

**NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD**

FIREBREAK

(Ft.)

CODE 394

DEFINITION

A permanent or temporary strip of bare or vegetated land planned to retard fire.

PURPOSE

- Reduce the spread of wildfire.
- Contain prescribed burns.

CONDITIONS WHERE PRACTICE APPLIES

This practice applies on all land uses where protection from wildfire is needed or prescribed burning is applied.

CRITERIA

Firebreaks may be temporary or permanent and shall consist of fire-resistant vegetation, non-flammable materials, blackened (burned) areas, or bare ground surrounding the area to be burned. The designed width of the firebreak can include any combination of these.

Firebreaks will be of sufficient width and length to contain the expected fire and will be completed before the fire hazard season.

Firebreaks shall be located to minimize risk to the resources being protected including minimizing soil erosion.

Plant species selected for vegetated firebreaks will be non-invasive and capable of retarding fire.

The landowner will comply with applicable federal, state, and local laws and regulations, during the installation, operation, and

maintenance of this practice.

Location

The firebreaks should be located:

- Parallel to public roads, railroads, and adjacent to field boundaries. Public roads and public rights of way will not be used as primary firebreaks.
- Along property boundaries and within fields where it is determined necessary to protect areas that are not to be burned.
- Where possible the firebreaks should be connected to existing barriers such as cultivated fields, streams, rock bluffs, or field roads.
- To protect farmsteads or other structures by surrounding them at a safe distance.

Types and Sizes of Firebreaks

There are 5 types of primary firebreaks. They include: Natural, Constructed, Burned, Vegetated, and Mowed Wet-line. The type selected will be determined by the specific site conditions because of the variability of vegetation types, topography, and soil conditions.

The width of the firebreak type(s) is based on the type of fuel to be burned and the location in relation to the area to be burned.

Natural firebreaks

Existing terrain features can serve as a firebreak. Private roads, trails, cropland, rivers, streams, or other areas devoid of fuels may be used for installing low-intensity backfires. However, adequate personnel and equipment must be available for spot suppression.

Constructed Firebreaks

All flammable material will be removed or covered with soil by machinery on a strip of land adequate to contain the fire. The firebreak will be constructed so that it can be traversed by fire suppression vehicles. Discs, graders, plows, and bulldozers can be used to construct the firebreaks. Heavy equipment such as a bulldozer will be required to remove thick brush or large trees in rocky areas, creek crossings, and on steep slopes. This debris will either be stacked outside the burned area or burned prior to the prescribed burn when the surrounding fuel source is too green to burn, covered with snow, or is too wet to burn.

The constructed width of the firebreak for a prescribed fire shall be a minimum of 2 times the height of vegetation to be burned. Erosion control measures shall prevent sediment from leaving the site. Refer to CRITICAL AREA SEEDING (342) for vegetation establishment and FOREST TRAIL AND LANDINGS (655) for techniques to control erosion where permanent firebreaks are installed in woodland cover types.

Maintenance – Periodic mowing may be needed to reduce the amount of growth that may contribute to escapes. Remove flammable vegetation from permanent firebreaks as needed to maintain fire protection.

Burned Firebreaks

Burned firebreaks are installed only when used in combination with other types of firebreaks to meet the minimum widths required. They should be installed during evening or early morning hours when the temperature is low

and the humidity is high, resulting in an easy to control fire.

Vegetated Firebreaks

Vegetated firebreaks are constructed firebreaks that are planted in cool season plants to reduce future maintenance costs, prevent soil erosion, and provide wildlife food. Annual plants like rye grass or small grain can be planted. However after reaching maturity they can allow a fire to cross the firebreak.

Seed, fertilize and maintain the prepared area at rates according to the PASTURE AND HAYLAND PLANTING (512) standard and/or the COVER CROP (340) standard.

Mowed Wet-Line

Mowed firebreaks using wet-lines can be used as long as adequate personnel, equipment, and water supply areas are available to safely conduct the procedure.

Mowed firebreaks shall be a minimum of 2 times the height of the vegetation in the area to be burned. The mowing height should be 4 inches or less. Piles of grass should be removed by raking, baling or blowing.

Water will be sprayed on the mowed firebreak to create a wet-line immediately in advance of ignition of the fire. If the fire attempts to creep across the firebreak it should be immediately extinguished.

Mowed wet-line firebreaks can be quite time consuming and less predictable, therefore it is not the preferred method.

Secondary Firebreaks

Secondary firebreaks are areas identified in the prescribed burn plan to assist in controlling fires that have breached the primary firebreak.

They can consist of roads(private or public), cropland, rivers, streams, or constructed firebreaks.

Fire Intensity Reduction Line

A line constructed by reducing the height of the fuel just inside the burn area parallel to the primary firebreak which greatly reduces the intensity of the burn at the firebreak. They will be installed if the fine fuel load exceeds 1.5 tons/acre. Line width will be at least 10 feet at 1.5-3 tons/acre and 20 feet at greater than 3 tons/acre.

CONSIDERATIONS

Electric lines can be hazardous in heavy smoke as they may conduct electricity.

When using barriers consider the effects on wildlife and fisheries.

Attempt to locate firebreaks near ridge crests and valley bottoms.

If winds are predictable, firebreaks should be located perpendicular to the wind and on the windward side of the area to be protected.

Consider the selection of plant species that will enhance the needs of wildlife in the area.

Locate on the contour where practicable to minimize risk of soil erosion.

Design and layout should include multiple uses.

Consider the beneficial and other effects of installation of the firebreak on cultural

resources and threatened and endangered species, natural areas, riparian 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.

OPERATION AND MAINTENANCE

Mow or graze vegetative firebreaks to avoid a build-up of excess litter and to control weeds. Treatment should be timed to reduce impacts to nesting when possible.

Inspect all firebreaks for woody materials such as dead limbs or blown down trees and remove them from the firebreak.

Inspect firebreaks at least annually and rework bare ground firebreaks as necessary to keep them clear of flammable vegetation.

Repair erosion control measures as necessary to ensure proper function.

Access by vehicles or people will be minimized to prevent damage.

Bare ground firebreaks, which are no longer needed, will be stabilized.