January 19, 2009

Comments Submitted by Sierra Business Council – Sierra Nevada Carbon Cooperative

Re: DRAFT Forest Project Protocol, Version 3.0 (December 2008)

In reviewing the updated Forest Project Protocol, it is apparent that a tremendous amount of thought and effort went into updating and improving the standards and guidelines for establishing forest carbon projects. Sierra Business Council would like to thank CCAR and the Forest Protocol Workgroup for its commitment to developing and improving these standards. It is no easy feat, and the dedication of the Workgroup is apparent in this draft.

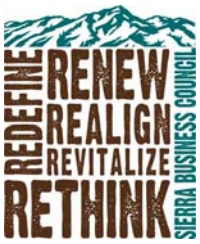
Sierra Business Council (SBC) is a non-profit organization with the mission of pioneering innovative approaches and solutions to foster community vitality, environmental quality, economic prosperity, and social fairness in the Sierra Nevada. SBC has been following and participating in CCAR activities for over four years. We are dedicated to ensuring that the Sierra Nevada landscape and communities play an important role in state and global efforts to mitigate and adapt to climate change. Because the Sierra is the resource shed of California, providing over 60% of the state's water, ½ the state's timber, abundant recreational opportunities, sequestering carbon and providing other valuable ecosystem services, it is an important region for ensuring long-term resilience of the state of California in the face of significant change.

SBC has developed a program called the Sierra Nevada Carbon Cooperative (SNCC) to capture the opportunity for the Sierra Nevada to mitigate and adapt to climate change in a way that promotes ecological integrity and brings economic prosperity to the region. We seek to:

- Revitalize the forest economy of the Sierra around restoration and conservation activities (including sustainable timber harvesting)
- Maintain a mosaic of working forests and forest reserves, and public and private ownership
- Reduce the barriers for small and medium landowners to participate in emerging markets for ecosystem services

Through SNCC, we have piloted two CCAR forest projects. One is an Avoided Conversion project, which is in the process of verification, and the other is a Forest Management Project, which is nearing verification. Our experiences with these projects frame our thoughts and comments that follow.

Additionally, we have participated in many of the Forest Protocol 3.0 Workgroup meetings in person and by phone. These meetings have been useful in understanding the complexity and nuances of many of the issues addressed in the protocol, and have generated respect for the challenges the Workgroup faced in updating the protocol.




Our comments below are laid out in two sections: general and specific. We request that you address these points in the final version.

## GENERAL COMMENTS

**1. Difficult to Decipher**: The language makes frequent use of double negatives, lengthy sentences, dense paragraphs, and in some cases inconsistent vocabulary.

**2. Hard to Understand the Implications:** Many of the rules and standards would be more easily understood through examples. The standards for developing the baseline of different project types in particularly confusing. Even having attended Workgroup meetings, piloted several projects, and having strong familiarity with other forest protocols, this protocol is particularly confusing. This presents a barrier for individual project developers, and will create increased reliance on consultants and technical advisors, which adds to the cost of completing a project.

**3. Lack of Clarity or Specific Guidance**: Throughout the protocol, the language is vague, relying on the project developer and the verifier to interpret the intended meaning. This jeopardizes the integrity of the projects and consistency of the use of the protocols.

**4. Costs are Unclear:** The requirements identified in the protocol pertaining to registration, project maintenance, buffer pool contributions, and verification need to be more clearly outlined with their associated costs. A chart or timeline outlining the costs and timing of managing a project over 100 years would help clarify the requirements.

**5. Summary of Changes**: The updated Draft represents significant changes from Version 2.1. It would be helpful to see a table of specific issues that were addressed and that were changed from Version 2.1. In this draft, it's difficult to know if requirements were left out intentionally or unintentionally.

**6. Overly Burdensome and Cost-Prohibitive for Small and Medium Landowners:** The changes to the protocols may allow for greater participation of industrial forestland owners, but the baseline quantification and modeling additionality requirements are so burdensome that the cost of complying will make it financially unfeasible for smaller landowners to participate. Guidance and more flexibility for aggregating projects would reduce these barriers for individual landowners, maximize participation, and increase co-benefits associated with the projects.

