

**APPENDIX B:  
GLOSSARY**

## Humboldt County Community Wildfire Protection Plan

### APPENDIX B: GLOSSARY

Definitions listed in this Glossary came from the following sources:

- [The 2006 Humboldt County Master Fire Protection Plan](#)
- [Fire Plans authored by Tracy Katelman of ForEverGreen Forestry - <http://www.forevergreenforestry.com/fire.html>](#)
- [http://www.fire.ca.gov/fire\\_protection/downloads/siege/Glossaryofterms.pdf](#)
- [http://www.nwcg.gov/pms/pubs/glossary/d.htm](#)
- [http://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/stelprdb5296997.pdf](#)

**1-Hour Fuel:** *See Fuel Description table.*

**10-Hour Fuel:** *See Fuel Description table.*

**100- Hour Fuel:** *See Fuel Description table.*

**Access Roads/Routes:** Roads that allow entrance into and out of a property. Routes available for fire trucks and equipment to approach and defend areas or structures, including roadways or driveways.

**Advanced Life Support (ALS):** a set of life-saving protocols and skills that extend Basic Life Support (BLS) to further support the circulation and provide an open airway and adequate ventilation (breathing).

**All-Risk Fire Protection:** Protection associated with fire response that may include fire protection, Emergency Medical Services (EMS), hazardous materials (HazMat), and rescue.

**Aloft Winds:** *See "Winds Aloft".*

**Amador Agreement:** A contract that continues CAL FIRE staffing and station coverage through the winter "off season".

**Anchor Point:** The point at which firefighters begin fireline construction, usually blocked from the spreading fire to protect firefighters from harm.

**Annexation:** The addition of a territory into a jurisdiction, such as a city or special district.

**Anthropogenic:** An adjective for something that is the result of human activities or the influence of humans on nature.

**Apparatus:** Fire apparatus includes firefighting vehicles of various types. For the purposes of the Humboldt County Master Fire Protection Plan, fire apparatus includes wildland fire engines, rescue vehicles, ladder and aerial trucks, engines, and water tenders.

**Aspect:** The cardinal direction toward which a slope faces: north, south, east, west, etc. This has an effect on fire behavior and intensity. South facing slopes dry out faster and have less moisture available for plants. North facing slopes tend to have denser vegetation because there is more moisture available for plants. While north slopes may not burn as frequently as south slopes, they can burn with more intensity because there is more fuel.

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**Assessment:** The evaluation and interpretation of measurements, intelligence, and other information to provide a basis for decision-making.

**Assets at Risk:** Those things that are important to quality of life that can be threatened with destruction or loss from wildfire. These include homes, businesses, infrastructure, cultural sites, wildlife habitat, natural resources, air quality, recreational facilities and areas, historical structures, and any other important attribute that individual communities rely on for their well being.

**Automatic Aid Agreement:** An agreement between two or more agencies whereby such agencies are automatically dispatched simultaneously to predetermined types of emergencies in predetermined areas.

**Backburn:** *See Blackline.*

**Backfire:** A technique used in certain locations to direct fire spread against the wind while doing prescribed burns.

**Basic Life Support (BLS):** The level of medical care which is used for victims of life-threatening illnesses or injuries until they can be given full medical care at a hospital. It can be provided by trained medical personnel, including emergency medical technicians, paramedics, and by laypersons who have received BLS training. BLS is generally used in the pre-hospital setting, and can be provided without medical equipment.

**Basins:** *See Watershed.*

**Best Management Practices (BMPs):** In this context, fire safety activities that effectively reduce wildfire risk while limiting potential negative environmental impacts. BMPs can range from reducing impacts on specific wildlife species, to maintaining or enhancing ecosystem functions and processes.

**Benefit Assessment:** Benefit Assessments are used by local governments to pay the costs of providing fire suppression, flood control and other services to a particular community. These charges are based on the concept of assessing only those properties that directly benefit from the services or improvements financed. Because these charges are based on specific benefit, they are not subject to Proposition 13 limitations.

**Big Red Truck Program:** A community fire-safe education program where representatives from fire departments visit local residences and help landowners identify priority areas for hazard mitigation attention, such as high fuel loads and one-way-in, one-way-out roads. This program can help identify locations that are difficult for a fire truck to access.

**Biochar:** Organic matter that is burned slowly with limited oxygen until it becomes charcoal, which is then used as a soil amendment; *biochar* helps retain moisture in the soil, and it replenishes exhausted or marginal soils with organic carbon and fosters the growth of soil microbes essential for nutrient absorption. *Biochar* also has promise as a means of carbon sequestration.

**Biodiversity:** The abundance variety of plant, fungi, and animal species found in an ecosystem, including the diversity of genetics, species, and ecological types.

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**Biomass:** The total weight of living matter in a given ecosystem. May also be defined as the total weight of plant debris that can be burned as fuel.

**Biomass Utilization/Recovery:** The harvest, sale, offer, trade, or utilization of woody biomass to produce bioenergy and the full range of bio-based products including lumber, composites, paper and pulp, furniture, housing components, round wood, ethanol and other liquids, chemicals, and energy feedstocks.

**Bioregional/Bioregion:** the characteristic features of an area (bioregion) constituting a natural ecological community of contiguous geographic terrain, delineated by natural rather than artificial borders; the region's climate, local aspects of seasons, particular landforms, watersheds, soils, native plants, and animals. Humans are also an integral aspect of a bioregion's life.

**Biotic:** A term referring to all living things, organisms, or their materials; of life, of living things.

**Blackline:** Pre-burning, or backburning, of fuels adjacent to a control line before igniting a prescribed burn (controlled burn).

**Blue Dot Program:** A community fire-safety program which identifies the location of firefighting water sources by marking them with a blue reflective dot. This program also ensures that tanks and water systems are outfitted with fittings compatible with firefighting equipment and in some cases maps the location of these water sources.

**Broadcast Burning:** A controlled burn, where the fire is intentionally ignited and allowed to proceed over a designated area within well-defined boundaries for the reduction of fuel hazard, as a resource management treatment, or both.

**Brush:** A collective term that refers to stands of vegetation dominated by shrubby, woody plants, or low-growing trees.

**Brushing:** Clearing or "cleaning up" such vegetation in an area.

**Brushfire:** A fire burning in vegetation that is predominantly shrubs, brush, and scrub growth.

**Bucket Dipping:** A method of delivering water for aerial firefighting in which a specialized bucket is suspended on a cable from a helicopter, which dips the bucket into an open water source and carries water to the site of the fire.

**Buffer Zone:** An area of reduced vegetation that creates a barrier separating wildlands from vulnerable residential or business developments; this barrier is similar to a greenbelt in that it is usually used for another purpose, such as agriculture, recreation areas, parks, or golf courses.

**Building Code:** The building or construction code adopted by the jurisdiction.

**Built Environment:** Man-made structures as opposed to the natural environment.

**Burn:** (1) An area burned over by wildland fire. (2) A reference to a working fire. (3) To be on fire. (4) To consume fuel during rapid combustion. (5) A fire in progress or under investigation.

**Burning Conditions:** The state of the combined factors of the environment—such as winds, temperature, fuel moistures, and humidity—that affect fire behavior in a specified fuel type.

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**Burning Period:** That part of each 24-hour period when fires spread most rapidly, typically from 10:00a.m to sundown.

**Burn-Out Times:** The length of time in which flaming and smoldering phases occur in a given area or for the whole fire.

**Call Downs:** Community telephone networks, such as phone trees, used to dispatch help and distribute or relay information in emergency situations.

**Cambium:** The growing layer of a tree, located between the bark and wood of the stem.

**Candle or Candling:** A single tree or a very small clump of trees burning from the bottom up.

**Canopy:** The top layer of a forest, tree, or low-growing stand of shrubs, which is formed by leaves, needles, and branches creating a continuous cover.

**Canopy Density:** A term used to describe the amount of vegetative cover in the top layer of a forest; among other things, the canopy density influences the amount of light penetration, understory composition, surface reflectance, and rainfall interception in a forest landscape.

**Catastrophic Fire:** Wildland or wildland-urban interface fire with a fast-moving front, extending over a large area (300+ acres) and/or highly destructive to lives, property, or natural resources.

**CEQA: The California Environmental Quality Act** (Chapters 1 through 6 of Division 13 of the Public Resources Code). A state statute that requires state and local agencies to identify the significant environmental impacts of their actions and to avoid or mitigate those impacts, if feasible.

**Chaparral:** A shrubland or heathland plant community associated with Mediterranean climates consisting primarily of highly flammable, drought-tolerant plants with hard, evergreen leaves. These communities tend to provide habitat for many different species.

**Chimney:** (1) Steep narrow draw or small canyons that draw fire up them in the same manner a flue draws heat from a fireplace. (2) A home containing one or more vertical or nearly vertical passageways for conveying flue gases to the outside atmosphere.

**Chipping Program/Chipping Days:** A program where several individuals or communities share the resources associated with processing debris from fuel-reduction activities, including the chipper (the machine that creates the chips), staff, insurance, etc.

**Climax:** A theoretical, ecological notion intended to describe a relatively stable community that is in equilibrium with environmental conditions, and occurring as the terminal, end-point of succession.

**Coarse Woody Material:** Large-dimension wood, usually 20 inches in diameter or larger, found on the ground from fallen trees or downed branches.

**Collaborative:** An open, inclusive process that assumes all participants have valuable knowledge and opinions and all of their comments are heard and considered; collaboration does not mean consensus or ownership.

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**Combustible:** Any material that, in the form in which it is used and under the conditions anticipated, will ignite and burn.

**Combustion:** The rapid oxidation of fuel in which heat and usually flame are produced. Combustion can be divided into four phases: pre-ignition, flaming, smoldering, and glowing.

**Community:** A body of people living in one place or district and considered a whole; a neighborhood, subdivision, small town, village or township with boundaries defined by the residents or by regulatory jurisdiction.

**Community at Risk (CAR):** Wildland interface (see definition below) communities in the vicinity of Federal lands that are at high risk from wildfire. (See list in Federal Register, January 4, 2001).

**Community Emergency Response Team (CERT) Program:** This program educates people about disaster preparedness for hazards that may impact their area and trains them in basic disaster response skills, such as fire safety, light search and rescue, team organization and disaster medical operations. Using the training learned in the classroom and during exercises, CERT members can assist others in their neighborhood or workplace following an event when professional responders are not immediately available to help. CERT members also are encouraged to support emergency response agencies by taking a more active role in emergency preparedness projects in their community.

