

Wildfire

The threat of wildland fires for people living near wildland areas or using recreational facilities in wilderness areas is real. Dry conditions at various times of the year and in various parts of the United States greatly increase the potential for wildland fires.

Advance planning and knowing how to protect buildings in these areas can lessen the devastation of a wildland fire. There are several safety precautions that you can take to reduce the risk of fire losses. Protecting your home from wildfire is your responsibility. To reduce the risk, you'll need to consider the fire resistance of your home, the topography of your property and the nature of the vegetation close by.

Prepare for a Wildfire

Listed here are several suggestions that you can implement immediately. Others need to be considered at the time of construction or remodeling. You should also contact your local fire department, forestry office, emergency management office or building department for information about local fire laws, building codes and protection measures. Obtain local building codes and weed abatement ordinances for structures built near wooded areas.

Find Out What Your Fire Risk Is

Learn about the history of wildfire in your area. Be aware of recent weather. A long period without rain increases the risk of wildfire. Consider having a professional inspect your property and offer recommendations for reducing the wildfire risk. Determine your community's ability to respond to wildfire. Are roads leading to your property clearly marked? Are the roads wide enough to allow firefighting equipment to get through? Is your house number visible from the roadside?

Learn and teach safe fire practices.

- Build fires away from nearby trees or bushes.
- Always have a way to extinguish the fire quickly and completely.
- Install smoke detectors on every level of your home and near sleeping areas.
- Never leave a fire--even a cigarette--burning unattended.
- Avoid open burning completely, and especially during dry season.

Always be ready for an emergency evacuation.

Evacuation may be the only way to protect your family in a wildfire. Know where to go and what to bring with you. You should plan several escape routes in case roads are blocked by a wildfire.

Create Safety Zones Around Your Home

All vegetation is fuel for a wildfire, though some trees and shrubs are more flammable than others. To reduce the risk, you will need to modify or eliminate brush, trees and other vegetation near your home. The greater the distance is between your home and the vegetation, the greater the protection.

Create a 30-foot safety zone around the house.

Keep the volume of vegetation in this zone to a minimum. If you live on a hill, extend the zone on the downhill side. Fire spreads rapidly uphill. The steeper the slope, the more open space you will need to protect your home. Swimming pools and patios can be a safety zone and stone walls can act as heat shields and deflect flames. In this zone, you should also do the following:

- Remove vines from the walls of the house.
- Move shrubs and other landscaping away from the sides of the house.
- Prune branches and shrubs within 15 feet of chimneys and stove pipes.
- Remove tree limbs within 15 feet of the ground.
- Thin a 15-foot space between tree crowns.
- Replace highly flammable vegetation such as pine, eucalyptus, junipers and fir trees with lower growing, less flammable species. Check with your local fire department or garden store for suggestions.
- Replace vegetation that has living or dead branches from the ground-level up (these act as ladder fuels for the approaching fire).
- Cut the lawn often keeping the grass at a maximum of 2 inches. Watch grass and other vegetation near the driveway, a source of ignition from automobile exhaust systems.
- Clear the area of leaves, brush, evergreen cones, dead limbs and fallen trees.

Create a second zone at least 100 feet around the house.

This zone should begin about 30 feet from the house and extend to at least 100 feet. In this zone, reduce or replace as much of the most flammable vegetation as possible. If you live on a hill, you may need to extend the zone for several hundred feet to provide the desired level of safety.

Clear all combustibles within 30 feet of any structure.

- Install electrical lines underground, if possible
- Ask the power company to clear branches from power lines.
- Avoid using bark and wood chip mulch
- Stack firewood 100 feet away and uphill from any structure.
- Store combustible or flammable materials in approved safety containers and keep them away from the house.

- Keep the gas grill and propane tank at least 15 feet from any structure. Clear an area 15 feet around the grill. Place a 1/4 inch mesh screen over the grill. Always use the grill cautiously but refrain from using it all during high risk times.

Protect Your Home

Remove debris from under sun decks and porches.

Any porch, balcony or overhang with exposed space underneath is fuel for an approaching fire. Overhangs ignite easily by flying embers and by the heat and fire that get trapped underneath. If vegetation is allowed to grow underneath or if the space is used for storage, the hazard is increased significantly. Clear leaves, trash and other combustible materials away from underneath sun decks and porches. Extend 1/2-inch mesh screen from all overhangs down to the ground. Enclose wooden stilts with non-combustible material such as concrete, brick, rock, stucco or metal. Use non-combustible patio furniture and covers. If you're planning a porch or sun deck, use non-combustible or fire-resistant materials. If possible, build the structure to the ground so that there is no space underneath.

Enclose eaves and overhangs.

Like porches and balconies, eaves trap the heat rising along the exterior siding. Enclose all eaves to reduce the hazard.

Cover house vents with wire mesh.

Any attic vent, soffit vent, louver or other opening can allow embers and flaming debris to enter a home and ignite it. Cover all openings with 1/4 inch or smaller corrosion-resistant wire mesh. If you're designing louvers, place them in the vertical wall rather than the soffit of the overhang.

Install spark arrestors in chimneys and stovepipes.

