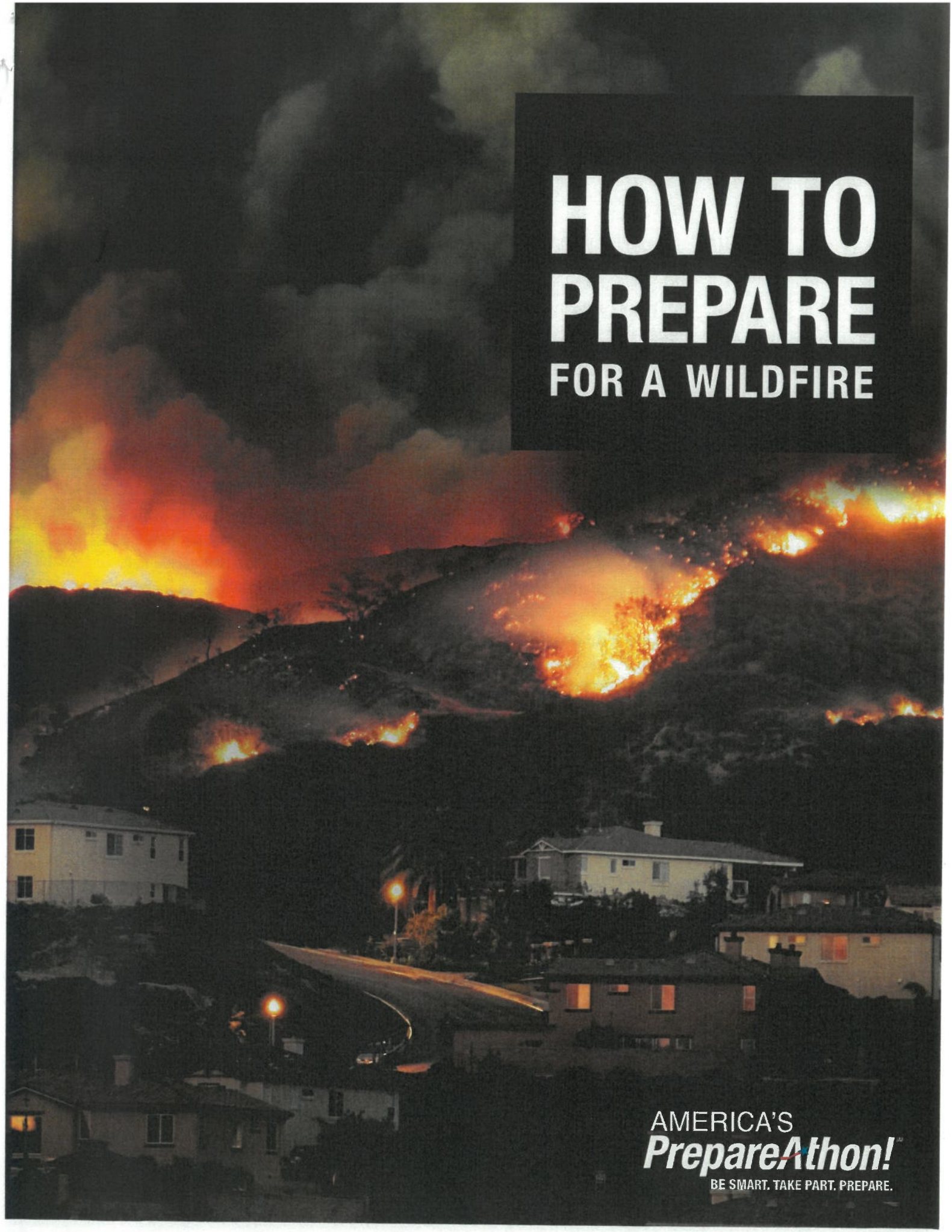

HOW TO
PREPARE
FOR A WILDFIRE
AMERICA'S
PrepareAthon!
BE SMART. TAKE PART. PREPARE.

WILDFIRE BASICS

Wildfires can occur anywhere and can destroy homes, businesses, infrastructure, natural resources, and agriculture. *How to Prepare for a Wildfire* explains how to protect yourself and your property, and details the steps to take now so that you can act quickly when you, your home, or your business is in danger.