**Community Services District (CSD):** Sometimes called “junior districts,” authorized under §61000 et seq. of the Government Code. CSDs can provide a broad range of municipal services (primarily to unincorporated areas), including fire protection. CSDs are normally governed by a five-member elected Board of Directors and can receive revenue from taxes and fees. In cases where a CSD is responsible for fire protection in Humboldt County, services are provided by a volunteer fire department with facilities and funding provided by the CSD.

**Community Wildfire Protection Plan (CWPP):** As defined by the Healthy Forests Restoration Act, a plan for a community at risk to wildfire that fulfills the following criteria:

- A) The plan was developed within the context of the collaborative agreements and the guidance established by the Wildland Fire Leadership Council and agreed to by the applicable local government, local fire department, and State agency responsible for forest management, in consultation with interested parties and the Federal land management agencies managing land in the vicinity of the at-risk community.
- B) The plan identifies and prioritizes areas for hazardous fuels reduction treatments and recommends the types and methods of treatment on Federal and non-Federal land that will protect one or more at-risk communities and essential infrastructure.
- C) The plan recommends measures to reduce structural ignitability throughout the at risk community.

**Composite Decking:** Deck boards manufactured from wood fiber and plastic to form a profile that requires less maintenance and generally has a longer lifespan than natural wood.

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**Composition:** The percentage of each species that together comprise the biota present in a given area.

**Condition Class:** This landscape designation is based on a relative measure describing the degree of departure (low, moderate, or high) from the historical natural fire regime.

**Conduction:** Heat transfer through a material from a region of higher temperature to a region of lower temperature.

**Conflagration:** A raging, destructive fire. Often used to connote such a fire with a moving front as distinguished from a firestorm.

**Conifer Forest:** A stand of trees that are usually evergreen, cone-bearing, and with needle, awl, or scale-like leaves, such as pine, spruce, fir and cedar; often referred to as "softwood."

**Contain a fire:** A situation where a fuel break around the fire has been completed. This break may include natural barriers and/or manually built fireline and/or mechanically constructed line.

**Containment:** The process of completely surrounding a fire with natural or man-made fuelbreaks.

**Contour Falling:** Cutting and placing trees along the slope contour. This is a treatment that utilizes positioned logs to help control erosion from water flow. Logs are offset on the slope contour to slow water by creating a meandering travel path.

**Control a fire:** To complete a control line around a fire, any spot fires, and any interior islands to be saved; burn out any unburned area adjacent to the fire side of the control lines; and cool down all hotspots that are immediate threats to the control line, until the lines can reasonably be expected to hold.

**Controlled Burning (or Prescribed Fire):** A vegetation management practice that uses fire to improve habitat and/or reduce hazardous fuels. A plan for the prescribed burn must be written out and approved by fire department authorities, and specific requirements, such as obtaining a special permit, must be met before commencing burning.

**Convection:** (1) The transfer of heat by the movement of a gas or liquid; convection, conduction, and radiation are the principal means of energy transfer. (2) As specialized in meteorology, atmospheric motions that are predominantly vertical in the absence of wind (which distinguishes this process from advection), resulting in vertical transport and mixing of atmospheric properties.

**Convection Column:** Heat generated from a fire that rises in a column to varying heights above the flames, depending on the size of the burn.

**County Service Area (CSA):** Authorized under §25210.1 of the Government Code, CSAs are generally single purpose, dependent special districts governed by the County Board of Supervisors. CSAs are means of providing expanded service levels to unincorporated areas where residents are willing to pay for the extra services; services may include extended police protection, fire protection, park and recreation facilities, libraries, low power television and translation facilities and services. CSAs also may provide other basic services such as water and garbage collection if they are not already performed on a countywide basis.

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**Cover:** Any plants or organic matter that hold soil in place and/or grow over and create shade that provides wildlife with an area to reproduce and find protection from predators and weather.

**Critical Habitat:** A specific geographic area, designated by the U.S. Fish and Wildlife Service, which is essential for the conservation of a threatened or endangered species, and may require special management and protection. Critical habitat may include an area that is not currently occupied by the species but that will be needed for its recovery.

**Crown Density:** A measurement of the thickness or density of the foliage of the treetops (crown) in a stand.

**Crown Fire (Crowning):** A fire that spreads through the top of the vegetative canopy and is characteristic of hot fires and dry conditions. Crown fires become more or less independent from the surface fire and are generally more complex to control than surface fires.

**Crown Scorch:** When a fire or a convection column burns a portion or the entire crown of a tree or shrub.

**County Service Area (CSA);** CSAs are single purpose dependent special districts (governed by the County Board of Supervisors) authorized under §25210.1 of the Government Code as a means to “extend” services to growth areas within the unincorporated area, as well as provide funding for that extended service.

**Dead Fuels /Dead Plant Matter:** Fuels with no living tissue in which moisture content is governed almost entirely by atmospheric moisture (relative humidity and precipitation), dry-bulb temperature, and solar radiation.

**Debris Burning:** Any fire originally set for the purpose of clearing land or for burning rubbish, garbage, range, stubble, or meadow burning.

**Decision Point:** Established prior to tactical engagement and, once reached, forces or "triggers" firefighters to re-evaluate their situational awareness and tactical progress and effectiveness and to, ultimately, help them make critical decisions regarding their safety.

**Defensible Space (i.e. Survivable Space):** An area, either natural or manmade, where material capable of causing a fire to spread has been treated, cleared, reduced, or changed in order to provide a barrier between an advancing wildland fire and the loss to life, property, or resources. In practice, defensible space is defined as an area with a minimum of 100 feet around a structure that is cleared of flammable brush or vegetation. Distance from the structure and the degree of fuels treatment vary with vegetation type, slope, density, and other factors.

**Detection:** The act or system of discovering and locating fires.

**Direct Attack:** Any treatment of burning fuel, such as by wetting, smothering, or chemically quenching the fire or by physically separating burning from unburned fuel.

**Direct Protection Area (DPA):** That area for which a particular fire protection organization has the primary responsibility for attacking an uncontrolled fire and for directing the suppression action. Such responsibility may develop through law, contract, or personal interest of the firefighting agent.

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**Dispatch:** The implementation of a command decision to move a resource or resources from one place to another.

**Disturbance:** Various activities that disrupt the normal state of the soil, such as digging, erosion, compaction by heavy equipment, etc.

**Diurnal:** Belonging to or active during the day (opposite of nocturnal).

**Dominant:** The species or individual that is the most abundant or influential in an ecosystem. For example, a dominant tree is one that stands taller than the rest and receives full sun, or the shrub species most abundant in the local understory.

**Downed Woody Debris:** The remains of dead trees, branches, and various woody brush that sit on the ground; generally refers to trunks of downed trees.

**Draft:** Using suction to draw water from ponds, swimming pools, or other bodies of water. This technique utilizes a partial vacuum formed by a suction pump and atmospheric pressure. The water is then moved where it is needed (for fire protection, for example).

**Drafting Site:** A location, such as a pond, river, or swimming pool, from which water may be drawn with a suction pump to be used for the purposes of fire protection.

**Drip Line:** The boundary of a tree's canopy, generally estimated by the extent of the tree's outermost limbs and the circular moisture line formed when rainfall drips from the limb tips.

**Duff:** The layer of decomposing organic materials located below the litter layer of freshly fallen twigs, needles, and leaves and immediately above the mineral soil.

**Drainage(s):** *See Watershed.*

**Draw-Down Level:** The level where the success of extinguishing a fire with initial attack forces is compromised.

**Downed Fuel:** *See Fuel Description table.*

**Eave(s):** The projecting overhang(s) at the lower edge of a roof.

**Ecosystem:** A community of organisms that makes up a specific area. Examples of ecosystem types include a pond or a forest.

**Ecosystem Functions:** The processes and interactions that occur between organisms and the physical environment.

**Ecotone:** The area where two or more ecosystems meet. The change in ecosystems may be due to elevation, soil type, disturbance, or other factors.

**Egress:** A means of exiting an area.

**Embers:** Burning (or glowing) particles of vegetation from tree branches, parts of shrubs or chaparral, or other combustible materials that ignite and burn during a wildfire and are carried in wind currents to locations in front of the wildfire (also known as *firebrands*).

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**Emergency Dispatch:** *See Dispatch.*

**Endangered Species:** A population of organisms classified as such by the state or federal government as being at risk of becoming extinct because it is few in number and/or threatened by changing environmental or predation parameters.

**Environmental Compliance:** Conforming to environmental laws, regulations, standards, or other requirements imposed by local, state, or federal jurisdictions.

**Environmentally Significant Habitat Area (ESHA):** An area protected from human activities or development due to the existence of rare or especially valuable and/or vulnerable plants, animals, and habitats.

**Erosion:** The removal of soil over time by weather, wind and/or water, such as rain or water runoff from roads.

**Escapes:** Wildfires that cannot be contained with the first attempts at suppression.

**Estuary:** A partly enclosed coastal body of water with one or more rivers or streams flowing into it, and with a free connection to the open sea. The inflow of both seawater and freshwater provide high levels of nutrients in both the water column and sediment, making estuaries among the most productive natural habitats in the world.

**Evacuation:** An organized, phased, and supervised withdrawal, dispersal, or removal of citizens from dangerous or potentially dangerous areas, and their reception and care in safe areas.

**Evacuation Route:** A path or road that has been preplanned for getting out of harm's way in a fire situation. The route should be well understood in advance of crisis by all participants. If there is any unclear direction, the path should be marked.

**Evacuation Center/Site:** A safety zone located within a community--usually on a large, flat, open area--where community members can go in cases of emergency evacuation; oftentimes, temporary shelters are established, and food, water, and medical supplies are distributed at these locations.

**Exotic Species:** Plant or animal species that have been introduced into an area where they do not occur naturally; non-native species.

**Exposure:** (1) Property that may be endangered by a fire burning in another home or by a wildfire; (2) Direction in which a slope faces, usually with respect to cardinal directions; (3) The general surroundings of a site with special reference to its openness to winds.

**Extreme Fire Behavior:** "Extreme" implies a level of fire behavior characteristics that ordinarily precludes methods of direct control action. One or more of the following is usually involved: high rate of spread, prolific crowning and/or spotting, presence of fire whirls, strong convection column. Predictability is difficult because such fires often exercise some degree of influence on their environment and behave erratically and/or dangerously.

