Defensible Space

What you can do to better protect your family and home from a wildfire

The most important person in protecting a house from wildfire is not a firefighter, but the property owner. It is the action taken by the owner before the wildfire occurs (such as proper landscaping) that is most critical.

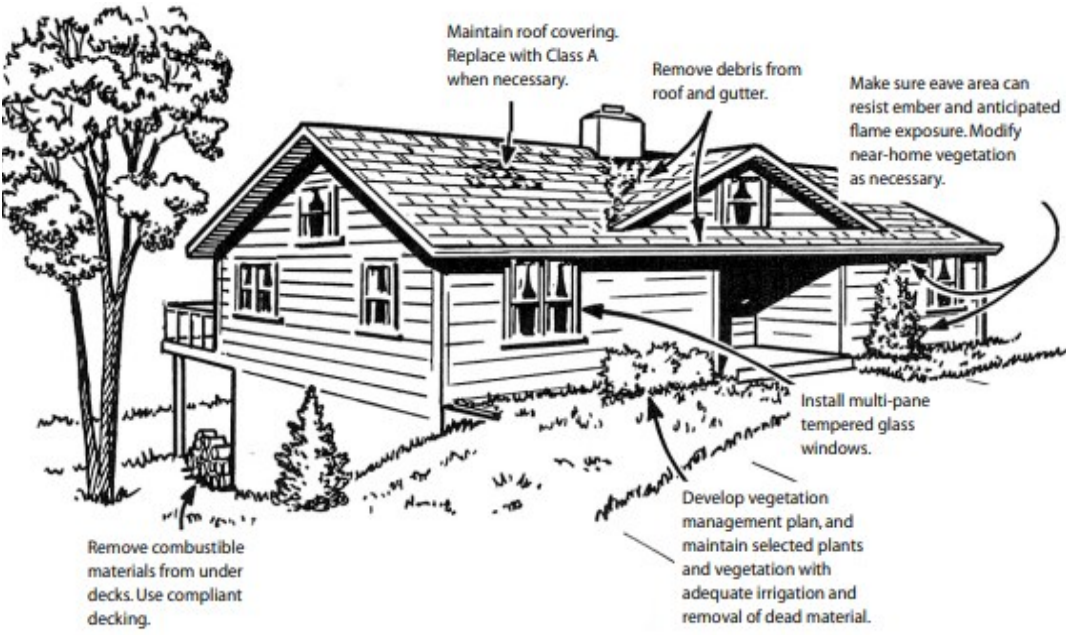
CONTRA COSTA COUNTY FIRE

What is Defensible Space?

Defensible space is the buffer you create between a building on your property and the grass, trees, shrubs, or any wildland area that surround it. This space is needed to slow or stop the spread of wildfire and it helps protect your home from catching fire, either from embers, direct flame contact or radiant heat.

Proper defensible space also provides firefighters a safe area to work in, to defend your home.

Defensible space, coupled with home hardening, is essential to improve your home's chance of surviving a wildfire.



How to be Wildfire Ready

A wildfire ready home must be an ember ignition-resistant home so that even if the flames do not reach your home, it will be able to withstand the exposure to embers that may have blown a mile or more in front of a wildfire.

To provide maximum wildfire protection for your home, a combination of near-home vegetation management, appropriate building materials, and related design features must be used.

Preparing and maintaining adequate defensible space will guard against flame contact and radiant exposures from nearby vegetation, but because of the likely ember exposure to your home during a wildfire, you cannot ignore building material and design considerations.

3 Zone strategy

Implementing an effective defensible space strategy requires awareness that overgrown, dense, or unmaintained vegetation creates significant vulnerabilities.

Fire could burn to the home through several scenarios, including ember ignition of vegetative debris on the ground and ember ignition of vegetative debris on the roofs.

Ignition of outbuildings can also occur due to ember ignition of nearby combustibles. These fire spread scenarios can also result in radiant heat or flame contact exposures to the home.

Additional fuel reduction strategies, such as reducing vegetation along access routes for easier passage, should be implemented to create safe routes for evacuation.

Pictured in this section are examples of Before and After implementation of the three-zone defensible space strategy.

