

## Shasta-Trinity National Forest

The Shasta-Trinity National Forest is the largest federal forest in California with a diverse landscape ranging from 1,000 to 14,162-ft elevation. The 2.1 million acre forest has five wilderness areas, hundreds of mountain lakes and 6,278 miles of streams and rivers. The Shasta-Trinity is pivotal to the recreation and tourism industry of northern California and provides an abundance of forest materials.

The Trinity side of the forest was chosen for the Joint Fire Science Program assessment because of its risk of high severity wildfires, proximity to rural communities, and the lack of a concerted biomass utilization infrastructure in the area. Of particular interest was the 590,000-acre South Fork Management Area based in Hayfork, CA and containing the Hayfork and Yolla Bolla Ranger Districts.

The community of Hayfork, CA has a long relationship with the USDA Forest Service. Two entities—the Watershed Research and Training Center and Jefferson State Forest Products—have played a pivotal role in the survival of the community and jointly support efforts to utilize forest biomass from fuels reduction projects. The area is also home to the Trinity County Resource Conservation District, Trinity River Lumber, and Sierra Pacific Industries.

Because of the prominence of federal land in the area, Hayfork has been greatly affected by forest management decisions over the years. The 1990 Dwyer Decision stopped timber sales on federal land in the range of the northern spotted owl. The Northwest Forest Plan in 1993 led to the lifting of the injunction against timber sales. In 1996, the last mill in Hayfork, a Sierra Pacific Industries mill closed, affecting more than 150 families. At the same time, the USDA Forest Service was downsizing its workforce and approximately 30 government jobs were lost locally.

In the midst of these changes, the Watershed Research and Training Center opened in 1993 to promote healthy communities and sustainable forests through research, education, training, and economic development, and in particular to address the ongoing problems associated with the boom-and-bust forest products industry. As a result of efforts by the Watershed Research and Training Center, Jefferson State Forest Products opened their doors as a secondary manufacturer producing handcrafted products from Cherry, Oregon White Oak, Tan Oak, Big Leaf Maple, Myrtlewood, Maple, Claro Black Walnut, and Pacific Madrone. Today, Jefferson State Forest Products is the second largest employer in the county and the primary user of biomass from forest thinnings and hazardous fuels reduction projects. They are continuing to work closely with the Watershed Research and Training Center to coordinate the utilization of biomass among users and plans to bring other wood products industries together into one central campus to reduce handling and transportation costs.

The local USDA Forest Service district has had what they consider successful biomass harvesting projects, but most agree that progress has depended upon the presence of larger-diameter trees being removed to help off-set the higher costs of removing small diameter trees. The growing intensity of wildfires in the region remains an instigating factor to increase biomass utilization. There also exist concerns about wildlife habitat, air and water quality, and providing jobs for local families. Currently, a significant amount of biomass is disposed of on site as opposed to being utilized in a way that creates jobs. As such, local businesses would like to expand their operations to utilize this material but face familiar challenges. Project sites are located in remote regions of the forest, have limited road access, and are on steep slopes making removal and transportation to primary manufacturing facilities difficult. The Trinity River Company



and Sierra Pacific Industries harvest biomass when it is financially feasible, using much of the volume for cogeneration in their mills, but its removal is not required for most projects and has had only sporadic utilization. The high costs of removal and inconsistent markets create an uncertain situation that is further compounded by threats of litigation and delayed agency planning. These delays and sporadic progress make it difficult for businesses to invest in the infrastructure needed in order to utilize available biomass. In the face of these challenges, the following strategies are being considered and to some degree have been implemented to accomplish greater utilization:



- Increasing the expansion of small scale industries, for example, exploring the development of biomass-related products like wood pellets and biomass energy from the types of material harvested.
- Partners in Weaverville, CA have developed the Trinity County Fire Safe Council to promote a county-wide strategic forest protection plan to be used to seek funding and encourage federal agencies to consider alternatives to the pile-and-burn practices of small diameter tree and brush removal.
- Community groups in Weaverville are working with the Bureau of Land Management and the Trinity County Resource Conservation District to establish

the Weaverville Community Forest. The result has been the development and authorization of a 10-year Stewardship Contract aimed at protecting aesthetic values through forest health activities including mechanical thinning and fuels reduction.

- Promoting community and industry involvement in the development of agency plans for biomass utilization, which includes promoting strategies for the long term viability of local businesses. One example was having community members work with trusted foresters to mark trees to be harvested.
- Promoting development and demonstration of biomass conversion technologies by working with various non-profit organizations and state and local governments.

The Shasta-Trinity National Forest case illustrates that while there is a potential for biomass utilization on the Hayfork and Yolla Bolla Ranger Districts, key challenges must first be addressed for there to be a consistent supply of material, sustained job creation, and ultimately wildfire risk reduction. The intent exists, but there is inconsistency of projects in which biomass removal is a key component and as a result there exists a lack of industry capacity appropriately suited to utilize available material. This case also illustrates that local partnerships among agency, community and industry partners is essential. The involvement of entities such as the Watershed Research and Training Center, Jefferson State Forest Products, and the Trinity County Resource Conservation District working along side the USDA Forest Service and Bureau of Land Management enhances opportunities to increase utilization and as a consequence job creation and wildfire risk reduction.

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