

From: Vivian Parker

To: California Air Resources Board

Sent via email, December 15, 2010

Re: Forestry Protocol, Proposed California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms Regulation, Including Compliance Offset Protocols.

Chairman Nichols and members of the Board:

In my opinion as a biologist, the forest project protocols/regulations are fraudulent, and a travesty. They will not serve the purpose of reducing greenhouse gas emissions, nor will they result in significant new carbon storage in California's forests.

For those forests which are permanently protected via conservation easements, the forest protocols will help to incentivize such agreements—that's good. However, those type of agreements are not likely to be a major source of activity on the cap and trade marketplace. They will occur early (many have already been transacted). Many of these forests were likely to have been maintained in their natural state in any event. Land-rich landowners will be further enriched. That's ethically suspicious, but that is not the subject of my objections.

The protocols for timber management – e.g., “reforestation” and “improved forest management” are nothing more than a wish list for the timber industry, and if implemented as written they will have the net effect of increasing the loss of native forest and the extirpation of the associated plants and animals that comprise California's native forest biodiversity, while doing nothing to offset or ameliorate global warming and greenhouse gas emissions.

Eliminate the credit for business-as-usual, even-aged management (clearcutting) practices in the Improved Forest Management category , and amend Reforestation Project credits to protect native biological diversity.

My colleagues in the conservation community have done a good job at listing the problems in the forest protocols and we have tried over the last two years to bring these objections to your attention, but clearly, this has had little to no effect on the ARB's protocols. Instead, your staff has chosen to defer to the California Department of Forestry and Fire Protection (CDF/Calfire), and other adherents to the myth of good forest management in California, such as the Climate Action Registry, and associated industry lobbyists and associations.

We could go into this in more detail, but suffice it to say that we have voiced our objections to business as usual already. We have tried to explain to you that CDF's CEQA certification of the timber harvest plan process via the Z/Berg-Nejedly Forest Practice Act (the Forest Practice Rules) is not effectively protecting California's forests and conserving the plants and animals which, under the State constitution, belong to all the people of California. In California, under the current rules for timber harvests, California's fabled forest biodiversity is disappearing, acre by acre, year by year. This is entrainment towards extinction. As parties to the development and approval of these forest protocols, the ARB will become a new contributor to the extinction of thousands of plants and animals. I don't think that was your intention. It isn't too late to fix this.

We have objected to ARB's no-questions-asked acceptance of the myth of California forest management. You have all heard the myth: "California has the strongest forest-related environmental protections in the world." Chairperson Mary Nichols was even quoted this morning reciting this cliché in the California Report.¹ The fact and the truth is that California state regulators at CDF approve tens of thousands of clearcutting acres every year under the state's Forest Practice Rules. Those clearcutting acres, termed "even-aged management," emit tons of greenhouse gases each year.

They are replanted, yes, but the planted acres are no longer forest. Forest lands are replanted with a crop, a ponderosa pine crop, which is no different from a corn crop except that you cannot eat it, and it will take another 80 to 100 years before you can harvest this crop. And it is not an organic farm by any means. The crop is subjected to repeated applications of potent chemical weed killers, applied by the tens of thousands of gallons each year in the watersheds of California's forests. They are designed to kill the native re-growth that otherwise would compete with the newly planted trees. This effectively eliminates all the native species and, of course, eliminates the habitat that provides food in the form of pollen, nectar, forage including acorns, nuts, berries and other fruits, nesting materials, shelter and denning for countless species of wildlife that have coevolved with the native forest and all of its associated ecological processes. Let us be very clear: the business-as-usual forest practices that include this type of even-aged management do not protect plants and wildlife, but actively destroys them. These practices do not protect or conserve California's wildlife. These practices are contributing to an entrainment towards extinction for hundreds of species of plants and animals. The fact that these practices are upheld by the state's regulatory agencies does not change the outcomes.

