



# **EMBER PRO**

**WILDFIRE DEFENSE SYSTEMS**

**YOUR COMPREHENSIVE PERSONAL GUIDE AND WILDFIRE ACTION PLAN FOR YOUR HOME, FAMILY AND PETS.**

# Wildfires are a fact of life in California. It's not a question of if they will occur, but when.

Catastrophic wildfires are increasing in our state, encroaching further into populated areas. It is extremely important that Californians be prepared when wildfire strikes.

## **WILDFIRE SEASON ISN'T A MAYBE. IT'S A WHEN.**

Every year, wildfires tear through communities in the Wildland/Urban Interface (WUI)—and every year, thousands of homes are lost that *didn't have to be*. **Research shows up to 80% of those homes could've been saved with a handful of simple, proactive fire-safe actions.**

Let's be real—when the big one hits, there won't be enough fire engines or crews to protect every single home. That's just the truth. Your fire department will show up with everything we've got, but your best defense? It starts with you.

## **This guide is your first step towards wildfire preparedness.**

It's built to give you clear, no-fluff tips and tools to get ahead of a wildfire before it gets to you. Personal responsibility is everything. That means preparing your property, planning for getting your family ready, and preserving your assets so you can come home.

***Make sure your home is still standing after the next wildfire tears through your neighborhood.***





## EMBER PRO WILDFIRE DEFENSE SYSTEMS

Fire has always been part of our environment. The hills, brush, canyons, and forests burned long before we moved in. Add in record dry seasons and hot winds? That's a recipe for a fast-moving wildfire you *can't* outrun.

The tough truth: too many homes are built and landscaped without wildfire in mind—and too many families wait too long to evacuate.

Don't let that be you.

There is no more 'fire season' now it's always a threat and the most important person in protecting your life and property isn't a firefighter. It's **you**.

Let's get ready. Flip the page.

# CONTENTS

## PREPARE

Hardening Your Home	5
Defensible Space	7
Fire Smart Landscaping	9
Wildfire Defense Systems	12

## PLAN

Create a Wildfire Action Plan	15
The Six Ps	16
Emergency Supply Kit	17
Be Prepared for Power Outages	18
Family Communication Plan	19

## PRESERVE

Pre-Evacuation Steps	20
Evacuation Steps	21
When to Evacuate	20
Animal Evacuation	24
What to Do if Trapped	25
Returning Home After a Wildfire	26
Insurance Preparedness	27

# Wildfires can escalate quickly.

- ✓ *Prepare ahead of time so you'll be ready.*
- ✓ *Clear brush away from your home to create defensible space.*
- ✓ *Use fire-resistant landscaping.*
- ✓ *Know your potential evacuation routes.*
- ✓ *Have an emergency supply kit ready to go.*



# It's more like **Ember Danger** than Fire Danger!

There are three ways your home can be exposed to wildfire: through flying embers, direct flame contact, and radiant heat exposure.

Embers are the main cause of homes igniting during a wildfire. Wind can blow embers up to a mile ahead of a wildfire. These flying embers can directly ignite materials on, or attached to, a home. They can also ignite vegetation or combustible materials near the home, resulting in a subsequent fire that spreads to the home through direct flame contact or radiant heat.

Direct flame contact to the home can be the result of nearby vegetation or combustible materials catching on fire due to embers, or from the wildfire burning unchecked directly to the building.

Radiant heat exposure occurs when there are materials, vegetation, or other combustibles, that are burning close to the home—for a long enough period of time—and generate enough heat to directly ignite a combustible component of the home.

Getting ready for wildfire begins with two very important efforts: **home hardening, creating a defensible space and installing a wildfire defense system (WDS)**. Hardening your home is retrofitting it with fire-resistant materials. Defensible Space is creating and maintaining a buffer between buildings and vegetation to slow wildfire. WDS systems are designed to stop embers from igniting plants, vegetation and structures within 30 ft of your home.

While not a guarantee that your home will survive a wildfire, these efforts give it the best chance.



# Prepare - Make your home fire resistant - Harden your home

Construction materials and the quality of the defensible space surrounding the structure are what increases the chance of survival in a wildland fire. Embers from a wildland fire will find the weak spot in your home's fire protection scheme and can easily lodge in small, overlooked, or seemingly inconsequential areas. Look at where snow drifts form on your roof and deck and around your home - these are the areas where embers will collect. Below are some home hardening measures you can take to safeguard your home.



## Balconies and Decks

Construct your balconies or decks with **noncombustible materials**, and do not store combustible items underneath them. If there is a fire threat, bring any **furniture** into your home. Embers can collect in or on combustible surfaces, or beneath decks and balconies, igniting the material and giving a path for the fire to enter your home. **Remove pine needles, leaves, grass**, or any other flammable materials from underneath your deck.



## Roofs

Roofs are vulnerable to embers that become lodged and can start a fire, especially anywhere on the roof with litter buildup. **Roof valleys**, open ends of **barrel tiles**, and **rain gutters** are all points of entry. Block off all open spaces, and regularly inspect these areas. Remove any combustible material.



## Eaves

Embers can gather under open eaves and ignite combustible material. Enclose your eaves with **noncombustible or ignition-resistant materials** to prevent ember intrusion, and regularly clear away debris that collects here.



## Vents

Embers can enter the attic or other concealed spaces and ignite combustible materials through open and unscreened vents. Vents in eaves, gables and cornices are particularly vulnerable if not properly screened with wire mesh. Use **corrosion resistant metal mesh** to screen all vents, and check them regularly to remove any debris that collects in front of the screen.



## Walls and Fencing

Combustible siding or fencing provides surfaces and crevices for embers to nestle and ignite. Ensure wooden fences do not connect directly to the house. Create a **break in the fence** by using a gate or noncombustible substitute to connect to the house. Build or remodel with **noncombustible or ignition-resistant materials** wherever possible, regularly clear away debris from any crevices, and perform annual upkeep.



## Windows and Doors

Embers can enter gaps in doors, including garage doors. Install **weather proofing** around your garage door; and if your garage is attached to your home, make sure the interior door is solid and on **self-closing hinges**.

Plants or combustible storage near windows can be ignited from embers and generate heat that can break windows and/or melt combustible frames. Wherever possible, use **dual-paned windows with tempered glass**, as they are less likely to shatter from radiant heat.

# Your investment in time and money goes a long way to preparing you to defend wildfires and preserve your home.

Now is the time to retrofit your home—before a wildfire strikes. California Building Code Chapter 7A requires specific construction materials and methods for the building of new homes in wildfire-prone areas. These same materials and methods are also the minimum standards recommended when retrofitting a home. Retrofitting prepares your home for the exposure it will experience during a wildfire.

1ST PRIORITY		
A	Roof	Install a Class A-rated roof such as asphalt fiberglass shingles or metal panels. \$\$\$
B	Roof and yard debris	Clear leaves, pine needles, and other flammable material from the roof, gutters, and areas around fences. DIY
C	Buffer zone	Clear vegetation and other combustible materials to create a 5-foot buffer zone around the home. \$\$
D	Vents	Install flame- and ember-resistant vents. \$
E	Deck	Remove vegetation, firewood, and other combustible materials from on top and under decks. DIY
2ND PRIORITY		
F	Fencing	Replace wood or plastic fences attached to the home with noncombustible metal fencing. \$\$
G	Enclose decks	Enclose low decks and areas under bay windows with mesh screening or ventilated noncombustible material. \$
H	Trees	Remove branches that overhang the roof and gutters. \$
3RD PRIORITY		
I	Siding	Replace at least the lower foot of wood or vinyl siding with fiber cement, stucco, brick, or stone siding. \$\$
J	Eaves	Enclose open eaves with noncombustible soffit material. \$\$
K	Windows	Use dual-paned, tempered glass in windows and doors. \$\$\$
L	Deck surface	Replace wooden decking with fire-rated composite material, metal, or lightweight concrete. \$\$\$

Wind-driven embers can attack your home. You and your home must be prepared well before a fire occurs

