READY, SET, GO!

YOUR PERSONAL WILDLAND FIRE ACTION GUIDE

SAN DIEGO FIRE RESCUE EST. 1889

READY, SET, GO!

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Wildland Fire Action Guide

Saving Lives and Property
through Advance Planning

Fire seaon is a year-round reality in our region, requiring firefighters and residents to be on heightened alert for the threat of wildland fire.

With our many canyons, San Diego has hundreds of linear miles of Wildland Urban Interface (WUI). Each year, wildland fires consume hundreds of homes in the WUI. Studies show that as many as 80 percent of those homes could have been saved if their owners had followed a few simple fire-safe practices. In addition, wildland fire-related deaths occur because people wait too long to leave their home.

The San Diego Fire-Rescue Department takes every precaution to help protect you and your property from wildland fire. However, the reality is that in a major wildland fire event, 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 hope to provide the tips and tools you need to prepare; to know what to do when a fire starts; and to leave early.

The Ready, Set, Go! Program works in complementary and collaborative fashion with the Firewise® Communities Program and other wildland fire public education efforts.

Fire has always been a natural occurrence in Southern California. Our hills and canyons burned periodically long before we built homes here. Wildland fire, fueled by a build-up of dry vegetation and driven by seasonal Santa Ana winds, are extremely dangerous and difficult to control. Many homes have been built and landscaped without fully understanding what a fire can do and few families are adequately prepared for a quick evacuation.

It is not a question of **if** but **when** the next major wildland fire will occur. Advance planning and preparation are our best defense. We hope you find the tips in the following pages helpful and take them to heart.

Brian Fennessy, Fire Chief
San Diego Fire-Rescue Department

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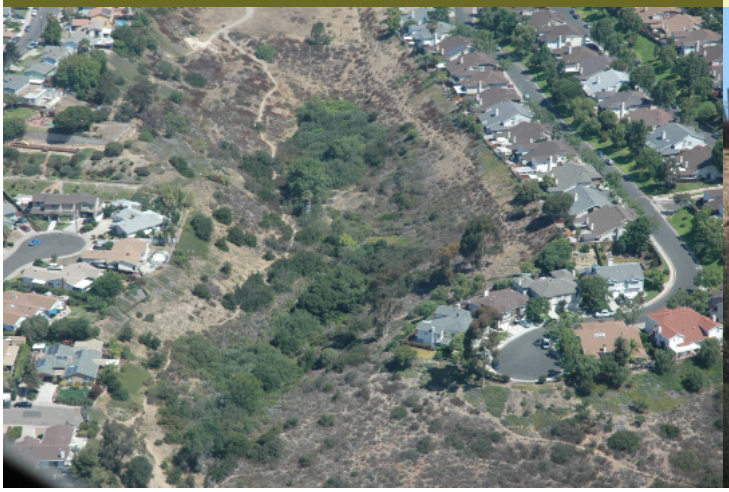
Living in the Wildland Urban Interface and the Ember Zone

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



Defensible Space Works!

If you live next to a naturally vegetated area, often called the Wildland Urban Interface, provide firefighters with 100 feet of defensible space to protect your home. The buffer zone you create by removing weeds, brush and thinning vegetation helps keep the fire away from your home and reduces the risk from flying embers. Firewise Communities and the Fire-Rescue Department's brush management guidelines provide valuable guidance on property enhancements.

A home within one mile of a natural area is in the Ember Zone. Wind-driven embers can attack your home. You and your home must be prepared well before a fire occurs. Ember fires can destroy homes or neighborhoods far from the actual flame front of the wildland fire.

What is Defensible Space?

Defensible space is the required space between a structure and the wildland area that, under normal conditions, creates a sufficient buffer to slow or halt the spread of wildland fire to a structure. It protects the home from igniting due to direct flame or radiant heat. Defensible space is essential for structure survivability during wildland fire conditions. For more information about defensible space zones and preparedness techniques within each, visit the San Diego Fire-Rescue website at http://www.sandiego.gov/fire/services/brush

ZONE ONE

Zone One typically extends 35 feet from your home.

