



## **Ebbetts Pass Forest Watch**

Post Office Box 2862  
Arnold, California 95223  
209-795-8260  
[www.forestwatchers.org](http://www.forestwatchers.org)

January 11, 2010

Mary Nichols, Chair  
California Air Resources Board  
1001 I. Street  
P.O. Box 2815  
Sacramento, CA 95812

### **Re: Ebbetts Pass Forest Watch Comments on California Cap-and-Trade Program, Preliminary Draft Regulation (PDR)**

#### **Submitted by email to:**

[http://www.arb.ca.gov/lispub/comm2/bcsubform.php?listname=dec-14-pdr-ws&comm\\_period=1](http://www.arb.ca.gov/lispub/comm2/bcsubform.php?listname=dec-14-pdr-ws&comm_period=1).

Dear Chairman Nichols, members of the California Air Resources Board and ARB staff:

Ebbetts Pass Forest Watch (EPFW) thanks you for the opportunity to submit comments on the California Cap-and-Trade Program, Preliminary Draft Regulation (PDR). EPFW appreciates the effort already expended by all those connected to ARB to produce the clearly-presented document available for public comment. As well, EPFW appreciates the openness of ARB to public involvement in the process of developing a Cap-and-Trade Program, which will not only meet the mandates of AB32 but also prove beneficial to California's climate. EPFW looks forward to being part of the process moving forward and submits the following comments as its initial thoughts on this crucial program.

#### **EPFW's comments in this letter are related to the areas of**

##### **1. Subarticle 13: Offsets Credits**

- **Disallowing Clearcutting and related plantation-creating methods for offset eligibility**
- **The role of ARB in the offsets market**
- **General format of any regulatory offsets program adopted by California**

## **2. The Question posed on page 9 of the PDR: How Would the Cap-and-Trade Program Address Co-Pollutants?**

### **1. Subarticle 13: Offsets Credits**

#### **Disallowing Clearcutting and related plantation-creating methods for offset eligibility**

EPFW is most concerned that offsets adopted in a regulatory Cap-and-Trade program truly meet the goals of being “real, permanent, verifiable, enforceable, and quantifiable.” As well, EPFW feels offsets must give early carbon benefits during the timeframe of AB32. Senator Pavley, AB32’s author, stated at a Senate hearing on January 7, 2010 that climate change is real and happening faster than many or most thought would happen. This validates AB32’s ambitious goals and timelines. And because of this reality, offsets must be evaluated as to whether they offer near-term benefit, not just whether they can demonstrate a potential carbon benefit over a 100-year frame, with most benefits occurring at the latter term and potentially even with short-term emissions consequences. Another important consideration is that offsets and carbon-supportive activities provide co-benefits beyond carbon, and that must be a meaningful part of any adopted offsets program.

**Due to these important considerations for offsets, EPFW wants to lodge its strong objection to clearcutting or other “evenaged” methods that result in plantations being included in any regulatory California Cap-and-Trade program. Clearcutting and similar methods of forest management with their resultant plantations are methods that are net emitters of carbon for years, perhaps decades according to recent science. Whether or not they may eventually become significant carbon sinks is open to question as current knowledge of future precipitation, temperature, infestations, fire, and growth patterns are the subject of intense and differing speculation. Allowing these activities which are known to have current carbon and climate negative consequences does not fit within the intent of AB32 and does not make climate sense.**

Many respected sources have spoken to the negative effects of clearcutting in regard to climate. The following are but a few statements on this important topic.

Professor Mark Harmon discussed the emissions of clearcuts in a comment letter to the Air Resources Board in October 2007.<sup>1</sup> In it, he said:

Timber harvest, clear cutting in particular, removes more carbon from the forest than any other disturbance (including fire). The result is that harvesting forests generally reduces carbon stores and results in a net release of carbon to the atmosphere.

Professors Harmon and Franklin have further elucidated:

---

<sup>1</sup> [http://www.arb.ca.gov/lispub/comm/bccomdisp.php?listname=forestghg07&comment\\_num=22&virt\\_num=22](http://www.arb.ca.gov/lispub/comm/bccomdisp.php?listname=forestghg07&comment_num=22&virt_num=22)

There is a widespread and misguided belief that logging or clearing mature forests and replacing them with fast-growing younger trees will benefit the climate by sequestering atmospheric CO<sub>2</sub>. While younger trees grow and sequester carbon quickly, the fate of stored carbon when mature forests are logged must also be considered. When a forest is logged, some of its carbon may be stored for years or decades in wood products. But large quantities of CO<sub>2</sub> are also released to the atmosphere - immediately through the disturbance of forest soils, and over time through the decomposition of leaves, branches, and other detritus of timber production. One study found that even when storage of carbon in timber products is considered, the conversion of 5 million hectares of mature forest to plantations in the Pacific Northwest over the last 100 years resulted in a net increase of over 1.5 billion tons of carbon to the atmosphere.<sup>2</sup>

Two international organizations have also commented in this regard:

Research by CarboEurope, a European program that has pioneered research into the carbon budget, reveals that soils in forests release more carbon than their trees will absorb in the first 10 years. Forest soils and the organic matter within them generally contain three to four times as much carbon as does vegetation on the ground. CarboEurope's researchers contend that, when ground is cleared for forest planting, rotting organic matter in the soil releases a surge of carbon dioxide into the air that will exceed the amount of carbon dioxide absorbed by growing trees for at least the first 10 years of forest growth; only later will the uptake of carbon by the trees begin to offset the release of carbon dioxide from the soil. In fact, their research indicates that some new forests planted on wet, peaty soils may never absorb as much carbon as they release.<sup>3</sup>

