwcapfc@gmail.com](mailto:nwcapfc@gmail.com).*



## The Evolution of Smokey Bear

Nearly everyone has heard of Smokey Bear and his decades-old campaign to prevent wildfire. Perhaps less familiar is the story of his origins and how his message evolved.

During World War II, fire-prone parts of our country suffered from a lack of firefighters. After a Japanese attack on an oil field along the California coast, people feared that fire could be used as a war weapon. In response, the US Forest Service (USFS) sought to prevent forest fires using *The Cooperative Forest Fire Prevention Campaign*. This campaign used slogans like *Forest Fires Aid the Enemy*, and *Our Carelessness, Their Secret Weapon*.



Into this atmosphere of fear, Smokey Bear entered, a stern-faced cartoon character created in 1944 to give severe public warnings about the dangers of forest fires. By 1947, Smokey's primary slogan – *Only You Can Prevent Forest Fires* – promoted a sense of individual responsibility.

A few years later, a bear cub survivor of a New Mexico wildfire became the first real-life Smokey. This increased Smokey's notoriety to such a degree that by the 1960s he received so much mail that he had his own zipcode at the National Zoo in Washington, DC.

With the public love of Smokey, resultant fear of fire, timber companies anxious to protect their investments, and the availability of post-war equipment, the USFS and other agencies increased their capacity and intention to put out all fires. Smokey began saying *This Shameful Waste Weakens America*.

This increased dedication and capacity for fire suppression quickly altered the ecological integrity of western forests. As early as the 1970s and '80s, forest ecologists recognized that fire exclusion wasn't good for our forests. Research clearly showed how fire is a necessary force in our forested lands, creating openings in the canopy, promoting new growth and diversity, and supplying needed



nutrients to feed the forest floor. Native peoples had known this forever and had historically used fire as a management tool. But by then, Smokey had convinced the general public to fear fire, and fire suppression was a full-fledged industry entrenched in land management business and culture.

In the 1990s, Smokey's message changed subtly to *Only You Can Prevent Wildfire*, still implying that *preventing wildfire* is the ultimate goal.

By the 2000s, recognizing that fire is inevitable and responding to increased development in the wildland-urban interface, or WUI, the USFS joined the *Fire Adapted Communities* program to encourage people who live in the WUI to protect their homes.

Western forests are now so stressed and packed with fuel that they are prone to bigger and more destructive blazes. With so many homes located in a direct path of danger, personal responsibility now includes making one's home in the WUI fire safe.

Today, Smokey's official website – though still highlighting prevention – has many pages dedicated to understanding that fire can be beneficial and necessary. Promoting prescribed fire under controlled conditions, Smokey is starting to change his tune.

For the public to support prescribed fire or wildfire managers allowing certain fires to burn, we will need to see a cultural shift away from fear of all fire. Perhaps Smokey's evolving message will help with this transformation as he encourages increased commitment to creating fire-resilient communities and shifts from *Only You Can Prevent Wildfires* to *Learning to Live with Wildfire*.

### Reddy the Squirrel

In 2002, an environmental watchdog group, Forest Service Employees for Environmental Ethics, introduced a new mascot named *Reddy the Squirrel*. Reddy, a cheeky squirrel in work boots and hard hat, carrying a rake, says: *Forest Fires Happen. Be Ready!* Reddy was a fire mascot with a new attitude. She encouraged homeowners to trim trees and clear brush. *Preparation not Prevention*, says Reddy, is the key. This icon unfortunately never caught hold in American popular culture the way Smokey did.



# GET READY, GET SET, GO!

Wildfire Is Coming. Are You Ready?

GET PREPARED FOR WILDFIRE BEFORE IT STRIKES BY FOLLOWING THE READY, SET GO! GUIDE:

**BEING READY**

**100 FT**

**UP TO 1 MILE**

CREATE DEFENSIBLE SPACE: 100-FOOT OF DEFENSIBLE SPACE IS REQUIRED AROUND YOUR HOME. LEARN HOW TO MAINTAIN THE TWO ZONES OF DEFENSIBLE SPACE NEEDED.

HARDEN YOUR HOME: FLYING EMBERS CAN DESTROY HOMES UP TO A MILE FROM WILDLAND AREAS. LEARN HOW TO PROTECT AND HARDEN YOUR HOME FROM A WILDFIRE THREAT.

**GETTING SET**

PREPARE YOUR HOME AND FAMILY FOR THE POSSIBILITY OF HAVING TO EVACUATE.

**1. WHAT  
2. HOW  
3. WHO  
4. WHEN**

CREATE A WILDFIRE ACTION PLAN.

ASSEMBLE AN EMERGENCY SUPPLY KIT.

FILL OUT A FAMILY COMMUNICATION PLAN.

**BEING READY TO GO**

PRE-EVACUATION STEPS: PREPARE BOTH THE INSIDE AND OUTSIDE OF YOUR HOUSE FOR EVACUATION. GET THE CHECKLISTS.

REVIEW YOUR EVACUATION PLAN CHECKLIST.

**GO!**

EVACUATION STEPS: WHEN IMMEDIATE EVACUATION IS NECESSARY, GET READY TO GO!

ENSURE YOUR EMERGENCY SUPPLY KIT IS IN YOUR VEHICLE.

COVER-UP TO PROTECT AGAINST HEAT AND FLYING EMBERS. WEAR LONG PANTS, LONG SLEEVE SHIRT, HEAVY SHOES/BOOTS, CAP, DRY BANDANNA TO COVER FACE, GOGGLES OR GLASSES. 100% COTTON IS PREFERABLE.

LOCATE YOUR PETS AND TAKE THEM WITH YOU.

**ONE LESS SPARK**  
ONE LESS WILDFIRE

FOR MORE INFORMATION AND A PRINT-READY CAMPFIRE PERMIT VISIT:  
[PREVENTWILDFIRECA.ORG](http://PREVENTWILDFIRECA.ORG)  
#PREVENTWILDFIRE #ONELESSPARK

BROUGHT TO YOU BY THE CALIFORNIA WILDLAND FIRE COORDINATING GROUP (CWCG)

## Wildfire Is Coming Are You Ready?

The geography, weather patterns, and number of wildland-urban interface communities in California make it a state particularly threatened by devastating wildfire. To help educate property owners and residents in areas most at risk, CAL FIRE has developed a communications program called "Ready, Set, Go!" that breaks down the actions needed to be ready for wildfire.

Get prepared for wildfire before it strikes by following Ready, Set, Go!

✓ **Be Ready:** Create and maintain your defensible space and harden your home against flying embers, as shown in the *Be Prepared* section, pages 20-36.

✓ **Get Set:** Prepare your family and home ahead of time for the possibility of having to evacuate.

✓ **Be Ready to GO!** Take the evacuation steps necessary to give your family and home the best chance of surviving a wildfire.



You can dramatically increase your safety and the survivability of your property by preparing well in advance of a wildfire.

## GET SET

### Prepare Yourself and Your Home for the Possibility of Having to Evacuate

Now that you've got your home READY by creating your defensible space, it's time to prepare your family for a potential evacuation by getting **Set**. There are three main preparation actions that should be completed and familiar to all members of your household long in advance of a wildfire.

#### 3 Steps to Getting Set

- ✓ Create a Wildfire Action Plan that includes evacuation planning for your home, family and pets. See the following pages, and [www.readyforwildfire.org/Wildfire-Action-Plan/](http://www.readyforwildfire.org/Wildfire-Action-Plan/), and [www.readyforwildfire.org/Pre-Evacuation-Preparation](http://www.readyforwildfire.org/Pre-Evacuation-Preparation).
- ✓ Assemble an Emergency Supply Kit for each person in your household. See next page, and [www.readyforwildfire.org/Emergency-Supply-Kit/](http://www.readyforwildfire.org/Emergency-Supply-Kit/)
- ✓ Fill out a Family Communication Plan that includes important evacuation and contact information. See the back cover of this magazine to create yours, and visit: [www.readyforwildfire.org/Prepare-Your-Family/](http://www.readyforwildfire.org/Prepare-Your-Family/).



