



Wildfire
Risk

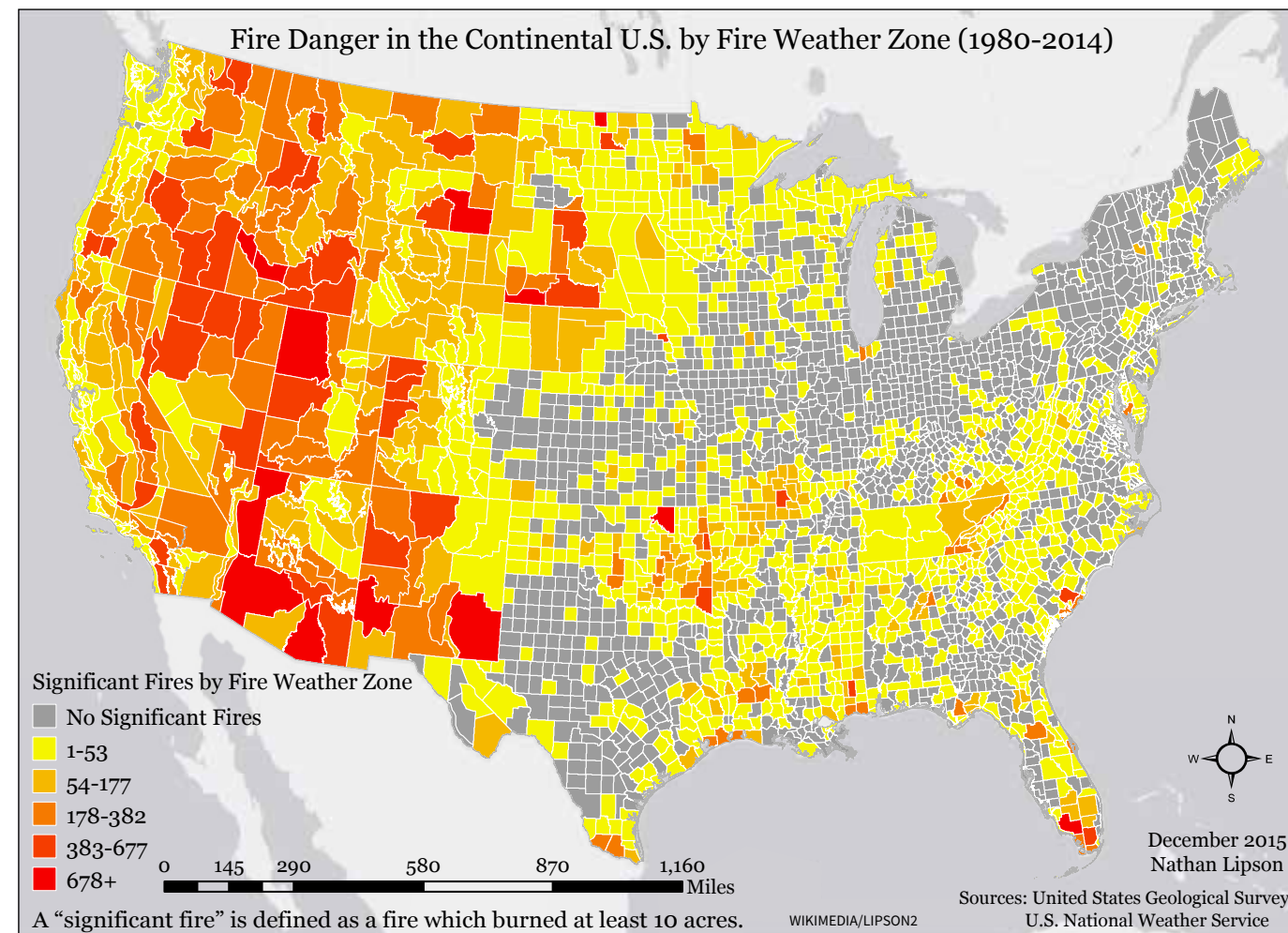
Wildfires Punish Western U.S.

Wildfires exact a devastating toll on communities, particularly in hard-hit Western states. The last major wildfire, the Camp Fire that engulfed Paradise, California, claimed 85 lives and more than 19,000 buildings.

Like other severe weather events, wildfires appear to unpredictable forces of nature. But they are not. While fire itself may be a natural phenomenon, the loss of lives wildfires leave in their wake is mainly the result of residents who can't or won't leave.