The IPCC has also addressed this issue and potential mistakes which could occur in accounting and protocol systems:

Some definitions of reforestation include the activity of regeneration after disturbance or harvesting, while disturbance or harvesting are not defined as deforestation. In these circumstances credits could be accounted for the regeneration, without debits for disturbance or harvesting, this would lead to an accounting system where the changes in terrestrial carbon do not reflect the real changes in the atmosphere.<sup>4</sup>

---

<sup>2</sup> Harmon, M.E., W.K. Ferrell and J.K. Franklin. 1990. Effects on carbon storage of conversion of old-growth forests to young forests. *Science* 247: 699-702. Union of Concerned Scientists. "Recognizing Forests' Role in Climate Change" [http://www.ucsusa.org/global\\_warming/solutions/recognizing-forests-role-in-climate-change.html](http://www.ucsusa.org/global_warming/solutions/recognizing-forests-role-in-climate-change.html)

<sup>3</sup> F. Pearce, "Tree Farms Won't Halt Climate Change," *New Scientist*, Print Edition (October 28, 2002), web site <http://www.newscientist.com/article/dn2958-tree-farms-wont-halt-climate-change.html>. Energy Information Administration: "Emissions of Greenhouse Gases in the United States 2003: Land Use Issues." <http://www.eia.doe.gov/oiaf/1605/gg04rpt/land.html>

<sup>4</sup> "A Report on the Key Findings from the IPCC Special Report on Land-Use, Land-Use Change and Forestry." Robert T. Watson, Chair of the IPCC. 12th Session of SBSTA. Bonn, Germany. June 13, 2000. <http://www.ipcc.ch/press/sp-lulucf.htm>

**Clearcutting and similar plantation-producing activities also have the least co-benefits of any forest management methods.** Among these damaged co-benefits are water quality and quantity issues including lessened snowpack retention, increased early-season run-off and lower late-season water availability. Also, clearcutting provides less forest resiliency to the wildfires expected to be more frequent and intense under climate change conditions and clearcutting plantations are more conducive for decades than other forest management to crown fires. Due to their limited species diversity, plantations are more prone to the increased insect and disease infestations expected in California's forested lands in the future. Clearcutting and plantations are detrimental to wildlife protection, native plant species preservation, and overall forest diversity, which requires multiple ages and species across the landscape level, especially under the stresses of climate alteration. As well, clearcutting and plantations mar the scenic values that define the forested areas of the state and provide enjoyment for millions and the economic base for forested communities.

Plantations are at risk from climate change. However, creating or preserving forests that are naturally diverse is a means to increase resiliency to cope with repercussions from climate change and associated impacts. As the California Energy Commission stated in their *Climate Change Impact on Forest Resources White Paper*<sup>5</sup>, "One preventative response is to retain a mixture of species and ages in the mixed conifer forests. Monodominant stands are at most risk. Designing diverse forest structures with multiple species where appropriate alleviates some risk associated with even-aged, single-species stands."

### **The role of ARB in the offsets market**

Another important aspect of the Offsets Program is the role of ARB in the offset market. EPFW believes ARB must retain control over all aspects of this market for California. To serve the citizens and public trust resources of this state, it is imperative that there be a transparent process through which both the regulated and interested public can observe and analyze the activities. In order to engender public confidence in the legitimacy of this activity as well as to hold mischief and "gaming" of the system to a minimum, ARB must be at the helm of in all aspects of this market.

### **General format of any regulatory offsets program adopted by California**

At the January 7, 2010 Senate hearing on Cap-and-Trade, many experts shared their knowledge and advice about Cap-and-Trade programs. One piece of advice that EPFW heard repeated there was to minimize the opportunities for "mischief" within the system by keeping the regulations clear and brief. Having seen an increase in the potential for "gaming" of the CAR Offset Protocols for Forestry as they have moved from being primarily based on clear principles and procedures to more detail and an increased dependence on complex computations that might be more subjective than objective as well as manipulated, EPFW agrees with the expert analysis rendered at the hearing.

---

5

<http://www.energy.ca.gov/2005publications/CEC-500-2005-193/CEC-500-2005-193-SF.PDF>

Another important point that EPFW hopes ARB keeps in mind is that California has the opportunity to be, as many are quoting, “the gold standard” of Cap-and-Trade systems. This means keeping the bar high and not allowing anything but the most beneficial activities to be included in the offsets program. Otherwise, the program has the potential to become a “Gold Rush Standard” of personal gain and resource exploitation which the State and climate can ill afford and which would destroy the credibility of California’s climate efforts.

**2. The Question posed on page 9 of the PDR: How Would the Cap-and-Trade Program Address Co-Pollutants?**

The question of co-pollutants as it relates to offsets is of great interest to EPFW. Our reading of the PDR is that a ton of sequestered carbon, such as in a forest, would be eligible for one carbon credit offsetting one ton of Greenhouse Gas (GHG) emissions from other sources. The PDR states that “Co-pollutants include smog-forming air emissions, such as reactive organic gases and nitrogen oxides, as well as air toxics, such as diesel particulate.” EPFW has concerns that those co-pollutants pose additional and long-term climate detriments not entirely offset by carbon sequestered by plants such as trees. EPFW has seen no scientific documentation put forth to clarify that concern. Before proceeding with a Cap-and-Trade program, it is important that this be addressed. Otherwise, the ARB’s goal in regard to co-pollutants of designing regulations that are “equitable” and “maximize total benefits to the State” might be undermined.

EPFW again wants to thank ARB for their leadership and hard work on the crucial climate issue and looks forward to being a partner with ARB as the Cap-and-Trade program development moves forward.

Respectfully submitted,

Addie Jacobson on behalf of Ebbetts Pass Forest Watch