



WILDFIRES AND MUDSLIDES:

**Emergency Preparedness Strategies For
Dealing With Nature's One-Two Punch**

Wildfires and mudslides often create a “one-two” punch that threatens lives and endangers business operations. Making matters worse, these natural disasters are becoming more common and dangerous, especially across the western United States and Canada.



The largest wildfire in California’s history, [the Mendocino Complex Fire](#), burned more than 450,000 acres in summer 2018. To the north, British Columbia had its [worst wildfire season on record](#) in 2018 in terms of acres burned.

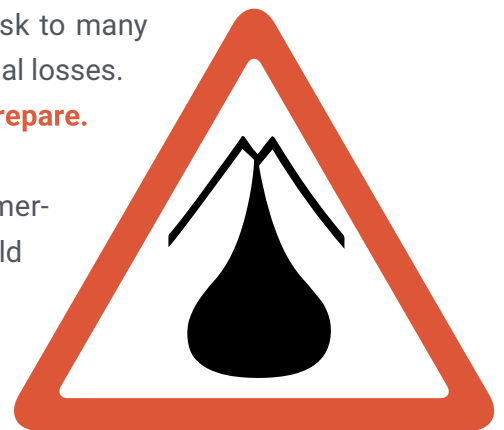
This all follows the costliest year for wildfires in U.S. history. In 2017, wildfire damage topped \$10 billion, [CNN reports](#). Wildfires have damaged or destroyed hundreds of commercial buildings in California alone since 2014, according to [the Capital Region Business Resiliency Initiative](#).

After a wildfire is contained and extinguished (which may take several months), the second punch can kick in: Mudslides are a serious threat in burn scar areas for several years. Areas where wildfires destroyed vegetation on slopes are especially vulnerable during and after heavy rains, [the CDC explains](#).

The reality is wildfires and mudslides pose a significant risk to many businesses, from structural damage to inventory and financial losses.

But by the time these natural disasters hit, it’s too late to prepare.

While you can’t do much to stop a wildfire or mudslide, emergency preparedness managers can be proactive. You should have a disaster mitigation and safety plan in place before wildfire season strikes. Planning for this destructive one-two punch is the best way to protect your business and its people.





Wildfires: Far-Reaching And Long-Lasting Impacts

Wildfires can occur at any time of the year, but they're most common in the summer and early fall. The potential is always greater during times with little or no rainfall, as this allows for dry brush, grass and trees to burn more easily.

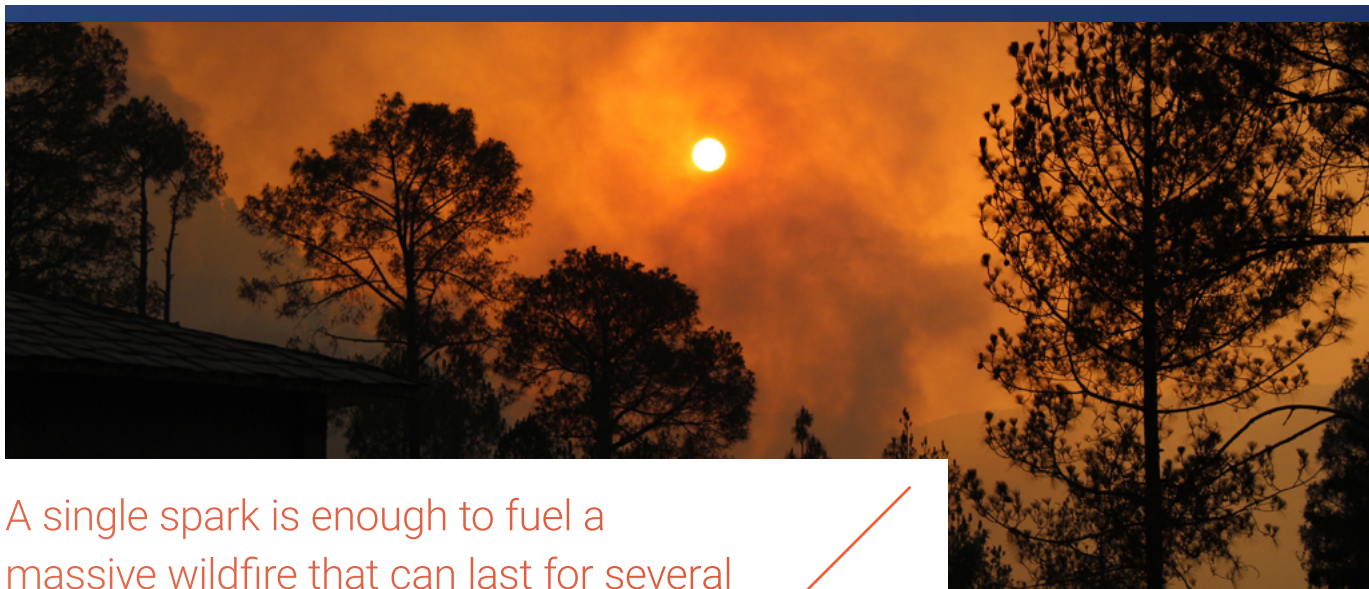
While natural causes (such as lightning) can ignite wildfires, most are the result of human causes – either accidental (such as from campfires and outdoor burning) or intentional.

