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15 December 2014

California Air Resources Board
1001 I Street
P.O. Box 2815
Sacramento, CA 95812

Attention: ARB Board

Re: ESI's Comments on the Proposed Revisions to the Compliance Offset Protocol for U.S. Forest Projects

Dear ARB Board:

Environmental Services, Inc., (ESI) is a full-service environmental firm established in 1986 with the mission of providing superior solutions to environmental, natural and cultural resource needs. Since March of 2010, our Forestry, Carbon and Greenhouse Gas (GHG) Services Division has been accredited by the American National Standards Institute (ANSI) under ISO 14065:2007 for greenhouse gas validation and verification bodies. We have completed hundreds of forest carbon offset validation and/or verification projects under the following GHG Programs: Verified Carbon Standard, Climate Action Reserve, American Carbon Registry, ISO, and the California Air Resources Board (ARB). ESI was accredited by ARB on 05 December 2012. Since that time, we have provided verification services for over ten Early Action offset projects and four compliance projects, with an additional five IFM projects actively undergoing verification.

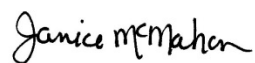
ESI is herein providing comments on ARB's proposed Regulatory Review Update to the Compliance Offset Protocol for U.S. Forest Projects (Protocol) that were proposed on 28 October 2014 (Regulatory Review Update). The new eligibility requirements found within Section 3.1(a)(4) and the definition (and related) of the Logical Management Unit (LMU) (Section 1.2(a)(28)) constitute our primary comments. We believe these key updates will negatively impact the number of new forestry projects to be listed and will result in additional verification difficulties and increased costs. Please find the detailed comments below. We also provide suggestions for improvements that we believe will help channel the momentum of the ARB program to continue to be effective in domestic Greenhouse Gas (GHG) Emission Reductions, as well as accurate, additional, complete, consistent, permanent, and transparent Forest Carbon Offset Projects.

We are grateful for the opportunity to provide feedback and thank you in advance for your time and consideration regarding these important matters. Should you have any questions or concerns, please do not hesitate to contact us.

Sincerely yours,

ENVIRONMENTAL SERVICES, INC.

ENVIRONMENTAL SERVICES, INC.



Janice McMahon
Vice President and Regional Technical Manager
Forestry, Carbon, and GHG Services



Jonathan Pomp
ARB Lead Verifier (H2-14-188)

Enclosure

ESI's Comments on ARB's proposed Regulatory Review Update to the Compliance Offset Protocol for U.S. Forest Projects (Protocol) that was proposed on October 28, 2014 (Regulatory Review Update)

Key Updates of Concern

1. New eligibility requirements found within Section 3.1(a)(4)

The new eligibility requirements contained in Section 3.1(a)(4) A-C appear to be based on requirements of the California Forest Practices rules. While these requirements have proven to be effective and relevant in California, their incorporation into the Protocol may be viewed by OPOs in other states as burdensome and will likely limit the number of viable forestry projects outside of California, including well-managed, sustainably certified properties throughout the country.

The Protocol update requires that, if harvesting occurs, "harvest units that have less than 50 square feet of basal area retention must not exceed 40 acres in total area;" associated buffer area requirements are then stipulated. In many parts of the country outside of California, even-aged management techniques resulting in residual stands greater than 40 acres in size and having less than 50 square feet of basal area per acre are common. These are a result of well-known, successful, and accepted silvicultural methods (e.g., shelterwood harvests, seed tree harvests, and clearcuts), especially in eastern hardwood forests that are dependent on natural regeneration for adequate future stocking.

Limiting these types of silvicultural methods to smaller areas, along with the rigorous buffer requirements will likely sway most OPOs from developing ARB Improved Forest Management Projects on their properties as they seek to promote future stocking of desirable and merchantable species through these management techniques at a larger scale. Low residual stocked stands from even-aged management are well-accepted in the industry and often represent good scientific practice for meeting regeneration targets. Economically viable timber production and forest carbon offset projects may not be able to coexist without permissible, larger scale even-aged management techniques.

Due to limitations imposed on silvicultural practices, projects developed under these proposed requirements may experience mismanagement among certain forest/stand types, leading to an associated change in species composition, especially in oak dominated forests where lower shade levels are required on the forest floor in order to produce adequate natural regeneration. Thus, these requirements have the potential to work against the Protocol's Natural Forest Management criteria.

