NewForests
FOREST CARBON PARTNERS

Monday, 15 December 14

Rajinder Sahota
California Air Resources Board
1001 I Street
Sacramento, CA 95812

CC: Greg Mayeur
Jessica Bede
Barbara Bamberger

RE: Proposed Changes – Compliance Offset Protocol for U.S. Forest Projects

Dear Rajinder:

Thank you for the opportunity to comment on the proposed changes to the Compliance Offset Protocol for U.S. Forest Projects. We appreciate the time and expertise that ARB has put into adopting and now updating the Forest Protocol. In our view, many of the proposed changes and clarifications to the protocol are material improvements. Some of the proposed changes, however, would benefit from alterations to improve clarity, to avoid imposing unnecessary costs on program participants, and to avoid restrictions on eligibility that may reduce protocol participation while simultaneously not furthering the Cap and Trade program's greenhouse gas mitigation goals.

In general, we believe that the Forest Protocol should require conservative carbon accounting, conservative additionality standards, and adherence to sustainable forestry and sound natural forest management, but otherwise seek to be inclusive to a wide range of participants. Costs associated with project development under the Forest Protocol already have the effect of restricting the use of the protocol to a very small percentage of private U.S. timberland owners with large tracts of timberland. Consideration of the amendments we propose below may help avoid unnecessary further restrictions on adoption of the protocol in the United States.

Our comments:

1. **Revisions to the Common Practice figures and site class breaks are technically accurate and necessary**. New Forests recognizes that the Common Practice figures must be updated periodically to reflect updated data from the US Forest Service FIA system. We believe that the site class break chosen by the Forest Service to distinguish between "high" and "low" site was not correctly chosen and places the vast majority of working forests into "high" site class (in our view it should be between Class 3 and Class 4 rather than between Class 4 and Class 5). However, the protocol site class division must mirror the division chosen by the US Forest Service and so we believe the proposed changes are technically accurate and necessary.

   We urge ARB to discuss a more appropriate site class division with the US Forest Service for future updates so that the landscape-level distribution of acreage in productive forestlands is more evenly distributed between the low and high site categories. We further urge ARB to only update the Common Practice figures infrequently, perhaps every five years as the USFS updates their FIA

data. Finally, we note that staff has given adequate notice of such changes to stakeholders under California administrative law and we suggest that the quantitative changes be adopted without further delay.

2. **Project baselines should not be amended after verification of the initial offset project data report.** Prior to the amendment in Section 5.2.1(h), the protocol stated explicitly that baselines would not be altered after verification of the initial offset project data report for a project. Stable baselines serve important policy goals. First, stable baselines encourage program participation by giving participants reasonable commercial assurance that changes in protocol interpretation, scientific advances in quantification, or minor errors in baseline calculation do not force significant time and expense in recalculation of baselines or significant expense in invalidation of offset credits. Second, stable baselines reflect a reasonable policy position that 'the perfect should not be the enemy of the good': as the protocol and quantification methods and procedures advance, these methods should apply to new participants, but existing participants should not be forced to continuously 're-do' their project as new 'correctable errors' are found. What is an error based on new information or new policy interpretation may not have been an error at the time of project implementation.

   The protocol and Cap and Trade Regulation already have a method for dealing with significant errors in quantification: greater than 5% over-issuance of offset credits can trigger invalidation of the over-issuance. This provision would cover baseline mis-quantification. Thus, the protocol and regulation already address the core concern over materially incorrect baselines. 5.2.1(h) could be interpreted to require invalidation of offsets due to a .01% over-issuance, contradicting the Cap and Trade Regulation's clear text and intent on the subject of offset over-issuance.

   Even if 5.2.1(h) is not read to allow for invalidation of offsets for minor over-issuance, correction of baselines due to minute 'errors' imposes significant expense on program participants for no valid policy objective. Staff has stated that they don't want 'incorrect' baselines to be in the system, and if there is a .1% error it should be corrected, even if such error does not lead to any offset credit invalidation. This ignores the fact that correcting a .1% 'error' that has no impact on offset issuance could take in some circumstances 80 person hours and significant additional verification time, and therefore involve significant expense for offset project operators and authorized project designees. Furthermore, what is viewed in the future as a 'correctable error' could be due to changed protocol interpretation rather than real errors in measurement or calculation. This risk is compounded by the fact that Section 5.2.1(h) has no time limit; an offset project operator could be forced under Section 5.2.1(h) to expend significant resources to amend a baseline with an immaterial 'error' twenty years after that baseline was verified.

