

Thursday, June 4, 2015

Chairman Mary Nichols and ARB Staff
Air Resources Board, California Environmental Protection Agency
1001 I Street
Sacramento, CA 95812

RE: Comments on Proposed Revisions to the Compliance Offset Protocol for U.S. Forest Projects

Dear Members of the Board:

Finite Carbon is an active participant in the California compliance offset market and is currently developing 19 improved forest management projects for the program.

We have chosen to join two letters supported by 20 organizations to request that the Air Resources Board remove from consideration three critical items from the proposed revision to the protocol and form a technical working group to review them further:

- 1. Modified Even-aged Management requirements – Chapter 3.1(a)(4)(A-E)**
- 2. Modified Minimum Baseline Level determination process for IFM projects with initial stocking above common practice – Chapter 5.2.1**
- 3. Modified Common Practice figures and the associated shift in “high” vs “low” site class delineation - Assessment Area Data File associated with the Regulatory Review Update of the Forest Protocol and Appendix F(d)**

However, given the current process underway, we have provided several comments on these issues and our recommendations for alternative language which I have included below.

We thank you for your consideration and would be happy to answer any questions you may have.

Sincerely,



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1. Modified Even-aged Management and Harvest Buffer Requirements – Chapter 3.1(a)(4)(A-E)

New proposed language guiding even-aged management does not adequately consider the environmental impact of the proposed rules on forestland outside of California. While the intention was to align requirements for even-aged management with those of the California Forest Practice Rules, environmentally sound forest management is not a one-size-fits-all proposition.

It has been explained to Finite Carbon that the intention of the proposed language is to improve the environmental credibility of the program. However, we believe the Air Resources Board has not adequately considered how this language may provide a financial incentive to harm biodiversity outside the State of California.

Rules concerning forest practices are not like vehicle emissions standards where California is setting a high bar for others to follow. Although the even-aged management language may be the most environmentally beneficial way to manage forests within California, it can have negative impacts if practiced outside of the state. We have identified several ways in which managing a forest under the proposed language can harm biodiversity if practiced at scale outside of California where 17 of our 19 projects on approximately 800,000 acres are located.

To be clear, we are not challenging language from the existing protocol which prohibits clear cuts larger than 40 acres. We are specifically addressing the current language which limits the extent of the practices of seed tree and shelter wood management which are sanctioned under widely respected certification programs such as Forest Stewardship Council (FSC).

Management situations where the proposed management restrictions may harm biodiversity:

- 40 acre or less regeneration cuts that are in areas of high undulate populations frequently fail due to over browsing. This includes most states east of the Mississippi, especially areas in New England, the lakes states, and Appalachia. Small unit harvests allow a relatively small local population to eradicate regenerating trees while larger regeneration harvests of more than 40 acres provide adequate food for local undulate populations and significantly increase the odds of tree survival. Limited regeneration cuts can lead to high browsing pressure on particular species and artificially alter the structure of forests. In several studies in the lake states, hemlock, white cedar, red oak, and yellow birch were found to be especially susceptible to this issue.
- 40 acre regeneration cuts with 50 square feet of basal area retention may artificially alter future species composition in a stand due to shade and competition. A cut with high basal area retention in Allegheny hardwoods may come back to birch, beech, and striped maple instead of cherry and red maple due to shade and browse combined.

- Stands with a high density of a single species like beech can be far more prone to being decimated by disease than a diversified stand. This is not good for biodiversity or climate change. Furthermore, climate change can exacerbate the spread of disease – a climate change mitigation effort by California should not be allowed to contribute to the same issue.
- Many species need larger areas of early successional habitat and may be discriminated against due to the small and fragmented nature of the cut size and buffer requirement. Canada Lynx, neotropical songbirds, Moose, and other species would all be impacted by limiting regeneration size. Carbon projects can cover significant areas of a single species' habitat and rules developed by California can have landscape scale impacts. Carbon projects developed for California already cover more than 4% of New Hampshire, one of only 6 states Eastern Moose inhabit.

We assert the proposed even-aged management practices criteria are only applied to even-aged regeneration harvests without retention or reserves, i.e. pure silvicultural clear cuts that remove an entire stand at one time. Even-aged regeneration harvests with retention or reserves shall have to demonstrate sustainable and natural forest management and adequate retention appropriate for the project's location through forest certification, BMPs or silvicultural guidelines published by the state where the project is located, or a written forest management plan (or statement) that is approved by the agency in charge of forestry in the state the project is located.

