

September 13, 2010

Environmental Protection Agency
Docket Center (EPA/DC)
Attn. Docket OAR-2010-0560
1200 Pennsylvania Ave., NW
Washington, DC 20460



Re: Call For Information: Information on Greenhouse Gas Emissions Associated with Bioenergy and Other Biogenic Sources; 75 Fed. Reg. 41173 (July 15, 2010); Docket ID No. EPA-HQ-OAR-2010-0560

To Whom It May Concern:

The Council of Western State Foresters (CWSF) respectfully submits the following comments in response to the Environmental Protection Agency's (EPA's) Call for Information: Information on Greenhouse Gas Emissions Associated with Bioenergy and Other Biogenic Sources (Docket ID No. EPA-HQ-OAR-2010-0560). The CWSF membership includes the directors of the state forestry agencies in the Western United States and Pacific Islands. We strive to ensure the sustainability and health of the nation's forests in meeting today's needs and those of the future. The CWSF appreciates the opportunity to provide information and comment on greenhouse gas emissions from biogenic sources. We believe that forest-derived biomass can be better utilized to provide a source of renewable energy for the west. We request that you consider our comments as you determine how to appropriately classify emissions from these sources.

General Comments

The CWSF supports healthy markets for forest products, including those derived from biomass. Utilization of forest residues or wood energy crops for energy production helps to provide additional markets for forest landowners. Viable forest products markets provide the economic support that many landowners need to conduct forest management activities necessary to improve forest health and to retain ownership of their forest land, thereby preventing forest fragmentation. However, forest product markets in the western U.S. have been in transition for many years, and industry infrastructure critical to support forest management practices is absent in many parts of the west. Market options for small diameter, lower value products, and expanded renewable energy markets will help diversify existing forest industry and provide economical alternatives to achieve sustainable, healthy forests in our country. Given the decline of the traditional forest industry in many parts of the country, energy markets for forest-derived biomass are one of the most promising ways to utilize materials that may otherwise present a hazard to human life and property if left in the forest.

For example, vast areas of federal, state and private forests in the western U.S. are identified for fuels reduction that reduces wildfire risk to communities and protects critical forest resources. Large landscapes are also being impacted by insects and diseases, resulting in millions of acres of hazard trees across the west. Removing these hazard trees generates large volumes of wood materials that currently have few local options for value-added products. Options for local, small-scale energy uses such as heating school campuses, prisons, and greenhouse complexes are a cost effective way of utilizing the forest and manufacturing residues, while contributing to community and state renewable energy goals. Larger bioenergy facilities also have a role in the western landscape in the form of combined heat and

power, industrial boilers and community energy systems, and are currently one of the major producers of renewable energy for the United States.

The U.S. forest products industry contributes 77 percent of the nation's industrial biomass energy—more energy than is produced in the country from solar, wind and geothermal sources combined.¹ Forest inventories have increased while meeting existing demands for wood and paper products and renewable energy production. Devaluing forest biomass will make other land-uses (e.g., conversion to urban development) with less carbon sequestration potential more attractive to those who own forests. National greenhouse gas policies and regulations must be mindful of the unintended consequences associated with limiting forests role in mitigating climate change and delaying the nation's shift to clean, renewable energy.

Biogenic Carbon Cycle

Sustainably managed forests make a significant contribution to reducing greenhouse gas levels whereas the combustion of fossil fuels releases geologically sequestered carbon that has been stored for centuries and adds to the total amount of carbon in active circulation.² The use of renewable forest biomass for energy may have short-term emissions, but over the long-term does not increase carbon in the atmosphere and has significant carbon benefits over fossil fuels.

The carbon cycle is considered in-balance (i.e. carbon is neither added nor removed from the atmosphere) when biomass is re-grown at the same rate it is consumed. Given forests are dynamic ecosystems, carbon losses from insects and disease, wildfire and harvests are never in exact balance with carbon gains made through new forest growth. Net carbon removals from the atmosphere occur when forest growth exceeds losses from natural and anthropogenic causes. The carbon cycle adds carbon to the atmosphere when forests lose carbon emissions in excess of that being sequestered.