   ARB should recognize that the nature of forest carbon quantification, and the underlying biostatistics and modelling, inherently involves a degree of uncertainty, which is compounded by judgment calls of the project developer, verifier, and ARB in applying a set of rules to extremely varied 'on the ground' situations. The best forest carbon inventories have sampling error of 3-5% at the 90% confidence interval; that is we are 90% confident that the underlying real value is within 3-5% of the sampled value. The sampled value is not the 'true' value; rather there is a range of truth. Invalidation of offsets due to >5% over-issuance would correct baselines that were shown to have diverged from that acceptable range of truth.

Section 5.2.1(h) is unnecessary in light of existing Cap and Trade Regulation provisions that would cause re-statement of baselines and invalidation of offsets due in circumstances of >5% over-issuance. Section 5.2.1(h) would impose significant costs on program participants for no valid policy goal. We recommend that the proposed Section 5.2.1(h) be deleted.

3. **If Section 5.2.1(h) is not deleted, its relationship to Section 95985 of the Cap and Trade Regulation should be clarified**. In the event that ARB unreasonably decides to require revision of baselines for immaterial errors, ARB should clarify that baseline revisions that lead to <5% restatement of issued offsets cannot cause offset credit invalidation.

4. **Participants selecting higher-stocked areas for projects should not be penalized**. New Equation 5.5 (formerly Equation 6.5) would unduly penalize projects that select higher stocked stands within a broader matrix of a forest ownership for a carbon project. This policy is contrary to current climate science, which highlights the importance of near-term mitigation of greenhouse gas emissions, and this policy would also make it much more difficult to enroll high conservation value forests in the offset protocol.

   The Climate Action Reserve Early Action Protocol eventually incorporated equations 6.5 and 6.6, which affected the Minimum Baseline Level for projects which contained stocks that diverged by more than 20% from the average stocks within the same Logical Management Unit of a forest ownership. The rationale was to guard against 'cherry picking' of stands that didn't reflect average stocking within a timberland ownership and therefore could generate significantly greater offset credit issuance on project registration or significantly more offset credit issuance from annual growth over time.

   The ARB made a sound policy decision in altering Equation 6.5 in the protocol adopted in 2011. By allowing the Minimum Baseline Level to equal Common Practice for projects with initial carbon stocks above Common Practice, the ARB enabled offset projects that protected high conservation value forests and that prioritized avoidance of near-term greenhouse gas emissions. Obviously, well-stocked, older-growth forests and stands are significantly more likely to be harvested than lower-stocked, younger-growth forests and stands and therefore are far more likely to generate near-term greenhouse gas emissions associated with timber harvest. The new IPCC Assessment Report 5 very clearly emphasizes the critical importance of near-term (2015-2030) greenhouse gas emissions reductions to maintain a hope of an emissions trajectory that avoids climate catastrophe. Allowing the MBL to equal Common Practice for projects with initial carbon stocks above aligns the protocol with current climate science to prioritize avoiding near-term greenhouse gas emissions. The proposed change in Equation 5.5 is contrary to current climate science.

   Furthermore, deleting the proposed change in Equation 5.5 would support the continued enrollment of high conservation value forests in the protocol. Older-growth forests that have high biological and watershed value are frequently embedded within larger forest ownerships that are managed more intensively. Common examples include riparian bottomland hardwoods

within a larger pine plantation, or older-growth redwood stands within a mixed conifer landholding. The protocol can most effectively protect such forests when these forests can be enrolled as separate projects. The change in Equation 5.5 would prevent effective protection of such forests through the offset protocol.

The core policy concern here is activity-shifting leakage. If a landowner protects area X with high carbon stocks and maintains the same amount of wood flow from the property by shifting harvest to other areas, the additionality of the carbon sequestered on project area X is compromised. The protocol addresses this issue through the Sustainable Harvesting Practices criteria, which are structured to ensure sustainable harvest rates throughout the entire timberland ownership and as a constraint on activity-shifting leakage. Equations 5.5 and 5.6 and the entire associated concept of the LMU are additional policy mechanisms to guard against activity-shifting leakage. The additional elaborations of the concept of LMU in the proposed protocol make the entire construct very complicated, unwieldy, and increasingly difficult to verify.

