Blue Source™
A Leading Climate Change Portfolio

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

December 11, 2014

RE: Comments on Proposed Revisions to Compliance Offset Protocol for U.S. Forest Projects and Cap and Trade Regulation

Dear Chairman Nichols:

Blue Source, LLC ("Blue Source") appreciates the opportunity to provide comments on the California Air Resources Board's ("ARB's") proposed Regulatory Review Update to the Compliance Offset Protocol for U.S. Forest Projects ("Protocol") and Regulation under AB32 that was proposed on October 28, 2014 ("Regulatory Review Update"). The thorough and objective comment review process the Board has undertaken during previous comment periods is indicative of the high standard the ARB sets as the flagship air management body in the nation, and we would like to thank the Board in advance for the time and effort it will invest in considering this new body of stakeholder comments.

Blue Source has been a carbon market leader for the past 14 years. We have been an early and active developer of forest carbon projects within the California program, having registered 44% of the total forest carbon credits in the ARB program to date.

Comments

Blue Source broadly supports ARB's proposed Regulatory Review Updates with three important exceptions:

1) New basal area retention standards and associated buffer areas,
2) Modified method for establishing minimum baseline level (MBL) for IFM projects with initial carbon stocking (ICS) above Common Practice (CP), and
3) Common Practice values updates.

In addition, there are three important suggested improvements to the Protocol and Regulation that ARB has not addressed in the current proposed Regulatory Review Update, but which would significantly improve the program's workability and landowner participation, while fully maintaining the integrity and permanence of all credited emissions reductions. These include:

(1) Definition of Forest Owner
(2) Compliance with Laws requirement and
(3) Definition of Project Life

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For your consideration, the following sections of this letter include a brief description of these six top priority issues and propose solutions for each. A table, found at the end of the document, summarizes these top points of concern and addresses a number of other improvements that we believe the Board should consider in the context of this protocol update.

Sincerely,

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President, Blue Source, LLC

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Key Issues of Concern Raised in the Proposed Changes to the Protocol in the Regulatory Review Update:

1. **The new harvest unit requirements for minimum basal area and modified buffer rules (Protocol section 3.1(4)(A-C)).**

   The new 50 square foot minimum basal area (BA) retention limit is incongruous with accepted silvicultural practices in many areas of the country. For example, hardwood forests throughout the east and the lake states often utilize management techniques reliant on harvests below 50 sq. ft. BA/acre to adequately promote regeneration. In these systems, it is necessary to remove a significant portion of the overstory to establish a robust new cohort of trees and encourage optimal forest structure. Restricting this type of management could also have negative effects on wildlife as the multi-tiered forest ecosystems they foster provide valuable early successional habitat and generally promote greater biodiversity.

   It is clear that the 50 square foot minimum BA retention limit has been based on California Forest Practice Rules, but California BA standards are not an appropriate metric by which to assess forests in other regions of the nation. California forests have BA levels that exceed most areas of the country (4 of the 5 highest BA assessment areas are in California) and while several California forests support BA levels over 150 sq. ft./acre, 27 assessment areas across the country have average BA levels at or below 50 sq. ft./acre.

   To help illustrate the problem with applying the proposed blanket standard, consider the following scenario: a harvest occurring in a California redwood or douglas-fir stand could cut all but 1-2 large trees per acre and remain over 50 sq. ft./acre, while the harvest of a single tree per acre in the 27 assessment areas that are already at or below 50 sq. ft./acre would immediately trigger the buffer restriction and could potentially lead to non-compliance with the Protocol.

   The new buffer requirements are also problematic as they will unnecessarily constrain a forest owners' ability to maintain economically productive forests while participating in the ARB program. Under the new buffer system, a 40 acre area harvested to a BA below 50 sq. ft./acre would require a buffer nearly nine times the size of the harvest (i.e. >350 acres). These excessive buffer requirements go far beyond buffer prescriptions recommended by forest certification schemes (e.g. FSC, SFI, etc.) and state BMPs.