## HIGH RISK

UNENCLOSED EAVES



UNSCREENED VENTS

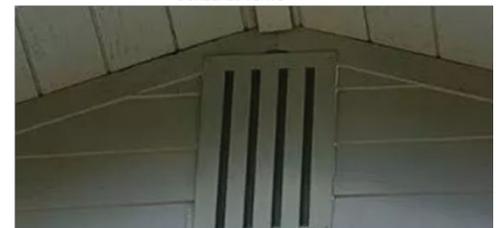


## LOW RISK

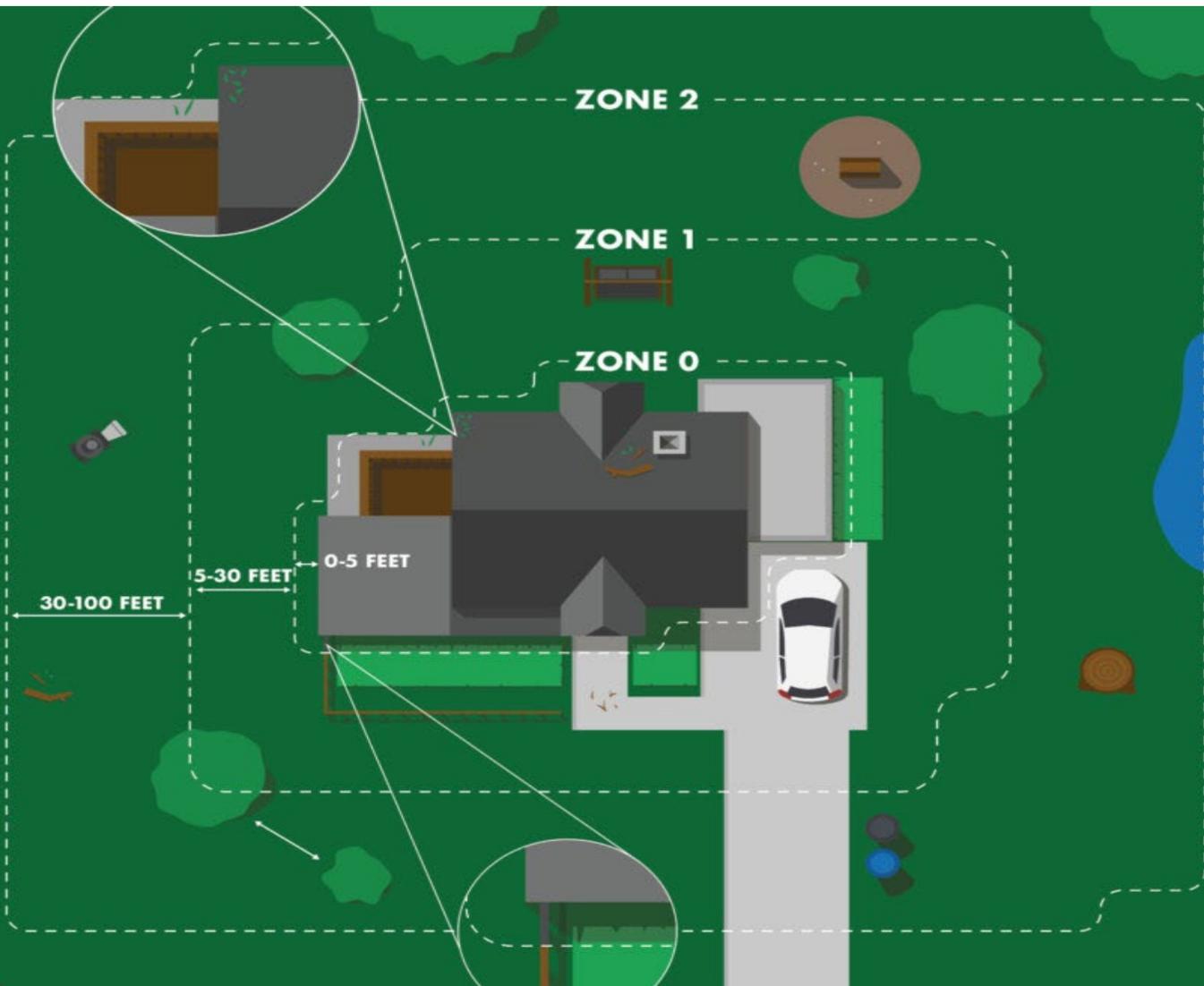
ENCLOSED EAVES



SCREENED VENTS



# Defensible Space



Creating and maintaining **Defensible Space** is essential to reducing the impact of wildfire on your home and property. Defensible Space is the buffer created between a building on your property and the plants, brush, trees, or other combustible items in the near vicinity. This buffer helps to keep wildfire away from your home by reducing the fire's intensity and slowing or halting the spread of wildfire. The less there is to burn near your home, the less exposure your home will have to wildfire. Creating this space also provides protection for the firefighters defending your home.

## **CREATING AND MAINTAINING YOUR DEFENSIBLE SPACE**

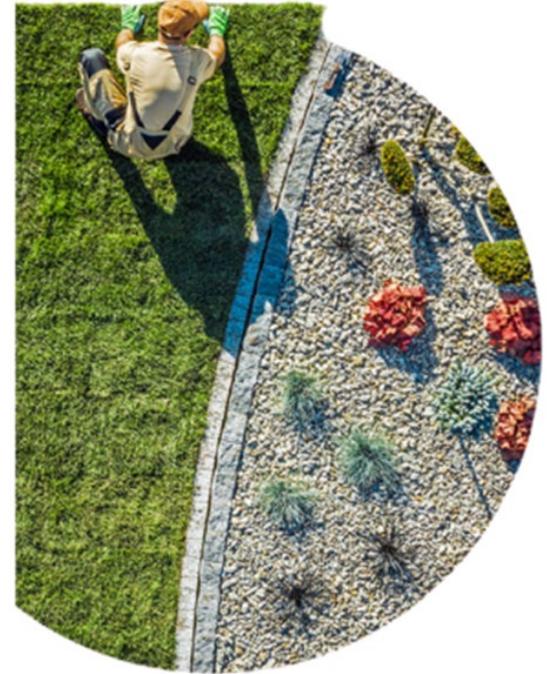
Within the 100-foot perimeter of a home, there is a need for more intense reduction of wildfire fuels. Start at the home and work your way out 100 feet or to your property line, whichever is closer.

## **KNOW THE LAW - BE FIRE SMART**

One hundred feet of Defensible Space is required under the Public Resources Code (PRC) 4291. Zones 1 and 2 currently make up the 100 feet of Defensible Space required by law. Assembly Bill 3074, passed into law in 2020, requires an ignition-resistant Zone 0 for Defensible Space.

Many local government agencies have ordinances for Defensible Space. These local ordinances will often be more stringent than the state of California's minimum requirement in PRC 4291. Check with your local fire department or fire protection district for any additional Defensible Space requirements.

**[fire.ca.gov/dspace](https://www.fire.ca.gov/dspace)**



## ZONE 0

### 0-5 feet around your home or to property line

- Use hard scape such as concrete or noncombustible rock mulch around your home.
- Clean roofs and gutters of dead leaves, debris, and pine needles.
- Store firewood and other combustible materials away from your home, garage, or attached deck.
- Prune away touching or over-hanging branches from the roof to a distance of at least 10 feet.
- Replace or repair any loose or missing shingles or roof tiles to prevent ember penetration.
- Rake and remove flammable vegetation, such as leaves and needles or wood mulch, from underneath your deck and away from your home.
- Use non-wood, low-growing herbaceous vegetation. Succulents, or other fire-resistant plants, are recommended choices.

## ZONE 1

### 5-30 feet around your home or to property line

- Create vegetation groups or islands to break up continuous fuels around your home.
- Remove ladder fuels to create a separation between low-level vegetation and tree canopies to keep fire from climbing into trees.
- Remove leaf and needle debris from the yard.
- Keep lawns, native grasses, and wildflowers less than four inches in height.
- Store firewood and other combustible materials away from outbuildings such as a shed or barn.
- Move trailers, recreational vehicles, storage sheds, and other combustible structures out of this zone and into Zone 3. If unable to move, create defensible space around them as if they were a part of your home.

## ZONE 2

### 30-100 feet around your home or to property line

- Create and maintain a minimum of 10 feet between the tops of trees.
- Safely remove ladder fuels up to a height of 10 feet, while retaining at least 75 percent of the foliage, to create separation between the ground and tree branches. This keeps fire from climbing into the tree canopies.
- Store firewood in this area, keeping it a safe distance from your structure.
- Create space between shrubs and trees to eliminate a continuous fuel bed at the ground level.
- Remove dead trees, shrubs, and all other dead or dry vegetation.
- Create separation between your property and your neighbors. Consider that your trees may pose a greater risk to your neighbor's home than to your own.

