


Wildland Fire Vocabulary

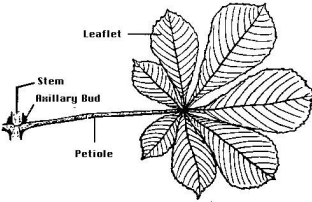
Acidic	Having the properties of an acid, or containing acid; having a pH below 7.
Adaptation	A change or the process of change by which an organism or species becomes better suited to its environment.
Aerial Fuels	All live and dead vegetation in the forest canopy or above surface fuels, including tree branches, twigs and cones, snags, moss, and high brush.
Alkaline	Having the properties of an alkali, or containing alkali; having a pH greater than 7.
Annual Plant	A plant that lives less than one year, usually living long enough to produce seeds.
Arid	A region is arid when it is characterized by a severe lack of available water, to the extent of hindering or preventing the growth and development of plant and animal life. In the Southwest, arid often refers to areas that receive less than 10 inches of precipitation a year.
Atom	Smallest unit into which matter can be divided without the release of electrically charged particles. The building blocks of all matter.
Awns	A stiff bristle, especially one of those growing from the ear or flower of barley, rye, and many grasses.
Basic	Having the properties of a base, or containing a base; having a pH greater than 7.
Biological soil crust or cryptobiotic soil	A living soil that creates a crust over the landscape. The knobby, black crust includes lichen, mosses, green algae, microfungi, and bacteria, but is dominated by cyanobacteria.
Biotic	All organisms that have been alive at one point or will be alive, like a seed. Refers to the organism, and its components, including parts of the organism, even after death.
Biotic community	A group of interdependent organisms inhabiting the same region and interacting with each other.
Broadleaf evergreen	Any plant that keeps its leaves year-round other than a conifer.
Bunchgrass or bunching grass	A perennial grass that grows in clumps or bunches and is common to the shrub-steppe region.
Burrow	A hole used by ground dwelling animals
$C_6H_{12}O_6$	Chemical formula of glucose. Made of six carbon atoms, twelve hydrogen


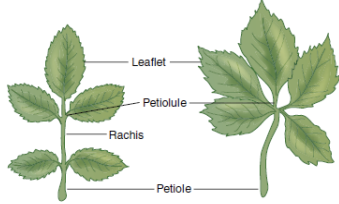
	atoms, and six oxygen atoms.
Calcium carbonate	Calcium carbonate is a chemical compound with the formula CaCO_3 . It is a common substance found in rocks.
Caliche	A shallow layer of soil or sediment in which the particles have been cemented together by the precipitation of mineral matter in their spaces. The cement is usually made of calcium carbonate.
Carbohydrate	Any of a large group of organic compounds occurring in foods and living tissues that include glucose and other sugars, starch, and cellulose. They contain hydrogen and oxygen in the same ratio as water (2:1) and typically can be broken down to release energy in the animal body.
Carbon dioxide	A colorless, odorless gas, produced by burning carbon and organic compounds and by respiration.
Cellular respiration	The process of cell catabolism in which cells turn food into usable energy.
Chemical bond	A strong force of attraction holding atoms together in a molecule or crystal, resulting from the sharing or transfer of electrons.
Chemical potential energy	The energy stored in the chemical bonds of a substance.
Climate	The average temperature and precipitation over a period of time. Often averaged over 30 year intervals.
Clone or clonal	An organism or cell, or group of organisms or cells, produced asexually from one ancestor or stock, to which they are genetically identical.
CO_2	Chemical formula for carbon dioxide. Made of one carbon and two oxygen atoms.
Coadapted	Two or more interacting organisms in a community or organs in an organism resulting from natural selection. Usually indicates a beneficial relationship.
Codominant	Two or more species that are equally dominant in a biotic community.
Coevolved	The influence of closely associated species on each other throughout their evolution.
Combustion	Rapid chemical combination of a substance with oxygen, involving the production of heat and light.
Compound leaf	 <p>A leaf made up of smaller leaflets.</p>

Conifer	A tree that bears cones and needle-like or scale-like leaves that are typically evergreen.
Contiguous	Touching along a boundary or at a point. Contiguous fuels allow fire to burn across an area.
Deciduous	A tree or shrub that sheds its leaves annually.
Decomposition	The process by which bacteria and fungi break dead organisms into their simple compounds.
Dendrochronology	The study of tree rings to learn about historical information, including fire frequency and climate.
Desert	Arid land that is usually sparsely vegetated. Especially land that has a very warm climate and receives less than 25 centimeters (10 inches) of precipitation a year. There are also cold deserts, which are arid but have cold temperatures. The best example of this is Antarctica.
Desert pavement	A desert surface covered with closely packed, interlocking angular or rounded rock fragments of pebble and cobble size
Diecious	Having the male and female organs in separate and distinct individuals; having separate sexes.
Dominant	Ecological dominance is the degree to which one or several species have a major influence and control of the other species in their ecological community (because of their large size, population, productivity, or related factors or make up more of the biomass).
Dormant	Temporarily inactive.
Drought	A prolonged period of abnormally low rain or snowfall, leading to a shortage of water.
Drought tolerant	The ability to which a plant maintains its biomass production during arid or drought conditions.
Endemic	A species of plant or animal that only lives in a specific area or region.
Energy	The property of matter and radiation which is manifest as a capacity to perform work (such as causing motion or the interaction of molecules). Includes kinetic and potential energy.
Evergreen plant	A plant that retains green leaves throughout the year.
Erosion	The geological process in which earthen materials are worn away and transported by natural forces such as wind or water.

