



CLIMATE
ACTION
RESERVE

Proposed Strategy to Revise the Forest Project Protocol Response to White Papers

In April 2010, the Climate Action Reserve (Reserve) issued a request for proposals to develop white papers for the following topics related to forest carbon accounting:

- Lying dead wood
- Forest certification programs
- Soil carbon
- Even-aged management

These papers have been completed and are posted on the Reserve's website. The Reserve has held two public meetings to present the papers and provide a forum for public comment. At each of the meetings, the Reserve introduced the process and the papers were presented by the authors. The first meeting was held at Duke University in Raleigh, North Carolina on March 7, 2011. The second meeting was held at the CalEPA building in Sacramento, California on March 10, 2011. Approximately 20-30 people attended both meetings in person and a similar number participated via webinar.

Public comments related to the white papers were accepted until March 18, 2011. Fourteen sets of substantive comments were received (see Appendix A, below, for a list of commenters). The Reserve has provided written responses to the compiled comments which were published on the Reserve's website on June 20, 2011.

In reviewing the white papers responding to the public comments, the Reserve has identified a number of significant findings that may have implications for the further development and refinement of the Forest Project Protocol (FPP). The findings are summarized below. Based on these findings and public comments received, Reserve staff is proposing to take steps to modify the FPP accordingly. Specifically we propose to:

1. Make specific modifications to the FPP related to requirements for quantifying and retaining lying dead wood. Under this proposal, carbon in lying dead wood would not be included in the quantification of a project's net GHG reductions and removals, but lying dead wood would be subject to regionally specific retention requirements. **These changes would be incorporated in the next version of the FPP (Version 3.3), to be completed within three to six months.**
2. Make specific modifications to the FPP related to requirements for demonstrating sustainable forest management. Under this proposal, the FPP would continue to allow certification under any of the originally identified sustainable forestry certification programs for the purpose of demonstrating sustainable harvesting practices. However, other methods currently allowed in the FPP for this purpose would be modified or eliminated. **These changes would be incorporated in the next version of the FPP (Version 3.3), to be completed within three to six months.**
3. Initiate research and analysis that will lead to the incorporation of standardized methods to account for changes in soil carbon associated with forest projects. The objective is to

develop standardized sampling methodologies and look-up tables that will allow cost-effective and accurate estimates of soil carbon changes by management practice and soil type/eco-region. **These proposed new methods would be developed over the next six to nine months, submitted for public comment, and incorporated in a future version of the protocol (Version 3.4 or potentially 4.0).**

4. Initiate a process to refine the FPP's natural forest management criteria to address concerns related to even-aged management. Specifically, the Reserve will propose the establishment of minimum post-harvest retention requirements tailored to specific geographic regions and forest types. Details of these requirements will be established through additional research and engagement with stakeholders. **The process to develop these requirements is expected to take nine to twelve months, and the requirements will be incorporated in the next full version of the protocol (Version 4.0).**

The findings of the white papers and proposed next steps are summarized further below.

Report of Significant Findings and Implications for the Forest Project Protocol

Lying Dead Wood (LDW)

Current Provisions in FPP

- LDW is recognized as having an important role for ecosystems
 - Recruitment and retention standards are a component of natural forest management
 - LDW is indirectly measured through standing dead wood and ocular estimates
- LDW is an optional carbon pool for accounting and can provide creditable offsets

Major Findings from White Paper

- The paper confirmed the ecosystem value of LDW
- The presence and duration of LDW varies by forest community
 - Natural flux in the amount of LDW occurs due to disturbance events
- Measurement of LDW is expensive and provides low accuracy

Proposed Response Based on Findings and Public Comments

The white paper and public comments highlighted the importance of lying dead wood in terms of the role it plays in forest ecosystems. The Reserve feels that it is, therefore, important to maintain retention requirements for LDW. However, the current LDW requirements are too broad to reflect differences in characteristics across different ecosystems and forest types. Furthermore, although accurate measurement of LDW can be difficult and costly, the current measurement requirements are in need of refinement. Finally, notwithstanding any refinements in measurement techniques, the Reserve believes that LDW measurements are likely to be too uncertain to use as a basis for crediting GHG reductions. In light of these findings, the Reserve is proposing to:

1. Establish minimum post-harvest retention standards for LDW specific to each Assessment Area in the United States.

2. Improve and provide more specificity around how LDW should be measured to meet these standards.
3. Disallow the use of LDW as a creditable carbon pool.

Forest Certification

Current Provisions in FPP

- Forest owners must demonstrate sustainable timber management on all landholdings in the same assessment area(s) as the project.
- Forest certification (under the Forest Stewardship Council, Sustainable Forestry Initiative, or American Tree Farm System programs) is one of three available options that meet this demonstration.
- Notwithstanding the broad scope of these certification programs (e.g., covering ecological function and services in addition to sustainable harvest levels), the FPP's sustainable harvesting requirement was not intended to assess natural forest management. Rather, the demonstration of sustainable harvesting is intended to prevent activity-shifting leakage within a forest owner's landholdings.
- Other options to meet the demonstration include long-term, state-sanctioned management plans (with adequate monitoring) and selection harvesting.