Sign up to receive  
**EMERGENCY NOTIFICATIONS**  
from the  
**Humboldt County Office of Emergency Services (OES)**

<http://humboldt.gov/OES>

707-268-2500

**HUMBOLDT ALERT**

<https://humboldt.gov/2014/Emergency-Notifications/alerts>

**Always Call 911 for Emergencies**



#### Be Prepared

- Have fire extinguishers on hand and train your family how to use them (check expiration dates regularly).
- Ensure that your family knows where your gas, electric, and water main shut-off controls are located and how to safely shut them down in an emergency.
- Assemble an Emergency Supply Kit for each person, as recommended by the American Red Cross.
- Maintain a list of emergency contact numbers posted near your phone and in your Emergency Supply Kit.

## Prepare Your Family

Evacuation plans for families with young children should include helping toddlers understand how to quickly respond in case of fire, and how adults can escape with babies. Prepare ahead of time by practicing your family's fire escape plan, and what to do to be safe when there is a wildfire nearby. It is important to talk to toddlers and small children at a level that they understand and that does not frighten them. Here are a few resources that offer guides and tips for families with young children about fire safety and preparing for a disaster:

- [A Parent's Guide to Fire Safety for Babies and Toddlers](http://www.usfa.fema.gov/prevention/outreach/children.html): The U.S. Fire Administration's information site for parents and caregivers to help prevent fire death of young children.
- [Let's Get Ready! Planning Together for Emergencies](http://www.sesamestreet.org/toolkits/ready#): Sesame Workshop campaign with tips, activities, and other easy tools to help the whole family prepare for emergencies.
- [Ready.gov Kids](http://www.ready.gov/kids): FEMA's site for older kids to prepare and plan for a disaster. Includes safety steps, tips, and games to help children learn about and be ready for an emergency.
- [Smokey Kids](https://smokeybear.com/en/smokey-for-kids): U.S. Forest Service's interactive Smokey Bear site with games, information and resources on how to prevent forest fires.

#### Keep These Six "P's" Ready in Case Immediate Evacuation is Required

6

- ✓ People and pets
- ✓ Papers, phone numbers, and important documents
- ✓ Prescriptions, vitamins, eyeglasses
- ✓ Pictures and irreplaceable memorabilia
- ✓ Personal computer hard drives & disks
- ✓ "Plastic" (credit cards and ATM cards) and cash

#### Preparing Seniors and Disabled Family Members

Seniors and people with disabilities also need special consideration when preparing for a disaster. The following resources can help individuals and families with special needs plan and prepare for an event such as a wildfire:

- [Special Populations Fire-Safe Checklist](http://www.usfa.fema.gov/prevention/outreach/disabilities.html): US Fire Administration's fire safety guide for individuals with special needs to help them protect themselves and their home from fire.
- [Disaster Preparedness for Seniors by Seniors](http://www.redcross.org/images/MEDIA_CustomProductCatalog/m4640086_Disaster_Preparedness_for_Srs-English.revised_7-09.pdf): The American Red Cross booklet designed by and for older adults to prepare them for a sudden emergency.
- [Disaster Preparedness for People with Disabilities](http://www.redcross.org/prepare/location/home-family/disabilities): American Red Cross Disaster Services booklet with information and resources to help people with physical, visual, auditory, or cognitive disabilities design a personal disaster plan.
- [Special Populations: Emergency and Disaster Preparedness](https://sis.nlm.nih.gov/outreach/specialpopulationsanddisasters.html): US Department of Health and Human Services website with information and resources for emergency planning.
- [Individuals with Disabilities and Others with Access and Functional Needs](http://www.ready.gov/individuals-access-functional-needs): Resource site from Ready.gov for people with disabilities with information on planning and preparing for disaster.

## Your Wildfire Action Plan Checklist

Create an Evacuation Plan that includes the following:

- Designate an emergency meeting location outside the fire or hazard area. This is critical to determine who has safely evacuated from the affected area.
- Locate several different escape routes from your home and community. Practice these often so everyone in your family is familiar with them in case of emergency.
- Have an evacuation plan for pets and large animals such as horses and other livestock.
- Develop a Family Communication Plan that designates an out-of-area friend or relative as a point of contact to act as a single source of communication among family members in case of separation. (It is easier to call or message one person and let them contact others than to try and call everyone when phone, cell, and internet systems can be overloaded or limited during a disaster.) See the back page of this magazine for your copy.

### EMERGENCY SUPPLY KIT CHECKLIST

Put together your Emergency Supply Kit long before a wildfire or other disaster occurs and keep it easily accessible so you can take it with you when you have to evacuate. Plan to be away from your home for an extended period of time. Each person should have a readily accessible Emergency Supply Kit. Backpacks work great for storing these items (except food and water) and are quick to grab. Storing food and water in a tub or chest on wheels will make it easier to transport.

Keep it light enough to be able to lift it into your car. For more information on emergency supplies, visit [www.ready.gov](http://www.ready.gov).

- Three-day supply of non-perishable food and three gallons of water per person
- Map marked with at least two evacuation routes
- Prescriptions or special medications
- Change of clothing
- Extra eyeglasses or contact lenses
- An extra set of car keys, credit cards, cash or traveler's checks
- First aid kit
- Flashlight
- Battery-powered radio and extra batteries
- Sanitation supplies
- Copies of important documents (birth certificates, passports, etc.)
- Remember pet food and water!



Items to take if time allows:

- Easily carried valuables
- Family photos and other irreplaceable items
- Personal computer information on hard drives and disks
- Chargers for cell phones, laptops, etc.

Always keep a sturdy pair of shoes and a flashlight near your bed and handy in case of a sudden evacuation at night.

## GET SET: As the Fire Approaches

- Evacuate as soon as you are set! Alert family and neighbors.
- Dress in appropriate clothing (i.e., clothing made from natural fibers, such as cotton, and work boots).
- Have goggles and a dry bandana or particle mask handy.
- Ensure that you have your Emergency Supply Kit on hand that includes all necessary items, such as a battery-powered radio, spare batteries, emergency contact numbers, and ample drinking water.
- Stay tuned to your TV or local radio stations and social media for updates, or check the fire department website.
- Remain close to your house, drink plenty of water, and keep an eye on your family and pets until you are ready to leave.

### INSIDE CHECKLIST

- Shut all windows and doors, leaving them unlocked.
- Remove flammable window shades and curtains and close metal shutters.
- Remove lightweight curtains.
- Move flammable furniture to the center of the room, away from windows and doors.
- Shut off gas at the meter. Turn off pilot lights.
- Leave your lights on so firefighters can see your house under smoky conditions.
- Shut off the air conditioning.



### OUTSIDE CHECKLIST

- Gather up flammable items from the exterior of the house and bring them inside (e.g., patio furniture, children's toys, door mats, etc.) or place them in your pool.
- Turn off propane tanks.
- Don't leave sprinklers on or water running – they can waste critical water pressure.
- Leave exterior lights on.
- Back your car into the driveway. Shut doors and roll up windows.
- Have a ladder available.
- Patrol your property and extinguish all small fires until you leave.
- Seal attic and ground vents with pre-cut plywood or commercial seals if time permits.

