

# Your Personal **Wildland Fire ACTION GUIDE**



*Ready*



Photo courtesy of the Iuka Fire Department

*Set*



Photo courtesy of Chad Wittenberg, El Dorado Fire

*Go!*

**K-STATE**  
Research and Extension



# Ready, Set, Go!

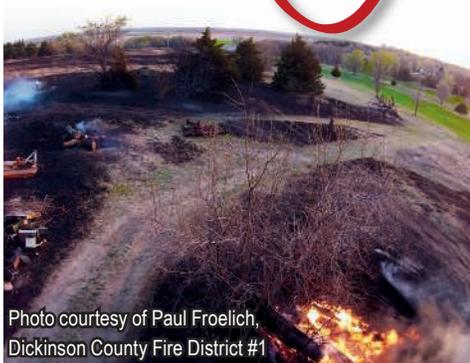


Photo courtesy of Paul Froelich, Dickinson County Fire District #1

## Saving Lives and Property through Advance Planning

This publication was prepared by the International Association of Fire Chiefs' RSG! Program & the USDA Forest Service, U.S. Department of the Interior, & the U.S. Fire Administration. This guide was customized by the Kansas Forest Service, the Kansas Office of the State Fire Marshal, and Kansas State University Cooperative Research and Extension. Special thanks to Texas A&M Forest Service for providing portions of the guide.

To learn more about the Ready, Set, Go! Program and its partners, visit [www.wildlandfireRSG.org](http://www.wildlandfireRSG.org).

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

Each year, wildland fires consume hundreds of homes in the Wildland-Urban Interface (WUI). Studies show that 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 may 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.

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 of wildland-fire preparedness. Visit [www.wildlandfirersg.org](http://www.wildlandfirersg.org) to learn about becoming prepared.

Community Wildfire Readiness (CWR) provides local residents, fire and emergency responders, business owners, builders, civic groups and leaders, and local officials with 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](http://www.iafc.org/CWR) 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 event 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 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 and 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.**

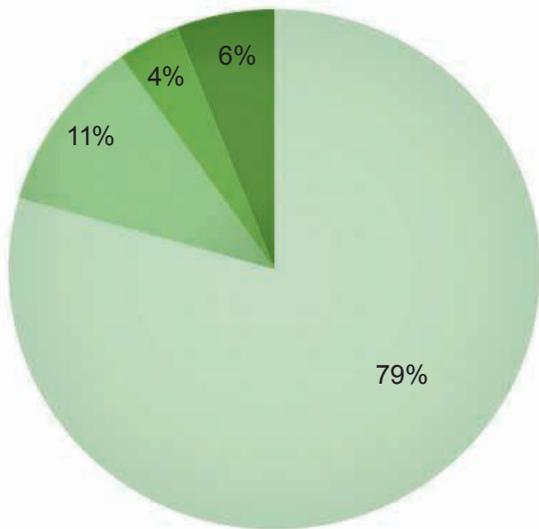
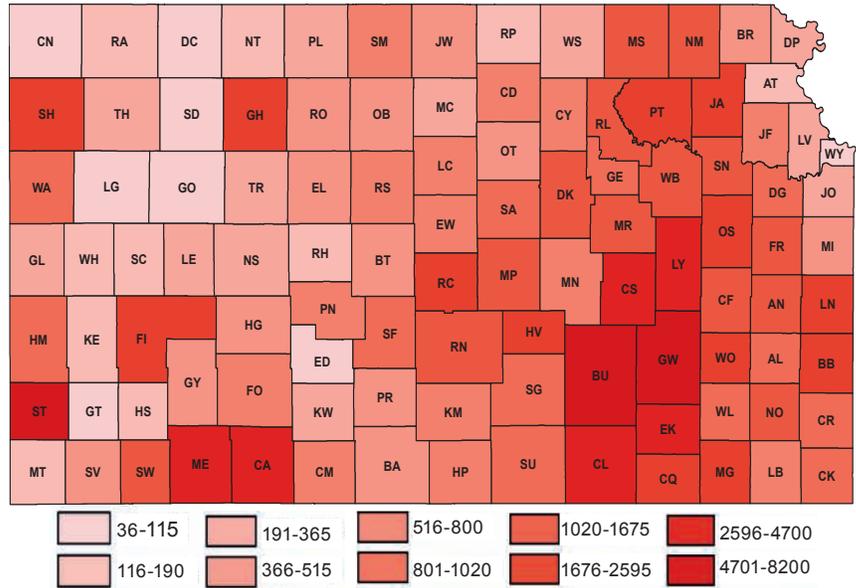
Through advance planning, understanding, and preparation, we can all be partners in the wildland fire solution. The tips on the following pages are designed to help create awareness and a safer environment for you, your family, and firefighters.

