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Forest fires spark debate on climate change

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WASHINGTON — It was a monster fire — 175,000 acres of tinder-dry timber just south of the Canadian border in north-central Washington state. In places it burned with an intensity rarely seen, crowning through stands of Douglas fir and ponderosa and lodgepole pine that had been weakened by a bark beetle infestation.

"It was clearly a firestorm," said David Peterson, a research biologist with the U.S. Forest Service's Pacific Wildland Fire Sciences Lab in Seattle.

At its height, 2,300 firefighters battled the blaze, including crews from New Zealand, Mexico and soldiers dispatched from Fort Lewis near Tacoma, Wash. Last year's Tripod fire, the largest in Washington state in more than a century, smoldered through the winter, and several small spot fires have kicked up this summer.

Peterson and other scientists say the Tripod fire could be a sign of things to come in the Western forests. Rising temperatures brought on by global warming put added stress on trees, making them more susceptible to bugs and disease, and stimulating the growth of underbrush and other fuels to feed the blazes. Some studies suggest that the number of acres scorched by wildfire could increase fivefold by the end of the century.

Even as wildfires burn across the West this summer, the nation's forests have become entwined in the larger debate over climate change. They are both a victim of global warming and a potential solution in helping reverse the trend, by sopping up huge amounts of greenhouse gases.

Among all the talk of carbon sequestration, biofuels and corporate average fuel economy, forests have been mostly overlooked on Capitol Hill.

By some estimates, the forests could absorb 500 million tons of carbon dioxide a year -- about a third of the carbon dioxide the United States produces annually. Like all plants, trees soak up carbon dioxide as part of the process of photosynthesis, using the carbon to produce leaves and wood and releasing oxygen. Additional carbon is stored in the forest floor.

"If you are looking at greenhouse gases, forests are a great thing to focus on," Forest Service Chief Gail Kimbell said in an interview.

Yet with most things involving federal lands, controversy is brewing. Bureaucrats, scientists, timber industry officials and environmentalists are already sniping over how best to manage the forests in an era of global warming.

Based on nearly a century of detailed recordkeeping on many of the national forests, Kimbell said there's no question that temperatures are rising, the forests are drying out, underbrush is becoming thicker, and bug and disease infestations are mounting. Since 1986, the number of major forest fires has quadrupled, and the number of acres burned has grown sixfold. Nearly 50 percent of the Forest Service's budget is spent on fighting fires.

"Fire managers say they are seeing behavior they have never seen before," said Kimbell, who began her career as a forest ranger in Oregon and Washington.

In the Pacific Northwest, the greatest threat is east of the Cascade Mountains.

West of the Cascades, scientists are less sure of the effects of global warming. While the Douglas fir forests of western Washington and Oregon are susceptible to drought, they also thrive on carbon dioxide.

"We know things are changing, but we don't know all the answers on the west side," said Don McKenzie, a research ecologist at the Pacific Wildland Fire Sciences Lab.

Kimbell said there will always be forest fires, but the best way to help contain them is by clearing out the underbrush that has accumulated and thinning the stands.

About 13 million of the Forest Service's 193 million acres have been cleared and thinned out.

Kimbell said healthy forests with young trees absorb more carbon than older forests. The old-growth trees are better at storing carbon.

"We can sequester more carbon with active management rather than a hands-off approach," she said.

Later this year, the Forest Service is expected to unveil a global warming-related forest management plan. It could involve planting additional acres, thinning existing stands and burning the leftover debris, or slash, to produce electricity. In Montana, some school districts are using forest debris to fuel their boilers. Kimbell said the new boilers run cleaner on the scrap wood than oil- or gas-fired boilers.

Rather than cutting mature trees, environmentalists say the Forest Service should concentrate on the 1 million acres that were logged but never replanted. The replanting price tag is \$660 million. "They want to engage in more chainsaw health," said Bill Arthur, a deputy national field director for the Sierra Club. While he wasn't opposed to some selective thinning of forest stands, Arthur said, the Forest Service has included healthy, mature trees in its logging sales. Kimbell said that sometimes the only way to attract bidders on the sales was by offering millable timber.

"But this is not about diameter (of trees), it's about having healthy forests," Kimbell said.

The timber industry, meanwhile, is trying to soften its image and emerge as a leading player in trying to rein in greenhouse gases.

"It's common sense," said Chris West, who heads the American Forest Resource Council based in Portland, Ore. "The No. 1 offset for carbon is planting trees. That's what we are about."

While cutting old trees releases some carbon, the wood is milled into lumber and other products that store carbon for up to 100 years, West said.

"The alternative is letting these old-growth trees be destroyed in some catastrophic event," he said.

Environmentalists scoff.

"It's baloney," said Mike Francis of The Wilderness Society. "The timber industry's answer to everything is cut more trees."

On Capitol Hill, the House of Representatives approved a \$2.5 million increase in the Forest Service's roughly \$20 million climate change research budget. The agency has told Congress it could use an additional \$30 million.

Peterson said global warming has changed everything when it comes to forest management.