



South Dakota
Department of Agriculture
Division of Resource Conservation & Forestry

SURVIVING BLACK HILLS WILDFIRE 101

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"I moved here for the trees" and *"I want the area to be natural"* are two of the most common responses I hear from landowners new to the area.

Many "new-bie" landowners think the Black Hills has always been heavily forested with ponderosa pine. Pictures from the Custer Expedition and other early documentation from around the turn of the century show a much different world.

Paul Horsted's comparison photos are a wonderful teaching tool when it comes to comparing the forest we have become accustomed to and consider normal and healthy today with "Mother Nature's" plan.

The first thing people notice is the trees, or should I say, the lack of trees in the 1874 photos. Fires, both natural and those set by Native Americans for improving wildlife habitat, thinned the pines; as did the native mountain pine beetle.

European settlement of the region brought with it fire suppression. Unfortunately, in our zeal to tame nature, we failed to realize we can only postpone wildfire with suppression. Fire suppression inadvertently created high fuel concentrations allowing fires to frequently burn with greater intensities today than a century ago.

Topography, weather and fuel have traditionally been the main considerations when it came to wildfire suppression. However, today, wildfire managers have to add the human component.



Weather and topography we cannot change, but the amount and type of combustibles we have is the one thing we can modify to reduce wildfire intensity. Treating ground and ladder fuels, and increasing spacing between trees can help keep a wildfire on the ground where it is less intense and easier to control.

We want space between the tops and branches of coniferous trees. The steepness of the slope, structures and soils found on the site help a resource professional determine just how much thinning you need.

Basic fire knowledge can go a long way in helping reduce your risk of devastation during a wildfire event if you are

thinking about building a new home.

The site at the top of the mountain with the best vista is not the safest location with an approaching wildfire. Fire burns more intensely on steep slopes because rising warm air (convection) carries burning embers and dries out the vegetation in front of the main fire. Likewise avoid building sites at the head of narrow, steep drainages that form chimneys. South and west facing slopes are hotter and drier. Use fire resistant building materials, and have access roads designed to handle larger emergency vehicles.

In my career, the Black Hills area has changed dramatically. I've watched the land go from a rural ranch setting to a populated developed area. Grazing cows have been replaced by houses, subdivisions and small communities, but wildfire will still be a part of the Black Hills environment for the foreseeable future.

The unpredictability of weather and fire behavior mean no house or forest can ever be considered completely safe. However, by understanding some basic fire principles and implementing proven recommended pre-fire practices, the odds of survivability for property and the lives of the firefighters protecting your property are vastly improved.

