Public Comments on CCAR Forest Project Protocol Version 3.0
Submitted by Sean Carney, CantorCO2e January 19, 2009

Section: 2.1.2 - Improved Forest Management, Page 3

Current Language:

The management of either private or public lands for commercial or noncommercial harvest and regeneration of native trees when employing natural forest management practices. Natural forest management practices are forest management practices that promote and maintain native forests comprised of multiple ages and mixed native species at multiple scales from the harvest unit (less than 40 acres) up to the watershed spatial scale (third or fourth order watershed level) approximately 10,000 acres in size.

Proposed Language:

The management of either private or public lands for commercial or noncommercial harvest and/or regeneration of native trees when employing natural forest management practices. Natural forest management practices are forest management practices that promote and maintain native forests comprised of multiple ages and mixed native species at multiple scales from the harvest unit (less than 40 acres) up to the watershed spatial scale (third or fourth order watershed level) approximately 10,000 acres in size.

Justification:

The original language excludes projects with GHG benefits which involve no harvesting. An example of such would be the purchase of former conifer-dominated timber land, which is now predominantly oak-species. The new owner (e.g. an environmental organization) has plans to remove oaks and restore the site to native conifers Therefore the project may generate net GHG reductions over a 100 year accounting period relative to the baseline scenario with a management practice that does not include harvesting. This project type would be excluded under the current project definition.

Section: 2.1.3 - Avoided Conversion, Page 3

Current Language:

A project consisting of specific conservation actions to prevent the site-specific clearing and conversion of native forests to a non-forest use, such as agriculture or other commercial development.

Proposed Language:

A project consisting of specific conservation actions to prevent the site-specific clearing and conversion of native forests to a non-forest or sub-optimal forest use, such as agriculture or other commercial development.

Justification:

Non-forest use would require a reduction of canopy cover to below 10%. Forest conversion may occur where a forest is converted and the canopy may still be greater than 10%. One example may be an area surrounding home-sites in a development project where older trees are left standing while all under-brush and young trees are removed.

Another example of a sub-optimal forest situation would be where common practice is to harvest and leave the land to regenerate into forest compositions with less stocking potential the original forest type. This is a concern especially when invasive species crowd out species necessary to regenerate the forest to its original composition.

Section 3.2 - Project Start Date, Page 4

Current Language:

Initiating a new project in an area where a previous project was terminated
A new GHG project may be initiated in the same area as a previously terminated GHG project as long as any reversal of GHG reductions from the former project have been completely compensated for through the Reserve's buffer pool or alternatively through a third-party insurance mechanism (see Section 7). The start date for the new project will be determined by when the new project activity commences.

Proposed Language:

Initiating a new project in an area where a previous project was terminated
A new GHG project may be initiated in the same area as a previously terminated GHG project as long as the termination was the result of an unintentional reversal and any reversal of GHG reductions from the former project have been completely compensated for through the Reserve's buffer pool or alternatively through a third-party insurance mechanism (see Section 7). The start date for the new project will be determined by when the new project activity commences. A project that suffers an unintentional reversal and chooses to terminate must have a carbon stock level of at least equal to the immediate post-reversal levels before a new carbon project may occur.

Justification:

A clarification should be made in this section that only projects which have suffered from an unintentional reversal may be terminated.

Furthermore, if an unintentional reversal such as a fire reduces carbon stock below the original baseline which allows a carbon project to be terminated, language should be in place that prevents the reduction of remaining on-site carbon followed by the initiation of a new project with a starting point lower than the immediate post-reversal level. This is to specifically address salvage logging that may significantly reduce carbon stocks from immediate the post-reversal level and could be left unaccounted for.

Section 3.3 – Project Implementation Agreement, Page 4

Current Language:

To be eligible, each project is required to enter into a Project Implementation Agreement with the California Registry. The Project Implementation Agreement is an agreement between the Reserve and a landowner setting forth: (i) the landowner's obligation (and the obligation of its successors and assigns) to comply with the forest project protocol established by the Reserve for a term of 100 years, and (ii) the rights and remedies of the Reserve in the event of any failure of landowner to comply with those obligations.

