



United States Department of Agriculture

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## **Practice Guide for Firebreak**

(Pennsylvania NRCS)

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## Overview

A firebreak is a strip of bare land or vegetation established or created to retard fire. Firebreaks are useful components of conservation systems that address forest management, wildlife habitat management, and prescribed burning. Firebreaks can be planned and implemented as proactive measures that are equally useful for preventing the spread of wildfire and controlling the perimeters of prescribed burns.

## Site conditions

This practice is applicable on all land where fire is being used as a vegetation management tool or wherever there is a threat of an uncontrolled wildfire. Firebreaks consist of fire-resistant vegetation, non-flammable materials, bare ground or any combination of these. Locate firebreaks on the contour where practical to minimize the risk of soil erosion. Constructed firebreaks should tie into existing physical barriers (without direct drainage into receiving waters, to prevent sedimentation). Firebreak construction must comply with applicable federal, state, and local laws, regulations, or permits. Firebreaks may be temporary or permanent.

## Firebreak Type Options

Four types of firebreaks are adaptable to the various needs and conditions existing in Pennsylvania:

1. forest roads,
2. plowed, disked, or bladed firebreaks,
3. burned firebreaks, and
4. vegetated firebreaks.

Forest roads and plowed or disked firebreaks may be used in any forest type and on nearly all terrain conditions. Burned and vegetated breaks may be most applicable to grasslands or pastures.



A forest road being used as firebreak during prescribed burning.  
(Photo courtesy of VA NRCS)

**Forest Roads**, either existing or newly constructed, can be effective firebreaks if properly installed and/or maintained. Forest roads intended for use as firebreaks should also meet the NRCS standards and specifications listed for *Pennsylvania Conservation Practice Standard 655, Forest Trails and Landings*.

**Disked, Plowed or Bladed Firebreaks** should be located parallel to railroads, utility lines, and other high risk areas, adjacent or parallel to forest property boundaries, and within the forest where necessary. They should follow the approximate contour of the

land wherever feasible to minimize erosion. The breaks should be the width of the disk, Mathis plow (3' to 5'), or blade (6' to 12'). These widths are usually sufficient to contain most creeping or slowly moving ground fires, but will not stop crown fires. Temporary firebreaks must be plowed immediately before burning.

**Burned Firebreaks** consist of two parallel plowed or disked strips, each 5' wide, and a minimum of 20'

apart. Logs, limbs, and other flammable materials which are likely to burn for several hours should be removed from the area between the strips. The area between the strips is then burned to create the firebreak. The burned firebreak must be established as part of an approved burn plan, by someone certified to plan and conduct prescribed burning (*also refer to Pennsylvania Conservation Practice Standard 338, Prescribed Burning*).

**Vegetated Firebreaks** consist of cool season grass or grass legume strips at least 30' wide within or adjacent to grass fields and 50' wide within forests. Breaks must be 50' wide within the forest to allow sufficient sunlight for grass and legume plants to successfully form a sod cover. Vegetated firebreaks should be cleared of trees and scrubby growth. The land should be prepared and seeded according to the specifications given in the *Firebreak Job Sheet*.

## **Specifications Job Sheet (Implementation Requirements)**

Practice specifications for establishment will be developed individually for each firebreak site with the landowner. Specifications will comply with Pennsylvania Conservation Practice Standard 394 (Firebreak). All decisions concerning location, plant materials and other specific technical decisions will be documented on a *Firebreak Job Sheet* provided to the landowner and on file in the office copy of the related Conservation Plan. Firebreaks should also be included as necessary in any Prescribed Burning plans developed for the site(s).

## **Operation and Maintenance**

Maintain firebreaks for the life span of the conservation practice (5 years), or if applicable, any USDA contract associated with the establishment of the firebreak (like EQIP), whichever is longer. The minimum operation and maintenance activities are described on the *Firebreak Job Sheet*, and must be provided to the landowner.

## **References**

Conservation Practice Standard – Firebreak. PA NRCS. 2014.  
<http://efotg.sc.egov.usda.gov/references/public/PA/394firebreak.pdf>

Conservation Practice Standard – Prescribed Burning. PA NRCS. 2014.  
[http://efotg.sc.egov.usda.gov/references/public/PA/PA\\_338\\_standard\\_1\\_14Final.pdf](http://efotg.sc.egov.usda.gov/references/public/PA/PA_338_standard_1_14Final.pdf)

Firebreak Job Sheet. PA NRCS. 2014.  
[http://efotg.sc.egov.usda.gov/references/public/PA/394firebreak\\_jobsheet.pdf](http://efotg.sc.egov.usda.gov/references/public/PA/394firebreak_jobsheet.pdf)

Conservation Practice Standard – Forest Trails and Landings. PA NRCS. 2012.  
<http://efotg.sc.egov.usda.gov/references/public/PA/PA655ForestTrailsandLandingsDec2012.pdf>

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