If the core policy concern is activity-shifting leakage, we recommend addressing that issue more directly by simply increasing the leakage deduction for projects. Instead of a 20% leakage deduction, we recommend a leakage deduction of 40%. This level of leakage deduction finds support in the academic literature.

We therefore recommend striking equation 5.5 from the proposed protocol and restoring the old equation (in which MBL = CP when ICS>CP), but increasing the leakage deduction in such circumstances to 40%. This would strongly support the policy goal of avoiding activity-shifting leakage, while also continuing to enable the enrollment of older-growth and high conservation value forests in the protocol and prioritizing the avoidance of near-term greenhouse gas emissions.

5. **"Boots on the ground inventory" should be retained in modified form as a means of demonstrating project commencement date, or the minimum reporting period should be reduced to one month.** Previously, ARB accepted 'boots on the ground inventory' as a means of demonstrating a project's commencement date. The proposed protocol would only accept listing, change of ownership or easement recordation as evidence of project commencement. In practice, project listing will become the most frequent evidence of a project's commencement. The data now required by ARB for listing is fairly detailed, and so much of a project can already be complete at the time of project listing. The Cap and Trade Regulation requires a minimum six-month reporting period. The combination of project commencement at listing and a minimum six-month reporting period will unnecessarily delay project enrollment: many projects would be able to verify existing carbon stocks soon after listing but will be forced to wait for the minimum six month reporting period. This delay will adversely affect the timing of offset supply.

We recognize that 'boots on the ground inventory' as project commencement may be difficult to adequately verify in some instances. However, we suggest the remedy is to simply tighten the

criteria to ensure that such inventory was actually installed for the purpose of initiating a carbon project under the protocol.

We recommend that ARB either (a) accept "boots on the ground inventory" as a project commencement date IF the offset project operator or Authorized Project Designee can demonstrate through a contemporaneous written instrument that the inventory was specifically being implemented for the purposes of the ARB compliance offset protocol; or (b) allow a minimum reporting period of one month for forest projects.

6. **A verifier should not be required to install an entirely new sample if only one sample plot center cannot be relocated**. Section 8.1.1(a) of the proposed Protocol states that "If any portion of a project area's sample plots cannot be relocated or measurement of project sample plots is not statistically appropriate, the verifier must install sample plots independent of the project's sample plots." This approach is not required by accepted biostatistics. There may be circumstances in which it is difficult for a verifier to relocate exactly one or two plot centers within a permanent forest inventory: GPS coordinates may not locate the plot center with enough precision, paint may wash off, bears may tear down plot center markers, may be inundated with water, etc. In such circumstances, it would be statistically appropriate to randomly select an alternative plot (the next one in a random sequence).

   Therefore we recommend that criteria be specified when a paired sequential sampling test within a strata must be abandoned and replaced with an unpaired test. A suggested criteria for consideration is when 20 percent or more of the plots cannot be relocated (1 out of 5).

7. **Silvicultural restrictions related to even-aged management should not be more stringent than the California Forest Practice Rules.** Section 3.1(a)(4) of the proposed Protocol adds new restrictions that function to define even-aged management by basal area retention and require substantial additional adjacency requirements for such even-aged management.

   New Forests supports the presence of natural forest management and sustainable harvesting practice requirements in the Protocol. Not all forests are managed sustainably, and those that are not should not supply offsets into the California market.

   However, we view the California Forest Practice Rules – the most stringent in the nation – as the benchmark for assurance of sustained yield and conservative silvicultural practice. The new language in Section 3.1(a)(4) well exceeds the adjacency and green-up requirements of the Forest Practice Rules, and such adjacency restrictions would in many circumstances be impossible to implement in commercial forestry, particularly in less biomass dense forest types outside of California. Furthermore we do not believe that there is published science that demonstrates that the proposed level of adjacency requirements are necessary to achieve ecological outcomes in the public interest, such as reduced sediment transport from timberland or improved wildlife habitat.

We recommend that the natural forest management criteria and sustainable harvesting practices embedded in the protocol not be more limiting or stringent than the California Forest Practice Rules. We further recommend that ARB solicit comment at a public workshop for 15-day changes related to this matter.

