

March 24, 2011

Dear CAR Staff and Board,

Thank you for arranging to have the white papers written and for this opportunity to comment on how you might incorporate what they have said into the forest protocol. I am writing to ask you to modify the current forest project protocol to incorporate data from the white papers about soil carbon and lying dead wood to more accurately track carbon. In addition, the protocol should continue to require that projects be examined to verify that natural forest management processes are followed. The only possible exception is a project certified by the Forest Stewardship Council. Other certification methods are not stringent enough to be adequate. As always, I request that projects that utilize clearcutting not be allowed to qualify for carbon credits.

The *Accounting for Carbon in Soils* white paper begins with a very strong statement: "Soil carbon accounts for 50-75% of all forest carbon in temperate and boreal regions, so small changes in soil carbon can have significant influence on total carbon storage." With so much of the carbon being found in the soil, surely accounting for the carbon in the soil is of great importance. According to the white paper, pre-harvest, harvest, and post-harvest activities all can either increase or decrease the amount of carbon stored. In addition, the paper found that 50 years are needed for a soil to reach pre-harvest levels of carbon. Surely, you must require carbon accounting for the carbon in the soil. It can no longer be optional for most logging projects.

According to *Carbon Accounting and Management for Lying Dead Wood*, lying dead wood can also be a significant source of forest carbon and needs to be included in forest carbon accounting. The percentage varies between 2-5% depending on the region and the type of tree. Removal of LDW would also seem to result in less soil carbon later on.

Many of the statements in *Carbon Dynamics Associated with Even-Aged Forest Management* did not ring true for me perhaps one of the authors of the paper also helped write the protocol. Even-aged management does not mimic natural disturbance such as fire. It is dissimilar in the many ways mentioned in the paper such as forest fires differ in intensity and size whereas even-aged management sites are more similar. However, in addition, burned forests retain their diversity of flora and fauna unlike an even-aged management site from which all plant species have been removed, herbicide applied, and then the future commercial crop seedling planted. Often the larger trees survive a fire. The ecosystem after a fire will recreate itself over time. However, even-aged management totally transforms a natural diverse ecosystem into one or two commercial crops, which never regains its original character.

Even-aged management techniques are more intense than uneven-management techniques, which means the soil carbon suffers more disturbance, more live carbon (in commercial and non-commercial plan material) is removed or destroyed). The difference in intensity and scale between even-aged and uneven-aged management overshadows any difference in the techniques they may utilize. As stated earlier, the *Accounting for Carbon in Soils* white paper, pre-harvest, harvest, and post-harvest activities all can increase or decrease the amount of carbon stored. It is not reasonable to assume that even-aged management, the most intense forest management

practice utilized, will have no effect upon soil carbon as claimed in the *Carbon Dynamics Associated with Even-Aged Forest Management* white paper.

It is difficult to see the *Examining Carbon Accounting and Sustainable Forestry Certification white paper*, which is written by a major SFI certifier, as a neutral evaluation of the three major certification systems used in the United States. Nonetheless, let us proceed to consider some of the questions you are considering.

The protocol should continue to require that projects meet the criteria for natural forest management. Of the three mentioned, only FSC comes close to being an adequate replacement for the text in the protocol. SFI includes none of the limitations, in stand size or project timing, or native species, that are contained in the natural forest management section. Additional requirements should be added to natural forest management section of the protocol to require that projects safeguard our watersheds and protect the state's wildlife. It would be beneficial to also add language to the protocol to ensure that forest projects brought jobs to local forested communities.

Only certification by FSC could be considered adequately ensuring sustainable harvest levels. "Sustainable" is an over-used word whose meaning is often unclear. Rather than thinking of sustainability only in terms of sustainable yield, sustainable forestry should encompass its impact on the natural world (wild life, watershed) and nearby human communities. It is not reasonable to believe that all certification systems, the state and federal forest regulations are sustainable when the number of impaired waterways and endangered species in this state are on the rise. Another problem is the high joblessness rates in forested communities.

Thank you again for this opportunity to comment these white papers and how you might incorporate what they have said into the forest protocol. To review my conclusions, with 50-75% of forest carbon sequestered in the soil and forest management methods having such a large impact on whether it stays sequestered or is released, we need to be make carbon soil a required portion of carbon accounting for all projects. Lying dead wood is also worthy of inclusion. Even-aged management should not be considered as mimicking natural disturbances such as fire. The intense methods used by even-aged managed management are detrimental to our natural environment and are not as viable a means of adding to our carbon pool than un-even management. The natural forest management section of the protocol should be maintained and strengthened. Of all the forest certification systems, only FSC comes close to guaranteeing sustainable forestry and natural forest management.

Sincerely,

Karen Maki
482 Ninth Avenue
Menlo Park, CA