

**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**

**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.

***All firebreaks will begin and end at control points, such as a road or stream, that will not allow fire to burn around the end of the firebreak.***

Firebreaks shall be located to minimize risk to the resources being protected.

Erosion control measures shall be installed to prevent sediment from leaving the site.

Plant species selected for vegetated firebreaks will be noninvasive and capable of retarding fire.

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

***Following are the minimum construction specifications for:***

**Firebreaks Used to Contain Prescribed Burns**

***West Virginia Code 20-3-5 states that “No burning allowed by this section may be done unless all inflammable material has been removed from around the material to be burned as a safety strip for a distance which insures that the fire will not escape and which is no less ten feet.”***

**Note: West Virginia NRCS does not have a Prescribed Burning conservation practice standard. Those interested in prescribed burning must contact the West Virginia Division of Forestry for assistance when planning and/or applying a prescribed burn.**

**Permanent Woodland Firebreaks**

***Keep grades below 15 percent wherever possible and build with a width of at least 8 feet. Note: wider firebreaks will be needed if vehicle***

**NRCS, NHCP  
September 2010**

**NRCS, WV  
December 2012**

Conservation practice standards are reviewed periodically, and updated if needed. To obtain the current version of this standard, contact the Natural Resources Conservation Service [State Office](#), or download it from the electronic [Field Office Technical Guide](#) for your state.

*access is necessary and/or when the terrain is steep.*

*Vegetated firebreaks will be seeded according to the conservation practice standard, Critical Area Planting, code 342.*

*Note: Existing woodland roads or trails can be effective firebreaks if properly maintained. Abandoned roads or trails should be renovated and erosion controlled. Fallen trees, leaves or other inflammable materials must be removed from the road surface. If roads are overgrown, they must be cleared of woody vegetation and mowed. Mowing just prior to the fall fire season will improve the road's effectiveness as a firebreak.*

*Provide water control and water quality safeguards.*

*At a minimum, comply with applicable federal, state and local laws and regulations during the installation, operation and maintenance of this practice. See Field Office Technical Guide Reference - Best Management Practices for Controlling Soil Erosion and Sedimentation from Logging Operations in West Virginia (WVDOF -TR-96-3 (most current version)).*

<http://www.wvforestry.com/BMP%20Book%20Complete.pdf>

*See conservation practice standard for Forest Trails and Landings, code 655.*

#### **Permanent Firebreaks in Open Land or Plantations**

*Locate firebreaks at intervals throughout plantations. Frequency of firebreaks throughout the plantation will depend upon the value of the crop, degree of hazard, and size, shape and orientation / location of the plantation.*

#### **Permanent Sod Firebreaks**

*Seed to appropriate cool season grass/legume mix on prepared seedbed that is at least 8 feet wide. See conservation practice standard Critical Area Planting, code 342.*

*Maintain a thick, short stand by mowing at least annually.*

*Woody vegetation will be controlled through cutting, mowing or the use of approved herbicides.*

#### **Permanent Plowed, Disked or Bladed Firebreaks**

*These may be used parallel to public roads, railroads and other high risk areas such as, forestland, farm fields, native grass plantings, cutover land, old fields and property boundaries.*

*On lands with slopes greater than 5 percent locate firebreaks approximately on the contour.*

*Disk or plow strips at least 8 feet wide.*

*After initial establishment by plowing or disking, disk annually before fall statutory fire season (October 1- December 31) to control vegetation and remove all inflammable material from the firebreak.*

#### **Temporary Firebreaks**

*Temporary firebreaks are to be built during wildfire control efforts. Location, pattern, and frequency need to be determined on site taking into consideration present and anticipated fire conditions.*

*NOTE: West Virginia Division of Forestry personnel are responsible for directing wildfire control efforts in West Virginia.*

*Minimum specifications include clearing a lane at least 6 feet wide with a 2 foot wide pathway in the middle cleared of all flammable material down to mineral soil.*

***Firebreaks should angle outward from the top of the hill to the bottom and placed on the outside of the drainage ways (where applicable) to keep burning debris from rolling across the cleared line into unburned areas.***

***Placement should also take into consideration potential snags which may fall across the firebreak.***

***Erodible areas should be vegetated following the fire emergency.***

## CONSIDERATIONS

Use barriers such as streams, lakes, ponds, rock cliffs, roads, field borders, skid trails, landings, drainage canals, railroads, utility right-of-ways, cultivated land, or other areas as existing firebreaks. 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 using diverse species combinations which best meet locally native wildlife and pollinator needs.

***Orchardgrass and clovers are fire resistant, provide wildlife benefits and are suitable for maintaining cover on firebreaks where erosion control is necessary. Tall fescue is also suitable for maintaining cover where erosion control is needed, however, it should be noted that it does not provide wildlife benefits and that adjacent landuses and vegetation can be impacted and should be considered when using this species.***

***Wildlife values can be improved by clearing strips 20 to 30 feet wide on both sides of the firebreak. Refer to conservation practice standard, Field Border, code 386.***

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.

***At a minimum the following will be identified in the conservation plan:***

- ***Purpose of the firebreak***
- ***Type of firebreak***  
***(Temporary vs. Permanent)***  
***(Woodland vs. Open Land)***
- ***Field location / plan view***
- ***Length of firebreak (ft.)***
- ***Minimum width of firebreak (ft.)***
- ***Method of construction***  
***(Hand vs. Mechanical)***
- ***Equipment used for construction***
- ***Dates of construction/maintenance***
- ***Site preparation and seeding methods (if applicable) – See Critical Area Planting, code 342***
- ***Relevant environmental documentation including but not limited to the WVCPA-052 or similar form***
- ***Operation and maintenance requirements***

## OPERATION AND MAINTENANCE

Mow, disk, 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. ***Where practical, management activities will be performed outside the primary nesting season (March 15 - July 15).***

Inspect all firebreaks ***annually prior to March 1 and each fall after most of the leaves have fallen*** for woody materials such as ***dead leaves and*** limbs or blown down trees and remove them from the firebreak. 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. ***Refer to conservation practice standard Use Exclusion, code 472.***

***Vegetated firebreaks should be fertilized and managed as needed to maintain ground cover.***

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

\*Bold italics indicate changed or added to the national standard by West Virginia.

## REFERENCES

***Brown, Arthur and Davis, Kenneth, Forest Fire: Control and Use, McGraw-Hill Book Company, 1959***