Your Home

The goal of an effective wildfire protection plan is to keep the fire from coming dangerously close to any building on the property. Once ignited, the building itself can become a source of radiant heat, flames and embers that can ignite combustible materials and buildings or neighboring properties. An IBHS post-fire study and other research have shown that buildings located less than 15 feet apart are particularly vulnerable to this type of fire spread. If a building has combustible siding, such as wood, vinyl or other types of plastic, good defensible space will reduce the fire hazard . If the wildfire is allowed to come close to or reach the building and ignite the siding, flames can quickly spread up the wall, potentially breaking glass in windows and spreading into the building, or up into the eaves and burn into the attic.

Surroundings

Think of anything surrounding or attached to a building as a potential wick that can bring flames to the house . This might include something as unassuming as a storage shed or the stack of fire wood that under normal circumstances would make for an inviting indoor environment. Remember wind-driven embers, not flames from the wildfire, are the biggest threat to homes properties during a wildfire. Once these embers land on and ignite combustible materials, the potential for the wildfire to spread is much greater.

Defensible Space Zones

Locking the front door, installing a security system and adding motion-detection lighting are all things security experts recommend for keeping intruders out. Think of your defensible space zones the same way. Each zone acts as a layer of protection between your house or business and the approaching wildfire. Keep in mind, though, just as with home security systems, these zones are only effective if they are properly maintained.

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0310-WLF-101

530-6185a.2
09-2014

REDUCING WILDFIRE RISK

Residential

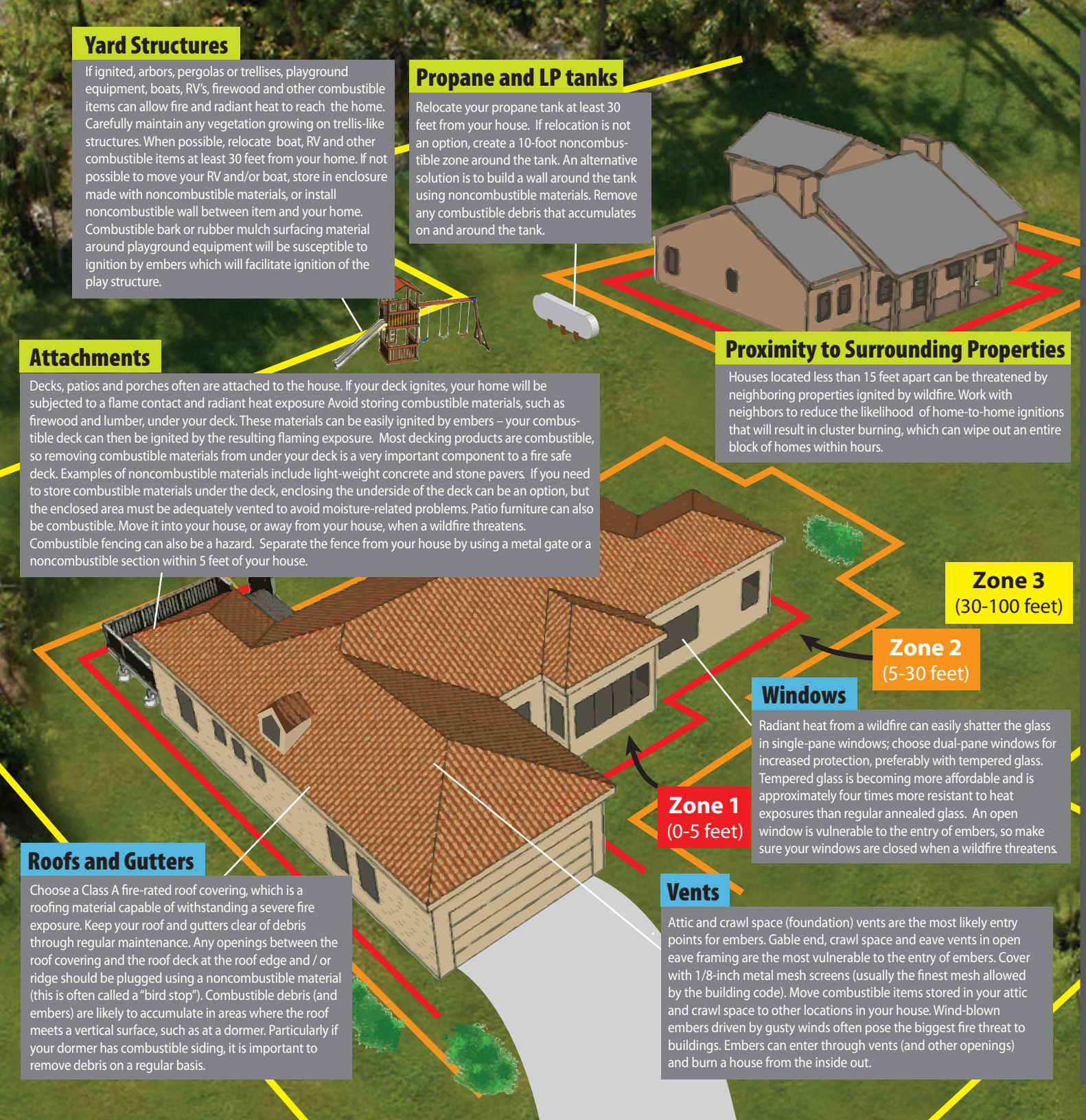
According to recent statistics, one-third of U.S. homes are located in the Wildland Urban Interface (WUI), areas where wildland vegetion (forest or woodland, brush / shrub or grassland) meets residential development. In recent years, homes in these areas have become casualties of hard-to-control wildfires. Even if you are located outside the boundaries of the WUI, you can sustain significant fire damage. Burning embers can be blown into the area, well ahead of the fire front, and can start fires by landing on combustible parts of the building and near-home combustible vegetation and materials. Deck and patio furniture, gutters, awnings, wood piles, and areas where pine needles or leaves accumulate are some of the places where embers can collect and ignite your home or another building on your property.