Major Findings from White Paper

- The various certification programs identified in the FPP (FSC, SFI, ATFS) provide adequate assurances for the testing of activity-shifting leakage.
- Certification may actually be superior to the other two options for demonstrating sustainable harvesting, although some states provide comparable requirements and oversight for forest management plans (e.g., California, Maine, Wisconsin).
- Selection harvesting method is the weakest tool for assessing activity-shifting leakage.

Proposed Response Based on Findings and Public Comments

It is important to note that the FPP's requirement to demonstrate sustainable forest management was intended as a mechanism to control for activity-shifting leakage within a landowner's own landholdings. The demonstration of sustainable harvesting practices serves as an indicator that the landowner has not simply shifted harvesting from the project area to other properties. The purpose of this requirement is, therefore, much more limited than the scope of certification under established forestry certification programs such as FSC, SFI or ATFS. Specific requirements related to natural forest management are contained in a separate subsection of the FPP. As a result, the Reserve sees no significant difference between the various certification programs for the limited purpose of controlling activity-shifting leakage identified in the FPP. However, the Reserve agrees that the FPP's other options for demonstrating sustainable harvesting may not be as rigorous as forest certification. The Reserve, therefore, proposes to:

1. Continue to allow SFI, FSC or ATFS to demonstrate sustainable management outside of a project area.
2. Disallow selection harvesting method as a tool for assessing activity-shifting leakage.
3. Modify language to limit the use of state agency-reviewed management plans to certain jurisdictions.

Soil Carbon

Current Provisions in FPP

- Accounting for changes in soil carbon is optional, except for instances where site preparation activities exceed a disturbance threshold.
- No methodology is provided to account for gains in soil carbon in cases where a forest owner wishes to receive credit for such gains.
 - Recent project activities suggest the need for further guidance.

Major Findings from White Paper

- Soil carbon emissions associated with various kinds of forest management activities can be large.
- There is a need to more specifically identify and account for management activities that could result in significant changes in soil carbon.

Proposed Response Based on Findings and Public Comments

The white paper on soil carbon correctly identified instances where significant soil carbon emissions can result from different forest management activities. One point that may need emphasizing, however, is that in the context of the FPP we are concerned only with the *change* in emissions caused by a project relative to its baseline. The actual change in emissions caused by a project will often be negligible – or even negative – if the baseline would have involved similar management practices (e.g., the same types of harvesting but on more frequent intervals). Nevertheless, the Reserve agrees that there may be a need to more specifically identify circumstances where accounting for changes in soil carbon is warranted to ensure accurate crediting. The Reserve also realizes that more specific requirements and guidance are necessary on how to conduct soil carbon accounting. Therefore, we propose to:

1. Develop more specific guidance for when soil carbon accounting is necessary, linked to specific site preparation and/or other forest management activities.
2. Engage with soil scientists to develop standardized methods to account for changes in soil carbon emissions associated with management activities, e.g., taking into account the amount of time required to restore soil carbon after a disturbance.
3. Develop a standardized sampling methodology to support quantification and crediting of changes in soil carbon.

Even-Aged Management

Current Provisions in FPP

- Harvest openings are limited to 40 acres.
- No more than 40 percent of stands can be in age classes less than 20 years old.
- There is a requirement to maintain/increase standing live trees.
- Combined, these restrictions imply a 50-year minimum rotation.
- Forest owners must maintain native species diversity.

Major Findings from White Paper

- Natural disturbances are important for creating a diversity of habitat and forest regeneration.
- Natural disturbances are messy – live trees and dead trees remain following a disturbance.
- Natural disturbances can be erratic in terms of their spatial and temporal effects.
- Effects of natural disturbances vary by forest community.

Proposed Response Based on Findings and Public Comments

Based on the white paper findings and public comments received, the Reserve believes that the FPP's natural forest management requirements could be refined so that allowable harvesting practices more closely resemble natural disturbances in their ecological impact. The Reserve is, therefore, proposing to undertake a process to develop such refinements, which may include:

- The creation of minimum retention standards and verification criteria tailored to each assessment area in the United States.
- Reconsidering the 40-acre limitation in light of retention requirements.
- Maintaining existing requirements for 50-year rotations (where retention is at lower level) and preserving native species diversity requirements.

Appendix A Additional Information

Authors

Accounting for Carbon in Soils

*Prepared by
Alexander Gershenson, Ph.D.; James Barsimantov, Ph.D.; and EcoShift
Consulting, LLC*

Carbon Accounting and Management of Lying Dead Wood

*Prepared by
Alexander M. Evans and Mark J. Duce, Forest Guild*

Examining Carbon Accounting and Sustainable Forestry Certification

*Prepared by
Carbon Advisory Group*

Carbon Dynamics Associated with Even-Aged Forest Management

*Prepared by
Bryan C. Foster, Pd.D.; Timothy A. Robards, Ph.D.; and William S. Keeton, Ph.D.*

Public Comments

Public comments were received from the following entities:

*Blue Source LLC
Catherine Koehler, UC Davis
Center for Biological Diversity
Central Coast Forest Watch
Deanna Wulff, Journalist
Ebbett's Pass Forest Watch
Forest Stewardship Council*

*Karen Maki
Kim Mattson, Ecosystems Northwest
L&C Carbon
Pacific Forest Trust
Rainforest Action Network
Sustainable Forestry Initiative
Weyerhaeuser Company*