Bitterroot National Forest

The 1.6 million-acre Bitterroot National Forest is located in west-central Montana along the northern region of the Rocky Mountains on the Montana-Idaho border. Rising from the foothills of the Bitterroot River Valley to the Sapphire Mountains on the east and the Bitterroot Mountains on the west, the forests are dominated by Douglas-fir, lodgepole pine, ponderosa pine, and spruce. The Bitterroot River Valley is home to the communities of Darby, Hamilton, Stevensville, Lolo and Missoula.

The effects of wildfires in 2000, 2003, and 2006 continue to influence and change the Bitterroot landscape. A bark beetle epidemic, re-energized by drought and fire weakened trees, began to decline in severity in 2006 but caused a significant amount of mortality. As a result, the removal of dead beetle-killed trees has been a priority of agency staff along with the removal of understory brush in the wildland-urban interface. The removal of this material has created opportunities for enterprise development, and also lessons in stimulating local markets. The Bitterroot National Forest was chosen for the Joint Fire Science Program assessment to illustrate the synergy of state and federal planning efforts, and because of the wildfire and forest health concerns posed by bark beetle outbreaks on national forest and surrounding lands.

Two partnerships have emerged to promote utilization efforts on the Bitterroot National Forest and surrounding lands. First, the Smallwood Utilization Network (www.smallwoodnews.com/) was created by the Montana Community Development Corporation with financial assistance from the Economic Action Programs of the USDA Forest Service. The purpose of the Network is to provide technical and business assistance to companies to help them buy and sell material, locate appropriate technology, and provide a forum for individuals to interact and learn from one another. The Network newsletter and services have grown substantially and are currently shared among business owners and partners in nearly ever state in the country. The second group, Beaverhead-Deerlodge Partnership, has also played an important role in biomass utilization. The Partnership seeks to promote collaboration among the industry and environmental organizations with the goal of reducing litigation, promoting forest stewardship, and reducing bark beetle infestations and wildfire threats in the state.

Several facilities capable of utilizing forest biomass are in the planning stages or have been recently completed. Nine of those facilities are providing less than 1-megawatt of power to area schools as a result of the Fuels for School Initiative, which originated from directives from the National Fire Plan of 2001 and included grant dollars to demonstrate new uses for small diameter and underutilized woody material. In the first year of operation, the new boiler system at the Darby Elementary School reduced heating costs by $35,000 while consuming 640 tons of wood chips that otherwise would have been burned in slash piles. Building upon the successes of the partnership among the USDA Forest Service, State Foresters of Montana, North Dakota, Idaho, Nevada, Utah and Wyoming, and Bitter Root Resource Conservation and Development, the Fuels for Schools and Beyond program has expanded to include the entire country.

Larger-scale projects include supplying biomass to Smurfit-Stone Container Corporation for container coating. The company, which employs about 400 employees, procures about 2,700 tons of biomass daily from the Bitterroot National Forest, which is 70 percent of all the material removed. Traditionally, Smurfit Stone procured most of their material from mill residues but have had to depend increasingly on national forest supplies because of a decline in forest products manufacturing in the region. Log home construction is also an important industry given the massive mortality of trees from

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bark beetles. Rocky Mountain Log Homes is a commercial enterprise that builds homes from small diameter trees that are otherwise not acceptable for other manufacturing purposes. The Darby Library is one example of using roundwood construction and illustrates the importance of federal agencies working with local stakeholders to create public spaces and for community development.

These projects demonstrate the possibilities of biomass utilization, but there are also challenges related to the remote location of forests relative to markets and a diminished industry capacity. The threat of litigation also delays projects and the lack of a consistent supply of biomass from national forest lands stymies industry investment. To address these challenges, the following strategies are being employed to promote utilization on the Bitterroot National Forest and surround public lands:

- Developing strong partnerships among a diverse group of stakeholders has been important for raising the awareness of the role of biomass utilization for fuels reduction, creating a healthier forest, and promoting an informed understanding of forest management goals. These partnerships have also been important for individuals to learn from one another and to articulate concerns.
- Programs like the Smallwood Utilization Network, Fuels for Schools and Beyond, and the Darby Library project have provided significant recognition of the forest conditions in the area and of the potential for new business enterprises.


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- The use of Stewardship Contracts has proven to be an important mechanism for offering a consistent supply of biomass to local businesses, which has been especially important as existing businesses close and the availability of mill residues decreases. This has also encouraged the re-exploration of using biomass from forest fuels reduction projects on national forest lands.
- The Montana Community Development Corporation in partnership with other state and federal agencies have completed several demonstration projects to highlight special biomass harvesting or utilization equipment, supported feasibility studies leading to either adoption of particular practices or discontinuance of financially infeasible operations, and have generally sought to identify ways to reduce the costs of biomass harvesting and transportation through innovative technology.

Biomass utilization on the Bitterroot National Forest, as well as on neighboring public lands, is in a transition where historically an abundance of forest products manufacturing capacity existed that depended on larger trees, to a period of operations focused primarily on the utilization of hazardous fuels and small diameter material. Successful transition will depend on continued partnership development that promotes utilization at different scales and that is able to provide a consistent supply of biomass to local processors such as Smurfit Stone Container Corporation. Efforts to promote efficient biomass harvesting and linking contracts to utilization markets will determine the potential for biomass utilization in the future.

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