

10 May 2009

to:
Climate Action Reserve

from:
Catherine Moore
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re:
Forest Project Protocol

I am a forest landowner in Santa Cruz County and a member of the Board of Directors of the Central Coast Forest Association, which represents landowners and forest professionals in the Southern Subdistrict of the Coastal Redwood District. I attended the Forest Landowners of California annual meeting in early May 2009, which offered a symposium on carbon sequestration. I was tasked to study the issue and report my findings to our organization. In this program, your protocol was discussed intensively.

I find your Forest Project Protocol (FPP) fundamentally flawed and cannot in good conscience recommend that our members participate in it. My reservations can be found in several aspects of the program; I have scientific, philosophical, and business objections to much of what is being presented. It is not worth discussing the fine details of subparagraph x.y when the overall package is so deeply flawed.

Scientifically, it is very evident that carbon sequestration is not the real goal. If it were, this entire protocol would be structured very differently. The protocol tries to address two very different, and somewhat incompatible, functions as one. Carbon dioxide extraction and carbon storage are separate functions, and to be optimally effective, they must be treated as separate, at least when considering forested land.

The nature of the forest proposed by the protocol is not the optimal forest-based carbon extraction engine. Although I, personally, prefer to manage my land using uneven aged management, the best forest engine for carbon extraction would be a young, even-aged forest stand where all the trees are growing at their optimal rate. In an uneven-aged forest, the larger trees are inhibiting the growth of the younger trees and in an old-growth forest, the carbon extraction to release ratio is nearly balanced; these forests are essentially static. Thus, to maintain optimal extraction of carbon dioxide, these stands must be thinned regularly to release the potential of the remaining trees back to their optimal growth rates. Many species also perform better as even-aged stands, especially Douglas firs and most pines. Redwoods are tolerant of uneven aged management, but perform better as even-aged management. Nevertheless, the protocol is not encouraging vast tracts of young even-aged trees. I must therefore conclude that carbon extractions is not a major goal of this protocol.

A standing forest is a terrible place to store the extracted carbon. As noted above, allowing a forest to become overgrown only serves to slow carbon extraction rates. Once overgrown, the entire operation is at risk to fire, disease and insect infestations. California is already suffering deeply from overgrown forests and brushlands that are burning each year at an ever increasing rate. Air quality has been compromised frequently throughout the state in fire season, yet this

protocol encourages further overstocking so that the landowner can demonstrate “additionality”. This can only be considered to be a promotion of bad management practices.

Philosophically, we forest landowners have a very hard time with the entire concept of carbon credits in the first place. It fixes nothing. It’s just a feel-good “get out of jail free” card for those who are feeling guilty about their lifestyles but don’t want to actually change their ways. It’s a way to penalize industries who generate needed commodities like power but have consequent side effects like pollution. One of the presenters at the conference said directly that the purpose was to change social behavior, not fix the problem.

The history of attempts to change social behavior, also known as social engineering, shows that it is a chancy enterprise at best. Things seldom go as planned in these operations. Carpool lanes really have not been all that effective; they’ve been around for decades, but most people still prefer to drive themselves. Prohibition was an unmitigated disaster that was more effective in promoting the fortunes of organized crime than in stopping alcohol abuse. Cigarette and alcohol taxes have not stopped that many people from indulging and the so-called “War on Drugs” has failed. Most recently, when gas prices topped five dollars per gallon last year, the environmentalist social engineers cheered, saying it would slow fuel consumption and save the air. It did do some of that, but it also changed the spending patterns of the entire country. People not only limited their travel, thus adversely affecting the tourist trades, they also started directing large portions of their discretionary money into keeping fuel in the tank and paying for the fuel-related cost increases of food and other necessities. All the jobs which were supported by discretionary income took a severe blow, which helped push the country into its current financial straits. I really would not hold much hope for this latest experiment in social engineering.

Still, when push comes to shove, business is all about the numbers, and the numbers just do not add up favorably for forest landowners. How does the FPP stack the deck against forest landowners? My list is enumerated below.

To qualify as a source for carbon credits, the property management must exceed local practices. Local practices vary widely throughout the state and the nation. The “business as usual” standard in the Southern subdistrict of the Coast District in California is the gold standard in forest management. The requirement to exceed this standard is next to unattainable and thus disqualifies much of the best stocked and managed property in the state, property which one would think CAR would be bending over backward to include.

