

**American Forest & Paper Association**  
**Comments on the Draft Revised Forest Project Protocol**  
**Guidance on Estimating Carbon in Wood Products**

**February 20, 2009**

The American Forest & Paper Association (AF&PA) appreciates the opportunity to submit comments to the California Climate Action Registry on their Draft Revised Forest Project Protocol Wood Products Guidance (released February 2009).

We hope that these comments will lead to the incorporation of additional alternatives that will make the Forestry Protocols more inclusive of managed forestry operations and the products that come from them. We believe it is possible to include such provisions while maintaining the level of integrity necessary to support CCAR's objectives of measuring real, additional, verifiable, and permanent reductions in green house gases.

The American Forest & Paper Association is the national trade association of the forest products industry, representing pulp, paper, packaging and wood products manufacturers, and forest landowners. Our companies make products essential for everyday life from renewable and recyclable resources that sustain the environment. The forest products industry accounts for approximately 6 percent of the total U.S. manufacturing GDP, putting it on par with the automotive and plastics industries. Industry companies produce \$200 billion in products annually and employ more than 1 million people earning \$54 billion in annual payroll. The industry is among the top 10 manufacturing sector employers in 48 states.

In California the U.S. forest products industry generates over \$16 billion in sales and employs close to 70,000 people earning over \$4 billion in annual payroll. Forests currently cover 33.2 million acres or 33% of the land area in California of which 19.6 million acres are productive unreserved forestland.<sup>1</sup>

**Proper recognition for carbon benefits of harvested forest products is imperative**

It is essential that the protocol account for Harvested Forest Products (HWP) in a manner that does not devalue their important contribution to keeping CO<sub>2</sub> out of the atmosphere.

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<sup>1</sup> Estimated area of forest land by ownership and land status (Millions of Acres) (Source: 2005, USFS, FIA)

**The current draft of the CCAR wood products guidance allows only a small fraction of the value of the carbon stored in wood products to be credited.** CCAR, by not valuing this carbon, is making a subjective (and inappropriate) decision that wood products carbon is less valuable. CCAR undervalues wood product carbon by:

- 1). Not recognizing that for sustainably managed forests, by definition, the renewable supply of annually harvested material is always additional.
- 2). Not calculating carbon stored in wood products relative to CO<sub>2</sub> decay rates in the atmosphere, thus undervaluing their effectiveness as an offset to emitted carbon by a factor of two.
- 3). Not crediting carbon stored in landfills (e.g., landfills equipped with methane capture and use systems).
- 4). Requiring that creditable wood products come from project lands.

**The net effect will be that by design, little, if any, forest product carbon will be credited under the CCAR program.**

### **Climate Benefits of Wood Products**

As noted in the Intergovernmental Panel on Climate Change Fourth Assessment (IPCC) Report, *Mitigation*:

“In the long term, a sustainable forest management strategy aimed at maintaining or increasing forest carbon stocks, while producing an annual sustained yield of timber, fiber or energy from the forest, will generate the largest sustained mitigation benefit.”<sup>2</sup>

The climate benefits of sustainably managed forests, when coupled with timber production, provide several positive carbon benefits that are quite significant. These include:

#### ***Carbon storage in wood products:***

- Approximately one-third of the carbon in wood harvested for the industry ends up in long-lived products such as lumber and wood-based panels,<sup>3</sup> and is

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<sup>2</sup> (Source: IPCC. 2007. *Mitigation, Fourth Assessment Report*)

<sup>3</sup> Based on data from the FAO database FAOStat <http://faostat.fao.org/>.

