

**NATURAL RESOURCES CONSERVATION SERVICE  
CONSERVATION PRACTICE GENERAL SPECIFICATION**

**FUEL BREAK**

(Ac.)

**CODE 383**

**GENERAL SPECIFICATION**

Procedures, technical detail, and other information listed below provide additional guidance for carrying out selected components of the named practice. This material is referenced from the conservation practice standard for the named practice and supplements the requirements and considerations listed therein.

**GENERAL DESIGN INFORMATION**

A fuel break is typically a strip of land where flammable vegetation (coniferous trees such as pine and cedar, volatile brush and vines such as green briar, dead or dying woody material, herbaceous vegetation, etc.) is reduced in quantity, but not necessarily removed entirely. Fuel breaks are typically used to reduce the heat-intensity of wildfires by reducing the amount of fuel that is available to burn, thus limiting the fire's ability to spread rapidly.

The overall intent of the fuel break is to create a vegetative arrangement where wildfire reduces intensity as it burns into the fuel break. Implementation consists of removing, reducing or pruning trees, shrubs, brush, woody debris and other vegetative growth on the designated area as prescribed.

Fuel breaks are often a defensible location to be used by fire suppression resources to reduce the hazard of wildfires. Any fuel break by itself will not stop a wildfire. It is a location where the fuel has been modified to increase the probability of success for fire suppression activities.

**Location of Fuel Break**

Fuel breaks shall be located perpendicular to the prevailing wind on the windward side of the area to be protected. The best locations for establishing fuel breaks are on ridge crests and valley bottoms.

When possible, connect fuel break(s) to natural or artificial barriers such as rivers, creeks, bluffs, large rock outcrops, wet meadows, roads, or areas with low fuel loads or flammability. Favor locations that are linked to road systems to facilitate fire-fighting access.

**Width of Fuel Break**

A fuel break provides additional fire protection and suppression benefits when supplemented with a firebreak (See Oklahoma NRCS Firebreak – 394 standard).

The width of the fuel break is dependent upon such factors as topography (aspect), slope and the type and height of fuels/vegetation present. The width will typically vary due to site conditions.

The minimum width of the fuel break shall be 66 feet. This shall be widened for slope increases, position on the landscape or heavier fuel conditions. In those cases, a minimum distance equal to the height of the trees in the fuel break shall be added to the minimum width.

**Separation Distance**

Vegetation will be managed within the fuel break to maintain a minimum separation distance between trees, shrubs, and forest canopy layers.

**NRCS, OK  
February 2013**

The overstory shall be thinned to sufficiently separate the tree canopies and reduce the potential of a crown fire. Separation distances between tree crowns within the fuel break shall be 10 feet on slopes less than 10% and 20 feet on slopes greater than 10%. Branches on the remaining trees shall be pruned to 8 to 10 feet in height (Refer to Oklahoma NRCS Tree/Shrub Pruning - 660 standard).

Separation distances between shrubs and small trees (less than an average 15 feet in height) will be two times their height on 0-20% slopes and four times their height on slopes over 20%.

Herbaceous vegetation shall be mowed and maintained at a height of less than 1 foot.

Vertical separation distances are also needed between the strata layers of the forest canopies. Vegetation that serves as a link between grass, shrubs and tree crowns, also known as "ladder fuels" shall be reduced, removed or pruned to provide the required clearance. The recommended separation of these ladder fuels will be three times the height of the shrub layer or a minimum of 10 feet.

Trees and shrubs removed for fuels reduction and separation will be cut no higher than 12" above the ground. Prevent re-growth of cut stumps by applying herbicide, if desired, according to herbicide label directions.

### **Treatment of Woody Debris**

All cut, dead, or dying woody materials shall be removed, piled and burned, or chipped.

Remove all standing dead or dying trees and shrubs within the fuel break.

All dead materials that are solid (not rotten) and not already embedded into the soil layer shall be removed.

Reduce the leaf or needle layer through raking and removing, or prescribed burning. Refer to Oklahoma NRCS Prescribed Burning (338) standard for guidance.

Remove all dead tree branches from live trees to a height of 15 feet.