

# after the fire

## Post-Fire Safety

### Safety Tips for Post Fire Operations

Hundreds of thousands of acres have been affected by the fires in California. Many people will be working on those sites in post-fire cleanup and recovery operations, and many hazards may be present. Before heading out into the field to work in burned or fire-affected areas, everyone involved should familiarize themselves with the following information.

#### Personal Protective Equipment

At a minimum, the following equipment should be worn by anyone entering a burn area:

1. Hardhat
2. Leather gloves
3. Sturdy hiking boots (8" vibram-soled)
4. Eye protection
5. Long-sleeve shirt and long pants

#### Hardhat

A hardhat can protect you against a head injury from falling trees and debris. Look for hardhats that meet the requirements of the American National Standards Institute (ANSI) Z89.1.

#### Gloves

All workers who will be around debris from the fire should have a good pair of well-fitting work gloves. Gloves that are too thick, or that don't fit right, may limit your dexterity. Gloves made of leather, kevlar, or canvas, that extend above the wrist, will help to prevent cuts and other injuries.

#### Foot Protection

The large amount of debris on fire sites, and the recovery activities, can cause foot injuries both from materials falling on the foot, and from materials in debris piles puncturing the sole of the shoe. Your footwear should provide both toe and sole protection. Boots may also be necessary because the sites may be wet. Whatever foot protection you use should have good traction. At least 8-inch Vibram-soled boots are recommended.

#### Eye protection

Use safety glasses or goggles, particularly when working with power or impact tools. Eye injuries are a common problem for recovery workers. Smoke and ash from fires can irritate the eyes. Goggles may reduce eye irritation from smoke.

#### Clothing

At a minimum, you should wear a long-sleeved workshirt and long pants to protect yourself against injury from abrasive materials on the site. Clothing should be made of natural fibers and not synthetic fibers, such as polyester.

#### Facemask Respirator

A respirator should be used if working for extended periods in the presence of smoke or in recently burned structures. A filtering facepiece (dust mask) with two straps can protect against airborne dust and ash but cannot protect against hazardous materials, such as lead and asbestos, or gases or vapors.



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## Safety Considerations

### Falling Trees

Falling trees represent the primary risk to individuals working in burn areas. Trees that have been even partially burned may have weakened trunks and/or roots, and can fall at any time, putting anyone on site at risk. Even unburned trees may fall unexpectedly due to increased exposure to wind after a fire.

When electing to work in an area that still contains hazard trees, the following guidelines can help reduce safety risks:

Never enter burn areas on windy days! It is best to postpone work if high winds are predicted. If the wind increases, everyone should move to a designated safety zone.

Assume that every tree in a burn area is a hazard tree. However, trees with obvious defects should be especially avoided. Don't work in the vicinity of dead and blackened trees or trees with:

- Less than 50 percent live foliage
- Trunk injuries or large broken branches
- Lightning scars below the top fork
- Root rot or significant root damage

Consider flagging around obvious hazard trees in advance to make them more identifiable to anyone working in a burn area. This might be done by creating a ring of flagging tape at a safe distance around each identified hazard tree.

Avoid any physical contact with hazard trees. Maintain personal awareness. If the wind increases and trees are swaying or you are concerned about the falling risk, leave the area immediately for a pre-designated safety zone.

### Tripping/Rolling Hazards

Steep, barren slopes in burned landscapes can be difficult to navigate. Always move with caution in burn areas, and be sure to not dislodge rocks or logs that

could roll down-slope into someone working below you. Conversely, do not work directly underneath anyone else on steep, unstable slopes. Beware of hidden underground hazards where stumps have burned out in the fire, which leave hollow areas underfoot that are tripping hazards.

### Storms/Lightning

Badly burned hillsides may not effectively absorb rainwater. During a rainstorm, these slopes may become dangerous due to mudslides, rolling and sliding logs, rocks and other debris, and high volumes of running water. Approaching thunderstorms also can bring erratic, powerful winds and lightning. Be especially alert to the risk of falling trees in strong winds before a storm.

### Spooked Wildlife

Wildlife (including snakes and ground dwelling bees, wasps and hornets) can be a potential hazard. Use caution if digging or removing debris.

### Driving in Burned Areas

Use extra caution when driving in burned areas. Be aware of your surroundings and expect the unexpected.

### Working in High Hazard Areas

Staff should work in pairs when entering high hazard areas. Reliable two-way radios should be used. Inform others where you are, and consider frequent check-ins while working in these areas.

### Other Risks

Do not approach within 5 feet of electrical wire, fences, burned structures or other physical property on the site. Risks in these areas include broken glass, nails, live electrical wires, severed barbed wire, and jagged edges where structures have burned. Also, burned structures may collapse, and hazardous waste (asbestos, chemicals, etc.) may be present.