Zone 0 = (0 - 5 ft from home)
Ember resistant zone

Zone 1 = (5 - 30 ft from home)
The lean, clean, and green zone

Zone 2 = (30 - 100 ft from home)
The extended or reduced - fuel zone

While this figure shows a forested setting, the same concepts apply to other vegetation types or more residential settings.

Reducing the "Fuel"

The first goal in creating a defensible space is to selectively thin plants, then prune to reduce fuel volume of the plants that remain.

Sometimes wildland plants and even landscaping can occur as an uninterrupted layer of vegetation instead of patchy or widely spread individual plants. The more continuous and dense the vegetation, the greater the chance for the plants to catch embers and possibly ignite.

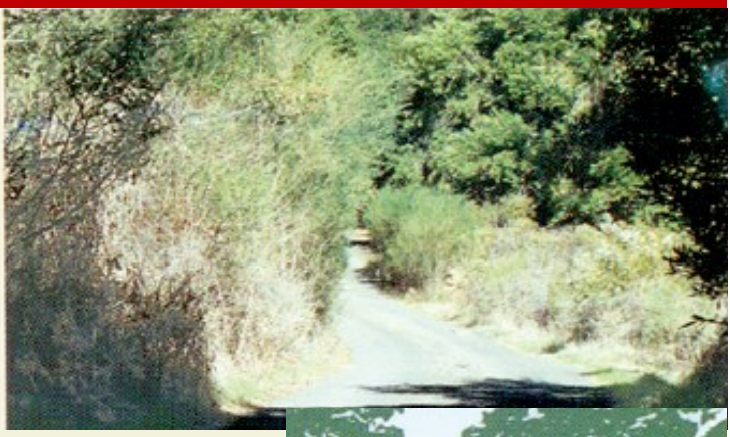
If this situation is present within your recommended defensible space area, you should "break-it-up" by providing for separation between plants or small groups of plants. Do this work in cooler, earlier hours, not in the heat of the day to prevent accidental ignitions.

Remember, if it's too hot outside for you to be working, it's too hot to be using equipment for thinning brush.

Ladder Fuels

Vegetation is often present at varying heights, similar to rungs on a ladder. Under these conditions, flames from fuels burning at ground level can be carried to shrubs, which can ignite still higher fuels like tree ranches. The ladder fuel problem can be corrected by providing a separation between the vegetation layers. Within the defensible space area, a vertical separation of three times the height of the lower fuel layer is recommended. In other words, limb your trees up off the ground so that any vegetation that may be ignited below the branches cannot reach up to the branches and cause a canopy fire.

Emergency Access



-Identify at least two roads out from your neighborhood

-Maintain driveways to allow large emergency equipment to reach your home by clearing combustible vegetation at least 10 feet from roads and driveways

-Cut back overhanging branches above roads. Fire Engines need a minimum 13'6" vertical clearance

-Make sure the address numbers on your home are reflective or contrasting with the background, and large enough to be clearly seen from the street. If needed, provide a second set of numbers in an area that is clearly visible to emergency personnel

Maintaining clear roadways ensures emergency equipment access, as well as, evacuation routes

Maintaining
Fire-Safe Landscaping

A fire-resistant plant can lose this quality altogether if not properly maintained and irrigated. Lack of long-term attention can result in fire-resistant plants loading up with dead twigs, leaves and branches to grow into monstrous, yet sometimes unseen or concealed fuel volumes. Drip irrigation, plus periodic pruning and cleaning can maintain the fire-resistiveness as well as the appearance of landscaping.

How slopes affect fire behavior

Continuous plant material on this slope can contribute to dangerous fire behavior, placing the home at the top at risk.

The manner in which a house is designed, location where it is built, materials used in its construction, and fire department access, all influence survivability during a wildfire. When coupled with an effective Defensible Space, these recommendations will make your home much easier for firefighters to defend and improve its chances of survival in a wildfire.

-On steep slopes, thin flammable vegetation a safe distance (at least 100 feet) from structures.

-Canopies of large trees should not form a continuous planting mass.

-Within 30 feet, choose ornamental landscaping plants that are fire smart and non-invasive.

-Maintain all plants by removing dead branches, leaves and needles.

For further information about Defensible Space please contact us at

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