

NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD

FIREBREAK

(Feet)
Code 394



DEFINITION

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

PURPOSES

- 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 fire.

Firebreaks shall be appropriately 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 be installed to 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.

Four types of firebreaks may be used in Florida. They are 1) access roads, 2) vegetated firebreaks, 3) either plowed or disked firebreaks and, 4) natural barriers. Plowed or disked firebreaks should be limited to soils with slight erosion hazard. Access roads, vegetated firebreaks, and plowed/disked firebreaks may be used on any soils provided erosion control measures such as water breaks or broad-based drainage dips are used when erosion hazard is moderate to severe. Access roads used for fire

breaks should be vegetated on soils that have a moderate to severe erosion hazard.

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.

Specific Criteria for Access Roads

Existing access roads can serve as effective firebreaks if properly maintained. All burnable material should be removed from the roads in early spring and fall just before the fire seasons.

New roads should be constructed to provide protection from fire and to provide access for harvesting forest products, or other land uses. Aerial photographs, contour maps, and soil maps should be used in locating new roads.

Where possible, "day light" the forest roads by clearcutting 30-50ft on each side. This will achieve optimum sunlight on the road which will encourage grass/shrub wildlife habitat and help dry roads. Maintain grass or shrub vegetation on and along roads by mowing and/or burning.

Road beds used for firebreaks may be vegetated to reduce erosion and enhance wildlife habitat. A seedbed should be prepared by disking. Lime and fertilizer should be applied according to a soil test. Firebreaks may be over seeded each fall with either legumes, small grains or ryegrass.

Specific Criteria for Vegetated Firebreaks

Any constructed firebreak may be vegetated or any approved utility right-of-way may be used as a vegetated firebreak as long as the following criteria are met:

- (1) they are at least 30 feet wide, unless within a forested area where the minimum width shall be 50 feet;
- (2) select plant species which are noninvasive, easily maintained, have attributes which retard fire and soil erosion. It is preferable to select plants that provides forage for livestock as well as food and cover for wildlife; and,
- (3) vegetation is maintained in green and growing condition and weeds controlled, dried or dying vegetation is re-planted or reduced to bare mineral soil, maintained below 6 inches during the Florida wildfire season (i.e., January through June), and freshly mowed prior to conducting a prescribed burn.

Specific Criteria for Disked Firebreaks

Plowed or disked firebreaks can be constructed with a variety of equipment. Plowed or disked firebreaks shall be a bare area at least 8 feet wide, free of burnable material, and located so that erosion is kept to a minimum. Plowed or disked firebreaks should be limited to areas with slight erosion hazard. Firebreaks should be either plowed or disked to remove all burnable material before the fire season or planted prescribed burn.

Specific Criteria for Natural Firebreaks

These are natural barriers that prohibit the fire from crossing into areas where fire is not planned. Such areas include: lakes, streams, ponds, roads, cultivated fields and railroads.

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

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.

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
- 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.