

Distinctions between firebreaks and fuelbreaks

Firebreaks

Firebreaks are relatively narrow strips, typically about 10 to 30 feet wide, where all vegetation is removed down to mineral soil. Whereas firebreaks contain no flammable material, wildfires cannot burn through them. Firebreaks are very much like dirt roads, except they are strategically located such as on a ridge top, and strategically located roads act as firebreaks.

Under favorable conditions, such as during weather that is not conducive to fire spread in areas with vegetation with low ignitability, firebreaks can stop a wildfire from spreading with little or no further action. When wind direction and other conditions are right, firebreaks can be used by firefighters as a line to backfire off, so the backfire burn area will widen their effective width.

Some agencies see firebreaks as tactical firefighting tools, meaning they would only be installed or reopened after a fire has started and is approaching. A difficult issue is that it is unknowable where fires will start and whether time and resources will be available to open overgrown firebreaks before fire burns through their location.

For a firebreak to be effective it must be located where it is logical topographically, which limits where firebreaks can be used. Many firebreaks are located on ridgetops.

Some environmental activists have objected to maintaining firebreaks, claiming they would cause problems such as erosion. However, firebreaks can be maintained using techniques like those used to maintain dirt roads. Hundreds of miles of dirt roads are maintained in Monterey County, including in the Los Padres National Forest, typically without problems.

Fuelbreaks

Fuelbreaks are typically areas that are substantially wider than firebreaks, where flammable vegetation is reduced in quantity but is not removed entirely. Fuelbreaks are typically used to reduce the heat-intensity of wildfires by reducing the amount of fuel that is available to burn.

When properly constructed and maintained, and under the right conditions, fuelbreaks can also stop fires from spreading with little or no further action, though given that fuelbreaks contain flammable vegetation that may be less likely than for firebreaks under the same conditions.

Another role for fuelbreaks is to include them on each side of firebreaks, to lower fire intensity as a fire approaches the firebreak, making it safer for firefighters to be on the firebreak to defend it, such as while

starting backfires or extinguishing spotfires started by embers that jumped over a firebreak. Lower heat intensity near a firebreak also lowers the chance a fire will jump over the firebreak by throwing burning embers over it. In this way fuelbreaks can make firebreaks more effective. Other roles for fuelbreaks are to cause crown fires burning through treetops to drop to the ground, and to slow the spread of fires.

The width of fuelbreaks and the amount of fuel reduction needed are determined by such factors as topography, the kind of fuels/vegetation present, potential weather conditions, and other factors.

You can see before and after pictures of a fuelbreak being constructed in Madera County [by clicking here](#).

Maintenance of fuelbreaks and firebreaks

Given the nature of fuelbreaks, it is important that they be maintained before fires start. Fuelbreaks cover larger areas than firebreaks, and due to the need to leave some vegetation in place, they require more refined treatment and more time to create than is likely to be available during a wildfire.

In comparison, firebreaks can be created with relatively quick passes with bulldozers, assuming resources are available and time permits. However, if firebreaks are not maintained before fires start, the hasty emergency nature of their construction during a wildfire may not allow time for protecting resources or implementing best practices.

Moreover, even the relatively short time needed to open firebreaks may not be available if a fire starts near a firebreak's location. If maintained before a fire starts, firebreaks can be located where they are most likely to be effective, and they can be maintained using best practices that reduce the likelihood they will have adverse impacts.

At one point it appeared that wilderness advocates were going to agree with firebreaks being maintained in wilderness before fires start, in order to avoid the kind of impacts that can come from constructing them under panic conditions during a fire. You can read a newspaper story on that issue [by clicking here](#).

You can use your browser's back button to return to where you were, [or click here to go to the Wildfire page](#).