The agreement must be recorded and is binding on the successors and assigns of the landowner. The agreement must be recorded with the project in the county where the project

exists that identifies the contract. If a conservation easement is used in addition to the Project Implementation Agreement, the conservation easement must be recorded within a year of the project's listing as a demonstration that any limits to forest management defined in the conservation easement are intended to support the project activity. Otherwise the limits described in the conservation easement must be considered as a legal restriction in the baseline analysis.

Public lands are exempt from the need to record the agreement or provide recorded notice since the risks of land transfers to private parties is extremely low or is done in a very open and transparent process. In the specific case of an "Avoided Conversion" project type the protocol requires the use of a conservation easement or transfer to public ownership.

Comment:

The Project Implementation Agreement is missing from this protocol. Since one of the most important factors in determining willingness to enter into a carbon project is the required commitment by landowners, the PIA should be included in this protocol in the appendix and made available for public comment.

Section 5 - Defining a Forest Project's GHG Assessment Boundary, Page 9

Current Language:

Project-level reporting in this protocol addresses forest carbon stocks and biological CO2 emissions. The reporting of all other types of GHGs, as identified by the Kyoto Protocol.3 is optional for forest projects at this time.

The "primary" (intended) effect4 of forestry-based GHG projects will be either a net increase in forest carbon stocks due to increased removals of CO2 from the atmosphere (reforestation and forest management projects), or a net reduction in CO2 emissions from harvesting, clearing, or other disturbance of forest carbon stocks (forest management and avoided conversion projects). Forest projects may also have secondary (unintended) effects on GHG emissions, including CO2 emissions associated with site preparation, planting, and maintenance activities, as well as CO2 emissions from tree harvesting displaced by the project to other forest sites (often referred to as "leakage"). Table 5.1 provides a comprehensive list of all GHG source, sinks, and reservoirs that must be included in the GHG assessment boundary for forestry projects, grouped according to whether they are associated with primary or secondary effects.

Comment:

N2O from fertilizer used during site preparation for reforestation projects can be a significant source of GHG emissions. International protocols require it to be measured as a project emission if over a de minimis amount. For consistency among protocols and to maintain conservativeness of accounting, N2O emissions should be included in project accounting.

Section 6.2.1.1 - Private Forest Lands, Page 13

Current Language:

The baseline must reflect all applicable legal requirements:
Baseline stock changes must be modeled pursuant to all applicable laws, regulations, and permanent legally-binding commitments in effect at the project site at the time of project initiation. Within these legal constraints the management scenario must maximize timber values

as determined by growth and yield analysis. These legal constraints include:

Proposed Language:

The baseline must reflect all applicable legal requirements:
Baseline stock changes must be modeled pursuant to all applicable laws, regulations, and permanent legally-binding commitments in effect at the project site at the time of project initiation. ~~Within these legal constraints the management scenario must maximize timber values as determined by growth and yield analysis.~~ These legal constraints include:

Justification:

The language, “must maximize timber values” may conflict with common management practices in project assessment area outlined in section 3.1 - Additionality.

Section 6.2.1.1 - Private Forest Lands, Page 15

Current Language:

Additional constraints:
Additional constraints must be applied to baseline projections to foster conservative estimates. These additional baseline constraints are as follows:

1. *For projects whose initial project inventories exceed the applicable mean (as defined in Section 10) for standing live carbon within the assessment area: The modeled standing live carbon stocks cannot go below the higher of:*
    a. the applicable assessment area mean of standing live carbon stocks, or
    b. the lowest level allowed by regulatory, physical, or economic constraints.

2. *For projects whose initial project inventories are below the applicable mean: The modeled standing live carbon stocks cannot go below the higher of:*
    a. carbon in the current standing live stocks, or
    b. the lowest level allowed by regulatory, physical, or economic constraints.

    In addition, projects whose initial project inventories are below the applicable mean must document any changes in the project area’s inventory over the preceding 10 years. Initial baseline levels of standing live carbon stocks must be modeled as the higher of:
    a. the project area’s initial inventory of standing live carbon stocks, or
    b. 80% of the highest inventory levels documented for the preceding 10 year period.

Proposed Language:

Additional constraints:
Additional constraints must be applied to baseline projections to foster conservative estimates. These additional baseline constraints are as follows:

1. For projects whose initial project inventories exceed the applicable mean (as defined in Section 10) for standing live carbon within the assessment area: The modeled standing live carbon stocks cannot go below the higher of:
    a. the applicable assessment area mean of standing live carbon stocks, or
    b. the lowest level allowed by regulatory, physical, or economic constraints.