Yard Structures

If ignited, arbors, pergolas or trellises, playground equipment, boats, RV's, firewood and other combustible items can allow fire and radiant heat to reach the home. Carefully maintain any vegetation growing on trellis-like structures. When possible, relocate boat, RV and other combustible items at least 30 feet from your home. If not possible to move your RV and/or boat, store in enclosure made with noncombustible materials, or install noncombustible wall between item and your home. Combustible bark or rubber mulch surfacing material around playground equipment will be susceptible to ignition by embers which will facilitate ignition of the play structure.

Propane and LP tanks

Relocate your propane tank at least 30 feet from your house. If relocation is not an option, create a 10-foot noncombustible zone around the tank. An alternative solution is to build a wall around the tank using noncombustible materials. Remove any combustible debris that accumulates on and around the tank.



Proximity to Surrounding Properties

Houses located less than 15 feet apart can be threatened by neighboring properties ignited by wildfire. Work with neighbors to reduce the likelihood of home-to-home ignitions that will result in cluster burning, which can wipe out an entire block of homes within hours.

Attachments

Decks, patios and porches often are attached to the house. If your deck ignites, your home will be subjected to a flame contact and radiant heat exposure Avoid storing combustible materials, such as firewood and lumber, under your deck. These materials can be easily ignited by embers – your combustible deck can then be ignited by the resulting flaming exposure. Most decking products are combustible, so removing combustible materials from under your deck is a very important component to a fire safe deck. Examples of noncombustible materials include light-weight concrete and stone pavers. If you need to store combustible materials under the deck, enclosing the underside of the deck can be an option, but the enclosed area must be adequately vented to avoid moisture-related problems. Patio furniture can also be combustible. Move it into your house, or away from your house, when a wildfire threatens. Combustible fencing can also be a hazard. Separate the fence from your house by using a metal gate or a noncombustible section within 5 feet of your house.