- Must be permanently irrigated to maintain succulent growth.
- Is primarily low-growing plant material, with the exception of trees. Plants shall be low-fuel and fire-resistive.
- Trim tree canopies regularly to remove dead wood and keep branches a minimum of 10 feet from structures, chimney outlets and other trees.
- Remove leaf litter (dry leaves/pine needles) from yard, roof and rain gutters.
- Relocate woodpiles and other combustible materials into Zone Two.
- Remove combustible material and vegetation from around and under decks.
- Remove or prune vegetation near windows.
- Remove “ladder fuels” (low-level vegetation that would allow the fire to spread from the ground to the tree canopy). Create a separation between low-level vegetation and tree branches by reducing the height of the vegetation and/or trimming low branches.

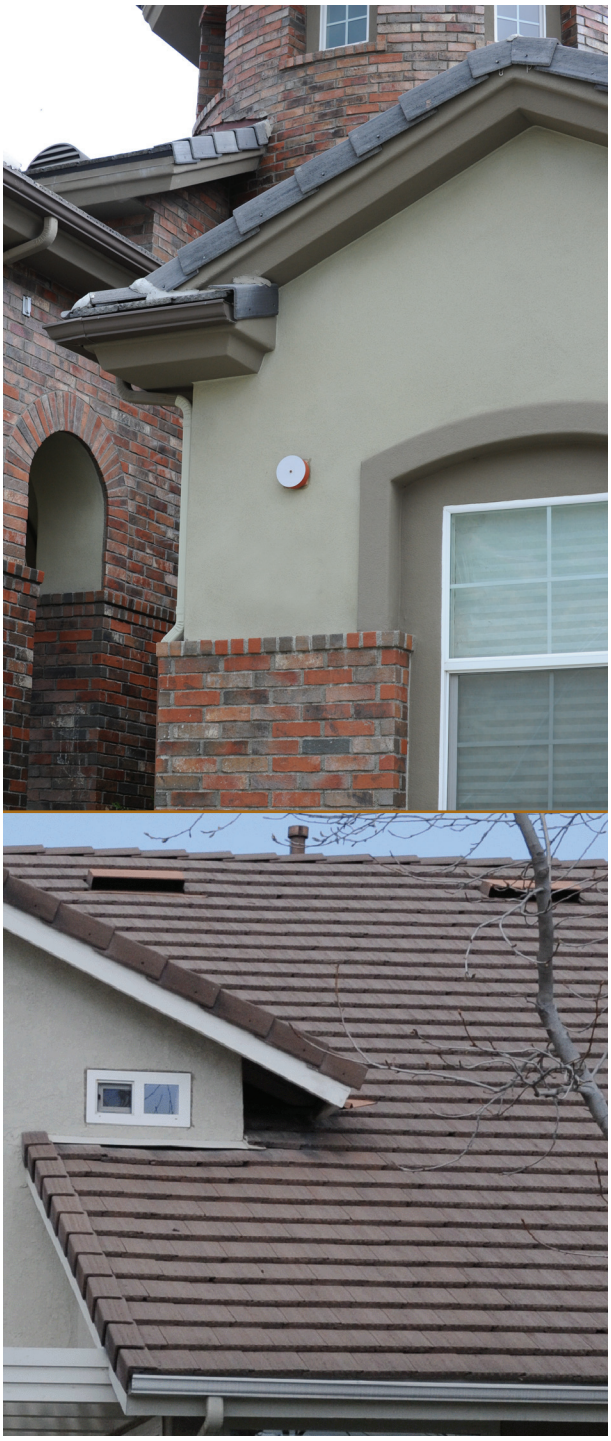
ZONE TWO

Zone Two typically extends 35 to 100 feet from your home.

- Minimize the chance of fire jumping from plant to plant by removing dead material and removing or thinning vegetation seasonally. The minimum spacing between vegetation is three times the dimension of the plant.
- There should be no permanent irrigation in Zone Two.
- Remove “ladder fuels.”
- Cut or mow annual grass down to a maximum height of 2 inches.
- Trim tree canopies regularly to keep branches a minimum of 10 feet from other trees.
- Retain a canopy coverage of 50%.

What is a Hardened Home?

Construction materials and the quality of the defensible space surrounding a home are what gives it the best chance to survive a wildland fire. Embers from a wildland fire can 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 the measures listed below, each will increase your home's, and possibly your family's, safety and survival during a wildland fire.