2. For projects whose initial project inventories are below the applicable mean: The modeled standing live carbon stocks cannot go below the higher of:

a. carbon in the current standing live stocks, or
b. the lowest level allowed by regulatory, physical, or economic constraints.

In addition, projects whose initial project inventories are below the applicable mean must document any changes in the project area's inventory over the preceding 10 years from a starting point no earlier than April, 2008. Initial baseline levels of standing live carbon stocks must be modeled as the higher of:

a. the project area's initial inventory of standing live carbon stocks, or
b. 80% of the highest inventory levels documented for the preceding 10 year period or since September, 2007 for projects within California, and April 2008 for projects outside California, whichever period is shorter.

Justification:

a) For projects which choose an historical start date, it is burdensome to ask for a review of 10 years from the start date. For instance, if a project chooses the oldest allowable start date of 2001, 1991 may be excessively far back for a project developer to provide documentation.

b) While it is necessary to require a retrospective review of forest inventory for a number of years prior to a project's start date in order to avoid gaming whereby a project will significantly deplete inventories resulting in significant emissions and then enter into a carbon contract immediately, the purpose of the protocol is to affect business as usual behavior through carbon market opportunities. A project which harvested within the rule of law in 1999 and currently has less than 80% of pre-harvest inventory should not be punished for those actions because a carbon market did not exist at that time and therefore its actions cannot be considered gaming, but rather business as usual. The opportunity afforded by the carbon market may then be capable of significantly altering this business as usual behavior and such projects should not be excluded.

Once again, an example may be a piece of land which was clear cut in 1999 and has since been acquired by a conservation group. The group's project activity could be to clear out invasive species and regenerate the original forest cover to achieve net GHG reductions from the baseline. This particular type of project would be severely punished under this rule.

June 2007 was is proposed due to the fact it was the publish date of CCAR Forest Protocol Version 2.1 which covered only California and April 2008 for lands outside California because it is the anticipated approval date for Version 3.0 which covers lands outside California. Alternative date proposals which can be justified are welcome.

Section 6.2.1.1 - Private Forest Lands, Page 15

Current Language:

Additional constraints:
Additional constraints must be applied to baseline projections to foster conservative estimates. These additional baseline constraints are as follows:

1. *For projects whose initial project inventories exceed the applicable mean (as defined in Section 10) for standing live carbon within the assessment area: The modeled standing live carbon stocks cannot go below the higher of:*
    a. the applicable assessment area mean of standing live carbon stocks, or
    b. the lowest level allowed by regulatory, physical, or economic constraints.

2. *For projects whose initial project inventories are below the applicable mean: The modeled standing live carbon stocks cannot go below the higher of:*

a. carbon in the current standing live stocks, or
b. the lowest level allowed by regulatory, physical, or economic constraints.

In addition, projects whose initial project inventories are below the applicable mean must document any changes in the project area's inventory over the preceding 10 years. Initial baseline levels of standing live carbon stocks must be modeled as the higher of:
a. the project area's initial inventory of standing live carbon stocks, or
b. 80% of the highest inventory levels documented for the preceding 10 year period.

Proposed Language:

Additional constraints:
Additional constraints must be applied to baseline projections to foster conservative estimates. These additional baseline constraints are as follows:

1. For projects whose initial project inventories exceed the applicable mean (as defined in Section 10) for standing live carbon within the assessment area: The modeled standing live carbon stocks cannot go below the higher of:
    a. the applicable assessment area mean of standing live carbon stocks, or
    b. the lowest level allowed by regulatory, physical, or economic constraints.

2. For projects whose initial project inventories are below the applicable mean: The modeled standing live carbon stocks cannot go below the higher of:
    a. carbon in the current standing live stocks, or
    b. the lowest level allowed by regulatory, physical, or economic constraints.

    In addition, projects whose initial project inventories are below the applicable mean must document any changes in the project area's inventory over the preceding 10 years. Initial baseline levels of standing live carbon stocks must be modeled as the higher of:
    a. the project area's initial inventory of standing live carbon stocks, or
    b. 80% of the highest inventory levels documented for the preceding 10 year period.

