

Glossary of terminology for Rules Advisory Committees

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Vocabulary term	Definition reference	Definition
Burn probability	ITFTDSS Scott (2019)	<p>The likelihood of a given location on your landscape burning. Burn probabilities are related to the sizes of fires that occur on a given landscape. Large fires produce higher probabilities than small fires. Since fire size is a function of both the rate of spread, and the duration of a fire, treatments or weather conditions that reduce the rate of spread will lower the burn probability.</p> <p>The probability that a wildfire will burn a given point or area during a specified period of time. For wildfire management planning applications, burn probability is often reported on an annual basis—the probability of burning at any time during a single calendar year. Some planning applications report the conditional burn probability given that a fire occurs during a specified "problem fire" weather scenario. Wildfire incident management applications express burn probability for a much shorter time frame, typically one to four weeks. For practical purposes, wildfire simulation systems treat the burning of each pixel, the smallest landscape unit, as a point.</p>
Community resistance		The property of communities or populations to remain "essentially unchanged" when subject to disturbance.
Conditional net value change (cNVC)	Scott (2019)	The sum-product of flame-length probability and net value change (to one or more resources or assets) over a range of wildfire intensity classes (usually flame length classes).
Crown fire	NWCG	A fire that advances from top to top of trees or shrubs more or less independent of a surface fire. Crown fires are sometimes classed as running or dependent to distinguish the degree of independence from the surface fire.
Consequence Analysis	Thompson et al. (2016)	The process of identifying the nature and range of the consequences that would occur if resources or assets were exposed to various hazards (also called effects analysis).
Defensible Space	USDA Forest Service	An area either natural or manmade where material capable of causing a fire to spread has been treated, cleared, reduced, or changed to act as a barrier between an advancing wildland fire and the loss to life, property, or

		resources. In practice, "defensible space" is defined as an area a minimum of 30 feet around a structure that is cleared of flammable brush or vegetation.
Ember		Small piece of burning or glowing coal or wood in a dying fire
Ember cast/showers	Los Angeles Fire Department	Due to high wind, embers are 'cast' downwind from the fire and can then create 'spot fires'.
ERC		Energy release component
Expected net value change (eNVC)	Scott (2019)	The product of burn probability and conditional net value change. Expected net value change is a risk-neutral measure of the wildfire risk to resources and assets. If no beneficial effects are under consideration, expected net value change can simply be called expected loss. The terms value change, response and net response are functional synonyms for net value change; all refer to the net effects of positive and negative changes on the value of a resource or asset.
Exposure		Risk of financial loss, expect when financial estimates are not available for valued resources and assets
Exposure Analysis	Thompson et al. (2016)	The process of identifying the exposures to which various resources or assets could be subjected.
Fire behavior	NWCG	The manner in which a fire reacts to the influences of fuel, weather, and topography.
Firebrand		A piece of burning wood
Fire danger	NWCG	The resultant descriptor of the combination of both constant and variable factors which affect the initiation, spread and difficulty of control of wildfires on an area. These are those adjective classes you see on national forest signs, often with Smokey Bear attached.
Fire exclusion	Smith (2000)	The policy of suppressing all wildland fires in an area. This also includes the exclusion of intentional burning in many landscapes.
Fire front	NWCG	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 intensity	NWCG	Typically quantified as the heat released per unit of time

		for each unit length of a fire edge. However, in quantitative wildfire risk assessments, this is usually measured as flame length which is directly related to heat release.
FSim		Wildfire risk simulation software (https://www.firelab.org/project/fsim-wildfire-risk-simulation-software)
Fuel	Brown and Smith (2000) USDA	Fuel is comprised of living and dead vegetation that can be ignited. It is often classified as dead or alive and as natural fuels or those from logging operations. Fuel components refer to such items as downed dead woody material in various size classes, litter, duff, herbaceous vegetation, live foliage, etc. Combustible material. Includes vegetation, such as grass, leaves, ground litter, plants, shrubs and trees, that feed a fire.
Fuel loading	USDA Forest Service	The amount of fuel present expressed quantitatively in terms of weight of fuel per unit area.
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. A fire regime is a generalization based on fire histories at individual sites. Fire regimes can often be described as cycles because some parts of the histories usually get repeated, and the repetitions can be counted and measured, such as fire return intervals.
Fuel model	NWCG	Simulated fuel complex for which all fuel descriptors required for the solution of a mathematical rate of spread model have been specified.
Ground fire	NWCG	Fire that consumes the organic material beneath the surface litter ground, such as a peat fire.
Hazard		A danger or potential source of harm.
Hazard Identification	Thompson et al. (2016)	The process of finding, recognizing, and describing the hazards that could affect the achievement of the objectives an organization seeks to obtain or that could lead to losses of the organization's valued resources.
Hazard Reduction	USDA Forest Service	Any treatment of a hazard that reduces the threat of ignition and fire intensity or rate of spread.

