

PROTECTING YOUR PROPERTY FROM WILDFIRE

Wildland fires have always been a part of Montecito's natural environment. Areas of Montecito will burn again. This is not maybe. This is a given. Due to development in the wild land environment, properties have taken on more of a risk.

**Five notable fires that have burned in our area:
Coyote 1964 - Romero 1971 - Sycamore 1977 - Tea 2008 – Jesusita 2009
Over 686 Structures destroyed**

Firewise Terminology

Defensible Space? The term defensible space refers to that area between a house and an oncoming wildfire where the vegetation has been modified to reduce the wildfire threat and allow fire fighters to safely operate. Research results clearly demonstrate that defensible space improves the probability of house survival during wildfire.

Survivable Space? Same as “Defensible Space” but focusing on no fire suppression available. During major wildfires resources are limited and it is unlikely every home will have a fire engine in their front yard. Can your home survive with no fire suppression equipment?

Hardscaping: Landscaping with non-flammable materials. Rocks, boulders, interlocking concrete pavers, walls and natural stone are but a few options for this design technique. The advantages are many: Will not burn, no maintenance, no watering and can be very attractive.

Firefighting Foam: Foam is used by fire departments as a fire extinguishing agent and pre-treatment agent for flammable and combustible materials. When proportioned with water using the appropriate eductors, foam concentrate changes the properties of the water, reducing the surface tension and allowing for greater penetration in all Class-A fuel and wildland fires. It also gives the water a foaming ability allowing it to remain and cling to the surfaces without run off as quickly as plain water. By using foam you can extend the usefulness of a limited water supply and make your fire protection system 3-5 times more effective than with plain water alone. Wildland Foam is available to the general public by numerous vendors.

Firefighting Gel: Gel is a hydrating polymer which creates a thermal barrier that clings to vertical surfaces making it ideally suited for exposure protection. By encapsulating the water into a gel product evaporation is significantly reduced. In addition the gelled product will stick to vertical surfaces much better than foams or plain water alone. Gel can be applied to exterior structural surfaces including metal, glass, stucco and wood. It may also be applied with success to compressed gas cylinders, motor vehicles, fuel tanks.

Why Firewise Planning?

Wildfires are unpredictable! It can find the weak link in your home's fire protection scheme and gain the upper hand because of a small, overlooked or seemingly inconsequential factor. While you may not be able to accomplish all measures below (and there are no guarantees), each will increase your home's, and possibly your family's, safety and survival during a wildfire. Start with the easiest and least expensive actions. Begin your work closest to your house and move outward. Keep working on the more difficult items until you have completed your entire project. Then continue to improve, you are never done.

Prepare years and/or hours ahead of the fire!

Action Items

1. Remove flammable vegetation (particularly dead materials) around your home for a minimum of 100 feet.
2. Noncombustible roofing is a must. Class "A" roofing is a requirement in the Montecito Fire District.
3. The Roof area must be completely tight, eliminating the chance of embers getting into this critical area.
4. Bird stops should be installed over all roof openings. Rain gutters must be kept clean, remove any leaves.
5. Remove all flammable materials adjacent to structures, such as woodpiles, patio furniture, combustible trash,
6. Do not store any type of lumber/wood next to or near any structures. Including garages and storage sheds.
7. Install fire (*heat*) and ember resistant vents to eliminate embers from entering through eaves, soffits, roof and foundation vents.
8. Install dual-pane/ tempered exterior glass windows. Vinyl cladding is not recommended.
9. For adequate protection of your home, wood decks, gazebos, hot tub structures, sheds, children's play structures must be constructed to the same building standards (code) as your home.
10. When possible have ladders that reach the roof. Consider placing against the street side of the house when you evacuate, anyone who stops to help can see them.
11. If you have a swimming pool or hot tub consider the purchase a portable pump and fire hose. Test and maintain these regularly.
12. Have an adequate number of large diameter garden hoses, connect and check water pressure.
13. Consider purchasing a home fire protection system. (many commercial foam /gel products are available)
14. Displaying your street address is mandatory; use visible reflective 6" numbers of a color which contrasts with its background, in some cases you may need more than one set of address numbers.
15. Access to your home is critical, remove any limb or vegetation that extends into roadway and limits or hampers emergency vehicle access. Overhead clearance of 13'6" and horizontal clearance of 10' is required.

IMPORTANT: We are not recommending you stay and fight the fire, the decision to remain and protect your home can only be made after proper training and planning. Your physical fitness, health and proper clothing must be considered. Should you become trapped by a wildfire, the safest place may be to retreat to the inside of a house or vehicle.

Firewise Landscaping

Defensible/survivable Space is an area around the perimeter of structures or developed areas that are key points of defense/attack against encroaching wildfires or escaping structure fires. The outside limit of this space should be measured from the nearest building and extend outward from 100 to 200 feet.

The defensible/survivable space of each homesite can be divided into three distinct conditions or bands (**zones**) radiating outward from around the house. Firescaping deals with the management of existing vegetation within the bands (zones), and the addition of ornamental plants with fire-resistant qualities or naturally low fuel volumes.