### IF YOU ARE TRAPPED: SURVIVAL TIPS

- Shelter away from outside walls. [www.readyforwildfire.org/What-To-Do-If-Trapped](http://www.readyforwildfire.org/What-To-Do-If-Trapped)
- Bring garden hoses inside house so embers don't destroy them.
- Patrol inside your home for spot fires and extinguish them.
- Wear long sleeves and long pants made of natural fibers, such as cotton.
- Stay hydrated.
- Ensure you can exit the home if it catches fire (remember if it's hot inside the house, it is four to five times hotter outside).
- Fill sinks and tubs for an emergency water supply.
- Place wet towels under doors to keep smoke and embers out.
- After the fire has passed, check your roof and extinguish any fires, sparks or embers.
- Check inside the attic for hidden embers. Patrol your property and extinguish small fires.
- If there are fires that you cannot extinguish with a small amount of water or in a short period of time, call 911.

## GO! Evacuation Guide

Give your family the best chance of surviving a wildfire by being ready to go and evacuating early.

**Remember:** When immediate evacuation is necessary, follow these steps as soon as possible to get ready to GO!

- Review your Evacuation Plan Checklist.
- Ensure your Emergency Supply Kit is in your vehicle.
- Cover up to protect against heat and flying embers. Wear long pants, long-sleeve shirt, heavy shoes/boots, cap, dry bandana for face cover, goggles or glasses. 100% cotton is preferable.
- Locate your pets and take them with you.



## GO! Early

By leaving early, you give your family the best chance of surviving a wildfire. You also help firefighters by keeping roads clear of congestion, enabling them to move more freely and do their job.

### When To Leave

- ✓ Leave early enough to avoid being caught in fire, smoke, or road congestion.
- ✓ Don't wait to be told by authorities to leave. In an intense wildfire, they may not have time to knock on every door.
- ✓ If you are advised to leave, don't hesitate!

### Where To Go

- ✓ Go to a predetermined location (it should be a low-risk area, such as a well-prepared neighbor or relative's house, a Red Cross shelter or evacuation center, motel, etc.).

### How To Get There

- ✓ Have several travel routes in case one route is blocked by the fire or by emergency vehicles and equipment.
- ✓ Choose an escape route away from the fire.

### What To Take

- ✓ Take your Emergency Supply Kit containing your family and pet's necessary items.



## Evacuation Planning for Pets

- ✓ Plan ahead. Know where you will take or leave your pets. In case you are not home when disaster strikes, arrange in advance for a neighbor to check on or transport your pets. Make sure your neighbors have your contact numbers (cell phone, work, home, etc.). In the event of evacuation, pets may not be allowed inside human emergency shelters – have an alternate prearranged location to take your animals.
- ✓ Make sure your pets are always wearing properly fitted collars with personal identification, rabies, and license tags.
- ✓ Each animal should have its own pet carrier. Birds, rodents and reptiles should be transported in cages. Cover cages with a light sheet or cloth to minimize their fear.
- ✓ Store vaccination/medical records, veterinary contact information, proof of ownership, a current photo, and a Emergency Supply Kit in one location.

### Pet Emergency Supply Kit

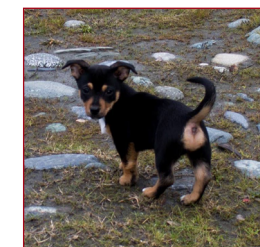
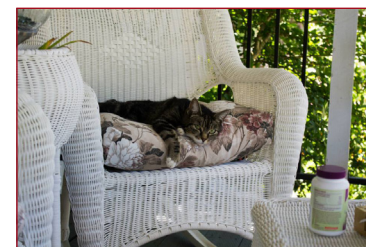
- |  |   |
|--|---|
| <input type="checkbox"/> Pet carrier for each pet            | <input type="checkbox"/> Cat litter box and litter or newspaper |
| <input type="checkbox"/> Two-week supply of food and water   | <input type="checkbox"/> Plastic bags for waste disposal        |
| <input type="checkbox"/> Non-spill food and water bowls      | <input type="checkbox"/> Paper towels                           |
| <input type="checkbox"/> Pet first-aid kit                   | <input type="checkbox"/> Disinfectants                          |
| <input type="checkbox"/> Medications and dosing instructions | <input type="checkbox"/> Blankets                               |
| <input type="checkbox"/> Leashes/collars/harnesses           | <input type="checkbox"/> Toys and treats                        |



### If You Must Leave Your Pet

- ✓ Bring them indoors. NEVER leave pets chained outdoors!
- ✓ Use a room with no windows and adequate ventilation, such as a utility room, garage, bathroom, or other area that can be easily cleaned. DO NOT tie pets up!
- ✓ Leave only dry foods and fresh water in non-spill containers. If possible, open a faucet to let water drip into a large container or partially fill a bathtub with water. Do not leave vitamin treats, which could be fatal if over-eaten.
- ✓ House cats and dogs separately, even if they normally get along.
- ✓ Leaving your pets is NOT recommended and should never be done unless it is the last possible resort.

**The time to do your planning is now. Do not wait until the last minute to start evacuating!**

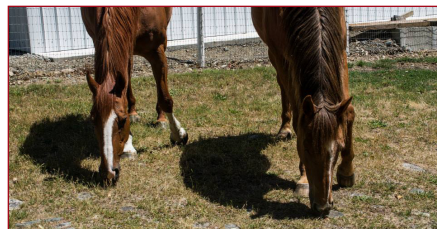
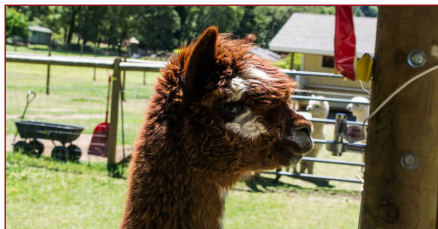


## Evacuation Planning for Large Animals

- ✓ Clear defensible space around your barns and pastures, just as you do your home. California law (PRC 4291) requires clearance around all structures on your property.
- ✓ Plan ahead, know where you would evacuate the animals. Contact your local fairgrounds, stockyards, equestrian centers, friends, etc., about their policies and ability to take livestock temporarily in an emergency. Have several evacuation routes in mind. If you don't have your own truck and trailer, make arrangements with neighbors or local companies before disaster strikes. Make sure your neighbors have your contact numbers.
- ✓ Have vaccination/medical records, registration papers, and photographs of your animals (proof of ownership) and your Disaster Preparedness Kit.

### Large Animal Emergency Supply Kit

- |   |   |
|---|---|
| <input type="checkbox"/> Hay, feed and water for three days   | <input type="checkbox"/> Leg wraps                          |
| <input type="checkbox"/> Non-nylon leads and halters (embers can easily melt or ignite nylon materials) | <input type="checkbox"/> Shovel                             |
| <input type="checkbox"/> First-aid items  | <input type="checkbox"/> Water buckets                      |
| <input type="checkbox"/> Wire cutters and a sharp knife   | <input type="checkbox"/> Plastic trash barrel with a lid    |
| <input type="checkbox"/> Hoof pick  | <input type="checkbox"/> Portable radio and extra batteries |
|   | <input type="checkbox"/> Flashlights                        |



### If You Must Leave Your Large Animals

- ✓ Leave them in a preselected, cleared area.
- ✓ Leave enough hay/feed and water for 48 to 72 hours. DO NOT rely on automatic watering systems. Power may be lost.
- ✓ Leaving your horses and livestock is not recommended and should never be done unless it is the last possible resort.

