

GLOSSARY OF TERMS REGARDING WILDLAND FIRES

Aspect: The direction toward which a slope faces. Slopes facing west, south, and southwest usually have the highest and fastest fire activity because the sun dries out the vegetation there the most.

Backfire: A fire set by firefighters along the inner edge of a fireline to consume fuels (vegetation) in the path of a wildfire and/or change the direction or force of the fire.

Backpack Pump/Bladder Bag/Indian Pump: A valuable firefighting tool consisting of a 5-gallon water bladder (usually yellow) and a metal hand pump with a sprayer, with the bladder worn like a backpack. Used when water is scarce or the water supply is far away.

Biomass: Any organic matter that is available on a renewable or recurring basis, including trees and plants.

Buffer Zone: An area of reduced vegetation that separates wildland areas from vulnerable residential or business developments. Such areas are often parks, golf courses, or areas used for agriculture or recreation.

Burnout: A fire set by firefighters inside a fire control line to widen it or to consume fuels/vegetation between the fire and the control line. Burnouts frequently add significant acreage to a fire.

Community Wildfire Protection Plan (CWPP): A local fire preparedness plan called for by the Healthy Forests Restoration Act of 2003.

Defensible Space: An old term used to describe the area around a home where flammable materials such as vegetation and woodpiles have been cleared or reduced, so the space acts as a barrier between an advancing wildfire and lives or buildings at risk. It should extend up to 100 feet from structures. This term initially referred to a space where firefighters could safely work. A newer and more accurate term is "survivable space."

Duff: A layer of decomposing organic materials such as freshly fallen twigs, needles, and leaves. This material is essential for nourishing the soil, but is flammable and should be removed from within 5 feet of any building or other item that must be protected from fire.

Embers or Firebrands: Burning materials such as leaves, twigs, pine cones, and shakes from wooden roofs, which are carried by wind in a wildfire. Strong winds can carry embers as far as a mile from a fire, depositing them on roofs, in gutters, on or under decks, and in flammable materials near the house. Embers pushed by wind often penetrate attic vents, causing fires inside the attic which usually are not detected until the whole roof is in flames. *Research by scientists Dr. Steve Quarles and Dr. Jack Cohen has shown that airborne embers, rather than big flames, are by far the greatest reason that buildings burn*

down in wildfires. To keep burning embers from entering vents, cover all vents with metal mesh with a maximum of 1/8" openings. This is one of the most important and inexpensive things residents can do to protect their homes.

Escape Route: A pre-planned route firefighters or residents can take to move to a safety zone in a fire or to completely get out of the fire area.

Firewise: A project of the National Fire Protection Association (NFPA) which encourages homeowners to take responsibility for preparing their homes to survive wildfires. See firewise.org for more information.

Fire-Adapted Community: A community of any size which takes responsibility for its wildfire risks and prepares to meet them. A truly fire-adapted community is so well prepared for the next wildfire that few, if any, firefighters or fire engines will be needed to protect it as a fire passes through. The Firewise program helps communities prepare in this way.

Fuel: Anything that can burn, including live and dead vegetation, wood piles, fences, decks – and homes. In large residential fires, often burning homes are the most dense fuel, putting off the most burning embers and causing other nearby homes to ignite and burn.

Ground Fuels: All combustible materials below the surface litter, including duff, roots, peat, and other materials that can ignite and burn slowly for long periods.

Hazard Fuel Reduction: Removal of excessive live or dead vegetation for the objectives of (1) reducing the potential for intense fires and (2) making it easier to protect life, property, water supplies, infrastructure, and sensitive natural resources from uncontrolled wildfires.

Heavy Fuels: Large-diameter items that ignite and burn slowly, such as tree trunks, snags (dead trees), and logs.

Home Ignition Zone: A term used by researcher Dr. Jack Cohen to describe a home and its surroundings out to 200 feet away. Absolutely nothing flammable should be in the first 5 feet away from walls, porches, or anything else flammable that is attached to the house. Wood chips are a big offender and should be removed. Bare ground and pavers are good, and small irrigated plants are allowed.

Ladder Fuels: Fuels such as dry grass and shrubs which provide vertical continuity, allowing a fire to easily climb from the surface up into shrubs or the crowns (tops) of trees. Ladder fuels within 30 feet of structures should be thinned, trimmed, or removed to prevent this fire spread.

Land Use Planning: The process, usually at the local or county level, of deciding where structures may be built. *The Wildland/Urban Interface fire problem is largely the*

result of poor planning decisions which allow homes, businesses, and subdivisions to be built in wildland areas which historically burned – and are likely to burn again.