In conclusion, ESI suggests a strong consideration for the ramifications these requirements will have on forest projects outside of California before making any final decisions. ESI suggests consulting a panel of foresters outside of California, including those responsible for generating state regulations and best management practices. We believe requirements currently in place from Section 3.8.4 of the adopted protocol (20 October 2011) sufficiently address ARB's concern of adjacency requirements without over-regulating harvest practices or resulting in inappropriate management of certain forest types.

2. The definition (and related requirements) of the Logical Management Unit (LMU) (Section 1.2(a)(28)).

The proposed update for Section 5.2.1(d)(1) includes a new equation for determining the Minimum Baseline Level (MBL) where Initial Carbon Stocks are above Common Practice (CP). In the previously adopted Protocol (20 October 2011), the MBL was set to equal CP when ICS is above CP.

ESI understands that the intent of the proposed updated Equation 5.5 (formerly Equation 6.5 in the adopted Protocol) is to ensure conservativeness of the baseline scenario. As such, ESI takes no issue with the equation update, though it is likely that this will limit the number of forestry offset projects that are actually financially feasible for development by OPOs. ESI speculates this phenomenon would be caused by a smaller upfront “flush” of credits awarded during the initial verification, as well as increased verification costs.

OPOs may be motivated for the adopted Equation 6.5 to be incorporated into the revised Protocol as the updated Equation 5.5 may lower the market share of IFM project type ARBOCs. ESI does not specifically endorse one equation over the other, but ESI always pushes for rules resulting in accurate and real carbon offsets, without over-regulating projects out of the market. We herein ask ARB to consider whether the revision to the equation will result in “over-conservativeness,” or if it will truly result in a more accurate and real baseline scenario. ESI wishes to offer important comments on the definition of the LMU should ARB decide to move forward with the proposed updated Equation 5.5. These are outlined below:

- Section 5.2.1(d)(3)(1) requires the OPO to “Identify the LMU according to the definition in subchapter 1.2”
- Section 1.2(a)(28) states “Logical Management Unit” or “LMU” means all landholdings or any subset of landholdings managed explicitly as a defined planning unit that the forest owner(s) and its affiliate(s) either own in fee or hold timber rights on, in which the landholdings or subunit of landholdings are within the same assessment area(s) where the project is located.”
 - It is commonly known that Assessment Areas are not spatially explicit, but rather based on forest ecosystems or communities (groups of species).
 - Moreover, properties themselves, or strata/stands within a given property are planning/management units, i.e., Forest Owners do not manage all properties, or even all strata/stands within a given tract, the same.
 - An explicit LMU is challenging to define because such a management area does not exist in the real world.
 - As such, how will a LMU be adequately defined by an OPO and verified by an OVB?
 - ESI suggests limiting the definition of LMU to the definition identified in Section 5.2.1(d)(3)(2), i.e., “all lands where the forest owner(s) and its affiliate(s) either own in fee or hold timber rights within the same assessment area(s) covered by the project area,” with the exception of

changing “assessment area(s)” to “Supersections,” as these are spatially explicit and efficiently verifiable.

- Should ARB decide that the definition in Section 1.2(a)(28) must be included, ESI is requesting ARB develop step-by-step procedures for determining and verifying the LMU.
- Section 1.2(a)(28) also states “Where even aged management is utilized, an LMU must have a uniform distribution (by area) of 10-year age classes that extend to the normal rotation age (variation of any 10-year age class not to exceed 20%).”
 - ESI understands the intent of this requirement is to ensure that all properties owned by the Forest Owner and its affiliates are being sustainably managed. However, we feel that this requirement is sufficiently addressed by the Sustainable Forest Management criteria and, thus, should be omitted from the definition.
 - Should ARB decide that this component of the definition must be included, ESI is requesting ARB develop step-by-step procedures for demonstration of this criterion by the OPO and verification by the OVB.
- Section 1.2(a)(28) also states “or; where uneven aged management is utilized, an LMU must have between 33% and 66% of the forested stands exceeding the retention standards identified in the growth and harvest projections by a minimum of 25% (basal area).”
 - Given that any future with-project modeling would only be the Forest Owner's best estimate of planned activity, this requirement is unclear.
 - Additionally, not all properties owned by a Forest Owner and its affiliates are expected to be managed in the same manner. Some properties may undergo uneven-aged management, while some may undergo even-aged management.
 - It is unclear if this requirement is related to the project area itself or the LMU (i.e., the growth and harvest projections).
 - Section 1.2(a)(28) also states “Timber volumes harvested or scheduled to be harvested must be conducted through modeling growth and yield with an approved growth and yield model or conducted through a stand table projection that indicates sustainable harvest levels.”
 - This will entail significant additional project development and verification costs, rendering a fewer amount of truly additional projects feasible for development.
 - Additionally, why would an OPO go through the process of creating a projection for a hypothetical area that will never be managed according to the model (again forest management activities are not planned or implemented at the scale of an LMU)?
 - Given the ambiguities around this requirement, and the fact that this appears to be sufficiently addressed by the Sustainable Forest Management criteria (which clearly mitigates leakage), ARB should consider omitting this component from the definition.