Forest stands that are re-grown to pre-harvest carbon stocks before they are harvested again provide few emissions when considered across the wood-producing region. This is because the emissions from stand-level plots harvested this year are offset by the uptake occurring in new growth on other plots that will be harvested in the future.³ *Where removals of forest biomass (for products and/or energy) are less than the forest growth and regeneration (less mortality), the result is stable or increasing levels of carbon in the forest.* As a result, the only way to ensure biomass is being replaced at the rate it is removed (and therefore considered a low (or no) carbon fuel source) is through sustainable forest management.

¹ American Forest and Paper Association. 2010. What We Believe: Renewable Energy. Available at: <http://www.afandpa.org/RenewableEnergy.aspx>. Last Accessed Sept. 8, 2010.

² Lippke, B. et al. Letter to Chairman Boxer, Bingaman, and Lincoln and Ranking Members Inhofe, Murkowski, and Chambliss. Available at: http://www.safnet.org/documents/biomass_science_letter_SENATE7-20-10.pdf. Last accessed Sept. 8, 2010.

³ Miner, R. 2010. *Biomass Carbon Neutrality*. National Council for Air and Stream Improvement. Available at: <http://nafoalliance.org/wp-content/uploads/NCASI-Biomass-carbon-neutrality.pdf>. Last Accessed Sept. 8, 2010.

Appropriate Emissions Accounting Scale and Alternative Fates

The monitoring framework established through the USDA Forest Service Forest Inventory and Analysis (FIA) Program is the foundation for annually reporting on forest carbon stocks under the United States obligation to the United Nations Framework Convention on Climate Change.⁴ FIA data indicate that forest growth nationally has exceeded harvest levels resulting in a standing volume that has increased 50% over the past 50 years.⁵ This means that forests carbon inventories continue to grow at a faster rate than they are lost and that the biomass carbon cycle in the U.S. is continuing to accomplish net removals of CO₂ from the atmosphere.⁶ Whether forests continue to sequester carbon depends on whether it is cost effective for landowners to keep their land intact and sustainably managed. Because emissions from bioenergy are already considered under the Land-Use Change and Forestry sector, to include these emissions in the Energy sector and require a permit pursuant to the Clean Air Act would lead to double counting the emissions.

We recommend that EPA consider the alternative fate of biomass materials in the absence of biomass utilization for energy production. While it is possible to conduct life-cycle assessments of biomass feedstock sources and combustion systems, such analyses are highly subjective to the extent that they are dependent upon the boundaries of the system analyzed. Additionally, the life-cycle assessments fail to adequately capture the full spectrum of trade-offs associated with emissions that would most likely occur through open burning, wildfire and insect and disease outbreaks. It has been demonstrated that most materials utilized for energy production from biomass “would otherwise be open burned, buried, or allowed to accumulate in forests as overgrowth material.”⁷

Avoiding alternative fates is especially important given the frequency of wildfires and the high percentage of forests in the west that are currently overstocked and prone to insect and disease infestations. Biomass that is harvested during forest health and fuels reduction treatments can be converted to renewable energy using modern institutional biomass systems that leave few (if any) visible emissions or odors and emit far less particulate matter than through open burning.

Renewable and Sustainable Feedstocks

EPA is soliciting input regarding the types of specific indicators that would be useful in making a determination of whether biomass feedstocks are renewable or sustainable. Within the forest sector, a strong legal and socioeconomic network exists that encourages sustainable forest management on public and private forests. For instance, Best Management Practices (BMPs) and Forest Management Guidelines (FMGs) have been developed and published in 49 states. Most of these are focused on water quality protection, but often include guidelines for timber harvesting (including in and around wetlands), site preparation, reforestation, stream crossings, road construction and maintenance, prescribed

⁴ U.S. Environmental Protection Agency. 2010. Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2008. Available at: http://epa.gov/climatechange/emissions/downloads10/US-GHG-Inventory-2010_Report.pdf. Last accessed Sept. 8, 2010.

