



## A GUIDE TO **FIREWISE PRINCIPLES**

During a wildfire, firefighting resources are limited and firefighters must often make quick decisions on which homes they can work on defending. Implementing Firewise actions at your home will increase the chances that firefighters will be able to try and protect your property.





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Homeowners can and must take primary responsibility for wildfire safety actions around the home. According to fire science research, individual efforts do make a difference even in the face of a wildfire. The Firewise Communities Program provides homeowners with simple and easy steps to help reduce a home's wildfire risk by preparing ahead of a wildfire. These steps are rooted in principles based on solid fire science research into how homes ignite. The research comes from the world's leading fire experts and research organizations whose experiments, models, and data collection are based on some of the country's worst wildland fire disasters. *The following are Firewise principles and tips that serve as a guide for residents:*

**When it comes to wildfire risk, it is not a geographical location, but a set of conditions that determine the home's ignition potential in any community.**

Wildfire behavior is influenced by three main factors: topography (lie of the land), weather (wind speed, relative humidity and ambient temperature)

and fuel (vegetation and man-made structures). In the event of extreme wildfire behavior, extreme weather conditions are normally present, like extended drought, high winds, low humidity and high temperatures, coupled with excess fuel build up including the accumulation of live and dead vegetation material. Additionally, the area's topography influences the fire's intensity and rate of spread.

**OF THESE THREE FACTORS,  
FUEL IS THE ONLY ONE WE CAN INFLUENCE.**

Debris like dead leaves and pine needles left on decks, in gutters and strewn across lawns can ignite from embers. Fire moving along the ground's surface can "ladder" into shrubs and low hanging tree limbs to create longer flames and more heat. If your home has flammable features or vulnerable openings, it can also serve as fuel for the fire, and become part of a disastrous chain of ignitions to other surrounding homes and structures. ►





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**A home's ignition risk is determined by its immediate surroundings or its "home ignition zone" and the home's construction materials.**

According to fire science research and case studies, it's not where a home is located that necessarily determines ignition risk, but the landscape around it, often referred to as the "home ignition zone." The home ignition zone is defined as the home and its immediate surroundings up to 100 feet (30 m).

*The Firewise Communities Program provides tips for reducing wildfire risk based on the home ignition zone concept:*

**Home Zone – the home itself and within 5 feet of the foundation:**

Harden your home against wildfire. This includes fences, decks, porches and other attachments. From a fire behavior point of view, if it's attached to the house it is a part of the house. Non-flammable or low flammability construction materials — especially for roofs, siding and windows — are recommended for new homes or retrofits. Keep any flammables, including plantings, debris and mulch, out of the area within 5 feet of your home's foundation as well as off your roof,

eave lines, gutters and deck or porch surfaces. Ensure vents and other openings are screened or otherwise protected from ember penetration during a wildfire.

**5 – 30 feet:** This well-irrigated area around the home includes decks and fences, and provides space for fire suppression equipment in the event of an emergency. Lawns should be well maintained and mowed. Plantings should be limited to carefully-spaced low flammability species, and consider hardscaping using rocks, gravel or stone instead of mulch. Keep any large fuel packages, such as firewood piles, out of this area.

**30 – 100 feet:** Low flammability plant materials should be used here. Plants should be low-growing and the irrigation system should extend into this section. Create separation between grasses, shrubs and trees to avoid a "fuel ladder" effect where fire can climb into taller vegetation. Trees should be spaced to prevent crowns from touching.

**100+ feet:** Place low-growing plants and well-spaced trees in this area, remembering to keep the volume of vegetation (fuel) low. ►





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#### **Residents play a major role in protecting their lives and property.**

Your home ignition zone extends up to 100 feet – and it's quite common to have neighbors whose home ignition zone overlaps yours. Once a structure is engulfed in flames, it could ignite other structures located less than 100 feet away. In addition, many communities have commonly owned property, including natural or wooded areas that can pose fire risks to all. This means that to be most effective, neighbors need to work together and with their local fire service to achieve greater wildfire safety. Together, community residents can work with agencies and elected officials to accomplish the following:

- » Ensure that homes and neighborhoods have legible/clearly marked street names and numbers
- » Know “two ways out” of the neighborhood for safe evacuation during a wildfire
- » Create phone and text trees to alert residents about local fires
- » Sign up for emergency notifications
- » Talk to your Homeowner Association (HOA) to make sure you are in compliance with existing community rules or regulations on vegetation management and construction materials and if they are “Firewise-friendly”
- » Engage with your local fire department on how they can work with you and your neighbors, and participate in the “Ready, Set, Go!” program
- » Participation in the Firewise Communities/USA Recognition Program provides the community with a risk assessment and action plan that will help residents work together annually to make where they live a safer place

**Learn more about how to keep families safe and reduce homeowners' risk for wildfire damage at [firewise.org](http://firewise.org). Free printed and audiovisual materials can be found on the Firewise website and ordered online through the Firewise catalog.**

