

**Society of Wood Science and Technology (SWST) Position On**  
*Need for Hazardous Fuels Reduction on Public Land*

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A Position Paper Submitted by the Policy and Critical Issues Committee – July 2010

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### **The Issue**

Hazardous fuels build up is a problem worldwide and especially in North America. The past two decades have seen an increase in the size, number, and severity of wildfires on public land, especially in the western United States. Land use and land management practices have changed fire and other disturbance patterns in our forests. Increases in population near the wildland-urban interface have increased the potential for wildfires to destroy lives and property. Current forest conditions in many areas include very densely stocked stands that are susceptible to increased mortality from insect and disease outbreaks, adding to dry fuel loads. The removal of small trees from these stands reduces the wildfire hazard associated with high wildland fuel loads. The removal process is costly, but the cost of fighting wildfires, loss of lives, and destruction of property is higher. Additionally, there are other costs and problems associated with wildfires such as the attendant alteration of ecosystem services such as wildlife habitat, air and water quality, view sheds, recreation opportunities, and carbon sequestration. For all of these reasons, private land management must be encouraged to reduce the fuel load on these lands, and public land managers must be charged with the same responsibilities. For this work to be accomplished, however, both funding and some means of dealing with the large volume of woody debris that is removed must be found. It may be possible for wood conversion operations that use this raw material to at least partially offset some of the associated forest management costs.

### **Background**

Years of fire suppression (since the early 20<sup>th</sup> century) on forests and other public lands have contributed to creating forest stand conditions that are at increased risk of severe disturbance from natural forces such as insects, disease, strong winds and fires. Previously, many stands were regenerated through planting at unsustainably high densities, with the intention of actively managing through pre-commercial thinning. A lack of funds for non-commercial activities and decreasing harvest levels have left many stands overstocked. Inter-tree competition and drought have also contributed to stressing the forests. The result is a heavy buildup of wildfire fuels in our forests.

### **The Challenge**

Forests are an important resource and the prevention of catastrophic wildfire through fuels reduction is an important goal. A major challenge is the cost of hazardous fuels reduction; the removal of a large volume of small trees is costly. Wood scientists, with their specific knowledge of wood properties, conversion technology and the environmental impacts of forest products, are uniquely positioned to be leaders in developing opportunities for converting forest fuels removed via reduction programs to saleable end-products that can mitigate the removal costs.

The low value of small trees, coupled with the decrease in forest products manufacturing capacity worldwide and the lack of an infrastructure to handle small diameter trees, may well make fully offsetting the high cost of performing management treatments with wood products sales unrealistic in many locations.

### **Specific Actions to Address Hazardous Fuels Reduction**

Development, promotion and sale of wood products that use woody materials removed from treatments are essential. Identifying value-added markets could increase the number of acres/hectares treated as increased revenues would offset costs. Conversion technologies that are scaled appropriately for affected communities need to be emphasized. Ultimately, converting this material into fuel for local use or energy conversion may be the most suitable alternatives.

Performance of a carbon life cycle analysis for various strategies and activities will aid in assessing climate change implications. Carbon is stored in wood products as well as trees. Wood products substitute for other building materials whose manufacture produces (directly or indirectly) relatively large amounts of carbon dioxide. Tradeoffs in the use of biomass to meet energy needs, producing wood products, and leaving it in the woods need to be assessed.

#### **POSITION STATEMENT**

There is a need to sustain healthy and resilient forests that can survive natural disturbances. A science-based approach coupled with active technology transfer and education of the affected parties (industry, public, students) will ensure the sustainability of the world's forest resources. SWST and its members have the expertise to address wood utilization and carbon issues in depth. By proactively addressing forest conditions today, we will ensure access to our natural resources for future generations.