WHAT

A wildfire is an unplanned, unwanted fire burning in a natural area, such as a forest, grassland, or prairie. As building development expands into these areas, homes and business may be situated in or near areas susceptible to wildfires. This is called the wildland urban interface. Wildfires can damage natural resources, destroy homes, and threaten the safety of the public and the firefighters who protect forests and communities.

WHEN

Wildfires can occur at any time throughout the year, but the potential is always higher during periods with little or no rainfall, which make brush, grass, and trees dry and burn more easily. High winds can also contribute to spreading the fire. Your community may have a designated wildfire season when the risk is particularly high.

WHERE

Wildfires can occur anywhere in the country. They can start in remote wilderness areas, in national parks, or even in your backyard. Wildfires can start from natural causes, such as lightning, but most are caused by humans, either accidentally—from cigarettes, campfires, or outdoor burning—or intentionally.

IMPACT

Federal suppression costs typically range from $1 billion to nearly $2 billion each year.[1] The destruction caused by wildfires depends on the size of the fire, the landscape, the amount of fuel—such as trees and structures—in the path of the fire, and the direction and intensity of the wind.

- Wildfires can cause death or injury to people and animals.
- Structures may be damaged or destroyed.
- Transportation, gas, power, communications, and other services may be disrupted.
- Flying embers can set fire to buildings more than a mile away from the wildfire itself.
- Smoke can cause health issues for people, even for those far away from the fire.
- Extensive acreage can be burned, damaging watersheds and critical natural areas.
- Flash flooding and mudslides can result from fire damage to the surrounding landscape.
- Wildfires can affect the land for many years, including causing changes to the soil that increase the risk of future floods.

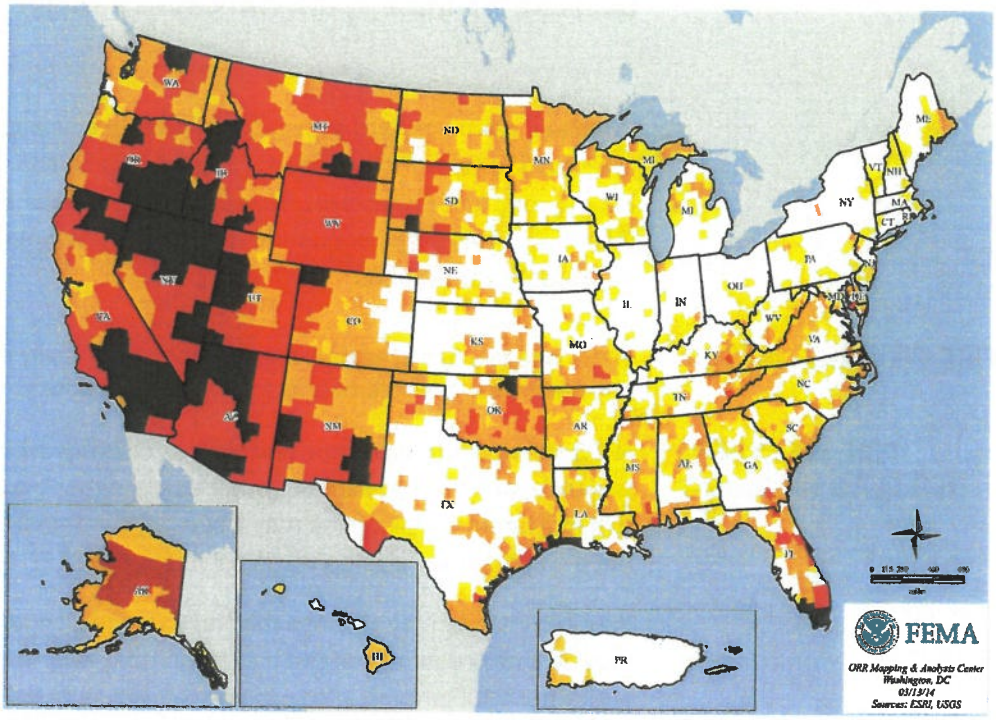
[1] National Interagency Fire Center, www.nifc.gov/fireInfo/fireInfo_documents/SuppCosts.pdf

KNOW THE RISK

Wildfire Activity by County: 1994–2013

Frequency of Wildfires Greater or Equal to 300 Acres

- 101–1,308
- 21–100
- 1–20
- Counties where largest wildfires were less than 300 acres
- Counties with no recorded wildfires



YOUR GOAL FOR PROTECTION

PERSONAL PROTECTION

EVACUATE

When a wildfire threatens your area, the best action to protect yourself and your family is to evacuate early to avoid being trapped. If there is smoke, drive carefully because visibility may be reduced. Keep your headlights on and watch for other vehicles and fleeing wildlife or livestock.