**The time to do your planning is now. Do not wait until the last minute to start evacuating!**

#### For more information on evacuating pets and large animals, see the following resources:

- ✓ Wildland Fire Safety For Your Livestock And Pets: [www.readyforwildfire.org/Animal-Evacuation](http://www.readyforwildfire.org/Animal-Evacuation)
  - ✓ CAL FIRE Animal Evacuation Fact Sheet: [www.fire.ca.gov/communications/downloads/fact\\_sheets/Animalevacuation.pdf](http://www.fire.ca.gov/communications/downloads/fact_sheets/Animalevacuation.pdf)
- Also available in Spanish:  
[www.fire.ca.gov/communications/downloads/fact\\_sheets/Animalevacuationspanish.pdf](http://www.fire.ca.gov/communications/downloads/fact_sheets/Animalevacuationspanish.pdf)
- ✓ Ready – Pet and Animal Emergency Planning: [www.ready.gov/animals](http://www.ready.gov/animals)
  - ✓ ASPCA – Disaster Preparedness website: [www.aspc.org/pet-care/general-pet-care/disaster-preparedness](http://www.aspc.org/pet-care/general-pet-care/disaster-preparedness)

## What To Expect After A Wildfire Returning Home

Coming home after a wildfire can be difficult. The damage is often unknown until the homeowner returns days or weeks later. ALWAYS check with officials before attempting to return to your home. Once home, check for the following:

- ✓ Check grounds for hot spots, smoldering stumps, and vegetation.
- ✓ Check the roof and exterior areas for sparks or embers.
- ✓ Check the attic and throughout your house for any hidden burning sparks or embers.
- ✓ Check for fire damage to your home, turn off all appliances, and make sure the meter is not damaged before turning on the main circuit breaker.
- ✓ Check the well or pump-house to ensure it is in working order.
- ✓ Contact 911 if any danger is perceived.
- ✓ Consult local experts on the best way to restore and plant your land with fire-safe landscaping.

Find out more about what to do before, during and after a wildfire at [http://calfire.ca.gov/communications/downloads/fact\\_sheets/BeforeDuringAfter.pdf](http://calfire.ca.gov/communications/downloads/fact_sheets/BeforeDuringAfter.pdf) and when returning home after a wildfire at [http://calfire.ca.gov/communications/downloads/fact\\_sheets/PGE\\_ReturningHomeAfterAfterAFire\\_print.pdf](http://calfire.ca.gov/communications/downloads/fact_sheets/PGE_ReturningHomeAfterAfterAFire_print.pdf).

### Watershed Impacts After a Wildfire

The after-effects of a wildfire on a watershed can be drastic, causing immediate issues and long-term effects. Rates of erosion and runoff can increase to dangerous levels following wildfires in California. Normally trees, shrubs, grass and other protective groundcover help prevent soil detachment and allow rainfall to infiltrate into the soil. The extreme heat of a wildfire can bake the soil to the point that water is unable to penetrate, which later can cause excessive run-off in a post-wildfire area.

Before leaving a burned area, CAL FIRE will implement post-fire repair efforts. This work includes:

- ✓ Installing waterbars (ridges installed at an angle across the road to divert water).
- ✓ Removing soil and organic debris from streams where fire lines crossed.
- ✓ Bringing road drainage structures back to pre-fire condition.
- ✓ Removing hazards like burned trees from roads and power lines.
- ✓ Installing straw-waddle dams on hillsides.
- ✓ Straw-mulching to help stabilize soil and reduce stormwater runoff.
- ✓ Creating structural protection using sandbags and K-walls.

Learn more at: <http://albertawater.com/how-wildfires-impact-a-watershed> and [www.fs.fed.us/pnw/research/fire/fire-effects.shtml](http://www.fs.fed.us/pnw/research/fire/fire-effects.shtml).

Working with your neighbors is important before, during, and after a wildfire. See the next section on *Communities Working Together* for more information and examples of how your neighbors are collaborating to prepare for wildfire.



## Humboldt County Fire Safe Council

The Humboldt County Board of Supervisors (BOS) formed the Humboldt County Fire Safe Council (HCFSC) in 2002. The BOS recognized that community-based fire planning efforts assist residents in making their homes, neighborhoods, and communities fire safe.

The HCFSC's mission is to: *serve as a forum for the implementation of Humboldt County's Community Wildfire Protection Plan (CWPP), share fire-safety information, assess fire risk, promote community fire-safe planning and coordination, link fire-prevention programs, and support the fire service and local FSCs.*

The HCFSC membership consists of 16 individuals representing federal, state, and local fire service agencies and organizations, along with local FSCs, the Hoopa Valley Tribe, the Humboldt County Office of Emergency Services (OES), CAL FIRE, the Bureau of Land Management (BLM), Six Rivers National Forest, and the insurance industry.

Since overseeing the development of a countywide fire plan in 2006 and its update into a CWPP in 2013, the HCFSC has made much progress implementing several elements of the fire plan. Accomplishments include:

- Funding for and implementation of a cost-share program for treating flammable vegetation (Fire-adapted Landscapes and Safe Homes, or FLASH, Program);
- Assisting local FSCs with their CWPPs and Firewise® activities with grant funds and/or technical assistance (assisted 10 communities to receive Firewise recognition);
- Creating a Web GIS tool showing the current level of fire service and community-identified needs for hazardous fuels reduction;
- Assisting with fire protection district expansion and formation;
- and much more...

The HCFSC meets quarterly at varying locations from 10 am to 1 pm to discuss progress on projects and share ideas. There is often a special presentation provided by a content expert related to one of the major themes of wildfire mitigation and management or community preparedness. These meetings are open to the public and all are welcome.

For more information: [humboldt.gov.org/FireSafeCouncil](http://humboldt.gov.org/FireSafeCouncil), 707-267-9542  
1106 Second St., Eureka, CA 95501, [cimmitt@co.humboldt.ca.us](mailto:cimmitt@co.humboldt.ca.us)



### Humboldt County Community Wildfire Protection Plan (CWPP)

To ensure success, HCFSC sub-committees review and implement CWPP recommendations. Their work focuses on priority CWPP implementation measures in the following categories:

#### ✓ Helping Firefighters Help You

- Enhancing fire protection
- Improving the level of service of fire protection
- Securing resources for fire protection
- Developing a reliable revenue source for fire protection
- Improving road and home address signage

#### ✓ Ensuring Adequate Water Supplies for Fighting Fire

- Providing information and securing resources to address insufficient firefighting water supply.

#### ✓ Firewise Communities

- Creating fire-safe communities
- Empowering and educating residents

#### ✓ Managing Hazardous Fuels

- Reducing hazardous fuels
- Utilizing excess fuels

#### ✓ Maintaining Air Quality

- Educating citizens about regulations
- Encouraging compliance with laws

#### ✓ Planning for Safe Evacuations

- Educating citizens about how to be ready to evacuate
- Supporting the development of evacuation plans

## Crooked Prairie Fire Safe Council

The Crooked Prairie Fire Safe Council (CPFSC) works in the Ettersburg area of southern Humboldt. It was established in 2005 with the dissolution of the Crooked Prairie Fire Crew (one of the first volunteer fire companies in the area), due to the high cost of insurance.

*CPFSC's mission is to improve and maintain fire safety for community members and the environment through education, fuel reduction work and support of local firefighting efforts.*

The CPFSC's goals and objectives are to:

- Educate community members, especially new residents, on fire-safe practices and the importance of 100 feet of defensible space.
- Assist individual landowners with FLASH grant applications.
- Educate community on Sudden Oak Death risk and assist with identification and testing.
- Create and maintain shaded fuelbreaks along the privately maintained roads within the community.
- Support resident volunteer firefighters with equipment acquisition.

• Coordinate with adjacent fire safe councils (SHFSC and LMFSC) to create and improve fire safety for the entire southern Humboldt region.

The CPFSC works hand-in-hand with Crooked Prairie Community Association, whose main function is the maintenance of about 4 miles of gravel road. The Mattole Restoration Council is another valuable resource through which the CPFSC received a grant for a 5,000-gallon water tank to support the firehouse in 2008, and a FLASH grant for fuel hazard reduction along about 2 miles of Crooked Prairie Road in 2013. In 2010, with the support of MRC and University of California Forestry Advisors, CPFSC hosted a Sudden Oak Death workshop and continues to assist landowners with identification and testing. The CPFSC greatly appreciates and benefits from CAL FIRE's annual "Fire Hazard Inspection" reports for individual properties.