- sequestered in some cases for decades, even centuries.<sup>4</sup> Even paper products in controlled landfills (which dominate existing disposal paths) provide 10 to 100 year storage prior to use for heat value. EPA is working towards meaningful quantification techniques for this benefit.
- *Long term storage of carbon in such products is internationally recognized by climate scientists and policymakers, including the recently released guidelines by the Intergovernmental Panel on Climate Change.*<sup>5</sup>
  - The U.S. government estimates that the amount of carbon stored in forest products is equivalent to removing over 100 million tons of carbon dioxide from the atmosphere every year.<sup>6</sup> This is equivalent to eliminating the carbon dioxide emissions from 18 million passenger cars - 13% of all passenger cars on the road in the U.S.<sup>7</sup>

### **Lower Carbon Footprint:**

- Wood as a building material requires less energy to extract, process, transport, construct and maintain over time and is a better insulator than other building materials such as cement and steel.<sup>8</sup>
- In addition, harvested wood that is not made into products is used as a carbon neutral substitute for fossil fuels often through co-generation which further amplifies the benefits of using this GHG-neutral fuel. Wood fiber for other uses, such as packaging material, provides many of the same advantages. According to the latest DOE figures, in 2002, 89 percent of electricity generated at paper mills was cogenerated.<sup>9</sup>
- Energy production from biomass from sustainably managed forests is carbon neutral. Biomass, unlike fossil fuels, contains carbon that was only recently removed from the atmosphere and as part of a natural carbon cycle does not affect atmospheric levels of CO<sub>2</sub>.
- Moreover, economic returns to active forest management provides substantial positive incentive on landowner decisions about whether to

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<sup>4</sup> *Based on half-lives in Annex 3.12 of USEPA 2007, INVENTORY OF U.S. GREENHOUSE GAS EMISSIONS AND SINKS: 7 1990 – 2005*

<sup>5</sup> Intergovernmental Panel on Climate Change (IPCC). 2006. *2006 IPCC guidelines for national greenhouse gas inventories*

<sup>6</sup> <http://www.epa.gov/climatechange/emissions/downloads06/07LULUCF.pdf> page 7-11

<sup>7</sup> USEPA 2007, INVENTORY OF U.S. GREENHOUSE GAS EMISSIONS AND SINKS: 1990 – 2005 and information from EPA's personal greenhouse gas calculator website

[http://www.epa.gov/climatechange/emissions/ind\\_calculator.html](http://www.epa.gov/climatechange/emissions/ind_calculator.html)

<sup>8</sup> <http://www.beconstructive.com/pdf/Factsheet4.pdf> based on

[http://www.corrim.org/reports/2006/final\\_phase\\_1/index.htm](http://www.corrim.org/reports/2006/final_phase_1/index.htm)

<sup>9</sup> Energy Information Administration 2002 report on Energy Use in Manufacturing, Table 11.3

[www.eia.doe.gov/emeu/mecs/mecs2002/data02/pdf/table11.3\\_02.pdf](http://www.eia.doe.gov/emeu/mecs/mecs2002/data02/pdf/table11.3_02.pdf)

convert forests to non-forest uses<sup>10</sup> and serves to maintain and increase forest carbon pools.

As such forests and forest products provide huge social benefit that should be encouraged (not discouraged) by carbon accounting protocols and policy. This objective is thwarted by the policy decisions made in forming the CCAR protocols and should be corrected.

### **CCAR Wood products guidance undervalues carbon stored in wood products**

**1). For sustainably managed forests, by definition, the renewable supply of annually harvested material is always additional.** On average, sustainably managed forests maintain their level of carbon stocking over time. Harvested material from sustainably managed forests is therefore incremental to existing carbon stocks and a net benefit to the atmosphere. Requiring that wood product harvesting be included in the baseline essentially means that a landowner that harvests its growth increment each year (typical of most commercial forestry operations) would not likely be eligible for any credits for long-lived harvested wood products<sup>11</sup>.

