



**NATIONAL COUNCIL FOR AIR AND STREAM IMPROVEMENT, INC.**  
1513 Walnut Street, Suite 200, Cary, NC 27511

**Reid Miner**  
**Senior Fellow**  
Phone (919) 600-1022  
e-mail RMiner@ncasi.org

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Mr. Thomas Carpenter  
Designated Federal Officer (DFO)  
EPA Science Advisory Board (1400R)  
U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue NW.  
Washington, DC 20460

Sent via email to [carpenter.thomas@epa.gov](mailto:carpenter.thomas@epa.gov)

**RE: Science Advisory Board (SAB) 6-2-17 Draft Report for Quality Review**

NCASI is a nonprofit environmental and forestry research organization funded primarily by forest-based North American companies. We appreciate the opportunity to comment on the work of EPA's Science Advisory Board related to carbon accounting for biogenic carbon.

Below we make a number of suggestions and identify several errors in the report. The items are identified by page and line number corresponding to the Science Advisory Board (SAB) 6-2-17 Draft Report for Quality Review.

Cover letter, Executive Summary, Page 18 Section 3.5:

The previous draft of the report contained a discussion of the relationship between the time horizon for calculating BAFs and the response of the atmosphere over time. This discussion has been omitted from the 6-2-17 draft. While we understand that this cover letter and report are focused on carbon accounting, we note that without an understanding of the relationship between emissions timing (carbon accounting) and warming response, policymakers may be misled about the implications of the time frames used for carbon accounting. In specific, they may assume that using shorter time frames for BAFs will (a) avoid tipping points by discouraging systems with higher emissions in the near term and (b) accomplish their long-term objectives. The previous version of the report pointed out that (a) unless long-term emissions are reduced, tipping points are not avoided but merely postponed and (b) systems that look worse (have higher BAFs) in the short term may have lower cumulative emissions and have lower BAFs if considered over longer time horizons. For these reasons, we suggest that it is important that the discussion included in the earlier draft be included in the final version of the report and executive summary.

Page iv line 15:

This is the first use of the term T. We suggest adding a parenthetical, (T), in the preceding sentence – i.e., "... be calculated for a time horizon (T) long enough..."

Page 3 lines 38 to 45, Page 6 line 31, Page 16 lines 19 to 25, Page 19 lines 15 to 17, Page 22 lines 31 to 39, Page 26 line 31, Page B-1 lines 29 to 32, the entire Appendix E and perhaps elsewhere:

The text directs the reader to a new appendix (Appendix E) to understand the relationship between plot and landscape assessments and the insensitivity of BAF calculations to harvest intensity. Yet, *on Page 22, lines 38 and 39, the report notes that the information in Appendix E "...should only be treated as illustrative, since a more complete assessment of BAFs should be obtained from an integrated economic-ecological model..."* Given this qualification and the limitations (noted below) of the analysis in Appendix E, we recommend that it be dropped from the final report.

The Appendix concludes that (a) it is possible to extrapolate plot level analysis to the landscape level and (b) results are insensitive to harvest intensity (i.e., biomass demand). This, however, is not the case in many situations. Appendix E assumes that unharvested plots are identical in both the reference and policy scenarios. This is often not the case. Landowners may change management intensity of unharvested plots (e.g., mid-rotation fertilization) and may undertake tree planting on non-forested land in response to increased demand. Modeling only harvested plots, as suggested in Appendix E, does not capture the impacts of such landowner responses. These landowner responses have been found to be very important to understanding forest carbon dynamics. Indeed, *the Panel's report notes in many places that it is important to consider both biophysical and economic factors when modeling forest carbon dynamics.* Ultimately, the analysis suggested by Appendix E and the resulting conclusion (i.e., that you can understand a landscape response by extrapolating plot results) are frequently incorrect and at odds with the balance of the report. *The Appendix and all related references to it should be removed.*

Page D-2 lines 6 to 7:

Please direct the reader to the places in the report, or literature references, that show that "the relative response of many feedstocks (at least ones with harvest rotations over 20 years) are quite similar".

Page D-2 line 12

Typographical error. "relative" should be "relatively".

Page D-22 lines 2 to 3 (Title of Table 1)

The text in the title of the table indicates that "The reported value is for T, which in most cases is 90 years after the policy was implemented". This is no longer the case as the specific numbers used in the calculations have changed (as is evident by looking at the numbers in the last row of the table).

Thank you for the opportunity to comment on the report.

Best Regards

Reid Miner, NCASI  
Caroline Gaudreault, NCASI  
Stephen Prisley, NCASI