

NATURAL RESOURCES CONSERVATION SERVICE  
CONSERVATION PRACTICE STANDARD

**FIREBREAK**

(Feet)  
Code 394



**DEFINITION**

A strip of bare land or vegetation that retards fire.

**PURPOSES**

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

**CONDITIONS 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 fire.

Firebreaks shall be located to minimize risk to the resources being protected, avoid alteration of natural hydrology and follow topographic contours where practicable in order to minimize soil erosion.

Erosion control measures shall prevent sediment from leaving the site.

Temporary firebreaks will be constructed immediately prior to needed use and will be inspected prior to burning.

Permanent firebreaks will be annually inspected prior to the peak wildfire season (i.e., January through June) and maintained and renovated, if needed, to ensure proper functioning.

Impacts to cultural resources and Federal and State protected species shall be evaluated during planning, design and implementation of this conservation practice in accord with established National and Florida NRCS policies (General Manual, Title 420-Part 401 and Title 190-Part 410.22; National Planning Procedures Handbook, FL Supplements to Parts 600.1 and 600.5).

Comply with applicable federal, state, and local laws, regulations and current Division of Forestry (FDOF) *Silviculture Best Management Practices* during the installation, operation and maintenance of this practice.

Firebreaks will be established on the upland side of streamside management zones (SMZs) and riparian forest buffer or riparian herbaceous cover.

The following types of firebreaks can be used in Florida.

- I. Existing Firebreaks,
  - A. Natural
  - B. Man-made
- II. Constructed Firebreaks,
  - A. Plowed, Disked, Bladed or Rototilled
  - B. Access Road
  - C. Burned
  - D. Vegetated

The type(s) of firebreak used will depend on site specific conditions, weather, expected weather conditions and fire behavior for prescribed burns, and meet the additional criteria below.

### **Additional Criteria for Firebreaks**

#### I. Existing Firebreaks

Existing features as described below may serve as firebreaks when they are devoid of fuels or conditions needed to carry fire and of sufficient length and width to control fire.

##### A. Natural

Existing natural terrain features such as rock cliffs, rivers, streams, ponds, lakes, swamps, bare areas, and cypress or hardwood forest.

##### B. Man-made

Man-made features such as roads, trails, drainage canals, railroads, utility rights-of-ways, cultivated land, active mines, and borrow pits.

#### II. Constructed Firebreaks

The following constructed firebreaks are permitted.

##### A. Plowed, Disked, Bladed or Rototilled

Plowed, disked, bladed or rototilled firebreaks shall be constructed to expose mineral soil with fireline plows, heavy bush and bog disks, farm plows, disks, blades, or rototillers depending on the terrain and character of vegetation to be removed.

Width of constructed firebreaks shall be two times the expected flame length or six feet, whichever is larger.

Plowed, disked, bladed or rototilled firebreaks shall be limited to areas with slight erosion hazard.

##### B. Access Road

Access roads may be used as firebreaks if they are:

1. Constructed in accordance with NRCS conservation practice standard FL560 - *Access Road*.
2. Devoid of fuels or conditions needed to carry fire and of sufficient length and width to control fire.
3. Adequately maintained.

#### C. Burned

The area to be burned shall be:

1. Located between two parallel firebreaks that are at least 20 feet apart, devoid of fuels or conditions needed to carry fire and of sufficient length and width to control the fire used to create the burned firebreak.
2. Cleared of all logs, limbs, and other flammable materials which are likely to burn for several hours.
3. Burned in accordance with NRCS conservation practice standard FL338 - *Prescribed Burning*.
4. Of sufficient length, width and composition after established to control fire given onsite and adjacent fuel conditions.

#### D. Vegetated

Any constructed firebreak may be vegetated to serve as erosion control, cover and food for wildlife, or as forage for livestock as long as the following conditions apply.

1. They are at least 30 feet wide; unless within forest, where the minimum width shall be 50 feet to allow adequate sunlight for vegetative growth.
2. Plant species selected for vegetated firebreaks will be noninvasive, comprised of attributes making them capable of retarding fire and soil erosion, and easily maintained. For additional guidance, refer to NRCS conservation practice standard FL512 - *Pasture and Hay Planting*, University of Florida Institute of Food and Agricultural Sciences (IFAS) circulars, or other appropriate reference material.
3. Vegetation shall be maintained in green and growing condition. Apply soil amendments, as needed, according to NRCS conservation practice standard FL590 - *Nutrient Management*.
4. Where problematic, weeds will be controlled according to NRCS conservation practice standard FL595 - *Pest Management*.
5. Dried or drying vegetation capable of spreading fire must be re-planted to vegetation capable of growing during the current season or shall be disked, plowed or bladed to bare mineral soil.