# The Growing Wildland Fire Problem in Kansas

## Human Factors and Wildland Fires

An average of 110,000 acres are burned in accidental or uncontrolled fires every year. That is a land area bigger than Wyandotte County.

10 Year Average of Burned Acres from Wildfires



- Mostly Career
- Career
- Mostly Volunteer
- Volunteer

79.5% of fire departments in Kansas report being volunteer fire departments. Another 10.8% report being mostly volunteer fire departments.\*

\*Statistics according to National Fire Department Census, as of 01/2016



Photo courtesy of Paul Froelich, Dickinson County Fire District #1

Your neighbor's fire can become your fire.



A dozen fire departments worked a 1,500 acre fire with multiple structures in harm's way. No one was left to respond to four other grass fires.



Multiple grass fires left only one firefighter to fight a greenhouse fire. Strained resources increase response times and create more danger for all calls.

# Impacts on People & Communities

Kansas grasslands developed with fire. Both lightning and human-caused fires have shaped the grassland ecosystem for thousands of years. Fire is an important part of maintaining healthy, diverse rangelands in Kansas. Where precipitation is greater, the amount of biomass (fuel) is also greater, and fires need to occur more often to control fuel loads and remove undesirable vegetation.

Two types of fires are prevalent in Kansas: prescribed fires and wildfires. Prescribed fires are human-caused, intentional fires to achieve ecosystem management goals such as higher quality forage, excellent grassland bird habitat, and reduced fuel loads. A prescribed fire is carefully planned and occurs only when weather conditions, fuel loads, crew staffing, firebreak preparation, and equipment all fall within pre-determined guidelines (the “prescription”). A wildfire can occur at any time, often in the most adverse weather conditions for controlling the fire.

Grasslands are inherently prone to fire, and wildfires should be expected. Eastern redcedar, a native but formerly localized tree, has spread across the grasslands, producing fires that are more difficult to control. In the Flint Hills region of Kansas, prescribed fire is so widely used that smoke can cause poor air quality hundreds of miles away during peak burning days in the spring. Occasionally, a prescribed fire will escape.



Photo courtesy of Chad Wittenberg, El Dorado Fire

Fire protection in Kansas is largely provided by volunteer fire departments, with mostly part-time employees who must take time off work to fight fires. During busy fire seasons, the work load can become very heavy for so few people. As the rural population of Kansas ages, there are fewer people to staff the fire departments. When a large fire occurs, fire departments in adjoining districts and counties will be called in, increasing the burden across a larger area and leaving few resources in the home location.

Grass fires move very quickly compared to forest fires. Slight changes in humidity are nearly instantaneously reflected in fire behavior: lower humidity causes more erratic and intense fire behavior.

It is important that communities and individuals be prepared for rapidly moving wildfires. Plans for evacuation of people and livestock need to be thought out and ready to implement. Homes can be constructed and maintained with the possibility of wildfire in mind. Prescribed fires can be used to reduce fuel loads, especially around critical buildings and other infrastructure. Redcedar can be controlled to reduce embers that start new fire locations during a wildfire.

Landowners can attend burn workshops which are held around the state each year to improve their burning skills. Groups of landowners can form Burn Associations to help each other burn their property safely and share equipment and crew. The Kansas Department of Health and Environment conducts outreach to reduce air quality problems caused by smoke.