# Fire Smart Landscaping

While some plants are characterized as “fire-safe” or “fire-resistant,” all plants will burn under the right conditions, regardless of how they are classified. The environment the plant grows in, how it is maintained, and its placement and spacing near other vegetation and combustibles will generally have more influence on the flammability of the plant than how it is characterized. Taking these items into consideration is crucial to reduce the spread of wildfire to your home. Scan the QR code below for more information.

## MINIMUM VERTICAL SPACING BETWEEN TREES AND SHRUBS

Eliminate opportunities for a vertical “fire ladder”:

- Remove branches beneath large trees for a six-foot minimum clearance.
- Create proper vertical spacing between shrubs and the lowest branches of trees. See adjacent diagrams.

## MINIMUM HORIZONTAL SPACING BETWEEN TREES AND SHRUBS

Horizontal spacing depends on the slope of the land and the height of the shrubs or trees. See adjacent diagrams.

## DEAD TREE REMOVAL

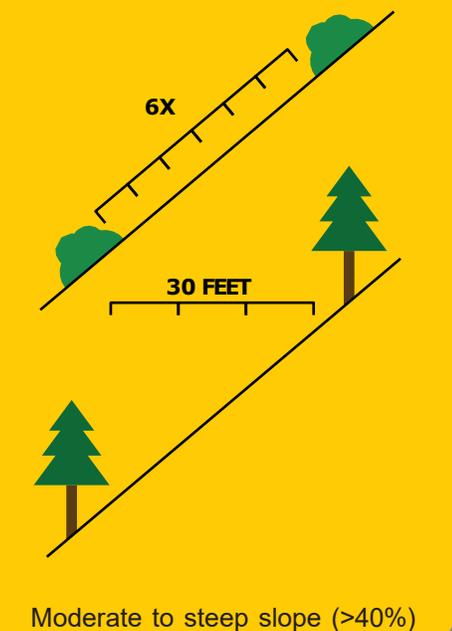
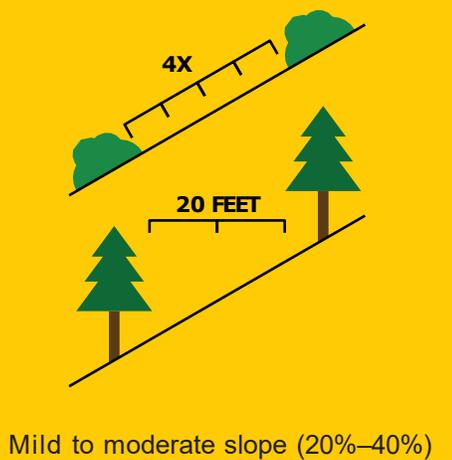
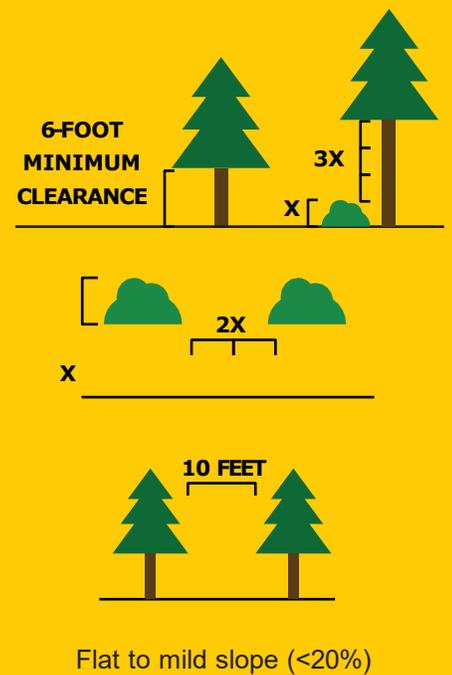
If you have dead or dying trees on your property, the entire tree needs to be removed to reduce wildfire risk. Scan the QR code below to learn about permit requirements.

## PERMIT REQUIREMENTS

[ReadyforWildfire.org/dead-tree-removal](https://www.readyforwildfire.org/dead-tree-removal)

## FIRE SMART LANDSCAPING

[ReadyforWildfire.org/fire-smart-landscaping](https://www.readyforwildfire.org/fire-smart-landscaping)



## Fire-Smart Landscaping

Fire-smart landscaping goes beyond looks—it's about function. In wildfire-prone areas, the right plants and thoughtful design can slow fire spread, reduce radiant heat, and block embers from reaching your home.

### Choosing and Maintaining Fire-Resistant Plants

Not all "fire-safe" plants are truly fire-resistant. Labels don't tell the whole story—care and environment matter just as much as the species. A plant's flammability can increase with poor health, stress, or aging.

- **Well-watered plants** tend to be less flammable and more resilient.
- **Stressed or drought-affected plants** are more likely to ignite.
- **Some species like lavender** become woody and flammable as they mature.
- **Dead undergrowth (thatch)** beneath green leaves can easily catch fire.
- **Open-growth plants** generally pose less risk than dense, bushy types.

Maintaining these plants with regular watering, pruning, and cleanup is essential for reducing wildfire vulnerability.

### Plant Placement and Defensible Space

Proper placement is just as important as plant type. Focus on the first 0–5 feet around the home—this zone should be clear of vegetation, mulch, and anything flammable.

- **Avoid direct contact** between plants and walls, decks, vents, or windows.
- **Create vertical and horizontal spacing** between shrubs and trees to prevent fire spread.
- **Dense plants near the house** can trap embers—space them out or remove them.
- **Fast-growing species** may require frequent maintenance to remain safe.

Strategic spacing slows fire, reduces heat exposure to your home, and gives first responders a defensible area to work.

## Maintenance and Mulching

Consistent maintenance is the backbone of a fire-smart landscape. Healthy plants are more resistant to ignition.

- **Use drip irrigation** for efficient watering and healthier root systems.
- **Avoid combustible mulch** like bark or pine needles near your home's foundation.
- **Choose rock or gravel** mulch instead in high-risk zones.
- **Compost** is a safer mulch alternative that retains moisture and resists fire.

Regularly prune dead branches and clean up fallen leaves to prevent fire fuel buildup. This is especially important in fall and after high winds.

## Shade Trees: Risks and Fire Safety

While shade trees offer energy savings and comfort, they require thoughtful management.

- **Remove overhanging branches** above your roof and decks.
- **Maintain a healthy canopy** that's less likely to catch embers.
- **Position trees at least 5 feet** from any structure.
- **Prune lower limbs** and clear debris underneath to prevent ladder fuels.

## Landscaping tips and managing drought

In drought conditions, maintaining defensible space becomes a balancing act between reducing wildfire risk and conserving water. Here are some key strategies to achieve this balance:

### **Remove dead or dying vegetation:**

- Clear dead or dying weeds, grass, plants, shrubs, trees, and other debris (leaves, needles, cones, bark, etc.)
- Regularly inspect and clean roofs, gutters, decks, balconies, and stairways of vegetative debris.

# Wildfire Defense That Works: How Fire Defense Systems Keep Your Home Safe

If you live in California, you don't need a reminder that wildfire season isn't just "seasonal" anymore. Malibu, Pacific Palisades, Altadena —entire neighborhoods have gone up in smoke with structure loss exceeding 16,000 units and nearly 30 lives lost. **It's not IF, it's WHEN.** Even if you hardened your home ask yourself: do I have peace of mind that my home will still be there after the fire passes?

## What Is a Wildfire Defense System?

A wildfire defense system is a pre-installed system designed to protect your home and property from ignition when wildfires are nearby. Systems are built to defend your home from every angle—structure, perimeter, and ignition points. They just slow fire down—They stop it from ever starting your home on fire.

## System Components Include:

- Tank-fed or plumbed distribution systems with high-capacity flow
- Custom piping layouts routed around the home, rooflines, vegetation, and other high-risk areas
- Nozzle arrays that apply solution/retardant to vulnerable surfaces
- App-controlled activation—when a wildfire is near, you deploy from your phone, no scrambling, no delay

Once the system is initiated (either manual or remote) the pump engages and pulls the fire retardant up through the piping to the heads where it is deployed to the areas that it was designed to protect and defend from embers.



## The elements of the retardant are very important!

Using an EPA-approved fire retardant isn't just smart—it's essential. Products like Phos-Chek and other older retardants often contain heavy metals that can contaminate soil, water, and wildlife. These metals don't break down easily—they stick around, leach into groundwater, and pose serious risks to ecosystems and public health.

EPA-approved retardants are tested for both fire suppression effectiveness and environmental safety. They're designed to degrade more cleanly and avoid long-term toxicity. That means less harm to plants, animals, and people—and a far lower chance of legal or regulatory backlash. **If you're using a non-approved product and it causes damage, you're liable. That includes potential lawsuits, cleanup costs, and lost trust from clients or agencies.** With more scrutiny on environmental impact, using the right product isn't optional—it's the cost of doing business responsibly.

