Ready, Set, Go!

Your Personal Wildfire Action Plan
Colorado’s fire season is year round, which means that both firefighters and residents have to be on heightened alert for the threat of wildfire at all times.

Colorado’s firefighters take every precaution to help protect you and your property from a wildfire. Residents need to do the same. Successfully preparing for a wildfire requires you to take personal responsibility for protecting yourself, your family and your property. During a major wildfire, there simply will not be enough fire engines or firefighters to defend every home, so residents must become part of the solution. 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.

If your home borders, or sits within two miles of, a natural area, what firefighters call the Wildland-Urban Interface (WUI), you are at risk from a wildfire. And, if you live within one mile of a natural area, you live in the Ember Zone. Homes in the Ember Zone are at risk from wind-driven embers from a wildfire. Recent fires have resulted in entire neighborhoods being destroyed by fires started by embers, not the wildfire itself.

This publication will help guide you through the process of making your home resistant to wildfires and your family ready to leave early and safely. We call this process, “Ready, Set, Go!”

You will learn about the Ember Zone and how to retrofit your home with ignition resistant features. We’ll show you the importance of having defensible space around your home and the preparations you need to make so you can leave early, evacuating well ahead of the fire.

Community Wildfire Readiness (CWR) provides local residents, fire and emergency responders, business owners, builders, civic groups and leaders, and local officials 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.iafc.org/CWR for resources and more information.

Fire is, and always has been, a natural part of the beautiful area where we’ve chosen to live. Wildfires, fueled by a build-up of dry vegetation and driven by hot, dry winds, are extremely dangerous and almost impossible to control. Many residents have built their homes and landscaped without fully understanding the impact a fire could have on them. This publication will help you prepare your home so you can leave early, confident that you’ve done everything you reasonably can to protect your home.

It’s not a question of if, but when, the next wildfire will occur. That’s why the most important person protecting your life and property is you. With advance planning and preparation, you can dramatically increase your safety and the survivability of your property.

Now, Get Ready, Get Set, Go!
Making Your Home Fire Resistant

HARDEN YOUR HOME

Construction 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.

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 siding, 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.

Ready, Set, Go! begins with a house that firefighters can defend.

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.

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.
Create Defensible Space

Defensible space is the space between a structure and the wildland area that, under normal conditions, 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.

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

This zone, which consists of an area of 0 to 30 feet around the structure, features the most intense modification and treatment. This distance is measured from the outside edge of the home’s eaves and any attached structures, such as decks.

Limit vegetation within this zone to species on Colorado State University’s Firewise Plant Materials list (http://www.ext.colostate.edu/pubs/natres/06305.pdf). Do not plant directly beneath windows or next to foundation vents. Frequently prune and maintain plants in this zone to ensure vigorous growth and a low growth habit. Remove dead branches, stems, and leaves. Do not store firewood or other combustible materials in this area. Enclose or screen decks with metal screening. Extend gravel coverage under the decks. Do not use areas under decks for storage.

If Ponderosa pine, aspen, or blue spruce are growing in this zone, consider them part of the structure and extend the distance of the entire defensible space accordingly. Isolate the tree from any other surrounding trees. Prune low-lying branches (ladder fuels that would allow a surface fire to climb into the tree) and any branches that interfere with the roof or are within 10 feet of the chimney. In all other areas, prune all branches of shrubs or trees up to a height of 10 feet above ground (or 1/3 the height, whichever is the least).

Zone 2

This zone features fuel reduction efforts and serves as a transitional area between Zones 1 and 3. The size of Zone 2 depends on the slope of the ground where the structure is built. Typically, the defensible space should extend at least 100 feet from the structure. Remove stressed, diseased, dead, or dying trees and shrubs. Thin and prune the remaining larger trees and shrubs. Be sure to extend thinning along either side of your driveway all the way to your main access road. These actions help eliminate the continuous fuel surrounding a structure while enhancing home site safety and the aesthetics of the property. Keep grass and wildflowers under 8 inches in height. Regularly remove leaf and needle debris from the yard.