**Exurban:** A region lying beyond the suburbs of a city.

**Feather Out Treatment:** When reducing hazardous fuels, thinning heavily near the structure or area in need of protection and thinning less as you move out away from it.

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**Federal Responsibility Area (FRA):** Areas within which a federal government agency has the financial responsibility of preventing and suppressing fires. These lands are generally protected by the Department of Agriculture, Forest Service, and the Department of the Interior: Bureau of Land Management, National Park Service, US Fish and Wildlife Service, and the Bureau of Indian Affairs (see also State Responsibility Area and Local Responsibility Area).

**Fee:** Also termed “exaction.” A direct charge or dedication collected on a one-time basis as a condition of an approval being granted by the local government. The purpose of the fee or exaction must directly relate to the need created by the development. In addition, its amount must be proportional to the cost of improvement. Includes development impact fees, permit and application fees which cover the cost of processing permits and development plans, and regulatory fees.

**Felling:** The process of downing individual trees; in hand felling, an axe, saw, or chainsaw is used to drop a tree, followed up by limbing, hewing, and cutting the tree into logs.

**Fine (Light, Flash) Fuels:** Fast-drying fuels, generally with a comparatively high surface area-to-volume ratio, which are less than ¼-inch in diameter and have a time-lag constant of one hour or less. These fuels readily ignite and are rapidly consumed by fire when dry.

**Fire:** Rapid oxidation, usually with the evolution of heat and light. Requires interaction of heat, fuel, oxygen.

**Fire-adapted Ecosystem:** Where plant species have, over time, assumed certain traits or characteristics that enable them to respond favorably to reoccurring fire events specific to the part of the ecosystem in which they inhabit and allows them to survive and/or regenerate.

**Fire Behavior:** The manner in which a fire reacts to the influences of fuel, weather, and topography. Common terms used to describe behavior include: smoldering, creeping, running, spotting, torching, and crowning.

**Firebrand:** A piece of wood or coal that is hot and glowing from fire activity, often dispersed by wind ahead of a fire. Also called *embers*.

**Firebreak:** A strip of land that has been cleared of vegetation to help slow or stop the spread of wildfire. It may be a road, trail, or path cleared of burnable material; a stream may also serve as a firebreak. *See Fuelbreak for the difference between the two.*

**Fire Company:** *See Volunteer Fire Company.*

**Fire Department:** *See Volunteer Fire Department.*

**Fire-dependent:** Plants, vegetation communities, and specific habitat types that have evolved to rely on fire in order to exist and/or thrive.

**Fire Ecology:** The study of fire and its relationship to the physical, chemical, and biological components of an ecosystem.

**Fire-evolved Landscapes:** *See fire-adapted ecosystem.*

**Fire Flow:** The flow rate of a water supply expressed in gallons per minute (gpm), measured at 20 pounds per square inch (psi) residual pressure, that is available for fire fighting.

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**Fire Flow Requirement:** A measure comparing the amount of heat a fire is capable of generating (based on building construction and occupancy) versus the amount of water required for cooling the fuels below their ignition temperature.

**Fire Frequency:** General term referring to the recurrence of fire in a given area over time.

**Fire Front:** The part of a fire within which continuous flaming combustion is taking place. Unless otherwise specified, the fire front is assumed to be the leading edge of the fire perimeter. In ground fires, the fire front may be mainly smoldering combustion.

**Fire Hazard:** A fuel complex, defined by volume, type, condition, arrangement, and location, that determines the degree of ease of ignition and of resistance to control.

**Fire Hazard Mitigation:** Various methods by which existing fire hazard can be reduced in a certain area, such as fuel breaks, non-combustible roofing, spark arrestors, etc.

**Fire Hazard Severity Zone (FHSZ):** Any geographical area designated pursuant to California Public Resource Code Section 4201 to contain the type and condition of vegetation, topography, weather, and structure density to increase the possibility of conflagration fires. (Bates Bill AB 337 in 1992 modified Government Code for the purpose of identifying and mitigating hazards in areas prone to wildfire conflagration.) Areas are zoned as Very High, High, or Moderate by evaluating applicable risks and hazard.

**Fire History:** The known frequency and intensity of fires that have occurred in a given area over a period of time.

**Fire Intensity:** Amount of heat released by a fire in an area in any given time period. Fire intensity is usually related to the flame lengths of a fire.

**Fire Interval:** Number of years between two successive fire events for a given area. Also referred to as fire-free interval or fire-return interval.

**Fire Ladders:** See “*Fuel Ladders*”.

**Fireline:** The forefront of the fire.

**Fire Management:** Activities required for the protection of burnable wildland values from fire and the use of prescribed fire to meet land management objectives.

**Fire Management Plan (FMP):** A strategic plan that defines a program to manage wildland and prescribed fires. The plan is supplemented by operational plans such as preparedness plans, preplanned dispatch plans, prescribed fire plans, and prevention plans.

**Fire Occurrence Interval:** See “*Fire Interval*”.

**Fire Perimeter:** The entire outer edge or boundary of a fire. Note that while acreage of a fire is determined or estimated by the fire’s perimeter, it is possible that some substantially smaller acreage may have actually been burned within that perimeter.

**Fire Planning:** Systematic technological and administrative management process of design, organization, facilities, and procedures, including fire use, to protect wildland from fire.

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**Fire Prevention:** Activities such as public education, community outreach, law enforcement, and reduction of fuel hazards that are intended to reduce wildland fire and the risks it poses to life and property.

**Fire Protection:** Firefighting tactics used to suppress wildfires. Firefighting efforts in wildland areas require different techniques, equipment and training from the more common structure firefighting tactics used in populated areas.

**Fire Protection Districts (FPD):** Formal jurisdictional areas with some type of tax support authorized under §13800 et seq. of the California Health and Safety Code to provide fire protection and emergency medical services.

**Fire Protection Water:** Water stored, designated, or used specifically for the purposes of fire suppression and protecting people, structures, and natural resources from fire damage.

**Fire Regime:** Description of the patterns of fire occurrences, frequency, size, severity, and sometimes vegetation and fire effects as well, in a given area or ecosystem.

**Fire Resilient/Resiliency:** The ability of an ecosystem to maintain its native biodiversity, ecological integrity, and natural recovery processes following a wildfire disturbance.

**Fire Resistant:** Construction designed to provide reasonable protection against fire.

**Fire Resistive:** Refers to properties or designs to resist the effects of any fire to which a material or structure can be expected to be subjected.

**Fire Retardant:** Any substance except plain water that, by chemical or physical action, reduces flammability of fuels or slows their rate of combustion.

**Fire-Return Interval:** See “*Fire Interval.*”

**Fire Risk:** The combination of vegetation, topography, weather, ignition sources, and fire history that leads to fire and/or ignition potential and danger in a given area.

**Fire-Safe:** For the purposes of the Humboldt County Master Fire Protection Plan this term is defined as: Action(s) that moderate the severity of a fire hazard to a level of "acceptable risk," as discussed in the Safety Element of the County General Plan. In a broader context this term describes the state of lessened severity or action(s) that moderate the severity of a fire hazard or risk, while protecting structures and surrounding property from fire, whether fire is inside the structure or is threatening the structure from exterior sources.

**Fire Safe Council:** Public and private organizations that comprise a council intended to minimize the potential for wildfire damage to communities and homeowners, while also protecting the health of natural resources. Goals are achieved by distributing fire prevention materials, organizing fire safety programs, implementing fuel-reduction projects, and more.  
[www.firesafecouncil.org](http://www.firesafecouncil.org).

**Fire-Safe Standards:** Standards adopted by ordinance for the purpose of establishing a set of standards that will result in fire safe development within a specified area.

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**Fire Season:** 1) Period(s) of the year during which wildland fires are likely to occur, spread, and affect resource values sufficient to warrant organized fire management activities. 2) A legally enacted time during which burning activities are regulated by state or local authority.

**Fire-sensitive:** A species of tree that is more susceptible to fire damage. Sensitivity may be due to thin bark or easily ignitable foliage.

**Fire Service:** Organized fire protection service; its members, individually and collectively; allied organizations assisting protection agencies.

**Fire Severity:** Degree to which a site has been altered or disrupted by fire; loosely, a product of fire intensity and residence time.

**Fire Spread:** The movement of fire from one place to another.

**Fire Storm:** Violent convection caused by a large continuous area of intense fire. Often characterized by destructively violent surface indrafts, near and beyond the perimeter, and sometimes by tornado-like whirls. Also known as blowup or extreme fire behavior.

**Fire Suppression:** All the work and activities connected with control and fire-extinguishing operations, beginning with discovery and continuing until the fire is completely extinguished.

**Fire Weather:** Weather conditions that influence fire ignition, behavior, and suppression, such as high temperature, low precipitation/humidity, and high winds.

**Firewise®/Firewise Communities/USA® Recognition Program:** (1) A national, multi-agency effort designed to reach beyond the fire service by involving homeowners, community leaders, planners, developers, and others in the effort to protect people, property, and natural resources from the risk of wildland fire before a fire starts. (2) Firewise® offers a series of practical steps that individuals and communities can take to minimize wildfire risks to people, property, and natural resources. It emphasizes community responsibility for planning in the design of a safe community as well as effective emergency response, and individual responsibility for safer home evacuation and design, landscaping and maintenance.

**Firewise® Construction:** The use of materials and systems in the design and construction of a home to safeguard against the ignition from a wildfire.

**Firewise® Landscaping:** Vegetative management that removes flammable fuels from around a home to reduce ignition exposure from radiant heat. The flammable fuels may be replaced with green lawn, gardens, certain individually spaced green, ornamental shrubs, individually spaced and pruned trees, decorative stone or other non-flammable or flame-resistant materials.

**Flame Height:** The average maximum vertical extension of flames at the leading edge of the fire front. Occasional flashes that rise above the general level of flames are not considered. If flames are tilted due to wind or slope, this distance is less than the flame length.

**Flame Length:** The distance between the flame tip and the midpoint of the flame depth at the base of the flame (generally the ground surface); an indicator of fire intensity.

