



March 17, 2017

The Honorable Ashley Conrad-Saydah  
The Honorable Claire Jahns  
Forest Carbon Action Team  
Sacramento, CA 95814

**Re: Comments on the Forest Carbon Plan (January 2017 Draft)**

Dear Ms. Conrad-Saydah and Ms. Jahns:

The Bioenergy Association of California, which represents more than 60 public agencies and private companies converting organic waste to energy, submits these comments and recommendations on the California Forest Carbon Plan Discussion Draft. While the Draft Plan provides an important presentation of the issues and the science, it is both too broad and too general to provide an actual plan or strategy to stabilize black carbon emissions and maintain carbon sequestration in California's forests. Since the Forest Carbon Plan is now intended to provide the strategy to reduce black carbon from wildfire, BAC urges the state to refocus the Forest Carbon Plan on carbon and to address the specific elements of SB 605 required for a Short-Lived Climate Pollutant Strategy.

**1. The Forest Carbon Plan Must Meet the Requirements of SB 605.**

SB 605 requires the Air Resources Board to adopt a comprehensive strategy to reduce Short-Lived Climate Pollutants (SLCPs) and to include specific elements in that strategy.<sup>1</sup> The final version of the SLCP Strategy released on March 14 states that black carbon emissions from wildfire will be addressed in the Forest Carbon Plan rather than the SLCP Strategy itself.<sup>2</sup> Therefore, the Forest Carbon Plan must meet the requirement of SB 605 to develop a comprehensive strategy that does all of the following:

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<sup>1</sup> Senate Bill 605 (Lara, 2014), codified in Health & Safety Code section 39730 et seq.

<sup>2</sup> *Strategy to Reduce Short-Lived Climate Pollutants*, released by the California Air Resources Board on March 14, 2017. Footnote 28 states: "Per SB 1383, the Proposed SLCP Strategy only addresses anthropogenic black carbon. The Forest Carbon Plan will include the goal to reduce black carbon emissions from unmanaged wildfire events through forest management and restoration activities that are designed to reduce the risk of wildfire."

- Completes an inventory of sources and emissions of SLCPs;
- Identifies research needs and gaps;
- Identifies existing and potential new control measures;
- Prioritizes measures that provide cobenefits, including improved air and water quality;
- Coordinates with other state agencies on the comprehensive strategy.<sup>3</sup>

Although the Draft Forest Carbon Plan contains some information and recommendations related to these requirements, it does not adequately address any of the required elements of SB 605.

## **2. The January Discussion Draft is Too Broad and Fails to Provide a Comprehensive Strategy to Reduce Black Carbon Emissions.**

BAC urges ARB to look to the methane sections of the SLCP Strategy for a good model of the appropriate breadth, depth and specifics that should be contained in the Forest Carbon Plan, particularly the section focused on SLCP reductions. In particular, BAC urges the state to refocus the plan on carbon, including the sources and strategies to reduce carbon emissions of all kinds, from the forest sector. As currently written, the Forest Carbon Plan attempts – unsuccessfully – to address much broader issues of forest sustainability that, while critically important, are not related to carbon emissions and reductions.

The dairy methane chapter of the SLCP Strategy provides an excellent comparison and a much better model for a forest carbon plan. The dairy methane chapter of the SLCP Strategy mentions the co-benefits of reducing methane emissions, but does not attempt to address all the environmental and economic sustainability issues related to dairies. Just as with forests, there are numerous complex and controversial issues that go beyond dairy methane emissions that should be addressed, but not in a dairy methane plan. The SLCP Strategy does not attempt to address all the sustainability issues related to dairies and nor should the Forest Carbon Plan try to address all sustainability issues related to forests.

While the Forest Carbon Plan is too broad in terms of the issues that it tries to address, it is not specific enough in the strategies it proposes to reduce black carbon and other climate emissions from forests.

## **3. The Forest Carbon Plan Should be Reorganized to Focus on Carbon and Address the Specific Requirements of SB 605.**

BAC urges the state to refocus the Forest Carbon Plan on carbon and to address the specific requirements of SB 605, cited in section 1 above. The Science Snapshot, Goals, Implementation and Forests of Today chapters all go way

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<sup>3</sup> Health and Safety Code Section 39730 (a).

beyond carbon issues and need to be refocused to be effective as a carbon plan. While a general summary of the state of California's forests is important for planning and context, the majority of the focus should be on what we know and don't know about the science of forest carbon – how much is sequestered, sources of emissions, carbon related trends, opportunities to reduce emissions and increase sequestration, and important research and demonstration needs.

