

Wildfires are a fact of life in California. It's not a question of if they will occur, but when. Catastrophic wildfires are increasing in our state, encroaching further into populated areas. It is extremely important that Californians be prepared when wildfire strikes.

By preparing your home and property for wildfire, and knowing what to do if evacuation is necessary, you can dramatically increase your safety and the survivability of your home. It is your responsibility to prepare yourself, your family, and your home for when wildfire strikes.

This guide illustrates the importance of creating and maintaining Defensible Space and hardening your home by retrofitting it with ignition-resistant or noncombustible materials to protect against the threat of flying embers, direct flame contact, and radiant heat exposure. It also provides information about the preparations and precautions to make in order to evacuate early and safely.

If you need more information about preparing for wildfire or any other disaster, contact your nearest fire station or visit us at ReadyforWildfire.org.











These counties receive funding from the state to provide fire protection and prevention services to State Responsibility Area lands within their boundaries.





There are three ways your home can be exposed to wildfire: through flying embers, direct flame contact, and even from radiant heat exposure.

Embers are the main cause of homes igniting during a wildfire. Wind can blow embers up to a mile ahead of a wildfire. These flying embers can directly ignite materials on, or attached to, a home. They can also ignite vegetation or combustible materials near the home, resulting in a subsequent fire that spreads to the home through direct flame contact or radiant heat.

Direct flame contact to the home can be the result of nearby vegetation or combustible materials catching on fire due to embers, or from the wildfire burning unchecked directly to the building.

Radiant heat exposure occurs when there are materials, vegetation, or other combustibles, that are burning close to the home—for a long enough period of time—and generate enough heat to directly ignite a combustible component of the home.

Getting ready for wildfire begins with two very important efforts: **Home Hardening** and **Defensible Space.** Hardening your home is retrofitting it with fire-resistant materials. Defensible Space is creating and maintaining a buffer between buildings and vegetation to slow wildfire. While not a guarantee that your home will survive a wildfire, these efforts give it the best chance.

Now is the time to retrofit your home—before a wildfire strikes.

California Building Code Chapter 7A requires specific construction materials and methods for the building of new homes in wildfire-prone areas. These same materials and methods are also the minimum standards recommended when retrofitting a home. Retrofitting prepares your home for the exposure it will experience during a wildfire. Here's what you can do to harden your home:

# ROOF

Your roof is the most vulnerable part of your home. Homes with wood shake or shingle roofs are at high risk of being destroyed in a wildfire.

- Replace wood shake or shingle roofs with a Class A fire-rated roof, using materials such as composition, metal, or tile.
- Inspect your roof and maintain it by removing debris and plugging all gaps.

# **VENTS**

Vents on homes create openings for flying embers.

- Avoid storing combustible items near attic or crawl space vents.
- Inspect vents to ensure they are in good condition with no tears or large openings.
- Cover all vent openings with 1/16 inch to 1/8 inch corrosion-resistant metal mesh screen.
- Consider replacing the screened vents around your home with ember and flame-resistant vents.

# **EAVES AND SOFFITS**

Eaves and soffits are a point of entry for flying embers from fires up to a mile away or flames from nearby vegetation or other material burning.

- Plug or caulk gaps greater than 1/8 inch in size with durable caulk.
- Enclose eaves with ignition-resistant or noncombustible materials if possible.

# WINDOWS

Heat from a wildfire can cause windows to break before the home ignites, allowing embers to enter and start fires inside. Single-paned and large windows are particularly at risk.

- Install dual or multi-paned windows with at least one pane being tempered glass.
- Consider limiting the size and number of windows that face large areas of vegetation.
- Install metal mesh screens on openable windows to increase ember resistance and reduce radiant heat exposure.

# **DECKS**

Surfaces within 10 feet of the building should be built with ignition-resistant, noncombustible, or other approved materials.

