Weyerhaeuser appreciates the opportunity to comment on the draft California Forest Sector Protocol Version 3.0. Weyerhaeuser has participated as both an advisor and a public commenter in California’s early efforts to establish forest protocols, participating in the Commission’s May 2004 workshop and submitting comments to the Forest Sector Protocol Version 2.0 in September 2007. We are pleased that a thoughtful revision has been made to the Forest Sector Protocol Version 2.1 and note that a number of items have been improved, including removing the requirement for conservation easements from the permanence requirements. It appears, however, there are still too many constraints against managed forests to enable working forests to use the protocol.

Weyerhaeuser Company, one of the world’s largest forest products companies, was incorporated in 1900. In 2007, sales were $16.3 billion. It has offices or operations in 13 countries, with customers worldwide. Weyerhaeuser is principally engaged in the growing and harvesting of timber; the manufacture, distribution and sale of forest products; and real estate construction, development and related activities. Weyerhaeuser maintains operations in several areas in California, including home building and the manufacture and distribution of a wide variety of forest products, including cellulose fibers and structural building materials. In the U.S., Weyerhaeuser owns or manages over 6 million acres of forestland, and it is this context we comment on this protocol.

Weyerhaeuser has taken a close look at the draft protocol and has identified a number of suggestions for improvement. Much of these comments are echoed or further elaborated in various comments submitted by WFPA, OFIC, NAFO, and separately AF&PA. The comments submitted below represent Weyerhaeuser’s major concerns, though we fully endorse the comments written by the above-mentioned groups.

One overarching suggestion is to have an introductory section that explains the scope and applicability of the intended use of this protocol. It is clear this protocol is designed for use in California as the baseline modeling relies on both FIA data and modeling California forest practices regulations, which are more prescriptive than any other state. Given the notoriety of the original CCAR protocol, however, and the respect for and influence of California climate actions, we expect other jurisdictions to consider using this protocol. In anticipation of the review of this model at the national or regional level, the protocol should therefore clarify two things, perhaps in a preamble or introductory section. First, any other region will need to look closely to determine whether the FIA data used are statistically valid for the ecosystem in question, and whether the assumptions about state regulations need to be modified to fit applicable baseline requirements. Second, that California, in adopting this protocol, is transparently agreeing that some business-as-usual activity may be rewarded by having a regulatory baseline, supplemented by the FIA mean. Weyerhaeuser supports
this type of policy, but it is important that it be made transparent; otherwise it jeopardizes the future of forest offsets in general. More detail follows in the comments below on additionality.

Summary of major points

- The definition of additionality is inconsistent and asymmetrical. Additionality is defined as above and beyond business-as-usual, yet the baseline modeling suggests that credits can be given for business-as-usual activities in those forests that don’t currently maximize timber revenue. Inconsistently, no credit is given for physically additional carbon that accrues in wood products from harvesting the growth increment because it is considered business-as-usual.

- Natural Forest Management language needs to be clarified to ensure typical commercial forests can be eligible. The current language, if literally interpreted, implies that mixed species “uneven-aged” management is required on every acre or stand. This would be an unreasonable restriction, and although we believe this is not the intent of the protocol, the language nevertheless needs to be clarified.

- The leakage assessment test and discounting should be eliminated or made more consistent. Internal leakage can be controlled if the rest of the entity’s area is certified to a sustainable forest management standard. External leakage should be assessed through market assessments at the state or regional level. The current assessment test is arbitrary and complex and does not address substitution away from wood products as claimed in the introductory part of this section.

- The risk of reversal assessment test and requirements for permanence are overly restrictive.

- It is unreasonable to make project developers accountable for mobile source combustion to the level of detail required in the protocol.

- Wood products are a legitimate carbon pool and should be credited according to the 100 year method and using accepted methodology and default tables outlined in the forestry technical guidelines DOE 1605b GHG Registry, or any updated revisions to the default tables. We understand the wood product calculation methodology in this draft protocol has not been fully vetted by the workgroup and an updated draft on this section will be available for public comment in late January 2009. We reserve the right to comment specifically on this updated wood product section, as per comment in Appendix A.5, Carbon in Wood Products.