Nearly 98 million people and 44 million homes are located adjacent to areas where wildfires happen on an increasingly more frequent basis. An investigative report published this year by the Arizona Republic and USA Today examined wildfire risks across 11 states that cover nearly half of the country and found more than 500 communities that face greater risks than Paradise.

According to the Department of Interior, as many as 90% of wildland fires in the U.S. are caused by people — unattended campfires, burning debris, downed power lines, discarded ciga-



rettes and arson — with the remainder caused by forces of nature, such as lightning strikes. In Paradise, hot winds snapped a power line that sparked flames in dry grass and trees ravaged by California's devastating droughts that quickly overwhelmed the community.

According to the Insurance Information Institute and Verisk, a leading data analytics provider, a 2017 Wildfire Risk Analysis identified 4.5 million homes were at high or extreme risk of wildfire, almost half in California alone. Losses added up to \$5.1 billion in the past 10 years, according to the study.

WILDFIRES BY YEAR

2019: From January to June, there were 16,361 wildfires compared with 25,437 wildfires in the same period in 2018. About 355,014 acres were burned in the 2019 period, compared with 1.8 million acres in 2018.

2018: In 2018 there were 58,083 wildfires, compared with 71,499 wildfires in the same period in 2017. About 8.8 million acres were burned in the 2018 period, compared with 10 million in 2017.

2017: In 2017, there were 71,499 wildfires, compared to 65,575 wildfires in the same period in 2016. About 10 million acres were burned in the

2017 period, compared with 5.4 million in 2016. Acres burned in 2017 were higher than the 10-year average.

Source: National Interagency Fire Center

Clearly, wildfires pose a growing and deadly risk; the loss of property can amount to millions, if not billions. Because so many of the communities with the highest risk — Montana tops the list at 28% — are smaller with few evacuation routes, the potential for loss is alarming.

According to recent research cited in a Center for American Progress report, 12 million Americans who live in areas where wildfires are common

would be unable to prepare for or recover from a wildfire. While it's impossible to predict the toll of wildfires, the loss of life, livelihood and property demands focus on the risks and prevention.

The government has, over the past two decades, assembled a portfolio of agencies ready to assist at-risk communities with support and to protect life and property in the event of wildfire, identified by the CAP report. These include:

The Community Planning Assistance for Wildfire program, which provides technical assistance to communities to incorporate wildfire risks into land use plans that manage development, building codes, and natural resources such as drinking water sources.

Support for communities to create Community Wildfire Protection Plans, which fire agencies and other stakeholders can use to assess communities' vulnerabilities to wildfire and plan for risk reduction and fire response activities.

Incentives associated with Firewise USA — a program supported by the U.S. Forest Service, the Department of the Interior and the National Association of State Foresters — to encourage communities and homeowners to conduct risk assessments and planning activities.

The Federal Emergency Management Agency's pre-disaster mitigation assistance grants, which provide communities with greater resources to implement adaptation plans.

Assessing Wildfire Risk

Wildfires almost know no season, although they are less prevalent in the spring. Most occur in the East or Central states, but burn more acreage in the West. They have a beneficial ecological effect but can produce devastating damage.

When the right conditions collide in an uncontrolled setting, a spark — in the form of lightning, arson or cigarette — can set off a blaze that can last for weeks and devour tens of thousands of acres.

In “Ahead of the Fire: Where will the West’s next deadly wildfire strike? The risks are everywhere,” the Arizona Republic identified five areas where the risks are already known or are in potential peril. And journalists found a set of common factors that at-risk communities share.

Evacuation constraint: In many small communities such as Paradise, California, evacuation routes are squeezed. Demand quickly exceeds capacity, and, in the case of such areas as Paradise, one road was marked “Do Not Travel” and several others were cut off to fleeing residents. Many communities across the West face similar challenges.

Age of residents: Many



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smaller communities that face high wildfire risk in the West have a high percentage of elderly and aging populations who may require more time, transportation or care to evacuate.

Disabled residents: Similarly, many of the same communities have a significant population of disabled residents who face the same challenges as the elderly (who may also be disabled) in quickly exiting a fire emergency.

Alerts: While text alerts

from county and tribal governments are a vital to wildfire-prone communities, the Republic found that they are not always issued nor had the Wireless Emergency Alert System ever been used in some.

Mobile homes: Because of their close proximity and the type of materials used to construct them, mobile home parks are at particular risk. Fire can spark and spread rapidly in these villages, which dot many communities near wildlands.