And, the amount of GHG emissions that occurs as a result of clearcutting massive volumes of natural forest landscapes will not be recouped from subsequent tree growth in the pitiful, depauperate and unhealthy industrial tree farms that now threaten to overtake every square foot of our non-federal forest landscapes. It will take 80 to 100 years or more for this carbon to be restored, if the newly planted tree farms can survive.

¹ <http://californiawatch.org/dailyreport/timber-companies-stand-benefit-new-climate-law-7469>

It is not clear that they will. Tree farms burn up regularly because they are densely planted, uniform monocultures with no natural resistance to forest combustion factors that a native forest has in abundance. Even if they did survive, we face an acute crisis due to global warming, and we cannot wait 80 to 100 years. Thus, any gains from future growth will not have a meaningful impact on the current crisis.

There is also a tremendous flaw in the **“Reforestation Projects”** category. Lands qualify in this category simply by having low tree cover, or having had a “significant disturbance” (such as fire) and which can be “reforested.” The average person would ask, what is wrong with that? You take marginal lands that currently don’t have “timber” and subject it to “site preparation” and then plant conifer tree crops.

The problem is that this type of thinking is not informed by biology or ecology! The so-called marginal lands may be teeming with important habitat for a wide spectrum of plants and animals. It may be providing habitat for species which are currently rare or even threatened with extinction due to lack of habitat. This happens a lot in California because our state has evolved with frequent fire, and many species of plants have disappeared due to quite effective fire suppression that prevents fire from occurring in forest habitats. Also, because fire is actively suppressed, during wildfire suppression activities, forest habitats are bulldozed, subjected to implementation of fire lines, back burning, and massive drops of chemical fire retardants which all have a negative affect on the recovery of the post-fire forest environment, and reduce suitable habitat for species which require fire.

But where fires have occurred, sometimes the habitats bounce back with huge flushes of native species, and are rich with native wildlife. Biologists continually locate rare species of plants that have hitherto been thought to be extinct. These sites frequently contain rare species of plants and animals, such as birds and butterflies that require a certain plant community that is increasingly in short supply.

The timber industry has a different view of this phenomena. They will normally try to bulldoze the site and replant it (the even aged model) but if, for a variety of reasons, the site is not replanted after ten years, the site may be considered marginal lands if timber is not growing back at the rate and scale at which they would like to see. Sometimes these are lands with large areas of rock outcrops and poorer soils, that don’t support rapid regrowth of conifers. Under natural ecological processes, hundreds of years may pass, with such areas slowly growing and building their soils and seed banks. They may never support conifers over time, or perhaps they will—not everything can be precisely predicted in evolutionary time. They may reburn, if left to natural processes. Such random events are the foundation of biological diversity. And there is no scientific credence to the supposition that non-conifer habitats cannot also serve as carbon sinks. Some types of chaparral communities on serpentine soils may contain shrubs that are hundreds of years old. You cannot tell just by looking at them. They are old because they have evolved on soils that are unique, and don’t support dense and lush forests.

They may grow for hundreds of years without ever supporting a conifer overstory of any significance.

These types of lands are the precise suitable candidates you have designated in your protocols for reforestation. Perhaps the ARB staff thought it sounded great when first proposed by the industry. It is hard to argue against planting trees. For the industry, it's a win-win solution. They get to replant and get paid to do it. The lands may never support commercial timber – that won't matter. It will be worth it to them to bulldoze and destroy a vital ecological niche habitat landscape, and plant it to timber where they ordinarily wouldn't be bothered, in order to reap carbon trading credits. You didn't listen to the arguments against such a proposal brought forward by the public. So, here we are—once again, the great environmental leader, the state of California contributes further to the extinction pathway for hundreds of California's plants and animals.

Recommendation:

The protocols must eliminate the provision for clearcutting/even-aged management as an acceptable forest management practice qualifying for carbon credits. The protocols must also eliminate the provision to award carbon credits for conversion of natural areas, simply because they can be replanted. These areas may contain high levels of natural forest early successional species and intact ecological processes that provide ideal habitat for wildlife. The requirement that areas may qualify simply by virtue of lacking high tree cover for ten years, or due to a significant disturbance such as a fire, is absurd and flies in the face of all environmental law and scientific credibility. Post-fire early successional forests are among the most rare forest types left in America today. Incentives to further reduce their presence is a death sentence for countless living organisms.

