

## Clearcutting Increases Fire Risk

**Young trees such as those in new tree plantations contribute to an increased likelihood of severe fire.**

- Young trees are more susceptible to mortality from fires due to lower height and size and thinner bark.
- Younger trees crowns are lower to the ground making them more susceptible to lethal heating by flames of a low height.

([http://www.bof.fire.ca.gov/pdfs/OALEmergencyfinal%206\\_20\\_05withOALedits%20.pdf](http://www.bof.fire.ca.gov/pdfs/OALEmergencyfinal%206_20_05withOALedits%20.pdf))

State Board of Forestry and Fire Protection. "Findings Pursuant to Government Code Section 11346.1(b) in Support of Adoption of Emergency Rules to Implement Lake Tahoe Region Exemption Emergency Rule, 2005." Final Version with OAL Edits 6\_20\_05. Notice Date: June 13, 2005. p. 8)



**“A uniform high-density canopy fuel complex could carry crown fire and also trap convective heat and increase crown scorch and mortality.”**

• “Uniform fuels in the horizontal and vertical dimensions will support a fire that propagates through the live crowns of the brush and pole sized trees resulting in high levels of mortality and other adverse impacts associated with high intensity wildfire.”

• “The overall continuity of surface fuels, the juxtaposition of different fuel types, and the extensive ladder fuels in many of the successfully established plantations create fuel conditions that support large severe fires.” (“Turning Plantations into Healthy, Fire Resistant forests: Outlook for the Granite Burn”, Dave Sapsis, Fuel and Fire Behavior Specialist; Clay Brandow, Watershed Specialist. Fire and Resource Assessment Program. California Department of Forestry and Fire Protection. 1997)

**Evidence of the increased fire risk of tree plantations was dramatic in the 2002 Umpqua National Forest fire.**



- The Umpqua NF said these "plantations experienced a disproportionately high amount of stand replacement mortality caused by crown fires as compared to older, unmanaged forests." (Over a quarter of the fire area was previously clearcut and converted to tree-plantations). 74% of plantations less than 20 years old were lost.
- Plantations in the Umpqua fire had a tendency to increase the rate of fire spread and increased the overall area of stand-replacement fire effects by spreading to neighboring stands.

• Over 80% of fires in the Umpqua National Forest were healthy, cool under-burns in older forests.

• *The Oregonian* reported September 1, 2002: "The Umpqua National Forest's Tiller fires raced through dense tree plantations with low branches that gave flames a helping hand into the treetops," said Karla Bird, a natural resources staff officer [on the Umpqua National Forest]. In more scattered natural stands, flames kept to the ground, spared many trees and did more good than harm. ([http://www.umpqua-watersheds.org/unf/umpqua\\_fires\\_02.html](http://www.umpqua-watersheds.org/unf/umpqua_fires_02.html))

**“Timber plantations comprised of densely-stocked, even-aged stands of young conifers are extremely flammable and vulnerable to catastrophic fire effects.**



- When plantations burn they normally result in 100% mortality of trees, yet have no native seed sources to naturally regenerate stands Ingalsbee, Timothy Ph.D., “Commercial Logging Does Not ‘Fireproof’ a Forest.” Western Fire Ecology Center. [www.fire-ecology.org](http://www.fire-ecology.org)

### **The Darby Fire September 2001**



### **Calaveras County**

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