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 exposed wood or other combustible material.

VENTS

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

WALLS

Combustible siding or other combustible or overlapping materials provide surfaces or crevices for embers to nestle and ignite.

WINDOWS and DOORS

Embers can enter through open windows and gaps in doors, including garage doors. Plants or combustible storage near windows can ignite from embers and generate heat that can 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.

To harden your home 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, it also protects you and your family year-round from any fire that may start in your home.

Tour a Wildland Fire Prepared Home

Home Site and Yard: Ensure you have at least a 100-foot radius of defensible space (thinned vegetation) around your home.

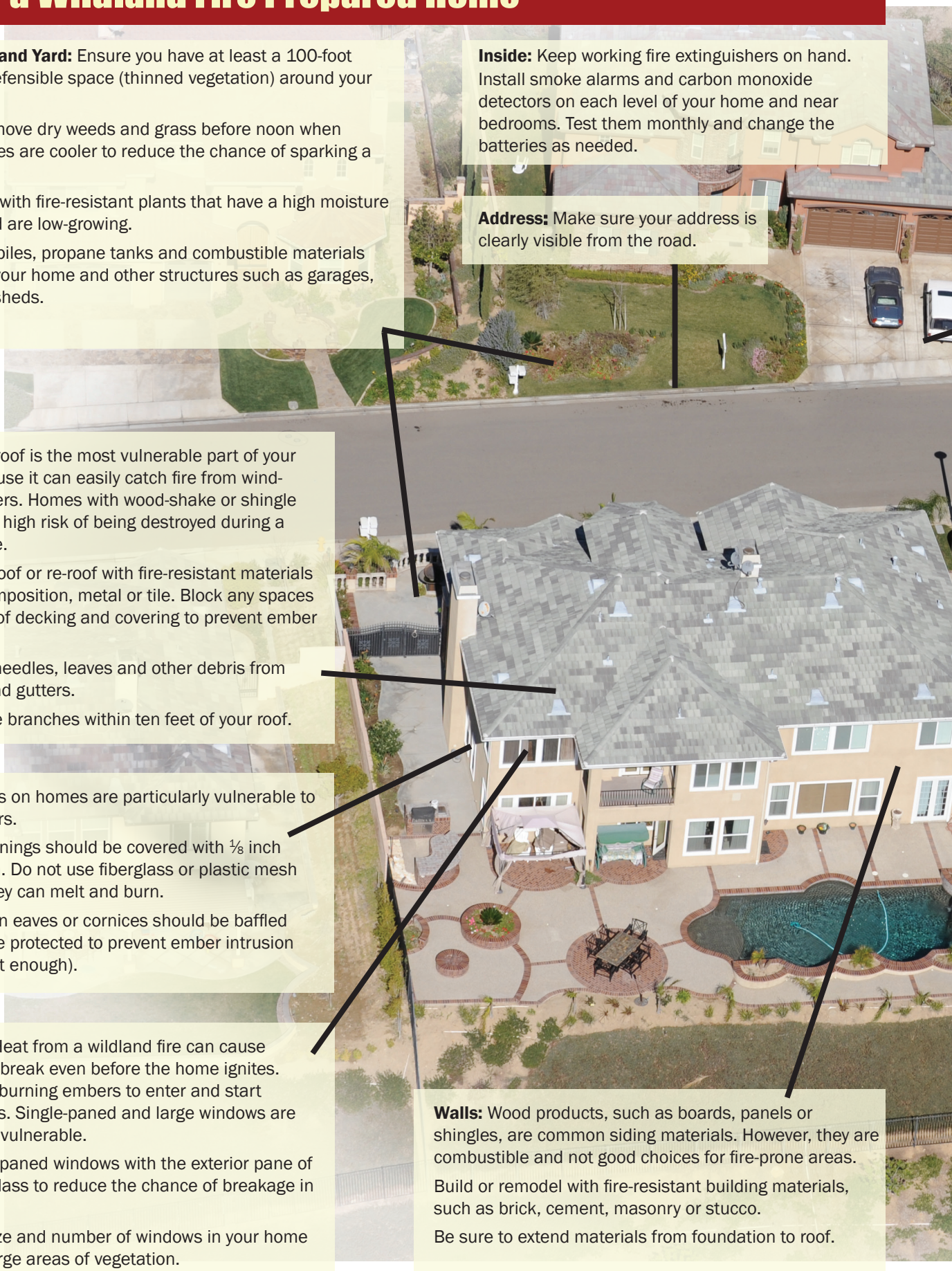
Cut and remove dry weeds and grass before noon when temperatures are cooler to reduce the chance of sparking a fire.