7. **Minority Report Comments by Pacific Forest Trust and The Nature Conservancy** should be addressed, particularly comments pertaining to wood products, baseline quantification, conservation easements, and required pools (unless otherwise justified).

## SPECIFIC COMMENTS

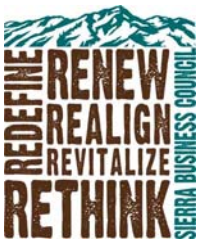
**2.1.2 Improved Forest Management p.3**

Definition of "Natural Forest Management" does not preclude plantation forestry if practiced on a small scale. This definition should include not just forest structure at multiple levels, but also *ecological function* at multiple levels. When looking at ecological function, using the harvest unit as the smallest spatial scale for maintaining mixed-age, mixed species structure may be too large for some forests.

**2.1.3 Avoided Conversion p.3**

Specify Residential development as another non-forest use.

**2.2 Project Developers p.3**




We would like more specific guidance on how to aggregate projects as a Project Developer. In the Attestation of Title section 9.2, the protocol specifies that project developers must own the commercial and non-commercial trees. This is confusing. It's also unclear how one entity becomes the representative for multiple entities in reporting to the Reserve. Does the requirement of registering entity emissions under the General Reporting Protocol for every entity developing a forest no longer apply?

**3.1 Additionality p.4**
What is the project's assessment area? The definition in the glossary is not specific enough. Is the assessment area to be determined on a case-by-case basis. More clarity and guidance—or even a map—would be helpful.

**3.2 Project Start Date, P. 4:**
More guidance is needed on which project types qualify for the historic start date. If a public land agency wants to receive credit for improved management practices since 2001, do they use historic trends to determine baseline?

How is "initiation date" and project commencement defined? What is the official "start date"?

The timing for initiating and listing a project needs to be more flexible. Conservation acquisitions and conservation easements can take several years. The protocols should encourage conservation easements to ensure permanence, and a tight timeline discourages participation of these lands and conservation organizations.

Seasonal constraints, such as long snowy winters in the Sierra, can also delay or prolong the timing of project initiation and implementation. We need more flexibility to be able to implement the best projects.

We recommend developing an "Intent to Submit" form that can be used as a placeholder for 18-24 months after project initiation.

**3.3 Project Implementation Agreement, P. 4-5**
"Project Implementation Agreement" (PIA) goes with owner, and conservation easement (CE) goes with the land. Requiring PIA but not CE may discourage participation by assigning risk to future landowners; why not require one or the other?

What are "the rights and remedies of the Reserve in the event of failure of landowner to comply with those obligations"?

Conservation Easement must be in place within a year of the project's listing—does this mean a year before or after project initiation? Either way, the timing constraint is restrictive to smaller, simpler conservation deals. Additionally, because a conservation easement is legally binding, if a landowner cannot meet the one-year time constraint, he/she will be encouraged to write a less restrictive conservation easement, that allows for the most intensive forest management possible. **Carbon**

**Project Protocols should not incentivize planning to do the most destructive thing possible, just so that the project developer is eligible to capture the maximum carbon potential**

What will require public lands to maintain permanence/natural forest management if they don't need PIA or CE?

Why is a conservation easement required for avoided conversion projects and not the other project types?

**3.5.1 Promotion and Maintenance of Native Species, P. 5:**
Is climate change an "indirect consequence of human activity"? If species shift from their historic range due to climate change, would that land be ineligible? Does "native species" include plants and animals, insects, pests, etc.?

**Table 3.1, P. 6:**

Unclear. The final tally includes 'Sum of 3rd Party Oversight" twice. It's not clear how the tables relate to or how the score in one affects the others, or if you can qualify even if you don't meet all the criteria for "natural forest management". Examples would be helpful to know the range of projects that would qualify in this section.