Zone 3

This area extends from the edge of your defensible space to your property boundaries. The healthiest forest is one that has multiple ages, sizes, and species of trees where adequate growing room is maintained over time, so maintain a distance of at least 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. A greater number of wildlife trees can remain in Zone 3, but regularly remove dead trees and shrubs. Ensure trees in this area do not pose a threat to power lines or access roads.

For more specific information on how to create defensible space in each zone around your home, go to http://static.colostate.edu/client-files/csfs/pdfs/FIRE2012_1_DspaceQuickGuide.pdf
Tax credit available for mitigation work

As authorized by §39-22-104(4)(n), C.R.S., individuals, estates, and trusts may subtract from federal taxable income certain costs incurred while performing wildfire mitigation measures on their property that meet the following qualifications and limitations:

• The taxpayer must own the property upon which the wildfire mitigation measures are performed.
• The property must be located in Colorado and within a wildland-urban interface area.
• For tax years 2009 through 2012 only, the wildfire mitigation measures must be authorized by a community wildfire protection plan (CWPP) adopted by a local government within the interface area.
• The total amount of the subtraction may not exceed $2,500.
• The deduction is available for tax years 2009 through 2024.

An approved CWPP identifies and prioritizes areas for hazardous fuel reduction treatments and recommends the types and methods of treatments. It also must recommend measures to reduce structural ignitability. Additional information regarding community wildfire protection plans can be found online at www.csfs.colostate.edu.

Costs

Costs include any actual out-of-pocket expense incurred and paid by the landowner and documented by receipt for performing wildfire mitigation measures. The following expenses are specifically excluded within statute and do not qualify for this subtraction:

• Inspection or certification fees
• In-kind contributions
• Donations
• Incentives
• Cost sharing
• Expenses paid by the landowner from any grants awarded to the landowner for performing wildfire mitigation measures

Wildfire mitigation measures include the following activities to the extent that they meet or exceed any Colorado State Forest Service standards or any other applicable state rules:

• Creating and maintaining a defensible space around structures
• Establishing fuel breaks
• Thinning of woody vegetation for the primary purpose of reducing risk to structures from wildland fire
• Secondary treatment of woody fuels by lopping and scattering, piling, chipping, removing from the site, or prescribed burning

For more information regarding these and other wildfire mitigation measures, visit www.csfs.colostate.edu. For information about the tax credit, visit www.taxcolorado.com.
Home Site and Yard: Ensure you have at least a 100 foot radius of defensible space (treated vegetation) around your home. Note that even more treatment may be needed for homes in severe fire hazard areas. Look beyond what you own to determine the impact a common slope or neighbors’ yard will have on your property during a wildfire. Remember the importance of routine maintenance.

Cut dry weeds and grass before noon when temperatures are cooler to reduce the chance of sparking a fire.

Landscape with fire-resistant plants that have a high moisture content and are low-growing.

Keep woodpiles, propane tanks, and combustible materials away from your home and other structures such as garages, barns, and sheds.

Tree Branches: Trim all tree branches to a minimum distance of ten feet from your home, ensuring that they are not touching and/or hanging over your home.

Vents: All vent openings should be covered with 1/8-inch or smaller corrosion resistant mesh. Do not use fiberglass or plastic mesh because those materials can melt and burn. Attic vents in eaves or cornices should be baffled or otherwise protected to prevent ember intrusion (mesh is not enough).

Driveways and Access Roads: Driveways should be designed to allow fire and other emergency vehicles and equipment to reach your home.

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 gates open inward and are wide enough to accommodate emergency equipment. Locked gates should be equipped with a Knox Box or similar entry system that can be accessed by emergency responders quickly and safely.

Trim trees and shrubs overhanging the road to a minimum of 15 feet to allow emergency vehicles to pass.