**Flame Resistant:** A material or surface that does not propagate flame once the external source of flame is removed.

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**Flaming Front:** The zone of a moving fire where the combustion is primarily flaming. Behind this flaming zone combustion is primarily glowing. Light fuels typically have a shallow flaming front, whereas heavy fuels have a deeper front. Also called *fire front*.

**Flammability:** The degree to which a substance is likely to catch fire, be easily ignited, burn quickly and/or have a fast rate of spreading flames.

**Flash/Flashy Fuels:** Fine fuels, such as grass, leaves, pine needles, ferns, mosses, and some kinds of slash, which ignite readily and are consumed rapidly by fire when dry.

**FLASH (Fire-adapted Landscapes and Safe Homes) Program:** a rebate program that reimburses property owners for hazardous vegetation management completed around their homes, along access routes, and in particularly hazardous areas.

**Foehn (Events/Winds):** A wind that blows warm, dry, and generally strong, creating extremely dry fuel and dangerous fire potential.

**Forest Stand Enhancement:** A combination of silvicultural thinning practices and other forest restoration activities (such as controlled burning) that aim to increase the health, resiliency, and vigor of tree communities within a forest ecosystem.

**Free Burning:** The condition of a fire or part of a fire that has not been slowed by natural barriers or by control measures.

**Fuel(s):** Combustible structures and vegetative materials. Includes dead plants, parts of living plants, duff, and other accumulations of flammable vegetation, such as grass, leaves, ground litter, shrubs, and trees that feed a fire. (*See “Surface Fuels.”*)

**Fuel Bed:** An array of fuels usually constructed with specific loading, depth and particle size to meet experimental requirements; also commonly used to describe the fuel composition in natural settings.

**Fuel Bed Depth:** Average distance from the bottom of the litter layer to the top of the layer of fuel, usually the surface fuel.

**Fuelbreak:** A natural or constructed barrier used to stop or check fires that may occur, or to provide a control line from which to work.

**Fuel Characteristics:** Factors that make up fuels such as compactness, loading, horizontal continuity, vertical arrangement, chemical content, size and shape, and moisture content.

**Fuel Class:** Part of the National Fire Danger Rating System (NFDRS). Group of fuels possessing common characteristics. Dead fuels are grouped according to one-, ten-, one hundred-, and one thousand-hour time lag, and living fuels are grouped as herbaceous (annual or perennial) or woody. (*See “Fuel Description.”*)

**Fuel Continuity:** The amount of continuous fuel materials in a fire’s path that allows the fire to extend vertically toward the crowns of trees or horizontally into other fuels.

**Fuel Complex:** The volume, type, condition, arrangement, and location of fuels.

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**Fuel Compositions:** The makeup of combustible materials, such as grass, leaves, plants, shrubs and trees, in a collective area; the mixture of these materials, how they interact, and their respective percentages within the whole influence the area's flammability.

**Fuel Description:** Designation of fuel materials into categories based on size and drying times. Fuel descriptions in use are described below:

| <u>Description</u> | <u>Material</u>                                       | <u>Diameter</u> |
|--------------------|---|-----------------|
| Fine               | Needles, leaves, etc...                               |                 |
| 1 Hour             | Woody material, generally drying out within 1 hour.   | <1/4"           |
| 10 Hour            | Woody material, generally drying out within 10 hours. | 1/4"-1"         |
| 100 Hour           | Woody material, generally drying out within 4 days.   | 1-3"            |
| 1000 Hour          | Woody material, generally drying out within 40 days.  | 3"+             |
| Downed             | Fuel on the ground                                    |                 |
| Heavy              | Large logs and snags                                  |                 |

**Fuel Ladder:** A ladder of vegetation from the ground into the canopy (or upper branches) of the trees that allows fire to climb upward.

**Fuel Levels:** Amounts of burnable materials including but not limited to living or dead vegetation, structures and chemicals that feed a fire.

**Fuel Load:** The amount of available and potentially combustible material, usually expressed as tons/acre.

**Fuel Loading:** The volume of fuel present expressed quantitatively in terms of weight of fuel per unit area.

**Fuel Management:** Act or practice of controlling flammability and reducing resistance to control of wildland fuels through mechanical, chemical, biological, or manual means, or by fire in support of land management objectives.

**Fuel Model:** (1) A standardized description of fuels available to a fire, based on the amount, distribution and continuity of vegetation and wood. (2) Simulated fuel complex (or combination of vegetation types) for which all fuel descriptors required for the solution of a mathematical rate of spread model have been specified.

**Fuel Modification:** Manipulation or removal of fuels to reduce likelihood of ignition and/or lessen potential damage and resistance to control (e.g. lopping, chipping, crushing, piling, and burning). Also known as fuel treatment.

**Fuel Moisture (Fuel Moisture Content):** The amount of water in a material divided by its oven-dry mass, expressed as a percentage. Moisture content is a key factor in determining how a fuel will burn, along with such factors as density and surface-to-volume ratio.

**Fuel Reduction:** Manipulation (including combustion and/or removal of fuels) to reduce the likelihood of ignition and/or to lessen potential damage and resistance to control.

**Fuel Treatment:** See "Fuel Modification."

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**Fuel Type:** An identifiable association of fuel elements of a distinctive plant species, form, size, arrangement; or other characteristics that will cause a predictable rate of fire spread or difficulty of control under specified weather conditions.

**Geographic Information Systems (GIS):** A technology used for viewing, storing, analyzing and manipulating geographical information on a computer. Layers of information can create a better understanding of how data is interrelated. This technology is very useful for landscape-level planning efforts.

**Girdling:** A technique used to kill trees by cutting through the cambium and sapwood layer around the circumference of the tree. The flow of water and nutrients is broken and the tree eventually dies.

**Global Positioning System (GPS):** A system of navigational satellites operated by the U.S. Department of Defense and available for civilian use. The system can track objects anywhere in the world with an accuracy of approximately 40 feet (12 meters).

**Goodwill Service:** Fire protection services provided by a fire district to a location that is outside of the district's jurisdictional boundaries and for which no compensation is provided neither through direct payment nor a tax base.

**Greenbelt:** Landscaped and regularly maintained fuelbreak, usually put to some additional use (e.g. golf course, park, playground). Also known as fuelbreak.

**Ground Disturbing:** An action that interrupts the natural condition of the ground, such as digging and compaction from heavy equipment.

**Ground Fire:** Fire that consumes organic material beneath surface ground litter, such as a peat fire.

**Ground Fuel:** All combustible materials below the surface litter (including duff, tree or shrub roots, punchy wood, peat, and sawdust) that normally support a glowing combustion without flame.

**Habitat:** An ecological or environmental area that is inhabited by a particular species of animal, plant, or other types of organisms.

**Hand Crews:** Diverse teams of career and temporary wildland firefighters.

**Hardened Homes:** This term refers to improving a building's resistance to fire, such as updating a roof with noncombustible roofing material; the goal is to make the structure survivable in a fire.

**Hazard:** Any real or potential condition that can cause injury, illness, or death of personnel, or damage to or loss of equipment or property.

**Hazard Assessment:** Assessment hazards to determine risks. Assess the impact of each hazard in terms of potential loss, cost, or strategic degradation based on probability and severity.

**Hazard Reduction/Mitigation:** Any treatment of living or dead fuels that reduces the threat of ignition and fire intensity or rate of spread.

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**Hazardous Fuels/Fuel Loads:** Accumulations of burnable materials including but not limited to living or dead vegetation, structures, and chemicals that can feed a fire.

**Hazardous Fuels Reduction:** Any treatment that reduces the amount of hazardous fuels.

**Hazardous Materials (HazMat):** Materials (such as those that are flammable or poisonous) that present a danger to life and the environment if not managed properly or released without precaution.

**Hazardous Vegetation Management:** Any treatment that reduces the amount of hazardous fuels.

**Healthy Forests Restoration Act (HFRA):** A portion of the 2003 President's Healthy Forests Initiative intended to reduce hazardous fuels on public and private lands. Establishes Community Wildfire Protection Plans and sets standards for those plans.

**Heart-Rot Decay:** Fungus-caused decay of a tree's heartwood (interior wood). Trees are infected when fungal spores enter tree wounds or dead branch stubs and encounter conditions favorable for spore germination.

**Heat Output:** The total amount of heat that a fire releases in a specific area during the passing of the flaming front.

**Heat Transfer:** Process by which heat is imparted from one body to another, through conduction, convection, and radiation.

**Heavy Fuels:** Fuels of large diameter (such as snags, logs, and large limb wood) that ignite and are consumed more slowly than flash (fine, light) fuels.

**Helibase:** The main location within the general incident area for parking, fueling, maintaining, and loading helicopters. The helibase is usually at or near the incident base.

**Herbaceous Fuels:** Non-woody plants that die back in the winter.

**High-Pruning:** Cutting of both dead and live branches 10 to 15 feet up from the base of the tree. This is done on larger trees to separate the fuel connectivity from the ground to the crown of a tree.

**Historic Natural Condition:** The climax environmental condition of a property/area that occurred in the past, before fire suppression and industrial activities. Old photos, settlers' journals, elders' oral history, and clues on the property (such as old stumps) may be helpful in identifying the historical natural condition of an area.

**Home Assessment:** Evaluation of a dwelling and its immediate surroundings to determine its potential to escape damage by an approaching wildland fire. Includes the fuels and vegetation in the yard and adjacent to the home, roof environment, decking and siding materials, prevailing winds, topography, fire history, etc, with the intent of mitigating fire hazards and risks.

**Home Density:** The density of homes is determined by lot size, home arrangement, and number of homes per lot. This density affects the overall exposure, spread and intensity of wildfire.

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**Home Ignition Zone:** the home and area out to approximately 100 feet, where local conditions affect the potential ignitability of a home during a wildfire.

**Home-to-Home Ignition:** The event of combustion initiation that creates fire as embers pass from one home to another. The action of one home igniting adjacent homes.

**Humboldt County Fire Chiefs Association (HCFCFA):** An independent organization comprised of fire chiefs from each of the County's fire departments. The HCFCFA serves as a sounding board for local fire service issues and contains several subgroups that carry out specific functions, such as fire prevention, training, and arson investigation.

**Humboldt County Fire Dispatch Co-op:** A Joint Powers Authority that includes 31 fire and EMS related service providers who have pooled resources in order to contract with CDF for dispatch services.