8. **Disclosure requirements in the Protocol should not exceed disclosure requirements in the Cap and Trade Regulation.** Section 3.8 in the proposed Protocol states that projects must meet the regulatory compliance requirements set forth in Section 95973(b) of the Cap and Trade Regulation. In the very next clause, the Protocol states that the OPO or APD "is required to disclose in writing to the verifier any and all instances of non-compliance with *any legal requirement* associated with the project lands." 95973(b) is *expressly* limited to local, regional and national requirements for environmental impact assessments and all local, regional, and national "environmental and health and safety laws and regulations that apply based on the offset project location and that directly apply to the offset project". Asking for a broader scope of information in the Protocol that is non-actionable under the express terms of the Cap and Trade Regulation places the Protocol in conflict with the Regulation and makes no practical sense. Are OPOs, APDs, verifiers and offset purchasers now required to diligence for securities laws violations related to the project lands? Securities laws can often come into play when timberland is owned by a publicly-listed entity. What about incidents of trespass by third parties? Right of way disputes with neighbors? Contractual disputes with a lessee hunting club? The proposed language would impose significant additional costs on all participants in the system for information that cannot actually be used by ARB because Section 95973 limits the scope of required regulatory compliance for offset issuance to applicable environmental, health and safety laws. More information is not always useful or better. We urge ARB to only seek information from program participants that is directly related to a policy goal or specific provision of the Cap and Trade Regulation.

   Similarly, the proposed Section 7.2.1(a)(8) would require for annual reporting a "Statement as to whether the forest project and associated project lands have met and been in compliance with all local, state, or federal regulatory requirements during the reporting period. If not, an explanation of the non- compliance must be provided". This requirement is broader than the regulatory compliance required under the Protocol, which again is limited to environmental, health or safety laws that apply to the project.

   We recommend amending Section 3.8 and 7.2.1(a)(8) to only refer to environmental and health and safety laws and regulations that apply based on the offset project location and that directly apply to the offset project.

9. **The Protocol should only require the name and contact information of the OPO, other forest owners and the APD, if applicable.** Section 7.1.1(a)(8) requires the listing of the name and contact information for all forest owners, "as well as third parties with existing property interests within the project area that may have an effect on the trees and standing timber located in the project area (e.g., mineral rights, timber rights, easements, rights of way, leases, etc.)". Section 7.1.1(a)(9) further requires the "name and mailing address of other parties with a material

interest in the real property involved in the forest project." In some cases, the identification of third parties with property interests may be simple; in others impossible or prohibitively expensive, such as when mineral rights have been severed from the fee interest and subsequently transacted without recordation of the transaction in county records (a frequent occurrence). Either way ARB has a remedy for breach of the protocol against the OPO and forest owners, but (particularly in other states) not necessarily against third-party property right holders who did not sign attestations submitting to personal jurisdiction in the state courts of California. The Protocol wisely does not require such third party property right holders to sign the attestations with the OPO, as it would prevent the enrollment of most projects – there would be no way to get many minor easement holders to accept liability for a project that they do not control and does not benefit from. The OPO accepts liability even if third parties (such as a mineral rights holder) adversely affect the carbon stocks. This is an appropriate allocation of risk.

Section 7.1.1(a)(9) would seem to encompass all individuals with a financial or security interest in the real property covered by a forest project, which in the case of publicly listed companies could run into the hundreds of thousands of shareholders. It also leaves open the question of what is a 'material' interest as opposed to 'immaterial'. The provision also could be read to apply to third-party easement holders, in which case the OPO could be required to disclose information that is not legally available to the OPO, such as the financial interests in a third-party privately-held company that holds a right-of-way across the project area.

The information required in sections 7.1.1(a)(8) and (9) seems to be an additional case of requiring information that is not necessarily actionable by ARB (what use is knowing each and every utility easement or right of way easement holder?) but imposes significant costs on participants. In addition, both sections are drafted with significant ambiguities that would make it difficult to assess how to comply.

We recommend amending 7.1.1(a)(8) to: (a) include holders of 'timber rights' in the category of 'forest owner' rather than in the category of 'third parties with existing property interests'; (b) require name and mailing address only for forest owners, not third parties with existing property interests; (c) require only names but not mailing addresses for third parties with existing property interests; and (d) when mineral rights have been severed from the fee, require only the name of the mineral rights holder as a matter of county record.