PROPERTY PROTECTION

DEFENSIBLE SPACE AND FIRE-RESISTANT MATERIALS

Your goal now, before a fire happens, is to make your home or business and the surrounding area more resistant to catching fire and burning. This means reducing the amount of material that can burn easily in and around your home or business by clearing away debris and other flammable materials, and using fire-resistant materials for landscaping and construction.

RISK MANAGEMENT

INSURANCE

Review your homeowners or renters insurance policy to ensure that you have adequate coverage for your property and personal belongings.

EMERGENCY NOTIFICATIONS

The National Weather Service (NWS) of the National Oceanic and Atmospheric Administration (NOAA) issues notices when weather conditions such as strong wind, low relative humidity, and high temperatures make wildfires more likely. During these dangerous periods, NWS urges everyone to use extreme caution because a simple spark can cause a major wildfire.

Watches, warnings, and evacuation notices are science-based predictions that are intended to provide adequate time for evacuation. Individuals who delay leaving may find themselves trapped. Download the ***Be Smart. Know Your Alerts and Warnings*** document at **www.ready.gov/prepare** for a summary of available notifications.

FIRE WEATHER WATCH

NWS issues a **fire weather watch** when potentially dangerous fire weather conditions are possible over the next 12 to 72 hours.

FIRE WEATHER/ RED FLAG WARNING

NWS issues a **fire weather warning** or **red flag** when fire danger exists and weather patterns that support wildfires are either occurring or expected to occur within 24 hours. Authorities may issue a fire weather watch before a warning, but a warning may also be the initial notification.

Your community may also use the National Fire Danger Rating System to provide a daily estimate of the fire danger (i.e., low, moderate, high, very high, and extreme). For more information, visit: **www.fs.usda.gov/detail/inyo/home/?cid=stelprdb5173311**.

EVACUATION NOTICE

If the danger is imminent, local authorities may issue an evacuation notice to alert residents that a fire is nearby and it is important to leave the area. Evacuation orders vary by state and community and may range from voluntary to mandatory. When authorities issue a mandatory evacuation notice, leave the area immediately.

PROTECT YOURSELF BEFORE A WILDFIRE

TAKE ACTION NOW!

Protecting yourself today means having sources for information, preparing your home or workplace, developing an emergency communications plan, and knowing what to do when a wildfire is approaching your home or community. Taking action today can save lives and property.

KNOW

Know how to stay informed. Receiving timely information about weather conditions or other emergency events can make all the difference in knowing when to take action to be safe.

- Monitor the weather reports provided by your local news radio and TV stations.
- Many communities have text or email alerting systems for emergency notifications. To find out what alerts are available in your area, do an Internet search with your town, city, or county name and the word "alerts."

- Consider buying a NOAA Weather Radio (NWR) All Hazards receiver, which receives broadcast alerts directly from NWS. You can purchase these at many retail outlets, such as electronics and big box stores, or online. Some NWR receivers are designed to work with external notification devices with visual and vibrating alerts for people who are deaf or hard of hearing. For more information on NWR receivers, visit **www.nws.noaa.gov/nwr/nwrrcvr.htm#programming**.
- Think about how you will stay informed if there is a power outage. Have extra batteries for a battery-operated radio and your cell phone. Consider having a hand crank radio or cell phone charger.

Know your evacuation routes; plan your transportation and a place to stay. To ensure you will be able to act quickly should you need to evacuate, you need to plan ahead.