**Humboldt County Operational Area Hazard Mitigation Plan (HMP):** A multi-jurisdictional, multi-hazard local hazard mitigation plan. The plan includes a risk assessment and recommended mitigation actions to reduce vulnerability to damage from natural hazards. It is set up in two volumes so that elements that are jurisdiction-specific can easily be distinguished from those that apply to the whole planning area.

**Hydrology:** The science that describes the waters of the Earth, including movement, distribution, seasonal patterns, and conservation.

**Hydrophobic soils:** Literally meaning "water-fearing;" refers to soil that will no longer absorb water.

**Ignitability:** The susceptibility to ignite or catch on fire.

**Ignition:** The event of combustion initiation that creates fire.

**Ignition Factor:** The conditions, subsequent actions, and sequence of events that bring a competent ignition source into contact with the materials first ignited. Also referred to as the "cause of fire."

**Ignition Management:** A program that includes fire prevention program activities that are aimed at preventing the ignition of wildland fires and/or reducing damage from fires. Components include law enforcement, public education, engineering, fuels modification, and fire-safe planning.

**Ignition Potential:** Chance that a firebrand will cause an ignition when it lands on receptive fuels.

**Ignition-Resistant:** (1) Possessing properties that serve to slow or prevent possible ignition in order to slow the rate of fire spread. Can apply to vegetation or structural components. (2) The California Building Code defines *ignition resistant* in a specific way that is based on meeting a minimum flame-spread rating after the material has been subjected to a specified weathering procedure. A material that is *ignition resistant* has passed this test. The California Building Code is based on the International Code Council requirement for exterior fire-retardant wood (lumber and plywood).

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**Ignition Sources:** Combustible elements that create the potential for fire starts, such as vehicle sparks near roadside fuels or downed power lines.

**Immediate Threat Evacuation:** An evacuation announcement made during an immediate or immanent fire situation and residents are in danger of life-threatening events.

**Impact Fees:** Fees (often called "developer fees" or "development impact fees") that are levied on new development to cover the cost of infrastructure or facilities necessitated by that development.

**Impingement:** This occurs when flames from a fire touch an objects (e.g. a plant, deck, or building).

**Incident:** A human-caused or natural occurrence, such as wildland fire, that requires emergency service action to prevent or reduce the loss of life or damage to property or natural resources. Incident management teams also handle other non-fire emergency response, including tornadoes, floods, hurricanes, earthquakes, and other disasters or large events.

**Incident Commander:** The person within the Incident Command System who is responsible for overall management of the incident and reports to the Agency Administrator for the agency having incident jurisdiction.

**Incident Command System:** A standardized on-scene emergency management concept specifically designed to allow its user(s) to adopt an integrated organizational structure equal to the complexity and demands of single or multiple incidents, without being hindered by jurisdictional boundaries.

**Indirect Attack:** A method of fire suppression in which suppression activities takes place some distances from the fire perimeter, and often advantage of fire barriers.

**Ingres-Egress:** Roads and other avenues to enter and leave a property. Also refers to the act or right to come in or go through, as in entering a property (ingress), and the act or right to depart or go out, as in exiting a property (egress).

**Infrastructure:** Roadways, utilities, and other basic elements serving developed areas.

**Ingrowth:** The trees that grow large enough in a season to be considered a sapling or pole timber.

**Initial Attack:** The actions taken by the first resources to arrive at a wildfire in order to protect lives and property and prevent further extension of the fire.

**Initial Entry:** The first stage of vegetation and tree thinning performed in a fuel-reduction treatment.

**Initial Site Assessment:** The preliminary steps of an evaluation of a piece of property to determine fuel hazards and health conditions. Information is gathered to help plan a fuel hazard-reduction treatment.

**Interface Community.** (Defined in the Federal Register, January 4, 2001) The Interface Community exists where structures directly abut wildland fuels. There is a clear line of demarcation between residential, business, and public structures and wildland fuels. Wildland fuels do not generally continue into the developed area. The development density for an interface

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community is usually 3 or more structures per acre, with shared municipal services. Fire protection is generally provided by a local government fire department with the responsibility to protect the structure from both an interior fire and an advancing wildland fire. An alternative definition of the interface community emphasizes a population density of 250 or more people per square mile.

**Interface Fuels:** Refers to anything related to human development that can burn. Interface fuels are grouped into three categories: (1) urban structures; (2) landscaping; (3) urban "debris." Also known as "urban fuels."

**Intermix Community:** (Defined in the Federal Register, January 4, 2001) The Intermix Community exists where structures are scattered throughout a wildland area. There is no clear line of demarcation; wildland fuels are continuous outside of and within the developed area. The development density in the intermix ranges from structures very close together to one structure per 40 acres. Fire protection districts funded by various taxing authorities normally provide life and property fire protection and may also have wildland fire protection responsibilities. An alternative definition of intermix community emphasizes a population density of between 28–250 people per square mile.

**Insurance Services Office (ISO):** Private organization that formulates fire safety ratings based on fire threat and responsible agency's ability to respond to the threat. ISO ratings from one (excellent) to ten (no fire protection). Many insurance companies use ISO ratings to set insurance premiums. ISO may establish multiple ratings within a community, such as a rating of 5 in the hydrated areas and one of 8 in the non-hydrated areas.

**Invasive Plants/Weeds/Species:** Undesirable plants that are not native and have been introduced to an area by humans. These plants generally have no natural enemies and are able to spread rapidly throughout the new location. Some examples include Himalayan blackberries, English ivy, arundo, tamarisk, and Scotch broom.

**Jackpots:** Generally, small pockets of dense fuels, which could allow a fire to flare up and burn more intensely.

**Jurisdictional Agency:** The agency having land and resource management responsibility for a specific geographical or functional area as provided by federal, state, or local law.

**Jurisdictional Area/Boundaries:** *See Response Area.*

**Key Ecosystem Component:** An important piece of an ecosystem such as soil, native species, or mature/rare habitats, which are essential to the stability of an ecosystem.

**Knox Box:** A small safe typically mounted on a wall or post that holds the keys to a building or gate for firefighter or EMT use in emergency situations.

**Ladder Fuels:** Fuels that provide vertical continuity between strata and allow fire to carry from surface fuels into the crowns of trees or shrubs with relative ease. They help initiate and assure the continuation of crowning.

**LAFCO--The Local Agency Formation Commission:** Created by the State Legislature in 1963 to discourage urban sprawl and encourage the orderly formation and development of local government agencies. LAFCOs review proposals for the formation of new local governmental agencies and for changes in the organization of existing agencies. There is a LAFCO in each

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county in California except San Francisco. LAFCO is a seven-member Commission comprised of two city council members (chosen by the Council of Mayors), two county supervisor members (chosen by the Board of Supervisors), two special district members (chosen by Independent Special District election), and one public member (chosen by the members of the Commission).

**Landscape:** The visible features of an area of land, including topography, water bodies, vegetation, human elements, such as land uses and structures, and transitory elements such as lighting and weather conditions.

**Land use Plan(ning):** A set of decisions that establish management direction for land within an administrative area; an assimilation of land-use-plan-level decisions developed through the planning process regardless of the scale at which the decisions were developed.

**Large Fire:** 1) CDF defines a fire burning more than 300 acres as a large fire. 2) A fire burning with a size and intensity such that its behavior is determined by interaction between its own convection column and weather conditions above the surface.

**Late Seral/Succession Forest:** A forest that has evolved, through successional processes, near to the end of the successional line, or climax forest. Only through disturbance (fire or clear-cutting, for example) will the forest return to an earlier seral (successional) stage.

**Leading Edge of a Fire:** The foremost part of a fire that is guiding the fire in the direction of travel.

**Leaf Drop:** A normal condition of growth for many plants, whose lower leaves gradually die and fall off.

**Leave-Trees/Patches:** Swaths or clusters of trees or other vegetation that have been selected to remain standing in an area of fuel treatment.

**Level-of-Service Standard (LOS Standard):** Quantifiable measures against which services being delivered by a service provider can be compared. Standards based upon recognized and accepted professional and county standards, while reflecting the local situation within which services are being delivered. Levels-of-service standards for fire protection may include response times, personnel per given population, and emergency water supply. LOS standards can be used to evaluate the way in which fire protection services are being delivered, for use in countywide fire planning efforts.

**Light Fuels:** See “*Fine Fuels.*”

**Lightning Activity Level (LAL):** A number, on a scale of 1 to 6, that reflects frequency and character of cloud-to-ground lightning. The scale is exponential, based on powers of 2 (e.g., LAL 3 indicates twice the lightning of LAL 2).

**Limbing/Limb Up:** Removing selected branches of a standing or fallen tree or shrub.

**Litter:** Top layer of the forest, scrubland, or grassland floor, directly above the fermentation layer, composed of loose debris of dead sticks, branches, twigs, and recently fallen leaves or needles, little altered in structure by decomposition.

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**Live Fuels:** Living plants, such as trees, grasses, and shrubs, in which the seasonal moisture content cycle is controlled largely by internal physiological mechanisms, rather than by external weather influences.

**Local Agency:** Pursuant to Government Code §56054 means a city, county, or district. For the purposes of the Fire Plan, a Local Agency refers to a city or special district that provides fire protection.

**Local Responsibility Area (LRA):** Lands in which the financial responsibility of preventing and suppressing fires is primarily the responsibility of the local jurisdiction.

**Local Agency Boundary:** A specific land area that has been approved by LAFCO, within which a local agency (either a special district or a city) is obligated to provide services and from which the local agency generates tax revenue.

**Manual Treatment/Fuel Reduction:** Methods of modifying wildfire fuel complexes without the use of machinery; such treatments may include fire use applications, chemical treatments and livestock grazing.

**Mast:** Nuts or fruits of trees and shrubs, such as acorns, walnuts, or berries that collect on the forest floor and are a food source for animals.

**Mechanical Treatments/Fuel Reduction:** Methods of modifying fuel complexes with machinery; these treatments include: biomass removal, biomass thinning, rearrangement, chipping, piling, felling and piling, crushing, and mastication.

**Merchantable Timber:** Timber that is viable for sale under the current economic situation. This is generally determined by the part of the stem (trunk) that is suitable for timber products.

**Mesic:** The condition of being normally moist, as in vegetation or ecosystems.

**Mitigation:** Those activities implemented prior to, during, or after an incident which are designed to reduce or eliminate risks to persons or property that lessen the actual or potential effects or consequences of an incident. Mitigation measures can include efforts to educate governments, businesses, and the general public on measures they can take to reduce loss and injury and area often informed by lessons learned from prior incidents.