   <u>Proposed Solution:</u>

   The previous Protocol language concerning the "Balancing of Age and Habitat Classes" (section 3.8.4 of the current Protocol) should be maintained and incorporated into the revised Protocol in place of section 3.1(4)(A-C). The existing language prohibiting even-aged harvesting on areas greater than 40 acres and prohibiting near-term harvesting in adjacent stands should sufficiently meet the Board's goals of addressing the environmental and visual

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impacts of clear cutting and encouraging forest management that results in healthy forests. Additionally, the "sustainable long-term harvest practices" (certification, renewable long-term management plan, etc.) mandate should provide even more evidence that sufficient measures against profligate harvest practices are in place without the need for the excessive new BA retention and buffer requirements.

2. **The modified method for establishing minimum baseline level (MBL) for IFM projects with initial carbon stocking (ICS) above Common Practice (CP) (Protocol section 5.2.1(d)(1)).**

   The new method for determining minimum baseline level (MBL) for IFM projects with initial carbon stocking (ICS) above common practice (CP) will run counter to the program's climate goals. If a landowner is forced to use an MBL above CP, due to lower stocking levels on other holdings in the same assessment area, a carbon project may not be feasible. This approach disincentivizes landowners from establishing forest projects on their most highly stocked (and likely to be harvested) acres and thereby forgoes the meaningful climate benefits that would have been associated with preventing aggressive harvesting on these acres for the next 100+ years.

   In addition, this rule change will be impractical for implementation and extremely difficult to verify. At the center of the problem is the concept of the logical management unit (LMU), which defines the bounds of the geographic region over which a landowner must consider stocking levels on their other holdings outside the Project Area. Unfortunately, the method prescribed for determining the LMU requires extensive additional data collection on the part of the landowner (which will often be cost prohibitive) and necessitates a surfeit of subjective judgments. Once the LMU is established, the process of verifying the bounds, stocking, and management on the LMU will cause the cost and time involved in project verification to balloon, and may make verification practically impossible. Indeed, in cases where the LMU extends over an acreage many times the scale of the project area itself, the cost and difficulty of verification will likely compel landowners to abandon any consideration of participating in the program.

   <u>Proposed Solution:</u>

   The previous Protocol's method of establishing MBL for IFM projects with ICS above CP (equation 6.5 of the current Protocol) should be maintained and incorporated into the revised Protocol in place of equation 5.5. As both the existing and proposed protocols already require "sustainable long-term harvest practices" (certification, renewable long-term management plan, etc.) be maintained on all land holdings controlled by a Forest Owner, concern over potential for ecologically irresponsible management outside a project's bounds should be adequately addressed without the introduction of further regulatory hurdles and complexity.

3. **The Common Practice (CP) values update for private IFM projects (the updated Assessment Area Data File).**

   The proposed new CP values do not accurately reflect forest stocking resultant from truly "common practice" forest management, as the values do not take into account cyclical components of the timber market which contribute to spikes and troughs in wood product demand and forest stocks. The new CP values are based exclusively on FIA data collected

over a very brief window of time (~2007-2012) largely in the midst and wake of the Great Recession, when housing starts, and the associated timber demand, were at historic lows. The effect of capturing CP values during this time period constitutes an unrepresentative collection of high stocking levels for assessment areas across the country.

Setting CP values based on forest stocking levels at isolated points in time will lead to less than optimal forest carbon sequestration and reduced climate benefit. This is because when baselines are set artificially high based on periodic market fluctuations, and demand for timber surges, there will be even less incentive for landowners to implement a carbon project and stocks will be harvested instead of locked in for 100+ years. Following such market conditions, many forest carbon projects would not be attractive to landowners again until general stocks had subsided and baseline values were sufficiently lowered to allow for project viability.

Proposed Solution:

In order to better represent truly "common" stocking resultant from business-as-usual forest practices, CP values should be based on average stocking levels over an extended time horizon. Stocking averaged over a time period of up to 25 years (i.e. the same length as a project crediting period) would account for timber market fluctuations and avoid disincentivizing projects during times when the motivation to harvest is highest.

Once the method for calculating CP values is agreed upon, a set process, including a timetable for the release, public review, and eventual implementation of proposed changes, should be adopted for the regular update of these values. This will avoid unpredictable shifts in baseline levels and market uncertainty.

