

## **Post-Fire Forest Rehabilitation through Salvage Removal**

What should be done after large wildfires destroy huge swaths of public forest lands? Some argue that the “public” does not support the removal of fire killed trees. Forest Service personnel express concern that post-fire salvage does not enjoy a “social license” which inhibits their desire to pursue the removal of the dead wood and actively reforest the burned over land. A review of current research and public opinion polls leads to a different conclusion.

Several reports since 2002 indicate “social license” may not, in fact, be lacking. In a nationwide survey (sample size 6,979) taken between 2002 and 2004, 81 percent of the respondents said it makes sense to salvage and sell timber damaged by wildfire on public lands<sup>1</sup>. More recently, it was reported in *The Oregonian* that an independent polling firm surveyed 607 registered voters in Oregon. The results “showed that a large majority of Oregonians still holds to the common-sense view that after fire sweeps across a forest, some blackened timber should be put to productive use, and in many cases seedlings should be planted to replace the dead trees.”<sup>2</sup>

A third study, conducted in 2005, “found clear support for salvage logging across the range of local stakeholder groups in wildfire-affected communities, from business leaders to self-described environmentalists, with only minor opposition.”<sup>3</sup> This study looked at several key factors: aesthetics, utilitarian values, public safety, and impacts to the land. The results were that aesthetics “were a primary motivation or reason cited by the public in explaining the need for government agencies to rehabilitate the burn area...” Another primary reason in support of salvaging “was the recognition that trees are a financial resource and that leaving them to rot was wasteful.” Public safety was important for recreational users and nearby residents. They believe retaining dead and dying trees is a safety hazard. Not surprisingly, while the participants in this study showed strong support for salvage after fires, nearly all felt it had to be done in “ecologically appropriate and environmentally benign ways.”

Recent research into the carbon impacts of fires and post-fire treatment points to the overall environmental benefits of post-fire harvesting. One recent publication shows significant carbon savings by removing fire-killed trees, sequestering the carbon in solid wood products, avoiding carbon emission from decaying dead trees, and sequestration by the replanted forest. According to the author, modeling after the Angora Fire (2007 in the Tahoe Basin) “estimates that 98 percent of CO<sub>2</sub> lost in the wildfire could be recovered during a 100-year period by removing dead trees before they decay, converting them into solid wood products, and planting young trees that absorb carbon from the atmosphere.”<sup>4</sup>

Post-fire harvesting can hasten reforestation in more than one way. Given enough time, some burned forests will become reforested without any intervention. However, large fires, which are increasingly the norm, tend to destroy seed sources decreasing the likelihood of successful natural regeneration of a new forest. At the very least, the establishment of a new forest in these areas will be delayed for decades due to competing brush and invasive species. If we want these areas to become healthy new forests in the shortest amount of time, they must be manually reforested using local, genetically appropriate seedlings. Due to the limited budgets appropriated by Congress, the only realistic way to pay for this effort is to use the funds generated from selling the dead trees.

For all of these complex reasons, professional resource managers must be given the support to expeditiously evaluate site-specific conditions and decide whether post-fire management is a good option. In those cases where it is, the agency needs to be given the tools to move forward in a timely fashion and afforded protections from lawsuits and other delay tactics.

### Recommendations:

Federal land management agencies should seek to rehabilitate forested areas as soon as possible following large scale catastrophic fires. Cutting and removing dead trees through salvage harvesting should be a tool of choice in order to decrease carbon emissions, hasten reforestation, increase public and worker safety, provide funds for manual reforestation and provide raw materials to support local economies.

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<sup>1</sup> Bowker, J.M., et al, *Journal of Forestry*, July/August 2008

<sup>2</sup> SOURCE:

<http://www.oregonlive.com/search/index.ssf?/base/editorial/1125486018296660.xml?oregonian?ede&coll=7>

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<sup>3</sup> Ryan, Robert L., Hamin, Elisabeth, *Western Journal of Applied Forestry* 24(1), 2009.

<sup>4</sup> Bonnicksen, T.M., "Greenhouse Gas Emissions From Four California Wildfires: Opportunities To Prevent And Reverse Environmental And Climate Impacts: FCEM Report No. 2", Prepared for The Forest Foundation, March 11, 2008.

*The American Forest Resource Association (AFRC), headquartered in Portland, Oregon, represents nearly 80 forest products businesses and forest landowners in twelve states, primarily in Washington, Oregon, California, Idaho and Montana. Its mission is to create a favorable operating environment for the forest products industry, ensure a reliable timber supply from public and private lands, and promote sustainable management of forests by improving federal laws, regulations, policies and decisions that determine or influence the management of all lands. For information, call 503-222-9505.*

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