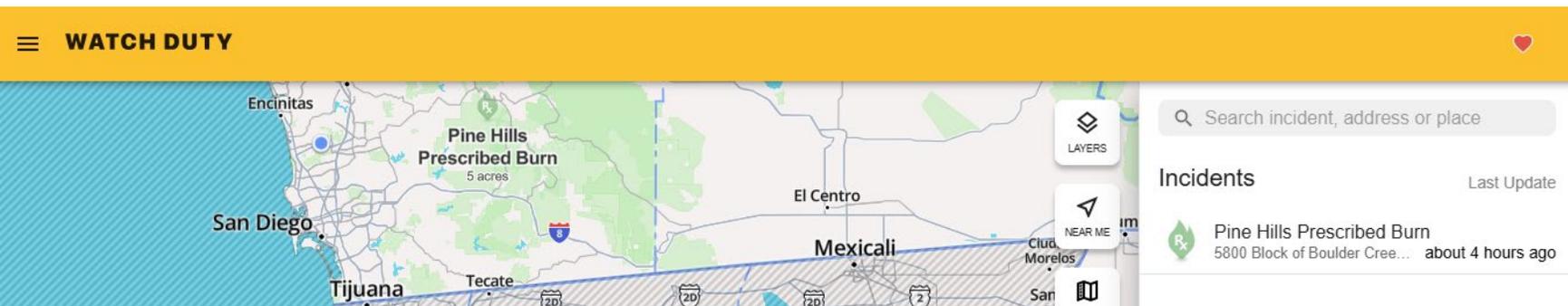
**Bottom line: don't gamble with outdated, heavy-metal-based retardants. EPA-approved options protect the land, the people, and your reputation. Make the right call the first time.**



WFD Systems are making the new everywhere



# Watch Duty: Real-Time Wildfire Intelligence in Your Pocket



## Watch Duty: Real-Time Wildfire Intelligence in Your Pocket

In a time where wildfires are more frequent and intense, timely, accurate information can save lives.

**Watch Duty** is a free wildfire tracking app powered by a nonprofit and a team of volunteers—including firefighters, dispatchers, CAL FIRE personnel, and fire chiefs—who deliver verified, real-time updates to communities under threat.

Launched in 2021 by Sherwood Forestry Service, Watch Duty fills the gap between emergency alerts and actionable on-the-ground intel. It's used not just by the public, but also by emergency personnel to track incidents and coordinate responses.

### Key Features:

- **Real-Time Alerts** – Immediate notifications about wildfires near you, with fire size, direction, and containment status.
- **Interactive Fire Maps** – Track evacuation zones, shelter locations, and fire perimeters.
- **Live Flight Tracking** – Follow firefighting aircraft and suppression efforts.
- **Weather & Air Quality Data** – Stay informed on wind, humidity, and air quality indexes.
- **Community Reports** – Share photos and updates directly to the app to help responders and neighbors.

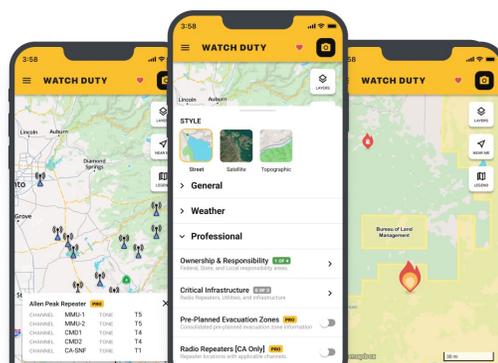
### Why It Stands Out:

- Human-verified alerts—no bots, no misinformation.
- Used by **firefighters, fire chiefs, and CAL FIRE** for real-time situational awareness.
- Over **1.4 million new users** joined during the January 2025 SoCal wildfires alone.
- Free of ads and minimal data collection—your privacy is protected.

### Get Started:

- Download **Watch Duty** for free on **iOS or Android**
- Set alerts for up to **4 counties** free
- Get expanded features with optional membership

Start here: <https://app.watchduty.org/>



# Create a wildfire action plan

Now that you've done everything you can to protect your house, it's time to prepare your family. Your Wildfire Action Plan must be prepared with all members of your household well in advance of a fire.

Use these checklists to help you prepare your Wildfire Action Plan. Each family's plan will be different, depending on their situation.

Once you finish your plan, rehearse it regularly with your family and keep it in a safe and accessible place for quick implementation.

## Create an evacuation plan that includes:

- A designated emergency meeting location outside the fire or hazard area. This is critical to determine who has safely evacuated from the affected area.
- Identification of several different escape routes from your home and community. Practice these routes often so everyone in your family is familiar with them in case of emergency. Go to page 18 to write down your evacuation routes.
- An evacuation plan for pets and large animals such as horses and other livestock.
- 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 and under a stressful situation.



**Be prepared:**

- O Have fire extinguishers on hand and make sure everyone in the family knows how to use them. Many fire extinguishers have expiration dates, so make sure to check yours.
- O Ensure you and your family know where the home’s gas, electric, and water main shut- off controls are located and how to safely shut them down in an emergency.
- O Assemble an Emergency Supply Kit for each person, as recommended by the American Red Cross. See Emergency Supply Kit on page 16 for details.

- O Maintain a list of emergency contact numbers in your cell phone, posted near your home phone, and in your Emergency Supply Kit.
- O Keep an extra Emergency Supply Kit in your car in case you cannot get to your home because of fire or other emergency.
- O Have a portable radio or scanner, or follow the Ready for Wildfire App so you can stay updated on wildfires. Follow local law enforcement notifications for any evacuation information. Visit [incidents.ReadyforWildfire.org](http://incidents.ReadyforWildfire.org) or scan QR code on page 13 to view the incident app.

- O Tell your neighbors about Ready, Set, Go! and your Wildfire Action Plan.

**THE SIX Ps**

Remember the “Six Ps” and keep them ready in case immediate evacuation is required:

- O People and pets
- O Papers, phone numbers, and important documents
- O Prescriptions, vitamins, and eyeglasses
- O Pictures and irreplaceable memorabilia
- O Personal computer, hard drive, and disks
- O “Plastic” (credit cards, ATM cards) and cash





## BE PREPARED FOR POWER OUTAGES

Power outages may occur before and during the threat of a wildfire. It's important to be prepared and know what actions to take when leaving your home during a power outage.

- Learn how to manually open your automatic garage doors or gates—this is extremely important!
- Be familiar with your home's utility shutoffs (electricity, water, and gas).
- Keep a flashlight and shoes near your bed in case you need to evacuate during the night.
- Keep your Emergency Supply Kit easily accessible so you can find it in the dark if you have to evacuate.
- Always keep at least a half tank of gas in your vehicles.
- If you have a power generator, be sure you know the safety guidelines of your model, including where to connect it, which electrical cords to use, and the electrical load rating. An improperly installed generator can electrocute you or an electric utility worker and can also be a fire hazard.
- Keep your cell phone charged.
- Keep a supply of bottled water.

## DURING A POWER OUTAGE

If the power goes out, follow these steps:

- Keep your refrigerator and freezer doors closed.
- Shut off the gas and other combustibles such as propane tanks.
- If wildfire is within your area, keep informed with a battery-powered radio or your cell phone.
- Stay at least 10 feet away from both overhead power lines and electrical facilities, and never approach or touch overhead power lines or any person or object in contact with the lines.



## SAVE THIS FAMILY COMMUNICATION PLAN

Fill out this form and place it in a location where it can easily be found by everyone in your household. Copy the form and keep it in your Emergency Supply Kit. This will allow all family members to have access to this key information in case you get separated.

### WHEN WE HAVE TO EVACUATE, WE WILL MEET AT:

\_\_\_\_\_

### OUR OUT-OF-AREA EMERGENCY CONTACT PERSON IS:

Name: \_\_\_\_\_

Home Phone #: \_\_\_\_\_

Relationship: \_\_\_\_\_

E-mail: \_\_\_\_\_

Cell Phone #: \_\_\_\_\_

### OTHER IMPORTANT NUMBERS ARE:

Emergency 911: \_\_\_\_\_

Local Police: \_\_\_\_\_

Local Fire Department: \_\_\_\_\_

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

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

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

### OUR TWO EVACUATION ROUTES ARE (DESCRIBE BELOW):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# Pre-Evacuation Steps:

## Outside

- Gather flammable items from the exterior of the house and bring them inside (patio furniture, children's toys, door mats, trash cans, etc.) or place them in your pool.
- Turn off propane tanks.
- Move propane BBQ appliances away from structures.
- Connect garden hoses to outside water valves or spigots for use by firefighters. Fill water buckets and place them around the house.
- Turn off sprinklers and running water; leaving them on can affect critical water pressure.
- Leave exterior lights on so your home is visible to firefighters in the smoke or darkness of night.
- Put your Emergency Supply Kit in your vehicle.
- Back your car into the driveway with vehicle loaded and all doors and windows closed. Carry your car keys with you.
- Have a ladder available and place it at the corner of the house for firefighters to quickly access your roof.

