



## Saving Lives and Property through Advance Planning

This publication was prepared by the International Association of Fire Chiefs' RSG! Program and the USDA Forest Service, U.S. Department of the Interior, and the U.S. Fire Administration.

To learn more about the Ready, Set, Go! Program and its partners, visit www. wildlandfireRSG.org.

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he fire season is a year-round reality, requiring firefighters and residents to be prepared for the threat of wildland fire.

Each year, wildland fires consume hundreds of homes in the Wildland-Urban Interface (WUI) – a high-risk wildfire area containing natural fuels where houses are built. Studies show as many as 80 percent of the homes lost to wildland fires could have been saved if their owners had followed simple fire-safe practices. In addition, wildland fire related deaths occur because people wait too long to leave their homes.

Your fire department takes every precaution to help protect you and your property from wildland fire. However, in a major wildland fire event, there simply may not be enough fire resources or firefighters to defend every home.

Successfully preparing for a wildland fire enables you to take personal responsibility to protect yourself, your family, and your property. In this Action Guide, we provide tips and tools you need to prepare for a wildland fire threat; to have situational awareness when a fire starts; and to act early as directed by local officials.

The Ready, Set, Go (RSG)! Program works in collaboration with existing wildland fire public education efforts. RSG is brought to you in partnership with the fire service, and amplifies the common goal we all share for wildland fire preparedness. Visit us at www.wildlandfireRSG.org to learn more about becoming prepared.

Community Wildfire Readiness (CWR) provides local residents and homeowners associations, fire and emergency responders, civic and community leaders, developers and builders, and forest and land managers the tools, resources, guidance, and support to prepare for the threat of wildland fire. CWR resources help to create a collaborative community where all parties are involved in successfully adapting to their wildland fire challenge. Visit www.wildfireready.org for resources and more information.

You are a key leader to creating change. You and the members of your community can take simple steps to increase your wildland fire preparedness. Your knowledge and actions may empower others to follow your lead, increasing their safety and potentially decreasing property loss and damage. Being prepared for a wildland fire is vital, as responder resources can be spread thin. Taking advanced personal action can result in improved safety for all involved.

Fire is, and always has been, a natural occurrence. Hills, canyons, and forests burned periodically long before homes were built. Wildland fires are fueled by a build-up of dry vegetation and driven by seasonal hot and dry winds, which are extremely dangerous and difficult to control. Many people have built homes in the WUI without fully understanding the impact a fire may have on their lives. Few have adequately prepared their families and homes for a timely evacuation in the event of a wildland fire.

It is not a question of if, but when, the next major wildland fire will occur. Through advanced planning, understanding, and preparation we can all be partners in the wildland fire solution. The tips on the following pages are designed to help create awareness and a safer environment for you, your family, and fire personnel.







## Living in the Wildland-Urban Interface and Ember Zone



begins with a house that firefighters can defend.

#### **Defensible Space Works**

If you live next to a dense vegetation area, the Wildland-Urban Interface (WUI), you should provide firefighters with the defensible space they need to protect your home. Create a buffer zone by removing weeds, brush, and other vegetation. This helps keep the fire away from your home and reduces the risk from flying embers. Fire preparedness education programs provide valuable guidance on property enhancements.

#### Homes on the Wildland Boundary are at Risk too

A home within one mile of a natural area is considered a part of an ember zone, where wind-driven embers can be a risk to your property. You and your home must be prepared well before a fire occurs. Ember fires can destroy homes or neighborhoods far from the actual front of the fire. Prepare your home with the tips from the following pages.

#### **Consider This**

Unmanaged vegetation between and around homes increases the risk of wildland fire spreading throughout the community, and endangering lives and property. Pre-fire planning, fuels management, and sufficient fuel breaks allow firefighters the space they need to keep fire from entering the community.

"Fire preparedness education programs provide valuable guidance on property enhancements."

## **Create Defensible Space**

D efensible space is the space between a structure and the wildland area that creates a sufficient buffer to slow or halt the spread of fire to a structure.

It protects the home from igniting due to direct flame or radiant heat. Defensible space is essential to help protect a structure during a wildland fire.

You can create defensible space by removing weeds, brush, and other vegetation from around your property.

Defensible space is made up of three zones around your home; Zone 1: 0-30ft, Zone 2: 30-100ft, and Zone 3: 100-200ft.

Follow the advice under each zone to help protect your home.



#### ZONE 1

# 0-30 feet around your home or to property line

- Use hard surfaces such as concrete or noncombustible rock mulch 0-5 feet around home.
- Use non-wood, low-growing herbaceous vegetation. Succulent plants and ground covers are good choices.
- Store firewood and other combustible materials at least 30 feet away from your home, garage, or attached deck.
- Trim back touching or overhanging branches from the roof to a distance of at least 10 feet.