Native Species Table section seems to allow less than 80% natives as long as management doesn't favor commercial species. Unmanaged, but non-native, and native with no diversity qualifies for native tree values: allows for monoculture. 75-80% native species presence gets how many points—0 or 1? What do you mean be a "factor of 75%"? 0.75? or three times more commercial trees than background trees? Please clarify.

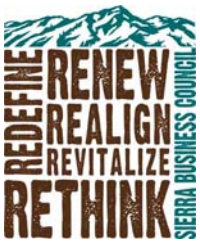
In Functional Habitat Table, 10% of functional habitat gets 1 or 2 points? Unclear what the verifier's role is in assessing functional habitat. Project area may be too big a scale to measure "natural forest management." There needs to be more clarity about what structural characteristics are good indicators of ecological function.

In the Sensitive Areas Table, voluntary regulations with oversight such as certification programs that address these issues should be equivalent in points to "regulations with oversight". If implementation of policies is verifiable even without certification, the score should be equivalent to "regulations with oversight"

In the Third Party Oversight Table, we think FSC should be worth more points than other sustainable forestry certification systems.

In the Summary Table, the Native Species test columns should be $<3$ or $\geq 3$ so you don't promote native monocultures. The Natural Forest Management Test, should have a cutoff greater than 5.

**4 Identifying a Forest Project's Geographic Boundary p. 9**




In order to promote greater participation, it would be helpful to be able to aggregate projects that are initiated at different times. To do that, we would have to be able to revise the geographic boundaries, and update the listing. If this is not possible, then greater flexibility in the timing of initiating and listing a project is critical (comment above section 3.2)

**Table 5.1, Pg.10**
There can be negative secondary effects from a project, if harvesting with mechanical equipment is reduced or avoided, if the development of forestland is avoided. There are significant secondary emissions effects of business-as-usual activities, and if this activity is avoided by implementing the project, the project should count those avoided emissions in its project carbon accounting. This comment applies to all project types.

**5.1 Accounting for Significant Secondary Effects (Leakage), P. 10**
Definition of "leakage" does not make sense—maybe there is a typo. Also, this term should be included in the glossary.

**6.1.2 Flow Chart on Leakage Risk, p. 12**
Add a box, "Was ranching or grazing commercially viable?" = No → Leakage Risk = 0%

**6.2.1.1 Private Forest Lands, P. 13**

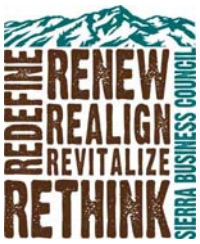
We agree with the minority report submitted by Pacific Forest Trust that the baseline quantification using FIA means is too cumbersome and complex to be applied widely, and that CCAR should provide guidance on how the baseline should be modeled. This comment applies for all forest project types.

Protocol provides no guidance on how projects will be handled once growth slows down and additional carbon sequestration no longer offsets cost of registering with CCAR. Land owners are not likely to register projects if they know it will be a net cost over the long-run, and that the expenses are going to registries and consultants rather than back into the land. Although guaranteeing permanence is critical, reporting and verification requirements and registration fees must decrease over time to encourage greater participation. Or CCAR needs to create specific guidelines for aggregators or project developers who don't own the underlying land.

Modeling of smaller 200-1100 acre projects in the Sierra demonstrate that it is not feasible to continue paying to register, inventory, certify, and monitor annually.

In the Baseline section, this is extraordinarily difficult to understand, and to comment appropriately, we need more specific guidance on how to use FIA data. Will there be a comment period on Required Modeling Procedures? And on the applicable FIA mean?

Is the baseline adjusted every time FIA data is updated? What is the spatial area for calculating the average? How do we account for the unreliability or inaccuracies of FIA data?




Proving physical and financial feasibility poses another obstacle for small landowners. It's impossible to know exactly how these requirements will be to meet without more clarification on the assessment area, but we think this method will prove overly burdensome. Additionally, it seems this method would allow large landowners the ability to "game the system," while making participation by small landowners completely unfeasible/impossible.