For more information about the CPFSC, contact:

Kathy Weber, [kw@asis.com](mailto:kw@asis.com), 707-986-7705  
POB 631, Garberville, CA 95542

## Lower Mattole Fire Safe Council

The Lower Mattole Fire Safe Council (LMFSC) was founded in 2002. *Its mission is to reduce risks and minimize damage to life, property, and the environment from wildfire, by coordinating efforts to fund and implement fire-safe education and projects in the Lower Mattole.* Some of the goals and objectives of the LMFSC include reducing fuel loads in and around neighborhoods; increasing availability of water sources; assisting local fire protection agencies; educating landowners on fire-safe practices; improving community and emergency response communication networks; and promoting healthy forest and rangeland ecosystems.

Since its inception, the LMFSC has partnered closely with the Mattole Restoration Council (MRC) on fuels reduction and fire safety projects. One such project is participation in the Fire-adapted Landscapes and Safe



Homes (FLASH) program – a rebate program that reimburses property owners for hazardous vegetation management completed on their properties. The LMFSC and the MRC collaborated with the Humboldt County FSC in the development of the Lower Mattole Community Wildfire Protection Plan (CWPP), with involvement from local, state, and federal land and fire management agencies. The CWPP was finalized in 2016. Other recent projects include prioritized ridgeline and neighborhood fire breaks. Honeydew and Petrolia were recognized as Firewise communities in 2011. The annual Firewise event at "Roll on the Mattole" features the firefighters' challenge, always popular in inspiring support for our volunteers.

For information about the LMFSC, contact:

Ali Freedlund, [ali@mattole.org](mailto:ali@mattole.org), 707-629-3514  
Ian Sigman, [iansigman@hotmail.com](mailto:iansigman@hotmail.com), 707-629-3445  
POB 160, Petrolia, CA 95558  
[www.mattole.org/programs/land-management/fire/](http://www.mattole.org/programs/land-management/fire/)



### Orleans/Somes Bar Fire Safe Council

The Orleans/Somes Bar Fire Safe Council (OSBFSC) was established in 2001 and is now a program of the Mid Klamath Watershed Council (MKWC). *Its mission is to help plan, implement, and monitor the reinstatement of historic fire regimes.* This is primarily done through strategic fuels reduction in a manner that protects life and property, improves forest health, and enhances the resources valued by its stakeholders. The OSBFSC has received grant funding from a variety of partners in support of projects, including the construction of shaded fuelbreaks, prescribed burning programs, community defensible space workdays, landowner reimbursement programs, and Firewise educational events.



Through TREX, OSBFSC continues to develop local capacity to implement prescribed burns to reduce their community's risk to wildfire and prepare for a day when all fires are no longer suppressed. The OSBFSC/MKWC is currently collaborating with diverse stakeholders through the Western Klamath Restoration Partnership, to prioritize strategic fuels reduction projects on public and private lands spanning a 1.2-million-acre project area. Pilot projects propose linear, manual, and mechanical fuels treatments to allow for more than 40,000 acres of prescribed burns in the wildland-urban interface.

Through the Western Klamath Mountains Fire Learning Network, successes are shared and new strategies for getting more good fire on the ground are gleaned at the national scale.

Since its inception, the OSBFSC has completed brushing and thinning on over 1,600 acres of private lands. It has been instrumental in accomplishing prescribed burns on over 1,200 acres of private lands, and trained over 150 local, regional, and national participants in the safe and effective use of prescribed fire through the annual Klamath Prescribed Fire Training Exchange (TREX).

For more information about the OSBFSC, contact: Will Harling, [will@mkwc.org](mailto:will@mkwc.org) or Nancy Bailey [nancy@mkwc.org](mailto:nancy@mkwc.org) 530-627-3202  
POB 409, Orleans, CA 95556  
[www.mkwc.org/programs/fire-fuels/](http://www.mkwc.org/programs/fire-fuels/)

### Southern Humboldt Fire Safe Council

The Southern Humboldt Fire Safe Council (SHFSC) was formed in 2002 by residents in the region who recognized the danger for community devastation by wildfire.

*Its mission is to protect the region's natural and man-made resources by mobilizing the community to make their homes, neighborhoods, and communities*



*fire safe.* The SHFSC has collaborated with a variety of fire and forestry organizations to achieve its goals. The SHFSC has completed numerous shaded fuelbreak projects and over the last four years has emphasized the FLASH program, a fire-hazard reduction and education reimbursement program. During the 2015-16 period, 19 landowners completed FLASH fire hazard reduction

projects ranging from creating defensible space around homes, to removing Douglas-fir encroachments in oak woodlands, to completing a fuelbreak along a major



access road. In 2016, the SHFSC also partnered with CAL FIRE to complete a fuelbreak along the north edge of

Garberville and maintenance of the Perry Meadow/Elk Ridge fuelbreak.

For information about the SHFSC, contact: Bill Eastwood, [bill@asis.com](mailto:bill@asis.com), 707-923-9109  
POB 71, Redway, CA 95560  
[www.newforestry.org/shfsc/](http://www.newforestry.org/shfsc/)

### Van Duzen Watershed Fire Safe Council

The Van Duzen Watershed Fire Safe Council (VDWFSC) was founded in 2005 and is sponsored by the Bridgeville Community Center. *Its mission is to protect and preserve their homes, forests, and waterways from the dangers of wildfires by actively performing fuel reduction work, creating a working fire plan, educating and motivating residents to be fire safe, coordinating funding and action plans with government agencies, providing detailed mapping and risk assessment, and creating an emergency response system for their community.* It is also their aim to provide employment for as many local people as they can.



Successful projects of the VDWFSC include the completion of defensible-space zones for homes, roadside clearance, and landscape clearance. The VDWFSC

The Willow Creek Fire Safe Council (WCFSC) began in 2007 with a small group of residents committed to improving community fire preparedness. This group grew, and in 2008 WCFSC became incorporated as a non-profit 501(c)3. *Its mission is to reduce wildfire risk and increase survivability by implementing fuels reduction projects and encouraging residents of the greater Willow Creek area to make their homes, neighborhoods, and communities fire safe.* Projects of the WCFSC include "Chipper Days" (to help clear brush from around homes) and implementation of the "Blue Dot Program" (which makes pre-approved water sources available for fire protection more apparent to firefighters). The WCFSC also hosts an annual public information "Firewise Community Fair & Youth Ecology Day" in May, as well as an annual "Sky Crest Lake Youth Fish Derby" and "Firewise Day" in June. WCFSC participates in the widely attended "Bigfoot Day" celebration on Labor Day weekend as well as the "Taste of Willow Creek" in October, providing information on fuels reduction and fire safety including fundraising booths. In an effort



to educate and empower residents with fire safety information and resources, WCFSC has

assisted the Forest Service with fuelbreak pile burning and roadside clearance on Forest Service land. The VDWFSC has also sponsored numerous workshops and yearly informational booths at public events and participated in the FLASH program. In addition to fire prevention, the VDWFSC participates in services related to stream restoration, erosion control, trail building, tree planting, wildlife habitat enhancement, and has a crew that is certified in wildland firefighting. Bridgeville has been a Firewise Community since 2010.

For more information on the VDWFSC, contact: Jean-Louis Carmona, [jlc4660@gmail.com](mailto:jlc4660@gmail.com)  
707-446-4530

Bridgeville Community Center  
POB 3, Bridgeville, CA 95526

### Willow Creek Fire Safe Council

produced and distributed a local "Living with Fire" publication. Additionally, WCFSC has worked with Humboldt County FSC, CAL FIRE and the US Forest Service on this *Living with Wildfire in Northwestern California*



publication. The WCFSC also has collaborated and participated in the Humboldt County FSC's FLASH program, as well as developing and maintaining the Willow Creek Greater Area Community Wildfire Protection Plan, which was completed in 2011. Willow Creek was the first certified "Firewise Community" in Humboldt County, and has been an active Firewise Community since 2010.