#### ZONE 2

# 30-100 feet around your home or to property line

- Create vegetation groups,
   "islands," to break up continuous fuels around your home.
- Remove ladder fuels to create a separation between low-level vegetation and tree branches to keep fire from climbing trees.
- Remove leaf and needle debris from the yard.
- Keep grass and wildflowers under 8 inches in height.

#### ZONE 3

100-200 feet around your home or to property line

- Create and maintain a minimum of 10 feet between the tops of trees.
- Remove ladder fuels, creating a separation between low-level vegetation and tree branches to keep fire from climbing up trees.
- Remove dead trees and shrubs.

## Ladder Fuels

Ladder fuels allow the fire to climb from the surface fuels into the upper portion of the tree. They can be eliminated by increasing horizontal and vertical separation between vegetation.



# Making Your Home Fire Resistant - Harden Your Home

C onstruction materials and the quality of the defensible space surrounding the structure are what increases the chance of survival in a wildland fire. Embers from a wildland fire will find the weak spot in your home's fire protection scheme and can easily catch because of small, overlooked, or seemingly inconsequential factors. Below are some measures you can take to safeguard your home.

#### Home Improvements













#### **BALCONIES and DECKS**

Embers can collect in or on combustible surfaces, or beneath decks and balconies, igniting the material and entering the home through walls or windows.

To harden your home even further, consider protecting your home with a residential fire sprinkler system. In addition to extinguishing a fire started by an ember that enters your home, a sprinkler system can help protect you and your family year-round from any home fire.

#### ROOFS

Roofs are the most vulnerable surface where embers land because they become lodged and can start a fire. Roof valleys, open ends of barrel tiles, and rain gutters are all points of entry.

#### EAVES

Embers can gather under open eaves and ignite combustible material.

#### VENTS

Embers can enter the attic or other concealed spaces and ignite combustible materials. Vents in eaves and cornices are particularly vulnerable, as are any unscreened vents.

#### WALLS and FENCING

Combustible siding or other combustible/overlapping materials provide surfaces and crevices for embers to nestle and ignite. Combustible fencing can become engulfed, and if attached to the home's sidings can carry the fire right to the home.

#### WINDOWS and DOORS

Embers can enter gaps in doors, including garage doors. Plants or combustible storage near windows can be ignited from embers and generate heat that can break windows and/or melt combustible frames.

### Tour a Wildland Fire Prepared Home

Home Site and Yard: Ensure all vegetation within 100 feet around your home or to your property line is wellmanaged. This area may need to be enlarged in severe fire hazard areas. This may mean considering the impact a common slope or neighbor's yard may have on your property during a wildland fire. Remember the importance of routine maintenance. Keep woodpiles, propane tanks, and combustible materials away from your home and other structures such as detached garages, barns, and sheds. Ensure trees are away from power lines.

Roof: Use a Class A fire-rated roof covering, such as composition shingles, metal, or tile, when roofing or re-roofing. Block any spaces between roof decking and covering to minimize ember intrusion. Clear pine needles, leaves, and other debris from your roof and gutters. Prune tree branches within 10 feet of your roof.

Deck/Patio Cover: Use heavy timber or noncombustible construction material for decks. Enclose the underside of balconies and decks with fire-resistant materials to prevent embers from blowing underneath. Keep your deck clear of combustible items, such as baskets, flower arrangements, and other material.

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Inside: Keep working fire extinguishers on hand. Install smoke alarms on each level of your home and near bedrooms. Test them monthly and change the batteries twice a year.

Address: Make sure your address is clearly visible from the road and constructed of noncombustible materials. Reflective numbering is recommended.

Vents: At a minimum, all vent openings should be covered with 1/8-inch corrosion resistant — metal mesh.

Windows: Radiant heat from burning vegetation or a nearby structure can cause the glass in windows to break. This will allow embers to enter and start internal fires. Single-pane and large picture windows are particularly vulnerable to glass breakage. Install dual-paned windows with a minimum of one pane being tempered glass to reduce the chance of breakage during a fire. Limit the size and number of windows in your home ' that face large areas of vegetation.

Chimney: Cover chimney and stovepipe outlets with a noncombustible screen of 1/2-inch wire mesh to reduce the size of embers leaving the chimney. Make sure that tree branches are at least 10 feet away from your home.

Walls: Wood, vinyl, and other plastic siding and trim products are combustible. Consider building or remodeling with ignition-resistant or noncombustible building materials such as brick, cement, masonry, or stucco.

Gutters: Screen or cover rain gutters with a flat noncombustible device. If possible, the device should follow the slope of the roof.