- Seal attic and ground vents with pre-cut fire-resistant boards or commercial seals.
- Monitor your property and the fire situation. Don't wait for an evacuation order if you feel threatened and need to leave.
- Check on neighbors and make sure they are preparing to leave.

## Inside the House

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

## Animals

- Locate your pets and keep them nearby.
- Prepare livestock for transport and consider moving them to a safe location early.

# EVACUATION STEPS:

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

# WHEN TO EVACUATE

Leave when evacuation is recommended by fire officials to avoid being caught in fire, smoke, or road congestion. You don't need to wait to be ordered by authorities to evacuate. In an intense wildfire, emergency personnel may not have time to knock on every door. If you feel you are in danger, the best course of action is to evacuate. If you are advised to leave, don't hesitate!

Officials will determine the areas to be evacuated and escape routes to use depending upon the fire's location, behavior, winds, terrain, etc.

Law enforcement agencies are typically responsible for enforcing an evacuation order. Follow their directions promptly.

You will be advised of potential evacuations as early as possible. You must take the initiative to stay informed and aware. Listen to your radio/TV for announcements from law enforcement and emergency personnel.

You may be directed to temporary assembly areas to await transfer to a safe location.

The terms "Warning" and "Order" are used to describe evacuation orders. However, local jurisdictions may use other terminology such as "Precautionary" and "Immediate Threat." These terms are used to alert you to the significance of the danger. All evacuation instructions provided by officials should be followed immediately for your safety.

# Evacuation

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

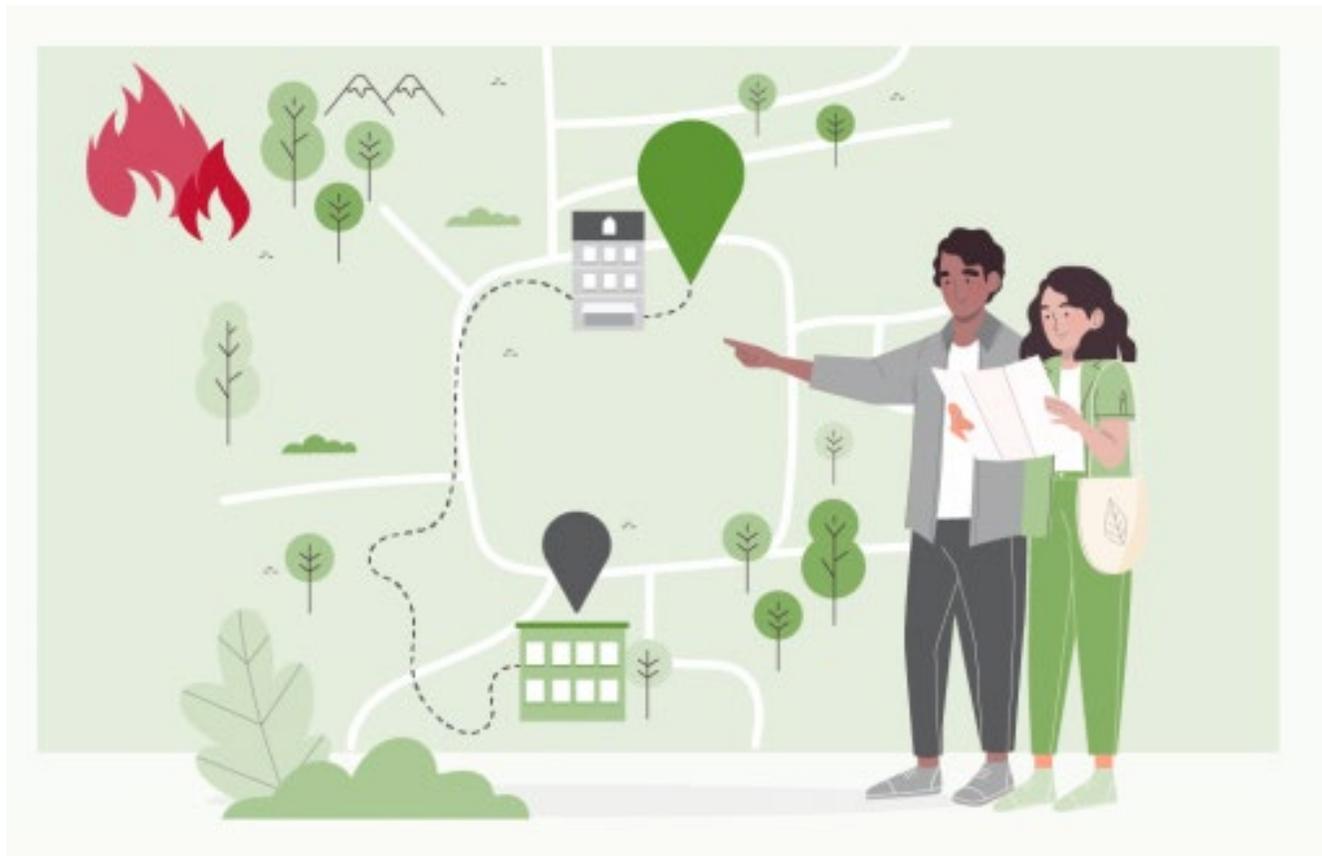
Being ready to go means following pre-evacuation steps, knowing when to evacuate, preparing possible evacuation routes, and knowing what to do if you become trapped.

Be safe and don't wait until it's too late! Use these checklists to help prepare you and your family to be ready to evacuate if wildfire strikes.

It is also important to learn what to expect after a wildfire and what you should do before returning home. The danger is not over after the flames are put out.

## KNOW THE LAW—BE READY TO EVACUATE

California law authorizes officers to restrict access to any area where a menace to public health or safety exists due to a calamity such as flood, storm, fire, earthquake, explosion, accident, or other disaster. Refusal to comply is a misdemeanor. (Penal Code 409.5)



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Residential Safety Checklist  
Tips To Improve Family and Property Survival During A Wildfire

<b>Home</b>	<b>Yes</b>	<b>No</b>
1. Does your home have a metal, composition, or tile (or other non-combustible) roof with capped ends and covered fascia?	<input type="checkbox"/>	<input type="checkbox"/>
2. Are the rain gutters and roof free of leaves, needles and branches?	<input type="checkbox"/>	<input type="checkbox"/>
3. Are all vent openings screened with 1/8 inch (or smaller) mesh metal screen?	<input type="checkbox"/>	<input type="checkbox"/>
4. Are approved spark arrestors on chimneys?	<input type="checkbox"/>	<input type="checkbox"/>
5. Does the house have non-combustible siding material?	<input type="checkbox"/>	<input type="checkbox"/>
6. Are the eaves "boxed in" and the decks enclosed?	<input type="checkbox"/>	<input type="checkbox"/>
7. Are the windows made of at least double-paned or tempered glass?	<input type="checkbox"/>	<input type="checkbox"/>
8. Are the decks, porches and other similar areas made of non-combustible material and free of easily combustible material (e.g. plastic furniture)?	<input type="checkbox"/>	<input type="checkbox"/>
9. Is all firewood at least 30 feet from the house?	<input type="checkbox"/>	<input type="checkbox"/>
10. Did you install a Wildfire Defense System?	<input type="checkbox"/>	<input type="checkbox"/>

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<b>Defensible Space</b>	<b>Yes</b>	<b>No</b>
1. Is dead vegetation cleared to the recommended defensible space area? (Consider adding distance due to slope of property.)	<input type="checkbox"/>	<input type="checkbox"/>
2. Is there separation between shrubs?	<input type="checkbox"/>	<input type="checkbox"/>
3. Are ladder fuels removed?	<input type="checkbox"/>	<input type="checkbox"/>
4. Is there a clean and green area extending at least 30 feet from the house?	<input type="checkbox"/>	<input type="checkbox"/>
5. Is there a non-combustible area within five feet of the house?	<input type="checkbox"/>	<input type="checkbox"/>
6. Is there separation between trees and crowns?	<input type="checkbox"/>	<input type="checkbox"/>

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<b>Emergency Access</b>	<b>Yes</b>	<b>No</b>
1. Is the home address visible from the street?	<input type="checkbox"/>	<input type="checkbox"/>
2. Is the home address made of fire-resistant materials?	<input type="checkbox"/>	<input type="checkbox"/>
3. Are street signs present at every intersection leading to the house?	<input type="checkbox"/>	<input type="checkbox"/>
4. Are street signs made of fire-resistant materials?	<input type="checkbox"/>	<input type="checkbox"/>
5. Is flammable vegetation within 10 feet of the driveway cleared and are overhanging obstructions removed?	<input type="checkbox"/>	<input type="checkbox"/>
6. If a long driveway is present, does it have a suitable turnaround area?	<input type="checkbox"/>	<input type="checkbox"/>

# Assembling your wildfire-ready kit

Get your emergency supply kit ready well before any wildfire or disaster. Make sure it's accessible for quick evacuation and prepare for the possibility of being away from home for a while.