For more information on the WCFSC, contact: Barbara Darst, [admin@willowcreekfsc.org](mailto:admin@willowcreekfsc.org)  
707-499-0767, [www.willowcreekfsc.org](http://www.willowcreekfsc.org)  
P.O. Box 224, Willow Creek, CA 95574



## Firewise Communities USA Recognition Program

The Firewise Communities/USA Recognition Program teaches people living within the wildland-urban interface (WUI) how to adapt to living with wildfire by preparing for a fire before it occurs. This program empowers communities with tools and resources for reducing their wildfire risk and encourages neighbors to work together to take action to minimize losses from wildfire. Some preparedness actions include creating and maintaining defensible space around structures by reducing vegetation and removing debris, and hardening homes with fire-resistant construction materials and landscaping techniques. For more information, visit: [www.firewise.org](http://www.firewise.org).

Using a five-step process, community residents collectively develop an action plan that identifies their wildfire hazard risks and guides action to reduce those risks.

### The Five Steps to Becoming Firewise

- ✓ Create a Community Wildfire Risk Assessment with assistance from a state forestry agency and/or local fire department;
- ✓ Form a board or committee and create an action plan based on the Community Assessment;
- ✓ Conduct a “Firewise Day” event;
- ✓ Invest a minimum of \$2 per capita in local Firewise actions for the year; and
- ✓ Submit an application and subsequently an annual report to the state Firewise liaison.

### Some of the many ways communities benefit from Firewise:

**Framework for Action** – Get organized and find direction in the spirit of taking annual, systematic action to reduce the risk of damage and loss from wildfire.

**Learning About Wildfire** – Learn about community wildfire risks and the simple things that can be done to reduce them. Connect with experts to learn more – local firefighters, state forestry professionals, and national researchers.

**Peace of Mind** – See results quickly and know that the best information is being used to guide action. Having a plan helps with staying calm and being prepared to act quickly in the face of wildfire threats.

**Community-Building** – Build a strong bond with neighbors while rallying around a common cause for the good of the community. Strong community ties benefit residents in many ways – especially during an emergency.

**Citizen Pride** – Take pride in earning recognition. Neighbors work hard to plan action and reduce wildfire hazards and deserve the satisfaction from the difference they make in the safety of their community.

**Publicity** – Shine the spotlight on community efforts. Post Firewise signs, place the recognition plaque where it can be seen, and publicly celebrate successes. Publicity can attract the attention and participation of more neighbors as well as spread the message of wildfire safety to a larger number of people.

**Access to Funding and Assistance** – Show funders that your community is ready for action. All things being equal in the competitive world of grants, Firewise recognition is a demonstration of foresight and a level of organization in which funders can have confidence.

## Local Firewise Communities

### Humboldt County

- Honeydew, 2011
- Hydesville, 2015
- Kneeland, 2015
- Orleans, 2011
- Petrolia, 2011
- Redwood Valley/Chezem, 2014
- Shelter Cove, 2014
- Upper Jacoby Creek, 2012
- Willow Creek, 2010

### Trinity County

- (All since 2008)
- Big Bar & Big Flat
- Coffee Creek
- Douglas City
- Hawkins Bar
- Hayfork
- Hyampom
- Junction City
- Lewiston
- Mad River & Ruth
- Post Mountain
- Salyer
- Trinity Center
- Weaverville
- Burnt Ranch, 2013

## Interagency Prescribed Fire Implementation in Redwood National Park

Every September in Redwood National Park the falling of oak leaves and curing of grasslands signal the transition into plant dormancy and the fall prescribed-fire season. Cooler temperatures, higher relative humidity, and the first wetting rains signal the waning of wildfire season. It is during this shoulder season that the park utilizes prescribed fire to restore and maintain fire-dependent plant communities and reduce hazardous fuels.



Interagency crews from Six Rivers National Forest, Redwood National Park, and CAL FIRE participate in a pre-burn briefing.

personnel provided the much-needed fireline resources required by the burn plans, and received substantial training opportunities in the process.

RWP’s 2015 Fire Management Plan provides for the use of fire to restore natural and cultural processes, manage exotic plants and conifers encroaching into prairie and oak woodland plant communities, and interpret and educate the public about the role of fire in the park. The park has successfully used prescribed fires to achieve these objectives since the early 1980s. Individual burn units have seen repeated prescribed fire ranging from 3 to 7 entries since the early 1980s, with the goal of applying fire on a 2- to 5-year return interval. This short interval favors maintenance of native oak woodland and



A crew member of the Smith River Hotshots applies dot ignitions during the 1,063-acre Coyote Creek burn.

Redwood National Park (RWP) and Six Rivers National Forest (SRNF) operate under an interagency agreement that facilitates resource sharing for both wildland fire suppression and fuels management activities, including prescribed fire planning and implementation. SRNF and RWP combine resources in a mutually beneficial relationship that increases flexibility and capacity in the planning and implementation of landscape restoration and fuels management projects. The benefits of this relationship were highlighted during the fall of 2016, when almost 2,200 acres of oak woodland and grassland were treated with prescribed fire in the Bald Hills of RWP. Park and forest



Prescribed fire ignitions proceed along Bald Hills Road during the 561-acre Child’s Hills burn, with Schoolhouse Peak in the background.

grassland species, while limiting the establishment of encroaching conifers, hardwoods, and shrubs that shade the understory plant community, reduce biodiversity, and create hazardous fuels.

The prescribed-fire program at RWP is grounded in the science of fire ecology, as well as the history of management by the Yurok, Tolowa, Chilula, and Hupa peoples. For generations, intentional burning provided grazing and hunting areas for elk and deer, maintained important resources like mature tanoak and white oak trees, and basket weaving resources, and kept trail and travel corridors open. Early settlers who homesteaded the prairies continued the practice of broadcast burning until it was outlawed by the state in the early 1930s. The park remains committed to using fire as a land management tool and will continue to work with its partners to achieve desired management goals.

## Collaboration in the Mid Klamath Watershed

There is an old proverb that says it takes an entire village to raise a child. It also takes an entire village to manage a landscape. In the “village” of Orleans, a small town located along the Klamath River, in the Orleans/ Ukonom Ranger District of the Six Rivers National Forest, there is a lot of effort from the community to find agreement on proposed treatments in the forest surrounding the town. These treatments aim to change how wildfires are managed in this landscape. Fire has been a major factor in shaping the vegetation of the Klamath Mountains. The US Forest Service has done too good of a job suppressing fires in the area. As a result, forests are choked with excess brush and trees that would have never grown there in a historic fire regime. Due to dense stands, fires in the area are burning larger amounts of area with higher portions at unnaturally high severity.



bad, and building local capacity for prescribed fire. In October 2016, the Orleans Ranger District worked side-by-side with the Karuk Tribe’s K-I fire crew to reduce fuels and promote culturally important species using prescribed fire. Together they accomplished five acres of understory burning before the season-ending storms. They have fought fires side-by-side before in suppressing fires, but had not worked together restoring forests and promoting important forest resources using prescribed fire. It was a small but important step in building relationships, skill sets, and experience together. If a significant impact on the health of our forests is to be made, and the processes that shape our landscapes restored, it’s going to take all of us working together.

**The Western Klamath Restoration Partnership (WKRK)** seeks to build trust and a shared vision for restoring fire resilience at the landscape scale. The past century of fire exclusion has severely impacted water supplies, forest health, communities, cultural resources, and threatened species throughout the Klamath Mountains and beyond.

