

READY, SET, GO!

YOUR PERSONAL WILDLAND FIRE ACTION GUIDE



Church's Park Fire, October 2010 (473 acres)



YMCA Fire, June 2007 (50 acres)



Grand County Wildfire Council
BeWildfireReady.org

Our Mission:

*“Through education and action,
promote wildland fire prevention, preparedness, mitigation and survival.”*

READY, SET, GO!

Grand County, Colorado Wildland Fire Action Guide

Saving Lives and Property
through Advance Planning



The fire season is a year-round reality in many areas of Colorado, requiring firefighters and residents to be on heightened alert for the threat of wildland fire.

Each year, wildland fires consume hundreds of homes in the Wildland Urban Interface (WUI) despite the best efforts of firefighters. Studies show that as many as 80 percent of 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.

All five fire departments in Grand County take every precaution to help protect you and your property from wildland fire. However, the reality is that in a major wildland fire, there will simply not be enough fire resources or firefighters to defend every home.

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

A Fire Adapted Community (FAC) is a community of local residents, fire and emergency responders, business owners, builders, civic groups and leaders who take steps to increase their safety and become prepared for the threat of wildland fire. FAC helps to create a collaborative community-wide effort, where all parties are involved in successfully adapting to their wildland fire challenge. To learn more visit www.FireAdapted.org for resources and information.



You are a key leader in 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 becomes vital during a fire, 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 in the wildland. 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, dry winds, which are extremely dangerous and difficult to control. Many people have built homes in the Wildland Urban Interface and landscaped without fully understanding the impact a fire may have on their lives. Few have adequately prepared their families 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 advance 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 firefighters.

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The Wildland Urban Interface and the Ember Zone

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

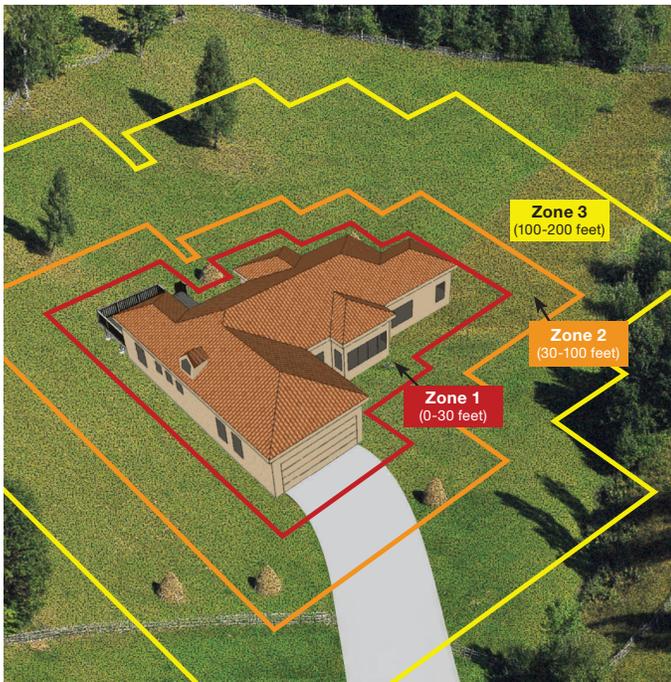
The WUI Defined

The WUI is not a place or even a zone; **it is a set of conditions** under which a wildland fire reaches beyond trees, brush and other natural fuels to ignite homes and their immediate surroundings. According to the NFPA, it is *“the presence of structures in locations in which the Authority Having Jurisdiction determines that topographical features, vegetation fuel types, local weather conditions, and prevailing winds result in the potential for ignition of the structures within the area from flames and firebrands of a wildland fire.”*



If your home is within one mile of a natural area, it is in the Ember Zone; where wind-driven embers, or **firebrands**, can threaten your home. You and your home must be prepared well before a wildland fire occurs. Ember fires can destroy homes and neighborhoods far from the actual flame front of a wildland fire. Firebrands may cause ignition well after the fire has passed through a community.

The Home Ignition Zone Concept



The Home Ignition Zone (HIZ) is the area around a specific structure, including all vegetation, that contains potential ignition sources and fuels that can affect ignition potential during an intense wildland fire. Our goal is to reduce the number of homes lost to a wildland fire. We can do this by working together on two important actions: manipulating landscaping and vegetative fuels (creating “defensible space”) and selecting ignition-resistant building materials. Work closely with your neighbors and HOAs; the vulnerability of a community is a function of its collective home ignition zones. For more information about the HIZ concept and defensible space visit the NFPA’s Firewise website: firewise.org. There is also a wealth of information about wildfire mitigation, education and other resources on the Colorado State Forest Service website: www.csfs.colostate.edu. Your Grand County District Forester can be reached at (970) 887.3121.