TAKING ACTION

Getting ahead of disaster is Firewise USA, a consortium of wildland fire organizations and federal agencies whose national program teaches people how to adapt to living with wildfire risks and encourages neighbors to work together and prepare to prevent losses, according to the National Fire Protection Association.

Following a six-step program, the program recognizes and rewards communities. Its members form committees,

perform risk assessments and develop action and evacuation plans. They also organize volunteers to clear brush and debris.

The National Fire Protection Association and insurance companies provide grants to participating homeowners associations, and insurers offer discounts to homeowners involved in Firewise.

Awareness and preparation for wildfires are crucial to saving lives, property and preserving millions of acres of America’s pristine wildlands.

Preparing For Evacuation

Relatively few people die in wildfires — only 14 in 2017, according to the National Interagency Fire Center. That’s the good news.

The bad news: Your chances of perishing in a wildfire are greatly elevated if you fail to prepare and heed evacuation orders.

By waiting too long, you deprive yourself of a safer, faster exit on routes that may become clogged or roads that have burned out or are too hazardous to use due to heat or debris. And almost no one is prepared to defend their property from the ravages of wildfires.

The bottom line: Prepare, create an evacuation plan and when told to go — go.

Ready for Wildfire, a website and app created by Cal Fire, prepared these tips for developing a wildfire action plan:

EVACUATION PLAN

Create a designated emergency meeting location outside the fire or hazard area. This is critical to determine who has safely evacuated from the affected area.

Identify several different escape routes from your home and community. Practice these often so everyone in your family is familiar



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in case of emergency.

Have an evacuation plan for pets and large animals such as horses and other livestock.

Create 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.

BE PREPARED

Have fire extinguishers on hand and train your family how to use them. Check expiration dates regularly.

Ensure that your family knows where your gas, elec-

tric and water main shut-off controls are located and how to safely shut them down in an emergency.

Assemble an emergency supply kit for each person, as recommended by the American Red Cross.

Maintain a list of emergency contact numbers posted near your phone and in your emergency supply kit.

Keep an extra kit in your car in case you cannot get to your home because of fire or other emergency.

Have a portable radio or scanner so you can stay updated on the fire.

Tell your neighbors about

your wildfire action plan.

REMEMBER THE SIX P’S

People and pets.

Papers, phone numbers and important documents.

Prescriptions, vitamins and eyeglasses.

Pictures and irreplaceable memorabilia.

Personal computer hard drive and disks.

“Plastic” (credit cards, ATM cards) and cash.

EMERGENCY SUPPLY KIT CHECKLIST

Three-day supply of non-perishable food and three gallons of water per per-

son.

Map marked with at least two evacuation routes.

Prescriptions or special medications.

Change of clothing.

Extra eyeglasses or contact lenses.

An extra set of car keys, credit cards, cash or traveler’s checks.

First aid kit.

Flashlight.

Battery-powered radio and extra batteries.

Sanitation supplies.

Copies of important documents (birth certificates, passports, etc.).

Pet food and water.

Evacuating the Elderly, Disabled

Wildfires, like other natural disasters, can happen at a moment's notice, creating evacuation emergencies for communities. It's a frightening time for anyone, but for the elderly and disabled, evacuating creates special challenges that require special planning.

These individuals may require extra time and assistance, special vehicles, medications and medical supplies that can create emergencies themselves without advance preparation. In addition to making those with special needs aware of an evacuation plan, caregivers should ask these questions supplied by the Red Cross to customize evacuation plans.

DAILY LIVING

Personal care: Do you regularly need assistance or use adaptive equipment to help with personal care, such as bathing and grooming?

Water service: What will you do if water service is cut off for several days or if you are unable to heat water?

Personal care equipment: Do you use a shower chair, tub-transfer bench or other similar equipment?

Adaptive feeding devices: Do you use special utensils that help you prepare or eat food independently?

Electricity dependent equipment: How will you continue to use equipment that runs on electricity, such as dialysis, electrical lifts, etc.? Do you have a safe back-up power sup-

ply and how long will it last?

GETTING AROUND

Disaster debris: How will you cope with the debris in your home or along your planned exit route following the disaster?

Transportation: Do you need a specially equipped vehicle or accessible transportation?

Errands: Do you need help to get groceries, medications and medical supplies? What if your caregiver cannot reach you because roads are blocked or the disaster has affected him or her as well?

EVACUATING

Building evacuation: Do you need help to leave your home or office? Can you reach and activate an alarm? Will you be able to evacuate independently without relying on auditory cues that may be absent if the electricity is off or alarms are sounding?