3. All projects must provide evidence of activities similar to the proposed activities in the baseline within the past 15 years in the assessment area undertaken on the subject property or on properties with similar legal, physical and biological conditions. This supporting evidence shall be subject to a test of reasonableness by the verifier.

Justification:

In order to ensure the baseline model reflects real-world scenarios of what would likely happen, it is important to use real-world scenarios to base the modeling assumptions on. This helps ensure the emissions reduction are in fact additional in the traditional sense of the word used in the carbon markets. This means that the baseline model accurately must reflect what *would* have most likely happened absent the project to the greatest extent possible.

Section 6.2.2 – Secondary Effects – Quantifying Net Changes at Other Affected GHG Sources, Page 17

Current Language:

Creation of new non-regulatory No Harvest Zones -> Determine current inventory (CO2e) and multiply by 2% (assumed sustainable annual harvest). Enter this value each year for the life of the project. This is assumed to be the annual sustainable harvesting level that has been shifted elsewhere.

Proposed Language:

Creation of new non-regulatory No Harvest Zones -> Determine the forest growth each year after the project start date and multiply by 0.75 (assumed sustainable annual harvest). Enter this value each year for the life of the project. This is assumed to be the annual sustainable harvesting level that has been shifted elsewhere.

Justification:

Since different forests grow at different rates, it is inconsistent to use a pre-determined number of 2%. Using a leakage number which is tied to growth makes the application of leakage more equitable across a multitude of diverse forest types. Although timber supply is inelastic, it is not perfectly inelastic which means a decline of one unit from one site does not result in the increase in production of an equal unit in another; therefore a leakage factor of 75% is proposed.

Section 6.2.2 – Secondary Effects – Quantifying Net Changes at Other Affected GHG Sources, Page 17

Current Language:

The projected harvest age is older than the age of culmination of mean annual increment for biomass. -> Multiply 2% for each year beyond the culmination of mean annual increment. Multiply this value by the current inventory (CO2e). This is assumed to be the annual sustainable harvesting level that has been shifted elsewhere.

Proposed Language:

The projected harvest age is older than the age of culmination of mean annual increment for biomass. -> Determine the annual forest growth for each year beyond the culmination of mean annual increment and multiply by 0.75. This is assumed to be the annual sustainable harvesting level that has been shifted elsewhere.

Justification:

Since different forests grow at different rates, it is inconsistent to use a pre-determined number of 2%. Using a leakage number which is tied to growth makes the application of leakage more equitable across a multitude of diverse forest types. Although timber supply is inelastic, it is not perfectly inelastic which means a decline of one unit from one site does not result in the increase in production of an equal unit in another; therefore a leakage factor of 75% is proposed.

Section 6.2.2 – Secondary Effects – Quantifying Net Changes at Other Affected GHG Sources, Page 17

Leakage Comment:

Because leakage is highly specific, a single default number or calculation can be no better than an arbitrary estimate. Regardless of which leakage factor is chosen, there will be numerous exceptions to the default assumption. Therefore, project proponents with the means to do so in a well-supported manner should be allowed to propose quantitative, science-based support for an alternative leakage assumption. Through doing so, it will not only improve the accuracy of project calculations, but will also provide CCAR with several case studies regarding how to handle leakage which will aid in future protocol updates to continue improving the accuracy and applicability of default assumptions.

Section 7.3 – Risk Assessment for Reversals, Page 28

Current Language:

A risk assessment must be used to determine the quantity of CRTs issued to a project that must be set aside in a buffer pool, as described in Appendix C. Each year a project is issued CRTs, a risk rating is calculated and a corresponding percentage of CRTs is placed in the buffer pool. For example, a project has a verified increase in its carbon stocks relative to baseline levels equivalent to 10 tons of CO2. The project's risk assessment yields a 10% risk for reversals. Thus, 9 CRTs are issued to the project owner's account and 1 CRT must be deposited in the Reserve's buffer pool.

Proposed Language:

A risk assessment must be used to determine the quantity of CRTs issued to a project that must be set aside in a buffer pool, as described in Appendix C. Each year a project is issued CRTs, a risk rating is calculated and a corresponding percentage of CRTs is placed in the buffer pool. For example, a project has a verified increase in its carbon stocks relative to baseline levels equivalent to 10 tons of CO2. The project's risk assessment yields a 10% risk for reversals. Thus, 9 CRTs are issued to the project owner's account and 1 CRT must be deposited in the Reserve's buffer pool. All projects will be subject to a minimum risk assessment of 10% regardless of the calculated risk assessment.

