Proposal for a modification to American Carbon Registry methodology "Improved Forest Management Methodology for Quantifying Removals and Emission Reductions through Increased Forest Carbon Sequestration on Non-Federal U.S. Forestlands, Version 1.1"

Submitted by Ben Parkhurst, Blue Source; David Shoch, TerraCarbon; and David Ford, L&C Carbon

12 July 2016

The main intent of the proposed changes to this methodology is to allow for conservation projects on lands that can be legally harvested by entities owning or controlling timber rights on forestland, but which are forgoing harvesting in support of conservation goals and enhanced CO2 sequestration. As such, the following changes exempt such projects from being subject to forest certification and timber management plans.

In addition, we are proposing other changes to clarify certain applicability conditions, calculations, and other requirements. The following list provides a summary of all proposed changes:

- PG 3: Changed molecular weight of CO2 to Carbon form 44/12 to 3.664 to be more accurate
- PG 4: Definition of forestland clarified to be "Forest land is defined as land at least 10 percent stocked by trees of any size, or land formerly having such tree cover, and not currently developed for non-forest uses" now matches USFS FIA definition.
- PG 4: Definition of Tree clarified to be "A perennial woody plant with a diameter at breast height (4.5') greater than or equal to 1" and a height of greater than 4.5" to allow for trees 1" and greater
- PG 5: Certification and management plan requirements only apply to projects with active commercial harvesting.
- PG 5: Project proponent must demonstrate its ownership or control of timber rights at the start date, instead of 12 months prior to start date. This will allow for a scenario where a landowner purchases a property with the intent of doing a carbon project right away, and won't have to unnecessarily wait 12 months to meet this condition.
- PG 9: Struck superfluous language regarding project eligibility, and replaced it with "This
 methodology applies to lands that could be legally harvested by entities owning or controlling
 timber rights."
- PG 9: Struck superfluous language regarding the definition of forestland to be consistent with the above change.
- PG 15: Clarified that stratification *may* be used for baseline and project scenarios to be consistent with section D.1.
- PG 15: Added Age Class as an example stratification parameter.
- PG 16: Changed the upper bound of the summation from 20 to 21 to allow for the average calculation to take place over 20 periods, instead of 19 periods as in the previous version.
- PG 19: Clarified language to make it clear that the project proponent can use any model that projects either total aboveground and below ground carbon per acre, volume in live aboveground tree biomass, or another appropriate unit, and that if the model projections are in

- 5 or 10 year increments, the numbers shall be annualized to give a stock change number for each year.
- Page 19: Clarified that The Project Proponent must use the same set of equations, diameter at breast height thresholds, and selected biomass components for *ex ante* and *ex post* baseline and project estimates.
- Page 20: Clarified that to calculate tree biomass, project proponent can choose to include a combination of the following components: stump, bark, tops and branches, and/or foliage, in addition to below-ground biomass, as long as the same components are calculated for ex ante and ex post baseline and project estimates.
- Page 20: Noted that the FVS Fire and Fuels Extension volume-based default estimates of Live
 Carbon are compliant, but do not include bark and stump components.
- Page 23: Struck old wood products language due to ambiguity. Adopted a process very similar
 the ARB wood products calculations, except that carbon remaining in wood products 100 years
 after harvest is calculated instead of the average amount of carbon that is likely to remain
 stored in wood products over a 100-year period. This change makes it consistent to the
 previous version of this methodology. Coefficients were adapted from Smith et al 2006
 "Methods for calculating forest ecosystem and harvested carbon with standard estimates for
 forest types of the United States."
- Page 29: Again clarified that stratification may be used for baseline and project scenarios.
- Page 29: Clarified that the monitoring requirement of having a management plan on hand at all times for validation and verification is only applicable for projects where commercial timber harvesting occurs in the project area.
- Page 30: Clarified that the 90% statistical confidence level can be no more than ±10% of the
 mean estimated amount of the combined carbon stock at the *project* area level, instead of
 combined across all *strata*.
- Page 33: Modified leakage section to allow for "Directly accounting for market leakage
 associated with the project activity. Where directly accounting for leakage, market leakage shall
 be accounted for at the regional-scale applied to the same general forest type as the project (ie,
 forests containing the same or substitutable commercial species as the forest in the project
 area) and shall be based on verifiable methods for quantifying leakage. It is at the verifier's
 discretion to determine whether the method for quantifying market leakage is appropriate for
 the project." This closely follows the VCS AFOLU Requirements V 3.4.
- Page 39: Struck example ERT worksheet. An example ERT worksheet will be provided on the ACR web page.