

November 6, 2020

RE: Comments on the *Initial Draft Recommendations of the Compliance Offsets Protocol Task Force*

Dear members of the Compliance Offset Protocol Task Force,

Thank you for the opportunity to comment on the Draft Recommendations.

The task force was assembled as required by California Assembly Bill (AB) 398 to provide guidance to CARB in approving new offset protocols. Over time there have been many issues raised about CARB's forest offsets that use above regional average carbon stocks as a proxy for emission offsets rather than directly measuring the additional annual 'negative emissions' as trees pull in carbon dioxide into trees and long lived harvested products generated from the trees. Many independent observers with no financial or institutional ties to ARB's offsets have pointed to the problems related to non-additional crediting, generous baselines, counter-factual assumptions not supported by empirical evidence and lenient leakage accounting.

There have also been many global studies that have clearly demonstrated that managed (usually younger) forest stands have higher carbon use efficiencies than less or unmanaged stands, even if they have lower carbon stocks (Carnieli et al. 2015, Collalti et al. 2018, Gray et al. 2016). The fact that the advisory team had no registered professional foresters (RPFs) from California with deep experience with reforestation or forest management appears to have contributed to the lack of inclusion of two important technical issues. Given that the volunteer advisory group did not include technical assessments of the approaches used in the projects to date, it is advisable for this document to refrain from suggesting expansions to meet demands for more forest offset credits until more independent technical review is included.

Two technical areas where current CARB forest offsets results do not line up with other forest-based analyses of climate benefits are:

1. Improve the protocols so that reforestation projects, especially important after the massive wildfires in forests experienced across the West Coast in recent years, qualify for ARB offset credits as the lack of reforestation will guarantee fewer trees and less carbon sequestration on every acre for decades to come.
2. Improve the protocols so that well documented 'best management practices' that consistently achieve higher rates of carbon sequestration qualify, qualify for offset credits without having to make assumptions that holding higher than average inventories (historic climate benefits) can be translated into ongoing climate benefits.

Reforestation Projects

The importance of reforestation as a tool to ensure that temperate forests in western states continue to sequester large amounts of carbon dioxide are not reflected in the very low number of CARB reforestation projects. As forestry professionals have noted, much of this is due to the complicated and difficult baseline and reporting requirements. The fact that new climate benefits from reforestation projects start slowly with small seedlings and do not generate large benefits for at least a decade is also a reason why offset purchasers who need immediate credits are hesitant to purchase them. It is well documented that reforestation can generate considerable climate benefits in future decades but that the high upfront costs and logistics can impede reforestation for small

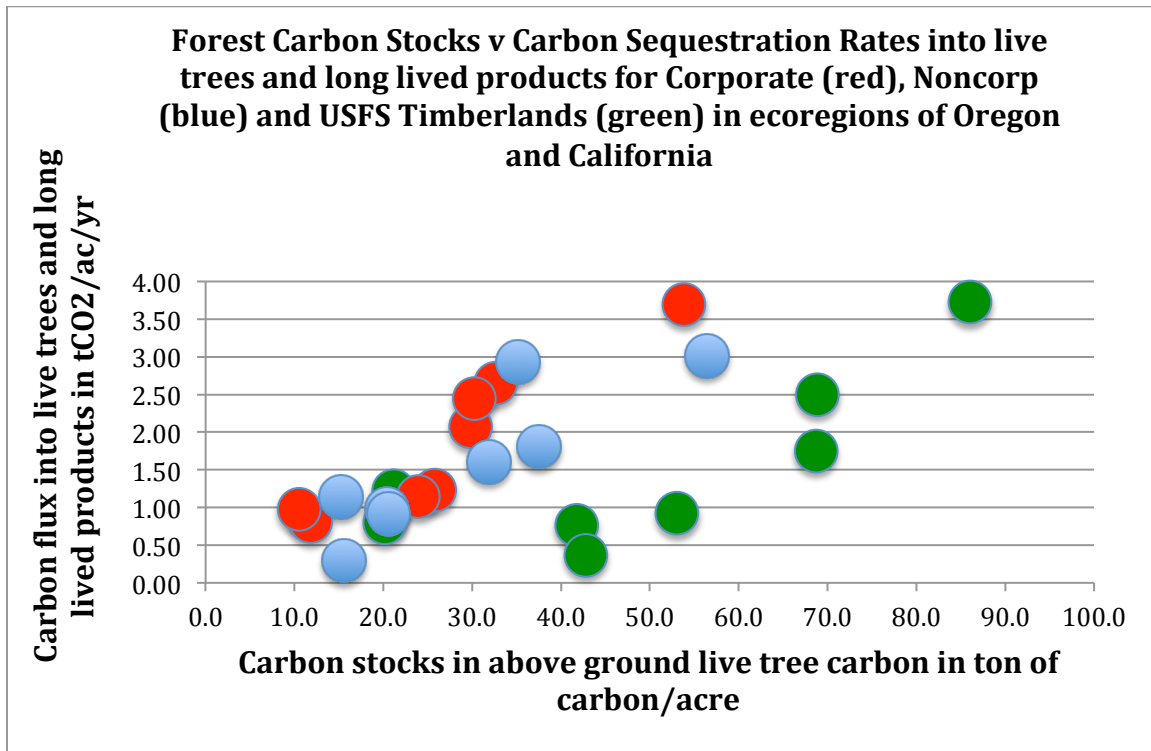
landowners and some public agencies. Better accounting for the full life cycle benefits of reforestation at the initial sale offering could generate more truly additional forest-based climate benefits.