Roof: Your roof is the most vulnerable part of your home because it can easily catch fire from wind-blown embers. Homes with wood-shake or wood shingle roofs are at high risk of being destroyed during a wildland fire.

Build your roof or re-roof with Class A fire-rated materials such as composition shingles, metal, or tile. Block any spaces between roof decking and covering to prevent ember intrusion.

Clear pine needles, leaves, and other debris from your roof and gutters.

Address: Post your address with 4” reflective numbers that can be seen from the road in all weather conditions.
**Garage:** Have a fire extinguisher and tools such as a shovel, rake, bucket, and hoe available for fire emergencies. Install a solid door with self-closing hinges between the garage and living area. Install weather stripping around and under doors to prevent ember intrusion. Store all combustibles and flammable liquids away from ignition sources.

**Eaves:** Box in eaves with non-combustible materials to prevent an accumulation of embers.

**Walls:** Wood products, such as boards, panels, or shingles, are common siding materials. However, they are combustible and not good choices for fire-prone areas. Build or remodel with fire-resistant building materials such as brick, cement, masonry, or stucco. Be sure to extend those materials from foundation to roof.

**Fencing:** Use non-combustible fencing to protect your home and other structures during a wildfire.

**Vegetation:** Be sure to remove all flammable vegetation within five feet of your home, particularly juniper bushes and other highly flammable plants. When landscaping around your home, consider how easily the plants you choose could catch on fire.

**Water Supply:** 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, well, or irrigation ditch, consider a pump.

**Windows:** Heat from a wildfire can cause windows to break before the home ignites. Broken windows allow burning embers to enter and start fires inside the home. Single-paned and large windows are particularly vulnerable. Install dual-paned windows with an exterior pane of 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 because windows also allow radiant heat to pass into the home and ignite combustible materials, such as curtains and upholstery.

**Inside:** Keep working fire extinguishers on hand in accessible locations. Install smoke alarms on each level of your home and near bedrooms. Test them monthly and change the batteries each year. When remodeling, install residential sprinklers in your home and maintain the system as suggested by the installer.
Ready, Set, Go!

Use these checklists to help you prepare your Wildfire Action Plan. Each family’s plan will be different, depending on their situation. Rehearse your plan with your entire family regularly.

GET READY | Prepare Your Family

☐ Create a Family Disaster Plan that includes meeting locations and communication plans and rehearse it regularly. Include the evacuation of large animals, such as horses, in your plan.

☐ Have fire extinguishers on hand and teach your family how to use them.

☐ Ensure that your family knows where your gas, electric, and water main shut-off controls are and how to use them.

☐ Plan and practice several different evacuation routes.

☐ Designate an emergency meeting location outside the fire hazard area.

☐ Assemble an emergency supply kit as recommended by the American Red Cross. Keep an extra kit in your vehicle.

☐ Appoint an out-of-area friend or relative as a point of contact so you can communicate with family members.

☐ Maintain a list of emergency contact numbers in your emergency supply kit.

☐ Have a portable radio or scanner so you can stay updated on the fire and weather emergency announcements.

Now that you’ve done everything you can to protect your house, it’s time to prepare your family. Your Wildfire Action Plan must be prepared with all members of your household well in advance of a fire.
GET SET | As the Fire Approaches

- Monitor fire weather conditions and fire status. See [www.inciweb.nwcg.gov](http://www.inciweb.nwcg.gov). Stay tuned to your TV or local radio stations for updates.
- Evacuate as soon as you are 'set!' 
- Alert family and neighbors.
- Dress in appropriate clothing (i.e., clothing made from natural fibers, such as cotton, and work boots). Have goggles and a dry bandana or particle mask handy.
- Ensure that you have your emergency supply kit on hand that includes all necessary items, such as a battery powered radio, spare batteries, emergency contact numbers, and a lot of drinking water.
- Remain close to your house, drink plenty of water, and ensure your family and pets are accounted for until you are ready to leave.