⁵ Smith, W.B., P.D. Miles, C.H. Perry and S.A. Pugh. 2009. Forest Resources of the United States, 2007. General Technical Report WO-78. U.S. Department of Agriculture, Forest Service. Washington, DC.

⁶ U.S. Environmental Protection Agency. 2010. Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2008. Available at: http://epa.gov/climatechange/emissions/downloads10/US-GHG-Inventory-2010_Report.pdf. Last accessed Sept. 8, 2010.

⁷ Morris, G. 2008. *Bioenergy and Greenhouse Gases*. The Renewable Energy Program of the Pacific Institute. Berkeley, California.

burning and pesticide and fertilizer use.⁸ Private forest landowners operate within a well-established framework of federal and state laws, regulations, and BMPs as well as private sector and voluntary programs including (but not limited to):

- **Forest Stewardship Plans.** Forest Stewardship Plans developed under the USDA Forest Service Forest Stewardship Program provide families and individuals with the technical information necessary to encourage long-term stewardship and sustainability of their forests. Planning assistance is delivered through state forestry agencies primarily through the development of Forest Stewardship Plans. These plans address landowner objectives for their forests alongside soil, water, aesthetics, threatened and endangered species, fish and wildlife, wetlands, carbon cycle and other sustainability considerations.
- **Biomass Harvesting Guidelines.** A number of states have chosen to augment their water quality BMPs and Forest Management Guidelines to address biomass harvesting based on local forest ecosystems, harvesting pressures, ownership patterns, and management objectives. These states have chosen to develop biomass harvesting guidelines to fill gaps where existing BMPs and forest practices regulations may not be sufficient to guide biomass removals.⁹
- **Natural Resource Conservation Service Forest Management Plans.** These plans, often referred to as “Section 106” plans, are prepared by licensed foresters and comply with state standards. These plans are required to address soil conditions, fish and wildlife habitat, water quality and other important criteria that align with the national standards for Forest Stewardship Plans developed under the Forest Stewardship Program.
- **Third-party Forest Certification.** Forest certification systems such as the Forest Stewardship Council, Sustainable Forestry Initiative and the American Tree Farm System require forests to be managed to high standards for wildlife habitat, soils, water quality, and biodiversity. While these systems do not currently address forest biomass removals, they do set standards and expectations for post-harvest forest conditions and are not related to the type of harvest.

The social, economic, ecological and legal contexts for which forests are managed vary from state to state. Forest biomass harvested under these and other state forester-approved measures should be considered sustainable and should allow flexibility for states to identify appropriate measures to address sustainability concerns associated with forest biomass removals. Likewise, federal land managers operate within a well-established framework of laws and regulations that ensure public lands are managed sustainably (e.g. the National Forest Management Act and the Federal Land Policy Management Act). As such, forest biomass harvested from public lands consistent with applicable laws and regulations should be considered sustainable.

⁸ Evans, A.M., R.T. Perschel and B.A. Kittler. 2010. Revised Assessment of Biomass Harvesting and Retention Guidelines. Available at: http://www.forestguild.org/publications/research/2009/biomass_guidelines.pdf. Last accessed August 17, 2010.

⁹ Evans, A.M., R.T. Perschel and B.A. Kittler. 2010. Revised Assessment of Biomass Harvesting and Retention Guidelines. Available at: http://www.forestguild.org/publications/research/2009/biomass_guidelines.pdf. Last accessed August 17, 2010.

Conclusion

CWSF appreciates the challenge and complexity of addressing the impacts of greenhouse gas emissions on global climate change. We believe utilization of biogenic sources to meet a portion of the nation's energy needs can, over time, result in a substantial reduction in greenhouse gas emissions when compared to fossil fuels and provide needed market-based incentives to maintain forests as forests.

Sincerely,

A handwritten signature in black ink, appearing to read "Arthur L. Blazer". The signature is fluid and cursive, with a large loop at the end of the last name.

Arthur, "Butch" Blazer, New Mexico State Forester
Council of Western State Foresters Chair