**Moisture Content/Levels:** The dry weight of a material, such as wood or soil, compared to the wet weight of the same material. It is not unusual for live material to have moisture content greater than 100% because it could contain more water than solid material by weight.

**Monitor:** To watch, keep track of, or check regularly for changes --in this case, to the environment.

**Montane:** A mountainous region of moist, cool, upland slopes that occurs below the treeline and is predominantly composed of evergreen trees. It is also described as the lower vegetation belt on mountains that are composed of montane plants and animals.

**Mulch:** A material (such as decaying leaves, bark, or compost) spread around or over a plant to keep invasive weeds down, to reduce moisture loss and/or to enrich and insulate the soil; as a verb, the application of such material.

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**Mutual Aid Agreement:** A reciprocal aid agreement between two or more agencies that defines what resources each will provide to the other in response to certain predetermined types of emergencies. Mutual aid response is provided upon request.

**National Environmental Policy Act (NEPA):** The basic national law for protection of the environment, passed by Congress in 1969. NEPA sets policy and procedures for environmental protection, and authorizes Environmental Impact Statements and Environmental Assessments to be used as analytical tools to help federal managers make decisions on management of federal lands.

**National Fire Danger Rating System (NFDRS):** A uniform fire danger rating system that focuses on the environmental factors that control the moisture content of fuels.

**National Fire Plan:** “A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment: 10-Year Comprehensive Strategy Implementation Plan.” Prepared by the Secretaries of the Interior and Agriculture and Western Governors. May 2002.

**National Fire Incident Reporting System (NFIRS):** A database of fire incident reports compiled at the local fire department level. NFIRS was an outgrowth of the 1974 National Fire Prevention and Control Act, Public Law 93–498. The U.S. Fire Administration (USFA), an entity of the Department of Homeland Security, developed NFIRS as a means of assessing the nature and scope of the fire problem in the United States.

**National Fire Protection Association (NFPA):** An international non-profit organization whose mission is to reduce the worldwide burden of fire and other hazards on the quality of life by providing and advocating scientifically-based consensus codes and standards, research, training and education.

**National Wildfire Coordinating Group (NWCG):** An organization formed under the direction of the Secretaries of Agriculture and the Interior that includes representatives of the U.S. Forest Service, Bureau of Land Management, Bureau of Indian Affairs, National Park Service, U.S. Fish and Wildlife Service and National Association of State Foresters. The group’s purpose is to facilitate coordination and effectiveness of wildland fire activities and provide a forum to discuss, recommend action, or resolve issues and problems of substantive nature. NWCG is the certifying body for all courses in the National Fire Curriculum.

**Natural Barriers:** Naturally existing breaks in fuel continuity within a landscape, which can help block the spread of fire in the direction of their location; natural barriers include: lakes, streams, ponds, roads, cultivated fields, and pastures.

**Natural Disturbance:** Disruptions, like fire and floods, which occur in the environment without the intervention of humans.

**Natural Fire Regime:** (1) A natural fire regime is a classification of the role fire would play across a landscape in the absence of modern human mechanical intervention, but including the influence of aboriginal burning (Agee 1993, Brown 1995). Five natural (historical) fire regimes are classified based on average number of years between fires (fire frequency) combined with the severity (amount of replacement) of the fire on the dominant overstory vegetation.

**Natural Resources:** A necessary or beneficial material source (such as timber, minerals, water, and grazing area) occurring in nature that has a value in human commerce.

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**Niche:** A species of population's role and/or function within an ecosystem. Includes resource use, interactions, etc.

**Nurse Log:** A tree that has fallen, died, and started to decompose. The decaying log is rich in moisture and nutrients and provides a germination spot for plants, as well as habitat for insects.

**Open Burning:** the use of outdoor fires for disposing of natural vegetation around homes.

**One-Way-In, One-Way-Out Roads:** Non-continuous and non-connecting roads that constitute the sole ingress/egress route into/away from a particular location; oftentimes, these roads lead to residences or small neighborhoods, and are typically located in remote or semi-remote areas. These roads can become hazardous in emergency incidences when simultaneous home evacuations and emergency response are necessary.

**Organic Matter:** The fraction of soil that includes plant and animal residues at various stages of decomposition, cells and tissues of soil organisms, and substances synthesized by the soil population.

**Overstory:** The topmost trees in a forest that compose the upper canopy layer, compared to the understory, which is the lower woody or herbaceous layer underneath the treetops.

**Patch Burning:** A method of prescribed burning where patches of trees and vegetation are retained in a given area while other parts of the treatment area are thinned (selectively cut) at intermediate levels.

**Pathogens:** Insects or disease that can affect a site or individual plant.

**Peak Fire Season:** That period of the fire season during which fires are expected to ignite most readily, to burn with greater than average intensity, and to create damage at an unacceptable level.

**Perennial:** (1) Plants that live for more than two growing seasons. For fire danger rating purposes, biennial plants (alive for two growing seasons) are classed with perennials. (2) In reference to water, a stream that flows year-round during a typical year.

**Permeability:** In this case, a condition whereby fire can spread through a community with minimal negative impact.

**Personal Protective Equipment (PPE):** Equipment and clothing used and worn by all firefighting personnel in order to mitigate the risk of injury from, or exposure to, hazardous conditions encountered while working.

- **Structure PPE**, or Bunker Gear, includes NFPA/OSHA compliant helmet, goggles, hood, coat, pants, boots, gloves, pocket tools, and Self Contained Breathing Apparatus.
- **Wildland PPE**, includes 8-inch laced leather boots with lug soles, fire shelter, hard hat with chin strap, goggles, ear plugs, aramid shirts and trousers, leather gloves, and individual first aid kits.

**Photo Point Monitoring:** By utilizing a specific, identifiable point on a property from where photos are taken over time, it's possible to use the same view to compare and monitor changes.

**File Burning:** *See Debris Burning.*

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**Planning Unit (Planning Compartment):** Geographic subdivisions of Humboldt County developed to support the Master Fire Protection Plan risk and capabilities assessment. The boundaries of the Planning Compartments were developed using existing Humboldt County planning tools, taking into consideration watershed boundaries, established community planning areas, fire department/district protection boundaries, tribal land boundaries, and State and federal agency administrative boundaries.

**Plant Community:** A group of plants that are interrelated and occupy a given area.

**Plant Succession:** In ecology, progressive change of the plant and animal life of an area in response to environmental conditions.

**Point of Attack:** That part of the fire on which work is started when suppression crews arrive.

**Pole-Sized:** Generally younger trees with a trunk between four and eight inches.

**Post-fire Effects:** Lingering or residual impacts following a wildfire fire that create hazardous conditions for people and the environment. These may include soil erosion and slope instability, which can cause sedimentation in watersheds, negatively impact drinking water, and create flood risks; invasive species may also take hold and alter natural vegetation compositions and create additional fire hazards.

**Pre-Fire Mitigation:** Prior to fire ignition, a systematic application of risk assessment, safety, prevention, and hazard reduction techniques to reduce wildland fires, damages, and cost of suppression.

**Pre-Fire Plan:** A plan to address fire issues before ignition, including fire prevention actions such as hazardous fuel reduction. Occasionally, these plans may extend into the suppression phase of fire protection and detail such items as evacuation routes, fuelbreaks, and firefighting strategies.

**Preparedness:** (1) Activities that lead to a safe, efficient, and cost-effective fire management program in support of land and resource management objectives through appropriate planning and coordination. (2) Mental readiness to recognize changes in fire danger and act promptly when action is appropriate. (3) The range of deliberate, critical tasks and activities necessary to build, sustain, and improve the capability to protect against, respond to, and recover from domestic incidents.

**Prescribed Fire (Controlled Burning):** A fire that burns within a range of predetermined conditions (such as fuel moisture content, weather conditions, etc.) that will keep it controllable, at low intensity, and able to achieve its stated objectives. A written, approved prescribed fire plan must exist, and environmental requirements (where applicable) must be met, prior to ignition.

**Precautionary Evacuation:** An evacuation of the public away from an area which seems to be in the path of an oncoming, uncontained wildfire. Precautionary evacuations are especially likely in areas with limited ingress and egress in order to ensure that residents get out while they can and clear the road for emergency response vehicles.

**Prevention:** Activities directed at reducing the incidence of fires. Include public education, law enforcement, personal contact, and reduction of fuel hazards.

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**Productive:** A term used for land or forests that are growing efficiently and in a vigorous manner.

**Protection Resources:** Assets that are available to support fire protection efforts and public safety; protection resources include firefighting facilities, personnel and equipment, fire protection water storage and areas from which water may be drafted, open areas that can act as fuelbreaks or evacuation safe zones, and access roads.

**Pruning:** The act of cutting back the unwanted portions of a plant, or cutting for the purpose of enhancing growth.

**Pump Chance:** An area where water can be pumped from a pond or creek for fire-suppression purposes.

**Radiant Heat:** Heat energy carried by electromagnetic waves longer than light waves and shorter than radio waves. Radiant heat (electromagnetic radiation) increases the sensible temperature of any substance capable of absorbing the radiation, especially solid and opaque objects.

**Radiation:** Transfer of heat in straight lines through a gas or vacuum other than by heating of the intervening space.

**Rate of Spread:** The speed of an advancing fire. May be measured by the growth in area or by the speed of the leading edge of the fire.

**Regeneration:** The renewal of trees or forests by planting seedlings, or direct seeding by humans, wind, birds or animals after large disturbances like fire. "Regeneration" also refers to young trees that were naturally seeded or planted.

**Registered Professional Forester (RPF):** A person licensed in California to manage state or private forestlands and advise landowners on management of their forests. *For more information, see: [www.bof.fire.ca.gov/professional\\_foresters\\_registration/about\\_registration/](http://www.bof.fire.ca.gov/professional_foresters_registration/about_registration/).*

**Relative Humidity:** A measure of moisture in the air. If the humidity is 100%, the air is completely saturated with moisture. If the humidity is less than 20%, the air is very dry. When the air is dry, it absorbs moisture from the fuels in the forest, making them more flammable.

**Release:** Using thinning techniques to free a tree or group of trees from competition for nutrients, sunlight, and water by removing the competing small trees and shrubs.

**Residence Time:** Time, in seconds, require for the flaming front of a fire to pass a stationary point at the surface of the fuel. The total length of time that one flaming front of the fire occupies one point.