**6.2.1.2 Public Lands Improved Forest Management Baseline, P. 15**

We caution that CCAR consider the long-term implications of the baseline for public lands improved forest management projects. The reliance on policy standards to establish the baseline could cause disproportionate attention to be paid to maximizing carbon sequestration on public lands at the expense of other forest management, ecological, and public benefits. We support promoting policy that holistically addresses ecological integrity and resilience across the landscape. Project future statutes, trends, regulations, plans, and funding is beyond the scope of human ability, and factoring future shifts into the modeling projections is too subjective.

**6.2.2 Secondary Effects – Quantifying Net Changes at Other Affected GHG Sources p. 16-17**
Demand for wood prodcuts is not always inelastic relative to supply. This is not a safe assumption. However, **wood products as carbon sinks should be accounted for on the demand side of the equation, not as part of the forest project protocol.**

Only projects that constitute 10-90% of the entity's area are required to submit inventory estimates? This puts unfair excess burden on small landowners who are likely to register projects of this size. Additionally, sampling activities are NOT likely to be an on-going activity for most forest landowners. The sampling requirements too, should be reduced for small non-industrial timber operators or other landowners who do not plan regular or any commercial timber harvests.

**6.3.1 Avoided Conversion Primary Effect p. 18**
Add guidance on conservation easements. We request more flexibility in the timing of easements and an allowance for projects under conservation easement, where the easement specifically states that the project is being conserved for climate benefits or carbon sequestration.

**6.3.1.1. Baseline Characterization for Immediate Site-Specific Threat of Conversion, P. 19**

Estimated rate and effect of conversion for the project area- Needs more guidance. Since this is a hypothetical situation, it is difficult to measure effects of development and build out. CCAR needs to develop some type of % tool to determine the expected rate of conversion depending on location, similar areas, development plans, etc.

**6.3.1.2 Baseline Characterization for Avoided Conversion Baseline, Based on Risk of Conversion, P. 19**
In areas which timber harvest is permissible, "land use value" could be significantly high. In order to determine this, the landowner would have to perform a timber cruise in addition to the carbon

inventory. This will add costs, even if the land is already zoned and appraised for development. CCAR should provide more guidance on how to calculate this if it is necessary.

The table used to calculate risk of conversion should be the sole instrument for calculating rate of conversion. Estimating similar rates of conversion in the area prove extremely time intensive and costly, and in some cases impossible (if one cannot access or analyze historic forest cover data). Table 6.2 (if the below comments are considered) could be used to create a conservative, but accurate rate of conversion. Table C.4 provides are fairly accurate (but conservative estimate of total carbon reductions based on type of forest land conversion). A set rate of conversion, leading to total conversion to the amounts identified in Table C.4 over ten years would hugely simplify and standardize this calculation.

We recommend the following changes in Table 6.2.
Proximity to population center and to local provisions: With all the second home development in the Sierra, proximity to population centers doesn't seem to determine the rate or risk of conversion. The size of population centers is arbitrary. There is only one town in the entire Sierra Nevada that has over 50,000 people, yet the Sierra has some of the fastest growing counties in California. 3 hours, 30 minutes, etc. are not accurate measures—is this driving time? By air? Total?

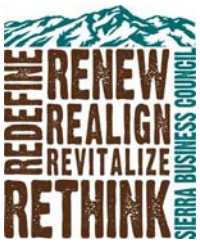
Table 6.3
The risk of conversion % discount is very high. Even if it is very likely that the property will be developed, a large portion of the tons is lost. If there is not specific, immediate threat, then over 10 years, CCAR does not recognize almost ½ of the reductions. Without the project, and with proper zoning, the entire property could be deforested for agriculture or development. This reduction should be eliminated altogether. This section should be restructured to provide guidance on calculating rate of conversion. If conversion is very unlikely, the rate would be very low or zero.

Comparing a proposed conversion to others in the area is unnecessarily onerous, time consuming, and financially unfeasible.

**Table 6.4, P. 22**

The table is missing several counties, including all those that begin with the letters, "N" and "U-Z", and maybe others. The protocol also does not provide guidance on how this table would be used for a project that falls into two counties.

