



MEGA FIRES: The Case for Mitigation

WILDFIRE HOME ASSESSMENT



HELPING HOMEOWNERS MAXIMIZE THEIR \$\$\$

This checklist will help you assess the vulnerability of your home and its surroundings to wildfire. Each section is listed in order of importance as it relates to wildfire protection. After you assess your risk, use the required action and cost sections to help you prioritize ways to better protect your property.

FREE-\$	<\$500
\$\$	\$501-\$1,000
\$\$\$	\$1,001-\$5,000
\$\$\$\$	>\$5,001

Your house	Required action or retrofit	Relative cost
ROOF COVERING - Your roof, both in terms of the covering and design, is the most vulnerable part of your home when considering vulnerability to wildfire.		
1. Do you have a noncombustible or Class A roof?	If not, replace your roof covering with a Class A fire-rated covering	\$\$\$\$
2. Do you have a tile or metal roof? If yes, are bird stops installed to seal the openings at the edges? Are there other roof openings?	Install bird stops. Plug any roof openings that are not functioning as vents.	\$-\$
3. Do you have combustible siding where a lower level roof meets an upper level roof/wall (complex roof)?	Replace siding with a more fire-resistant material.	\$\$-\$\$\$\$
4. Has vegetative debris accumulated on your roof?	Remove debris from your roof.	FREE
VENTS - Vents are vulnerable to wind-blown embers and flames from nearby vegetation and combustible siding.		
1. Are your vents covered with 1/8"-1/4" metal mesh screens?	Install screens, or install new vents with screening.	\$-\$
2. If your vents are not covered with metal screens, have you prepared vent covers that can be easily installed when a wildfire is approaching?	Prepare covers. Since the primary purpose is to prevent embers from getting inside your vents, 1/2" plywood could be used. Keep the areas around the vents clear of vegetation and other combustible materials. Install covers before evacuation and remove them upon your return.	\$
GUTTERS - Debris can collect in gutters and become fuel for falling embers during a wildfire. It's then possible for the fire to burn into the attic space.		
1. Has vegetative debris accumulated in your gutters?	Clean out your gutters on a regular basis.	FREE
2. Have you installed gutter covers to help keep your gutters clear?	Install a gutter cover device. There are a number of designs and devices available.	\$\$-\$\$\$\$





Your house	Required action or retrofit	Relative cost
<p>EAVES - Eaves are vulnerable and can provide a way for a wildfire to get into your attic.</p>		
<p>1. Do you have boxed-in or open-eave construction? Open eave construction is more vulnerable in wildfire conditions.</p> <p>If you have open-eave construction, can you see gaps between blocking and sheathing, or rafter tails?</p>	<p>Plug openings in open-eave area with durable caulk, or install a non-combustible covering over blocking to eliminate openings. An alternative method is to enclose or box-in the eaves. This method may require vents to allow for moisture management.</p>	<p>\$-\$\$\$</p>
<p>2. If your eave area is boxed-in, is the soffit material non-combustible?</p>	<p>Replace with non-combustible or other material that is fire resistant.</p> <p>Common soffit materials include those that are non-combustible, such as a fiber-cement product or exterior fire-retardant treated plywood, or combustibles such as plywood or solid wood boards.</p> <p>Vinyl soffit materials are not recommended.</p>	<p>\$\$-\$\$\$</p>
<p>WINDOWS - During a wildfire the most vulnerable window is one that is open.</p> <p>The most vulnerable part of a closed window is the glass.</p>	<p>Close windows to prevent embers and flames from entering the home.</p>	
<p>1. Do you have single-pane windows?</p>	<p>Install dual-pane windows, which will provide more protection from wildfire than a single pane.</p> <p>Dual-panes also will provide greater energy conservation and insulation during warmer and cooler months.</p>	<p>\$\$\$-\$\$\$\$</p> <p>Costs depend on the number of windows and the location.</p>
<p>2. Does your window have tempered glass?</p>	<p>Tempered glass is more expensive than annealed glass, which is more commonly used, but it also is about four times more resistant to breaking during a fire.</p> <p>When replacing single-pane windows consider dual-pane, tempered glass. While this will increase the cost, it will also provide significant wildfire protection while lowering your energy bill. The cost increases are dependent on the opening size.</p>	