- Remove all combustible items from underneath deck.
- Limit combustible items on top of deck. Bring these items inside the home or move them away from the home when wildfire threatens.

# **EXTERIOR WALLS**

Wood products such as boards, panels, or shingles are common siding materials. However, they are combustible and not good choices for wildfire prone areas.

- Use noncombustible materials such as stucco, metal, or fiber cement, or use ignition-resistant siding.
- Be sure to extend materials from the foundation to the roof.
- Plug or caulk gaps and joints with openings greater than 1/8 inch.

# **RAIN GUTTERS**

Screen or enclose rain gutters with noncombustible corrosion-resistant materials to prevent accumulation of plant debris.

# **PATIO COVERS**

Consider using noncombustible material within eight feet of buildings.

# **CHIMNEYS**

Cover chimney or stovepipe outlet with a noncombustible corrosion-resistant metal mesh screen with openings between 3/8 inch and 1/2 inch in size. Make sure to close the fireplace flue during fire season when the fire place is not in use.

# **FENCES**

Ensure that you construct fences using noncombustible materials within eight feet of your home.

# GARAGES

Install weather stripping to eliminate gaps around garage doors. Add a battery back-up to automatic garage door openers so the garage can easily be opened if the power is out.

# **DRIVEWAYS**

Ensure that access to your home complies with local fire codes.

# WATER SUPPLY

Have multiple garden hoses that are long enough to reach all the areas of your house.

# ADDITIONAL HOME FIRE SAFETY RESOURCES



# HOME HARDENING INFORMATION GUIDE

ReadyforWildfire.org



# CALIFORNIA BUILDING CODE CHAPTER 7A

codes.iccsafe.org



# WILDFIRE HOME RETROFIT GUIDE

ReadyforWildfire.org



# BUILDING MATERIALS LISTING

osfm.fire.ca.gov

# DEFENSIBLE SPACE Creating and maintaining Defensible Space is essential to reducing the impact of wildfire on your home and property. Defensible Space is the buffer created between a building on your property and the plants, brush, trees, or other combustible items in the near vicinity. This buffer helps to keep wildfire away from your home by reducing the fire's intensity and slowing or halting the spread of wildfire. The less there is to burn near your home, the less exposure your home will have to wildfire. Creating this space also provides protection for the firefighters defending your home. **CREATING AND MAINTAINING** YOUR DEFENSIBLE SPACE Within the 100-foot perimeter of a home, there is a need for more intense reduction of wildfire fuels. Start at the home and work your way out 100 feet or to your property line, whichever is closer.

# KNOW THE LAW - BE FIRE SMART

One hundred feet of Defensible Space is required under the Public Resources Code (PRC) 4291. Zones 1 and 2 currently make up the 100 feet of Defensible Space required by law. Assembly Bill 3074, passed into law in 2020, requires an ignition-resistant Zone 0 for Defensible Space around your home and property.

Many local government agencies have ordinances for Defensible Space. These local ordinances will often be more stringent than the state of California's minimum requirement in PRC 4291. Check with your local fire department or fire protection district for any additional Defensible Space requirements and best practices.