Your 'Go Bag' should be easy to carry and access. Use backpacks to store items like essentials and personal documents. For food and water, consider a wheeled tub or chest for easier transport. Keep your bag light enough for comfortable lifting into your vehicle.

## Your 'Go Bag' checklist:

Ensure your wildfire 'Go Bag' includes:

- A 3-day supply of non-perishable food & 3 gallons of water per person
- A map with at least 2 evacuation routes
- Necessary prescriptions or medications
- A change of clothes & extra eyeglasses/contact lenses
- Extra car keys, credit cards, cash, or traveler's checks
- A first aid kit & sanitation supplies
- A flashlight & battery-powered radio with extra batteries
- Copies of important documents (birth certificates, passports, etc.)
- Pet food & water

*Always have sturdy shoes and a flashlight near your bed, ready for sudden night evacuations*



## Maintaining Your Kit

After assembling your kit remember to maintain it so it's ready when needed:

- Keep canned food in a cool, dry place.
- Store boxed food in tightly closed plastic or metal containers.
- Replace expired items as needed.
- Re-think your needs every year and update your kit as your family's needs change.



## Kit Storage Locations

Since you do not know where you will be when an emergency occurs, prepare supplies for home, work and cars.

- **Home:** Keep this kit in a designated place and have it ready in case you have to leave your home quickly. Make sure all family members know where the kit is kept.
- **Work:** Be prepared to shelter at work for at least 24 hours. Your work kit should include food, water and other necessities like medicines, as well as comfortable walking shoes, stored in a "grab and go" case.

# Animal Evacuation

**You've taken steps to help keep your family and home fire safe. Don't forget your pets and livestock. With some advanced planning, you can increase their chances of surviving a wildfire.**

1. Clear Defensible Space around your barns, pastures, and property just as you do your home.
2. Contact your local fairgrounds, stockyards, equestrian centers, friends, etc. about their policies and ability to temporarily take livestock in an emergency.
3. Have vaccination/medical records, registration papers, and photographs of your animals (proof of ownership).
4. If you must leave your animals, leave them in a pre-selected, cleared area. If appropriate, leave enough hay for 48 to 72 hours.
  - Leave water for your animals. Do not rely on automatic watering systems, as a power outage could occur or the water system become compromised.
5. Arrange in advance for a neighbor to check on or transport your pets in case you are not home when disaster strikes.
  - Make sure your neighbors have your contact numbers (cell phone, work, home, etc.).
6. Make sure that each animal has its own pet carrier, as appropriate.
  - Birds, rodents, and reptiles should be transported in cages covered with a light sheet or cloth to minimize their fear.
7. Make sure your pets are always wearing properly fitted collars with personal identification, rabies and license tags.
8. Plan where you will take your pets and select an alternate prearranged location as well.
  - In the event of evacuation, pets may not be allowed inside human emergency shelters.
9. Prepare your livestock disaster preparedness kit.
10. Prepare your pet disaster kit.



# What to do if trapped

## WHILE IN YOUR VEHICLE:

- Stay calm.
- Park your vehicle in an area clear of vegetation.
- Close all vehicle windows and vents. If possible, cover inside of windows with a wool or cotton blanket to minimize radiant heat.
- Cover yourself with a wool or cotton blanket or jacket.
- Lie on vehicle floor.
- Use your cell phone to contact officials—  
**Call 911**

## WHILE ON FOOT:

- Stay calm.
- Go to an area clear of vegetation, a ditch, or depression on level ground, if possible.
- Lie face down and cover up your body.
- If near a body of water—pool, creek, pond, lake, etc.—seek safety in the water or use it to keep distance away from the fire. Be careful not to be swept away by moving water or get too deep.
- Use your cell phone to contact officials—  
**Call 911**

## WHILE IN YOUR HOME:

- Stay calm and keep your family together.
- **Call 911** and inform authorities of your location.
- Fill sinks and tubs with cold water.
- Keep doors and windows closed but unlocked.
- Stay inside your house.
- Stay away from outside walls and windows.
- Turn on lights so emergency officials know you are inside.

# RETURNING HOME AFTER A WILDFIRE

ALWAYS check with officials before attempting to return to your home after a wildfire. Once home, check for the following:

- **Call 911** if any danger is perceived.
- Before inspecting your home, first check for the smell of gas. Turn off power until you've completed your inspection. Use a battery-powered flashlight to inspect a damaged home.
- 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.
- Do not drink or use water from the faucet until emergency officials say it is okay.
- Discard any food that has been exposed to heat, smoke, or soot.
- Consult local experts on the best way to restore and plant your land with fire smart landscaping.

Be aware of the following dangers that exist after a wildfire:

- Flash floods are a very real and potentially deadly hazard when rain occurs in heavily burned areas after a wildfire. Stay away from burned forests, storm channels, and natural drainages.
- Use extreme caution around trees, power poles, and other tall objects or structures that may have lost stability during the fire.



**A home is generally your largest asset. Protect it. Insurance is the critical back-up plan enabling you to rebuild your home after a wildfire. Follow these tips as part of your Wildfire Action Plan:**

**Conduct an annual insurance checkup**

- Call your agent or insurance company annually to discuss your policy limits and coverage. Make sure your policy reflects the correct square footage and features in your home. Consider purchasing building code upgrade coverage.

**Know what your policy covers**

- Know if you have a replacement-cost policy that pays to replace all of your items at current market price, or if you have an actual cash value policy that takes depreciation into account and pays less for aged items.

**Update your policy to cover home improvements**

- If you make home improvements, be sure to call your agent or company to update your coverage. Make sure your insurer knows about the changes, so that new countertops, floors, rooms, etc., are covered if you must rebuild.

**Maintain insurance**

- If your home is paid off, be sure to maintain homeowner insurance. Without insurance, costs to repair or replace a home or structure is the responsibility of a homeowner.

**Get renters insurance**

- Renters can lose everything in a fire and be left to start over. Many insurers bundle renters insurance coverage with an auto insurance policy at affordable prices.

**Make a home inventory**

- Document the contents of your home before a wildfire occurs. Use your cell phone to video your belongings or a camera to take photos. Store the inventory list and photos at a location away from the property and/or in a cloud internet server. Include the cost of items and note important or expensive items. If possible, keep receipts for major purchases.
- Don't forget to include items inside the home, inside the garage, and outside of the home.

# INSURANCE PREPAREDNESS

# The Ins and Outs of Fire Insurance

## Wildfire Insurance Coverage in High-Risk Areas: What You Need to Know

Living in a fire-prone area like California means you need to be strategic about protecting your home. With risks on the rise and insurers pulling out of high-exposure zones, understanding your options is more important than ever. And while insurance is essential, investing in Fire Protection Systems for Wildfire Home Defense is becoming just as critical.

### Fire Protection Systems for Wildfire Home Defense

Let's start here—because prevention is powerful. Many insurers are more willing to work with homeowners who've taken proactive steps to safeguard their homes. Fire protection systems like home fire sprinklers, ember-resistant vents, and fire-retardant landscaping can be major game changers. These systems not only protect your property—they can sometimes earn you policy discounts and make you more insurable overall.

In fact, homes equipped with **Fire Protection Systems for Wildfire Home Defense** may be able to avoid or exit the California FAIR Plan altogether by demonstrating significantly reduced fire risk. Your insurance broker should be actively working with underwriters to assess whether your home's fire-hardening measures, especially installations by Ember Pro, qualify you for a reduced premium or a better policy. If they aren't doing that—or if you don't see the savings you deserve—Ember Pro has a network of trusted brokers ready to step in and advocate on your behalf.