Accounting Errors

The protocols do not fully account for sources of carbon emissions that occur during timber harvesting, when forests are sinks for carbon storage when they are not harvested. In making these determinations, there cannot be any errors or omissions, or the entire purpose and intention of the cap and trade protocols becomes suspect and of course, ineffective at achieving its purpose.

In the case of lumber milled from fallen trees, a huge percentage of the wood will never be utilized and will simply disappear as sawdust and will rapidly cycle into the atmosphere as an emission. That percentage has not been averaged into the equations for carbon accounting. These losses occur at various stages of processing, from the forest to the mill, to the lumber yard and to the ultimate destination wherever that may be. Your only factor in accounting for biological decomposition is based on wood storage of 100 years. I assure you that sawdust does not take 100 years to degrade. Most of it will result in carbon emissions within days and weeks.

Further, all of the fossil fuel emissions associated with timber harvests, from tree falling, hauling, milling, and transportation to the lumber yard and the subsequent milling and sanding that occurs when the lumber is turned into products are not accounted for at all. I don't think it is accurate to assume that the accounting for these emissions will occur in the energy production end of the equation. Rather, the amount of carbon in lumber must be a NET figure, that is arrived at after deducting the costs of the fossil fuel energy used to produce the lumber. Otherwise, you are simply externalizing the costs—which defeats the purpose of the legislation to reduce GHG emissions and curb global warming.

It is also illegitimate to make assumptions about what type of energy is used to power sawmills. Perhaps some of it will come from burning wood waste. Perhaps none will come from burning wood waste. In any event, from start to finish, many forms of fossil fuel powered equipment is used before the wood product is actually turned into something that will be turned into a product that will store carbon.

But you do give credit for carbon storage for lumber products, even for lumber that winds up in landfills. This is fraudulent, as there is no credible way to estimate the volume of lumber that is discarded in landfills, or to estimate its origin. It's certainly carbon stored, but not carbon stored that can accurately be credited for use in a cap and trade scheme.

In short, on the one hand you are maximizing credit for tree flesh in the form of lumber, but on the debit side, you completely exclude the fossil fuels and waste emissions from the work required to turn trees into products. Because of these, and innumerable other inaccuracies, uncertainties, and opportunities for fraud, the protocols must simply remove the credit for tree carbon stored in the form of lumber.

The only legitimate use of forest carbon credit is the credit for trees that are left standing in the forest. No credit should be given whatsoever for lumber, as it is just too difficult to accurately measure, or even to estimate, the true value of such carbon storage. This doesn't mean it doesn't exist. It is simply too hard to accurately measure. And we cannot get this wrong—the future of the planet is at stake. It is far better to incentivize what we know to be real—the carbon storage capacity of our biologically healthy and naturally diverse forests.

Recommendation:

Eliminate the inclusion of lumber for crediting carbon in the form of lumber products and in landfills.

In sum, the forestry protocols are disappointing, they will be ineffective as written, and they will provide an incentive to the timber industry to continue rapacious clearcutting (even-aged management). These proposed regulations will provide an incentive to increase the conversion of native forest into additional tree farms in areas where the

industry normally would not venture, due to the marginal value of the lands. These marginal lands, however, may be exceptionally valuable for entire suites of species of plants and animals. The protocols will contribute to increased GHG emissions, while doing nothing to curb global warming. They will enrich the pockets of the already wealthy. The accounting methods in the protocols will maximize the carbon value of lumber, while minimizing the carbon value of natural forests which have successfully moderated our climate without the interference of human beings for millions of years. The accounting methods also minimize the contribution of GHG emissions that result from timber harvests that are currently permitted. All in all, the goals for reducing climate change are not met by the forest protocols and they should be amended as recommended.

Sincerely,

s/Vivian Parker

Vivian Parker