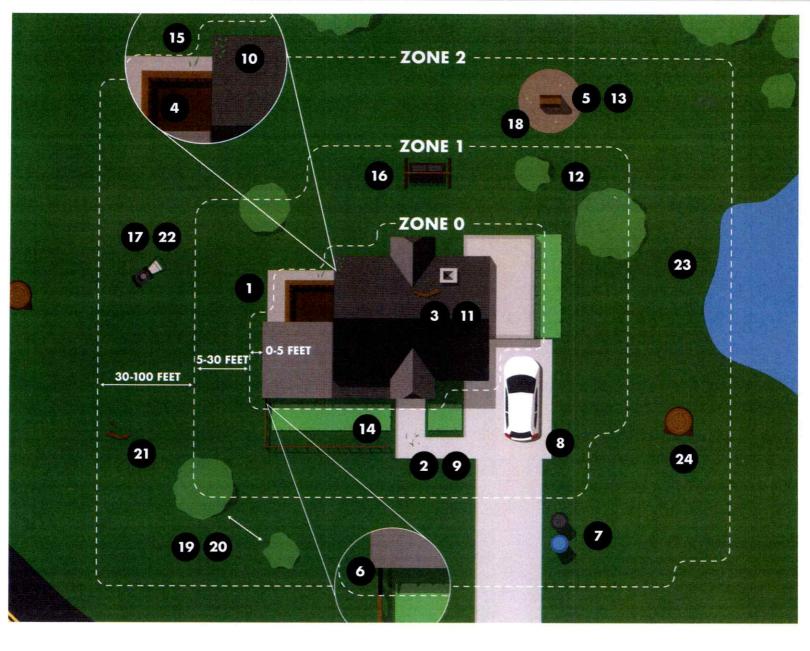




BurnPermit.fire.ca.gov

## Zone 0 extends from zero to five feet from buildings, structures, decks, etc.

- Use hardscape like gravel, pavers, concrete, and other noncombustible mulch materials.
   No combustible bark or mulch.
- Remove all dead and dying weeds, grass, branches, and vegetative debris. Check your roofs, gutters, decks, porches, stairways, etc.
- Remove all branches within 10 feet of any chimney or stovepipe outlet.
- Limit combustible items (autdoor furniture, planters, etc.) on top of decks.
- 5. Relocate firewood and lumber to Zone 2.
- Replace combustible fencing, gates, and arbors attached to the home with noncombustible alternatives.
- Consider relocating garbage and recycling containers outside this zone.
- Consider relocating boats, RVs, vehicles, and other combustible items outside this zone.



# Zone 1 extends five to 30 feet from buildings, decks, and other structures.

- Remove all dead plants, grass, and weeds (vegetation).
- Remove dead or dry leaves and pine needles from your yard, roof, and rain gutters.
- Remove branches that hang over your roof and keep dead branches 10 feet away from your chimney or stovepipe outlet.
- 12. Trim trees regularly to keep branches a minimum of 10 feet from other trees.
- 13. Relocate exposed wood piles outside of Zone 1.
- Remove or prune flammable plants and shrubs near windows.
- Remove vegetation and items that could catch fire from around and under decks.
- Create a separation between frees, shrubs, and items that could catch fire, such as patio furniture, wood piles, swing sets, etc.

## Zone 2 extends from 30 feet to 100 feet from buildings, structures, decks, etc.

- Cut or mow annual grasses to a maximum height of four inches.
- All exposed wood piles must have a minimum of 10 feet clearance around them, down to bare mineral soil, in all directions.
- 19. Create horizontal space between shrubs and trees. (See diagram on page 9)
- Create vertical space between grass, shrubs, and trees. (See diagram on page 9)
- Remove fallen leaves, needles, twigs, bark, cones, and small branches.
   However, they may be permitted to a depth of three inches.

## All zones

- Mow before 10 a.m., but never when it's windy or excessively dry.
- Protect water quality. Do not clear vegetation near waterways to bare soil. Vegetation removal can cause soil erosion—especially on steep slopes.
- 24. Logs or stumps embedded in the soil must be removed in Zone O. In Zones 1 and 2 they need to be removed or isolated from other vegetation.

It takes the combination of both Defensible Space and Home Hardening to give your home and property the best chance of surviving a wildfire. Below are examples of low-risk and high-risk scenarios:

# **HIGH RISK**

UNENCLOSED EAVES



**LOW RISK** 

ENCLOSED EAVES



UNSCREENED VENTS



SCREENED VENTS



DEFENSIBLE SPACE NONCOMPLIANT



DEFENSIBLE SPACE COMPLIANT



# FIRE SMART LANDSCAPING

While some plants are characterized as "fire-safe" or "fire-resistant," all plants will burn under the right conditions, regardless of how they are classified. The environment the plant grows in, how it is maintained, and its placement and spacing near other vegetation and combustibles will generally have more influence on the flammability of the plant than how it is characterized. Taking these items into consideration is crucial to reduce the spread of wildfire to your home. Scan the QR code below for more information on fire smart landscaping.