Historical weather streams	<i>Definition pending</i>	
Home or Fire hardening	Wildfire Risk to Communities	Modify the building materials and design features of the home for wildfire resistance.
HVRA		Highly valued resource and asset.
ITFTDSS		The Interagency Fuel Treatment Decision Support System (https://iftdss.firenet.gov)
NFDRS		National Fire Danger Rating System (https://www.nwcg.gov/committees/fire-danger-subcommittee/nfdrs)
NWCG		National Wildfire Coordinating Group (https://www.nwcg.gov/)
Quantitative Wildfire Risk Assessment	NWCG	Quantitative risk assessments provide a method by which we can calculate risk based on measurements or estimates of various risk components such as likelihood of fire occurrence, intensity of fire should it occur, and susceptibility to fire of the various values being evaluated.
RAWS		Remote automated weather station
Relative importance	<i>Definition pending</i>	
Resilience	National Academy of Sciences	The ability to prepare and plan for, absorb, recover from, or more successfully adapt to actual or potential adverse events.
Response function	<i>Definition pending</i>	
Risk	NWCG	<ol style="list-style-type: none"> 1. The chance of fire starting as determined by the presence and activity of causative agents. 2. A chance of suffering harm or loss. 3. A causative agent. 4. (NFDRS) A number related to the potential of firebrands to which a given area will be exposed during the rating day.
Risk characterization	Thompson et al. (2016)	The process of integrating information about hazards, exposures, and consequences, and representing that information in terms of risk. These representations can include likelihoods, magnitudes, and impacts on an organization's objectives. They can be composed of quantitative information, qualitative information, or both.

		This aspect of risk assessment also includes risk analysis, a process that is used to understand the nature, sources, and causes of risk as well as the assessment of risk magnitude. One form of gauging the magnitude of risk is expected value: a measure of risk obtained by weighting a consequence by its likelihood of occurrence.
Risk management	Thompson et al. (2016)	A set of coordinated processes and activities that identify, monitor, assess, prioritize, and control risks that an organization faces.
Risk transmission	Scott (2019)	A situation in which the adverse effects of a natural hazard occur some distance from where the event initiates.
Surface fire	NWCG	Fire that burns loose debris on the surface, which includes dead branches, leaves, and low vegetation.
WFMI		Wildland Fire Management Information (https://wfmi.nifc.gov/cgi/WfmiHome.cgi)
Wildfire	NWCG	A wildland fire originating from an unplanned ignition, such as lightning, volcanos, unauthorized and accidental human-caused fires, and prescribed fires that are declared wildfires
Wildfire intensity	Scott (2019)	The rate of energy release of a wildfire at a point on its perimeter, typically measured as flame length (FL) or fireline intensity (FLI).
Wildland	NWCG	An area in which development is essentially non-existent, except for roads, railroads, powerlines, and similar transportation facilities. Structures, if any, are widely scattered.
Wildland fire	NWCG	Any non-structure fire that occurs in vegetation or natural fuels. Includes Wildfires and Prescribed Fires.

References

Brown, James K.; Smith, Jane Kapler, eds. 2000. Wildland fire in ecosystems: Effects of fire on flora. Gen. Tech. Rep. RMRS-GTR-42-vol. 2. Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 257 p. [36581]

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Wildfire Risk to Communities: <https://wildfirerisk.org/>