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Comments on draft IFWG Tasks 1, 2, and 3 as presented to IFWG members and the public on November 24, 2009

The draft work plans for Tasks 1, 2, and 3 are quite detailed and extensive and will undoubtedly require considerable reallocation of scarce government resources.

"Task 1 Objective: Develop and fund activities to improve the technical foundation of the State greenhouse gas inventory for the forest sector.

Task 2 Objective: Determine the adequacy of the State's existing forest and rangeland regulations (i.e., Sustained Yield Plans, Non Timber Management Plans, wildlife, water quality, erosion protection, etc.) and related programs in meeting the state's GHG goals, whether simple adjustments are needed, or whether more significant action is needed.

Task 3 Objective: Development of Sustainable Forest Biomass Provisions for Energy Project Development and Greenhouse Gas Reductions"

When the three work plans are considered in toto, a few key issues are clear.

1. The climate benefits from forests and forest products are accounted for in many different sectors other than the 'Forestry' sector used in current state GHG inventory that came out before the 2009 federal inventory (US EPA 2009). Until the California inventory is brought into closer sync with federal and international standards with regard to forests and forest products, it is hard to see how Tasks 2 and 3 can be accomplished.
2. The utilization of woody biomass from currently regulated (Forest Practice Act) land management activities is different than the potential production of second generation cellulosic bio-fuels. Any analysis of the two different approaches needs to avoid conflating them.
3. The transparent use and presentation of scientific data and analysis is crucial to the success of these efforts. The extensive use of stakeholder workshops in Sacramento is valuable but is not a substitute for significant scientific input.

It is quite clear that Task 1 needs to be completed first if California's GHG inventory is to be brought in sync with the federal and international standards. One of the characteristics of

pioneering efforts such as California's AB 32 is that they often need to be revised as larger efforts with access to more data and more time to organize and analyze the data come online. It has been well documented that the 2004 California GHG inventory numbers for the forest sector are based on a consultants' estimates based on a non-statistical sample of forest carbon from a small subset of the state combined with ARB/CIWMB estimates of emissions from landfills. This method is described in the GHG inventory documents and is very different than the ways that forests and forest products are accounted for in the latest federal GHG inventory http://epa.gov/climatechange/emissions/usinventoryreport.html . The approach of only considering the role of forests in a combined 'forest/leaky landfill' sector goes against more recent analyses (Nabuurs 2007; Canadell 2008) that consider the whole suite of climate benefits from forests and forest products. A first step would be to separate the urban waste/landfill emission sources (that need to be better managed and monitored by the Integrated Waste Management Board) from the continued carbon sequestration of California's forest lands. As was described in a number of presentations by the USFS PNW program staff, the FIA is on target to complete their new system of forest growth, yield and storage in the next few years. The most recent report (Christensen 2008) provides the only statewide assessment of growth, yield, and storage. The FIA based approach is the one used for national forest accounting (U.S. Environmental Protection Agency 2009) and is necessary approach if California is going to account for the increasing import of wood products. As it stands now, 94% of the decline in the current ARB GHG Inventory 'Forest Sector' is due to landfills over which the IFWG members have no responsibility.

As of December 17, there is still no technical summary of the October 19, 2009 workshop on greenhouse gas inventory status and methods, and conclusions drawn from that workshop. It is again important to point out the state's GHG goals extend far beyond the composite target that now includes both forests and landfills (with landfills not being within the purview of any of the agencies on IFWG), renewable energy, and more energy efficient buildings. The revised Inventory also needs to be clear on how the GHG inventory and sectoral goals are going to account for GHG emissions related to imported building products such as lumber, cement, and steel. Given that reduced lumber production in California usually increases the demand for imported building products of all kinds, it is hard to keep a GHG inventory separate from an analysis of international trade in products and energy.