# FIRE SMART LANDSCAPING

ReadyforWildfire.org/fire-smart-landscaping



# MINIMUM VERTICAL SPACING BETWEEN TREES AND SHRUBS

Eliminate opportunities for a vertical "fire ladder":

- Remove branches beneath large trees for a six-foot minimum clearance.
- Create proper vertical spacing between shrubs and the lowest branches of trees. See adjacent diagrams.

# MINIMUM HORIZONTAL SPACING BETWEEN TREES AND SHRUBS

Horizontal spacing depends on the slope of the land and the height of the shrubs or trees. See adjacent diagrams.

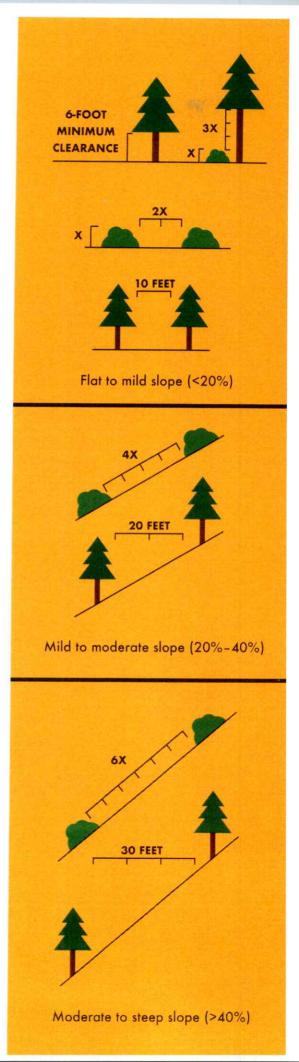
# **DEAD TREE REMOVAL**

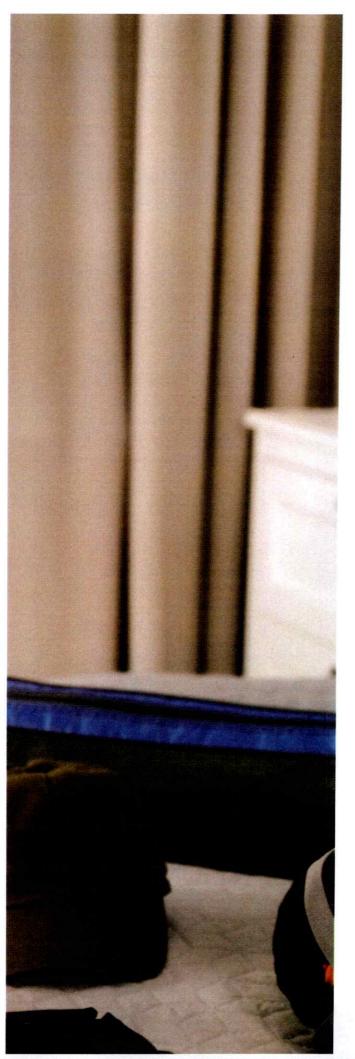
If you have dead or dying trees on your property, the entire tree needs to be removed to reduce wildfire risk. Scan the QR code below to learn about permit requirements.

# PERMIT REQUIREMENTS

ReadyforWildfire.org/dead-tree-removal







It is important that you are prepared **before** wildfire strikes. In an emergency it is easy to become confused or panicked.

Getting Set requires three main preparation actions:

- Creating a Wildfire Action Plan
- Creating an Emergency Supply Kit
- Creating a Family Communication Plan

Preparing these items in advance will help keep you focused and able to act quickly when evacuation is anticipated or needed.