- Know your community's local evacuation plan and identify several escape routes for your location in case roads are blocked; include plans to evacuate people with disabilities and others with access or functional needs, as well as pets, service animals, and livestock.
- If you will evacuate by car, keep your car fueled and in good condition. Keep emergency supplies and a change of clothes in your car.
- If you will need to share transportation, make arrangements now. If you will need to use public transportation, including paratransit, contact your local government emergency management agency to ask how an evacuation will work, how you will get current information during an evacuation, the location of staging areas, and other information.
- If you need to relocate for an extended period of time, identify a place away from home where you could go if you had to leave. Consider family or friends who live outside of the local area.
- If you expect to go to a shelter after evacuating, download the American Red Cross Shelter Finder App at **www.redcross.org/mobile-apps/shelter-finder-app**. This app displays a map of all open American Red Cross shelters and provides the capacity and the current population of each shelter. You can also text SHELTER + your ZIP code to 43362 (4FEMA) to find the nearest shelter in your area.
- If you have pets and plan to go to a shelter, call to inquire whether it can accommodate pets. Shelters will accept service animals.

PRACTICE

Practice how you will communicate with family members. In a dangerous situation, your first thoughts will be the safety of your family and friends. In case you are not together when authorities issue a fire weather watch or fire weather/red flag warning, practice how you will communicate with each other. Remember that sending texts is often faster than making a phone call. Keep important numbers written down in your wallet, not just on your phone. It is sometimes easier to reach people outside of your local area during an emergency, so choose an out-of-town contact for all family members to call or use social media. Decide where your household members will meet. Visit **www.ready.gov/make-a-plan** for instructions on developing a Household Communications Plan.

Practice how to use an ABC-type fire extinguisher. Make sure that each family member knows how to use an ABC-type fire extinguisher and knows where it is kept in the house. ABC fire extinguishers use a chemical to extinguish ordinary combustibles, flammable liquids, and electrical fires. Be sure to inspect them periodically and replace them as frequently as indicated in the owner's manual.

Practice fire prevention

- Use caution any time you use fire. Dispose of charcoal briquettes and fireplace ashes properly, never leave any outdoor fire unattended, and make sure that outdoor fires are fully extinguished and cold to the touch before leaving the area.
- Do not use welders or any equipment that creates sparks outside on dry, windy days.
- Do not park vehicles in tall, dry grass if a fire weather watch or fire weather/red flag warning has been issued. Exhaust systems are very hot and can ignite dry grass.
- Store combustible or flammable materials in approved safety containers away from the house.
- Keep the gas grill and propane tank at least 15 feet away from any structure. Clear a 15-foot area around the grill. Do not use the grill during potentially dangerous fire weather conditions. Always have a fire extinguisher or hose nearby.
- Learn how you and your family can prevent a wildfire by using fire and equipment responsibly at **www.SmokeyBear.com**.

Practice first aid skills and emergency response actions through training classes. In most circumstances, when someone is hurt, a person on the scene provides the first assistance, before professional help arrives. Learn and practice response skills now so you will know what to do.

- Each year, more than 3 million people gain the skills they need to prepare for and respond to emergencies through American Red Cross training classes, including first aid, automated external defibrillator (AED), and cardio-pulmonary resuscitation (CPR) training. Visit **www.redcross.org/take-a-class** to find out about classes in your area. Download the American Red Cross First Aid App at **www.redcross.org/mobile-apps/first-aid-app**.
- The Community Emergency Response Team (CERT) Program expands the emergency response network by providing training in basic response skills to community members. CERT Basic Training educates people about disaster preparedness for hazards that may affect their area and trains them in basic disaster response skills, such as fire safety, light search and rescue, team organization, and disaster medical operations. Visit **www.fema.gov/community-emergency-response-teams** to find your local program.

STORE

Store supplies so you can grab them quickly if you need to evacuate; know in advance what else you will need to take. Take time now to make a list of the things you would need or want to take with you if you had to leave your home quickly. Store the basic emergency supplies in a "Go Bag" or other container and be ready to grab other essential items quickly before leaving. Remember to include specialized items for people with disabilities and others with access or functional needs, such as older adults, children, and those with Limited English Proficiency. For a full list of supplies for your emergency supply kit, visit **www.ready.gov/build-a-kit**.