- Should ARB decide that this component of the definition must be included, ESI is requesting ARB develop step-by-step procedures for demonstration of this criterion by the OPO and verification by the OVB.
- Section 1.2(a)(28) also states “In the absence of a management plan that indicates harvest volumes, the standing inventory of the LMU must be within 20% of the landholdings owned by the forest owner(s) and its affiliate(s) within the assessment area.”
 - A management plan is not likely going to exist for an LMU, as these are specific to tracts or strata/stands, so it is unclear how this is to be adequately verified. Again, given the fact that this appears to be sufficiently addressed by the Sustainable Forest Management criteria (which clearly mitigates leakage); ARB should consider omitting this component from the definition.
 - Should ARB decide that this component of the definition must be included, ESI is requesting ARB develop step-by-step procedures for demonstration of this criterion by the OPO and verification by the OVB.

General Improvements

1. Formatting

- Please consider a more easily navigable format for the Protocol versus the current format of “Draft Reg Review Update_Forest Protocol102814.pdf.” This is similar to the Regulation and will make desk review activities associated with verification more cumbersome, as all current templates, checklists, and internal documents will need to be revised. This will be an extremely costly expense to the verification bodies.
 - Please consider a format similar to the previous adopted version of the Protocol, with each section and subsection fully numbered and available in the Table of contents.

2. Table 3.1

- Species composition requirement now measured by trees per acre for IFM projects
 - Please consider maintaining the currently adopted requirement of basal area per acre for this metric, as this represents a better measure of species composition for established forests.
- Regarding Distribution of Age Classes/Sustainable Management, Table 3.1 states “If even-aged management is practiced, on a watershed scale up to 10,000 acres (or the project area, whichever is smaller), projects must maintain no more than 40 percent of their forested acres in ages less than 20 years. (Areas impacted by Significant Disturbance may be excluded from this test.)”
 - The watershed scale portion of this requirement is ambiguous and has often left the OPO wondering the intent. If the distribution of age class is to be assessed against watershed size, a more precise definition is needed or measurement method. Further, the noted size appears to be arbitrary and insufficient to ensure adequate age classes exist across all landscapes.
 - Please consider relegating this requirement to the project area itself, or provide more clarity and guidance regarding the “watershed scale up to 10,000 acres” portion of this requirement.

3. Section 5.2.1(b)

- States “(1) Identifying the total metric tons of CO₂e contained in the initial above-ground standing live tree carbon stocks within the project area; and (2) Dividing this amount by the number of acres in the project area.”
 - Forest sampling provides results on a per-acre basis, which is then multiplied by the acreage to determine the total
 - Please consider revising this for consistency

4. Section 5.2.1(e)(2)(B)

- States “Providing evidence that activities similar to the proposed baseline growth and harvesting regime have taken place within the past 15 years on other properties within the forest project’s assessment area not owned by the forest owner(s) or its affiliates unless the forest owner and/or its affiliates own 50% or more of the land within the assessment area.”
 - Again, Assessment Areas are not spatially explicit, but rather they are based on forest ecosystems or communities (groups of species). As such, it is unclear how an OPO can determine what percentage of a given Assessment Area they own.
 - Similar to the above suggestion regarding the LMU definition, ESI suggests modifying the proposed updated requirements to section 5.2.1(e)(2) to apply to “Supersections” vs. Assessment Areas as these are spatially explicit and efficiently verifiable.