

## COMMENTARY

### Inland's Molotov Cocktail: Millions of Dead Pines

By Dr Reese Halter

The seven-year drought continues throughout much of the West, and in southern California concerns are mounting that last year's firestorms will return, perhaps even with more ferocity than in 2003. To compound matters, the U.S. Bureau of Land Management computer models are predicting no relief from the weather. Has our climate changed so quickly or have long-standing forestland management policies simply exacerbated the current climate cycle of warmer and drier temperatures?

The national fire suppression policy of the last 80 years has undeniably changed the composition of our wild forests. In particular, the ponderosa pine ecosystem, which comprises the largest forested ecosystem in America, as well as California, has been particularly affected. All forest types in the nation have evolved and adapted to the occurrence of wildfire. In reality, some pines in California, like Jeffrey and Coulter require fire to open their cones, release seeds and facilitate recolonization of burnt-over lands.

Others, such as ponderosa pines, have evolved to tolerate surface fires – those that occur from the top of the forest floor to about 13 feet above the ground. These trees have foot0-thick bark, which is a good insulator against fast surface fires, and they hold their branches at 20 feet or more above the ground so that their foliage doesn't burn in what is called a crown fire. Crown fires are lethal for most North American trees.

The natural fire frequency in ponderosa pine forests, as evidenced from tree ring analysis, is about every 15-years.

Prior to our National fire suppression policy at the turn of the last century there were only a few dozen big, old ponderosa trees per acre in most forests, interspersed by wild grasses. Lightning-induced fire

would burn mostly the surrounding grasses. Over the past 80 years or so, about 180 million acres of ponderosa forests, or double the size of California, has seeded-in and there are now hundreds of saplings and trees per acre.

When fire re-enters these forests, the smaller trees, called fine fuels, act as kindling and ladders for the fire to get up into the big old trees. And, as a result, when these forests now burn, the fire has an unnatural ferocity and takes the ecosystem many more years to recover. These forests need to be thinned out. The Healthy Forest Act passed in 2003, which has allocated \$500 million a year, has so far only addressed 2.5 million acres, or less than one percent of these overgrown forests. Fire suppression with warmer winters and drier summers has created the perfect opportunity in the forest for Mother Nature's other agent of change – bark beetles – to thrive. And that's just what billions of voracious and insatiable beetles are doing all throughout the West and Southeast. Pine tree's only defense mechanism is gooey pitch, but when pines are water-stressed, as they have been for the past seven years of drought, they don't produce pitch. They become easy pickings for the dreaded beetles.

Natural occurrence of fire would normally kill bark beetles, but fire suppression policies have prevented this. Frigid November temperatures would naturally kill these pests, but the rising global temperatures have prevented this. Hence, pine bark beetles are in the midst of the largest feeding frenzy in modern times.

Water starvation and beetle infestations have worked in tandem to kill millions of pine trees along the San Bernardino Mountains which backs onto some 80,000 California homes. Currently there are estimated to be 13 million standing, dried, dead pines adjacent to these homes. At least \$100 million has been allocated to remove these dead trees, yet they still remain.

As we get closer to the raging dry Santa Ana winds of October this will become the Inland's Molotov cocktail. It's a disaster waiting to happen.

Unusual times call for unusual actions and Governor Arnold Schwarzenegger would be well advised to consider following the lead of New Mexico's Governor Bill Richardson in proactively removing dead beetle-killed trees on state and federal forestlands. Richardson has mobilized prison inmates to clear the incendiary dead trees from forests.

The cost of having inmates assist in removal of dead pines along the San Bernardino Mountains is a fraction of the cost of the other options, including labor costs for having foresters thin the forests, massive amounts of money spent on fighting wildfires or the cost of replacing homes destroyed by fire.

The choice for removing the explosive forest kindling is clear: would you rather your tax dollars be spent paying \$1 per hour to inmates or \$30 per hour to professional fallers?

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