Zone 1

Zone 1 is the first 5 to 10 feet around the outside walls of the house. Combustible materials in this area are close enough to bring the fire in contact with the building wall, deck, or porch. Planting and landscaping is best limited to very succulent groundcovers, gravel mulches, walkways, and green lawns. Hardscaping is extremely effective in this area.

Zone 2

Zone 2 begins at the perimeter of zone 1 and extends outward about 30 feet. Plants in this zone may be a combination of both native and introduced species. Eliminate ladder fuels, and remove any dead plants or portions of plants that may spread fire. Trees must be widely spaced to prevent crown fires. Shrubs should be low growing, well spaced and preferably with high moisture content. Groundcovers, lawn, or mowed irrigated pastures are also acceptable. Hardscaping is helpful in this zone to reduce fire spread and cut down on the need for maintenance and water. Due to the size and open nature of this area, fire fighters are likely to take a stand here to defend your home.

Zone 3

Zone 3 includes natural vegetation that has been modified to reduce available fuel volumes. The width of this band extends to the limit of the defensible space required according to topography - Minimally 70' but may extend out 200'. The goal is to thin out overcrowded plants, eliminate ladder fuels, and remove any dead plants or portions of plants that may spread fire.

Fire Resistant Trees & Shrubs

Species selection and maintenance practices used to make trees more healthy and beautiful also make them more fire safe. All plants are fuel, but the following practices make them less accessible to fire:

Select species and varieties that are fire resistant:

- Plants that are well adapted to the local climate, microclimate, aspect, slope and local environmental conditions.
- Plants with low fuel volumes: Low growing, limited spread, “Clean” plants.
- Plants that are deep-rooted and proficient at acquiring water.
- Plants with relatively fire resistant foliage:
 - Deciduous trees and shrubs.
 - Trees and shrubs with large fleshy leaves.
 - Trees and shrubs lacking volatile chemicals, oils, waxes, etc.

Increase fuel moisture:

- Place trees and shrubs near natural water sources: Moist soils, seeps, springs, ponds, streams, seasonal/ephemeral drainage's, etc.
- Cultivate, amend and mulch the surrounding soils to enhance water penetration, retention and storage; to reduce evaporation; and to avoid compaction. Use permeable materials for drives, walks and patios.
- Place trees and shrubs in or adjacent to areas that are currently irrigated.
- Deep irrigate trees and shrubs every 20 to 30 days during the fire season.

Maintain plant health and vigor:

- Avoid crowding and over competition for available soil water and nutrients.
- Remove sick and dying plants, dead branches and foliage promptly.
- Treat pests and diseases promptly and monitor for recurrence.
- Fertilize and irrigate plants as needed.

Disrupt the horizontal and vertical continuity of shrub and tree fuels:

- Separate shrubs and shrub islands by a distance of no less than two times the height. Limit island clusters to 18 feet diameter. Thin shrub cover to less than 1/3 of the area.
- Place only fire resistant, low growing (less than 18”) shrubs under trees.
- Separate tree crowns by at least 10 ft., increase spacing on steep slopes.
- Raise tree crowns to at least 10 feet above grade or to a maximum of 1/3 of the height.

Some of the above information from Ray Moritz, Fire Ecologist/Urban “Forester Fire Resistant Trees & Shrubs”

Firewise Privacy Screens

Numerous property owners use vegetation “hedges” for privacy screening.
Screening with flammable vegetation is not an acceptable practice!

Hedges/screening can be hazardous in several ways:

- They interrupt the flow of wind, forming a partial vacuum and turbulence on the leeward side that draws fire brands down onto homes and decks.
- They provide a highly dense fuel cluster, often with excessive deadwood due to crowding and shading of internal and lower branches, and abutting branches of adjoining.
- They typically are composed of species that maintain their lower branches and form a ground to crown, vertical “ladder fuel” architecture.
- They are often composed of highly flammable (prophetic) plants

Strongly consider screening with walls or fireproof fences.

- Walls and fireproof fences require no water and little maintenance.
- Walls and fireproof fences are better for security.
- Walls and fireproof fences do not attract rats or mice.

Select fire resistant species and varieties

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- Plants with relatively fire resistant foliage.
 - ✓ Deciduous trees and shrubs
 - ✓ Trees and shrubs with large, fleshy leaves
 - ✓ Trees and shrubs lacking volatile chemicals, oils, waxes.

Information regarding “Firewise Privacy Screens” was taken from:
“FireSafe Marin”, Ray Moritz, Fire Ecologist/Urban Forester.

NOTE: All plants are fuel and flammable to varying degrees. The evidence for fire resistance of selected species is largely anecdotal. Many factors influence flammability and fire hazard. More plants mean more fuel and greater hazard!

UTILITY HAZARDS: Landscaping under utility lines! Make sure you are not planting trees or other vegetation, which when mature will have a height greater than 25 feet. Consult with your local utility company.