Use this guide to complete these actions to prepare in advance of wildfire.

# READY FOR WILDFIRE INCIDENT APP

Scan the QR code below to access accurate updates about active wildfires near you with our web-based Ready for Wildfire Incident App.



# CREATE A WILDFIRE ACTION PLAN

Your Wildfire Action Plan must be prepared and familiar to all members of your household well in advance of a wildfire. Use the checklist below to help create your plan. Each family's plan will be different, depending on a variety of issues, needs, and situations.

# Create an evacuation plan that includes:

- O A designated emergency meeting location outside the fire or hazard area. This is critical to determine who has safely evacuated from the affected area.
- O Identification of several different escape routes from your home and community. Practice these routes often so everyone in your family is familiar with them in case of emergency. Go to page 16 to write down your emergency evacuation routes.

O A Family Communication Plan that designates an out-of-area friend or relative as a point of contact to act as a single source of communication among family members in case of separation. It is easier to call or message one person and let them contact others than to try and call everyone when phone, cell, and internet systems can be overloaded or limited during a disaster and under a stressful situation. See page 16 for a Family Communication Plan form.



# Be prepared:

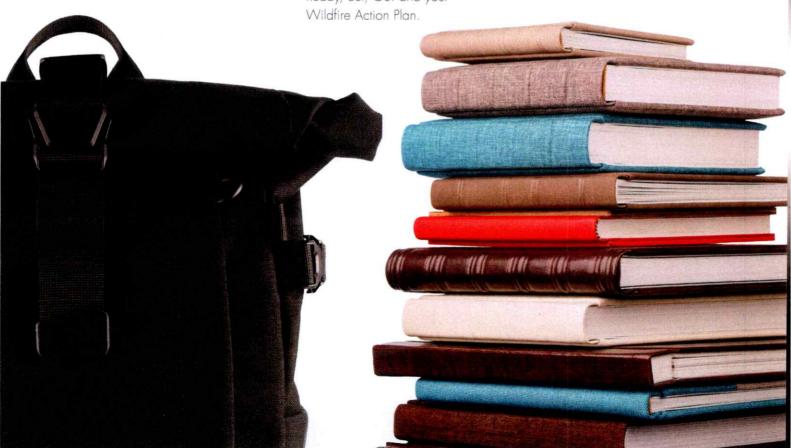
- O Have fire extinguishers on hand and make sure everyone in the family knows how to use them. Many fire extinguishers have expiration dates, so make sure to check yours.
- O Ensure you and your family know where the home's gas, electric, and water main shutoff controls are located and how to safely shut them down in an emergency.
- O Assemble an Emergency Supply Kit for each person, as recommended by the American Red Cross. See Emergency Supply Kit on page 14 for details.

- O Maintain a list of emergency contact numbers in your cell phone, post them near your home phone, and in your Emergency Supply Kit.
- O Keep an extra Emergency Supply Kit in your car in case you are not able to get to your home because of fire or other emergency.
- O Have a portable radio or scanner, or follow the Ready for Wildfire App so you can stay updated on wildfires. Follow local law enforcement notifications for any evacuation information. Visit incidents.ReadyforWildfire.org or scan QR code on page 11 to view the incident app.
- O Tell your neighbors about Ready, Set, Go! and your

# THE SIX Ps

# Remember the "Six Ps" and keep them ready in case immediate evacuation is required:

- O People and pets
- O Papers, phone numbers, and important documents
- O Prescriptions, vitamins, and eyeglasses
- O Pictures and irreplaceable memorabilia
- O Personal computer, hard drive, and disks
- O "Plastic" (credit cards ATM cards) and cash