Fire	Combustion or burning, in which substances combine chemically with oxygen from the air and typically give out bright light, heat, and smoke.
Fire adapted or fire adaptation	Adaptations that allow a plant or animal to survive a fire.
Fire intensity	<i>Low:</i> Low heat. Primarily burns grasses and herbaceous plants on the surface. The least destructive form of fire. <i>High:</i> Extremely hot. Often burns heavier fuels. Often burns aerial fuels and becomes a crown fire.
Fire resilient	Resistant to fire that for a specified time and under conditions of a standard heat intensity it will not fail structurally or allow transit of heat and will not permit the side of the plant that does not face the front of the fire to become hotter than a specified temperature.
Fire return interval	How frequently fire returns to a specific location. The period of time between one fire and the next.
Fire suppression	A range of firefighting tactics used to suppress wildfires.
Fragmented	Broken into separate parts or pieces.
Fuel	Any compound that has stored energy that can be released through oxidation.
Fuel chemical content	Energy is captured in chemical bonds through processes such as photosynthesis and respiration. Different molecules store different amounts of energy.
Fuel compactness	How tightly packed the fuel is. Densely packed fuels can slow a fire if oxygen is unable to reach the fire.
Fuel load	The weight of all available fuel in an area.
Fuel moisture content	The water held in potential fuel.
Fuel size	Fuels are categorized by size: <ul style="list-style-type: none"> • Fine, Flash, or Light Fuels: Fast-drying dead or live fuels, generally characterized by a comparatively high surface area-to-volume ratio, which are less than 1/4-inch in diameter and have a time lag of one hour or less. These fuels (grass, leaves, needles, etc.) ignite easily and are consumed rapidly by fire when dry. • Heavy or Coarse Fuels: Fuels of large diameter such as snags, logs, large limbwood, which ignite and are consumed more slowly than flash fuels, but also burn at a higher temperature.

Fuel type	How fuel is categorized: grasses, brush, timber, and slash.
Germinate	Begin to grow and put out shoots after a period of dormancy.
Germination	In the process of seed germination, water is absorbed by the seed's embryo, which results in the rehydration and expansion of the cells and following growth.
Glaciated	Covered or having been covered by glaciers or ice sheets.
Glacial deposits	A glacial landform, created by rocks and soil deposited in the landscape when the glacier withdraws.
Glacier	A persistent body of dense ice that is constantly moving under its own weight. A glacier forms where the accumulation of snow exceeds its melting over many years, often centuries.
Glucose	A simple sugar with the molecular formula $C_6H_{12}O_6$. Glucose is mainly made by plants and most algae during photosynthesis from water and carbon dioxide, using energy from sunlight, where it is used to make cellulose in cell walls, the most abundant carbohydrate in the world.
Grazing or graze	To feed on growing plants.
Ground fire	Wildfires that burn in the subsurface and consume buried vegetation.
H ₂ O	The molecular formula of water, two hydrogen and one oxygen.
Hardwood	Hardwoods are produced by trees that reproduce by flowers and have broad leaves. Many species are deciduous. Those of temperate regions lose their leaves every autumn as temperatures fall and are dormant in the winter, but those of tropical regions may shed their leaves in response to seasonal or sporadic periods of drought. Hardwood from deciduous species, such as oak, normally shows annual growth rings.
Herbaceous plants	Vascular plants that have no persistent woody stems above ground, including many perennials, and nearly all annuals and biennials.
Herbivores	Consumers that only eat plants.
Humid	Relatively high level of water vapor in the atmosphere
Humus	Organic component of soil, formed by the decomposition of leaves and other plant material by soil microorganisms.
Hybridize	Crossbreed individuals of two different species or varieties.

Ignite	To catch fire or cause to catch fire.
Intensity of fire	The intensity of a fire is related to the heat produced by the fire. High intensity fires release more energy in a time period than low intensity fires.
Kinetic energy	The energy an object has because of its motion.
Ladder fuel	Fuels that allow a fire to climb into the canopy of a tree.
Lateral roots	Roots that extend horizontally from a plant.
Molecule	A group of atoms bonded together, representing the smallest fundamental unit of a chemical compound that can take part in a chemical reaction.
Monoculture	A single plant in a given area.
Neutral pH	A pH of 7 is neither an acid nor a base.
Noncontiguous	Not contiguous or not touching.
O ₂	Molecular formula for oxygen molecules.
Outcompete	Displace another species in the competition for space, food, or other resources.
Overgrazing	Excessive grazing which causes damage to the grassland.
Oxygen	A colorless, odorless reactive gas, the chemical element of atomic number 8 and the life-supporting component of the air. An oxygen molecule is made of two oxygen atoms.
Palmately compound	 <p>The diagram illustrates a palmately compound leaf. It features a central stem (petiole) that branches out into several leaflets. A small, pointed structure at the base of the stem is labeled as the 'Auxiliary Bud'. The individual leaflets are labeled as 'Leaflet'.</p>
Perennial	A plant living for multiple years, and has a life cycle that is more than two years long.
pH	Quantitative measure of the acidity or basicity of aqueous or other liquid solutions. The term is widely used in chemistry, biology, and agronomy.
Photosynthesis	The process by which green plants and some other organisms use sunlight to synthesize foods from carbon dioxide and water. Photosynthesis in plants involves the green pigment chlorophyll and generates oxygen as a

