

# Wildfire Mitigation Best Practices

## Glossary of Commonly Used Terms

This glossary is designed to define commonly used terms and acronyms and to clarify appropriate usage of commonly misunderstood or misused terms. Definitions are sourced from the National Wildfire Coordinating Group and other national references when existing definitions are clear. Terms that are not specific to the wildfire mitigation field but are important for understanding a module of the Mitigation Best Practices course are included within the specific module.

### Reference Definitions

Some of the terms within this glossary will be followed by initials or will have references or comments at the end of the definition to help broaden the recognition and understanding of the term. An explanation of those references is as follows:

**Also called:** Means there is another term that may sometimes be in use, but is not defined in this glossary.

**Initialism:** An abbreviation consisting of initial letters pronounced separately. An initialism appears in parentheses with a dot following each letter following the term.

**See:** Means there is another, preferred term that should be used instead. In such a case only the preferred term is defined in this glossary.

**See Also:** Means there are one or more related terms that may also be of interest to the glossary user. The related terms are also defined in this glossary.

**Definition Extension:** An example, further explanation, or usage guidance in support of the definition.

## Definitions

**Consequence** - The outcome or effect of an event or incident, usually evaluated with respect to objectives.

**Community Wildfire Protection Plan (C.W.P.P.)** - A plan developed in the collaborative framework established by the Wildland Fire Leadership Council and agreed to by state, tribal, and local government, local fire department, other stakeholders and federal land management agencies managing land in the vicinity of the planning area. A Community Wildfire Protection Plan (CWPP) identifies and prioritizes areas for hazardous fuel 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 and recommends measures to reduce structural ignitability throughout the at-risk community. A CWPP may address issues such as wildfire response, hazard mitigation, community preparedness, or structure protection - or all of the above. ([NWCG](#))

**Defensible Space** - An area about 100 feet from a structure or home where combustibles have been removed or altered to reduce wildfire risk and increase the potential for defensive action. The distance may be increased to 150-200 feet if the structure is in steep terrain.

**Definition Extension:** Actual distances may vary from state to state and country to country based on vegetation, terrain, and systems of measurement, but the concept of a space where fuels are modified around a valued structure to drastically reduce fire behavior is recognized internationally as a mitigation strategy. Also called "D"- space.

**Hazard** - Any real or potential condition that can cause damage, loss, or harm to people, infrastructure, equipment, natural resources, or property.

**Hazard reduction** - Coordinated activities and methods directed to reduce or eliminate conditions that can cause damage, loss, or harm from real or potential hazards.

**Home Ignition Zone (H.I.Z.)** - The area where the factors that principally determine home ignition potential during extreme wildfire behavior (high fire intensities and burning embers) are present. The characteristics of a home and its immediate surroundings within 100 feet comprise the H.I.Z.. ([NWCG](#)) *Also called Structure Ignition Zone or Ember Ignition Zone.*

**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. ([NWCG](#))

**Forest Action Plan** - Every state has a forest action plan. A state's Forest Action Plan includes in-depth analysis of forest conditions and trends and outlines strategies to conserve, protect, and enhance its forests and trees over the long run.

**Forest Management Plan** - Outlines the landowners' **vision for their forest**, describes the current forest condition, and outlines a plan of action to achieve their management goals.

**Mitigation Infrastructure** - the initial conditions and capacity to support wildland fire adaptation through access to networks, knowledge, training, equipment, and capital.

**Messaging** - a communication containing some specific information, news, advice, request, or the like. Messaging is a passive communication technique used for information sharing.

**Mitigation** - Modifying the environment or human behavior to reduce potential adverse impacts from a natural hazard.

**Mitigation Actions** - Actions that are implemented to reduce or eliminate (mitigate) risks to persons, property or natural resources. **Definition Extension:** These actions can be undertaken before and during a wildfire. Before a fire actions can include fuel treatments, creation of fuel breaks or barriers around critical or sensitive sites or resources, and vegetation modification and structural changes to increase the chance a structure will survive a wildfire with or without active protection (sometimes referred to as defensible space or the home ignition zone). Mitigation actions can also occur during response and can include mechanical and physical tasks, specific fire applications, and limited suppression actions. Such as fireline construction, and creating "black lines" through the use of controlled burnouts to limit fire spread and behavior. Mitigation actions can also be taken after a fire to reduce or eliminate fire secondary impacts such as post-fire flooding or debris flow.