Light Fuels: Fast-drying items less than ¼" in diameter, such as grass, leaves, pine needles, and twigs. These fuels ignite readily, burn quickly, and pose high danger to firefighters and residents. Often called "flashy" fuels.

Litter: The top layer of a forest, scrubland, or grassland floor, directly above the fermentation/ground layer. Composed of loose debris such as sticks, branches, twigs, and recently fallen leaves or needles not yet decomposed. These must be removed from within 5 feet of structures.

McLeod (pronounced *McCloud*): A double-sided firefighting tool with a large flat blade and rake attached to a wooden handle, helpful to anyone doing burn piles.

Mineral Soil: Soil layers below the organic layers, containing little or no flammable material.

Nomex®: Trade name for the yellow fire-resistant material used in protective clothing worn by firefighters.

Personal Protective Equipment (PPE): Protective equipment for wildland firefighters, including leather lace-up boots with lug soles, hard hat with chin strap and ear/neck protection, goggles, Nomex® shirt and trousers, leather gloves, and fire shelter. NOTE: Residents confronted with fire, if they lack such gear, should at the very least wear sturdy shoes, cotton socks, cotton jeans, and a long-sleeved cotton shirt to protect themselves. Synthetic fibers such as polyester and nylon are made from petroleum products and can cause severe burns.

Prepare, Stay and Defend – or Leave Early: A term describing the option of allowing able-bodied, trained residents to stay and defend their homes during a fire, rather than evacuating. This option requires serious preparation, training, and equipment, and should be done in cooperation with local fire departments. A key advantage of this option is that residents who remain at their homes can quickly detect and extinguish burning embers in the attic, on the roof, or elsewhere near homes. Residents who are not able-bodied and prepared to do this work should "Leave Early" before a fire is near.

Prescribed Fire: Also called "controlled burns." A fire purposefully set to meet specific objectives related to hazard fuels reduction or wildlife habitat improvement. Such fires are set within a "window" or "prescription" of very specific conditions of winds, temperature, humidity, and other factors affecting fire behavior.

Pulaski: A firefighting tool that combines an axe blade with a narrow trenching blade, fitted to a wooden handle.

Rate of Spread: The speed of a fire in extending its horizontal dimensions. Usually expressed in chains (a chain is 66 linear feet) or acres per hour for a specific period of time.

Red Flag Warning: An alert issued by fire weather forecasters to warn of critical fire weather conditions, including high winds, high temperatures, and low relative humidity (RH).

Rehabilitation or "rehab": Work necessary to repair damage caused by firefighting activities or fires. Includes restoring bulldozed fire lines and controlling potential erosion. When this includes re-seeding, it is important to ensure that the seeds do not introduce invasive plants such as thistles which could cause further harm.

Relative Humidity (RH): The ratio of the amount of moisture in the air to the maximum amount of moisture the air would contain if it were saturated. Low relative humidity contributes significantly to high fire danger.

Resilience: The capacity of any kind of community, animal, plant, or landscape to recover quickly from natural disturbances such as wildland fires.

Resources: 1) Firefighting personnel, equipment, services, and supplies. 2) The natural resources of an area, such as timber, wildlife habitat, grasslands, and watersheds.

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Safety Zone: An area clear of flammable materials and used to escape from a fire: areas which already burned (called "the black"), a moist meadow or riparian area (waterway), a large previously-cleared area, a natural rock formation, parking lot, horse arena, or any area large enough to provide refuge from heat and flames. A well-prepared house and property can also be a safety zone.

Slash: Vegetative debris left after logging, pruning, thinning, or masticating. Slash is a major fire hazard.

Smoke Management: Scientific plans and tactics to minimize degradation of air quality during fires.

Smoldering Fire: A fire burning without flame ("glowing combustion") and spreading very slowly.

Snag: A standing dead tree from which at least the smaller branches have fallen. These provide valuable habitat for wildlife, but can be hazardous to firefighters or residents during or after a fire, as they may fall.

Stewardship Contracting: A process which allows local, private organizations or businesses to remove timber in return for performing work to restore and maintain healthy forest ecosystems and reduce fire danger.

Surface Fuels: Loose litter on the soil surface: fallen leaves or needles, twigs, bark, cones, and small branches; also grasses, low shrubs, tree seedlings, and stumps.

Wildland Fire Use: The management of naturally ignited (by lightning) wildland fires to accomplish specific pre-determined management objectives such as reducing vegetative fuels and restoring habitat for wildlife.

Wildland/Urban Interface or Intermix (WUI): A term describing an area where homes meet or intermingle with wildland vegetation. A new understanding is that the WUI is not a geographical location, but a set of conditions that determine the home's potential to burn in a wildfire.

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