Key Issues of Concern Not Currently Addressed in the Proposed Regulatory Review Update:

1. **Forest Owner Definition**.

The current definition, found in Section 95802(a)(109) of the Cap and Trade Regulation, is ambiguous and leads to differing interpretations by ARB, Project Proponents, and verifiers. For example, the current definition can arguably include multiple holders of easements over the property even if they have no control over the Project or reversals. The definition should be modified to ensure consistency in its application.

Proposed Solution

The definition of Forest Owner within the Protocol and the Regulations should be modified to include only those entities that have an interest in the real property and have current control over or management of the Project Area. If a new party takes over control of the Project in the future, they may be considered a Forest Owner at that time but not before. The OPO would also be the party liable for compliance with the Protocol and the Regulations, thereby releasing other potential Forest Owners from liability for reversal or non-compliance with the Protocol.

2. **Project Life**.

Chapter 3.5.1 of the Protocol requires that unless a new owner of any part of the Project agrees to take over the Forest Project responsibilities and commitments, the Project is terminated and offsets must be retired in an amount equal to or in excess of those issued. This unnecessary requirement restricts the ability of a landowner to sell any or all of the land included in a Project for at least 100 years, and is already limiting the number of projects that participate in the program.

Proposed Solution:

Forest Owners should be allowed to sell or otherwise transfer a portion of the Project Area from the Project, without obligating the new owner to the 100 year commitment (or what remains of it) provided that the OPO or APD undertakes an additional verification prior to the sale to (i) update the Project baseline (ii) confirm the amount of ARBOCs attributable to the portion of the Project Area being withdrawn and (iii) if the number of ARBOCs exceed a materiality threshold (5%), the OPO or APD would then be required to retire a sufficient number of ARBOCs to account for those attributable to the divested property.

3. **Compliance With Laws**.

Sections 95973(b) of the Cap and Trade Regulations specifies that compliance with environmental, health and safety laws and regulations is only relevant to the extent such laws and regulations directly apply to the offset project. Section 95985(c)(2) also specifies that ARB may invalidate offset credits for noncompliance with laws to the extent such noncompliance pertains to the offset project activity and implementation of the offset project. While these provisions are clear, the underlying definitions of "offset project" and "offset project boundary" are ambiguous and overly broad as they potentially apply to activities that are unrelated to a forest carbon project. It is also unclear what constitutes a violation, and it is extremely important to ensure that violations not related to the actual offset project activities will not be grounds for invalidation.

Additionally, Section 95973(b) states that offset credits from an entire reporting are not eligible for issuance if the offset project was out of compliance during the reporting period. For many offset project types with typical reporting periods spanning long periods of time, it seems inappropriate to penalize an entire reporting period (perhaps 1 year of offsets) for a violation that may have been incurred and rectified within a matter of days.

The ambiguity of the regulations as described above makes it extremely difficult for market participants to establish the probability and magnitude of risks related to compliance with laws requirements. If offsets are to continue to play a role in California's landmark AB32 Cap and Trade program, it is critical that more specificity and clear boundaries on offset project activities and timing of violations be provided.

Proposed Solution

The Protocol and the Regulations should be modified to clarify that the only activities in the Project Area designed to increase removals of CO_2 from the atmosphere or reduce or prevent emissions of CO_2 would give rise to an invalidation. Violations that occur on the Project Area related to, for example, harvesting activity and equipment, snowmobiling,

hiking, birding, migratory pathways, hunting, etc. would not give rise to an invalidation as they are not activities designed to increase removals of CO_2 emissions or prevent CO_2 emissions.

Further, the Protocol should clarify that only fully adjudicated violations that directly affect the number of credits issued from the Project would give rise to invalidation and that simple citations would not be a sufficient basis for invalidating credits issued.

Finally, clarification should be provided specifying that only credits arising during the period of the actual violation could be subject to invalidation rather than all credits arising during the entire Reporting Period. Forest carbon projects are particularly susceptible to this reality, as a majority of the credits from a Forest Project may be issued in the first Reporting Period and, in the instance of a violation occurring inside this initial reporting period, invalidating all of the credits for a one-day or one-time violation would be unreasonable.