# **EMERGENCY SUPPLY KIT**

Put together your Emergency Supply Kit—also called a "go bag" b SC fo Si

before a wildfire or other disaster occurs and keep it easily accessible so you can take it with you when you evacuate. Backpacks work great for storing these items (except food and water) and are quick to grab. Storing food and water in a tub or chest on wheels will make it easier to transport. Keep it light enough to be able to lift it into your car.	KIT MUST HAVES ARE:
Emergency Supply Kit Contents:	
O Face masks or coverings	
O Three-day supply of non-perishable food and three gallons of water per person	
O Map marked with at least two evacuation routes	
O Prescriptions or special medications	
O Change of clothing, including a cotton long-sleeved shirt and pants	
O Extra eyeglasses or contact lenses	
O An extra set of car keys, phone charger, credit cards, cash, or traveler's checks	
O First aid kit	
O Flashlight	
O Battery-powered radio and extra batteries	
O Sanitation supplies	
O Copies of important documents (birth certificates, passports, insurance, etc.)	
O Food, water, and medications for pets	
O Can opener	
Items to take if time allows:	
O Easily carried valuables	
O Family photos and other irreplaceable items	
O Personal computer information on hard drives and disks	
O Extra cell phone chargers, laptops, etc.	NEW AND STORE OF THE STATE OF T
Always keep a sturdy pair of shoes and a flashlight near your bed handy in case of a sudden evacuation at night.	

# BE PREPARED FOR POWER OUTAGES

Power outages may occur before and during the threat of a wildfire. It's important to be prepared and know what actions to take when leaving your home during a power outage.

- Learn how to manually open your automatic garage doors or gates—this is an extremely important step!
- Be familiar with your home's utility shutoffs (electricity, water, and gas).
- Keep a flashlight and shoes near your bed in case you need to evacuate during the night.
- Keep your Emergency Supply Kit easily accessible so you can find it in the dark if you have to evacuate.
- Always keep at least a half tank of gas in any of your vehicles.
- If you have a power generator, be sure you know the safety guidelines of your model, including where to connect it, which electrical cords to use, and the electrical load rating. An improperly installed generator can electrocute you or an electric utility worker and can also be a fire hazard.
- · Keep your cell phone charged.
- Keep a supply of bottled water.

# **DURING A POWER OUTAGE**

If the power goes out, follow these steps:

- Keep your refrigerator and freezer doors closed.
- Shut off the gas and other combustibles such as propane tanks.
- If wildfire is within your area, keep informed with a battery-powered radio or your cell phone.
- Stay at least 10 feet away from both overhead power lines and electrical facilities, and never approach or touch overhead power lines or any person or object in contact with the lines.





# SAVE THIS FAMILY COMMUNICATION PLAN

Fill out this form and place it in a location where it can easily be found by everyone in your household. Copy the form and keep it in your Emergency Supply Kit. This will allow all family members to have access to this key information in case you get separated.

# WHEN WE HAVE TO EVACUATE, WE WILL MEET AT:

	IERGENCY CONTACT PERSON IS:
Home Phone #:	
Relationship:	
E-mail:	
Cell Phone #:	
OTHER IMPORTANT N	UMBERS ARE:
Emergency 911:	
Local Police:	
Local Fire Department:	
Other:	
Other:	
Other:	
OUR TWO EVACUATION	N ROUTES ARE (DESCRIBE BELOW):

A home is generally your largest asset. Protect it.

Insurance is the critical back-up plan enabling you to rebuild your home after a wildfire. Follow these tips as part of your Ready, Set, Go! Wildfire Action Plan:

# Conduct an annual insurance checkup

 Call your agent or insurance company annually to discuss your policy limits and coverage. Make sure your policy reflects the correct square footage and features in your home. Consider purchasing building code upgrade coverage.

# Know what your policy covers

 Know if you have a replacement-cost policy that pays to replace all of your items at current market price, or if you have an actual cash value policy that takes depreciation into account and pays less for aged items.

# Update your policy to cover home improvements

 If you make home improvements, be sure to call your agent or company to update your coverage. Make sure your insurer knows about the changes, so that new countertops, floors, rooms, etc., are covered if you must rebuild them.

