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perspective

Preserving, restoring forests not a political gimmick

By Chris Risbrudt

Sunday, June 29, 2003 - Wildfire season is upon us, and some 30,000 employees of the U.S. Forest Service are holding our collective breath. We fervently hope this year will not be a repeat of last year, when wildfires burned 7.2 million acres (nearly double the 10-year average), destroyed more than 2,000 buildings, devastated numerous wildlife habitats and ecosystems, degraded vital watersheds, consumed some $1.6 billion in firefighting expenses, and cost the lives of 23 firefighters.

Thousands of firefighters from local, state and federal agencies successfully suppressed more than 99 percent of the fires quickly, before they could do much damage. But the remaining 1 percent - some 610 fires - got too big too quickly. That 1 percent wreaked havoc throughout much of the Western United States.

Two years earlier, the story was similar: Wildfires burned some 8.4 million acres in 2000, the largest area in 50 years. Again, less than 1 percent of the fires caused nearly all the destruction.

Analysis by Forest Service researchers shows that four factors determine the extent and intensity of forest fires: abundance of fuel, weather, lack of moisture and terrain. We have the ability to influence only one of those in a meaningful way: the amount of combustible material in the forest. By reducing available fuel, we can significantly modify the behavior and severity of wildfires.

Some 73 million acres of national forests - more than a third of the total - are still considered at risk for catastrophic fire, as are some 300 million acres of state and private lands.

Western forests that historically supported a few dozen large trees per acre now struggle with hundreds of trees per acre. Overcrowding stresses trees, blocks sunlight, reduces water and nutrients, and aids the spread of harmful insects and disease. And the overcrowding can turn what might have been ecologically beneficial, low-intensity ground fires into ecologically catastrophic, high-intensity "crown fires."

Such fires leap great distances from treetop to treetop and become virtually unstoppable. They generate extreme temperatures that kill trees, totally destroy habitat, scorch the earth and degrade watersheds.

Associated Press / Sarah Martone Post /

Richard Morris thins out trees around his home near Chupadero, N.M., during a fire-prevention work day aimed at

Such fires are impossible to control until weather or terrain slows their advance - or until they run out of forest. It can take 100 years or more for a forest damaged in that way to recover.

The Forest Service, along with other government agencies and some environmental groups, has carried out forest-thinning operations for several years. The efficacy of that activity was evident after last year's fires. Many thinned areas survived as viable forest habitat while unthinned areas looked like scorched moonscapes.

The fires proved a simple truth: Sometimes to protect a forest you have to remove a few trees.

reducing fire hazards in October 2001. The Healthy Forests Initiative put forward by President Bush is a logical and necessary step to protect the nation's forests - so logical and necessary that I'm puzzled by the skeptical and nonproductive reaction on the part of some critics.

Preserving and restoring forest health is not a political gimmick.

Protecting our nation's forests was the primary mission of the Forest Service when it was created a century ago, and it remains so today. It is the underlying principle that drives almost everything we do.

Based on what he's seen in nearly four decades in the Forest Service, agency head Dale Bosworth has ranked the four most serious threats to forest health:

Fire and the dangerous and unprecedented build-up of fuels in many of our forests.

Invasive plants, insects and diseases. Invasive plants can drastically alter habitat and make it unsuitable for native wildlife. Insects and diseases threaten to weaken or kill trees on millions of acres of forest, making them more susceptible to high-intensity fires. Altogether, invasives cost about $138 billion per year in economic damage and control costs.

Forest fragmentation. Every day, 4,000 acres of open space are lost to development. When development borders forests, the impact is especially great on wildlife such as martens, bears and cougars, which need large forested areas, and elk and other animals that require large open ranges.

Associated Press / Sharn Steinmann Post /

Firefighters work to extinguish hot spots and remove brush while fighting the Sierra Nevada Gap Fire near Emigrant Gap, Calif., in August 2001

Unmanaged recreation, especially off-road vehicles. Each year, this unmanaged use creates hundreds of miles of "unplanned" roads and trails. They cause erosion, degrade watersheds and destroy habitat.

These threats are serious. The Forest Service's commitment to dealing with them is real.

For example, at the Forest Service's Forest Products Laboratory, a number of high-priority projects address the first three threats.

The lab's researchers have worked for some time to develop practical uses for small-diameter trees and forest undergrowth in order to make thinning economically feasible by offsetting the costs of thinning operations. Among the technologies and applications we've developed or encouraged are:

Using small-diameter timber in construction. This spring, the citizens of Darby, Mont., broke ground for a new library incorporating small-diameter round timber for trusses.

Using engineered wood products in wood-frame homebuilding.

Combining wood fiber with recycled plastic to create composite materials used in windows and doors, signs, roofing, exterior siding and automotive parts.

Using wood fibers to make inexpensive filters for streams polluted by run-off from mines or farms. Juniper, which has invaded grasslands and degraded habitat, is highly suitable as a filter medium.

Using waste wood chips or sawdust as fuel to generate electricity.

Our researchers also are exploring ways to produce ethanol from forest biomass and to improve processes for making paper that use less water and less energy and would permit the use of mixed wood species.

Each of those projects could expand the market for small trees and other small forest material. This would encourage ecologically sound forest-thinning, reduce the risk of catastrophic fires, and make forests less susceptible to insects and disease. It would also help private landowners generate income and resist the temptation to fragment forest areas for development.

We are eager to carry on this work. We believe it is good for our forests, good for the environment and good for our country.