**Resilient/Resiliency:** The ability of an ecosystem to return to its functionally balanced state after a disturbance.

**Resistance to Control:** The relative difficulty of constructing and holding a control line as affected by resistance to line construction and by fire behavior. Also known as difficulty of control.

**Response:** (1) Movement of an individual firefighting resource from its assigned standby location to another location or to an incident in reaction to dispatch orders or to a reported alarm. (2)

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Activities that address the short-term, direct effect of an incident, including immediate actions to save lives, protect property, and meet basic human needs. Also includes the execution of emergency operations plans as well as mitigation activities designed to limit the loss of life, personal injury, property damage, and other unfavorable outcomes.

**Retention Patch:** A clump of vegetation that has been isolated from contiguous fuels and retained for wildlife habitat and/or native plant species diversity.

**Resort Improvement Districts (RID):** Districts authorized under §13000 of the Public Resources Code to provide a broad range of services (similar to CSDs), including fire protection, in unincorporated areas that are occupied seasonally for recreation and/or resort purposes.

**Resource Management Plan (RMP):** A document prepared by field office staff with public participation and approved by field office managers that provides general guidance and direction for land management activities at a field office. The RMP identifies the need for fire in a particular area and for a specific benefit.

**Response Area:** The Humboldt County Master Fire Protection Plan defines two types of response areas, District Response Areas and Non-District Response Areas.

- District Response Areas are areas outside the local agency boundaries of the special district or city within which the fire department associated with local agency provides fire protection.
- Non-District Response Areas are areas within which a volunteer fire company (see definition of VFC) provides fire protection. The primary difference between a response area (district or non-district) and a local agency boundary is that there is no legislated obligation for a fire department to provide structural fire protection within a response area.

**Response Time:** For the purposes of the Master Fire Protection Plan, response time is the time that elapses between the moment a 911 call is placed to the emergency dispatch center and the time that a first-responder arrives on scene. Response time includes dispatch time, turnout time (the time it takes firefighters to travel to the fire station, don their PPE, and prepare the apparatus), and travel time.

**Restoration Activity/Efforts:** Activities designed to help repair damage or disturbance caused by wildfire, or the wildfire suppression activity, that are intended to restore the landscape back to its original state.

**Riparian:** A strip of land along the bank of a natural freshwater stream, river, creek, or lake that provides vast diversity and productivity of plants and animals.

**Risk:** (1) The chance of a fire starting as determined by the presence and activity of causative agents; (2) A chance of suffering harm or loss; (3) A number related to the potential of firebrands to which a given area will be exposed during the rating day.

**Risk Assessment:** The process of identifying and evaluating assets at risk.

**Risk Factors:** Factors can be either natural (weather i.e. wind, temperature) or human-associated. Human-associated risk factors are those we have control of such as building materials (roofs, chimneys, siding, windows, etc.), design, and location of the home, that can influence whether a

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home or structure can easily ignite, and if so, whether fire can be sustained to the extent that the structure would be lost.

**Roof Assembly:** The component(s) above the roof structural framing including the roof deck, vapor barrier, insulation, roof cover, coatings, toppings, or any combination thereof.

**Roof Classification:** Roof classification is determined by tests that expose the top surface of roof decks to both gas flames and burning wood brands. Tests are arranged to provide three levels of severity by adjusting the temperature and duration of the gas flame and the sizes of the burning wood brands. Successful coverings are rated Class A, Class B, or Class C, with Class A withstanding the most severe exposure, Class B withstanding intermediate exposure, and Class C withstanding the least severe exposure.

**Roof Covering:** The membrane, which may also be the roof assembly, that resists fire and provides weather protection to the building against water infiltration, wind, and impact.

**Safety Zone:** An area cleared of flammable materials used for escape in the event the line is outflanked or in case a spot fire causes fuels outside the line to render the line unsafe. In firing operations, crews progress so as to maintain a safety zone close at hand, allowing the fuels inside the control line to be consumed before going ahead. Safety zones may also be constructed as integral parts of fuel breaks; they are greatly enlarged areas which can be used with relative safety by firefighters and their equipment in the event of a blowup in the vicinity.

**Salvage Logging:** Logging and removing merchantable trees after a fire to capture economic potential. This is a very controversial subject due to impacts on ecosystem recovery.

**Sawlogs:** A lot that meets minimum standards of diameter, length, and defect for sawing into lumber.

**Scratch Line:** An incomplete control line in the beginning stages of fire suppression that is constructed as an emergency backup for spreading fires.

**Sediment/Sedimentation:** Particles of topsoil, sand, and minerals that come from soil erosion or decomposing plants and animals; wind, water, and ice carry these particles. When excessive sediment collects in waterways it can harm fish and wildlife habitat.

**Seedbank:** A repository of dormant seeds found buried in the soil.

**Sensitive Habitat/Environmentally Sensitive Habitat:** Any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments. Sensitive habitat areas include, but are not limited to, riparian corridors, wetlands, marine habitats, sand dunes, sea cliffs, and habitats supporting rare, endangered, and unique species.

**Sensitive Species:** A plant or animal species that can tolerate a small range of resources and environmental situations, or habitat. These species raise concerns about population numbers and may be recognized locally as rare, or listed as Threatened or Endangered by the state or federal Endangered Species Act.

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**Serotinous:** A condition where seeds are retained within cones that only open and release seeds en masse following fire. The mechanism varies, with some cones sealed by resin and waxes that melt during the fire, allowing the cones to open afterwards, releasing the seed.

**Setback:** The minimum distance by which any building or structure must be separated from a street or property line.

**Shade-Tolerant:** Attribute of a species that is able to grow and mature normally in and/or prefers shaded areas.

**Shaded Fuelbreak:** A fuelbreak built in a timbered area where the trees on the break are thinned and pruned to reduce the fire potential yet retain enough crown canopy to make a less favorable microclimate for surface fires.

**Shelter-In-Place:** During a wildfire, sheltering in place means to stay inside a home or structure that is fire-resistive and air tight, and remain there until the emergency is over.

**Shrublands:** Plant communities characterized by vegetation dominated by shrubs (woody plants with many branches, usually growing less than 8 meters high), often also including grasses, herbs, and geophytes. Mediterranean shrublands in the California North Coast contain northern coastal shrub and coastal sage scrub.

**Signage:** Address markers, road postings and street signs that designate the location of residences and help orient people within a community or area. Highly visible signage is important for helping emergency responders locate incident sites.

**Silvicultural:** The practice of caring for forest trees in a way that meets management objectives. For example, foresters may control the composition and quality of a forest stand for goods such as timber and/or benefits to an ecosystem.

**Site-Specific:** Applicable to a specific piece of land and its associated attributes and conditions (e.g. microclimate, soils, vegetation).

**Size Class:** The division of trees by the size of their diameter, sometimes split into three categories--seedlings, pole, and saw timber--or by diameter in inches.

**Slash:** Debris left after logging, pruning, thinning, or brush cutting; includes logs, chips, bark, branches, stumps, and broken understory trees or brush.

**Slope:** Upward or downward incline or slant, usually calculated as a percentage. One percent of slope means a rise or fall of one foot of elevation within a distance of 100 feet. Thus, 45 percent would equal 45 feet of rise in 100 feet.

**Slope Stability/Instability:** The degree to which a slope is susceptible to erosion and slides, or the measure of its overall stability.

**Small-diameter Wood Products:** Logs generally less than 10-inches in diameter at the large end.

**Snag:** A standing dead tree that has usually lost most of its branches. Snags offer essential food and cover for a host of wildlife species.

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**Social Capital:** The individual and communal time and energy that is available for such things as community improvement, social networking, civic engagement, personal recreation, and other activities that create social bonds between individuals and groups.

**Soffit:** The underside of an architectural element such as a cantilever, an arch, a staircase, or a cornice.

**Soil Type:** Refers to the different combinations of soil particles and soil composition. Soil can vary greatly within short distances.

**Spatial Distribution:** The manner in which plants are arranged throughout an area.

**Special District:** As government organizations, special districts are a type of local agency that delivers specific public services within defined boundaries. The Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (the state law that governs the activities of LAFCO) more narrowly defines a special district and excludes school related districts, financing districts and numerous other districts.

**Special Status Species:** Animal or plant species that are officially listed, proposed for listing, or are a candidate for possible listing under the State and/or Federal Endangered Species Act. Also includes species that are biologically rare, very restricted in distribution, declining throughout their range, or have a critical, vulnerable stage in their life cycle that warrants monitoring.

**Special Tax:** Any tax imposed for specific purposes, including a tax imposed for special purposes, which is placed into a general fund. (Subdivision (d), Section 1, Article XIII C of the California Constitution). All taxes imposed by any local government shall be deemed to be either general taxes or special taxes. Special purpose districts or agencies, including school districts, shall have no power to levy general taxes (Subdivision (a), Section 2, Article XIII C of the California Constitution)

**Species Composition:** The combination of species found in a particular site.

**Spot Fire:** A fire ignited outside the perimeter of the main fire by flying sparks or embers.

**Stacking Functions:** Achieving several goals at once with one activity.

**Stand:** A group of trees or shrubs with similar species composition, age, and condition that makes the group distinguishable from other trees in the area.

**Standard:** A criterion; the ideal in terms of which something can be judged. An acknowledged measure of comparison for quantitative or qualitative value.

**Standardized Emergency Management System (SEMS):**(Government Code § 8607). The group of principles developed for coordinating state and local emergency response in California. SEMS provides for organization of a multiple-level emergency response, and is intended to structure and facilitate the flow of emergency information and resources within and between the organizational levels--the field response, local government, operational areas, regions and the state management level. SEMS incorporates by reference: the Incident Command System (ICS); multi-agency or inter-agency coordination; the State's Mutual Aid Program; and Operational Areas.

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**Standard Operating Procedure:** (1) A written organizational directive that establishes or prescribes specific operational or administrative methods to be followed routinely for the performance of designated operations or actions. (2) An organizational directive that establishes a standard course of action.

**Stand-Replacing Fire:** A fire that kills most or all of the trees in a section of forest.

**Stand Structure Model:** The spatial arrangement of the forest stand, describing the density and connectivity of the understory, mid-story, and overstory vegetation.