When making your list, consider the **Five Ps of Evacuation**:

PEOPLE

People and, if safely possible, pets and other animals/ livestock

PRESCRIPTIONS

Prescriptions, with dosages; medicines; medical equipment; batteries or power cords; eyeglasses; and hearing aids

PAPERS

Papers, including important documents (hard copies and/or electronic copies saved on external hard drives or portable thumb drives)

PERSONAL NEEDS

Personal needs—such as clothes, food, water, first aid kit, cash, phones, and chargers—and items for people with disabilities and others with access and/or functional needs, such as older adults, children, and those with Limited English Proficiency

PRICELESS ITEMS

Priceless items, including pictures, irreplaceable mementos, and other valuables

Store the important documents you will need to start your recovery. Review your homeowners or renters insurance policy and also prepare or update a list of your home's contents by photographing or videotaping each room in the house. If your home or business sustains significant damage, you will need access to insurance and rental or mortgage agreements to file a claim or request assistance from government programs. During recovery, you may also need access to personal information such as medical insurance and prescriptions or warranties for durable medical equipment. The Emergency Financial First Aid Kit (EFFAK) can help you identify the records you will want to keep safe. This document is available at **www.ready.gov/financialpreparedness**. Keep papers in a fireproof, waterproof box. If records are stored electronically, keep a backup drive in your fireproof, waterproof box or store files using a secure cloud-based service.

PROTECT

Protect your property. Take steps now to reduce the sources of fuel in and around your home or business and use fire-resistant construction materials when possible. The National Fire Protection Association recommends a defensible space of up to 200 feet from a structure.

DISCUSS

Discuss what you have done to prepare with your family, friends, neighbors, and colleagues. Talking about preparedness with others will help you think through your plans, share information about alerts and warnings, and share tips for protecting property. Talking about disasters and helping others prepare makes everyone safer.

Discuss how your community can reduce risk. Work with others in your community to improve community resilience planning. Find out if your community has a Community Wildfire Protection Plan or is a Fire Adapted Community. Work with others to discuss ways to prevent fires and support community firefighters. For more information on mitigation options for reducing your community's risk, see *Mitigation Ideas: A Resource for Reducing Risk to Natural Hazards* at **www.fema.gov/media-library/assets/documents/30627?id=6938**.

PROTECT YOURSELF DURING A WILDFIRE

If you see a fire nearby or approaching, call 911 to report the fire. Do not assume that someone else has reported it. If the danger is significant, local authorities may issue an evacuation notice to alert residents that a fire is nearby and it is important to leave the area. Evacuation orders vary by state and may range from voluntary to mandatory.

EVACUATE

- If authorities advise or order you to evacuate, do so immediately. Be sure to remember the **Five Ps of Evacuation:** People, Prescriptions, Papers, Personal Needs, and Priceless Items.
- While your safety and your family's safety are most important, there are things you can do before evacuating that can help firefighters. If there is time before you need to evacuate, do the following:
  - ✓ Turn on lights outside and in every room to make the house more visible in heavy smoke.
  - ✓ Close all windows, vents, doors, and fireplace screens. This will help reduce drafts in the home and reduce radiant heat.
  - ✓ Disconnect automatic garage door openers so doors can be opened by hand if you lose power.
  - ✓ Move flammable furniture, including outdoor furniture, into the center of the home away from windows and sliding glass doors. Remove flammable curtains and window treatments.

- ✓ Connect garden hoses. Fill garbage cans, tubs, or other large containers with water. Shut off natural gas from the source, and move propane or fuel oil supplies away from the house.
- ✓ Follow any additional guidance provided by local authorities.

- When driving away from a fire:
  - ✓ Roll up windows and close air vents because smoke from a fire can irritate your eyes and respiratory system.
  - ✓ Drive slowly with your headlights on because smoke can reduce visibility.
  - ✓ Watch for other vehicles, pedestrians, and fleeing animals.
  - ✓ Avoid driving through heavy smoke, if possible.

IF TRAPPED IN YOUR HOME

If you do not leave before the fire reaches your immediate area and you are trapped in your home, take the following actions:

- Call 911, provide your location, and explain your situation.
- Turn on the lights to increase the visibility of your home in heavy smoke.
- Keep doors, windows, vents, and fire screens closed. Keep your doors unlocked.
- Move flammable materials (e.g., curtains, furniture) away from windows and sliding glass doors.
- Fill sinks and tubs with water.
- Stay inside, away from outside walls and windows.