Building exits: Are there other exits (stairs, windows or ramps) if the elevator is not working or cannot be used? Can you read emergency signs in print or Braille? Do emergency alarms have audible and



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visible features (marking escape routes and exits) that will work even if electrical service is disrupted?

Getting help: How will you call for the help you will need to leave the building? Do you know the locations of text phones and phones that have amplification? Will your hearing aids work if they get wet from emergency sprinklers? How will you communicate with emergency personnel if you don't have an interpreter, your hearing aids aren't working, or if you don't have a word board or other augmentative communication device?

Mobility aids/ramp access: What will you do if you cannot find your mobility aids? What will you do if your ramps are shaken loose or become separated from the building?

Service animals/pets: Will you be able to care for your animal during and after a

disaster? Do you have another caregiver for your animal if you are unable to meet its needs? Do you have the appropriate licenses for your service animal so you will be permitted to keep it with you should you choose to use an emergency public shelter?

GATHER INFORMATION

Community disaster plans: Contact your local emergency management office or American Red Cross Chapter to learn about community response plans, evacuation plans and designated emergency shelters.

Assistance programs: Ask about assistance programs. Many communities ask people with a disability to register with the local fire or police department or emergency management office so needed help can be provided quickly in an emergency.

MAKE AN EMERGENCY PLAN

Meet with caregiver/building manager: Review the information you gathered about community hazards and emergency plans.

Escape routes and drills: If you or someone in your household uses a wheelchair, make exits from your home wheelchair accessible. Practice emergency evacuation drills at least two times a year, any time you update your emergency plan or change the layout of your home's furniture. Be sure to include family and/or your personal care attendant in the drills.

Prepare for different hazards: Include in your plan how to prepare for each hazard that could impact your community and how to protect yourself. Determine in advance what your alternative shelter will be and how you will get there.

Evacuating Pets and Livestock

If you've prepared an evacuation plan for your family and taken steps to protect your home, you're not in the clear yet. There's yet another important plan to develop: taking care of your animals.

Because pets are part of your family and livestock are part of a livelihood, wildfire preparedness means taking responsibility for them, as well.

Protecting your home means protecting animal habits such as kennels, coops and barns. Corrals and pastures should also be included in your defensible space or have one of their own, according to advice from the Idaho Farm Bureau.

Creating an effective evacuation plan for your pets and livestock includes following these steps provided by the Bureau and follows the proper sequence for safe evacuation: people, pets, livestock and property.

Identify evacuation routes. Fires can move quickly, so it is best to identify at least two evacuation routes. If towing trailers, drive all routes to ensure compatibility with the road's width and grade before a disaster strikes — a stuck trailer could prevent others from using the same way out.



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Know where to take your animals. Most evacuation centers cannot accept animals (service animals are permitted). Contact your local fairgrounds, stockyards, equestrian centers and/or friends about their ability to shelter animals in an emergency.

Have transportation. Keep stock trailers in good repair and make sure your vehicle is tow-ready. If you don't have your own truck and trailer, make arrangements with local companies or neighbors. It takes extra time to evacuate animals, so practice loading trailers before wildfire threatens.

Share your plan. Family and

neighbors should have a copy of your plan in the event you are not home when a wildfire evacuation is ordered for your area. Make sure everyone has all contact numbers (cellphone, work, home, etc.).

Prepare emergency kits for pets and livestock. When building the kit, choose a container that is easily loaded into vehicles. Keep your kits in an easily accessible, dry location where temperatures do not get hot or below freezing.

EMERGENCY PREPAREDNESS KIT FOR ANIMALS

Identification: All pets should be wearing properly fit-

ted collars with personal identification, license and rabies registration tags. Include a relative's phone number in case you and your pet get separated.

Copies of important papers and phone numbers:

Cellphones and internet access could be temporarily out of service, so include a paper list of all important phone numbers (veterinarian, animal shelter/boarding facility, neighbors/friends, etc.).

A list of all medicines and doses.

Food and water: Store a three- to seven-day supply of food and water for each animal. Include non-spill bowls,

buckets, can openers and spoons.

First aid kit: Include cotton bandage rolls and tape, scissors, antibiotic ointment, medical-type gloves, isopropyl alcohol and saline solution.

Waste disposal: Pack a small cat litter box, scoop and litter, plastic bags for waste disposal, newspapers, paper towels and disinfectants. For larger animals include dry shavings for stalls, a pitchfork, shovel, fly spray and masks, towels, trash bags, spray cleaner and hand sanitizer.

