



# featured

## Defensible space against fire instills

**A**nxiety flooded over Stephanie Ross when the law enforcement officer knocked on her door. She knew.

The smoke from the lightning-sparked fire had increasingly darkened the sky. She nervously watched it billow up between the tops of the trees west of her home on Casper Mountain. The dreaded evacuation advisory had come. It would be a long time before August 14, 2006, would be forgotten as the day she had to make decisions about what memories and valuables she could take, and if she would make the choice to leave – maybe forever.

Her brown, neatly designed log-cabin style home and outbuilding are nestled in a lodgepole pine/aspen mix forest near Beartrap Meadow County Park on the mountain south of Casper. With the help of friends packing as many valuables, sentimental objects, and family heirlooms into pickups as time allowed, she hoped her hard work implementing a defensible space on her property would make the difference between returning to charred house timbers or a home.

Ross took one last walk around the home and garage to make sure all flammables were at least 30 feet away from any structure and onsite water sources were working and available – ready for firefighters to use. They started the trucks and began to drive away, but she stopped for one last look at her beloved mountain home with hopes it would still be there when she returned.

Ross purchased her land on Casper Mountain in 1989. She moved a small trailer to the property and lived in it until August 2000, when her self-designed log home was completed.

Thinking back, she says she didn't fear living in a forest, with fire danger. "There is an element of risk anywhere you live if you get out of bed and walk out the door in the morning," says the retired real estate broker. "I would not have moved here if I did not have water. Second, I know you can make yourself somewhat safe."

Ross's interest in reducing the susceptibility of her home and property to wildfire began after hearing about a new government program called the National Fire Plan (<http://www.fireplan.gov/>). The program assists landowners with wildfire hazard reduction projects by providing technical and



financial assistance. In June 2001, she met with Bryan Anderson, assistant district forester with the Wyoming State Forestry Division (WSFD), at her property to discuss possible improvement options.

They marked a 100-foot defensible zone around her home and garage and identified trees to remove to create space between the crowns of remaining trees. They discussed removing lower branches on remaining trees to a height of 10 feet in the first 30 feet from the home and 8 feet in the remainder of the zone.

The guiding concept was to separate and reduce fuels – in this case live and dead trees. This would reduce the chance for a fire to move from the ground into the tree canopy or to move from tree to tree. Fire intensity is thus reduced, lessening the potential for

# landowner

## peace of mind in mountain living

damage to structures and trees and making it easier for firefighters to suppress the fire.

This newly created space between trees allows more sunlight and precipitation to reach the forest floor, promoting the growth of native grasses and plants as well as stimulating the spread and growth of new aspen trees, which are more fire resistant than many other tree species in the area.

Opening up the canopy created an unexpected and pleasant surprise for Ross.

"Suddenly, I had wildflowers come up where sunshine was coming through," she says. "I didn't plant any of this. I realized, gee-whiz, this is a good thing, and it made my property look so much prettier."

Ross only planted clover, which is short and somewhat fire resistant, she says.

Ross also established adequate access for firefighting equipment by creating a turnaround area adjacent to the structures and providing 14-foot wide and 14-foot high minimum clearance on the access roads.

### Fire Plan Programs

The National Fire Plan program is federally funded, though individual states are responsible for project development and program administration. In Wyoming, the program is overseen by the WSFD. On the county level, steering committees comprised of landowners, government representatives, and firefighters provide project direction; locally hired coordinators and WSFD foresters work with individual landowners to reduce the fire hazard on their properties.



*Stephanie Ross and her dog, Duncan, at her homesite. Note lack of fuels on the ground.*



*The Jackson Canyon Fire burned more than 12,000 acres. Fire threatens a small acreage at the base of Casper Mountain in August 2006.*

Many counties in Wyoming have not established local programs. The Natrona County Firewise Program was established in 1998 as part of a pilot project implemented on Casper Mountain by the WSFD two years before the establishment of the National Fire Plan. The Natrona County Firewise Program pays 65 percent of the cost with federal grant dollars through a homeowner cost-share incentives program available to landowners in urban-wildland interface areas within the county.

Eligible landowners may apply for the cost-share program through the WSFD or their local Firewise coordinator (check the Firewise Web site at the end of this article for information). A brief wildfire mitigation plan is developed for the landowner. Once the application is accepted by WSFD and the plan is approved by the landowner, mitigation improvement work can begin.

Ross completed most of the improvement work herself with help from friends. Work included cutting

down some of the lodgepole pine and subalpine fir trees, hauling and chipping slash, and pruning residual trees. She hired a local contractor to cut down trees close to structures and utility lines. Trees were cut into firewood, which was stacked at least 30 feet from structures.

She implemented other small improvements such as creating a rock area around the base of the home, planting Firewise plants (a list of recommended plants can be found at <http://www.uwyo.edu/news/showrelease.asp?id=9059>), and maintaining a healthy greenbelt within the defensible space area. Alternate water sources in small storage tanks were also made available for possible future firefighting needs.

Ross has noticed an increase in wildlife using her property since the improvements due to the increased healthy growth of grasses, forbs, and aspen, which attract mule deer and other herbivores. More wildflowers and insects have attracted bird species,

including Merriam's wild turkey and hummingbirds. Many other species of wildlife frequent the property including red fox, chipmunks, pine squirrels, raccoons, and an occasional black bear.

Ross had been attracted to the area for several years before closing on the property New Year's Eve 1989. Originally from San Diego, California, she worked during retirement in Alaska as a camp cook and running fishing and hunting camps. When she returned to the Lower 48 for visits, she would always drive to Wyoming to visit friends. She and her husband, who died 21 years ago, had always talked of retiring to the area.

"When I saw the 'For Sale' sign on the property, I just had that feeling, and I knew it," she says. "You could say I was finishing a dream. I was going to retire in Wyoming."

Ross recently purchased an adjacent parcel of land and will build a guest cabin on the site. A mitigation plan has been developed for this additional property, and a defensible space project will be implemented this year.

Fuels reduction work and access improvements are now required by Natrona County before a building permit can be issued on Casper Mountain. These "Wildfire Mitigation Zone Improvement" requirements were adopted by the Natrona County commissioners in 2004. Prospective buyers of property in fire-prone areas should contact their county planning and zoning departments for any pertinent laws for their area.

Ross is planning another long summer of hard work, but it's a labor of love. Even though implementing these zone improvements around one's home or cabin is not a guarantee the structure will survive a wildfire, its odds of survival will be greatly improved and it provides firefighters an opportunity to safely implement structure-protection measures.

On the afternoon of Sunday, August 20, 2006, Ross and the other mountain landowners returned to their homes and cabins. Seven seasonal cabins were burned. All did not have Firewise defensible spaces. Through valiant efforts, firefighters had stopped the wildfire two miles west of Ross's home after the blaze had burned more than 12,000 acres.

"As I returned up the mountain, I thanked God and the whims of Mother Nature and the firefighters that my home was still here and the forest around it, too," Ross says.

"Casper Mountain will burn again. There is no 'if' in it. I'll do all I can to protect my property and make it safe for firefighters to save it as well, and I hope other people will do the same."

Here are additional references to assist landowners in Firewise efforts:

Firewise information

<http://www.firewise.org/>

Wyoming State Forestry Division

<http://slf-web.state.wy.us/forestry.aspx>



*Ross's property before and after implementing Firewise recommendations. Potential fuel for fire was dramatically reduced.*

*Bryan Anderson is an assistant district forester in the Wyoming State Forestry Division. He can be reached at (307) 234-6116 or [bander2@state.wy.us](mailto:bander2@state.wy.us).*