By accepting that they live in a fire-prone environment, Kansans can take action to protect themselves and their possessions. “Good” fire can be used to reduce wildfires while maintaining the iconic, beautiful prairies all around us. Working together, we can live with fire.

# Actions You Can Take Today!



Photo courtesy of Chad Wittenberg, El Dorado Fire

Weed around the property regularly, especially areas that a lawn mower is not appropriate for (tall dry grasses, rocky terrain, etc.).



Remove leaf litter and other debris that accumulates around the building, under vegetation, and in other collection areas.



Remove leaf litter, straw, and other debris from under and around propane tanks to create 10 feet of clearance around them.



Eliminate ladder fuels by pruning tree branches on trees around the property to within at least 6 feet of the ground, using a bypass lopper (seen above), pruner saw, or long reach/hand pruner.



Remove flammable materials from underneath the house, decks, and porches. Common flammables include scrap-wood, firewood, and combustible furniture.



Mow the lawn regularly to keep grasses shorter than 4 inches tall around the home. Do not mow in the heat of the day or when the wind is blowing. Never mow in dry vegetation.

# Extra Precautions for Kansas Farmers and Ranchers

Protect investments by cleaning equipment to avoid starting a fire in the first place. Where possible, store hay bales in defensible space and never under power lines. Prepare not only for inside pets but outside livestock. Have emergency halters stockpiled and clear gates for a speedy evacuation of cattle.



## Prepare Your Property

- Establish and maintain firebreaks around pastures and structures.
- Reduce vegetation and remove combustible material around all structures.
- Reinforce fences with metal posts, if applicable.
- Create a safe zone that is clear of all vegetation for equipment.
- Close all doors and windows, and turn on exterior and interior lights in barns and other structures.
- Shut off gas supply and propane tanks.
- Contact your wildland firefighting agency or local fire department to coordinate firefighting on your property.
- Keep copies of gate keys and a written list of combinations in a known location.
- Keep an emergency supply kit in all ranch and personal vehicles.
- Prioritize structures, equipment, and other assets by assessing the risk and value of each and the effort it would take to protect them.
- If you would like to offer your equipment (water tank, tractor, etc.) for firefighting, make arrangements and contracts prior to use for proper tracking and reimbursement.

**Remember that nothing you own is worth your family members' lives.**

## Prepare Your Animals

- Create a livestock evacuation plan.
- Ensure proper registration and branding of livestock.
- Establish a contingency plan for feeding livestock if grazing land is destroyed by fire.

## Evacuating Your Animals

- In the event of a fire, do not hesitate to hook up your stock trailer and load the animals you will evacuate.
- Unlock and open gates so livestock can escape flames and firefighters can gain access.
- Close all barn doors so horses and livestock will not go into a burning building.



## Communicate with fire personnel before the fire season begins.

Offer knowledge of your area to fire crews. Your knowledge of access roads, location of structures, location of water sources, fence lines, and geography of the land can prove helpful to fire crews who may not be familiar with the area.

Communicate with fire operations. Ask questions, offer assistance, give permission. Chances are if a fire is on your ranch, fire crews will need to be in contact with you. Be patient and understand that there are many moving parts to a fire operation. Sometimes decisions require communication between several stakeholders and may take longer than you are accustomed to.

Don't panic or jump to conclusions. Firefighters and ranchers have the same goals when a wildfire occurs - to protect lives, property, and livelihoods. Grazing areas and stored hay can be a costly loss for ranchers. By offering your knowledge and communicating with fire operations, fire crews can run an operation effectively and efficiently while protecting what is important to you.

