United States Department of Agriculture
Natural Resources Conservation Service

Firebreak

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

Lifespan of Practice: 5 years

Tennessee Implementation Requirements No. TN-394

DEFINITION

A permanent or temporary strip of bare or vegetated land planned to retard fire. Firebreaks are useful for managing vegetation types and reducing wildfire threat.

This implementation requirements sheet is supplemental to the TN NRCS conservation practice standard Firebreak (394) and is required for all NRCS plans. Procedures, technical details, and other information listed below provide additional guidance for carrying out selected components of the practice; it is not a standalone document. This material is referenced from the conservation practice standard for the named practice and supplements the requirements and considerations listed therein. Attach a conservation plan map.

INSTALLING THE PRACTICE

General Considerations

1. Firebreaks may be temporary or permanent.
2. Firebreaks should consist of fire-resistant vegetation, non-flammable materials, bare ground, or a combination of these.
3. Firebreaks must be of sufficient width to contain the expected fire.
4. Plant species selected for vegetated firebreaks will be noninvasive, comprised of attributes making them capable of retarding fire, and easy to maintain. Consider the selection of plant species that will enhance the needs of wildlife in the area.
5. Firebreak width is a site-specific determination. The minimum width in TN is 10 feet. A 10-foot firebreak is usually sufficient to contain most creeping or slowly moving ground fires, but will not stop crown fires. Provide special consideration to equipment widths, especially sprayer widths, when determining the firebreak width.
6. Width should be increased with increasing slopes. Slopes greater than 20 percent should be at the maximum design width.
7. Width should be increased with increased volatility of fuels (i.e., brush).
8. The design width should always be increased during the burn by backfiring into the field to be burned. The burned portion should be at least 50 feet wide before considering a head fire.

Types of Firebreaks

Three types of firebreaks are adaptable to the various needs and conditions existing in Tennessee. They are:

1. Access Roads,
2. Plowed or disked firebreaks, and
3. Vegetated firebreaks.

Access Roads

Access roads and plowed or disked breaks may be used in any vegetation type and on nearly all terrain conditions, provided location specifications are followed. Existing or newly constructed access roads or trails can be effective firebreaks if properly maintained. Older access roads or trails may require renovation for vehicular use and sufficient fire suppression.

Construction techniques are located in the TN NRCS Conservation Practice Access Road (560).

Plowed or Disked Firebreaks

These should be located:

- Parallel to public roads, railroads, and boundary lines.
- Where possible, attempt to locate on adapted main ridges and side ridges. They should follow the approximate contour of the land wherever feasible to minimize erosion.

Construction techniques include the following:

- Expose mineral soil with fireline plows, heavy bush and

bog disks, or farm plows and disks or blades depending upon the terrain and character of vegetation to be removed.

- Consider use of temporary cover when not in use to minimize soil erosion.
- Temporary firebreaks must be plowed immediately before burning.

Vegetated Firebreaks

Proper plant community establishment and maintenance is critical to a successful vegetated firebreak that minimizes fuel and maximizes vegetation "green up" during the burn. Vegetated firebreaks may consist of annual, perennial, cool-season, or warm-season plants depending on firebreak purposes.

Locations must provide protection and should provide convenient access to the site.

Installation techniques include the following:

- The minimum vegetated firebreak width in TN is 10 feet. A 10-foot firebreak is usually sufficient to contain most creeping or slowly moving ground fires, but will not stop crown fires. Provide special consideration to equipment widths, especially sprayer widths, when determining the firebreak width.

- Strips at least 30 feet wide adjoining forest land and 50 feet wide within forests should be cleared by removing trees and scrubby growth to allow for sufficient sunlight to reach the vegetated firebreak.

- Lime and fertilize as needed during the contract period to maintain a uniform stand of the preferred plant community. Too much encroachment of weeds and volunteer plants will affect the desired "green up."

- Mow vegetated firebreaks at least one to two months prior to burn.

Rake cuttings and debris piles away from area to be burned that can compromise the firebreak.

VEGETATED FIREBREAK ESTABLISHMENT RECOMMENDED PLANT MIXTURES

(General list; Not All Inclusive)

Perennial cool-season	Lbs.	**Annual cool-season**	Lbs.
Ladino clover	4	Crimson clover	10
Red clover	5	Arrowleaf clover	10
Alfalfa	8	Winter wheat	40
Chicory	2	Red Clover	10
Seeding dates: Sept. 1-Oct. 15			

Annual warm-season	Lbs.
a) Iron-clay cowpeas	60
Peredovik sunflowers	5
b) Egyptian wheat	7
White proso millet	7
Grain sorghum	3
a,b seeding dates: April 15-June 15	
c) Kobe and/or Korean lespedeza	10
Partridge pea	2
c seeding dates: Feb. 15-Apr. 1	

OPERATION AND MAINTENANCE

Inspect firebreaks for functionality and employ warranted actions to maintain health and vigor of vegetated firebreaks and reduce erosion, and till bare firebreaks as needed.

REFERENCES

NRCS - Conservation Practice Standards

- Code 560 - Access Road
- Code 394 - Firebreak
- Code 338 - Prescribed Burning

Harper, Craig. 2008. A Guide to Successful Wildlife Food Plots, Blending Science with Common Sense. University of Tennessee Extension PB 1769.

Tennessee Department of Agriculture, Divison of Forestry, Guide to Forestry Best Management Practices in Tennessee, 2003.

Landowner_____ Field Number_____

Type of Firebreak	
☐ Forest road ☐ Plowed or disked	☐ Vegetated

Layout, Dimensions, Construction Information		
Construction must comply with all federal, state, and local laws.		
Total Length (ft):	Average Width (ft.):	Total area (ac) or 1000Ft.^{2}
Additional location and layout requirements: Location shown on plan map yes ☐ no ☐ Equipment to be used:		

Plant Materials Information (For vegetated firebreaks)					
Species (Cool or Warm Season) ☐ ☐	Seed ☐ Lbs./ac. ☐ Lbs./1000Ft.^{2}	Lime ☐ Lbs./ac. ☐ Lbs./1000Ft.^{2}	Fertilizer ☐ Lbs../ac. ☐ Lbs. /1000Ft.^{2}	Mulch ☐ Lbs../ac. ☐ Lbs./1000Ft.^{2}	Planting Dates
1.					
2.					
3.					
4.					
5.					
6.					

Site Preparation
Planting Method (s)
☐ Broadcast ☐ Drilled

Maintenance Requirements (Check as Appropriate)	
☐ Inspect Annually, rework erosion control measures	☐ Clean and repair surface drains
☐ Stabilize unneeded bare ground firebreaks	☐ Rework bare ground breaks before fire
☐ Burn or disk dead grass	☐ Apply lime, fertilizer, and seed
☐ Control vehicular access	☐ Mow or graze to remove litter, weeds

December 2013

Additional Specifications and Notes:

Landowner Signature:_____ Date:_____

Conservation Planner:_____ Date:_____

December 2013