**8 Project Monitoring, P. 28**
CCAR does not provide guidance on how the registry fees are related to annual monitoring, project life, and permanence requirements. Improved forest management projects may slow in accrual of reduction tons as management activities take place and baseline does not change. The protocol should describe annual costs related to registering, monitoring, and selling credits within the protocol. The fee structure plays an important role in whether or not the project is financially feasible over a 100 year term. More guidance is needed on how account maintenance fees are handled for projects with shorter project life and registered reductions.




Such high levels of project tracking and reporting are not feasible (time and cost wise) for smaller projects. We recommend a simple monitoring report to be submitted each year, in lieu of registration and more onerous activities, as an option for smaller landowners. We recommend the annual monitoring as described to be completed and submitted over 3 years or with the verification cycle for smaller projects.

**9.2 Attestation of Title p. 31**
We need more guidance for aggregating projects. The project developer should not have to own the actual trees, just the right to register and sell carbon reductions from those trees.

**10 Glossary of Terms p. 35**
Project Life: Due to the expenses of implementing a project: CCAR registration, monitoring/inventorying, and verifying a project, there should be different standards for simply ensuring permanence and registering additional CRTs. Ensuring permanence could be a simple monitoring report submitted over few years, completed by a third party, familiar with monitoring methodology, such as a land trust. Annual registration and monitoring, and periodic inventories and verification activities are unnecessarily onerous and expensive if the project developer is not registering additional credits. The annual reporting requirements present an insurmountable obstacle for small landowners. Project life should be defined as the term for which additional tons continue to be registered, and permanence period is 100 years beyond the year for which the latest CRTs were registered. For example, one could register a 10 year avoided conversion project, registering additional tons according to the baseline and model of build out, and maintain permanence for 110 years.
Reversal: Needs more clarity to understand the relationship of reversal to permanence, termination, project life, etc.

**Appendix A**
**Table A.1 p.39**
These pools should be required or optional, but not required "unless justified". We need more guidance to ensure the protocols are rigorous and respectable.

**Table A.2 p. 41**
Requirements for soil sampling are missing.

**A.4 Account for Confidence of Estimates p. 46**
What level of statistical confidence is required? Can confidence intervals be reported by carbon pool?

Appendix C
**Table C.1 Financial Risk, p. 53-54**
This requirement unfairly penalizes small landowners or new conservation organizations.

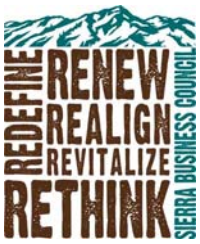



**Table C.2, p. 54**
The mitigation measures identified (gated roads and patrols) should provide higher level of mitigation than 25%. We would recommend 80%

**Table C.3 Risk of Conversion Rank p. 55**
See comments for Table 6.2

**Table C.4 Computing the Impact of Unmitigated Risk p. 56**
We recommend using this table to calculate total carbon reductions for Avoided Conversion projects, and the rate of carbon reductions from such projects.

**C.3.4 Social Risk IV – Environmental Justice (health) p. 61**
Is there a common definition CCAR is using for "EJ community"? How should this be calculated in the assessment area?

**C.3.5 Social Risk V – Effects of Employment p. 62**
We are trying to create and restore jobs through forest carbon projects, and most of the Sierra Nevada is over 25 miles from a population center of 100,000 or 500,000. What does the size of the population center have to do with skilled labor for forest related work-- job replacement? This risk might not make any sense, but at a minimum, the population figures need revision.

**Table C.13 Natural Disturbance Risk Identification p. 64**
More specific guidance on defining an area as high, moderate, or low risk (for fire and insect /pathogen outbreaks) would be appreciated. Mitigation measures, such as fuels reduction and restoring the forest ecosystem to a more resilient state where catastrophic losses are unlikely should be identified as a more effective mitigation (avoidance) measure that 75% mitigation. If a landowner makes significant investments in this and registers a lower amount of CRTs as a result, he/she should not also be penalized with a higher risk rating.

Is the "disturbance recovery plan" required at the time of project registration?