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Table of Suggested Modifications to the Compliance Offset Protocol for U.S. Forest Projects

#	Reference	Issue	Resolution
1	Chapter 1.1: Definitions	The current public lands definition is too broad. AC and IFM baseline requirements for public lands fail to take into account wide variation in management options open to independent agencies or authorities (under increasing pressure to generate new revenue streams from forestland), and establish baselines in a way that makes additional and environmentally valuable projects infeasible.	Restrict definition of Public Lands such that independent agencies or authorities (that control budgetary decision-making and are authorized to set harvest levels or sell property, e.g. some water authorities) are categorized as private. This is justified because they face the same pressures and have the same management options as private owners. For any truly public agency, IFM baselines should be set based on common practice carbon stocks on other public forests in the assessment area based on FIA data (i.e. same approach taken for IFM projects).
2a	Chapter 2: Eligibility Activities	The current protocol has no methodology for adjusting project boundaries following the initial verification. Forest owners (particularly large ones) periodically have their property boundaries re-surveyed, and this often leads to minor shifts in boundary locations and total acreage.	Allow for updates to project boundaries.
2b	Chapter 2: Eligibility Activities	Many potential projects span more than 2 Supersections. The limitation to prohibiting a Project from crossing no more than 2 adjacent Supersections is an unfair barrier to entry and does not enhance the overall Program.	Allow a Project to cross multiple adjacent Supersections.
2c	Former Section 2.2: Forest Owners	The definition of Forest Owner needs clarity as it can lead to differing interpretations by Forest Owners, OPOs, ARB and verifiers.	Add language to the protocol clarifying that a forest owner is one with an interest in the real property within the project area and has current control over the Project
3	Chapter 2.3: Avoided Conversion	Currently, a retro-active Avoided Conversion project can only claim credits from the time a conservation easement is qualified, which may not be the commencement date, as commencement is signified by the establishment of any conservation easement that runs into perpetuity.	Change the language for Avoided Conversion eligibility/crediting period such that the projects can be credited from time of commencement.

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4	Table 3.1: Natural Forest Management	Standing dead requirement of 1 t C/acre or 1%, whichever is higher fails to reflect differences in forest types and age classes.	Eliminate "whichever is higher" to allow %-based approach reflecting forest differences.
4a	Chapter 3.1(4)(A-C): Harvest Intensity Restrictions	The new 50 square foot minimum basal area (BA) retention limit is incongruous with accepted and BMP silvicultural practices	Retain the current Protocol language concerning the "Balancing of Age and Habitat Classes" (section 3.8.4 of the current Protocol) in place of proposed Section 3.1(4)(A-C)
5	Chapter 3.5.1: Project Life and Minimum Time Commitment	The requirement that a new owner of any part of the Project must agree to take over the Forest Project responsibilities and commitments, unfairly restricts the ability of a landowner to sell any or all of the land included in a Project for at least 100 years, limiting the number of projects that participate in the program	1. Forest Owners should be allowed to sell or otherwise transfer a portion of the Project Area from the Project, without obligating the new owner to the 100 year commitment (or what remains of it) provided that the OPO or APD undertakes an additional verification prior to the sale to (i) update the Project baseline (ii) confirm the amount of ARBOCs attributable to the portion of the Project Area being withdrawn and (ii) if the number of ARBOCs exceed a materiality threshold (5%), the OPO or APD would then be required to retire a sufficient number of ARBOCs to account for those attributable to the divested property.
6	Chapter 3.8: Regulatory Compliance	The compliance with laws provisions depend on ambiguous, inconsistent and overly broad definitions of offset project activities and violations as they potentially apply to activities that are unrelated to the Forest Project. They are also unclear regarding what constitutes a violation. Finally, the provision to exclude all offsets from an entire reporting period as a result of a noncompliance event at an isolated time within such reporting period is unreasonable.	Modify requirement: 1. to be consistent and clear as to what specific activities are or are not part of the offset project activity, and that only violations of Forest Project activities designed to increase removals of CO2 from the atmosphere in the Forest Area as defined in Section 1.1 of the Protocol are eligible to give rise to invalidation 2. clarify that only fully adjudicated violations that directly affect the number of credits issued from the Project would give rise to invalidation and that simple citations would not be a sufficient basis for invalidating credits issued