“Additionality” and “leakage” are only terms designed to further limit how much of a property’s carbon is marketable. The property owner is already extracting carbon, unlike lands of other usages like shopping malls. The “additionality” of a forest, farm or pasture is worlds above that of a shopping mall or factory. I recommend CAR discard the concept of “additionality” and let the property owner offer what he has in its totality. If he can make a real living at his management of carbon sequestration and can get credit for all of it, he won’t be very inclined to find another use for that property. “Leakage” is a particularly egregious concept. The property owner has no control over “leakage”; this “leakage” is not taking place on property he controls. Instead of calculating “leakage”, why not pay the carbon extractor more? His neighbors will jump on the band wagon to get some of that pie for themselves. “Leakage” will go away.

The extent of the survey needed to prove that the property owner has the carbon he claims is much too expensive. Our existing timber cruises are not allowed, since they typically don’t count every downed branch and oak sapling, yet the entire system still relies on statistical

sampling, just like a timber cruise. After a certain sampling point, the numbers counted will provide a reasonably accurate portrait of the landscape. The statistical timber cruise has been used successfully for decades for both management and harvest operations. There is no reason why people like the UC Extension foresters can't put together a set of constant factors to be multiplied into an existing timber cruise based on terrain type to produce an equivalent carbon count. This would save the property owner tens of thousands of dollars over redoing his cruises to meet FPP requirements. If CAR finds this method unpalatable, then they can low-ball the constants slightly to ensure the carbon stated is really there.

The penalty for the statistical error rate is unwarranted. If, for example, the calculated sampling error is 12%, then the true value will be found within 12% of the stated value. It might be up to 12% less, but it is equally likely to be up to 12% more. If you must impose a penalty, it should be no more than the stated 12% of the sampling error.

The burdens of verification have been placed on the property owner, when they belong with either the purchaser or the marketer managing the carbon trade transactions. In all the large business transactions I have participated in, buying real estate and so forth, it was always incumbent on the buyer to pay for his own validation of the correctness of the contract he was entering. It seems fishy for the seller to pay for the verification of his own product.

It is also not common practice for the seller to insure a product after purchase. If I buy a house, I buy its insurance policy. When I buy a car, I buy its insurance policy. So why am I providing the insurance when someone else is buying my carbon rights?

The property owner is being required to absorb a disproportionate amount of the risk in the venture. The FPP encourages a management strategy of overstocking to achieve "additionality" and mitigate "leakage". This creates an environment at high risk for wildfire and disease. To mitigate this, the property owner is required to disallow 20% of his carbon resources to provide a risk buffer. Wouldn't it make a lot more sense to let him manage his property for the health of the flora and allow him to sell the overgrowth to "carbon-neutral" biomass-fueled generation plants? California is currently losing the biomass capability it has because the costs of collecting and transporting the chips is too much.

The income to be reaped is just too low. The properties CCFA represents grow primarily redwood. Redwood timber at \$600 mbf is equivalent to \$75/ton CO₂e. Even at today's relatively low \$450 mbf, the price is equivalent to \$56.25/ton CO₂e. The numbers I heard tossed about for what people are will to pay for carbon credits are sitting at \$7 to \$10/ton for our prime properties. After I have sold this carbon, I have to ensure the carbon is "locked" for 100 years to achieve "permanence". My land is currently on a 60 year rotation. In that time, I could harvest once, raise the entire next crop and harvest it, then be 2/3 of the way through raising my third. You don't have anything to offer monetarily that even comes close to this.

The carbon credit market, as far as I can see, is another bubble market based on a vaporous fantasy. When I sell my wood, real wood exchanges hands and that wood can be used to make real products like houses, furniture and paper. When I sell carbon credits, I am accepting a contract to ensure so many units of carbon remain locked out of the atmosphere for 100 years, in essence, selling my rights to that property for 100 years. If the carbon market implodes, I am still left with my contractual commitment and no legal way out to sell my product in other ways. Where is the escape clause that lets me resume using my property in more profitable ways?

We forest landowners are a scarred and skeptical bunch. We have been managing the lands that absorb carbon, produce oxygen, and purify water and air for decades, and have been treated like pariahs for doing so. We are not willing to put our financial necks on the chopping block yet again for a program as risky and unrewarding as this.

Catherine Moore