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Mr. John Nickerson
California Climate Action Registry
523 W. Sixth Street, Suite 428
Los Angeles, CA 90014

RE: Comments on the Draft Revised Forest Project Protocol

Dear Mr. Nickerson:

I would like to provide a few comments on the revised forest project protocols.

FIA inventory baseline

The Revised Forest Project Protocol of December 2008 protocols are a significant improvement over the current protocols in terms of linking the inventory under a 100 year contract to a measurable and transparent baseline. The use of the published FIA data provides an accurate estimate now and forms a link to a national updating process. By setting a standard that rewards higher than average forest inventories that can be guaranteed for 100 years, it avoids the problem in the previous standard where assumptions that harvested wood products had absolutely zero long term storage or energy substitution benefits were central to calculating benefits. As a voluntary system of accounting that could be used in voluntary offset arrangements, the current revisions provide improved clarity for project proponents, appraisers, and potential purchasers.

Sect 3.5.2 -

"Reductions shall not be registered where a decrease in the standing live pool cannot be attributed to one of the following conditions:" could restated without the double negatives as "Reductions shall **not** be registered where a decrease in the standing live pool **cannot** be attributed to one of the following conditions:" but it is still unclear what the plain English meaning of this clause is. It could be very difficult to register item #4 if it not a planned operation.

Avoided Conversion

The 'Avoided Conversion' metrics in Section 6.3 lack the transparency provided by the FIA statistics used in the enhanced forest inventory approach. There is no data provided to show

that the ratios provided in Tables 6.2 and 6.3 will provide accurate estimates of the lost forest inventory involved in conversion projects. For example, a forest conversion where the future development will have less than one house per acre may have a fairly limited impact on the amount of the pre-existing forest inventory, or carbon stocks, that are permanently removed. Without any data to support the metrics, it would appear that they could be overly generous in estimating the amount of guaranteed inventory. The ‘total forestland acres’ in table 6.4 and used in the denominator of the conversion probability seems to include federal forest acres even though any conversion process on federal lands is far less probable than on private forest lands.

Leakage and Risk of Reversal Estimates lack transparency

The fact that project proponents have so much leeway on defining ‘leakage’ (5.1 Accounting for Significant Secondary Effects (Leakage)) and ‘risk of reversal’ probabilities (7 Ensuring Permanence of Credited Emissions Reductions) will substantially reduce the certainty that an offset unit will be guaranteed for the full 100 year life of the contract. This would not be a problem if the business model of CCAR forest offsets was based on annual ‘carbon storage rental’ payments over 100 years where ‘crop insurance’ costs and other annual costs could be covered over the whole contract period. The current business model related to most CCAR registered deals is of an upfront payment of the full amount of the ‘offset’ with the forest landowner being responsible for 100 years of holding and management costs. The ‘offset’ of an emission of 100 CO₂ tons in year 1 with sequestered forest carbon will not be equal unless all the forest carbon is maintained for the full 100 year period. If a situation occurs a decade or two out where a significant portion of the trees are lost to a fire or insects, there could be a default on a contract and no financial mechanism to make it whole. Given that most analysts assume that carbon prices will rise significantly over the next few decades, the need to replace CCAR certified CO₂ tons lost to a wildfire at much higher prices could be an expensive challenge. Self insurance by being able to backfill the forest carbon with trees located in another area is possible for large ownerships but may be less feasible for smaller operations.

Notwithstanding the best stewardship efforts of proponents, it is essentially impossible to reduce risks of carbon sequestration reversal at an individual site over a 100 year period to zero. If it was possible to manage risks to zero with good stewardship, none of us would need to have home insurance. Risks of loss events such as catastrophic wildfires or massive insect infestations, such as the Mountain Pine Beetle in British Columbia, are spatially correlated so it will be difficult for small projects to reduce risks to zero. It would appear that sections 7.2 and 7.3 let the project proponent store the reserve carbon within the same location and/or plan on some other type of insurance being developed after the project is certified and presumably sold based on the purchaser’s faith in the CCAR certification.

With the exception of large entities that own forest land in various locations, it is impossible for CCAR to certify with certainty that a registered amount of sequestered carbon can be guaranteed over a century. Third party ‘crop insurance’ policies, which typically have annual payments based on recent actuarial estimates of loss, are the typical mechanism used in similar

contracts in the United States. Alternative models would be cooperatives where many members could cover losses that may be experienced by a few members or government guarantees. It is unclear that the 'Climate Reserve' managed by CCAR will have sufficient capitalization or physical assets to cover losses.

As long as CCAR protocols are a voluntary system this is not a problem as it is up to the buyer to decide on what they think a project is worth. However, if CCAR projects are explicitly or implicitly guaranteed by a state entity such as CARB, then there will be questions of financial liability and rules on default and bankruptcy. Greater clarity on the capitalization of any insurance component would appear necessary.

Sincerely,



Forestry Specialist
University of California, Berkeley