

Confederate Tribes of Warm Springs, Deschutes National Forest, and the Prineville District of the Bureau of Land Management

The study of biomass utilization in central Oregon focused on the Confederate Tribes of Warm Springs to the north, Deschutes National Forest to the south and west, and the Prineville District of the Bureau of Land Management on the east side. The Confederate Tribes of Warm Springs is home to about 4,000 tribal members residing on more than 600,000 acres with the primarily economy dependent upon natural resources including hydropower, forest products and ranching. The Deschutes National Forest is some 1.6 million acres nestled along the Cascade Mountains and is one of the most popular recreation forests in the Pacific Northwest attracting more than 8 million visitors annually. The Prineville District consists of an additional 1.65 million acres of desert and forestlands. Combined, the ecological conditions of area vary considerably. The western portion includes the high Cascades and is within the Northwest Forest Plan Area. The region includes mixed conifer, lodgepole, and ponderosa pine. Moving east, the elevation declines and becomes more arid with sage and juniper dominating. Key communities include Bend, Redmond, Prineville, Sisters, Madras, and Warm Springs, OR.

The Confederate Tribes of Warm Springs have operated a co-generation power plant since early 1970 in conjunction with Warm Springs Forest Products Industries. They are currently in the process of upgrading operations by constructing a new boiler that will provide steam to the power plant and have a net energy capacity of 20-megawatts. The intent is to source the material for the power plant from local hazardous fuels reduction projects on the reservation, mill residues, and urban waste like construction debris and orchard trimmings from local communities. Also providing biomass to the Warm Springs facility, as well as other outlets in the region, is the Deschutes National Forest. As in other western locations, the harvesting of biomass from federal public lands generates considerable public debate. Stewardship Contracting has been employed by agency staff as a way to accomplish management objectives while working with local stakeholders to ensure that appropriate forest restoration or hazardous fuels reduction objectives are accomplished. The Sisters Ranger District has been particularly active using Stewardship Contracts and is collaborating with local interest groups to reach agreement on the location, intensity, and purpose of specific projects, and soliciting business partners to utilize the material removed.

The Prineville District of the Bureau of Land Management plays a key role in hazardous fuel reduction and by extension the utilization of biomass that accentuates tribal and national forest efforts. The material removed, which is primarily located in the wildland-urban interface surrounding communities, is generally small diameter in size and used for pulp and paper production, composite paneling, and if contaminated with twigs, bark or branches is generally used for dirty chip markets for energy or other low value applications. Rangeland restoration and removal of junipers is a particular emphasis on the Prineville District, but the structural properties and inconsistent size of juniper trees makes it most suitable for all but the lowest-value applications. As a result, there is an emphasis on developing combined-heat-and-power plants capable of utilizing the material for hog fuel. New biomass energy power plants have been proposed for Prineville and Gilchrist, OR.



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The challenges that emerge to enhanced utilization of this type of material focus most on the availability and price of biomass. Factors like transport distances and access are important but the downturn in the lumber market has significantly affected local industry capacity and caused several mills to temporarily suspend operations or consider closing altogether. The implication is that mill residues have also declined and caused



the price of biomass to substantially increase. Given the already high cost of biomass removal combined with the increasing price of transportation, many planned facilities are no longer financially feasible and hence opportunities to remove biomass are decreasing. The following strategies are being employed by to overcome these challenges:

- Local leadership and collaboration has had important consequences for forging agreements on biomass removal and utilization. The Central Oregon Partnership for Wildfire Risk Reduction is one such group of diverse stakeholders that has worked to expand markets for small diameter trees and encourage fuels reduction treatments. The Partnership provides assistance analyzing available supply, market analysis and feasibility, business planning, and seeking financial assistance for projects and coordinating their activities.
- Industry coordination forged by local businesses has created synergy among biomass users to lower harvesting and transportation costs, expand market potential, and advocate for favorable legislation and federal agency policy. JTS Animal Bedding in Redmond, for instance, worked with the Central Oregon Partnership for Wildfire Risk Reduction to identify available biomass from nearby national forests and with local contractors who could harvest and deliver the small logs. The company received more than \$250,000 in federal and state incentives to finance operations and support procurement of biomass from local contractors and is now focusing on small-scale district heating systems for local schools and hospitals to expand market opportunities.
- A mix of biomass from several sources has been important for businesses to remain operational. Most users procure no more than 5 percent from national forest lands because the material is too expensive and the volume is inconsistent. Most rely on saw mill residuals and urban wood waste.
- Sustained collaboration among traditionally opposing groups and the use of Stewardship Contracts has helped to build social agreement and as a result business capacity to accomplish projects.
- The State of Oregon recently enacted legislation to address several challenges that officials hope will encourage enterprise develop and maintain existing utilization capacity. In particular, the Business Energy Tax Credit (HB 3201) and the Renewable Fuels Standard (HB 2210) provide tax incentives for construction and subsidizes the cost of transporting qualifying biomass for energy. The Oregon Renewable Energy Act of 2007 (SB 838) also establishes a standard of 25 percent of electricity generation come from renewable sources by the year 2025.

This case illustrates the leadership role of the tribe and national forests working with local partners to promote biomass utilization. Efforts of the Central Oregon Partnership for Wildfire Risk Reduction and organizations like Sustainable Northwest, Oregon Wild and the legislature have been critical to reaching agreements and maintaining momentum with respects to hazardous fuels reduction. Addressing issues of diminished industry capacity and higher transportation costs will be critical in the coming years.

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