Eaves: Box in eaves with a noncombustible or ignition resistant material.

Fencing: Use noncombustible fencing within 5 feet of your home.

Water: Have multiple garden hoses that are long enough to reach any area of your home and other structures on your property. If you have a pool, pond, or irrigation ditch, consider a pump.

Garage: Install weather stripping around and under the vehicle access door. This will reduce the intrusion of embers. If the garage is attached to the home, install a solid door with self-closing hinges between living areas and garage. Do not store combustibles and flammable liquids near combustion equipment (e.g. hot water heater). Driveways and Access Roads: Driveways should be designed to allow fire and emergency vehicles and equipment to reach your house. Access roads should have a minimum 10-foot clearance on either side of the traveled section of the roadway and should allow for two-way traffic. Ensure that all gate openings are wide enough to accommodate emergency equipment. Trim trees and shrubs overhanging the road back to a minimum of 14 feet to allow emergency vehicles access.

# Ready, Set, Go!

# Create Your Own Action Guide

Now that you have done everything you can to prepare your home, it is time to prepare your family. Your Wildland Fire Action Guide must be prepared with all members of your household well in advance of a fire. Use these checklists to help you prepare and gain situational awareness in the threat of wildland fire.

Ready-G	et Ready
Create a Family Dis	aster Plain that mere it regularly. Include the
evacuation of large	animals such as horses in your plan. animals such as horses in your plan. hers on hand and teach your family how to use
Have fire extinguish them.	lers of fiding and
Ensure that your fa	amily knows where your gas, electric, and water rols are and how to use them.
	al difforant evaluation for
Designate an eme	ergency meeting location outside the fire hazard
area.	which it as recommended by the
Assemble an eme American Red Cr	ross. Keep an extra kit in your vehicle.
Appoint an out-of	f-area friend or relative as a port
	e with family members. emergency contact numbers in your emergency
supply kit.	un ac you can stay updated
Have a portable	e radio or scanner so you can stay updated weather emergency announcements.
	& Jane

Benered and the set of the s	<ul> <li>Back your car into the driveway to facilitate a quick departure. Shut doors and roll up windows.</li> <li>Have a ladder available.</li> <li>Patrol your property and extinguish all small frees until you leave.</li> <li>Cover attic and ground vents with pre-cut plywood or commercial seals if time permits.</li> </ul> IP YOUARE TRAPPED: SURVIVAL TIPS <ul> <li>Stay in your home until the fire passes.</li> <li>Shelter away from outside walls.</li> <li>Dook for spot fires and extinguish if found inside house.</li> <li>Look for spot fires and extinguish if found inside house.</li> <li>Wear long sleeves and long pants made of natural fibers such as cotton.</li> <li>Stay hydrated.</li> <li>Shay hydrated.</li> <li>Fils inks and tubs for an emergency water supply.</li> <li>Place wet towels under doors to keep smoke and embers out.</li> <li>After the fire has passed, check your roof and extinguish any fires, sparks or embers. Check the attic as well.</li> <li>It there are fires that you cannot extinguish, call 9-1-1.</li> </ul>
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by keeping roads clear of congestion, ended of hem to move more freely and do their job in a safer	The American Red Cross recommends every family have an emergency supply kit assembled long before a wildland fire or other emergency occurs. Use the checklist below to help assemble yours. For more information on emergency supplies visit www.redcross.org/ get-help. Three-day supply of water (one gallon per person, per day) and non-perishable food for family (3 day supply). First aid kit and sanitation supplies. Flashlight, battery-powered radio, and extra batteries. An extra set of car keys, credit cards, cash, or traveler's checks. Extra eyeglasses, contact lenses, prescriptions, and medications. Map marked with evacuation routes. Basily carried valuables and irreplaceable items. Personal electronic devices and chargers. Note: Keep a pair of old shoes and a flashlight handy in case of a sudden evacuation at night.
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# My Personal Wildland Fire ACTION PLAN

Write up your Wildland Fire Action Plan and post it in a location where every member of your family can see it. Rehearse it with your family.

During high-fire-danger days in your area, monitor your local media for information and be ready to implement your plan. Hot, dry, and windy conditions create the perfect environment for a wildland fire.

IMPORTANT PHONE NUMBERS
Out-of-Area Contact Phone:
Work
School
Other
EVACUATION ROUTES
1
2
WHERE TO GO EADY, SET, GO!
LOCATION OF EMERGENCY SUPPLY KIT(S)
NOTES

Contact your local fire department for more tips to prepare before a wildland fire.

# My Personal Wildland Fire ACTION PLAN

# **Residential Safety Checklist**

Tips To Improve Family and Property Survival During A Wildland Fire

