



# **READY! SET! GO!**

# **Wildfire Action Plan**



Orange County is one of the most beautiful places to live, but living in the urban interface doesn't come without its risks. The fire season is now a year-round reality, requiring firefighters and residents to constantly be on heightened alert for the threat of wildfire.

The Orange County Fire Authority takes every precaution to help protect you and your property from wildfire. However, the reality is that in a major wildfire, there will simply not be enough fire engines or firefighters to defend every home in the early stages of the incident. This reality requires you to take personal responsibility for protecting yourself, your family, and your property.

Fire is, and always has been, a natural part of the beautiful area where we've chosen to live. Our brush-covered hills and canyons burned periodically long before homes were built here. Wildfires, fueled by dry vegetation and driven by hot, dry winds, are extremely dangerous and impossible to control. However many residents have built their homes and landscaped without fully understanding the impact a fire could have on them. Few have adequately prepared their families for a quick evacuation. Many don't fully know the potential consequences of choosing to ignore an evacuation order until it is too late.

This publication will give you the tips and tools to successfully prepare for a wildfire. It will give you guidance on retrofitting your home with ignition resistive features. It will help you create the necessary defensible space around your home. OCFA always recommends that you comply with any evacuation orders resulting from wildfire. This publication will help you prepare your home, yourself, and your family so you can go early, well ahead of the fast approaching wildfire.

It's not a question of "if" but "when" the next major wildfire will occur in Orange County. That's why the most important person in protecting your life and property is not the firefighter, but you. Through advance planning and preparation, we can all be ready for wildfire. I hope you find the tips included in this publication helpful in creating heightened situational awareness and a more fire-safe environment for you and your family.

### **Chip Prather**

Orange County Fire Authority Fire Chief

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# **Get READY - Create a Defensible Home**

A defensible home is a home that has the greatest potential for survivability in the event of a wildfire during average wind conditions. Defensible homes are those homes that are in compliance with defensible space requirements or a fuel modification program and have been hardened in accordance with Chapter 7A of the California Building Code.





# **What is Fuel Modification ?**

Fuel modification is an engineered plan/program that protects neighborhoods and consists of a minimum of approximately 170 feet of irrigated and non-irrigated zones, setbacks, and a selection of appropriate plant palettes for each. Fuel modification requirements generally do not apply to structures built prior to 1978.

### Zone A

- Property owned and maintained
- 20 feet wide and on level ground, landscaped with approved plants
- No combustible construction permitted in this zone
- Helps prevent direct flame impingement on structure and deflect radiant heat

### Zone B

- Minimum of 50 feet wide
- Irrigated and landscaped with approved plants
- Slows fire and reduces fire intensity



### Zones C and D

- Each zone is a minimum of 50 feet wide
- All dead and dying materials are removed
- Native vegetation thinned 50% in zone C and 30% in zone D
- Slows fire and reduces fire intensity

**ZONE D** 

**ZONE C** 

# 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 wildfire to a structure. It protects the home from igniting due to direct flame impingement and radiant heat. Compliance is essential for structure survivability during wildfire conditions. Defensible space requirements apply to all structures regardless of the year built.

### **ZONE 1**

Extends 30 feet out from buildings, structures, decks, etc.

- · Remove all dead or dying vegetation
- Trim tree canopies regularly to keep their branches a minimum of 10 feet from structures and other trees
- Remove leaf litter (dry leaves and pine needles) from yard, roof, and rain gutters
- Relocate woodpiles and other combustible materials into Zone 2
- Remove combustible material and vegetation from around and under decks
- Remove or prune vegetation near windows
- Remove "ladder fuels" (low-level vegetation that allows the fire to spread from the ground to the tree canopy). Create a separation between low-level vegetation and tree branches. This can be done by reducing the height of low-level vegetation and/or trimming low tree branches.

### **ZONE 2**

Extends 30 - 100 feet out from buildings, structures, and decks. Reduce the continuity of fuels by removing dead material and removing and/or thinning vegetation. Minimum spacing between vegetation is 3 times the dimension of the plant.

- · Remove "ladder fuels"
- Cut or mow annual grass down to a maximum height of 4 inches.
- Trim tree canopies regularly to keep their branches a minimum of 10 feet from other trees

**Note:** If your property line is less than 100 feet from your home and you cannot maintain 100 feet of defensible space, your home may not be defensible.



# What is a Hardened Home ?

What gives a home the best chance to survive a wildfire are its construction materials and the quality of the defensible space surrounding it. Embers from a wildfire 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 wildfire. 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 wildfire.



### **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 a point of entry.

### **EAVES**

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

### **VENTS**

Embers 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**

Combustible siding and other combustible or overlapping materials provide a surface and crevice for embers to nestle and ignite.

### **WINDOWS & 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.

### **BALCONIES & DECKS**

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

To harden your home even further, consider protecting your homes 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 24/7, year-round, from any fire that may start in your home.



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## **Tour a Wildfire Ready Home**

Home Site and Yard: Ensure you have at least a 100-foot radius of defensible space (cleared vegetation) around your home. Note that even more clearance may be needed for homes in severe 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 wildfire.

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.

Ensure that trees are far away from power lines.

