

NATURAL RESOURCES CONSERVATION SERVICE
MONTANA CONSERVATION PRACTICE STANDARD

FUEL BREAK (ACRE)

CODE 383

DEFINITION

A strip or block of land on which the vegetation, debris and detritus have been reduced and/or modified to control or diminish the risk of the spread of fire crossing the strip or block of land.

PURPOSE

Control and reduce the risk of the spread of fire by treating, removing or modifying vegetation, debris and detritus.

CONDITIONS WHERE PRACTICE APPLIES

This practice applies on all land where protection from wildfire is needed.

CRITERIA

General Criteria Applicable To All Purposes

Fuel breaks strips or blocks will be of sufficient width and length to meet the intended purposes.

Fuel breaks shall be located to minimize risk to the resources and structures being protected.

Fires threaten property such as homes, buildings and other structures. Managing and maintaining the type and amount of vegetation surrounding the property are critical to reducing fire hazards.

Thin the overstory stand sufficiently to reduce the tree canopy and the potential of a crown fire.

Maintain vertical separation between fuel layers to remove "ladder" fuels, i.e., lowest layers of flammable vegetation do not connect to upper layers so that a fire cannot "step up" to higher canopies.

Treat or remove slash sufficiently and at a time to minimize fuel loadings to acceptable fire risk levels and reduce incidence of harmful insects and disease. **Comply with Field Office Technical Guide (FOTG), Section IV, Conservation Practice, Woody Residue Treatment (Code 384).**

Manage grasses and forbs to minimize fine fuels.

Establish fire-resistant vegetation to further decrease the risk of the spread of fire.

Additional Criteria for Forested Areas

In forested areas, fuel breaks consist of two zones: Zone 1 has intensive fuel reduction, and Zone 2 has moderate fuel reduction. Zone 2 is adjacent to Zone 1. Annually maintain the vegetation and practice treatments within the fuel break area.

Additional Criteria for Hazardous Fuel Reduction Next to Structures

Fuel breaks will be designed to provide one of two levels of protection for structures:

- 1) **Defensible Space, and,**
- 2) **Survivable Space.**

Defensible space refers to the area between a house and an oncoming wildfire where the vegetation has been modified to reduce the wildfire threat so firefighters have an opportunity to effectively protect the house.

Survivable space is wider than defensible space and is used where there is too little time to defend against fire or firefighting resources are not readily available.

Hazard reduction will consist of removing, reducing, and replacing vegetation. Removal means eliminating

NRCS, MT
June 2011

Conservation practice standards are reviewed periodically and updated if needed. To obtain the current version of this standard contact the Natural Resources Conservation Service.

NOTE: This type of font (AaBbCcDdEe 123..) indicates NRCS National Standards.
This type of font (AaBbCcDdEe 123..) indicates Montana Supplement.

entire plants, particularly trees and shrubs, from the site. Examples of removal would be cutting down trees or shrubs. Reduction means removing plant parts, such as logs, branches and grasses. Examples are pruning low tree branches or grazing grass.

Replacement means substituting tall and/or flammable plants with shorter, less hazardous vegetation. An example would be removing flammable shrubs and planting flowerbeds. Also in this replacement category is irrigating surrounding vegetation to keep it green and less flammable.

Create an effective defensible/survivable space using the following six steps:

1. Determine the size of the defensible/survivable space.

It is a distance measured outward from the sides of the house. This distance varies by the types of wild land vegetation growing near the house and steepness of the terrain.

2. Remove dead vegetation within the space area.

Dead vegetation includes dead trees and shrubs, dead branches lying on the ground or still attached to living plants, dried grass, flowers, and weeds, dropped leaves and needles, and firewood stacks.

3. Break up the continuous dense cover of shrubs or trees within the defensible/survivable space area.

Break continuous and dense vegetation by providing a separation between plants or small groups of plants. The separation distance depends upon shrub height and steepness of slope. Keep soil disturbance to a minimum on steep slopes when removing shrubs or trees.

4. Reduce any ladder fuels that are present.

Vegetation that allows a fire to move from lower growing plants to taller ones is referred to as "ladder fuels." This problem can be corrected by providing a separation between vegetative layers. This is accomplished by removing the lower tree branches or removing the shrub.

5. Create a "Lean, Clean, and Green" space surrounding the house.

"Lean" means only small amounts of flammable vegetation. "Clean" means no accumulation of dead vegetation or other flammable debris. "Green" means plants are healthy and green during the fire season.

6. Annually monitor and maintain the vegetation within the defensible/survivable space area.

CONSIDERATIONS

Attempt to locate fuel breaks near ridge crests and valley bottoms. If winds are predictable, fuel breaks can be located perpendicular to the wind and on the windward side of the area to be protected.

Another measure for reducing fire hazards around structures is to install a sprinkler system that can be used to keep vegetation green, or turned on in the event of a fire.

Prescribed grazing may be used as a management tool to reduce understory fine fuels.

Slash produced in the establishment of a fuel break that is not removed from the site will be treated or arranged to enhance wildlife habitat.

Select plant species that will enhance the needs of desired wildlife in the area.

Design and layout should include enhancement of multiple uses.

Consider beneficial and other effects of installation of the fuel break on cultural resources and threatened and endangered species, natural areas, and wetlands.

PLANS AND SPECIFICATIONS

Specifications for applying this practice shall be prepared for each site and recorded using approved specification sheets, job sheets, technical notes, and narrative statements in the conservation plan and the burn plan, or other acceptable documentation.

As a minimum, the fuel break practice will have the following components in its plan and specifications:

- **A narrative that describes the producer's goals and objectives. Identify why the practice is needed and feasible.**
- **An environmental assessment of the planned practice that includes the potential impacts on soil, water, animals, plants, air and humans.**
- **An alternatives narrative that identifies and describes several methods that could be used to address the resource issue. Also identifying the producer selected method.**
- **The Montana Fuel Break practice job sheet and specification.**
- **Plan map and soil map of site with location of practice on the map.**
- **Operations and maintenance instructions.**

OPERATION AND MAINTENANCE

Treat or graze vegetative fuel breaks to avoid a build-up of excess litter and to control noxious and invasive plants.

Inspect all fuel breaks for woody materials such as dead limbs or blown down trees and remove or treat as necessary to maintain the desired level of fire spread risk.

Inspect fuel breaks at frequencies to assure that the desired level of fire spread risk is maintained.

Maintain the functionality of the original design throughout the life of the practice.

For a properly functioning fuel break, follow these operation and maintenance activities for the life of the practice. The life span of this practice is ten years.