

Forest Service Programs to Support Woody Biomass Utilization

Bruce Goines
State & Private Forestry, Vallejo, CA

Gareth Mayhead
University of California Berkeley



Auburn, May 20 2008

FS Programs to Support Woody Biomass Utilization

- ★ Overview of two programs providing technical and financial assistance to WBU Projects
 - ★ Site New Biomass Facilities in CA: FS/CARC&D Program
 - ★ Develop in woods or value added manufacturing infrastructure: FS National WBU Program



FS/California Assn of RC&D Areas New
Biomass Facility Planning



- ★ Engineering assistance to facilities considering replacing existing heating systems, installing new systems that will use woody biomass
- ★ Three engineering firms specializing in developing biomass conversion projects are available to help assess feasibility of potential biomass heat/cogeneration facility installations in CA

FS/California Assn of RC&D Areas-
Technical Assistance



- ★ Firms are available to assess
 - ★ Economic viability
 - ★ Appropriate Technology
 - ★ Resource availability
 - ★ Advance engineering
- ★ Opportunity for public facilities, conservation camps, local schools, business with heating needs to receive engineering assistance
- ★ Up to \$25,000 of professional engineering services per site

Process and Timeline

- * First round outreach complete
- * 6 Sites selected:
 - * Alturas, Ft Bragg, Parlin Forks, Pioneer, Lake Tahoe, Etna
- * Ongoing Outreach to additional site hosts
- * Contact your local RC&D for more details

2009 National Woody Biomass Utilization Grant

- * USDA Forest Service, Forest Products Laboratory, Technology Marketing Unit
- * **Objective:**
“help improve forest restoration activities by using and creating markets for small-diameter material and low-valued trees removed from hazardous fuel reduction activities”
- * **Goals:**
 - * Reduce management costs
 - * Create incentives for biomass use
 - * Start projects that remove economic and market barriers to biomass utilization
- * Must treat FS land
- * Need letter of support from NFS
- * ~\$4-5 million/year available nationally - 5 year program

2009 National Woody Biomass Utilization Grant



- * **Who is eligible to apply?**
State, local, and Tribal governments, school districts, communities, non-profit organizations, businesses, companies, corporations, or special purpose districts, e.g., public utilities districts, fire districts, conservation districts, or ports

- * **What?**
Equipment

- * **Match funding required:**
20%

- * **Grant amount:**
\$50,000-\$250,000
[spend within 3 years of grant award]

Examples of Funded Projects



- * In Woods Equipment
 - * Log Forwarder, Feller buncher, Chippers, Grinders, Loaders

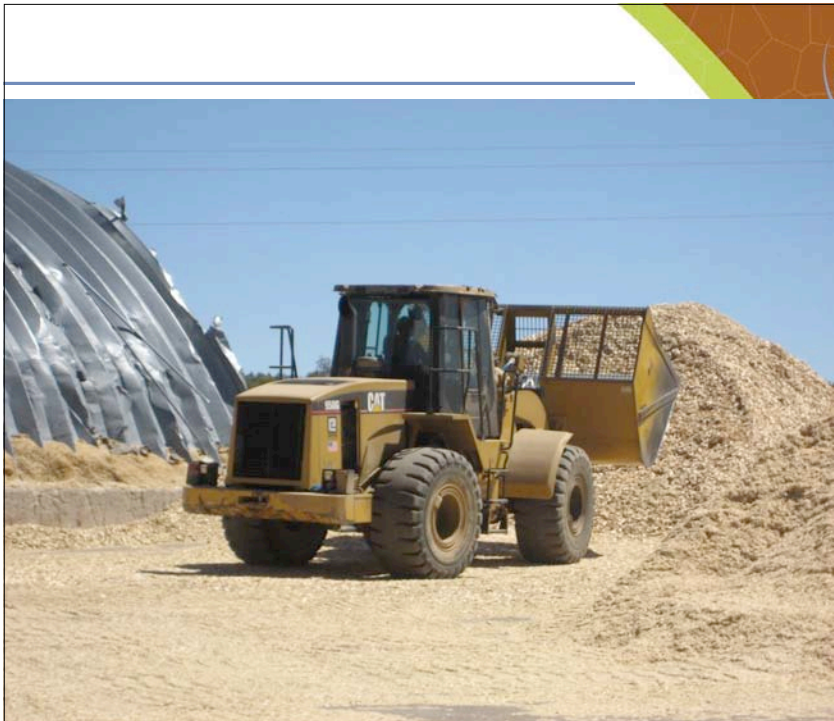
- * Value added processing lines :
 - * Post and Rail Processor
 - * Pressure Treatment Cylinder,
 - * Log Shavers,
 - * Doweling machine,
 - * Laminating equipment,
 - * Edger,
 - * Wood fired Dry Kiln

- * Bioenergy Facilities
 - * Construct 1MW Cogeneration facility
 - * Install Biomass Fueled Chip Drier
 - * Turbine Upgrade

In-woods equipment



Value-added



2008 California Projects

- * Bear Mountain Forest Products, Sonora (densification equipment \$250,000)
- * Watershed Research and Training Center, Hayfork (feller-buncher \$245,000)
- * Upstream 21, Hayfork (log merchandising system, \$250,000)

Evaluation Criteria

- * Tangible and intangible benefits to national forest lands (40%)
- * Technical feasibility (25%)
- * Financial feasibility (25%)
- * Qualifications (10%)

Tangible benefit examples

- * Project involves acquiring more efficient equipment, which allows lower unit costs per acre treated
- * Business contractor can lower cost/acre bid with offset from higher value uses for material from hazardous fuel treatments
- * Investment in wood processing facility provides outlet and revenues for material that previously was hauled to landfill, lopped and scattered, piled and burned, masticated or burned on site.

2009 National Woody Biomass Utilization Grant

- * Timescale:
 - ↓ RFP Sept 2008
 - ↓ Pre-app decisions Nov 2008
 - ↓ Final decision Mar 2009
- * Further info: <http://www.fpl.fs.fed.us/tmu>
- * Guidance:
 - Gareth Mayhead (UC Berkeley)
 - 510-665-3662
 - garethmayhead@nature.berkeley.edu
 - Bruce Goines (USDA FS Region 5)
 - 707-562-8910
 - bgoines@fs.fed.us