IF TRAPPED IN A VEHICLE OR OUTDOORS

Researchers are examining guidance to provide the best advice for last resort actions if you are trapped in a vehicle or outdoors. If you are in a vehicle, base your decision to stay in the vehicle or to take cover outside on your specific circumstances, including your distance from the fire, the direction of the fire, whether there is fuel (e.g., brush and trees) near your vehicle, and the potential for rescue. Try to stay away from fuel sources; stay in a rocky area or roadway, or near a water source. Stay low to reduce the effects of heat and smoke, breathe through cloth to avoid inhaling smoke, and cover yourself with a wool blanket or coat, or even dirt. If you are trapped by the fire, immediately call 911, if possible, to provide your location and explain your situation.

PROTECT YOURSELF AFTER A WILDFIRE

Once the local fire or law enforcement authorities say that it is safe, you may return to your home. Because fire damages the stability of a structure, have a professional examine your home or office and certify that it is safe before you go in.

INSIDE SAFETY

- Use caution when entering burned areas. Hazards may still exist, including hot spots that can ignite or trees that can fall without warning.
- Be careful: avoid walking on smoldering surfaces. After a fire, the ground may contain heat pockets that can cause severe injury or spark another fire.
- Check the attic. If you see smoke or fire, get out of the house and call 911.
- Wear leather gloves to protect your hands and heavy, thick-soled shoes to protect your feet.

OUTSIDE SAFETY

- Look out for power poles that may be unstable due to the fire. Stay away from downed power lines and report them to 911 or the power company's emergency number.
- Watch for ash pits (holes created by burned tree roots that are filled with hot ash), charred trees, smoldering debris, and live embers, and mark them for safety. Warn family and neighbors to keep clear.
- Check the roof and gutters. If possible, wet them down to completely put out any smoldering sparks or embers. If you see that fire is still present, call 911.

COMMUNICATIONS

- Use local alerts, radio, and other information sources, such as FEMA or American Red Cross apps, to get information and advice as soon as it is available.
- Use text messaging or social media to communicate with family and friends. Telephones and cellular phone systems are often overwhelmed following a disaster, so use phones only for emergency calls.

HEALTH AND SANITATION

- Call 911 and seek help immediately if you or someone you're with has been burned. Cool and cover burns to reduce the chance of further injury or infection.
- Discard food exposed to heat, smoke, or soot. When it doubt, throw it out.
- Do not drink, brush teeth, prepare food, or wash/bathe in water until officials indicate the water source is safe.
- Follow the recommendations from your local health department. For example, authorities may recommend tetanus shots because bacteria may be present in contaminated soil.

CARE FOR LOVED ONES

- Look for signs of depression or anxiety related to this experience, such as feeling physically and mentally drained; having difficulty making decisions or staying focused; becoming easily frustrated on a more frequent basis; feeling tired, sad, numb, lonely, or worried; and changes in appetite or sleep patterns. Seek help from local mental health providers if you detect these signs in yourself or others.
- If you have animals, watch them closely and keep them under your direct control. Hidden embers and hot spots could burn their paws or hooves.

INSURANCE

- Photograph damage to your property and contact your insurance agent. Do what you can to prevent further damage (e.g., putting a tarp on a damaged roof) that insurance may not cover.

PROTECT YOUR PROPERTY

CONSTRUCTION AND MATERIALS

Whenever possible, use fire-resistant materials for construction, renovation, or repairs, and practice good maintenance.

- Use Class A roof material, such as tile, slate, or asphalt with an underlayment, or Class B pressure-treated shakes and shingles to reduce risk.
- Use wood treated with fire-retardant chemicals.
- Ensure that the driveway or other access is wide enough for emergency vehicles to enter, as well as being clear of flammable vegetation.
- Mark the entrance to your property with address signs that are clearly visible from the road.
- Install dual-sensor smoke alarms on each level of your home, especially near bedrooms; test monthly and change the batteries at least once a year.
- Install fire sprinklers.
- Install spark arrestors in chimneys and stovepipes and inspect chimneys at least twice a year.
- Enclose or box in eaves, soffits, decks, and other openings in the structure.
- Use fine wire mesh to cover vents, crawl spaces, and the space underneath porches and decks.
- Install multi-pane windows or tempered safety glass.
- Use fireproof shutters to protect large windows and glass doors from radiant heat.