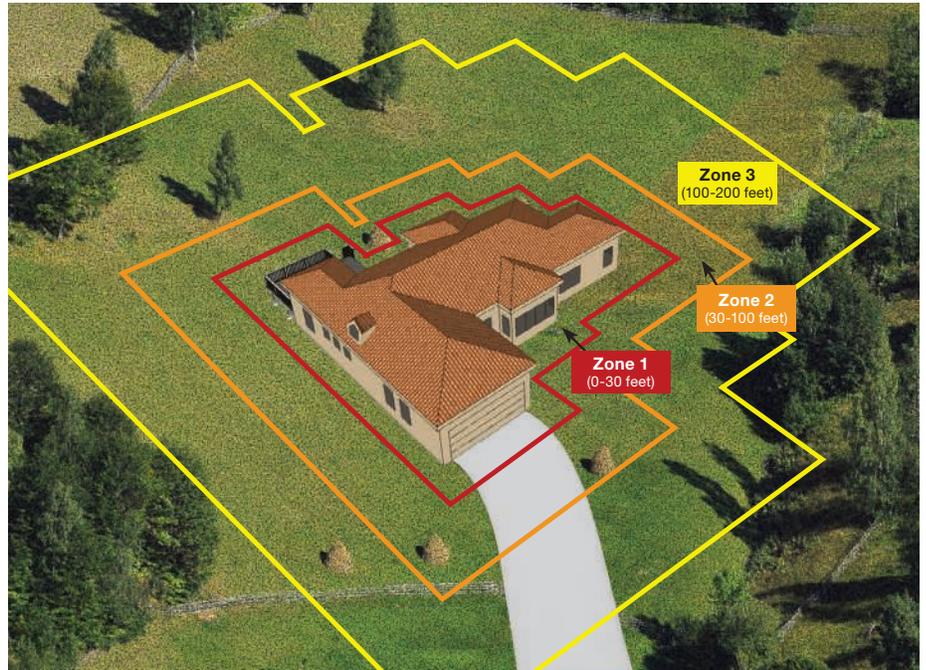


# Create Defensible Space

**D**efensible 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.

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. 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 your home.
- Use non-woody, 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 up trees.
- Remove leaf and needle debris from the yard.

## ZONE 3

100-200 feet around your home or to property line

- Keep grass and wildflowers under 8 inches in height.
- 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 are those that will 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

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 link in your home's fire protection scheme and gain the upper hand because of a small, overlooked or seemingly inconsequential factor. Below are some measures you can take to safeguard your home.



Residential Fire Sprinkler System



Gutter Guards or Screens



Enclosed Eaves



Screened Vents



Noncombustible Fencing



Windows Clear of Vegetation

## Home Improvements

### 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.

Consider protecting your home with a residential fire sprinkler system. In addition to extinguishing a fire started by an ember that enters your home, it also helps protect you and your family year-round from any fire that may start in your home.

### ROOFS

Roofs are the most vulnerable surface where embers land because they can lodge and 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 or overlapping materials provide surfaces or 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.

# Tour a Wildland Fire Prepared Home

**Home Site and Yard:** 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 may mean looking past what you own to determine the impact a common slope or neighbors' 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 detached garages, barns, and sheds. Ensure trees are away from power lines.

