

**FOREST FOUNDATION STUDY FINDS FOUR WILDFIRES SEND  
38 MILLION TONS OF HARMFUL GASES INTO AIR,  
EQUIVALENT OF 7 MILLION CARS ON THE ROAD  
FOR ONE YEAR IN CALIFORNIA**

When a wildfire strikes California, the state's efforts to stop global warming go up in smoke.

A study released today of four large California wildfires shows they collectively will put an estimated 38 million tons of greenhouse gases into the atmosphere through fire and subsequent decay of dead trees.

Together emissions from fire and decay undo much of the progress California is making to fight global warming.

Consider that the estimated 38 million tons of greenhouse gases is the equivalent of emissions from 7 million cars – for one year.

Nearly 10 million tons of harmful greenhouse gases were emitted from the fires themselves, with an estimated 28 million additional tons of carbon dioxide emitted from decay, mostly in the next 50 years.

“Reducing the number and severity of wildfires may be the single most important action we can take in the short-term to lower greenhouse gas emissions and fight global warming,” said Dr. Thomas Bonnicksen, a professor emeritus of forestry at Texas A&M University and author of *America's Ancient Forests: from the Ice Age to the Age of Discovery* (John Wiley, 2000). Dr. Bonnicksen, who holds a Ph.D. in forestry from the University of California, Berkeley, has studied California forests for more than 30 years.

The study was conducted for the Forest Foundation, a non-profit organization that promotes education about the state's forests. The study is based on a ground-breaking analytical tool developed for the Forest Foundation that allows scientists to estimate greenhouse gases emitted by wildfire and subsequent forest decay.

The tool, called the Forest Carbon and Emissions Model, analyzes the impact of wildfires on global warming by considering a number of factors, including vegetation density, tree species, mortality caused by a fire, and the removal of dead trees and replanting new trees.

The study included extensive analysis of four fires:

- **The Angora Fire**, which burned more than 3,100 acres near South Lake Tahoe in June and July of 2007.
- **The Fountain Fire**, which destroyed nearly 60,000 acres east of Redding in August 1992.
- **The Star Fire**, which burned more than 16,000 acres in September 2001 in the Tahoe and Eldorado National Forests.
- **The Moonlight Fire**, which burned more than 65,000 acres in September 2007 in and around the Plumas National Forest in the northern Sierra Nevada.

“California as a state is committed to reducing greenhouse gases,” Dr. Bonnicksen said. “But these fires demonstrate that much of the effort is wasted when wildfires spew huge amounts of harmful gases into the air and then continue emitting gases for decades as trees decay.”

Even today, fires that ended months and years ago are still releasing carbon dioxide into the atmosphere as dead trees left in the forest continue to decay.

“While everyone sees – and smells – the harm wildfires cause to the environment, the damage is needlessly made worse by our failure to remove dead trees and replant new forests,” Dr. Bonnicksen said.

“Removing fire-killed trees does two important things to fight global warming: it reduces the amount of harmful gases released after a fire by reducing wood available for decay and it stores the carbon that would have been lost in long-lasting wood products,” Dr. Bonnicksen said.

Dr. Bonnicksen added that, “removing dead trees and replanting to restore the forest can reverse the impact of wildfires on global warming by recovering most — if not all — the carbon dioxide lost to the atmosphere from fire and decay.” In addition, he said, “it would also help protect surrounding forests and communities from a second wildfire or re-burn, which often occurs in un-restored forests that become brush fields filled with dead trees.”

Unfortunately, Dr. Bonnicksen noted, the federal government doesn’t move quickly to remove fire-killed trees and replant. For the Angora and Moonlight fires of 2007, no removal of dead trees has occurred on federally owned lands and there is no plan to replant those areas.

In contrast, private forest landowners swiftly remove dead trees, turning them into wood products used by consumers rather than allowing them to decay and send carbon dioxide into the air, and then they replant a new forest.

“These wood products continue to store carbon and a young, replanted and well-managed forest absorbs carbon at a fast rate,” Dr. Bonnicksen said. He added, “If we care about our forests and fighting global warming then we must reduce the threat of wildfire and remove dead trees and replant if a wildfire occurs.”

To view a video on YouTube on the affects of wildfire on wildlife, please visit

<http://www.youtube.com/watch?v=3vrTRg3WnDI>