Until the GHG Inventory is corrected, it would seem risky to tie recommendations from Task 2 and Task 3 to an accounting system that will change. We all realize inter-state and possibly international trade will occur with forest products, RPS energy, and potentially carbon offsets. However, Task 2 seems to only focus on forests within the state. This is not the way energy-related CO2 emissions in California are treated (CEC analyzes the CO2 footprint at the source whether in state or out of state). We also realize that it will be the federal government that will enter into binding international treaties. If the state counts only some types of savings, but ignores the impacts in other accounting sectors, the apparent improvements may prove to be illusory. Ensuring that California's GHG inventory follows the same methods as the federal inventory will be a critical first step to ensure that continuous positive progress can be made.

Task 2 has 4 deliverables but it is unclear how the recommendations can be expected to serve California for years without Task 1 being completed first. The focus on increasing forest inventories in California should be tempered by looking the example of our national parks in the Sierra Nevada that have no harvests – but not increasing stocks as mortality is now equal to growth. As the IPCC noted (Nabuurs 2007), the easiest way to increase forest inventories is to simply stop harvesting. However, they also noted that this could simply lead to the need to use more fossil-fuel, carbon intensive substitutes to replace the wood products. Focusing on increasing net forest growth could be a more useful 'one phrase goal' but it will require considerable scientific work to turn a phrase into a strategy. As written, Task 2 refers to a 'carbon stock only' goal 7 times, a more comprehensive 'growth, yield, and stock' goal 2 times, and never mentions the role of imports and exports. In the same way that the 2009 Integrated Energy Policy Report, http://www.energy.ca.gov/2009_energypolicy/index.htmlhttp://www.energy.ca.gov/2009_energypolicy/index.html , calculates CO2 emissions from coal plants outside the state as emissions directly related to our energy, there will need to be a regional accounting framework for forests and forest products. Unless California has a treasure trove of data or the funding to collect it, there is no option except to use the FIA data to construct an accurate forest growth, yield and stock inventory for Tasks 1 and 2. It will become all the more imperative to use FIA data if Task 3 is going to account for bioenergy for electricity or liquid fuels that is produced in neighboring states.

Task 2 depends heavily on the use of stakeholder workgroups to "evaluate adequacy of programs" and "will recommend changes to programs, if needed, to ensure GHG sustainability, including consideration of inventory improvements from Task #1, program tracking and administration, silvicultural practices, regulations, etc.". In some respects, this seems similar to the structure of the advisory group to CCAR, now CAR, with regard to forestry protocols. This process may stretch limited government staff resources, but raises the issue of who is going to conduct 'due diligence' on the recommendations when many of the stakeholders could have a very strong financial interest in newly sanctioned government-approved programs. As the Office of Ratepayer Advocates (ORA) has noted at the CPUC hearings http://docs.cpuc.ca.gov/proceedings/A0905016.htm , there can be problems when self-selected stakeholders significantly outnumber entities responsible for 'due diligence'. The governance and accountability of any new system involving cross-sector credits will be extremely important.

Task 3 clearly gets at the important issue of the sustainability of using woody biomass as a substitute for fossil fuels that are currently provide the vast majority of energy used for heat, electricity and transportation in California. This is also a major issue in Europe (European Environment Agency 2006), and must involve a thorough analysis of the environmental impacts of different fuel sources. While a detailed multi-year work plan is laid out in the draft, it will be important to clarify two components in the objective. The first point is that the draft text refers to better coordinating programs to "1) meet greenhouse gas reduction goals for the forest sector", but the benefits will show from the sustainable of woody biomass for energy up in the energy sector, building sector, and transportation sector components of the 2008 Scoping Plan. It will be advisable to change the wording to reflect the system wide benefits, rather than just

those benefits that are currently accounted for in the 'forest/leaky landfill' sector. The second point is that the production of heat and electrical energy from woody biomass removed as part of forest management is currently regulated by the Forest Practice Act for sustainable production of high quality wood products in California and is quite different from technologies that are not yet operational to generate liquid cellulosic fuels from wood chips. The production of second generation liquid cellulosic fuels is also a national program and California would benefit greatly from improving the linkages with the scientific work being done and published around the United States and around the globe.

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Sincerely,

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