A single spark is enough to fuel a massive wildfire that can last for several weeks or months.

According to FEMA, common wildfire impacts include:

- Death or injury to people and animals
- Damaged or destroyed structures
- Disruption to transportation, gas, power, communications and other services
- Flying embers that can set fire to buildings
- Smoke that may cause health issues for people (even those far away from the fire)

The impact and destruction depends on several factors, including the size of the fire, the amount of fuel (like trees and structures), the landscape, and the direction and intensity of the wind.



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Mudslides: A Hidden Wildfire Danger After The Smoke Clears

Wildfires have a long-lasting and dramatic effect on the charred land, “including causing changes to the soil that increase the risk of future floods,” [FEMA explains](#). Flash flooding and mudslides can threaten the landscape in the years following a wildfire.

Mudslides (also commonly called landslides) often occur quickly and with little notice.

They can travel several miles, picking up materials like trees, boulders and cars as the growing flow reaches speeds of up to 100 miles per hour.

[The Global Preparedness Disaster Center warns](#) that “communities hit by wildfires have an increased risk of landslides if heavy rain follows.” That’s because burned soil isn’t able to absorb moisture well, making the burned areas highly susceptible to flash flooding.

[According to the National Weather Service](#), a good rule of thumb is: “If you can look uphill from where you are and see a burnt-out area, you are at risk.”

If you’re at risk, it’s critical to stay alert for warnings of heavy rainfall and monitor for signs of potential mudslide activity, such as:

- Cracks or bulges in the ground
- Unusual sounds (like trees cracking)
- Broken water lines
- Leaning telephone poles, walls or fences



Protecting Your Business From Wildfires And Mudslides

Every organization's wildfire preparedness plan should include property protection measures. You want to reduce the risk that your buildings (as well as surrounding areas) become fuel for a wildfire.

The National Fire Protection Association (NFPA) and FEMA recommend taking these measures to help protect your property from a wildfire:



Clear anything that can burn (needles, dead leaves, etc.) from rooflines, gutters and patios.

Screen and seal windows to prevent wind-borne embers from entering buildings.

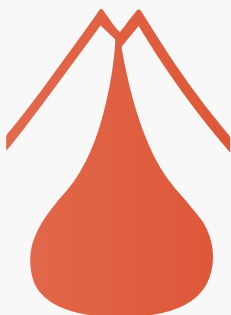
Trim shrubs or tree branches that are within five feet of buildings.

Use fire-resistant materials when doing construction or making repairs.

Have an outdoor water source that can reach any area of your property with a hose.

If your properties are at risk of mudslides, it's important to become familiar with the surrounding land. "Slopes where debris flows have occurred in the past are likely to experience them in the future," FEMA cautions.

Preventive measures you can take to help protect your property from a mudslide include:



Build channels or deflection walls to divert debris flow away from buildings.

Plant ground cover on slopes and construct retaining walls.

Install flexible pipe fittings to better resist breakage.

Avoid building near steep slopes and drainage ways, if possible.

Watches And Warnings: Understanding The Difference

The National Weather Service issues notices when weather conditions make wildfires more likely. It's important to help people across your organization understand what these notices mean.

A fire weather watch means potentially dangerous fire weather conditions are possible over the next 12 to 72 hours.

A fire weather warning or **red flag** means fire danger exists. Weather patterns that support wildfires are either occurring or expected to occur within 24 hours.

Local authorities may issue an **evacuation notice** if danger is imminent. Orders vary by community, and they may range from voluntary to mandatory. Leave the area immediately when a mandatory evacuation notice is issued.



How To Build Your Wildfire And Mudslide Preparedness Plan

It's easy to feel overcome with stress and confusion during a natural disaster. Having a wildfire and mudslide preparedness plan in place helps emergency preparedness managers move swiftly to protect people and business operations during and after these disasters.

Your plan should take into account both the immediate threats (such as structure damage, inventory and financial losses, and staff displacement) and the longer-lasting impacts (such as road closures, utility outages, loss of customers in the area and emotional trauma).