Revised language:

(4) If the project employs even-aged management regeneration harvests without retention or reserves within the project area, which at the time of harvest entirely removes the pre-harvest existing stand, it must meet the following harvest unit size and buffer area requirements:

(A) Even-aged regeneration harvest units without retention or reserves must not exceed 40 acres in total area;

(B) Within ownership boundaries, even-aged regeneration harvest units without retention or reserves shall be separated by an area that is at least as large as the area being harvested or 20 acres, whichever is less, and shall be separated by at least 100 ft. in all directions; and

(C) Within ownership boundaries, no area contiguous to an even-aged regeneration harvest unit without retention or reserves may be harvested using an even-aged harvest method without retention or reserves unless the average of the dominant and co-dominant trees on an acceptably stocked prior even-aged harvest unit without retention or reserves is at least five feet tall, or at least five years of age from the time of establishment on the site, either by the planting or by natural regeneration;

(D) An area on which even-aged regeneration harvests without retention or reserves have taken place shall be classified as acceptably stocked if either of the standards set forth in (1) or (2) below are met:

- 1. An area contains an average point count of 150 per acre that meets the requirements of subchapter 8.1(b)(2)(E) to be computed as follows:
 - a. Each countable tree which is not more than 4 inches DBH counts 1 point;**
 - b. Each countable tree over 4 inches and not more than 12 inches DBH counts 3 points; and**
 - c. Each countable tree over 12 inches DBH counts as 6 points.****
- 2. The average residual basal area measured in stems 1 inch or larger in diameter is at least 50 square feet per acre; and**

(E) Cuts on harvest units that occurred prior to the project commencement date are exempt from subchapters 3.1(a)(4)(A) and 3.1(a)(4)(B) provided that no new harvests occur in the previously cut harvest unit or would-be buffer area until the harvest unit cut prior to project commencement meets the requirements of subchapter 3.1(a)(4)(A) and 3.1(a)(4)(B); and

(F) For even-aged regeneration harvests with retention or reserves, the OPO/APD must demonstrate that the level of retention or reserves does not violate any local, state or federal laws and regulations and is consistent with sustainable and natural forest management principles using one of the following options:

- 1. The project area is enrolled in third-party certification under the Forest Stewardship Council, Sustainable Forestry Initiative, or Tree Farm System, whose certification standards require adherence to and verification of harvest methods and retention levels appropriate by region which take age class and habitat objectives, among others, into careful consideration; or**
- 2. The retention levels adhere to Best Management Practices and Guidelines published by the government agency in charge of forestry regulation in the state where the project is located; or**
- 3. The retention follows a written forest management plan (or statement) that is approved by the government agency in charge of forestry regulation in the state where the project is located.**

2. Minimum Baseline Level Requirements - Equation 5.5 and 5.6

The minimum baseline level equations are not scientifically justified and will have the consequence of ignoring one of the most efficient and effective methods for reducing GHG emissions, i.e. maintaining high-stocked mature forests. The protocol already has mechanisms in place to prevent issuing offsets to highly stocked mature forests that exist because of weak or absent timber markets, i.e. baselines must incorporate all legal constraints and financial considerations - 5.2.1(e)(1) & (2). In the same respect, forests that were heavily harvested immediately before considering participation will not be feasible as an offset project because of how the baseline is set, and the high stocking reference analysis.

We assert that Equations 5.5 and 5.6 (Minimum Baseline Level) can be written as:

Equation 5.5 should be $MBL = CP$

Equation 5.6 should be $MBL = MAX(HSR, ICS)$.

This eliminates the confusion and increased verification and review costs associated with defining LMUs and WCS without compromising additionality upheld by the protocols method for modeling the baseline (i.e. incorporating all legal constraints and financial considerations - 5.2.1(e)(1) & (2)).

3. Less-intensive Verification Rotation Requirements - Chapter 8 (e) & (f)

If all verification bodies hold the same accreditation by ARB and have received the same training, it is unnecessary to require that a less intense verification be conducted only by the verification body that did the last full verification.

We assert that any verification body should be able to conduct less intense verifications, regardless if they did the full verification, so long as they are ARB accredited.

4. Carbon Conversion Factor - Appendix A (f) (3)

The conversion factor of 3.667 was switched to 3.664 in the November 2014 protocol. Why is ARB proposing to revert to 3.667?

5. Stand Table Projection Method

In the November 2014 protocol, this particular language and guidance refers to using a stand table projection method. The proposed language reads as though it could be applied to one of the approved growth and yield models.

We assert that language should be added back in to clarify that Appendix B (e) refers to stand table projection methods and not to the approved growth and yield models.