# Maintain insurance

 If your home is paid off, be sure to maintain homeowner insurance. Without insurance, costs to repair or replace a home or structure is the responsibility of a homeowner.

# Get renters insurance

 Renters can lose everything in a fire and be left to start over. Many insurers bundle renters insurance coverage with an auto insurance policy at affordable prices.

# Make a home inventory

- Document the contents of your home before a wildfire occurs. Use your cell phone to video your belongings or a camera to take photos.
   Store the inventory list and photos at a location away from the property and/or in a cloud internet server. Include the cost of items and note important or expensive items. If possible, keep receipts for any major purchases.
- Don't forget to include items inside the home, inside the garage, and outside of the home.



Give your household the best chance of surviving a wildfire by being ready to go and evacuating early.

Being ready to go means following pre-evacuation steps, knowing when to evacuate, preparing possible evacuation routes, and knowing what to do if you become trapped.

Be safe and don't wait until it's too late! Use these checklists to help prepare you and your family to be ready to evacuate if wildfire strikes.

It is also important to learn what to expect after a wildfire and what you should do before returning home. The danger is not over after the flames are put out.

# KNOW THE LAW—BE READY TO EVACUATE

California law authorizes officers to restrict access to any area where a menace to public health or safety exists due to a calamity such as flood, storm, fire, earthquake, explosion, accident, or other disaster. Refusal to comply is a misdemeanor. (Penal Code 409.5)

# PRE-EVACUATION STEPS

When evacuation is anticipated, follow these checklists (if time allows):

# Outside

- O Gather flammable items from the exterior of the house and bring them inside (patio furniture, children's toys, door mats, trash cans, etc.) or place them in your pool.
- O Turn off propane tanks.
- Move propane BBQ appliances away from all structures.
- O Connect garden hoses to outside water valves or spigots for use by firefighters. Fill water buckets and place them around the house.
- O Turn off sprinklers and running water; leaving them on can affect critical water pressure.
- O Leave exterior lights on so your home is visible to firefighters in the smoke or darkness of night.
- Put your Emergency Supply Kit in your vehicle.
- O Back your car into the driveway with vehicle loaded and all doors and windows closed. Carry your car keys with you at all times.
- O Have a ladder available and place it at the corner of the house for firefighters to quickly access your roof.

- Seal attic and ground vents with pre-cut fire-resistant boards or commercial seals.
- O Monitor your property and the fire situation. Don't wait for an evacuation order if you feel threatened and need to leave.
- Check on your neighbors and make sure they are preparing to leave at a moments notice.

# Inside the House

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

# **Animals**

- Locate your pets and keep them nearby.
- O Prepare livestock for transport and consider moving them to a safe location early.





# **EVACUATION STEPS**

- O Review your Evacuation Checklist.
- Ensure your Emergency Supply Kit is in your vehicle.
- Cover up to protect against heat and flying embers. Wear long pants, a long-sleeved shirt, heavy shoes/boots, cap/hat, a dry bandana for face cover, goggles, or glasses. Clothing made of 100% cotton is preferable.
- O Locate your pets and take them with you.

# WHEN TO EVACUATE

Leave when evacuation is recommended by fire officials to avoid being caught in fire, smoke, or road congestion. You don't need to wait to be ordered by authorities to evacuate. In an intense wildfire, emergency personnel may not have time to knock on every door. If you feel you are in danger, the best course of action is to evacuate. If you are advised to leave, don't hesitate!

Officials will determine the areas to be evacuated and escape routes to use depending upon the fire's location, behavior, winds, terrain, etc.

Law enforcement agencies are typically responsible for enforcing an evacuation order. Follow their directions promptly.

You will be advised of potential evacuations as early as possible. You must take the initiative to stay informed and aware. Listen to your radio/TV for announcements from law enforcement and emergency personnel.

You may be directed to temporary assembly areas to await transfer to a safe location.

