



MARIN COUNTY FIRE AGENCIES

If you have an emergency, dial 911.

Ready, Set, Go!

Residential Safety Survey

Keys to Improving the Odds of House and Personal Survival During Wildfire
EVALUATION CHECKLIST (SEE BELOW FOR EXPLANATION ON EACH CHECKLIST ITEM)

Built Zone		Yes	No
1	Does the house have a metal, composition, or tile (or other non-combustible) roof with capped ends and covered fascia?		
2	Are the rain gutters and roof free of leaves, needles and branches?		
3	Are all vent openings screened with 1/4" (or smaller) mesh metal screen?		
4	Are approved spark arrestors on chimneys?		
5	Does the house have non-combustible siding material?		
6	Are the eaves "boxed in" and the decks enclosed?		
7	Are the windows made of at least double-glazed or tempered glass?		
8	Are the decks, porches and other similar areas made of non-combustible material and free of easily combustible material (e.g. plastic furniture)?		
9.	Is all firewood at least 30' from the house?		
Defensible Space Zone		Yes	No
1	Is dead vegetation cleared within the recommended defensible space area? (Consider adding distance due to slope of property.)		
2	Is there separation between shrubs?		
3	Are ladder fuels removed?		
4	Is there a lean, clean, and green area extending at least 30' from the house?		
5	Is there a non-combustible area within 3' (recommended, not required) of the house?		
6	Is there separation between trees and crowns?		
Access Zone		Yes	No
1	Is the home address visible from the street?		
2	Is the home address made of fire-resistant materials?		
3	Are street signs present at every intersection leading to the house?		
4	Are street signs made of fire-resistant materials?		
5	Is flammable vegetation within 10' of the driveway cleared and are overhanging obstructions removed?		
6	If a long driveway is present, does it have a suitable turnaround area?		

CHECKLIST EXPLANATIONS

Built Zone *(deals with how the house is constructed and maintained)*

1. **Flying embers landing on combustible roof materials is a major reason homes are destroyed by wildfire.** Replace wood shake or shingle roofs with fire-resistant types such as metal, composition and tile roof with capped ends or other non-combustible material.
2. **Routinely remove pine needles, leaves and litter from roofs and gutters** to minimize ignition sites for airborne firebrands.
3. **All vent openings should be covered with 1/4¹¹ or smaller non-corrosive, non-combustible wire mesh.** Do not use fiberglass or plastic mesh because they can melt or burn. These screens will prevent flying embers from entering crawl spaces, attics, dryer vents, etc. and igniting the structure.
4. **A spark-arresting screen with no greater than 1/2¹¹ mesh is recommended on all chimneys.** This helps prevent sparks, embers, or flames from a chimney fire from spreading to the wildland.
5. **Wood siding materials are combustible and are not good choices for fire-prone areas.** Stucco, brick and cement board are better choices.
6. **Because decks and eaves can trap heat, flames and embers,** the undersides should be enclosed with fire-resistant or non-combustible materials. By covering the underside of the eaves with a soffit, or "boxing in" the eave, the heat is better able to escape. At the *very* least, enclose the underside of decks with a 1/8" wire mesh.
7. **Single-paned and large windows are vulnerable to breaking when exposed to heat.** This allows burning embers and heat to enter the house, which may lead to internal ignition. In fire hazard areas, install double-glazed or tempered glass; metal frames and sashes are preferred.
8. **Houses are often destroyed by flames that ignite combustible materials under or adjacent to decks, stairways and overhangs.** To avoid this threat, do not store combustible materials under or on decks and stairs. Keep areas under and adjacent to these structures free of pine needles, leaves or other debris, and install a thin layer of gravel, rock, aggregate or other type of hard surface.
9. **Firewood, lumber, or other large woody material should not be stacked within 30'** of any structure on the property. This material can act as a fuel source to spread fire to the structure.

Defensible Space Zone *(includes the management of wildland and ornamental landscape vegetation surrounding the house)*

1. **The State minimum-required defensible-space distance for residential structures is 100'.** That distance is effective for reducing the effects from radiant and convective heat and flame on structures if the structure is situated on flat ground. We recommend, but do not require, that protective distances be increased in proportion to the steepness of the land that the structure is situated on. (Ask your neighborhood county fire station to assist you in determining what distances are right for you.) Remove all dead and dying vegetation within the defensible space zone. Dead vegetation includes standing dead and dying trees, recently fallen trees (downed trees that are embedded into the soil can be left in place; however, their exposed branches should be removed), dead shrubs, dried grass, etc.
2. If you would like to keep some flammable brush near your house (i.e., manzanita, sagebrush, bitterbrush, rabbit brush), then thin it. **Thinning should occur within the recommended defensible space distance.** It is recommended that a space between shrubs be two times the height of the shrub. For example, if you have shrubs three feet high, they should be six feet apart. Root systems and the duff layer should be left intact for erosion control and soil stabilization. **This does not apply to short, green, well-maintained groundcovers, which do not need to be thinned.**
3. **Vegetation that can carry a fire burning in low-growing plants to taller plants is called ladder fuel.** To prevent a ground fire from moving into the canopy, limbs should be removed from green trees to a height of at least 2' from the ground for trees 18' or taller. **If there is vegetation growing under the tree, remove the lower branches to a height that is 3 times the height of the lower vegetation** to eliminate ladder fuels. No more than 1/3 of the live green limbs should be removed from any tree. Taking more than this amount can weaken the tree and make it susceptible to bark beetle attack. Late fall to winter is the best time to prune to prevent bark beetle attack.