2). By not calculating carbon stored in wood products relative to CO<sub>2</sub> decay rates in the atmosphere, the CCAR wood products guidance undervalues their effectiveness as an offset to emitted carbon by a factor of almost two. When reviewing the decay curves in the supporting documentation for the wood products guidance it is apparent that soft wood lumber in use and carbon dioxide in the atmosphere decay at similar rates. It would be more appropriate to calculate the effectiveness of carbon storage in wood products relative to atmospheric decay rates to better reflect the effects on the atmosphere and wood products true ability to offset emissions of CO<sub>2</sub>. The current use of the average CO<sub>2</sub> stored after 100 years undervalues the wood products storage capacity and should be adjusted accordingly. For example, for softwood lumber, the multiplier should be .979 rather than .47. This is for products in use only and does not include the actual additional value of products in landfills which would be much higher (an aggregate multiplier of approximately 1.5 for softwood lumber).

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<sup>10</sup> The forest and agricultural sector optimization model (FASOM): model structure and policy applications. 1996. Adams, Darius M.; Alig, Ralph J.; Callaway, J.M.; McCarl, Bruce A.; Winnett, Steven

<sup>11</sup> Note that CCAR requires that the net above ground biomass in the forest must be maintained or increased to meet additionality requirements. There are other ways to address reversals due to harvesting, and as a result we do not necessarily agree with the strict definition of additionality in the CCAR protocols.

3). Credit should be given for carbon stored in landfills. In the case of the softwood lumber example presented in the supporting materials, this amounts to about 30% of the wood products creditable storage value. The U.S. EPA includes product carbon both in use and stored in landfills when calculating the annual U.S. national inventory reported to the UNFCCC.

4). CCAR should not require that wood products credit be generated only from forestry project lands. Given the costs and complexities involved in developing a forestry project (for often limited return) under this protocol, many, particularly small, landowners may not participate. Wood product manufacturers should be allowed to initiate a wood products project under the CCAR project protocol provided it can show clear title to the carbon and chain of custody back to a sustainably managed forest. 1605b protocols, upon which CCAR is based, also contain manufacturing level look up tables.

5). AF&PA recommends the 100 year method<sup>12</sup> be allowed as an additional alternative method for wood product carbon accounting. The “100-yr” method has been accepted internationally by forest products associations and the DOE and USDA as an alternative methodology.

Forest products companies around the world have endorsed the 100-year method for products in-use, and working through the International Council of Forests and Paper Associations (ICFPA), have developed an easy-to-use calculation tool, which simplifies corporate calculations.

The ICFPA tool is based on the principles outlined in the Technical Guidelines and allows the use of time-in-use decay curves to determine the amount of carbon remaining in products in-use after 100 years. This method can also utilize the average decay for the same time horizon of 100 yrs. The tool allows companies to use their annual production to estimate their contribution to product sequestration. Using annual production data, a company can either 1) let the model assign typical uses (and thus life times) to the production or 2) specify the uses of its products. For example, a mill that produces lumber can specify that the lumber is used exclusively for building houses, assign the lumber to a variety of end-uses, or let the model use statistical averages. Thus the amount of sequestered carbon can be accurately estimated for products in use.

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<sup>12</sup> Miner, R., 2006. “*The 100-year method for forecasting carbon sequestration in forest products in use,*” Mitigation and Adaptation Strategies for Global Change, Springer Science+Business Media B.V., Netherlands, published on line 20 May 2006

Additionally, the model is available in a spreadsheet format with a user-friendly interface that prompts users for data, thus making the process clear and easy to understand. To simplify the accounting process, AF&PA recommends that the latest version of the ICFPA calculation tool be incorporated by reference into the CCAR. The tool, which is maintained by the National Council for Air and Stream Improvement (NCASI), is available free of charge on their website at [NCASI.org](http://NCASI.org).

### **Confusion regarding calculation of baselines**

Despite our best efforts to understand the protocol there is still much confusion about the baseline calculation. There seem to be discrepancies between the written text and how the protocol has been explained to us by various stakeholders. Both in the written text and in descriptions by various stakeholders the baseline model has been described as business as usual, regulatory, baseline year subject to an FIA mean, and maximizing financial returns. It is imperative that the methodology for calculating baselines be clarified (ideally using example calculations) and another opportunity for public comment be provided.