Windows

Radiant heat from a wildfire can easily shatter the glass in single-pane windows; choose dual-pane windows for increased protection, preferably with tempered glass. Tempered glass is becoming more affordable and is approximately four times more resistant to heat exposures than regular annealed glass. An open window is vulnerable to the entry of embers, so make sure your windows are closed when a wildfire threatens.

Roofs and Gutters

Choose a Class A fire-rated roof covering, which is a roofing material capable of withstanding a severe fire exposure. Keep your roof and gutters clear of debris through regular maintenance. Any openings between the roof covering and the roof deck at the roof edge and / or ridge should be plugged using a noncombustible material (this is often called a "bird stop"). Combustible debris (and embers) are likely to accumulate in areas where the roof meets a vertical surface, such as at a dormer. Particularly if your dormer has combustible siding, it is important to remove debris on a regular basis.

Vents

Attic and crawl space (foundation) vents are the most likely entry points for embers. Gable end, crawl space and eave vents in open eave framing are the most vulnerable to the entry of embers. Cover with 1/8-inch metal mesh screens (usually the finest mesh allowed by the building code). Move combustible items stored in your attic and crawl space to other locations in your house. Wind-blown embers driven by gusty winds often pose the biggest fire threat to buildings. Embers can enter through vents (and other openings) and burn a house from the inside out.

Defensible Space Zones

0-5 FEET (ALSO REFERRED TO AS "NEAR-BUILDING", "NON-COMBUSTIBLE" OR "LOW-COMBUSTIBLE" ZONE):

The objective of this zone is to reduce the chance that embers landing near the home will result in ignition and a direct flame contact exposure to your home. Because this zone is closest to the house it requires the most careful selection and management of vegetation and other materials.

- Install hard surfaces in this zone (e.g., a concrete walkway) or use noncombustible mulch products (e.g., rock mulch). Avoid using combustible mulch products, such as wood, bark and rubber mulch, particularly small pieces of bark or those with hairy components such as "gorilla hair" mulch.
- Landscape vegetation recommended for this zone includes irrigated lawn and low growing herbaceous (non-woody) plants. Shrubs and trees, particularly conifers, are not recommended for use in this zone.
- Remove dead plant material from plants. Plants located adjacent to combustible siding and foundation vents, as well as plants under or next to windows and under eave vents or in interior corners present the greatest hazard.

5-30 FEET (OR TO THE PROPERTY LINE):

The objective of vegetation management in this zone is to prevent the fire from climbing into the crown or upper portions of trees or shrubs and to stop the fire from burning directly to your home. Trees and shrubs in this zone should be in well spaced groupings and well maintained. Eliminate ladder fuels and creating separation between plants or plant groupings so that the fire cannot move back into the tree crown. Create separate groupings of shrubs and other vegetation to make it more difficult for fire to move horizontally. Embers may still be able to ignite individual islands of plants, and that is why the 0-5 feet zone is so critical.

- Locate outbuildings (e.g., for storage) at least 30 feet from your home or create defensible space around this building, paying careful attention to the 0-5 feet zone.

30-100 FEET (OR TO THE PROPERTY LINE):

The goal of this zone is to slow down and reduce the energy of the wildfire. Tree and brush spacing should force the fire in the tree / shrub crowns to drop to the ground. Trees located in this zone should be maintained with a minimum horizontal spacing of 10 feet between crowns. Dead trees and shrubs should be removed.

- Determine the slope of your property where your home is located. Wildfires burn up a slope faster and more intensely than on flat ground. A steeper slope will result in a faster moving fire, with longer flame lengths. If your home is located at the top of the slope, it should be set back a minimum of 15 feet or 30 feet for a one- and two-story building, respectively.
- Homes located mid-slope, or with inadequate set back at the top of the slope should utilize an enhanced fuel modification zone, up to 150 to 200 feet for slopes greater than 40%.