HOME

0 to 5’ around structure

- Create a noncombustible perimeter around the structure
- Install a concrete walkway or mulch up to the foundation with pebbles or stones
- Use annuals and perennials with high moisture content
- Keep the area well irrigated
- Remove combustible material and vegetation on, around and under decks
- Remove leaf litter (dry leaves/pine needles) from roof and rain gutters

ZONE 1

0 to 30’ out from the structure (or to property line)

- Remove all dead or dying trees, shrubs, grasses, and leaf litter
- Trim tree canopies regularly to a minimum of 10’ from structures and other trees
- Relocate woodpiles or other combustible materials into Zone 2
- “Limb up” low tree branches from the ground. Approximately one third of the total height of the tree is a good measure to remove those ladder fuels
- Create “islands” of vegetation with desirable trees and shrubs (no junipers)

ZONE 2

30 to 100’ out from the structure (or to property line)

- Make sure needle litter (duff) is less than 3” deep
- Remove all dead or dying trees, shrubs and grasses
- Trim the height of low-level vegetation and keep annual grass mowed down to a maximum of 4”
- Remove ladder fuels to create a separation between low level vegetation and tree branches to keep fire from climbing up trees

ZONE 3

100 to 200’ out from the structure (or to property line)

- Create and maintain a minimum of 10’ between tree tops
- Remove all dead or dying trees, shrubs and grasses
- Remove ladder fuels to create a separation between low level vegetation and tree branches to keep fire from climbing up trees

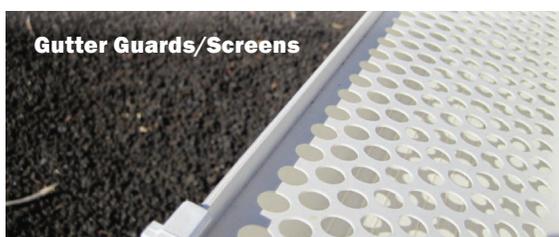
Science tells us that fire does not spread to homes like an avalanche or flash flood. Fire only spreads to locations in its path where the requirements for combustion are met. We need to focus our efforts on mitigation and preventative actions before a wildland fire event by creating and maintaining defensible space and reducing our home’s ignitability. Greater opportunities exist for preventing WUI fire disasters by reducing hazards in the home ignition zone than by controlling wildfire.



Reduce Your Home's Ignitability

Construction materials and the quality of the defensible space surrounding it are what give a home the best chance to survive a wildland fire. Embers or firebrands from a wildland fire will 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. However, there are measures you can take to safeguard your home from wildland fire. While you may not be able to accomplish all of the items on pages 6-7, each will increase your home's ability to survive during a wildland fire.

To harden your home even further, consider installing a residential fire sprinkler system. Fires are fast; they can go from a tiny flame to total destruction in as little as three minutes. A sprinkler system can suppress a fire started by an ember that enters your home and gives you and your family time to escape.



ROOFS

Roofs are the most vulnerable surface because they have such a large surface area where embers can lodge and start a fire. Roof vents, valleys, edges, open ends of barrel tiles and rain gutters are all points of entry. Wood shingles are prone to ignition by firebrands.



EAVES

Embers can gather under open eaves and ignite exposed wood or other combustible materials.



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



WINDOWS and DOORS

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

BALCONIES and DECKS

Embers can collect in or on combustible surfaces or the undersides of decks and balconies, ignite the material and enter the home through walls or windows.

Homes Prepared for Wildland Fire in Grand County

Chimney: Cover chimney and stovepipe outlets with a noncombustible screen of 1/4-inch wire mesh to reduce the size and energy of embers leaving the chimney.

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 prevent ember intrusion. Clear pine needles, leaves and other debris from your roof and gutters. Prune tree branches within ten (10) feet of your roof.

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

Garage: Install weather stripping around and under vehicle access doors to prevent ember intrusion. 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 or flammable liquids near combustion equipment (e.g. a 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 ten (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 to a minimum of 14 feet to allow emergency vehicles to pass.

Address: Make sure your address is clearly visible from the road and is constructed of noncombustible materials. Make sure the numbers are reflective.

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2
5

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.

Deck/Patio Cover: Use heavy timber or non-flammable 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, dried flower arrangements and other debris.

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

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

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.

Vents: At a minimum, all vent openings should be covered with 1/8-inch corrosion-resistant metal mesh. Vents on homes are particularly vulnerable to flying embers or firebrands.

Eaves: Box in eaves with noncombustible or ignition-resistant materials.

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 or irrigation ditch, consider a pump.

