

Natural Resources Conservation Service  
Conservation Practice Standard

Firebreak  
Code 394 (Acre)

DEFINITION

A strip of bare land or vegetation that retards fire.

PURPOSES

- To prevent the spread of wildfire.
- To control prescribed burns.

CONDITION WHERE PRACTICE APPLIES

All land uses where protection from wildfire is needed or prescribed burning is applied.

CRITERIA

**General Criteria Applicable to All Purposes**

Firebreaks may be temporary or permanent and shall consist of fire-resistant vegetation, non-flammable materials, bare ground, or a combination of these.

Firebreaks will be of sufficient width and length to contain the expected fire. The minimum width of a firebreak shall be 15 feet or three times the height of the available fuel whichever is greater.

Firebreaks shall be located to minimize risk to the resources being protected, including locating on the contour where practicable to minimize risk of soil erosion.

Plant species selected for vegetated firebreaks will be noninvasive, having attributes making them capable of retarding fire, and easy to maintain.

Erosion control measures shall prevent sediment from leaving the site.

Comply with applicable federal, state, and local laws and regulations, during the installation, operation and maintenance of this practice.

**Criteria for Specific Types of Firebreaks**

**Greenline or sod firebreak**

1. Permanently established sod firebreaks
  - a. seed to an appropriate cool season grass/legume mix selected from Appendix A of the Field Office Technical Guide
  - b. maintain a thick, short stand by fertilizing and mowing as needed; mowing shall be done at least once in the fall (after August 15) of the year before the planned burn
  - c. woody vegetation shall be controlled through cutting, mowing or the use of approved herbicides
  - d. use of wetlines, chemical or foam retardants is often necessary with greenlines due to the continued presence of flammable material (clippings, etc.)

2. Temporary sod firebreaks
  - a. seed to an appropriate cool season grass/legume mix, cool season grass, wheat (1 bu./ac.) or rye (1 bu./ac.) the fall before the planned burn; use rates found in FOTG Appendix A for grasses and grass/legume mixes; bluegrass and orchardgrass are preferred due to their earlier growth
  - b. if rye or wheat is used and the firebreak will not be used again the following season, re-seed the area to an appropriate permanent grass/legume mix after the burn is completed

#### **Bare ground**

1. evaluate the soil erosion potential before establishing bare ground firebreaks; use only where soil type, slopes and/or other measures (contouring, alignment) will keep soil loss within tolerable limits
2. prepare and maintain the bare ground through periodic plowing or discing
3. all vegetation, roots and other combustible material shall be removed from the firebreak
4. bare ground firebreaks shall be revegetated to an appropriate cover once there is no longer any need for the firebreak
5. if the firebreaks are to be used again, temporary cover or food plots may be established during the non-burning season

#### **Burned firebreak**

1. burn all fuel from the perimeter of the planned burn area prior to ignition of the controlled burn; typically this is just before the controlled burn is conducted
2. if burned firebreaks are established well before the controlled burn, they must be relit at the time of the burn to ensure that no unburned material is present

#### **CONSIDERATIONS**

Use barriers such as streams, lakes, ponds, rock cliffs, roads, field borders, skidtrails, landings, drainage canals, railroads, utility right-of-ways, cultivated land, or other areas as existing firebreaks. Wetlands with emergent vegetation may not be suitable firebreaks since the fire may burn across the vegetation above the waterline.

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. Design and layout should include multiple uses.

Consider cultural resources and environmental concerns such as threatened and endangered species of plants and animals, 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.

Specifications will include, but are not limited to, the following items:

- The planned width of the firebreak.
- The method and timing of working ground if the firebreak is to be bare ground.
- Identification of any erosion control measures need for implementation and operation of the firebreak.
- Identification of vegetation to be planted if firebreak is to be vegetated; site preparation; method of planting; seeding, fertilization and mulching rates required; and timing of the planting.

If the firebreak is to be burned, a burn plan developed by a qualified person is required. Permits, approvals or waivers need for the burn will be obtained. Refer to Standard 338 – Prescribed Burning for appropriate information on documentation.

#### OPERATION AND MAINTENANCE

Mow or graze vegetative firebreaks to avoid a build-up of excess litter and to control weeds.

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

Inspect firebreaks 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 controlled to prevent damage to the firebreak.

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

#### REFERENCES

Higgins, K. F., A. D. Kruse, and J. L. Piehl. 1989. Prescribed burning guidelines in the Northern Great Plains. U. S. Fish and Wildlife Service Publication EC 760. 36 pp.

<b>Practice Documentation For:</b> <i>Firebreak - 394</i>
<b>The following documentation must be in the case folder or engineering subfolder.</b>
<b>Practice Planning</b>
<ol style="list-style-type: none"> <li>1. Is the practice part of a conservation plan?</li> <li>2. Have the purpose(s) for the practice been identified?</li> <li>3. Is the location of the practice identified on a map or plan drawing?</li> </ol>
<b>Practice Design</b>
<p>Have the following design criteria been addressed?</p> <ol style="list-style-type: none"> <li>1. Firebreak location</li> <li>2. Type and height of flammable material</li> <li>3. Width of firebreak</li> <li>4. Type of firebreak</li> <li>5. Seeding mix and rates appropriate to site conditions, if applicable</li> <li>6. Method and timing of establishment of bare soil, if applicable</li> <li>7. Use of burned firebreak, if applicable</li> <li>8. Acres planned</li> </ol>
<b>Practice Installation / Application</b>
Does the practice meet the minimum criteria for the planned purpose(s)?
<p>Has the following information been documented in the assistance notes or practice jobsheet?</p> <ol style="list-style-type: none"> <li>1. Width of firebreak</li> <li>2. Species of vegetation established, if applicable</li> <li>3. Method of bare soil establishment, if applicable</li> <li>4. Timing of burned firebreak, if applicable</li> <li>5. Acres established</li> </ol>
<b>Practice Deficiencies</b>
If applicable, have the practice deficiencies been communicated with the decisionmaker?
<b>Practice Maintenance</b>
<p>Have the following maintenance actions been communicated to the decisionmaker?</p> <ol style="list-style-type: none"> <li>1. Management of firebreak to maintain proper vegetative cover</li> <li>2. Management to control excess litter build-up</li> <li>3. Removal of any flammable materials prior to prescribed burn</li> <li>4. Re-seeding of bare firebreaks, if needed</li> </ol>
<b>Other Comments:</b>