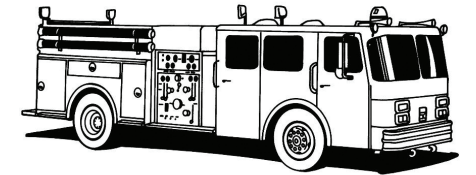
This partnership has allowed diverse stakeholders to come together to accomplish work by identifying zones of agreement where all parties agree upslope restoration needs to occur. Together, a plan was created for restoring fire resilience at the landscape scale, founded upon Traditional Ecological Knowledge and practices and concepts outlined in the National Cohesive Wildland Fire Management Strategy.

This plan incorporates ecological, economic, social and cultural values spatially across a 1.2-million-acre landscape to determine where restoration treatments would yield the most beneficial results with the least impact. The WKRK is a collaborative land and fire management effort between tribal, federal, and non-governmental stakeholders in the Western Klamath Mountains of Northern California. It is based on 20 years of collaborative work between diverse partners, ultimately forming the WKRK in 2013.

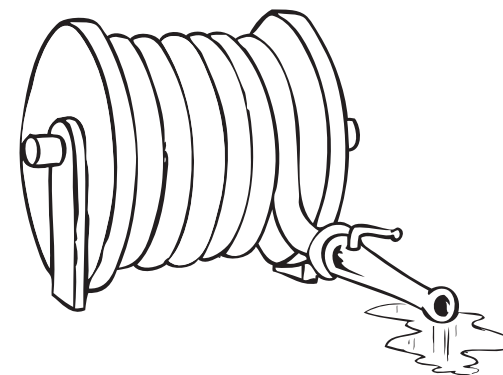
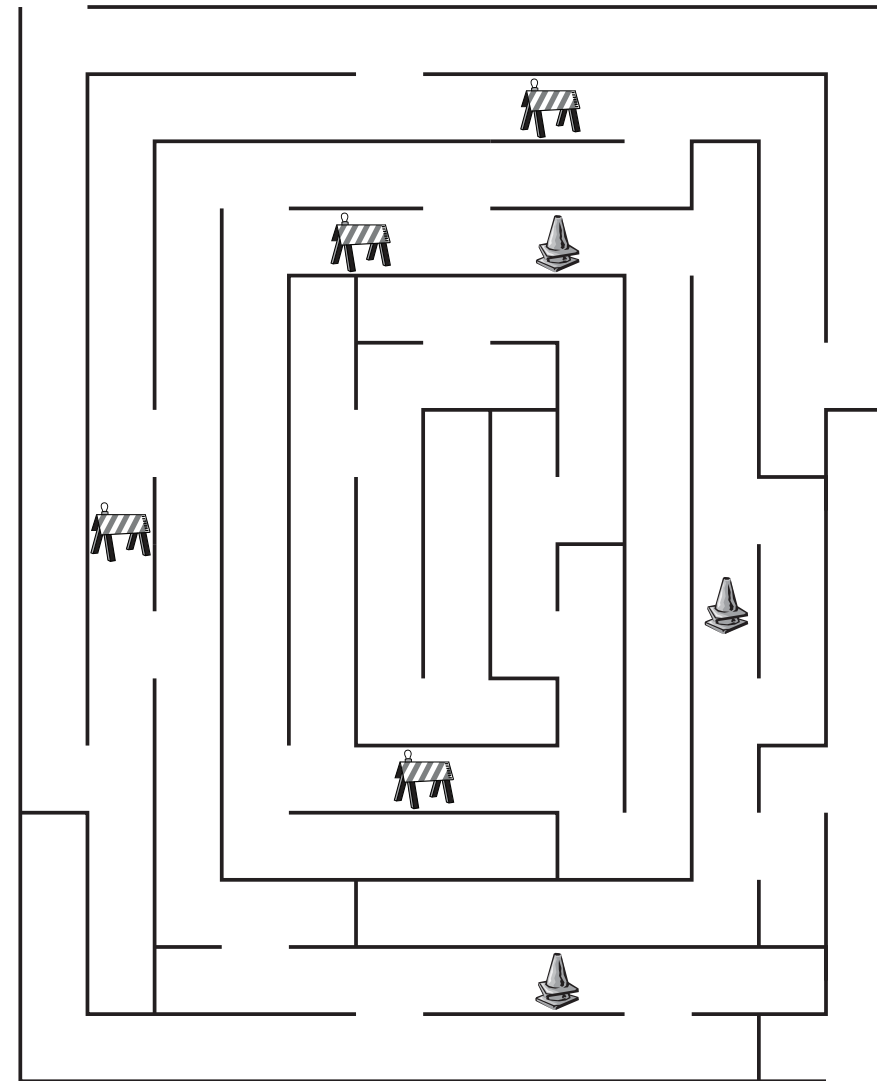
The Orleans/Ukonom Ranger District covers 409,449 acres. That’s a large landscape for an organization to manage. Over the past few years, great progress has been made in collaborative efforts to manage the wildland-urban interface lands that surround us. The best example of how we are collaboratively working together is the Western Klamath Restoration Partnership (WKRK). The WKRK is a large group of diverse stakeholders, including but not limited to land management agencies, tribes, Fire Safe Councils, environmental groups, and citizens working to develop a shared vision for restoring fire reliance in the Western Klamath Mountains at the landscape scale. The group aims to demonstrate a new approach to fire and resource management by developing shared values to which everyone has agreed. The Mid Klamath Watershed Council and the Orleans/Somes Bar Fire Safe Council are important collaborators with the Forest Service and the Karuk Tribe. Together they ensure that the communities on the river are active in wildfire preparedness. This includes helping private landowners with creating and maintaining defensible space on their property, school programs that teach the younger generation that not all fire in the forest is

## Help Firefighter Kim!

Help Firefighter Kim by giving her directions to the burning house. Beware, there is a lot of construction going on!



START

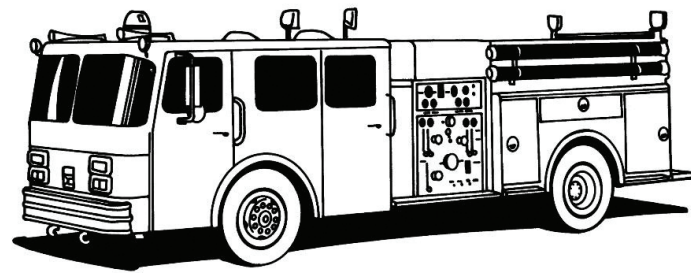


# Fire Safety Word Search

Find all of the words and circle them

A	D	F	M	T	H	W	Q	P	N	G	Y	E	S	Y
B	I	B	I	O	E	Y	A	A	L	E	Z	N	M	E
O	C	N	S	R	K	M	L	T	A	E	S	O	O	K
O	M	E	R	R	E	P	L	P	E	T	H	E	K	O
T	T	T	A	O	E	E	R	E	O	R	C	N	E	M
S	K	P	W	P	F	A	N	P	H	U	Z	O	A	S
V	S	P	A	Z	C	I	D	G	V	K	S	E	L	K
H	V	C	Q	T	L	R	L	W	I	B	J	N	A	S
H	S	S	I	S	O	C	I	A	C	N	J	I	R	A
E	B	C	V	P	V	U	D	W	C	D	E	N	M	M
R	E	G	R	E	T	H	G	I	F	E	R	I	F	N
N	W	O	F	I	R	E	S	A	F	E	T	Y	Y	Y
Z	L	E	R	I	F	L	A	C	L	A	D	D	E	R
L	S	F	A	J	T	T	A	E	H	N	C	J	N	G
Y	C	V	C	C	N	A	E	I	Y	R	S	K	O	L

- |             |             |              |                |
|-------------|-------------|--------------|----------------|
| Boots       | Fire Safety | Mask         | Stop Drop Roll |
| CAL FIRE    | Heat        | Nine One One | Water          |
| California  | Helmet      | Practice     |                |
| Escape Plan | Help        | Smoke Alarm  |                |
| Fire Engine | Hose        | Smokey       |                |
| Firefighter | Ladder      | Sparky       |                |



## Smokey's Fire Safety Tips

- ✓ Stay away from hot objects.
- ✓ Never play with matches, lighters, or candles.
- ✓ Have at least one smoke alarm per level in your house.
- ✓ Test smoke alarms once a month.
- ✓ Change batteries in smoke alarms every six months.
- ✓ Create and **Practice an Escape Plan** in case of a fire at your house.
- ✓ If there is a fire in your house, leave as fast as you can, **do not stop to pick up toys.**
- ✓ If there is a fire in your house, always test the door to see if it is hot. If it is, **leave through the window.**
- ✓ Always crawl under smoke.
- ✓ If your clothing or hair catches on fire, **STOP, DROP and ROLL.**

For more fun stuff for kids, see: <https://smokeybear.com/en/smokey-for-kids>

# Smokey's Secret Message

Use the letter key to uncode Smokey's Message.

