

Upper Crystal River Valley Community Wildfire Protection Plan



Prepared in cooperation with:

**Carbondale & Rural Fire Protection District
Gunnison County Emergency Management
Montrose Interagency Fire Management Unit
Colorado State Forest Service**

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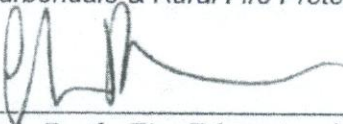
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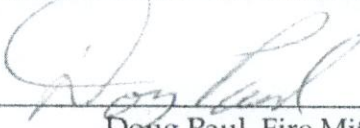
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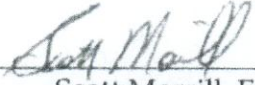
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List of Fire and Forest Management Terms

Canopy Bulk Density (CBD)	The mass to volume ratio of forests in the forest canopy.
Chain	A unit of linear measurement equal to 66 feet.
Chimney	A steep gully or canyon conducive to channeling strong convective currents, potentially resulting in dangerous increases in rates of fire spread and fireline intensity.
Clearcutting	The removal of all trees in a single harvest from a sufficiently large area that the "forest influence" is removed from at least 50% of the harvest area.
Climax	The final stage of succession that is relatively stable over several generations of the dominant plant species.
Crown Fire	The movement of fire through the crowns of trees or shrubs relatively independent of the surface fire.
Dead Fuels	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.
Defensible Space	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 values at-risk, including human welfare.
Dominant	Trees with crowns extending above the general level of crown cover. Larger than average tree with a well developed crown.
Even Aged Stand	A stand of trees comprised of one or two age classes, often resulting from a stand replacing event such as a fire or a clear cut.
Fire Behavior	The manner in which a fire reacts to the influences of fuel, weather, and topography.
Fire Danger	The broad-scale condition of fuels as influenced by environmental factors.
Fire Hazard	The presence of ignitable fuel coupled with the influences of terrain and weather.
Fire Intensity	A general term relating to the heat energy released by a fire.
Fireline Intensity	The level of heat radiated from the active flaming front of a fire, measured in British thermal units (BTUs) per foot.
Fire Regime	The characterization of fire's role in a particular ecosystem, usually characteristic of particular vegetation and climatic regime, and typically a combination of fire return interval and fire intensity.
Flame Length	The distance from the base to the tip of the flaming front. Flame length is directly correlated with fire intensity.
Flaming Front	The zone of a moving fire where combustion is primarily flaming. Light fuels typically have a shallow flaming front, whereas heavy fuels have a deeper front.
Fuel	Combustible material that includes vegetation such as grass, surface litter, plants, shrubs, and trees that feed a fire. Not all vegetation is necessarily



considered fuel. Deciduous vegetation such as aspen actually serve more as a barrier to fire spread and many shrubs are only available as fuels when they are drought-stressed.

Fuelbreak	An easily accessible strip of land of varying width (depending on fuel and terrain), in which fuel density is reduced, thus improving fire control opportunities.
Fuel Loading	The amount of fuel present expressed in terms of weight of fuel per unit area.
Fuel Model	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.
Ground Fire	Fire that consumes the organic material beneath the surface litter ground, such as a peat fire.
Ground Fuel	Combustible materials below the surface litter, including duff, tree or shrub roots, decomposing wood, and peat that normally support glowing combustion without flame.
Ladder Fuels	Fuels that provide vertical continuity between strata, allowing fire to carry from surface fuels into the crowns of trees or shrubs with relative ease. Ladder fuels help initiate and ensure the continuation of crowning.
Overstory	The forest canopy.
Patch Cut	A small scale clearcut, generally no more than five to ten acres in area.
Regeneration	The new growth within a forest.
Risk	The probability that a fire will start from natural or human-caused ignition.
Sanitation Cut	Removal of trees designed to eliminate trees that have been attacked or appear in imminent danger of attack by dangerous insects or pathogens in order to prevent their spread.
Salvage Cut	Removal of trees designed to save the wood in dead or damaged trees, often following large scale mortality resulting from a fire or epidemic.
Stand Replacement	An event that kills the majority of the mature trees in a forest stand such as a crown fire or clear cut.
Surface Fire	Fire that burns loose debris on the surface, which includes dead branches, leaves, and low vegetation.
Surface Fuels	Surface litter normally consisting of fallen leaves, needles, cones, and small branches. It also includes grasses, forbs, shrubs, tree seedlings, heavier branchwood, downed logs, and stumps interspersed with or partially replacing the litter.
Torching	The burning of the foliage of a single tree or a small group of trees, from the bottom up. Passive crown fire.
Understory	Vegetation growing on the forest floor, under the canopy.
Wildfire	An unplanned and unwanted wildland fire that is not meeting management objectives and thus requires a suppression response.
Wildland Fire	Any fire burning in wildland fuels, including prescribed fire, fire use, and wildfire.



EXECUTIVE SUMMARY

The Upper Crystal River Valley Community Wildfire Protection Plan was developed for the Carbondale & Rural Fire Protection District with guidance and support from the Gunnison County Emergency Services, Colorado State Forest Service, Bureau of Land Management and U.S. Forest Service (through the Montrose Interagency Fire Management Unit). This effort was supported by a grant from the Montrose Interagency Fire Management Unit. This Community Wildfire Protection Plan (CWPP) was developed according to the guidelines set forth by the Healthy Forests Restoration Act (2003) and the Colorado State Forest Service's Minimum Standards for Community Wildfire Protection Plans (2009).

The prescribed elements of a CWPP that are included in this plan are:

- Stakeholder collaboration;
- Public agency and local community engagement;
- Hazard Mapping;
- Risk assessment – fuels, historical ignitions, infrastructure, structural ignitability, local resources, and firefighting capability;
- Recommended hazard mitigation action items

The objectives addressed by this plan are:

- Identify and describe the Upper Crystal River Valley's (UCRV) areas of wildland-urban interface
- Determine community hazards and risks associated with this wildland-urban interface
- Provide recommendations for mitigating those risks including strategies for fuels management and reduction of structure ignition potential
- Provide an Action Plan for implementing recommendations & identify lead entity

The communities that are identified as distinct planning units within the UCRV are Chair Mountain Ranch, Hermits Hideaway, Serpentine Trail, West 5th Street, Marble Mountain Ranch, and the Town of Marble. These areas were evaluated in terms of exposure to hazardous fuels and vulnerability to wildfire. The fuel hazards throughout these areas are predominately moderate and high. While brush fuels and drier conifer stands in the south facing and lower areas have the highest potential for problematic fire behavior, the aspen stands, riparian areas, and more mesic conifer stands will generally support moderate fire behavior in dry and windy conditions. A lack of defensible space and home combustibility are issues throughout all of these communities, while water supply and access/egress concerns are pronounced in all areas with the exception of the Town of Marble.