Miscellaneous items: Having personal items such as blankets, toys and treats can help calm your animals.



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Protecting Your Home and Property

The costs of wildfire to homes, businesses, other buildings and property is staggering — more than \$5 billion over the past 10 years.

Unfortunately, that figure was dwarfed by the cost of the Camp Fire, the Northern California wildfire that wiped out the town of Paradise. When all was said and done, it became the world's costliest natural disaster at \$16.5 billion in damage. Insured losses came to \$12.4 billion of that toll.

Because activity in the West has increased 400% since 1970, according to the American Academy for the Advancement of Science, the frequency, damage and cost is expected to continue to have dramatic economic impact.

These stark facts and statistics makes protecting and insuring your home, business and property a huge priority.

According to the National Fire

Protection Association, research reveals that embers and small flames are the primary threats and the way most home ignite during wildfires. These studies also show that homes catch fire when the condition of the home and everything around it, an area of up to 200 feet from the foundation called the Home Ignition Zone. Fortunately, there are ways to prepare and protect homes from ember attacks or fire touching the home.

The NFPA recommends taking these steps to prepare and protect by zone:

IMMEDIATE ZONE

Clean roofs and gutters of dead leaves, debris and pine needles that could catch embers.

Replace or repair any loose or missing shingles or roof tiles to prevent ember penetration.

Reduce embers that could pass through vents in the eaves by installing 1/8 inch metal mesh screening.

Clean debris from exterior attic vents and install 1/8 inch metal mesh screening to reduce embers.

Repair or replace damaged or loose window screens and any broken windows.

Screen or box-in areas below patios and decks with wire mesh to prevent debris and combustible materials from accumulating.

Move any flammable material away from wall exteriors – mulch, flammable plants, leaves and needles, firewood piles – anything that can burn. Remove anything stored underneath decks or porches.

INTERMEDIATE ZONE

Clear vegetation from under large stationary propane tanks.

Create fuel breaks with driveways, walkways/paths, patios and decks.

Keep lawns and native grasses mowed to a height of four inches.

Remove ladder fuels (vegetation under trees) so a surface fire cannot reach the crowns. Prune trees up to six to 10 feet from the ground; for shorter trees do not exceed 1/3 of the overall tree height.

Space trees to have a minimum of

eighteen feet between crowns with the distance increasing with the percentage of slope.

Tree placement should be planned to ensure the mature canopy is no closer than 10 feet to the edge of the structure.

Tree and shrubs in this zone should be limited to small clusters of a few each to break up the continuity of the vegetation across the landscape.

EXTENDED ZONE

Dispose of heavy accumulations of ground litter/debris.

Remove dead plant and tree material.

Remove small conifers growing between mature trees.

Remove vegetation adjacent to storage sheds or other outbuildings within this area.

Trees 30 to 60 feet from the home should have at least 12 feet between canopy tops.

Trees 60 to 100 feet from the home should have at least 6 feet between the canopy tops.



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Wildfires by the Numbers

The National Interagency Fire Center defines wildfires as unplanned and unwanted fires, including lightning-caused fires, unauthorized human-caused fires and escaped prescribed fire projects.

Responsibility: States are responsible for responding to wildfires that begin on nonfederal (state, local and private) lands, except for lands protect-

ed by federal agencies under cooperative agreements. The federal government is responsible for responding to wildfires that begin on federal lands.

Wildfire response and management: The Forest Service, which is overseen by U.S. Department of Agriculture, carries out wildfire management and response across the 193 million acres of the National Forest System. The Department of the Interior manages wildfire response for more than 400 million acres of national parks, wildlife refuges and preserves, other public lands and Indian reservations.

Source: Insurance Information Institute

58,083: Number of wildfires in 2018.

14: Civilian fatalities in 2017.

19: Firefighter fatalities in 2018.

8.8 MILLION: Acres burned in 2018.

25,790: Structures burned in 2018.

10,000: U.S. Forest Service firefighters who fought wildfires in 2018.

4,492: Department of Interior

firefighters who fought wildfires in 2018.

67,000: Average number of annual wildfires in the past 10 years.

7 MILLION: Average number of acres burned annually in the past 10 years.

2015: Year with the highest number of acres burned (10.13 million) and number of wildfires (68,000).

ALASKA: State with the highest number of acres burned (5.1 million in 2015). Source: National Interagency Fire Center (May 2019)