6. Vegetation height will be maintained below 6 inches during the Florida wildfire season (i.e., January through June) and freshly mowed prior to conducting a prescribed burn.
7. With appropriate permission(s), utility rights-of-way may be used as vegetated firebreaks provided they meet the minimum requirements described above.

## CONSIDERATIONS

Constructed firebreaks should tie into existing firebreaks where available.

Expected flame lengths and fuel loads can be estimated based on experience, fire behavior and fuel load models, fuel load estimation references, or techniques presented in the FDOF Interagency Prescribed Fire course. FDOF should be consulted on whether models or references used are suited for the planning area.

Inspect all stream crossings and drainage structures along an established firebreak for presence of fuels that may carry fire across or underneath the firebreak.

Dead shrubs or trees that could fall across firebreaks should be felled interior of firebreaks or removed.

If vegetated firebreaks are used, consider foaming or wetting the firebreak on approach of fire when it is safe to do so.

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 establishing interior firebreaks for greater safety and control when prescribe burning more than 200 acres.

Where possible and practical, discourage use of fireline plows for creating temporary firebreaks and encourage use of less soil disrupting methods of preparation (e.g., disked, bladed, rototilled).

When a fireline plow is used to establish a firebreak, consider renovating the firebreak after the burn with a recovery plow/re-work harrow.

Consider restricting access of people and equipment when uncontrolled access causes excessive erosion, rutting or other damage to firebreaks.

Consider the selection of plant species that will reduce impacts to and enhance habitat for wildlife. For additional guidance refer to NRCS conservation practice standard FL645 - *Upland Wildlife Habitat Management* and NRCS Plant Materials Program's *Plant Materials for Wildlife*.

Design and layout should include multiple uses.

## 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.

Minimum documentation for this practice includes (as applicable):

1. Type of firebreak;
2. Location of firebreak on conservation map;
3. Method and timing of establishment;
4. Species to be planted;
5. Soil amendments, site preparation and planting methods;
6. Operation and maintenance requirements;
7. Statement requiring compliance with all federal, state, and local laws.

## OPERATION AND MAINTENANCE

Inspect for and remove flammable woody materials such as dead limbs, blown down trees, or volatile volunteer species from firebreaks.

Annually inspect and rework bare ground firebreaks as necessary to keep them void of flammable vegetation.

Inspect annually and rework erosion control measures and restrict access of people and equipment as necessary to ensure proper functioning of firebreaks.

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

## REFERENCES

- Andrews, Patricia L.; Bevins, Collin D.; Seli, Robert C. 2003. BehavePlus fire modeling system, version 2.0: User's Guide. Gen. Tech. Rep. RMRS-GTR-106WWW. Ogden, UT: Department of Agriculture, Forest Service, Rocky Mountain Research Station. 132p. [http://www.fs.fed.us/rm/main/fire\\_res/fire\\_pubs.html](http://www.fs.fed.us/rm/main/fire_res/fire_pubs.html)
- Florida Division of Forestry. 2000. Silviculture best management practices. 98pp.
- Florida Exotic Pest Plant Council, Category I and II lists, <http://www.fleppc.org/>
- IFAS Circulars, University of Florida <http://edis.ifas.ufl.edu/deptlist.html>
- NRCS Conservation Practice Standards, FOTG, Section IV:  
Access Road, code FL560  
Nutrient management, code FL590  
Pasture and hay planting, code FL512  
Pest management, code FL595  
Prescribed burning, code FL338  
Upland wildlife habitat management, code FL645
- NRCS, General Manual:  
Title 190-Compliance with NEPA, Part 410.22 - Threatened, and endangered species of plants and animals  
Title 420- Social Sciences, Part 401 - Cultural Resources (Archeological and Historic Properties)
- NRCS, National Planning Procedures Handbook, Part 600.5 – Exhibits: FL2 to FL6
- Scholl, E.R. and T.A. Waldrop. 1999. Photos for estimating fuel loadings before and after prescribed burning in the upper coastal plain of the southeast. Gen. Tech. Rep. SRS-26. Asheville, NC: USDA, Forest Service, Southern Research Station. 25pp. <http://www.srs.fs.usda.gov/pubs/>
- Surrency, D. and C. Owsley. 2000. Plant materials for wildlife. USDA-NRCS, Jimmy Carter Plant Materials Center, Americus, GA. 28pp.