# The California FAIR Plan: What It Is & How to Avoid It

The **California FAIR Plan** exists to provide basic fire insurance coverage for homes that private insurers won't touch due to extreme wildfire risk. It's a last-resort safety net—but it's not ideal. Coverage under FAIR is often limited, expensive, and doesn't include important protections like liability or loss-of-use unless you purchase additional endorsements.

While the FAIR Plan is a lifeline for some homeowners, the goal should always be to graduate from it. That's where **Fire Protection Systems for Wildfire Home Defense** come in. By hardening your home with features like ember-resistant vents, non-combustible roofing, and perimeter sprinkler systems, you increase your chances of being picked up by a private insurer again—or negotiating better terms.



**Your broker should be pushing this conversation with underwriters. If not, let Ember Pro connect you with one who will.**

## Lost Coverage? Here's What to Do:

If you've lost your insurance policy or wildfire coverage, stay calm—you still have options:

- Reach Out to Your Insurer:** Ask if upgrades like **Fire Protection Systems for Wildfire Home Defense** could change their decision.
- Shop Around:** Not all insurers handle fire risk the same. Look for those who consider mitigation efforts.
- Harden Your Property:** Reduce risk with defensible space, ember shields, and sprinkler systems.

**Explore the FAIR Plan:** A backup option when private carriers won't provide coverage, but hopefully temporary if you've taken wildfire protection seriously.

IT'S

NOT

FAIR!



## Does Homeowners Insurance Cover Wildfires?

Historically, yes—but these days, not always. Insurers are tightening their belts in high-risk areas. If your home is in a fire zone, make sure wildfires are still listed under your covered perils.

Covered elements may include:

- The home and any detached structures
- Your personal property (Replacement)
- Temporary housing expenses (loss of use/Displacement)

Again, upgrades like Fire Protection Systems for Wildfire Home Defense can make you more insurable in the eyes of providers.

Options for High Fire Risk Areas

**If you're being denied coverage, here are a few options to explore:**

1. FAIR Plans: State-supported plans offering basic coverage for homes too risky for private insurers. Often expensive and limited.
2. Surplus or Excess Lines (E&S): For high-risk properties, these plans are pricey and come with steep deductibles—but they fill a critical gap.

Premier Carriers: High-value homes may qualify for coverage with elite providers that sometimes include Fire Protection Systems for Wildfire Home Defense as part of their service.

## What Should Wildfire Protection Include?

When comparing policies, look for the following:

Home & Structures – Ensure replacement cost coverage for everything on the property.

1. Personal Belongings – From electronics to clothes, know your limits. Add riders for high-value items.
2. Loss of Use – Covers your temporary living costs.
3. Liability Coverage – For any harm or property damage that happens on your land.

Adding Fire Protection Systems for Wildfire Home Defense can help you qualify for more robust policies or lower premiums.

## Renters and Condo Insurance: Are You Covered?

Renters Insurance usually covers belongings, smoke and fire damage, and temporary relocation. It does not cover the structure—that's on the landlord.

Condo Insurance protects the interior unit and contents. The HOA's policy usually handles the exterior. Always double-check what's included.

California's Wildfire Insurance Landscape

California has over 7.2 million homes in extreme fire danger zones. Major carriers have scaled back or exited the market entirely. Rates are rising, and policies are harder to get.

That said, homes with Fire Protection Systems for Wildfire Home Defense often stand out as lower-risk to insurers.

Auto Insurance and Wildfires

Only comprehensive auto coverage protects your car from wildfire damage. If your policy is collision-only, it won't apply. **30**  
Confirm with your agent.

# Helpful Community Resources

## Firewise Communities: Building Wildfire Resilience Together

Wildfires are a growing threat in many parts of California. Drought, climate change, and expanding development in fire-prone areas mean communities must take proactive steps to defend themselves. That's where **Firewise USA®**, a national program managed by the **National Fire Protection Association (NFPA)**, comes in. In California, the program is championed by **CAL FIRE's Community Wildfire Preparedness & Mitigation Division**, which provides local support and guidance. The Firewise program offers a clear and proven framework for organizing, educating, and empowering communities to prepare for wildfire.



### What Is Firewise USA®?

The Firewise USA® program recognizes and supports communities that reduce their wildfire risks. It emphasizes collaboration between neighbors, local fire professionals, and broader agencies. By gaining Firewise recognition, a community signals its commitment to safety and resilience.

In California, with its high wildfire risk, Firewise USA® helps create safer zones for residents and gives homeowners peace of mind knowing their community is taking action.

### Why Become a Firewise USA® Site?

There are significant benefits to Firewise recognition:

- Increased Wildfire Resilience
- Community Building
- Insurance Incentives (varies by provider)
- Grant Eligibility
- Emergency Preparedness

## Six Steps to Becoming a Firewise USA® Site

Firewise isn't just a title—it's a journey of community-led fire preparedness. Here's a breakdown of how to get there:

### 1. Form a Board or Committee

The first step is organization. Communities need to establish a Firewise board or committee composed of local residents, stakeholders, and representatives from fire-related agencies. This core team leads the charge for wildfire preparedness.

#### Who should be involved?

- Residents
- Fire departments
- State forestry agencies
- Emergency managers
- HOAs or property managers



The board is also responsible for defining the official **site boundary**, which can range from 8 to 2,500 single-family dwellings. This boundary is critical for risk assessment and planning.

#### Site Boundary Guidance

<https://www.nfpa.org/education-and-research/wildfire/firewise-usa>

### 2. Conduct a Community Wildfire Risk Assessment

This is the **foundation** of the entire program. The assessment identifies vulnerabilities and provides a roadmap for action.

Typically, this is done with support from local fire departments or CAL FIRE personnel. Communities analyze:

- Home construction materials
- Landscaping
- Topography
- Access roads
- Vegetation types
- Zones of ignition (immediate, intermediate, extended)

To keep your plan relevant, the assessment must be **updated every five years**.

#### NFPA Community Wildfire Risk Assessment Guide (PDF)

<https://www.nfpa.org/-/media/Files/Firewise/CommunityWildfireRiskAssessmentGuide.pdf>

### 3. Create an Action Plan

Once the risk is known, the next step is planning. The community must create a **three-year action plan** outlining specific projects and activities to reduce risk.

This plan should include:

- Prioritized mitigation tasks (e.g., clearing brush, retrofitting homes)
- Timelines
- Budget or investment needs
- Suggestions for homeowners

Importantly, the plan must be **updated annually** to reflect progress and emerging risks. It's meant to be a **living document**.

#### Firewise Action Plan Template

<https://www.nfpa.org/education-and-research/wildfire/firewise-usa/become-a-firewise-usa-site>

### 4. Conduct Firewise Education & Outreach

Firewise isn't just about doing the work—it's about **building a culture of awareness**. The community must conduct educational efforts that spread knowledge and increase participation.

These can include:

- Hosting community clean-up days
- Distributing wildfire preparedness brochures
- Creating neighborhood signs or newsletters
- Partnering with schools for awareness campaigns
- Engaging local media



#### CAL FIRE Educational Materials

<https://readyforwildfire.org/make-a-plan/educational-resources/>

## 5. Invest in Risk Reduction

Every year, the community must show it's not just planning, but **doing**. To stay recognized, a Firewise site must invest **at least \$2 per resident per year** toward risk reduction activities.

This can include:

- Volunteer hours (valued at a national rate)
- Landscaping
- Equipment rental
- Educational materials
- Consulting or contractor services

### Volunteer Time Tracking Worksheet

<https://www.nfpa.org/education-and-research/wildfire/firewise-usa/recognition-program>

## 6. Submit an Annual Report to Firewise USA®

Each year, communities must submit:

- An updated action plan
- An annual investment report
- A summary of outreach/education activities

This keeps the site's recognition status active and ensures it stays eligible for support and future funding opportunities.