**Prevention** - Activities directed at reducing the incidence of human caused fires through public education, rules and regulations and law enforcement. **Definition Extension:** Prevention is often used more broadly, especially outside of the mitigation field, to include mitigation activities, but in emergency management and textbook definitions, they are very clearly separate elements of risk reduction, with **prevention** reducing the probability of fire occurrence and **mitigation** reducing the consequences when fires occur. **See also** mitigation.

**Preparedness** - A continuous cycle of planning, organizing, training, equipping, exercising, evaluating, and taking corrective action in an effort to ensure effective coordination during incident response. ([FEMA Glossary](#) shortened)

**Probability** - A measure of the chance of event occurrence, quantified as a numerical value between zero and one. ([NWCG](#))

**Response** - Activities that address the short-term, direct effects of an incident. Response includes immediate actions to save lives, protect property, and meet basic human needs. Response also includes the execution of emergency operations plans and of mitigation activities designed to limit the loss of life, personal injury, property damage, and other unfavorable outcomes during an incident. (modified from [FEMA Glossary](#))

**Recovery** - Encompasses both short-term and long-term efforts for the rebuilding and revitalization of affected communities. **Definition Extension:** Short-term recovery focuses on crisis counseling and restoration of lifelines such as water and electric supply, and critical facilities. Long-term recovery includes more permanent rebuilding.

**Risk** - probability that a fire will occur and conditions that would lead to worse consequences when a fire occurs. **See also** probability and consequence. **Definition Extension:** The term Risk is given different definitions depending on the field and context. Common to most definitions of risk is uncertainty and undesirable outcomes. If there is no uncertainty or there are no consequences, there is no risk.

Here is a more nuanced and detailed definition and description of the term risk. This reference was taken from **Risk Terminology Primer: Basic Principles and a Glossary for the Wildland Fire Management Community**, USDA Forest Service RMRS-GTR-349. 2016.

We use probability to capture the uncertainty surrounding the occurrence of an event. How we think about and attempt to quantify probability will depend on the spatial and temporal scope of the event in question. For instance, we may consider the probability of a given suppression action achieving its stated objectives in the next burning period, the probability of a given ignition growing to threaten a community in the next 7 to 14 days, or the probability of experiencing fire of a given intensity in a given location in the next fire season.

We use consequences to describe the potential losses or benefits associated with the event. Describing consequences requires that we first identify what it is we value that may be affected by fire. This could be the lives of fire responders and the public, or homes and other built infrastructure, or natural resources such as wildlife habitat and timber. These elements have variously been referred to simply as “values,” or “values-at-risk,” or in more recent landscape assessments, “highly valued resources and assets” (HVRAs).

Second, we must identify what the effects of fire might be on those things we value. Providing specificity on the potential consequences of fire is necessary to clearly and comprehensively describe risk. The relative susceptibility of HVRAs to fire, or to actions taken while managing fire, dictates consequences. Some things we value, such as wooden structures, may be highly susceptible to loss from exposure to fire. In contrast, structures built with concrete and metal may have low susceptibility to loss, and others, like fire-dependent wildlife, may actually benefit from fire. Estimating susceptibility allows us to estimate the potential severity, or magnitude, of fire effects and consequences. How we choose to mitigate risks will depend on the relationship between potential fire consequences and objectives.

Note that the idea of incorporating benefits is consistent with the definition of risk as “probability and consequence” as opposed to “probability and loss.” As it applies to wildland fire, this framing allows that today’s fire can provide a benefit by reducing tomorrow’s risk, and further that fire can result in substantial ecological benefit (e.g., stimulating regeneration or seed release, mineralizing nutrients, reducing encroachment, creating suitable habitat conditions). Admittedly, there is no universally agreed-upon standard in the broader risk literature on the question of whether to include benefits; some

instead consider risks and opportunities. ... Ultimately managers can decide for themselves how to approach this issue as long as they are clear and consistent in how they use the term “risk,” and are in some form considering fire benefits where appropriate.

**Slash** - Debris resulting from such natural events as wind, fire, or snow breakage; or such human activities as road construction, logging, pruning, thinning, or brush cutting. It includes logs, chunks, bark, branches, stumps, and broken understory trees or brush. Slash is a common byproduct of vegetation management for wildfire mitigation.