Specific Suggestions on Protocol Details

Section 3.1 and 6.2.1.1- Additionality and Baseline Determination

The draft’s definition of this term is inconsistent with the methods for establishing a project baseline and leads to confusion in the detail and intent of the protocol. In section 3.1, forest project additionality is “determined by reference to a discrete, forward-looking quantitative baseline estimate of business-as-usual carbon stocks on lands affected by the project activity.” In section 6.2.1.1, however, the baseline modeling procedure requires maximizing timber revenue within all legal constraints, which is consistent with a regulatory baseline language. Not all forests are managed to maximize timber revenue and in these cases the “business-as-usual” scenario is NOT the same as the regulatory baseline.

We applaud the effort to acknowledge good carbon storage in forests and believe that an atmospheric change in CO₂ levels can be achieved by giving credit for continued sequestration. We
believe, however, the definition in Section 3.1 must be changed to transparently reflect what actually will be credited as additional carbon in this protocol.

Furthermore, the baseline is modeled in such a way that conservation forests are able to get some business-as-usual credit, but working forests, those that already maximize timber revenue, cannot. A commercial forest is designed to generate additional carbon-storing volume each year but this addition accrues off-site in the forest product pool. There is no technical or scientific rationale in carbon stock accounting and quantification methodologies to exclude any of a managed forest’s additional annual growth over baseline.¹

**Recommendation:** We recommend that symmetry is added to the protocol to allow all additional volume (GHG reductions) over baseline, whether harvested on not, to qualify as additional, with the number of reductions (CRTs) attributed to harvested wood to be computed using the 100-year method as outlined in the Forestry Technical Guidelines of the DOE’s 1605b) GHG Registry Reporting Protocol.

**Section 2.1.1 and Section 3.5.1 - Natural Forest Management and Native Species Requirements**

*Definition of Natural Forest Management:* “Natural forest management is defined as management practices that promote and maintain native forests comprised of multiple ages and mixed native species at multiple scales from the harvest unit (less than 40 acres) up to the watershed spatial scale (third or fourth order watershed level) approximately 10,000 acres in size.”

If interpreted literally, this definition implies that all landscape scales require “multiple ages and mixed native species.” Even under natural conditions, this requirement could not be met for many forest types at the smaller spatial scales. Achieving mixed age classes across an entire management unit would require “uneven-age management”, which is a practice that is not suitable to most commercially managed tree species and has no relevance to carbon storage. A commercially reasonable approach would maintain multiple age classes at a small scale through trees retained to meet ecological objectives (such as stream buffers and wildlife trees) and at larger scales by practicing sustainable forest management. We suggest the language be changed to make explicit that the intent is to achieve multiple ages and species across a landscape. We also recommend defining landscape scale at a higher order watershed averaging approximately 30,000 acres. Washington’s watershed analysis process used this size and it has proven to be a practical scale for environmental assessment. 10,000 acres is quite small in relation to commercial forestry.

**Table 3.1: Evaluation Criteria to Assess Native Species and Natural Forest Management**

The criteria outlined in Table 3.1 conform to California Forest Practices Rules, but are not practical for other states. We suggest giving the option for a project developer to show that project lands are certified to a third party sustainable forest management standard (e.g. SFI, FSC, CSA, and ATFS) in lieu of using the evaluation criteria outlined in Table 3.1. Below are some more specific suggestions.

¹ It is recognized that the protocol does make a distinction that harvested wood product decay over time, and thus the quantity of additional carbon such products represent is appropriately discounted. But this is not an argument that the carbon is no additional.
Native Tree Requirements - This requirement should be changed to encourage native species and avoid the use of non-invasive species as outlined in the RGIG afforestation protocol\(^2\). Though California may have many suitable native species for carbon sequestration, there may be future climate and environmental justifications to introduce other species, especially to adapt to climate change.