Chimneys create a hazard when embers escape through the top. To prevent this, install spark arrestors on all chimneys, stovepipes and vents for fuel-burning heaters. Use spark arrestors made of 12-gauge welded or woven wire mesh screen with openings 1/2 inch across. Ask your fire department for exact specifications. If you're building a chimney, use non-combustible materials and make sure the top of the chimney is at least two feet higher than any obstruction within 10 feet of the chimney. Keep the chimney clean.

Use fire resistant siding.

Use fire resistant materials in the siding of your home, such as stucco, metal, brick, cement shingles, concrete and rock. You can treat wood siding with UL-approved fire retardant chemicals, but the treatment and protection are not permanent.

Choose safety glass for windows and sliding glass doors.

Windows allow radiated heat to pass through and ignite combustible materials inside. The larger the pane of glass, the more vulnerable it is to fire. Dual- or triple-pane thermal glass, and fire resistant shutters or drapes, help reduce the wildfire risk. You

can also install non-combustible awnings to shield windows and use shatter-resistant glazing such as tempered or wireglass.

Prepare for water storage; develop an external water supply such as a small pond, well or pool.

Other safety measures to consider at the time of construction or remodeling.

- Choose locations wisely; canyon and slope locations increase the risk of exposure to wildland fires.
- Use fire-resistant materials when building, renovating, or retrofitting structures.
- Avoid designs that include wooden decks and patios.
- Use non-combustible materials for the roof.
- The roof is especially vulnerable in a wildfire. Embers and flaming debris can travel great distances, land on your roof and start a new fire. Avoid flammable roofing materials such as wood, shake and shingle. Materials that are more fire resistant include single ply membranes, fiberglass shingles, slate, metal, clay and concrete tile. Clear gutters of leaves and debris.

What to do Before a Wildfire

If you see a wildfire, call 9-1-1. Don't assume that someone else has already called. Describe the location of the fire, speak slowly and clearly, and answer any questions asked by the dispatcher.

Before the Fire Approaches Your House

- **Evacuate.** Evacuate your pets and all family members who are not essential to preparing the home. Anyone with medical or physical limitations and the young and the elderly should be evacuated immediately.
- **Wear Protective Clothing.**
- **Remove Combustibles.** Clear items that will burn from around the house, including wood piles, lawn furniture, barbecue grills, tarp coverings, etc. Move them outside of your defensible space.
- **Close/Protect Openings.** Close outside attic, eaves and basement vents, windows, doors, pet doors, etc. Remove flammable drapes and curtains. Close all shutters, blinds or heavy non-combustible window coverings to reduce radiant heat.
- **Close Inside Doors/Open Damper.** Close all doors inside the house to prevent draft. Open the damper on your fireplace, but close the fireplace screen.

- **Shut Off Gas.** Shut off any natural gas, propane or fuel oil supplies at the source.
- **Water.** Connect garden hoses. Fill any pools, hot tubs, garbage cans, tubs or other large containers with water.
- **Pumps.** If you have gas-powered pumps for water, make sure they are fueled and ready.
- **Ladder.** Place a ladder against the house in clear view.
- **Car.** Back your car into the driveway and roll up the windows.
- **Garage Doors.** Disconnect any automatic garage door openers so that doors can still be opened by hand if the power goes out. Close all garage doors.
- **Valuables.** Place valuable papers, mementos and anything "you can't live without" inside the car in the garage, ready for quick departure. Any pets still with you should also be put in the car.

Preparing to Leave

- **Lights.** Turn on outside lights and leave a light on in every room to make the house more visible in heavy smoke.
- **Don't Lock Up.** Leave doors and windows closed but unlocked. It may be necessary for firefighters to gain quick entry into your home to fight fire. The entire area will be isolated and patrolled by sheriff's deputies or police.

What to do During a Wildfire

Survival in a Vehicle

- This is dangerous and should only be done in an emergency, but you can survive the firestorm if you stay in your car. It is much less dangerous than trying to run from a fire on foot.
- Roll up windows and close air vents. Drive slowly with headlights on. Watch for other vehicles and pedestrians. Do not drive through heavy smoke.
- If you have to stop, park away from the heaviest trees and brush. Turn headlights on and ignition off. Roll up windows and close air vents.
- Get on the floor and cover up with a blanket or coat.
- Stay in the vehicle until the main fire passes.

- Stay in the car. Do not run! Engine may stall and not restart. Air currents may rock the car. Some smoke and sparks may enter the vehicle. Temperature inside will increase. Metal gas tanks and containers rarely explode.

If You Are Trapped at Home

- Stay calm. As the fire front approaches, go inside the house. You can survive inside. The fire will pass before your house burns down.

If Caught in the Open

- The best temporary shelter is in a sparse fuel area. On a steep mountainside, the back side is safer. Avoid canyons, natural "chimneys" and saddles.
- If a road is nearby, lie face down along the road cut or in the ditch on the uphill side. Cover yourself with anything that will shield you from the fire's heat.
- If hiking in the back country, seek a depression with sparse fuel. Clear fuel away from the area while the fire is approaching and then lie face down in the depression and cover yourself. Stay down until after the fire passes!

What to do After a Wildfire

- Check the roof immediately. Put out any roof fires, sparks or embers. Check the attic for hidden burning sparks.
- If you have a fire, get your neighbors to help fight it.
- The water you put into your pool or hot tub and other containers will come in handy now. If the power is out, try connecting a hose to the outlet on your water heater.
- For several hours after the fire, maintain a "fire watch." Re-check for smoke and sparks throughout the house.