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3. Do your windows have storm shutters?	Shutters and pre-made covers will protect your window from wildfire exposures such as embers, the impacts of other airborne debris and radiant heat exposures.	\$-\$\$\$
4. Have you made covers for your windows that can be easily installed prior to evacuation during a wildfire?	If you choose to make these from 1/2 inch plywood, clear the surrounding area of vegetation and other combustible materials that could ignite the plywood covers.	\$\$
SIDING - Fire can penetrate siding and spread into the stud cavity and up the wall into the eave and soffit area. This also can expose the windows to flames.		
1. Is your siding made of a noncombustible material?	<p>Re-siding your house is an expensive but worthwhile proposition. There are ways to consider the fire performance of common siding materials (see the WUI Product Handbook). Although vulnerable, siding is usually second to more vulnerable features such as the roof, vents and windows under wildfire conditions.</p> <p>Panelized products have fewer lap joints, so can be considered less vulnerable.</p> <p>Wood siding shingles and plain bevel lap joints are the most vulnerable to flames.</p>	\$\$\$\$
2. If you have a combustible siding product (e.g., wood siding), is it a panel or horizontal lap product?		
3. If you have a combustible horizontal lap siding product, does it have a simple lap joint, also called a plain bevel joint?		





Your surroundings	Required action or retrofit	Relative cost
<p>DEFENSIBLE SPACE - This is the area within 100 feet of your home or to your property line.</p> <p>The purpose of defensible space is to modify the landscape through pruning and maintaining it to keep a wildfire from approaching your home.</p>		
<p>VEGETATION / PLANTS (0 to 5 feet around a home)</p>		
<p>Do you have vegetation that is close to, adjacent to or under vents, soffits or windows?</p>	<p>Carefully maintain or remove.</p> <p>All vegetation needs to be maintained, but ground cover or small plants will be less of a problem here.</p> <p>Larger plants, particularly those that tend to generate an abundance of dead material will pose a significant threat to your home.</p>	FREE
<p>TREES</p>		
<p>1. Do trees or branches hang over your home?</p>	<p>Prune back to a minimum of 10 feet from your home.</p>	FREE-\$
<p>2. Are your trees pruned to eliminate ladder fuels?</p> <p>Ladder fuels are those that will allow fire to climb up the bark and into the upper portion of the tree</p>	<p>Prune trees to eliminate ladder fuels.</p>	FREE-\$
<p>Has vegetative debris accumulated in the areas that connect the deck and walls, under the deck or at the base of exterior walls or fencing?</p>	<p>Inspect for and clear all vegetative debris on a regular basis.</p>	FREE
<p>DECKS - If ignited, decks will lead a wildfire directly to your home. The flames can burn siding, break the glass in nearby windows or sliding glass doors, and ignite the eaves and vents. All of these scenarios result in fire moving into your home.</p>		
<p>1. Is your deck made using combustible boards?</p> <p>If you deck has boards, chances are good that they are combustible (i.e., solid wood, or one of the wood plastic composite products).</p> <p>There are a limited number of metal (non-combustible) deck boards. Exterior fire-retardant treated lumber can also be used.</p>	<p>When it's time to replace the deck, choose a material that complies with the new California Building Code requirements (Chapter 7A). Download a copy of the WUI Product Handbook at http://www.fire.ca.gov/fire_prevention/fire_prevention_wildland.php</p>	\$\$\$-\$\$\$\$





Your surroundings	Required action or retrofit	Relative cost
2. Do you have combustible materials stored under or on top of your deck?	Move this material to an enclosed area away from your home. If you choose to enclose the underside of your deck, be sure to address moisture management issues through drainage and ventilation.	FREE-\$\$
FENCES - A fence that connects directly to your house can act as a wick, bringing the fire to the house and igniting the siding. If ignited, fences will provide a radiant exposure for your siding and windows.		
Does a fence come within 10 feet of your house, or come into direct contact with it?	Replace with a noncombustible fence or use noncombustible components such as heavy wire mesh in a wood frame.	\$\$-\$\$\$
YARD STRUCTURES - Any fuel source, decorative or functional, within 30 feet of your home.		
Do you have any playground equipment, firewood, trellises or other yard features that could bring flames too close to your home?	Combustible structures should be moved 30 feet to 50 feet from the home.	FREE

Your property	Required action or retrofit	Relative cost
PARCEL - Where a home sits on the property can be critical when a slope is involved.		
1. Does your property meet the state's requirement for 100 feet of defensible space? Contact the local fire agency for guidance.	Modify the vegetation around your home to meet the defensible space requirements, including thinning plants and trees within 30 feet of the house or to the property line and maintaining the areas from 30 to 100 feet or to the property line.	\$\$-\$\$\$
2. Is your home positioned at the top of a slope?	If so, additional vegetation modification and a careful selection of building materials may be required.	FREE-\$\$\$\$