Home Site and Yard: Install five (5) feet of noncombustible material around the perimeter of your home. Ensure you have 100 feet of managed vegetation around your home or to your property line. This area may need to be enlarged in severe fire-hazard areas. This means looking past what you own to determine the impact a common slope or neighbor's yard will 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 garages, barns and sheds. Ensure trees are away from power lines.

READY, SET, GO!

Create a Family Disaster Plan

Get Your Family

Ready

- Have fire extinguishers on hand and train 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.
- Appoint an out-of-area friend or relative as a point of contact so you can communicate with family members.
- Include in your plan the evacuation of large animals such as horses or cattle.
- Assemble an emergency supply kit for you and your pets, as recommended by the American Red Cross. Keep an extra kit in your vehicle.
- Maintain a list of emergency contact numbers posted near your phone and in your emergency supply kit.



Set Be Prepared

- Monitor fire weather conditions and fire status. See www.inciweb.org for information on active fires. Stay tuned to your TV or local radio stations for updates. Check www.gcemergency.com or dial 2-1-1 for important information as well.
- Evacuate as soon as you are set! Don't wait!
- Alert family and neighbors so they know you have left your home.
- 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 ample drinking water.
- Remain close to your home, drink plenty of water and keep an eye on your family and pets until you are ready to leave.

INSIDE CHECKLIST, ONLY IF TIME ALLOWS

- Close all windows and doors, leaving them unlocked and remove all shades and curtains.
- 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, ONLY IF TIME ALLOWS

- Bring combustible items from the exterior of the house inside (e.g. deck furniture, children's toys, door mats, etc.)
- Turn off propane tanks or other gas at the meter.
- Don't leave sprinklers on or water running - they can waste 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.

IF YOU ARE TRAPPED: SURVIVAL TIPS

- Stay in your home until fire passes. Shelter away from outside walls.
- Bring garden hoses inside the house so embers and flames do not destroy them.
- Look for spot fires inside your home and extinguish them.
- 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 is 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 space too.
- If there are fires that you cannot extinguish, call 9-1-1.

Go!

Act 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 jobs in a safer environment.

WHEN TO LEAVE

Leave early enough to avoid being caught in fire, smoke or road congestion. Don't wait to be told by authorities to leave. In an intense wildland fire, they may not have time to knock on every door. If you are advised to leave, don't hesitate! If you receive an emergency notification call, LISTEN carefully to the message and follow the directions given. You can call the number back to hear the message repeated.

WHERE TO GO

Leave to a predetermined location (it should be a low-risk area, such as a well-prepared friend or relative's house, a Red Cross shelter or evacuation center, hotel, etc.)

HOW TO GET THERE

Have several travel routes in case one route is blocked by the fire or by emergency vehicles and equipment. Choose the safest route away from the fire.



WHAT TO TAKE

Take your emergency supply kit containing your family's and pet's necessary items.

EMERGENCY SUPPLIES

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 the American Red Cross Web site at www.redcross.org.

- Three-day supply of water (one gallon per person per day).
- Non-perishable food for all family members and pets (three-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.
- Important family documents and contact numbers.
- Easily carried valuables, family photos and other 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.

My Personal Wildland Fire Action Plan

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

During Extreme/High Fire Danger days in your area, monitor the local media for information and be ready to implement your plan. Hot, dry and windy conditions create the “perfect storm” for a wildland fire to occur. Please BE SAFE!

Important Phone Numbers:

Out-of-Area Contact: _____ Phone: _____

Work: _____

School: _____

Other: _____

Evacuation Routes: _____

Where to Go: _____

Location of Emergency Supply Kit: _____

Notes: _____



Grand Fire
970.887.3380
grandfire.org



Grand Lake Fire
970.627.8428
grandlakefire.org



Hot Sulphur Fire
970.725.3414
hotsulphurfire.com



East Grand Fire
970.726.5824
eastgrandfire.com



Kremmling Fire
970.724.3795
kremmlingfire.org



Ready, Set, Go!

Residential Safety Checklist

Tips to Improve Family and Property Survival During a Wildland Fire

Get Ready

- Focus on your home's ignition zone: Be Firewise!
- Create and maintain defensible space
- Use fire resistant building materials
- Call your fire department for a HIZ assessment of your property



Be Prepared

- Arrange your emergency 'go kit'
- Create your own action plan, involve your family and practice frequently
- Be sure you have registered your mobile phone to receive **CodeRED** emergency notifications. To register, go to www.gcemergency.com or call the Office of Emergency Management at 970.887.2732 or contact your fire department.

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 & re-entry processes.



PREVENT. PREPARE. SURVIVE.