INSIDE CHECKLIST, IF TIME ALLOWS

- Close all windows and doors, leaving them unlocked.
- Remove all shades and curtains from windows. Move furniture to the center of the room, away from windows and doors.
- Turn off pilot lights and air conditioning.
- Leave your lights on so firefighters can see your house under smoky conditions.

OUTSIDE CHECKLIST, IF TIME ALLOWS

- Bring combustible items from the exterior of the house inside (e.g., patio furniture, children’s toys, door mats, etc.) If you have a pool, place combustible items in the water.
- Turn off propane tanks and other gas at the meter.
- Don’t leave sprinklers on or water running. They can effect critical water pressure.
- Leave exterior lights on.
- Back your car into the driveway to facilitate a quick departure. Shut doors and roll up windows.
- Have a ladder available.
- Patrol your property and extinguish all small fires until you leave.
- Cover attic and ground vents with pre-cut plywood or commercial seals if time permits.

SURVIVAL TIPS: IF YOU ARE TRAPPED

- Stay in your home until the fire passes. Shelter away from outside walls.
- Bring garden hoses inside house so embers and flames do not destroy them.
- Look for spot fires and extinguish if found inside the house.
- Wear long sleeves and long pants made of natural fibers, such as cotton.
- Stay hydrated.
- Ensure you can exit the home if it catches fire (remember if it's hot inside the house, it is four to five times hotter outside).
- Fill sinks and tubs for an emergency water supply. Place wet towels under doors to keep smoke and embers out.
- After the fire has passed, check your roof and extinguish any fires, sparks, or embers. Check the attic as well.
- If there are fires that you cannot extinguish, call 9-1-1.
GO! | Leave Early

By leaving early, you give your family the best chance of surviving a wildland fire. You also help firefighters by keeping roads clear of congestion, enabling them to move more freely and do their job in a safer environment.

**WHEN TO LEAVE**
*Do not wait to be advised to leave* if there is a possible threat to your home or evacuation route. Leave early enough to avoid being caught in fire, smoke, or road congestion. If you are advised to leave by local authorities, do not hesitate!

**WHERE TO GO**
*Leave to a predetermined location* (it should be a low-risk area, such as a well-prepared neighbor or relative’s house, a Red Cross shelter or evacuation center, motel, etc.)

**HOW TO GET THERE**
*Have several travel routes* in case one route is blocked by the fire or by emergency vehicles. Choose the safest route away from the fire.

**WHAT TO TAKE**
*Take your emergency supply kit* containing your family and pet’s necessary items.

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**EMERGENCY SUPPLIES LIST**

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](http://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.
- Important family documents and contact numbers, including insurance documents.
- Map marked with evacuation routes.
- Easily 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.
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  ____________________________________________________________________________________________
3  ____________________________________________________________________________________________

WHERE TO GO
_______________________________________________________________________________________________
_____________________________________________________________________________________________
_____________________________________________________________________________________________
_____________________________________________________________________________________________

LOCATION OF EMERGENCY SUPPLY KIT(S)
______________________________________________________________________________________________

NOTES
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Contact your local fire department for more tips to prepare before a wildland fire.
Residential Safety Checklist
Tips To Improve Family and Property Survival During A Wildland Fire

**Get ready**
- Dispose of or relocate combustible material from around your home.
- Trim trees and bushes allowing ample space between your home and landscape vegetation.

**Be prepared**
- Arrange your ‘Go-Kit’ with prescription medication, emergency supplies, important documents, and other essential items.
- Create your own action plan; involve your family and practice exit plans from the home and neighborhood frequently.
- Be sure you’re familiar with local emergency notification systems and evacuation systems.

**Act early**
- Get your ‘Go-Kit’ and leave well before the threat approaches following a planned accessible route.
- Stay aware of the situation and follow your plan.
- Cooperate with local authorities during evacuation and re-entry processes.

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