Independent Assessments of Best Management Forestry Practices are needed before suggesting any expansion of ARB’s existing forest offsets to meet market demand

Technical improvements to existing ARB protocols were the primary focus of the task force even though the CARB offset protocols remain quite different than the protocols used by the IPCC and the US EPA to measure forest-based climate benefits. On page 17 of the draft report, the task force asserts that “The data show that substantially more GHG reductions are being generated by the offset program than are being used for compliance.” without any supporting CARB or independent technical information. Since US Forest Offsets make up 82% of all CARB offsets, this conclusion must mainly be attributed to the forest offsets. Since most forest offset credits are based primarily on initial forest stock estimates, rather than annual sequestration, the report may be overstating the unassailable benefits of the current CARB approaches. It is important to reiterate that IPCC forest related guidance, followed in the annual US EPA reports, focus on measurable annual sequestration rather than accounting assumptions about existing forest stocks. “The main drivers for forest C sequestration include forest growth and increasing forest area, as well as a net accumulation of C stocks in harvested wood pools.” (U.S. Environmental Protection Agency 2020). IPCC guidelines for forest related climate benefits focus on forest net growth (annual sequestration minus annual emissions) rather than assumptions that historical stocks would have been lost without offset projects (IPCC 2006, 2014). While protecting forest stocks in areas of active tropical deforestation areas such as Brazil is probably an accurate approach given the paucity of systematic plot remeasurements like we have in the US, it can generate overestimates of benefits in the US.

Before using this advisory group to suggest expansions of the current ARB offset projects by simplifying requirements, it would be very valuable for California to look at other forestry policy analysis that take a hard look at different forest management options (Smyth et al. 2014, Smyth et al. 2020). British Columbia is different from US states in that nearly all forest lands are owned by the government and follow similar forest growth trajectories as they age. CARB Forest offset projects are not currently available to federal lands even if their much higher inventory levels seem to match the goals of CARB’s offset rules.

However there is strong evidence for forests in both California and Oregon that more active forest management, rather than simply more forest carbon stocks are the key to achieving high net carbon sequestration rates (Christensen et al. 2018, Christensen et al. 2019). The following figure compares carbon stocks to the carbon fluxes measured by CARB in projects for three types of owners (USFS timberlands, Corporate private forests, Noncorporate (or family) forests) in eight different ecoregions.



Sources: Christensen et al. (2018) and Christensen et al. (2019)

Across eight ecoregions, it is quite clear that that forest management practices used by corporate and noncorporate forest managers are sequestering equal or greater amounts of carbon dioxide into live trees and long lived products than USFS timberlands in the same ecoregions – even though they consistently hold lower average inventories. This suggests that the simplistic assumption that more carbon stocks guarantees more annual carbon sequestration is not necessarily true – especially in regions such as Oregon and California where there is very little permanent deforestation. The recent wildfires add even more questions on the rationality of trying to store permanent climate benefits in increasingly fire prone landscapes. What the data does show is that the high inventories on USFS timberlands across many ecoregions did not generate greater annual sequestration rates than private timberlands with much lower carbon stocks.

Conclusion

AB 398 set high goals for the Task Force to provide guidance to CARB in approving new offset protocols. The report includes many technical suggestions to the existing commonly used protocols to expand their use. However, the report does not include any review of the growing literature on how temperate forests currently generate climate benefits, and what additional gains could be achieved with more investments in the forest sector. In at least two technical areas – reforestation and best management practices for achieving high carbon use efficiencies – considerably more independent scientific involvement is necessary before trying to expand the current portfolio of CARB forest offset protocols.

Sincerely,



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