A	B	C	D	E	F	G	H	I	J	K	L	M
2	4	6	8	10	12	14	16	18	20	22	24	26

N	O	P	Q	R	S	T	U	V	W	X	Y	Z
25	23	21	19	17	15	13	11	9	7	5	3	1


23 25 24 3                      3 23 11                      6 2 25

21 17 10 9 10 25 13                      12 23 17 10 15 13

\_\_\_\_\_ !

12 18 17 10 15

## Find the Fire Helmets

How many  can you find in the picture below?



## Contributors & Collaborators



CAL FIRE, Humboldt-Del Norte Unit: [www.fire.ca.gov/HUU/](http://www.fire.ca.gov/HUU/)

County of Humboldt, Public Works Department:  
[www.humboldt.gov/494/Natural-Resources-Planning](http://www.humboldt.gov/494/Natural-Resources-Planning)

Humboldt County Fire Safe Council:  
[www.humboldt.gov/FireSafeCouncil](http://www.humboldt.gov/FireSafeCouncil)

Mid Klamath Watershed Council: [www.mkwc.org/programs/fire-fuels](http://www.mkwc.org/programs/fire-fuels)

NFPA Firewise Communities Program: [www.Firewise.org](http://www.Firewise.org)

North Coast Unified Air Quality Management District: [www.ncuaqmd.org](http://www.ncuaqmd.org)

Southern Humboldt Fire Safe Council: <http://newforestry.org/shfsc/>

University of California Cooperative Extension, Humboldt-Del Norte: <http://cehumboldt.ucanr.edu>

US Forest Service, Six Rivers National Forest: [www.fs.usda.gov/srnf/](http://www.fs.usda.gov/srnf/)

Willow Creek Fire Safe Council: [www.willowcreekfsc.org](http://www.willowcreekfsc.org)



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## Additional Fire Safety Resources

*To learn more about wildfire and how you can enhance your personal fire safety, see the following resources.*

Builders Wildfire Mitigation Guide: [firecenter.berkeley.edu/bwmg](http://firecenter.berkeley.edu/bwmg)

California Fire Safe Council: [www.cafiresafecouncil.org](http://www.cafiresafecouncil.org)

California Fire Science Consortium: [www.cafiresci.org](http://www.cafiresci.org)

California Native Plant Society – Native Plants and Fire Safety: [www.cnps.org/cnps/conservation/fire\\_fuels.php](http://www.cnps.org/cnps/conservation/fire_fuels.php)

Center for Fire Research and Outreach: [uncanr.edu/sites/cfro/](http://uncanr.edu/sites/cfro/)

Extension Wildfire Information Network: [extension.org/surviving\\_wildfire](http://extension.org/surviving_wildfire)

Homeland Security – Ready for Wildfires: [ready.gov/wildfires](http://ready.gov/wildfires)

Fire Adapted Communities: [fireadapted.org](http://fireadapted.org)

Fire Adapted Communities Learning Network: <https://fireadaptednetwork.org/>

Fire and Aviation Management – Prevention & Education: [fs.fed.us/fire/prev\\_ed](http://fs.fed.us/fire/prev_ed)

Fire, Fuel, and Smoke Science Program: [firelab.org](http://firelab.org)

Home Landscaping for Fire: [firecenter.berkeley.edu/docs/CE\\_homelandscaping.pdf](http://firecenter.berkeley.edu/docs/CE_homelandscaping.pdf)

Homeowner's Wildfire Mitigation Guide: [ucanr.edu/sites/Wildfire](http://ucanr.edu/sites/Wildfire)

Home Survival in Wildfire-Prone Areas: Building Materials and Design Considerations:  
[anrcatalog.ucdavis.edu/pdf/8393.pdf](http://anrcatalog.ucdavis.edu/pdf/8393.pdf)

Incident Information System – InciWeb: [inciweb.nwcg.gov](http://inciweb.nwcg.gov)

Insurance Institute for Business & Home Safety – Wildfire: [disastersafety.org/wildfire](http://disastersafety.org/wildfire)

Joint Fire Science Program: [www.firescience.gov](http://www.firescience.gov)

National Fire Protection Association – Safety Information: [nfpa.org/safety-information](http://nfpa.org/safety-information)

Northern California Prescribed Fire Council: [norcalrxfirecouncil.org](http://norcalrxfirecouncil.org)

Only YOU Can Prevent Wildfires: [smokeybear.com/wildfires.asp](http://smokeybear.com/wildfires.asp)

Prevent Wildfire California: [preventwildfireca.org](http://preventwildfireca.org)

Ready for Wildfire (Ready, Set, Go! Evacuation Guide): [readyforwildfire.org](http://readyforwildfire.org)

Red Cross – Home Fire Safety: [redcross.org/prepare/disaster/home-fire](http://redcross.org/prepare/disaster/home-fire)

Safe Kids Worldwide – Fire Safety: [safekids.org/fire](http://safekids.org/fire)

University of California Cooperative Extension Wildfire Resources: <http://cehumboldt.ucanr.edu/Fire>

Write up your Wildfire Action Plan and post it in a location where every member of your family can see it. Rehearse it with your family.

# My Personal Wildfire Action Plan

During High Fire Danger days in your area, monitor your local media for information on brush fires and be ready to implement your plan. Hot, dry and windy conditions create the perfect environment for a wildfire.

## Important Phone Numbers

Out-of-State Contact: \_\_\_\_\_ Phone: \_\_\_\_\_

Work: \_\_\_\_\_

School: \_\_\_\_\_

Other: \_\_\_\_\_

Evacuation Routes: \_\_\_\_\_

Where to go: \_\_\_\_\_

Location of Emergency Supply Kit: \_\_\_\_\_

Notes: \_\_\_\_\_



California Department of Forestry and Fire Protection

If you have an emergency, call 911

CAL FIRE: 916-653-5123

[www.fire.ca.gov](http://www.fire.ca.gov)

Scissors icon at top right.

Other Important Phone Numbers & Information:

**Family Communications Plan**

Contact Name: \_\_\_\_\_  
Telephone: \_\_\_\_\_

Out-of-Town Contact Name: \_\_\_\_\_  
Telephone: \_\_\_\_\_

Neighborhood Meeting Place: \_\_\_\_\_  
Meeting Place Telephone: \_\_\_\_\_

**Dial 9-1-1 for Emergencies!**

< FOLD HERE >

Scissors icon at bottom left.

Other Important Phone Numbers & Information:

**Family Communications Plan**

Contact Name: \_\_\_\_\_  
Telephone: \_\_\_\_\_

Out-of-Town Contact Name: \_\_\_\_\_  
Telephone: \_\_\_\_\_

Neighborhood Meeting Place: \_\_\_\_\_  
Meeting Place Telephone: \_\_\_\_\_

**Dial 9-1-1 for Emergencies!**