Diversity and site specificity requirement - This test appears to be biased against commercial species. In many cases commercial species are not only native to the area, but also would be found as the dominant species under “background” conditions. Nevertheless, determination of what constitutes an “unmanaged background” level of diversity is impossible. Factors such as soils, aspect, seed source, browse intensity, and disturbances including fire affect diversity of the forest at any given site, and these factors vary spatially and temporally. We don’t see any climate relevance to this and suggest removing the test.

Structural Requirements - The requirements in this test appear to be the same for each point. Is this intentional?

Sensitive Areas on Forests - The criteria in the previous sections have been based on some element of on-the-ground performance, yet the criteria in this section are based on prescriptions in BMPs/regulatory systems. Why change for this section? This test is particularly puzzling as it appears to be placed in here in anticipation that this standard will be used outside California. The California regulations should be sufficient for these criteria and should simply be incorporated by reference.

Section 5.1 - Leakage
The provisions of this section call for project entities to address the potential for leakage that would undermine (decrease) the actual benefits of the project. As a general proposition, this concept is both appropriate, and a well-established project requirement. In practice, however, the requirement can be better addressed by differentiating between “internal” leakage that could occur within areas under ownership or control of the project entity (owner) and those that are “external” or to areas owned or controlled by the project entity, the latter often being referred to as “market” leakage.

Internal leakage is unlikely to be a problem in states like California with forest practice acts or well developed best management practices for sustainable forest management. An owner would be unable to displace harvests deferred in a project area to non-project lands and still conform to state requirements. Displacement is also unlikely in states with a high degree of certification to sustainable forestry standards, such as SFI, FSC, Canada’s CSA, and PEFC. A reasonable approach would require that all project entities to provide 3rd party certification of their non-project lands within a reasonable distance under one of these recognized standards. This approach is recognized under the US DOE’s 1605(b) GHG Inventory rules, and reflects findings of minimal year-to-year variation in the volumes (and concomitant carbon stocks) on certified forest lands. The combination of forestry BMPs and certification should be more than sufficient to avoid against internal leakage for projects in the US and Canada.

\(^2\) RGIG Model Rule c.1.ii) Eligible offset projects shall be managed in accordance with widely accepted environmentally sustainable forestry practices and designed to promote the restoration of native forests by using mainly native species and avoiding the introduction of invasive non-native species.
External, or “market” leakage, within the large U.S. forest land base is unlikely to result from single or even multiple projects. If detectable, it would be difficult to understand without multi-year, complex and costly studies. A better solution would be to require the state (or the Reserve in this instance) to carry out regular market leakage studies and develop data to calibrate a market leakage discount factor based on the findings over time.

6.2.2 Secondary Effects- The assumptions in the proposed market leakage test are overly complex and inconsistent. The test is intended to account for both a shift in harvest activities and a shift to substituted products, but it does not properly account for the latter. According to the worksheet, there is no circumstance where reducing harvest would encourage a shift away from wood to other substitute materials (Assumption #2, Demand of wood products is inelastic to supply). Consumers have a choice of building products and the market share for each product is elastic. Increasing rotation age can be temporarily significant and at a large scale would thoroughly disrupt a local wood basket. Harvesting would either be shifted elsewhere (hence to be consistent one would need to assign a 2% discount until the culmination of mean annual increment is reached) or market share of wood products may diminish, resulting in a substitution to more energy intensive materials.

In addition, assigning a 2% discount for taking lands out of production means that the set-aside area would need to grow more than 2%/yr to have any net carbon accrual. This assumes that the activity is shifted to a land that is managed in exactly the same way and assumes that all harvest is completely replaced. We feel that several additional factors go into a landowner’s decision to harvest besides the actions of their neighbors (e.g. a project participant). The decision to harvest is dependent on landowner inventory, local market conditions, cash flow demands, and forest health, among others.

Furthermore, we disagree with the conclusion that an increase in harvest levels of 0.5% over a 10 year period represents internal leakage. It fails to allow for situations wherein landowners may have been increasing productivity on their non-project lands to increase volume available for harvest. There are also likely to be instances where past market conditions have led landowners to simply under harvest for a period of years, and current market conditions favor bringing that deferred incremental volume to market. Such activities do not reflect leakage.

