



August 2007

## Biomass Removal Roundtable Executive Summary

The Joint Fire Science Program (JFSP) Biomass Removal Roundtable consisted of initial scoping with 20 or more mid to high-level JFSP clients, a workshop that included 26 natural resource practitioners, and follow-up conference calls that involved about 60 reviewers throughout the nation. This document is an executive summary of those discussions. Please note that the term *biomass removal* is limited in this document to fire hazard treatment.

Participants in the JFSP Biomass Roundtable were asked to explain what they saw as barriers to the use of biomass removal as a tool for fire hazard reduction. Their needs fell into three broad categories:

- 1) Uncertainty about how to design and implement treatments especially with respect to the environmental effects and public perception of treatments,
- 2) The need for examples or case studies that improve understanding of how removal of biomass can help line officers meet their management objectives, and
- 3) Concern about the difficulty of finding commercial uses for the material removed.

### Seven Key Needs Identified

These three broad categories resulted in thirteen specific needs. Of those, seven appear to fall within the charter of the JFSP:

- 1) Biomass estimators;
- 2) Biomass removal case studies;
- 3) Develop a template for future case studies;
- 4) Economic and financial effects of biomass removal as a fire hazard treatment;
- 5) Social and cultural effects of biomass removal as a fire hazard treatment;
- 6) Tools for environmental effects of fuels treatments; and
- 7) Smoke tradeoffs from different types of treatments.

### Next Steps

The seven key needs present an excellent opportunity to conduct syntheses, catalog what is known, or create information inventories that JFSP customers can use in doing their work. The process of summarizing and delivering this information will reveal whether additional original research is needed to address customer's needs.

An **Announcement for Proposals (AFP), 2007-3** opened on June 25, 2007 to address three specific tasks under the broad heading of biomass removal:

- Biomass estimators
- Biomass removal case studies
- Economic and financial effects of biomass removal as a fire hazard treatment

We received 27 proposals and selected the following four synthesis proposals for funding.

### **Biomass Estimators**

David C. Chojnacky (Forest Service Washington Office) and Jennifer C. Jenkins (University of Vermont) will provide a literature synthesis and meta-analysis of tree and shrub biomass equations for North America.

### **Biomass Removal Case Studies**

Alexander Evans of the Forest Guild will provide an inventory and evaluation of case studies to produce a guide to effective biomass removal strategies.

Dennis Becker at the University of Minnesota will characterize lessons learned from federal biomass removal projects.

### **Economic and financial effects of biomass removal as a fire hazard treatment**

Todd Morgan at the University of Montana will lead the synthesis focused on enhancing western managers' knowledge and use of available economic and financial biomass information and tools.

As of this date, the program may fund additional work from the proposals already received or may solicit proposals focused on social and cultural effects of biomass removal as a fire hazard treatment.

The Program will consider new work on *'Tools for environmental effects of fuels treatments'* after completion of our existing software model evaluation conducted by Carnegie-Mellon University, Software Engineering Institute. Results are expected in 2009.

In June 2007 the Program convened two smoke management and air quality roundtables which will lead to a focused line of research on smoke management and air quality issues and address the concerns raised by participants of the Biomass Removal Roundtable.

We are deferring action on *'develop a template for future case studies'* until after evaluation of the effectiveness of the case studies funded in the 2007 AFP.

We are deferring action on *'develop a guidebook for landscape-scale analyses'* and will reevaluate this need at a later date.

### **Partnership Opportunities with Other Institutions**

An additional five needs did not seem to fall under the JFSP charter, but could present opportunities for partnerships with other organizations such as the Missoula and San Dimas Technical Development Centers, the Forest Products Laboratory in Madison, Wisconsin, United States Geological Survey, universities, the Department of Energy, and other interested groups. The five needs are:

- 1) Create a catalog of harvesting and hauling equipment capabilities,
- 2) Summarize potential biomass processing options,
- 3) Evaluate legal issues associated with treatment design,
- 4) Evaluate how agency policies promote or impede biomass removal, and
- 5) Evaluate how line officers make decisions.

The Program will work with interested research and development institutions to explain these priority needs and encourage funding from other sources.

If you have questions or comments about the Joint Fire Science Program or our Biomass Removal Roundtables please contact:

John Cissel, Program Manager (208) 387 5349 [john\\_cissel@nifc.blm.gov](mailto:john_cissel@nifc.blm.gov)

Tim Swedberg, Communication Director (208) 387 5865 [timothy\\_swedberg@nifc.blm.gov](mailto:timothy_swedberg@nifc.blm.gov)

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