**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.

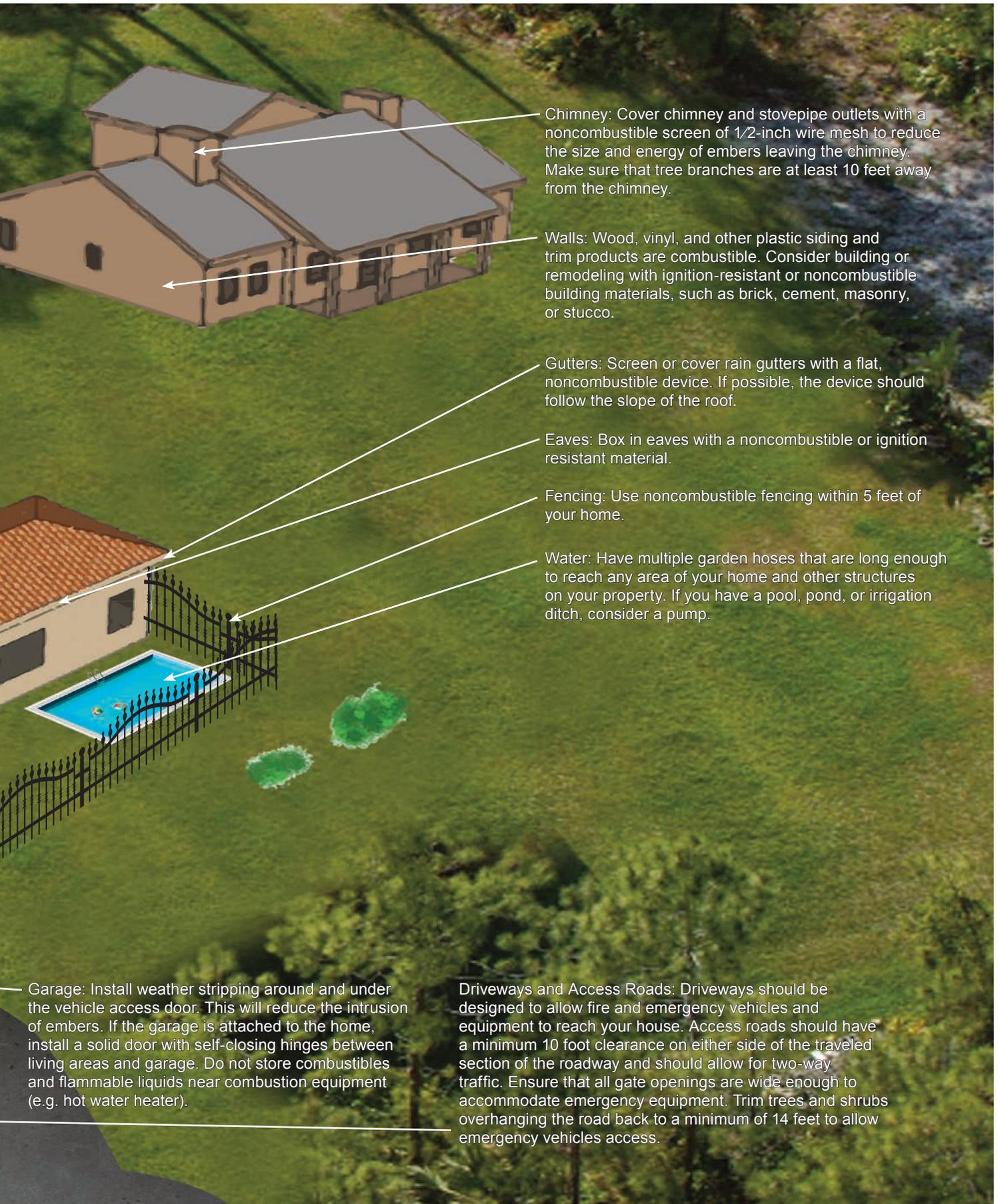
**Roof:** Use a Class A fire-rated roof covering, such as composition shingles, metal, or tile, when roofing or re-roofing. Block any spaces between roof decking and covering to minimize ember intrusion. Clear pine needles, leaves, and other debris from your roof and gutters. Prune tree branches within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

**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 and energy of embers leaving the chimney. Make sure that tree branches are at least 10 feet away from the chimney.

**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 Personal 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 – Get Ready

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



## Set – Be Prepared

- Monitor fire weather conditions and fire status. See [www.inciweb.org](http://www.inciweb.org). 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 and that it includes all necessary items, such as a battery powered radio, spare batteries, emergency contact numbers, and ample drinking water.
- Remain close to your house, drink plenty of water, and keep an eye on your family and pets until you are ready to leave.

### INSIDE CHECKLIST, IF TIME ALLOWS

- Close all windows and doors, leaving them unlocked, and remove all shades and curtains.
- Remove lightweight 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, 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.

### IF YOU ARE TRAPPED: SURVIVAL TIPS

- Stay in your home until 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 them if found inside 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, 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 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.

### 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](http://www.redcross.org).

- Three-day supply of water (one gallon per person, per day) and non-perishable food for your 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.



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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 \_\_\_\_\_

3 \_\_\_\_\_

## WHERE TO 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

### Ready

#### Get ready

- Dispose of or relocate combustible material from around your home.
- Trim trees & bushes, allowing ample space between your home & landscape vegetation.

### Set

#### 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.

### Go!

#### 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.

*Ready, Set, Go!*

[www.wildlandfireRSG.org](http://www.wildlandfireRSG.org)