At the core of your plan, you want a mass notification system for business continuity. In a natural disaster, network disruptions are common and typical means of communication may fail. You need multiple ways to rapidly communicate across the entire organization and keep everyone informed.

An Emergency Notification System (ENS) is the best way to instantly reach people across a variety of channels, including phone calls, emails, texts and more. Using secure off-network emergency notifications backed by redundant data centers, you can contact people even when phone lines are down or systems go offline.

With a multi-channel notification platform as the backbone of your plan, use these tips to help address the impacts of wildfires and mudslides to employees, suppliers and customers.

1 Help Prepare Your Employees

Regularly remind employees of emergency evacuation routes and shelter locations. Equip buildings with emergency safety supplies like fire alarms, fire extinguishers and smoke detectors. Train employees on how to use extinguishers correctly.

Designate at least one room in the building that can be closed off from outside air. When smoky conditions exist, set up a portable air cleaner to help keep indoor pollution levels low.

In addition, invest in N95 respirator masks, which filter out damaging fine particles in the air people breathe. **Ordinary dust masks will not help in a wildfire**, the American Lung Association cautions. Such masks are designed to only filter out larger particles.



2 Take Care Of Important Paperwork And Check Your Insurance

Store important documents in a fireproof place, and consider creating password-protected digital copies as a backup. Plan ahead for possible data loss due to damaged computers, [the Risk Management Monitor recommends](#).

Your organization should also carefully review its insurance coverage to ensure it is enough to cover buildings and assets that are damaged or destroyed. Flood insurance policies from [the National Flood Insurance Program \(NFIP\)](#) may cover debris flow from mudslides.

3 Write Alerts And Messages In Advance

The framework of your communication plan should be in place before a wildfire or mudslide strikes. Determine what kind of information you want your employees, suppliers and customers to know, as well as the triggers for sending a message. As the situation evolves, you can finetune messages for the specific threat.

When writing alerts, be clear and concise. **Tell people what you want them to do, repeat messages and use multiple channels.** Avoid technical language or jargon that people may not understand.

4 Incorporate Wellness Checks And Get Real-Time Feedback

In an emergency situation, your organization's leadership and first responders rely on feedback from employees at the scene. Your ENS should enable employees to reply to incident managers, respond to polls and send "need help" requests. For example, during a wildfire or mudslide, you could poll employees: "Do you need medical assistance?" If help is requested, you could follow-up with: "Are you able to get to the hospital?"

You can also use two-way communication immediately after a natural disaster to keep people safe. For instance, you should remind people after a wildfire to avoid hot ash, smoldering debris and live embers. Following a mudslide, people should stay away from the slide area, as additional slides pose a danger.

5 Make Contingency Plans For Business Operations

Wildfires and mudslides can damage or destroy buildings. Issues could include flooding from sprinklers, chemical residue from fire suppression systems and smoke damage. Older building materials are at risk of asbestos hazards.

You'll need to consider how your organization will function if some (or all) of your buildings are uninhabitable and understand the downstream implications. Here are some questions you may want to think about:

- Are your employees able to work remotely?
- What if suppliers can't access your facilities?
- What if you need a new phone number for customer service?
- How will you handle planned onsite meetings with customers?

It's important to decide how to handle these difficult situations as a company before a natural disaster like a wildfire or mudslide hits.

6 Get Familiar With Your Community's Warning System And Resources

Sign up for your community's warning system and get to know people at your local emergency management authorities. Those relationships are important to have during and after a natural disaster, because you don't want to be operating in isolation.

It's also good to become familiar with national emergency alerting systems, like the Emergency Alert System (EAS) and National Oceanic and Atmospheric Administration (NOAA) Weather Radio.

In addition, consider participating in federal agency training opportunities. For instance, FEMA does a major training exercise every two years (this year the exercise simulated a hurricane on the East Coast). These are great opportunities to make sure your organization is prepared for a natural disaster.



Wildfires And Mudslides Are Threats You Can't Ignore

The intensity of wildfires in the western U.S. and Canada is growing both in terms of acres burned and economic impact. Consider this [telling statistic from an NPR article](#) in August 2018: "Seven of the most destructive wildfires in California history have occurred just in the past 10 months."

The article goes on to note that climate scientists and fire ecologists warn the situation could keep getting worse in the future due to ongoing drought, extremely low humidity and high temperatures.

What does this mean for emergency preparedness managers? Building a plan to mitigate damage from wildfires and mudslides is no longer optional – it's a necessity. Your business operations and the lives of your employees depend on it.

With the right Emergency Notification System and a comprehensive communications plan, you can be prepared for this one-two punch from Mother Nature and help safeguard your organization.

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