**Structure Assessment or Home Assessment:** Evaluation of a dwelling and its immediate surrounding to determine its potential to escape damage by an approaching wildland fire. Includes the fuels and vegetation in the yard and adjacent to the structure, roof environment, decking and siding materials, prevailing winds, topography, fire history, etc., with the intent of mitigating fire hazards and risks. ([NWCG](#))

**Structure Hardening** - Modify the building materials and design features of a structure for wildfire resistance.

**Return on Investment (R.O.I.)-** Calculation of the value of measures intended to achieve specific objectives related to the cost of developing and implementing those measures.

**Resilience** - The ability to recover from undesirable outcomes, both individually and organizationally.

**Request for Proposals (R.F.P.)** - a business document that announces a project, describes it, and solicits bids from qualified contractors to complete it (Investopedia). These are often used to solicit bids for fuel treatments, but may be used for any professional service.

**Wildfire Threat** - Likelihood that a wildfire capable of causing considerable damage will occur.

**Wildland Urban Interface (WUI** [pronounced woo-eee]) - The line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetation fuels. ([Fire Management Board 2019](#)).

## Compare and Contrast

### Active vs. Passive Communication -

- **Active communication** is two-way communication based on questions and answers and usually involves face to face engagement. Both parties are highly involved, and both

come away with a better understanding of the issues discussed. Active communication leads to action.

- **Passive communication** is second-hand communication – like brochures, news releases, articles, or websites. Passive communication doesn't usually produce action, but it can help point people to resources (such as meeting details, how to apply for funding, or whom to contact for help).

## Fire Footprint vs. Fire Scar

These terms are both commonly used for the geographic area that a fire burned through. **Fire footprint** is a more positive term that allows for acknowledgement of fire benefits whereas **fire scar** is a more sensational term that gives a negative impression. Use **fire footprint** whenever possible to refer to the geographic area touched by a particular fire.

## Good Fire vs. Bad Fire

These terms are commonly used to refer to the benefits and negative consequences of fires. This may be helpful terminology for messaging, but the reality is much more nuanced, with most wildland fires resulting in a mix of good and bad outcomes, depending on the perspective and values being considered. Even the same fire on the same acre may be viewed by some as good for its beneficial impact to the ecosystem or reduced future risk while others may view it as bad because of the smoke it sent into the community or the temporary lack of access to a favorite place. Consider using this statement as an oversimplification and take the time to understand why.

- **Good Fire** is often used for prescribed fires or naturally ignited fires when they provide some benefit to the landscape by acting as a naturally decomposer and rejuvenating force on the landscape, creating new habitat, removing overstocked and especially dead vegetation, and improving grasslands. This can also refer to smaller scale fires like campfires and constructive fire uses such as electrification or the combustion engine.
- **Bad Fire** is often used to describe unintentionally set fires and naturally ignited fires that damage or destroy structures and other human development, damage watersheds through uncharacteristically severe fire behavior, emit unplanned and highly dangerous levels of smoke particulate, force evacuations, or even kill people and wildlife.

## Mitigation vs. Prevention

Prevention is often used more broadly, especially outside of the mitigation field, to include mitigation activities, but in emergency management and textbook definitions, they are very clearly separate elements of risk reduction, with **prevention** reducing the probability of fire occurrence and **mitigation** reducing the consequences when fires occur. The approaches for each are fundamentally different. Prevention primarily involves asking people NOT to do something most people already do not want to do, name accidentally starting a fire or inadvertently letting one escape. Mitigation primarily involves asking people to DO something,

often many things, that they are not doing already and that they may have many other obstacles to overcome in order to accomplish.

- **Mitigation** - Modifying the environment or human behavior to reduce potential adverse impacts from a natural hazard.
- **Prevention** - Activities directed at reducing the incidence of human caused fires through public education, rules and regulations and law enforcement.

## Outputs vs. Outcomes

- **Outputs** are the activities undertaken.
- **Outcomes** are the results of those actions. If activities (outputs) do not lead to the community wildfire risk reduction outcomes, outputs should be adjusted toward achieving desired outcomes. Outcomes can be a home protected or a fire resilient community.

## Wildfire vs. Wildland Fire

Wildfire is the common term for unplanned fires in natural fuels but if you are speaking more inclusively about living with fire, wildland fire is more inclusive and includes prescribed fires. Consider these two different meanings when choosing your language for the specific context.

- **Wildfire:** 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.
- **Wildland Fire:** Any non-structure fire that occurs in vegetation or natural fuels. Includes Wildfires and Prescribed Fires. ([Fire Management Board 2019](#))