			3. ensure that only credits from the period of the violation are invalidated and not from the Reporting Period as a whole
7	Chapter 5.1.1(d)(1); 5.2.1(h)(1); 5.2.2(e)(1); 5.3.1(d)(1) Baseline Errors	The modified language provides a mechanism for correcting mistakes in the baseline which have lead to over-crediting, but includes no provision for correcting mistakes in the baseline that have resulted in under-crediting.	Symmetrical language, allowing for the correction of baseline errors that would lead to increased project crediting, should be added to theses sections of the protocol.
8	Chapter 5.2.1(d)(1)) Establishing MBL for IFM Projects	The modified method for establishing minimum baseline level (MBL) for IFM projects with initial carbon stocking (ICS) above Common Practice (CP) contradicts the purpose of the program.	Retain the previous Protocol's method of establishing MBL for IFM projects with ICS above CP (equation 6.5 of the current Protocol) in place of equation 5.5
9	Assessment Area Data File	The proposed new CP values do not accurately reflect long-term (i.e. 100+ year) forest stock levels resulting from "common practice" forest management as it does not take into account cyclical components of the timber market which contribute to spikes and troughs in demand and forest stocks.	Base CP values on average stocking levels over a time period of up to 25 years.
10a	Appendix C: Estimating Carbon in Wood Products	Currently the specific gravities assigned to various species are inconsistent between the Wood Handbook, the Pacific Northwest table in the protocol, and the Component Ratio Method (CRM) excel file.	Reconcile the inconsistencies and include in an updated CRM file.
10b	Appendix C: Estimating Carbon in Wood Products	For wood products calculations, the protocol requires that the OPO report the quantity of wood that was harvested, by species, for every reporting period. This is problematic as pulp harvesting operations often combine multiple species into a single product category.	When harvesting involves pulp operations that combine multiple species into one product category, allow for the harvest volumes to be aggregated into hardwood or softwood cords with an average specific gravity used in the wood products calculations.
11a	Appendix D Determination of a Forest Project's Reversal Risk Rating:	Projects that have risks eliminated by legally binding conservation easements are unfairly penalized by default risk ratings, creating unnecessary barrier to entry. Note - The use of a non-qualified easement in reducing project reversal risk is supported by the obligation to model all constraints of a non-qualified easement into the project's baseline. If such restrictions are considered legally binding in the baseline, they should also be considered legally applicable to all risk categories that are reduced by the recordation of the easement.	If a project has a non-qualified easement that prohibits all harvesting activity, it should not be subject to a buffer contribution requirement for the risk of over-harvesting, as any harvesting at all would already be legally forbidden.
11b	Appendix D	See issue 11a.	If a project has a non-qualified easement that

	Determination of a Forest Project's Reversal Risk Rating:		prohibits conversion to non-forest uses, it should not be subject to a buffer contribution requirement for the risk of conversion to non-forest uses, as any conversion would be legally prohibited.
11c	Appendix D: Determination of a Forest Project's Reversal Risk Rating:	See issue 11a.	If a project has a non-qualified easement, it should not be subject to a buffer contribution requirement for financial risk.

The following are associated Regulation issues of high relevance that we hope can be also addressed as part of this Board review process:

#	Reference	Issue	Resolution
1	§95802. Definitions. (153)	See issue 2c above.	See resolution proposed for issue 2c above.
2	§95802. Definitions (334)	The requirement that first Reporting Period must cover at least span 6 months causes an unnecessary delay in credit and revenue generation that is often needed to pay back initial project expenses, creating a barrier to entry. This requirement does not enhance the overall program in any manner.	Eliminate this requirement.
3	§95802. Definitions (381)	The current Unintentional Reversal definition does not explicitly exempt salvage harvests activities from triggering intentional reversals. As salvage harvests occur in the wake of natural disasters (insect infestation, hurricane, etc.) and are intended to improve forest health, they should not be subjected to intentional reversal penalties.	The Unintentional Reversal definition should be modified to specify that salvage harvests activities will not constitute intentional reversal.
4	§ 95985(c)(2)	See issue 6 above.	See resolution proposed for issue 6 above.

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