We recommend deleting 7.1.1(a)(9) as the requirement is overbroad and not related to a clear policy interest of the Protocol or Cap and Trade regulation.

10. **Suggested edits to the sequential sampling section; recommendations for improvement**. The following comments highlight issue in Section 8.1.1, itemized by 8.1.1 subsection:

    (a) The relocation of sample plots is addressed above in item 6. The evaluation of needing to use an unpaired test should be clarified to be on a stratum basis where appropriate.

    (d) The selection of stands is applicable to unpaired tests.

(e) The selection of plots is applicable to paired tests.

(e)(2) Verification plots must reflect the variability in tree species, heights and diameters existing in a project area. This implies a multi-stage sampling design rather than a random plot design, which is an unnecessary complication. If, however, it is retained then the mulita-stage design should be directed as it would be more efficient than a strictly random plot selection.

(e)(4) "…selected within a ~~stand~~strata,…"

(f)(4) All tree heights in plots selected for sequential sampling must be measured. Suggest that this refer to total heights and that merchantable heights be allowed to use taper or regression functions as the measurement error associated with measuring merchantable heights may be greater than the prediction error of the model; and this is the approach used by FIA so it would be consistent with the common practice estimates.

(l) "…partially pass the paired or unpaired test…"

Equation 8.1: Last two lines should be "If result ≤ n," and "If result > n,"

Table 8.1. Finally, the statistical theory for sequential sampling does not call for a minimum number of passing plots. Avoiding an aberration of result due to random sampling is ensured by the minimum number of plots to be sampled. It is appropriate to pass only one plot to stop the sequential sampling process.

11. **Ability to amend project acreage**. The ability to add or subtract acreage from a project area is technically complex under the protocol design but very important to tackle. While not addressed in this protocol update, we recommend that ARB consider in the future convening a working group to discuss methods to accomplish the addition or subtraction of acreage from a project. Timberland ownership is in constant flux and the protocol will gain wider adoption and greater longevity if it can accommodate the addition and subtraction of acreage from project areas.

12. **Project areas should not be limited to two adjacent Supersections.** Section 4 of the Protocol allows a project to extend across multiple assessment areas but only two adjacent supersections. There are many parts in the country where three or more supersection boundaries are in close proximity to one another, and a single ownership could span more than two adjacent supersections. Under the current language of the Protocol, such a landowner would be forced to split their property into multiple projects, thereby assuming additional costs with no additional benefit to the climate. Moreover, in parts of the country such as the Northeast land ownership is often fragmented between many small private and family forest owners. Many of these landowners would like to participate in a carbon project if they could collectively group their properties together in aggregation and share in the upfront development and verification costs. Allowing projects to span multiple supersections would allow for greater participation of small landowners in the program and generate additional opportunities for greenhouse gas reductions.

13. **The look-back period for the high stocking reference (HSR) should be clarified.** Equation 6.6 of the protocol defines the high stocking reference (HSR) as 80% of the highest value for above-ground standing live carbon stocks per acre within the Project Area during the preceding 10-year period. However, if a landowner has recently acquired the land enrolled in the carbon project within the last 10 years, the look-back period should be limited to the length of time that the current landowner has owned the property. Current landowners who want to restore forestland or manage it more sustainably should not be unduly penalized by the management practices of previous landowners.

14. **The criteria for demonstrating financial feasibility are too narrowly defined.** Option 2 in Section 6.2.1.3 of the Protocol provides three key criteria for demonstrating financial feasibility. However, they are currently too narrowly defined.

    Section 6.2.1.3(2)(A) regarding slopes should be modified to allow for slopes on the comparison properties to be on slopes any percent higher than the project area, because if similar harvesting occurred in the past 15 years on slopes that are more steep than the project area, it would further support the financial feasibility of the baseline projection.

    Section 6.2.1.3(2)(C) regarding comparable species composition, there is often not a wealth of publicly available data on species composition in trees per acre on neighboring properties. However other metrics that reflect species composition such as basal area per acre or forest type classifications should be adequate to demonstrate similarity for the purposes of financial feasibility, as long as the best available information is being utilized.

Thank you for considering New Forests' comments.

Sincerely,

Brian Shillinglaw

Tim Robards

Emily Warms

New Forests Inc.