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.

Inside: Keep working fire extinguishers on hand. Install smoke alarms and carbon monoxide detectors on each level of your home and near bedrooms. Test them monthly and change the batteries as needed.

Address: Make sure your address is clearly visible from the road.



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 shingle roofs are at high risk of being destroyed during a wildland fire.

Build your roof or re-roof with fire-resistant materials such as composition, 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.

Cut any tree branches within ten feet of your roof.

Vents: Vents on homes are particularly vulnerable to flying embers.

All vent openings should be covered with ⅛ inch metal mesh. Do not use fiberglass or plastic mesh because they can melt and burn.

Attic vents in eaves or cornices should be baffled or otherwise protected to prevent ember intrusion (mesh is not enough).

Windows: Heat from a wildland fire can cause windows to break even before the home ignites. This allows burning embers to enter and start internal fires. Single-paned and large windows are particularly vulnerable.

Install dual-paned windows with the exterior pane of tempered glass to reduce the chance of breakage in a fire.

Limit the size and number of windows in your home that face large areas of vegetation.

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 materials from foundation to roof.

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 living areas and the garage. Install weather stripping around and under door to prevent ember intrusion.

Store all combustibles and flammable liquids away from ignition sources.

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 gates open inward and are wide enough to accommodate emergency equipment.

Trim trees and shrubs overhanging the road to a minimum of 15½ feet to allow emergency vehicles to pass.

Non-Combustible Fencing: Make sure to use non-combustible fencing to protect your home during a wildland fire.

Non-Combustible Boxed In Eaves: Box in eaves with non-combustible materials to prevent accumulation of embers.

Raingutters: Screen or enclose rain gutters to prevent accumulation of plant debris.

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 or well, consider a pump.

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.

If built after 1989, the decking surface must be ignition resistant if it is within 10 feet of the home.

Chimney: Cover your chimney and stovepipe outlets with a non-flammable screen of ¼ inch wire mesh or smaller to prevent embers from escaping and igniting a fire.

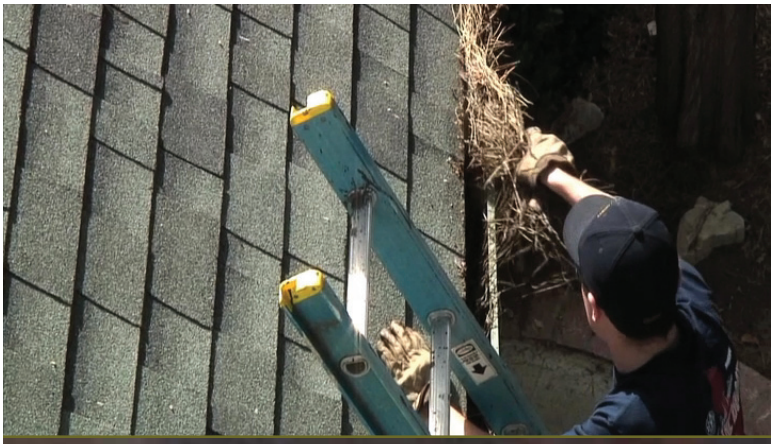
Make sure that your chimney is at least 10 feet away from any tree branches.

READY, SET, GO!

Create Your Own Action Guide

Now that you've done everything you can to protect your house, its time to prepare your family. Your **Wildland Fire Action Guide** must be prepared well in advance of a fire. Include *all* members of your household. Use these checklists to help you gain a situational awareness of the threat and to prepare your Wildland Fire Action Guide. For more information on property and home preparedness before a fire threat, review the preparedness checklist on the Firewise Communities website, www.firewise.org

Ready – Preparing for the Fire Threat



- ☐ Create a **Family Disaster Plan** that includes meeting locations and communication plans. Rehearse it regularly. Include in your plan the evacuation of pets and 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 located 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 cell phone, posted near your landline phone and in your emergency supply kit.
- ☐ Have a portable radio or scanner so you can stay updated on the fire.