Recommendation: Revise the draft text to differentiate between internal and external market leakage, and require that project entities to provide evidence of third party certifications to recognized sustainable forest management standards for their non-project lands annually. This will address internal leakage. In addition, revise the draft text to inform project entities that the Reserve will undertake regular studies to monitor the extent to which projects are creating external leakage. The results of the studies should be used to adjust, as necessary, a market leakage discount factor, to which their annual offsets will be subject during the project crediting period.

Section 6.2.2 Mobile combustion secondary effects
The Protocol calls for accounting for increases in emissions associated with machinery use in a project activity for reforestation and restoration and some forest management activities. The level of detail that is required (i.e. see 6.2.2: types of vehicles utilized in the project, where they are registered, and fuel consumption and miles traveled for each type of vehicle) is impractical for a
forest management project of any scale. It is also unfair, as the baseline against which it is compared would also include fossil fuel to run machinery, but the numbers would be estimates used in modeling, not precise measurements. A more practical approach would allow a project proponent to estimate emissions from machinery use using the same assumptions as the baseline, with data collection an option for proponents who prefer not to accept the baseline assumptions. The Protocol should also exclude emissions from machinery if they are reasonably expected to be below a threshold (e.g. 5%) of total carbon reductions expected.

In addition, if mobile emissions are captured in another climate policy, they should not be required to be in a forest project. For example transportation fuels will be included in the Western Climate Initiative in the start of the second compliance period, January 1, 2015. The Protocol should allow for excluding these emissions once policies like this are in place.

Section 7- Permanence

The draft document states:

“The Reserve requires that credited GHG reductions be effectively permanent. For projects that sequester CO2, this requirement is met by ensuring that credited GHG reductions remain sequestered for at least 100 years. The Reserve strongly encourages forest project developers to take steps to mitigate the risk that credited GHG reductions will be “reversed,” i.e. emitted back to the atmosphere. Furthermore, the Reserve requires project developers to demonstrate that they have insured against reversals, based on a project-specific risk evaluation. Insurance can take the form of contributing Climate Reserve Tons to a buffer pool administered by the Reserve, or it can take the form of an approved insurance contract with a third-party insurance provider.”

This provision is an improvement over prior drafts, as it moves away from the sole reliance on conservation easements. It begins to provide landowners with a broader array of options for managing the long term risks associated with reversals that could affect carbon stock inventories, a position the industry has sought to achieve for some time. It remains unnecessarily narrow, however, as it excludes other viable options.

The provision does not allow for the use of bi-lateral contracts or carbon market positions for forward delivery contracts or options which would allow a landowner to purchase emission allowances and/or other offsets at a known cost for future use in the event of a loss from a reversal. Also, the wording of this section it is not clear as to whether a project developer/owner, even if insurance is in place, still has to make a Carbon Reserve Ton (CRT) contribution to the state carbon forest offset buffer pool.

The language of this section should be improved by expanding the alternative mechanisms landowners can use to ensure the permanence of registered offsets against either reversals or early termination. Including these options in the protocol will also signal to the financial and insurance markets that it is worth their while to develop the instruments needed to make these options available. The options should include, but not be limited to:

- Insurance from a state authorized firm;
- Contracts evidencing participation in like kind (forest offset), third party insurance pools;
- Self insurance through the setting aside of a portion of qualified offsets;
- Forward contracts for the purchase of, or the right (options) to purchase offset allowances or emissions allowances held in a qualified GHG allowance or offset registry account of a third party.
- A performance bond, similar to those used in major construction contracts.
Weyerhaeuser

7.2 Buffer pools and Appendix C: The risk of reversal assessment tests (financial, management (including conversion, social, natural disturbance) are not only overly complex but also biased, in weighting, against the risk of conversion. Furthermore, because permanence is clearly defined as 100 years, it seems unnecessary to create complex permanence risk assessment tests that could bind up potentially large percentages of credits.

**Recommendation:** Expand the terms of this provision to clarify the options that should be available to address the permanence risk management needs of project entities. Re-enforce the concept that permanence is a liability of the project entity, the landowner, not the land.

We appreciate the opportunity to comment and look forward to working with CCAR.

Sincerely

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