The terms "Warning" and "Order" are used to describe evacuation orders. However, local jurisdictions may use other terminology such as "Precautionary" and "Immediate Threat."

These terms are used to alert you to the significance of the danger. All evacuation instructions provided by officials should be followed immediately for the safety of you and your family.

# **ANIMAL EVACUATION**

You've taken steps to help keep your family and home fire safe. Don't forget your pets and livestock. With some advanced planning, you can increase their chances of surviving a wildfire.

- Clear Defensible Space around your barns, pastures, and property just as you do around your home.
- Contact your local fairgrounds, stockyards, equestrian centers, friends, etc. about their policies and ability to temporarily take livestock in case of an emergency.
- Have vaccination/medical records, registration papers, and photographs of your animals (proof of ownership).
- 4. If you must leave your animals, leave them in a pre-selected, cleared area. If appropriate, leave enough hay for 48 to 72 hours.
  - Leave water for your animals. Do not rely on automatic watering systems, as a power outage could occur or the water system become compromised.
- Arrange in advance for a neighbor to check on or transport your pets in case you are not home when disaster strikes.
  - Make sure your neighbors have your contact numbers (cell phone, work, home, etc.).

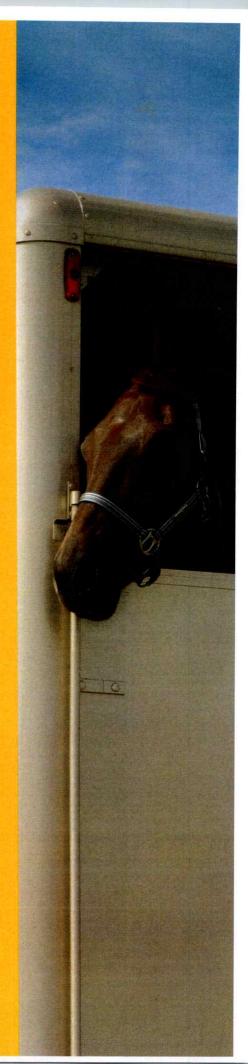
- Make sure that each animal has its own pet carrier, as appropriate.
  - Birds, rodents, and reptiles should be transported in cages covered with a light sheet or cloth to minimize their fear.
- Always make sure your pets are always wearing properly fitted collars with personal identification, rabies and license tags.
- Plan where to take your pets and select an alternate prearranged location as well.
  - In the event of evacuation, pets may not be allowed inside human emergency shelters.
- Prepare your livestock disaster preparedness kit.
- 10. Prepare your pet disaster preparedness kit.

Scan the QR code below to find what items to include in your livestock and pet disaster preparedness kit.

# LIVESTOCK AND PET DISASTER PREPAREDNESS KIT INSTRUCTIONS

ReadyforWildfire.org/animal-evacuation







- Stay calm.
- Park your vehicle in an area clear of vegetation.
- Close all vehicle windows and vents. If possible, cover inside of windows with a wool or cotton blanket to minimize radiant heat
- Cover yourself with a wool or cotton blanket or jacket.
- Lie on vehicle floor.
- Use your cell phone to contact officials— Call 911

# WHILE ON FOOT:

- Stay calm.
- Go to an area clear of vegetation, a ditch, or depression on level ground, if possible.
- Lie face down and cover up your body.
- If near a body of water—pool, creek, pond, lake, etc.—seek safety in the water or use it to keep distance away from the fire. Be careful not to be swept away by moving water or get too deep.
- Use your cell phone to contact officials—
   Call 911

# WHILE IN YOUR HOME:

- · Stay calm and keep your family together.
- Call 911 and inform authorities of your location.
- Fill sinks and tubs with cold water.
- Keep doors and windows closed but unlocked.
- Stay inside your house.
- · Stay away from outside walls and windows.
- Turn on the lights to let emergency officials know you are inside the home.



ReadyforWildfire.org