Defensible Space Zone - continued *(includes the management of wildland and ornamental landscape vegetation surrounding the house)*

4. **This area is usually the residential landscape. Tips for this area include: Remove most or all flammable wildland plants and select less flammable plants.** (Shorter is better than taller, herbaceous is better than woody, deciduous is better than evergreen. Poor choices are juniper, arborvitae, pine, Scotch broom and ornamental grasses. Good choices include lawn, ground covers, short deciduous shrubs, flowers, succulents, bulbs and deciduous trees.) Emphasize the use of hard surfaces and mulches; clear flammable vegetation for **at least 10' around propane tanks**; remove tree limbs that are touching the house, near power lines, and **within 15' of the chimney**; and create a non-combustible area within 3' of the house using hard surfaces, irrigated herbaceous plants and rock mulches.
5. **Maintain the defensible space area on a regular basis throughout the year.**
6. **Dense tree stands pose a significant wildfire threat.** On flat to gently sloping terrain, thin the trees within the Defensible Space Zone to provide an average separation between canopies of at least 10'. For homes on steeper slopes, the separation distance should be greater. Thinning trees can also improve forest health and make the trees more drought-resistant.

Access Zone *(refers to the area that allows firefighters to arrive at a house in a timely manner)*

- 1-2. **The street address to your property should be displayed so that the numbers can be easily read from the street, both day and night.** This assists firefighters in locating your property during all types of emergencies including medical aid calls. Address numbers should be 4" tall and of a highly contrasting color with the background. They should be made of fire-resistant materials as well. Houses that do not have correct addresses posted are in violation of county codes.
- 3-4. **Street signs should be at every intersection leading up to the house,** have characters at least 4" tall, be made of reflective material, and be non-combustible.
5. **Driveways with large amounts of flammable material next to them can trap residents and firefighters.** Make driveways less threatening by clearing flammable vegetation.
6. **If the driveway is long,** be sure there is enough room for firefighting equipment to turn around. Without a turnaround area, firefighters may be reluctant to place engines near the home.

Summary

If you answered **YES** to all of the checklist items, you can feel confident that you have done a good job of building defensible space around your home and have incorporated some fire-resistive home components. While the creation of defensible space and incorporation of fire-resistive materials does not guarantee protection, it can greatly increase the probability of structural survival, and personal survival, should you become trapped in your home during a wildfire.

Any **NO** answers on the checklist can serve as a guideline for defensible space and structural retrofitting improvements around your home in order to increase the probability of structural and personal survival during a wildfire.

*Please use this Residential Safety Survey as a guide to help you improve the fire-resistive features of your home, maintain your defensible space and ensure our ability to access your home in an emergency. We also encourage you to phone or visit your neighborhood county fire station crew and invite them to come by to help you assess the safety of your home and possibly identify no-cost or low-cost ways to improve your family's safety during a wildfire. This is a no-cost service to our communities. Please visit us on the Web at <http://www.readysetgomarin.org> A copy of our wildfire action plan, "**Ready, Set, Go!**" can also be downloaded from our Web site. Printed versions are available at any county fire station.*

100' DEFENSIBLE SPACE Make Your Home FIRE SAFE

Why 100 Feet



Following these simple steps can dramatically increase the chance of your home surviving a wildfire!

A **Defensible Space** of 100 feet around your home is required by law.¹ The goal is to protect your home while providing a safe area for firefighters.

1 "Lean, Clean and Green Zone."

– Clearing an area of 30 feet immediately surrounding your home is critical. This area requires the greatest reduction in flammable vegetation.

– The **Reduced Fuel Zone** in the remaining 70 feet (or to property line) will depend on the steepness of your property and the vegetation.

a Spacing between plants improves the chance of stopping a wildfire before it destroys your home. You have two options in this area:

b Create horizontal and vertical spacing between plants. The amount of space will depend on how steep the slope is and the size of the plants.

Large trees do not have to be cut and removed as long as all of the plants beneath them are removed. This eliminates a vertical "fire ladder."

When clearing vegetation, use care when operating equipment such as lawnmowers. One small spark may start a fire; a string trimmer is much safer.

Remove all build-up of needles and leaves from your roof and gutters. Keep tree limbs trimmed at least 10 feet from any chimneys and remove dead limbs that hang over your home or garage. The law also requires a screen over your chimney outlet of not more than 1/2 inch mesh.

¹ These regulations affect most of the grass, brush, and timber-covered private lands in the State. Some fire department jurisdictions may have additional requirements. Some activities may require permits for tree removal. Also, some activities may require special procedures for, 1) threatened and endangered species, 2) avoiding erosion, and 3) protection of water quality. Check with local officials if in doubt. Current regulations allow an insurance company to require additional clearance. The area to be treated does not extend beyond your property. The State Board of Forestry and Fire Protection has approved Guidelines to assist you in complying with the new law. Contact your local CAL FIRE office for more details.