	byproduct.
Plateau	A large flat area of land that is higher than other areas of land that surround it.
Plated bark	 <p>Bark that develops deep grooves as the tree ages.</p>
Pollen cones	The male cone from a conifer tree.
Potential energy	The energy held by an object because of its position relative to other objects, stresses within itself, its electric charge, or other factors. Common types of potential energy include the gravitational potential energy of an object that depends on its mass and its distance from the center of mass of another object, chemical bonds, the elastic potential energy of an extended spring, and the electric potential energy of an electric charge in an electric field.
Precipitation	Rain, snow, sleet, or hail that falls to the ground.
Rachis	 <p>The central part of a compound leaf. The leaflets emerge from the rachis.</p>
Regenerating or regeneration	Ability of a living organism to regrow new tissue or to replace lost or injured tissue.
Return interval	The average time period between fires, related to fire frequency.
Rhizome	A modified underground plant stem that sends out roots and shoots from its nodes.
Ridgetop	A crest that extends along the highest contours of a ridge.
Riparian	Related to water. Often along streams, rivers, ponds, wetlands, or other bodies of water
Root crown	Also known as the root collar or root neck, is the upper part of a root system from which stems or leaves grow.
Seed spike or seed head	The seed-containing part of some plants that develops after flowering or fruiting.

Semi-arid or Semi-desert	An arid area that has some of the characteristics of a desert, but has a greater amount of annual precipitation.
Severity of fire	A quantitative measure of the effects of a fire on the environment, typically considering both the damage to vegetation and the impacts on the soil. Fire severity is described along a spectrum, ranging from unburned/low severity, to moderate severity, and high severity and is determined after a fire has been extinguished.
Shrub	A small to medium sized perennial woody plant that is deciduous or evergreen. They are distinguished from trees by their multiple stems and shorter height.
Snowpack	The snow that collects over the winter and melts as the weather warms.
Spp.	Abbreviation for "species," used to replace the specific epithet when the exact species is unknown. For example: <i>Rhus</i> spp. indicates it is an unknown species of sumac
Stand-replacing	When entire stands of trees or other plants are destroyed, often in a fire or by pests.
Stands or Stand	An aggregation of trees or other growth occupying a specific area and sufficiently uniform in species composition, size, age, arrangement, and condition as to be distinguished from the forest or other growth on adjoining areas.
Sub-humid	Sub-humid lands, including arid and semi-arid regions, grasslands, savannahs, and Mediterranean landscapes, encompass approximately 47% of the Earth's surface.
Subtropical	Subtropical climates are often characterized by hot summers and mild winters with infrequent frost.
Succulents	Any plant with thick fleshy tissue adapted to water storage. Some succulents, like cacti, store water only in the stem and have no leaves or very small leaves, whereas others (e.g., agaves) store water mainly in the leaves.
Suppression	The act of keeping something from happening.
Surface fire	Fires that burn on the surface of the ground and are primarily fueled by low-lying vegetation such as twigs or dried leaves.
Taproot	A large, central, and dominant root from which other roots sprout laterally. Typically a taproot is somewhat straight and very thick, is tapering in shape, and grows directly downward.
Tree	A woody perennial plant, typically having a single stem or trunk growing to a

	considerable height and bearing lateral branches at some distance from the ground.
Understory	Underlying layer of vegetation in a forest or wooded area, especially the trees and shrubs growing between the forest canopy and the forest floor.
Vegetation	Plants considered collectively, especially those found in a particular area or habitat.
Volatile	Evaporating rapidly; passing off readily in the form of vapor. Flammable volatile compounds are likely to accelerate the spread and intensity of fires.
Water	Colorless, transparent, odorless liquid that forms the seas, lakes, rivers, and rain and is the basis of the fluids of living organisms, with the chemical formula H ₂ O.
Weather	The state of the atmosphere at a place and time as regards temperature and precipitation.
Wildland-Urban Interface	A zone of transition between wilderness (unoccupied land) and land developed by human activity.
Windbreak	A planting usually made up of one or more rows of trees or shrubs planted in such a manner as to provide shelter from the wind.
Wind pollinated	Plants that depend on wind to move pollen from the male to the female reproductive parts of the plant.
WUI	Abbreviation of Wildland-Urban Interface.