LANDSCAPING ZONES

Firewise, a program from the National Fire Protection Association, defines the Home Ignition Zone as an area extending up to 200 feet from a structure. This is the area where the primary goal is limiting the level of flammable vegetation and materials surrounding the home and increasing the moisture content of the remaining vegetation. Think about creating three zones around your house or property, as described below. For more information, see **www.firewise.org/**.

ZONE 1

A minimum 30-foot defensible space surrounding the house that should be well irrigated and fire resistant. Because fire travels quickly on a hill, the steeper the slope, the more open space you will need to protect your home. If you live on a hill, extend the zone on the downhill side.

- Clear away all combustible materials—including leaves or needles and other debris—from the roof, gutters, and decks (on top and below), and around the foundation.
- Remove vines from the exterior of the house. Move shrubs and other vegetation away from the sides of the house. Prune branches and shrubs within 15 feet of chimneys, stove pipes, or the structure. Avoid using bark and wood chip mulch next to any structure.
- Remove tree limbs within 15 feet of the ground. Create a 15-foot space between tree crowns.
- Replace highly flammable vegetation, such as pine, eucalyptus, juniper and fir trees with plants that do not burn as readily. Less flammable options include trees with low sap or resin content like many deciduous species, or those that have high moisture content, like succulents and some herbaceous species. For more information on "firewise" landscaping, go to **www.firewise.org/wildfire-preparedness/firewise-landscaping-and-plant-lists.aspx**.
- Replace or prune any plants that could help fire move from the ground into the treetops.
- Ask the power company to clear branches from or near power lines.
- Store outdoor furniture cushions, brooms, or other flammable items when not in use.

ZONE 2

From 30 to at least 100 feet around the house

- In this zone, reduce or replace as much of the most flammable vegetation as possible.
- Create "fuel breaks," such as driveways, gravel walkways, and lawns.
- Prune tree limbs 6 to 10 feet from the ground.
- As in Zone 1, if you live on a hill, you may need to extend this zone further than 100 feet for additional safety.

ZONE 3

From 100 to 200 feet from the house

- Keep vegetation thinned to remove underbrush and keep tall trees from creating touching canopies.
- Stack firewood at least 100 feet away from the structure.

WATER NEED

- Identify and maintain water sources, such as hydrants, ponds, swimming pools, and wells, and ensure that they are accessible to the fire department.
- Have a garden hose(s) that is long enough to reach any area of the house and other structures. When evacuating, leave hoses connected to a water source so that they are available for firefighters.

RESOURCES

If you would like more information, the following resources may be helpful.

- Fire Adapted Community: **www.fireadapted.org**
- Forests and Rangelands, Community Wildfire Protection Plans: **www.forestsandrangelands.gov/communities/cwpp.shtml**
- *Home Builders' Guide to Construction in Wildfire Zones, Technical Fact Sheet Series* (FEMA P-737, September 2008): **www.fema.gov/media-library/assets/documents/15962?id=3646**
- Inter-Agency Wildfire information: **http://inciweb.nwcg.gov/**
- International Association of Fire Chiefs (IAFC); Ready, Set, Go! Program: **www.wildlandfirersg.org**
- National Fire Protection Association (NFPA): **www.nfpa.org**
- NFPA's Firewise Communities Program: **www.firewise.org**
- National Interagency Fire Center: **www.nifc.gov**
- National Weather Service Fire Weather: **www.srh.noaa.gov/ridge2/fire/**
- Ready: **www.Ready.gov/wildfires**
- Substance Abuse and Mental Health Services Administration (SAMHSA), Disaster-Specific Resources: Annotated Bibliography: **www.samhsa.gov/dtac/dbhis/dbhis_specific_bib.asp#disaster**
- U.S. Department of Agriculture, U.S. Forest Service: **www.fs.fed.us/fire/**
- U.S. Fire Administration (USFA): **www.usfa.fema.gov**