Justification:

The insurance pool mechanism is the most important part of this protocol. In order to err on the side of caution and guard against potential shortfalls, projects should be subject to a minimum requirement of entering 10% of CRTs into the insurance buffer pool. It is critical to the credibility of forestry in the marketplace to never have a negative balance in the insurance pool; therefore, CCAR should choose a conservative approach in order to maintain a robust reserve.

Section 10 – Glossary of Terms, Page 32

Current Language:

Avoided Conversion	Specific actions that prevent the conversion of native forest to a non-forest use, i.e. residential or commercial development or agriculture. This activity is also a type of project that may be registered in the Reserve.

Proposed Language:

Avoided Conversion	Specific actions that prevent the conversion of native forest to a non-forest or sub-optimal forest use, i.e. residential or commercial development or agriculture. This activity is also a type of project that may be registered in the Reserve.

Justification:

Non-forest use would require a reduction of canopy cover to below 10%. Forest conversion may occur where a forest is converted and the canopy may still be greater than 10%. One example

may be an area surrounding home-sites in a development project where older trees are left standing while all under-brush and young trees are removed.

Another example of a sub-optimal forest situation would be where common practice is to harvest and leave the land to regenerate into forest compositions with less stocking potential the original forest type. This is a concern especially when invasive species crowd out species necessary to regenerate the forest to its original composition.

Section 10 – Glossary of Terms, Page 34

Current Language:

Improved forest management	Changes in forest management to increase or maintain overall forest carbon stocks. This activity is also a type of forest project that may be registered in the Reserve.

Proposed Language:

Improved forest management	Changes in forest management to increase or maintain overall forest carbon stocks. This activity is also a type of forest project that may be registered in the Reserve. No-harvest Management Practices are included in this definition.

Justification:

A clarification is necessary to ensure it is understood that not harvesting is an acceptable management strategy that can result in net GHG reduction reductions compared to the baseline.

General Comments:

Insurance Pool:

The single most important factor of this protocol is the proposed risk buffer pool. It is critical to market confidence and ease of trade of resulting CRTs. To expect markets to handle the risk of accidental reversals contractually places an unreasonable risk in the market and would ultimately result in severe price discounting of forestry offsets. For no reason should CCAR remove this mechanism through the public comment period unless another equally credible insurance mechanism is proposed.

Sale of Credits:

Using a modeled approach results in fluctuations in carbon sequestration/emissions relative to the baseline. For instance, a project that has reductions on the order of 10,000 tons a year for 20 years (200 thousand tons of reductions) may have emissions in later years resulting in only a net benefit of 150,000 tons. How will CCAR manage the sale of credits to ensure projects do not over-sell?

Project Monitoring:

The costs of monitoring and reporting over a 100 year period, though necessary, can be excessive. Therefore, CCAR should take care to balance rigor with reasonableness when taking into account what requirements projects will have to meet.

Many projects may only produce CRTs for a period less than 100 years. After a project ceases to accumulate CRTs, or a project developer chooses to no longer submit a project for CRTs because it is no longer cost effective to do so because costs exceed their market value, it should be allowed to submit evidence it has maintained stocking levels at which it ended accumulation of CRTs. This can be done through remote imagery such as satellite or aerial photos and a landowner affidavit, which can be done at a minimal cost. In order to spot-check reliability of such reporting, projects electing to do so should be allowed to contribute a one-time contribution to an endowment to fund CCAR officials to randomly select participants to ensure compliance for the remainder of project commitments.

Non-Forest Related Emissions:

For small landowners and non-industrial timberland owners, recording and reporting non-forest related emissions such as vehicle emissions is a time consuming an expensive process. It adds to verification costs and rarely amounts to a significant number of tons. The data required to verify these emissions is burdensome and beyond reason. Therefore, it is suggested that if non-forest related emissions can be reasonably estimated to be less than 100 tonnes or less than one percent of annual carbon reductions (whichever is smaller) then these emissions should be considered de minimis.

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