### Annual Renewal Submission Portal

<https://portal.firewise.org/>



# Citations and Resources



## Fire Adapted Communities Learning Network

The Fire Adapted Communities Learning Network connects and supports people and communities who are striving to live more safely with wildfire. The purpose of FAC Net is to exchange information, collaborate to enhance the practice of fire adaptation, and work together and at multiple scales to help communities live safely with fire. This includes embracing resiliency concepts and taking action before, during and after wildfires. They offer a [Fire Adapted Communities Self-Assessment Tool \(FAC SAT\)](#) to help communities assess their level of fire adaptation and track their capacity to live safely with fire over time

[Go to program webpage](#)



## Community Planning Assistance for Wildfire

Community Planning Assistance for Wildfire (CPAW) works with communities to reduce wildfire risk through improved land use planning. CPAW's team of professional planners, foresters, economists, and risk modelers help communities integrate wildfire mitigation into the development planning process. CPAW services are provided at no cost to the community, and include land use planning recommendations, hazard assessments, custom research, and training.

[Go to program webpage](#)



## Firewise USA

A program of the National Fire Protection Association, Firewise USA® teaches people how to adapt to living with wildfire and encourages neighbors to work together and take action now to prevent losses. Firewise USA® is a network of sites from across the nation taking action and ownership in preparing and protecting their homes against the threat of wildfire.

[Go To program webpage](#)



The Ready, Set, Go! (RSG) Program seeks to empower fire departments to engage the residents they serve in wildland fire community risk reduction. The RSG! Program provides tools and resources for fire departments to use as they help residents gain an understanding of their wildland fire risk and actions individuals can take to reduce that risk. The RSG! Program is managed by the [International Association of Fire Chiefs \(IAFC\)](#).

# Citations and Resources



We can't stop the wildfire, but The Insurance Institute for Business & Home Safety has the science to provide measures to reduce property losses and prevent avoidable suffering. The *Wildfire Ready Home* website provides the specific actions homeowners can take.

[go to program webpage](#)



These free toolkits each contain a 3-part video series, presentation template with facilitator's notes, and sample agendas (including resource links). The videos are in Spanish with English subtitles and cover topics including landscapes, communities, evacuation, smoke, home hardening, and resident recovery.

[Go to program webpage](#)



The Wildland Fire Assessment Program (WFAP) is a joint effort by the U.S. Forest Service and the [National Volunteer Fire Council](#) to provide volunteer firefighters and non-operational personnel, such as Fire Corps members, with training on how to properly conduct assessments for homes located in the wildland-urban interface. The program offers in-person training, online training, and toolkits.

[Go to program webpage](#)



The NFPA (National Fire Protection Association) develops codes and standards to reduce fire risks and enhance public safety worldwide.  
<https://www.nfpa.org/en>

# Additional Research

- Alexandre PM, Stewart SI, Mockrin MH, Keuler NS, Syphard AD, Bar-Massada A, Clayton MK, & Radeloff VC. (2015). [The relative impacts of vegetation, topography and spatial arrangement on building loss to wildfires in case studies of California and Colorado](#). *Landscape Ecology*, 31(2), 415– 430.
- Barrett K & Quarles S. (2022). [Construction costs for a wildfire-resistant home: California edition](#). Headwaters Economics, Bozeman, MT.
- Calkin DE, Cohen JD, Finney MA, Thompson MP. (2014). [How risk management can prevent future wildfire disasters in the wildland-urban interface](#). PNAS 111(2), 746-751.
- Cohen JD & Stratton R. (2008). [Home Destruction Examination: Grass Valley Fire, Lake Arrowhead, California](#). Tech. Paper R5-TP-026b. Vallejo, CA: USDA Forest Service, Pacific Southwest Region.
- Cohen JD. (2010). [The Wildland-Urban Interface Fire Problem](#). *Fremontia*, 38(2)/38(3), 16-22.
- Manzello SL & Suzuki S. (2023). [The world is burning: What exactly are firebrands and why should anyone care?](#) *Frontiers in Mechanical Engineering*, 8(107224).
- Maranghides A, Link E, Nazare S, Hawks S, McDougald J, Quarles S, Gorham D. (2022). [WUI Structure/Parcel/Community Fire Hazard Mitigation Methodology](#). National Institute of Standards and Technology. Technical Note (NIST TN) – 2205.
- Meldrum JR, Barth CM, Goolsby JB, Olson SK, Gosey AC, White JB, Brenkert-Smith H, Champ PA, & Gomez J. (2022). [Parcel-Level Risk Affects Wildfire Outcomes: Insights from Pre-Fire Rapid Assessment Data for Homes Destroyed in 2020 East Troublesome Fire](#). *Fire* 5(1).
- Ager AA, Day MA, Palaiologou P, Houtman RM, Ringo C, Evers CR. (2019). [Cross-boundary wildfire and community exposure: A framework and application in the western U.S.](#) USDA Forest Service, Rocky Mountain Research Station, General Technical Report RMRS-GTR-392.
- Ager AA, Kline JD, Fisher AP. (2015). [Coupling the biophysical and social dimensions of wildfire risk to improve wildfire mitigation planning](#). *Risk Analysis* 35(8), 1393-1406.
- Brenkert-Smith H, Dickinson K L, Champ P A, & Flores N. (2013). [Social amplification of wildfire risk: The role of social interactions and information sources](#). *Risk Analysis*, 33(5), 800-817.
- Calkin DE, Cohen JD, Finney MA, Thompson MP. (2014). [How risk management can prevent future wildfire disasters in the wildland-urban interface](#). PNAS 111(2), 746-751.
- Finney MA. (2005). [The challenge of quantitative risk analysis for wildland fire](#). *Forest Ecology and Management* 211, 97-108.
- McCaffrey S, McGee TK, Coughlan M. (2020). [Understanding wildfire mitigation and preparedness in the context of extreme wildfires and disasters: Social science contributions to understanding human response to wildfire](#). In: Tedim F, Leone V, McGee TK, eds. *Extreme Wildfire Events and Disasters*. Elsevier. 155-174.
- Menakis JP, Cohen JD, & Bradshaw L. (2003). [Mapping wildland fire risk to flammable structures for the conterminous United States](#). In Galley KEM, Klinger RC, & Sugihara NG (Eds.), *Proceedings of Fire Conference 2000: The First National Congress on Fire Ecology, Prevention, and Management*. Misc. Pub. No. 13 (pp. 41-49). Tallahassee, FL: Tall Timbers Research Station.
- Radeloff VC, Mockrin MH, Helmers D, Carlson A, Hawbaker TJ, Martinuzzi S, Schug F, Alexandre PM, Kramer HA & Pidgeon A. (2023). [Rising wildfire risk to houses in the United States, especially in grasslands and shrublands](#). *Science* 382(6671): 702-707.
- Scott JH, Thompson MP, Calkin DE. (2013). [A wildfire risk assessment framework for land and resource management](#). USDA Forest Service, Rocky Mountain Research Station, General Technical Report RMRS-GTR-315.

# Citations

## 1. CAL FIRE – Home Hardening Guide

This guide provides comprehensive strategies to enhance your home's resilience against wildfires, including retrofitting options and maintenance tips. Source: [CAL FIRE – Hardening Your Home](#)[Wikipedia](#)[+3](#)[Ready for Wildfire](#)[+3](#)[The Guardian](#)[+3](#)

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## 2. CAL FIRE – Defensible Space Guidelines

Outlines the creation of defensible space zones around your property to reduce wildfire risks, detailing specific actions for each zone. Source: [CAL FIRE – Defensible Space](#)[Ready for Wildfire](#)[+1](#)[Wikipedia](#)[+1](#)

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## 3. National Fire Protection Association (NFPA) – Preparing Homes for Wildfire

Offers best practices for homeowners to prepare their properties for wildfire threats, emphasizing building materials and landscaping. Source: [NFPA – Preparing Homes for Wildfire](#)

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## 4. Wildfire Risk to Communities – Ignition-Resistant Homes

Provides information on building and retrofitting homes to resist ignition from wildfires, including materials and design considerations. Source: [Ignition-Resistant Homes](#)

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## 5. Texas A&M Forest Service – Protect Your Home

Details steps homeowners can take to safeguard their homes from wildfires, including structural modifications and emergency planning. Source: [Texas A&M Forest Service – Protect Your Home](#)

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## 6. Studio C – Wildfire Defense for California Residents

Discusses home hardening techniques and landscaping strategies specific to California's wildfire-prone areas. Source: [Studio C – Wildfire Defense](#)

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## 7. Nationwide E&S/Specialty – Wildfire Defense Guide

Provides a checklist for homeowners to prepare for wildfires, focusing on immediate actions and property maintenance. Source: [Nationwide – Wildfire Defense Guide](#)

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## 8. City of Irvine – Wildfire Preparedness

Offers resources and guidelines for residents to prepare for wildfires, including evacuation plans and emergency kits. Source: [City of Irvine – Wildfire Preparedness](#)