See our website for a list of plants and planting criteria.

**Roof:** Your roof is the most vulnerable part of your home because it can easily catch fire from windblown embers. Homes with wood-shake or shingle roofs are at a higher risk of being destroyed during a wildfire than homes with fire-resistant roofs.

Build your roof or re-roof with fire-resistant materials that include 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 1/8 of an 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 prevent ember intrusion (mesh is not enough).

**Windows:** Heat from a wildfire 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, with the exterior pane of tempered glass windows, 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.

**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.

**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 the doors 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 13.5 feet to allow emergency vehicles to pass.

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

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

**Rain Gutters:** 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.

**Walls:** Wood products, such as boards, panels or shingles, are common siding materials. However, they are combustible and not safe 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.

**Chimney:** Cover your chimney outlet and stovepipe with a non-flammable screen of 1/4-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.

**Deck/Patio Cover:** Use heavy timber or non-flammable construction material for decks and patio covers.

Enclose the underside of balconies and decks with fire-resistant materials to prevent embers from blowing underneath, lodging, and starting a fire.

Keep your deck clear of combustible items, such as baskets, dried flower arrangements, and other debris.

The decking surface must be ignition resistant if it's within 10 feet of the home.

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# **Get SET - Prepare Your Family**

# Create Your Own Wildfire Action Plan





Your Wildfire Action Plan must be prepared with all members of your household well in advance of a fire.

Use these checklists to help you prepare your Wildfire Action Plan.

Each family's plan will be different, depending on the situation.

Once you finish your plan, rehearse it regularly with your family and keep it in a safe and accessible place for quick implementation.

- ☐ 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 several different escape routes.
- Designate an emergency meeting location outside the fire hazard area.
- ☐ Assemble an emergency supply kit as recommended by the American Red Cross.
- ☐ Appoint an out-of-area friend or relative as a point of contact so you can communicate with family members who have relocated.
- ☐ Maintain a list of emergency contact numbers posted near your phone and in your emergency supply kit.
- ☐ Keep an extra emergency supply kit in your car in case you can't get to your home because of fire.
- ☐ Have a portable radio or scanner so you can stay updated on the fire.
- ☐ Tell your neighbor about Ready! Set! Go! and your Wildfire Action Plan.

# **Before the Fire Approaches**

### Make A Kit

- Keep a pair of old shoes and a flashlight handy for a night evacuation.
- Keep the six "P's" ready, in case an immediate evacuation is required:
  - People and pets
  - Papers, phone numbers, & important documents
  - Prescriptions, vitamins, and eyeglasses
  - · Pictures and irreplaceable memorabilia
  - · Personal computers (hard drive and disks)
- "Plastic" (credit cards, ATM cards) and cash

### 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 brush fire survival kit on hand that includes 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 department website.
- Remain close to your house, drink plenty of water and keep an eye on your family and pets if you did not evacuate.

### **OUTSIDE CHECKLIST**

- Gather up flammable items from the exterior of the house and bring them inside (e.g., patio furniture, children's toys, door mats, etc.) or place them in your pool.
- ☐ Turn off propane tanks.
- Connect garden hoses to outside taps.
- Don't leave sprinklers on or water running, they can waste critical water pressure.
- ☐ Leave exterior lights on
- ☐ Back your car into the garage. Shut doors and roll up windows.
- ☐ Have a ladder available.
- Patrol your property and extinguish all small
- Seal attic and ground vents with pre-cut plywood or commercial seals.

### **INSIDE CHECKLIST**

- Shut all windows and doors, leaving them unlocked.
- Remove flammable window shades and curtains and close metal shutters.
- Remove lightweight curtains.
- ☐ Move flammable furniture to the center of the room, away from windows and doors.
- Shut off gas at the meter. Turn off pilot lights.
- Leave your lights on so firefighters can see your house under smoky conditions.
- Shut off the air conditioning.





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**GO Early** 

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

### 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 wildfire, they may not have time to knock on every door. If you are advised to leave, 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 emergency supply kit containing your family and pet's necessary items, such as cash, water, clothing, food, first aid kits, and medications. Also, don't forget valuables such as your computer, photos and important documents.

Organize your family members and make arrangements for your pets.

### IF YOU ARE TRAPPED: SURVIVAL TIPS

- Shelter away from outside walls.
- Patrol inside your home for spot fires 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's hot inside the house it is four to five times hotter outside).
- After the fire has passed, check your roof and extinguish any fires, sparks or embers.
- · Check inside the attic for hidden embers.
- Patrol your property and extinguish small fires.

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.



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

# **My Personal Wildfire Action Plan**

During **High Fire Danger** days in your area, monitor your local media for information on brush fires and be ready to implement your plan. Hot, dry, and windy conditions create the perfect environment for a wildfire.

mportant Phone Numbers		
	Emergency:	
	School:	
	Family:	
	Friends:	
When to go:		
Where	to go:	
How to	o get there:	
What t	to take:	
Who to tell (before and after):		



### **ORANGE COUNTY FIRE AUTHORITY**

If you have an emergency, call **911**Public Information Office **(714) 573-6200**Wildfire Hotline - during major wildfires only **(714) 573-6210**Web site: **www.ocfa.org**