**State Responsibility Area (SRA):** Defined in California Public Resources Code § 4125 – 4127 as lands in which the financial responsibility of preventing and suppressing fires is primarily the responsibility of the state. State Responsibility Areas are defined by code:

§ 4126. The Board of Forestry shall include within state responsibility areas all of the following lands: (a) Lands covered wholly or in part by forests or by trees producing or capable of producing forest products. (b) Lands covered wholly or in part by timber, brush, undergrowth, or grass, whether of commercial value or not, which protect the soil from excessive erosion, retard runoff of water or accelerate water percolation, if such lands are sources of water which is available for irrigation or for domestic or industrial use. (c) Lands in areas which are principally used or useful for range or forage purposes, which are contiguous to the lands described in subdivisions (a) and (b). § 4127. The Board of Forestry shall not include within state responsibility areas any of the following lands: (a) Lands owned or controlled by the federal government or any agency of the federal government. (b) Lands within the exterior boundaries of any city, except a city and county with a population of less than 25,000 if, at the time the city and county government is established, the county contains no municipal corporations. (c) Any other lands within the state which do not come within any of the classes which are described in Section 4126.

**Stemwood:** The wood of the main stem or trunk of a plant.

**Strip Patch:** In prescribed burning, a narrow section or area where the fuel is burnt while the surrounding area is left untreated.

**Streamside Management Areas (SMA):** Wet areas within the natural environment, such as: natural ponds, springs, vernal pools, marshes, and wet meadows (exhibiting standing water year-long or riparian vegetation). The use of, or proposed development within or affecting these areas requires compliance with Humboldt County standards and regulations designed to protect the ecological health and integrity of the ecosystems they support.

**Structure:** Any building or structure used for support or shelter of any use or occupancy.

**Structural Fire Protection:** The protection of a structure from interior and exterior fire ignition sources. This fire protection service is normally provided by municipal fire departments with trained and equipped personnel. After life safety, the agency's priority is to keep the fire from leaving the structure of origin and to protect the structure from an advancing wildland fire. (The equipment and training required to conduct structural fire protection is not normally provided by the wildland firefighter.)

**Structural Ignitability:** The ease with which a home or other structure ignites.

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**Structural Protection Zone:** Immediate 30-foot buffer zone around the home.

**Structure Fire:** Fire originating in and burning any part or all of any building.

**Sudden Oak Death (SOD):** A disease in oak trees that is caused by *Phytophthora ramorum*, an invasive forest pathogen introduced to California in the mid-1990s through the horticultural plant trade. Affected areas can have a significantly higher fire hazard due to higher proportions of dead fuels of all sizes and prevalence of snags.

**Suppression:** All the work of extinguishing or containing a fire, beginning with its discovery.

**Surface Fire:** Fire that burns loose debris on the surface, which includes dead branches, leaves, and low vegetation. This type of fire kills many seedlings and can be damaging to young stands of spruce, fir, and hemlock, but usually causes minimal damage to mature ponderosa pine, Douglas fir, and western larch.

**Surface Fuels:** Loose surface litter on the soil surface, normally consisting of fallen leaves or needles, twigs, bark, cones, and small branches that have not yet decayed enough to lose their identity; also grasses, forbs, low and medium shrubs, tree seedlings, heavier branchwood, downed logs, and stumps interspersed with or partially replacing the litter.

**Surface Mineral Soil:** The top layer of the earth's surface, consisting of rock and mineral particles mixed with organic matter. Surface mineral soil is not flammable.

**Survivable Space:** The area between a noncombustible home and an oncoming wildfire where vegetation has been modified and maintained to reduce the potential for the home to burn. *Also see Defensible Space.*

**Suspended Dead Material:** Typically composed of pine needles that are draped on living brush. Made up of dead fuels not in direct contact with the ground, consisting of dead needles, foliage, twigs, branches, stems, bark, vines, moss, and high brush. In general, these fuels easily dry out and can carry surface fires into the canopy.

**Swamper Burning:** A method of prescribed fire where fuel is added gradually and continually to a burning pile over the course of a day.

**Thinning:** The act of removing a percentage of vegetation to encourage an open space and healthy growth for the remaining vegetation.

**Threatened Species:** Any species including animals, plants, fungi, etc. that is vulnerable to extinction in the near future, and is so classified by the state or federal government.

**Torch/Torching:** A rapid and intense burning of a single or small group of trees/shrubs, causing the upward movement of fire; a.k.a. crown fire initiation or flare-up.

**Touch-Off:** A controlled burning operation performed by a forestry or fire crew, where large quantities of forest treatment slash are arranged in hand piles and ignited with drip torches simultaneously by multiple crew members.

**Topographic Breaks:** Natural formations within the topography of a landscape that can help break up fuel continuity and reduce the spread of fire. *Also see Natural Barriers.*

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**Topography:** Geographic elements of an area, such as slope steepness, aspect, existence of hills, canyons, and rough terrain.

**Treatment:** An action or controlled technique that is applied in a specific process. *See "Fuel Treatment."*

**Tributaries:** A stream, creek, or river that flows into a main stem (or parent) river or lake. Tributaries do not flow directly into a sea or ocean.

**Turn-Around Space:** A portion of a roadway, unobstructed by parking, that allows for a safe reversal of direction for emergency apparatuses.

**Turn-Outs:** Open spaces along roadways, unobstructed by regular parking, that allow for the safe passage of vehicles and can provide emergency parking for firefighting apparatuses.

**Type Conversion:** The unintended replacement of native plant communities due to various disturbances, such as more frequent and unnatural fires. Typically replacement is by invasive or non-native plants.

**Underburn:** A prescribed fire method where burning is conducted in the understory so that the fire consumes surface fuels but not trees or shrubs. Also known as understory burning.

**Understory:** Generally herbaceous or shrubby vegetation that makes up the plant layer under the tree canopy layer.

**Unit Fire Weather Plan:** A Unit Fire Weather Plan, otherwise known as a Fire Danger Operating Plan, is used to allow for a sound scientific based emergency dispatch system to be implemented. The plan facilitates a methodology to assure wildland fire dispatch levels are appropriate.

**Untreated:** Not altered from a natural or original state; unprocessed, e.g. no fuel-reduction or defensible-space activities.

**Urban Fuels:** Any flammable materials within a landscape as a result of urban development. Examples include urban structures, landscaping, and urban debris such as wood piles, trash dumps along roadsides, and die-back from weedy invaders.

**Values at Risk:** *See Assets at Risk.*

**Variable-Density Treatment:** Silvicultural thinning practice where some portions of a stand are left lightly or completely un-thinned ("skips"), providing areas with high stem density, heavy shade, and freedom from disturbance; while other parts of the stand are heavily cut ("gaps"), including removal of some dominant trees to provide more light for subdominant trees and understory plants. Intermediate levels of thinning are similarly applied in a typical variable-density prescription. This practice is also known as "free thinning."

**Vegetation Composition:** *See Plant Composition and/or Stand Composition.*

**Vegetation Management:** The use of fire, timber harvest, tree thinning, rangeland, and wildlife habitat activities, practices, and projects that alter the vegetation to meet vegetation resource management objectives.

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**Vegetation Type:** A standardized description of vegetation. The type is based on the dominant plant species and the age of the forest. It also indicates how moist a site may be and how much fuel is likely to be present.

**Vernal Pool:** Seasonal amphibious environments dominated by annual herbs and grasses adapted to germination and early growth under water. Spring dessication triggers flowering and fruit set, resulting in colorful concentric bands around the drying pools.

**Vertical and Horizontal Structure Diversity:** Describes the configuration of trees within a forest stand that create a variation of structure where trees stand straight up and down (vertical) or grow at an angle (horizontal).

**Vertical Fuels:** Those fuels (brush, small trees, decks, etc.) that provide a continuous layer of fuels from the ground up into the top fuel layers (i.e., tree canopy).

**Viewshed:** The landscape or topography visible from a geographic point, especially that having aesthetic value.

**Volunteer Fire Department:** A fire department associated with a local agency (either a city or a special district authorized to provide fire protection) that is comprised almost entirely of volunteer, unpaid, firefighters, whose primary objective is community fire protection.

**Volunteer Fire Company:** A fire department not associated with a local agency (either a city or a special district authorized to provide fire protection) that is comprised almost entirely of volunteer, unpaid, firefighters. Volunteer Fire Companies also include volunteer firefighting organizations associated with Indian Tribes whose primary objective is community fire protection rather than wildland fire suppression, and volunteer firefighting organizations associated with timber/lumber companies who provide community fire protection.

**Watershed:** All of the land that drains water runoff into a specific body of water. Watersheds may be referred to as drainage areas or drainage basins. Ridges of higher elevation usually form the boundaries between watersheds by directing the water to one side of the ridge or the other. The water then flows to the low point of the watershed.

**Water Tender:** A ground vehicle capable of transporting specified quantities of water.

**Wick:** A combustible material that allows fire to travel along a confined path to larger fuel sources. An example would be a wooden fence connected to your home.

**Wildfire:** An unplanned, unwanted wildland fire including unauthorized human-caused fires, escaped wildland fire use events, escaped prescribed fire projects, and all other wildland fires where the objective is to put the fire out. *See also: Wildland Fire.*

**Wildfire Risk:** *See Fire Risk.*

**Wildlands:** Areas in which development is essentially nonexistent, except for roads, railroads, power lines, and similar transportation facilities. Structures, if any, are widely scattered. Can also include large cattle ranches and forests managed for timber production.

**Wildland Agency:** Any federal, tribal, state, or county government organization participating in wildland fire protection with jurisdictional responsibilities.

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**Wildland Fire:** A non-structure (i.e. non-home) fire that occurs in the wildland. Three distinct types of wildland fire have been defined and include wildfire, wildland fire use, and prescribed fire. *See also: Wildfire.*

**Wildland-Urban Interface (WUI):** The zone where structures and other human developments meet, or intermingle with, undeveloped wildlands.

**Winds Aloft:** Upper winds that occur in the atmosphere above the surface level, generally 2,000 feet and higher.

**Windthrow:** Trees that are uprooted by wind events. Formerly protected stands whose edges are opened up and become vulnerable to this effect. Also known as "Blow-downs."

**Woody Biomass:** The trees and woody plants, including limbs, tops, needles, leaves, and other woody parts, grown in a forest, woodland, or rangeland environment, that are the by-products of forest management.

**Woody Biomass Utilization:** *See Biomass Utilization.*