

## **Be Firewise Part 2**

### **Wildland/Urban Landscape**

“Firewise Part 1, Firewise on the Farm” gave farmers six steps to prevent a farm fire burning through their profits. Now, the South Dakota Wildland Fire Division (SDWF) is expanding these steps to include all of the South Dakota wildland landscape.

The South Dakota landscape has drastically changed over the past century. With an increase of South Dakota’s population living in urban communities, many communities have expanded into traditionally natural areas. Each year South Dakota’s beautiful landscapes entice more urban residents to push a little further into those natural, wildland areas. This trend has created an extremely complex landscape, known as wildland/urban interface (WUI), and a new set of conditions: structures and other human development intermingled with undeveloped wildland or vegetative fuels. By populating natural areas, a wildland fire can now reach beyond its natural fuels like trees, brush, and grass to homes, businesses, and human endangerment.

This WUI zone poses tremendous risks to life, property and infrastructure in associated communities and is one of the most dangerous and complicated situations firefighters face. Wildland fires are a natural process; understanding this and making your home fire-resistant is not only wise but it may protect your entire community.

In order to make your property fire-resistant, you need to first realize that a wildfire does not always burn everything in its path – its course is determined by fuel, weather, and terrain. A fire’s fuel is anything that burns – trees, shrubs, grass, homes, fences, decks, boardwalks, sheds, stored wood. A fire is also energized by dry, windy weather, increasing its flame and spread with embers or sparks. Wind can quickly change a fire’s path, carrying burning embers a mile or more away. And the type of terrain can determine a fire’s path; a fire will travel uphill quicker, with longer flames, than when spreading downhill or on level ground.

The following is a brief outline to help you begin fireproofing your property.

1. **Assess the landscape** of your community and how your property is placed within this landscape. Consider the following questions: Is there dense vegetation in your community?; Does your property have road access capable of handling emergency equipment?; Does your property have vegetation or any flammable materials within 30 feet of the house?; Are the canopies of trees overhanging your roof or within 10 feet of the roofline?; Is your home or other structures built with Firewise building materials? Assess everything, noting everything that is flammable on your property and how they relate to each other.
2. **After your assessment, start making landscape adjustments.** The landscape is the easiest and most noticeable place to start. The objective is to limit flammable vegetation and materials surrounding the home, and lower the risk of catastrophic fire on your property.

- Start with the **5 foot perimeter** nearest the home; it is recommended that you have nonflammable landscaping such as rock, non-bark mulch, high-moisture perennials and/or annuals only located in this area. Plants in this area should be carefully spaced and low-growing. Large vegetation, such as cedars, junipers or trees, can produce an increased amount of radiant heat that will spread fire to your home. Remove all dead leaves and pine needles from the landscape, gutters, and under the deck immediately. Move any stacked firewood to at least 30 feet from the house.
  - Next move to the **30 foot zone surrounding the home**, few trees and shrubs should be located in this immediate area. Vegetation remaining in this first zone should be fire resistive, not containing volatile oils and resins, and should be maintained and well watered. Grass within this zone should be mowed to less than four inches. Trees within this zone should be spaced at least 30 feet apart at the crowns and 10 feet from your home. Prune trees so that the lowest limbs are at least 10 feet above ground. Remove limbs that hang over the house – not only are they themselves flammable, but they drop leaves and twigs on the house which can easily ignite. Do not store patio furniture or lawn accessories under a deck. Firewood and propane tanks should be moved to at least 30 feet from the house.
  - The next zone is **30 to 100 feet from your home**. In this area, more ornamental vegetation can be planted. Sparse juniper and other coniferous shrubs can be located within this zone. Trees within this zone should be spaced no less than 25 feet at the crowns. Try to mix deciduous and evergreen trees. And again, keep tree branches at least 10 feet above ground and remove woody debris. Also, creating firebreaks such as driveways, gravel walkways, and open lawns are a huge asset in fire prevention.
  - And now move to the zone that is **100 to 300 feet from the home**. Treatment of Ponderosa Pine in this zone can be thinned to an actual spacing of no less than 25 feet between crowns. Treatment of Spruce can be thinning in scattered groups of 5 to 10 trees spaced approximately 20 feet apart. The health of deciduous (hardwood) trees can be increased if coniferous trees are clear-cut at least 25 feet around the stand.
3. **Continue fireproofing by choosing fire-resistant building materials.** Even with a perfectly groomed landscape, fire may still reach your home. So the construction materials are significant in how much damage your home sustains.
- The roof is the most vulnerable area during intense wildfires. Embers can ignite the roof covering, other roof components and debris on the roof. Using fire-resistant roofing materials like asphalt shingle, metal, clay or cement tile can protect your home.
  - Next consider the exterior wall building materials. Exterior walls are susceptible to flames, conductive heat, and radiant heat from wildland fires. Embers can become

trapped in cracks in siding if the material is not maintained. The best wall materials to resist heat and flames include cement, plaster, stucco, and masonry (concrete, stone, brick or block).

- Windows can suffer from intense heat as well. The glass on exterior windows can fracture and collapse, allowing the fire to enter the interior. Use double-pane glass to reduce this risk. Tempered glass is the best option, since it has a high heat tolerance and is less breakable. Using window screening that is 1/8<sup>th</sup> inch metal mesh will help keep out wind-blown debris or embers from entering the interior of your home. Vegetation directly below or in front of windows may expose the window to fire and excessive heat if ignited, causing window failure and home ignition.
- Just as fire can enter a home through a broken window, it can enter a home through fascia's, soffits, and vents. Enclose these areas with the same type of screening you would use with your windows, 1/8<sup>th</sup> inch metal mesh screening. Screening any areas that are an opening to the interior of your home will prevent intrusion by embers or debris.

Living in the beautiful South Dakota landscape can have its rewards. Just remember that living within a natural landscape is different than urban-life, so by replacing urban ideals with rural wisdom you can enjoy nature's rewards for years to come.

Thank you to the Iowa Department of Natural Resources for providing the Firewise on the Farm information.