Set – Situational Awareness when a Fire Starts

- ☐ 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 ample drinking water.
- ☐ Stay tuned to your TV or local radio stations for updates, or check the Fire-Rescue Department web site www.sandiego.gov/fire, Facebook page and Twitter feed.
- ☐ 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, but leave them unlocked.
- ☐ Remove flammable window shades and curtains and close metal shutters.
- ☐ 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 and other structures under smoky conditions.

OUTSIDE CHECKLIST, IF TIME ALLOWS

- ☐ Bring combustible items from the exterior of the house inside (items such as patio furniture, children's toys, door mats, etc.) or place them in the pool, if you have one.
- ☐ Turn off propane tanks and 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.
- ☐ Cover attic and ground vents with pre-cut plywood or commercial covers.

IF YOU ARE TRAPPED: SURVIVAL TIPS

- ☐ Remain inside your home until the fire passes.
- ☐ Shelter away from outside walls.
- ☐ Bring garden hoses inside the house so embers don't destroy them.
- ☐ Patrol inside your home for spot fires and extinguish any you find.
- ☐ 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 home and roof. Extinguish any fires, sparks or embers.
- ☐ Check inside the attic for hidden embers.
- ☐ If there are fires that you cannot extinguish with a small amount of water or in a short period of time, 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

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 by local authorities, don't 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 and equipment. Choose an escape route away from the fire.

WHAT TO TAKE

Take your prepared emergency supply kit containing your family 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.
- ☐ Flashlight, battery-powered radio, and extra batteries.
- ☐ An extra set of car keys, credit cards and cash or traveler's checks.
- ☐ Sanitation supplies.
- ☐ Extra eyeglasses or contact lenses.
- ☐ Important family documents and contact numbers.
- ☐ Map marked with evacuation routes.
- ☐ Prescriptions or special medications.
- ☐ Family photos, valuable and other irreplaceable items that are easy to carry.
- ☐ Personal computers, hard drives, disks and flash drivers.
- ☐ Chargers for electronic communication devices.

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 Guide and post it in a location where every member of your family can see it. Rehearse it with your family.

My Personal Wildland Fire Action Guide

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: _____

_____

_____

Meeting Location: _____

_____

Location of Emergency Supply Kit: _____

_____

Notes: _____

_____

_____

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www.sandiego.gov/fire

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Safety Checklist
Tips To Improve Family and Property Survival During A Wildland Fire

Home	Yes	No
1. Does your home have a metal, composition, tile or other non-combustible roof with capped ends and covered fascia?	☐	☐
2. Are the rain gutters and roof free of leaves, needles and branches?	☐	☐
3. Are all vent openings screened with 1/8 inch mesh metal screen?	☐	☐
4. Are approved spark arrestors on chimneys?	☐	☐
5. Does the house have non-combustible siding material?	☐	☐
6. Are the eaves “boxed in” and the decks enclosed?	☐	☐
7. Are the windows double-paned or tempered glass?	☐	☐
8. Are decks, porches and similar areas made of non-combustible material and are they free of easily combustible material?	☐	☐
9. Is all firewood at least 30 feet from the house?	☐	☐

Defensible Space	Yes	No
1. Has dead vegetation been removed from the defensible space zones around your home? (Consider adding distance due to slope of property.)	☐	☐
2. Is the required separation between shrubs maintained?	☐	☐
3. Have ladder fuels been removed?	☐	☐
4. Is there a clean and green area extending at least 35 feet from the house?	☐	☐
5. Is there a non-combustible area within five feet of the house?	☐	☐
6. Is the required separation between trees and crowns maintained?	☐	☐

Emergency Access	Yes	No
1. Is the home address plainly legible and visible from the street?	☐	☐
2. Are trees and shrubs overhanging the street trimmed to 15½ feet?	☐	☐
3. If your home has a long driveway, does it have a suitable turnaround area?	☐	☐

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FEMA
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