### **Calculation of baselines**

The baseline should be the amount of carbon in the project at its inception or “baseline year”. The baseline year approach is transparent, measureable and not subject to gaming where credit is given for the difference between a hypothetical, and clearly unrepresentative, baseline and actual carbon levels. We recognize that the baseline year approach may give credit for some forest growth that may have happened naturally. However, landowners have the option every year to convert their land to other uses, to not regenerate, or to discontinue harvests altogether, so to assume a baseline based on continued forest management and continued harvests is not appropriate given the options most land owners have to manage their land. We propose that if landowners can show that they are sustainably managing their forest (most likely with third party certification), that this is a practice that is above and beyond normal practice and should be sufficient to meet any additionality test.

### **Unintended Consequences of Taking “Business as Usual” Activity for Granted**

Baselines based on future projections of current practices are not appropriate. There are two fundamentally flawed assumptions inherent in this type baseline approach. The first is the assumption that BAU actually exists in dynamic markets. This should be abundantly clear given the unforeseen recent economic development in global markets. Decisions made three or six months ago are no longer valid. Second, is the assumption that BAU baseline carbon levels will be maintained in a market system that does not recognize their value. Unless policymakers recognize the need to credit continued

actions by those managing land (and carbon) in a responsible, sustainable way, this carbon storage will be lost to other more lucrative uses.

### **Unfair concept of only rewarding New (or Additional) versus Existing**

Many current forest products industry practices reduce greenhouse gases. In 2006, AF&PA member pulp and paper mills generated 64 percent of the energy they used from biomass; members' wood products facilities generated 74 percent of their energy from biomass. Currently, our industry is a leader in the use of energy efficient combined heat and power (CHP) systems (29 percent of all U.S. co-generated electricity is produced by pulp and paper mills). The carbon that U.S. forests and forest products currently store each year is enough to offset approximately 10 percent of all U.S. CO<sub>2</sub> emissions. More than half the forestland in the U.S. is privately owned-- roughly 424 million acres. Of that, 354 million acres are actively managed for timber. Private landowners in the U.S. plant about 4 million trees each day.<sup>13</sup> EPA estimates that the amount of carbon stored annually in forest products in the U.S. is equivalent to removing more than 100 million tons of CO<sub>2</sub> from the atmosphere every year

As climate policies often focus on incentivizing additional energy efficiency improvements, use of renewable fuels, or carbon sequestration in forests, they often fail to recognize the benefits of existing business practices that avoid GHG emissions and sequester and store carbon. In effect, this creates disincentives for existing users of renewable energy and owners of forests, distorts markets, and disadvantages those landowners and forest products manufacturers who are leaders now in the use of energy efficient combined heat and power, carbon neutral biomass, and forest and product sequestration. Unintended consequences (i.e., disincentive for responsible carbon mitigation behaviors) occur when policies reward new entrants and disadvantage those that are currently engaged in the desired activity.

### **In closing**

We thank you for the opportunity to comment on CCAR's Forestry Protocols. As the majority of the carbon storage value in wood products would not be credited under this protocol we believe that significant changes need to be made before these protocols could be acceptable for use in carbon markets.

Please do not hesitate to contact us as we would like very much to provide any supporting information needed or work with you on any of the options outlined in these comments.

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<sup>13</sup> [1] Forest Resources of the United States, 2007; Draft RPA Review Tables: U.S. Dept. of Agriculture, [http://www.fia.fs.fed.us/documents/pdfs/2007\\_RPA\\_REVIEW\\_TABLESv2c.pdf](http://www.fia.fs.fed.us/documents/pdfs/2007_RPA_REVIEW_TABLESv2c.pdf); Tree planting in the United States - 1999; U.S. Dept. of Agriculture

Sincerely,

A handwritten signature in blue ink that reads "Rhea Hale". The signature is written in a cursive style with a blue ink color.

Rhea Hale

Director, Climate and Air Programs

American Forest & Paper Association