

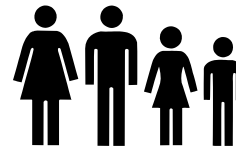
Committee for Family Forestlands

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TO: John Blackwell, Chair Oregon Board of Forestry
Doug Decker, State Forester

DATE: November 7, 2011

FROM: Committee for Family Forestlands

RE: Forest biomass as a fuel source and solution for maintaining forest health

The Committee for Family Forestlands (CFF) urges the Board of Forestry and State Forester to continue working with the Governor, the Oregon Forest Resources Institute, Oregon's Forest Biomass Working Group, and the federal Environmental Protection Agency (EPA) to explore the potential for expanding the forest-based energy production industry. The EPA is presently engaged in a 3-year review of the proposed "Tailoring Rule", the rule which would determine the acceptable limits of CO2 emissions from biomass-fueled energy generation facilities. The parameters outlined in the final Rule will effectively determine whether large-scale forest biomass-based energy production is permissible and economically viable. The current review period provides an important window of opportunity for the State of Oregon to concurrently examine the pros and cons of using forest biomass as an energy source, and to provide important and convincing input to the federal government and the EPA. The CFF believes it is crucially important that the EPA's review of the issues related to forest biomass includes a holistic consideration of forest ecology and forest economics as well as potential impacts on air quality.

The CFF suggests that a forest biomass-based energy production industry should:

1. Be guided by the goal of achieving and maintaining forest health.
2. Recognize that without a reliable market paying reasonable prices for raw materials, restoration thinnings that remove only the smallest diameter classes may not be fiscally realistic. Until such markets are available, forest operators will be financially unable to undertake small-diameter forest restoration thinnings unless these projects are publicly subsidized or unless larger-diameter, more profitable timber can be simultaneously harvested from the site to defray the cost of removing the less profitable biomass.
3. Establish a sustainable, even flow biomass harvest rate so that infrastructure and labor pools can be appropriately matched to the ecological capacity of the forests.
4. Be consistent with established best forest management practices as outlined in related state and federal laws and regulations.
5. Encourage cross-boundary collaboration to achieve landscape-level forest restoration goals.

6. Be visionary, and adaptively responsive to emergent scientific knowledge and social expectations.

A forest biomass energy industry offers an important means of improving forest health and sustainability while simultaneously helping to stabilize the nation's renewable energy sector. This is particularly true in fire-adapted western forest ecosystems. An estimated 12.2 million acres of forests in Oregon have been identified as overstocked and in need of thinning or prescribed burning to restore their vigor and reduce their susceptibility to aggressive wildfires. In many instances these forests are so heavily overstocked that they cannot be safely treated with prescribed fire until the excess biomass has been removed through mechanical thinning. In many other cases, particularly in the wildland-urban interface where many family forests are located, prescribed fire is not a realistic treatment option due to problems related to unfiltered smoke pollution and the risk of escaped fire. In such locations, thinning is the only realistic restoration option.

Forest thinning treatments, however, are typically expensive. The excess biomass is frequently too small in diameter to be sold for conventional wood products such as dimension lumber, and its quantity vastly exceeds the demand in established markets such as the particleboard industry that can utilize small-diameter material. Consequently, there is presently no market for the excess forest biomass that needs to be removed through restoration thinnings. Most restoration projects must therefore be subsidized with tax dollars on public forests, or a combination of personal funds and public cost-share programs on private forests. Small-forest owners find it particularly difficult to accomplish forest restoration, because their smaller-scale projects often cannot generate sufficient profit to attract forest operators who depend upon conventional forest products markets. Particularly in the current economic climate, wherein adequate public and private funding for forest health improvement products is less and less available, the absence of a reliable commercial market for excess forest biomass means that most of these forests will be doomed to a continuing state of decay. Forest restoration biomass would be, however, eminently marketable as a renewable fuel source that could substantially reduce US dependence upon fossil fuel supplies. The thoughtful development of a forest biomass energy industry would, therefore, help Oregon and America meet two of its most pressing environmental goals: forest sustainability and energy sustainability.

There are many who caution that enabling a new forest energy production industry may lead to overharvesting rather than sustainable harvesting within our forests, and also that the ecological impacts of removing small diameter biomass are not yet fully understood. We agree that there is need for caution. Scientific understanding of the implications of biomass extraction is indeed incomplete. There is, however, solid scientific understanding of the ecological, social, and financial risks associated with leaving forests overstocked and in declining health, and of the validity of thinning as a technique for restoring and maintaining forest vigor. We therefore concur with the Oregon Forest Resources Institute's conclusion that "Biomass utilization for energy should be considered a tool for improving the health of our forests. To ensure a sustainable, appropriate level of development, the needs for forest restoration should determine the scale of the forest biomass energy industry" (OFRI Report on Biomass Energy and Biofuels from Oregon's Forests, Page 1-v.)

The CFF also recognizes that there is ongoing debate regarding how the burning of forest biomass as a fuel may affect air quality, particularly with regard to "greenhouse gas" emissions. Carbon dioxide

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(CO₂) is by far the most troublesome of the “greenhouse gases”. Forests naturally absorb CO₂ during their respiration process, and subsequently “sequester” or hold the carbon in the form of new wood growth. If the tree is harvested and the wood is used for building materials, the carbon remains safely stored until being gradually released as the wood eventually decays. Forests, therefore, are highly desirable carbon repositories. They are widely understood to be nature’s most effective tool at helping to combat this particular type of air pollution. If wood burns, however, all of its stored carbon is quickly released back into the atmosphere, thereby contributing to “greenhouse gas” pollution. Consequently, some contend that burning forest biomass as a fuel may actually add to energy-related air pollution, rather than subtracting from it. This argument, however, overlooks the problem of wildfire, which releases not only massive amounts of CO₂ but also many other toxic chemical and particulate pollutants in the form of unfiltered smoke.

Wildfires already run rampant through the West’s overstocked and unnaturally flammable forests each year. It is well understood that if forest overgrowth is not reduced to site-appropriate stocking levels, the incidence and intensity of wildfires can only increase. Wildfires produce levels of air pollution far exceeding any that would be produced from thoughtfully constructed wood-burning energy production facilities equipped with pollution control equipment. Furthermore, the high cost of controlling the wildfires deprives the state of funds that could be directed to other forest management practices that could directly improve forest health and sustainability. The Oregon Department of Forestry currently ranks wildfire control as its top priority and foremost expenditure.

Healthy, appropriately stocked forests provide optimal wildlife and fisheries habitat. They are invaluable as recreational sites. They are unparalleled sources of pure water. They produce the oxygen we breathe, the vistas we cherish, the wood products we use to build our homes, and the paper products we need for effective communication. With the development of a restoration-oriented biomass utilization industry, the CFF believes they can also provide a sustainable, renewable source of energy.

Oregon has long been a leader in innovative forest policy. The CFF urges the Oregon Board of Forestry and State Forester to continue this legacy by continuing to explore the potential benefits of a holistic forest biomass utilization policy.

Most sincerely,

The Oregon Committee for Family Forestlands



Craig Shinn, Chair



Susan Watkins, Vice-Chair

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cc: Oregon Board of Forestry Members
Peter Daugherty, Private Forests Division Chief

The Committee for Family Forestlands is a statutory committee appointed by the Board of Forestry to provide advice and recommendations regarding family forests and includes family forestland owners from different areas of the state, environmental organization and forest industry representatives, a citizen-at-large and ex-officio members representing the Oregon Department of Forestry (ODF), Extension Service, Oregon Forest Resources Institute, the Oregon Small Woodlot Association and logging or forestry consulting interests.