To provide a true forest carbon plan, we urge the state to organize each chapter around specific carbon related components: sequestration, carbon dioxide emissions, black carbon, brown carbon, other climate pollutants. We urge the state to address issues like recreation and tourism, marijuana cultivation, and broader sustainability issues in other plans and programs, not the forest carbon plan.

To meet the requirements of SB 605, we urge the state to include a chapter focused specifically on black carbon from wildfire just as the SLCP Strategy contains chapters focused specifically on each of the other SLCP sources. As noted above, the SLCP Strategy states specifically that the Forest Carbon Plan will address wildfire emissions. The clearest, most effective way to meet the requirements of SB 605 would be to include a chapter focused on black carbon from wildfire that addresses each of the specific elements required by SB 605, including identification of important research and demonstration needs related to wildfire emissions and strategies targeted specifically on the reduction of black carbon emissions. Those sections would include the specific elements required by SB 605, which are:

A. A complete inventory of sources and emissions of SLCPs –

The Forest Carbon Plan does not provide a thorough or consistent inventory of the sources and types of carbon emissions. BAC agrees with the Board of Forestry's comments that the forest carbon accounting in the Draft is both inconsistent and incomplete. A forest carbon plan cannot be effective without an accurate inventory that provides a meaningful baseline – or at least identifies the elements of a baseline that are known and the data gaps that need to be addressed to complete the baseline of carbon sequestration and emissions.

B. Research needs and gaps –

Experts and stakeholders agree that there are critical research and demonstration needs, as well as data gaps, related to forest carbon. The Forest Carbon Plan provides a partial list that, like in other chapters, goes way beyond carbon related issues and is seriously incomplete when it comes to carbon issues. Numerous data, research and demonstration needs must be addressed to produce a viable forest carbon plan, including:

1. Much more detailed and consistent data to complete the inventory of forest carbon sequestration and emissions, by forest and ownership type,

- historic and current levels, carbon emission type (black versus brown carbon, carbon dioxide), current forest practices related to carbon, etc.
2. Research related to the short- and long-term impacts of various forest fuel treatments and their carbon impacts on different forest types, including prescribed burn, biomass removal, pile and rot, pile and burn, biomass to energy, and finished wood products.
  3. Research and demonstration (including field trials) for addressing excess forest fuels removal on steep terrain and identification of optimal methods to minimize carbon disturbance.
  4. Demonstration of new technologies to convert forest biomass to pipeline biogas, transportation fuel and liquefied fuels.
  5. Research to quantify lifecycle emissions and reductions from different bioenergy end uses, including electricity generation, transportation fuels production, combined heat and power, renewable hydrogen for fuel cell applications, and renewable gas for cooking, heating, cooling and industrial uses. Each of these has different lifecycle impacts and benefits.
  6. Quantification of the carbon impacts of producing and using biochar for different applications including as an organic soil amendment, water filtration and other uses.
  7. Quantification of the carbon impacts of using biosolids (produced from wastewater treatment or other anaerobic digestion of organic waste) to restore carbon to fire ravaged lands.

C. Existing and potential new control measures –

The discussion of existing and new control measures is not complete. The discussion of bioenergy states incorrectly that biomass has played an increasing role over time.<sup>4</sup> Large-scale biomass facilities have been shutting down and capacity is much lower than a decade ago. In addition, not a single new forest biomass project has been built as a result of SB 1122 (Rubio, 2012) or the Governor's Emergency Proclamation on Tree Mortality (October 2015).

The draft Plan mixes together existing large-scale biomass facilities with small-scale forest biomass facilities, which face very different challenges and provide very different benefits. To provide a meaningful carbon plan, the Draft should treat these two types of facilities separately, as the Public Utilities Code and other state policies do, since the next carbon impacts may be significantly different.

The draft Plan also fails to distinguish between different end uses for bioenergy. Small-scale gasification facilities can generate gas for use in electricity generation, transportation fuel, pipeline biogas and other end uses. Gasification facilities also generate biochar, which has important carbon sequestration value, yet is not quantified or discussed in any detail.

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<sup>4</sup> Draft Forest Carbon Plan at page 106.

The Forest Carbon Plan should contain a much more complete discussion of existing and potential new control measures, including:

- Identification of why SB 1122 is not working and changes to meet its requirement for 50 MW of new, small-scale forest bioenergy projects.
- Description of bioenergy progress under the Governor's Emergency Proclamation on Tree Mortality related to the bioenergy provisions and more generally.
- Impact of existing funding programs for forest fuel treatments (CalFire) and bioenergy (CEC's EPIC program)
- Identification of additional funding needs and potential sources (ie, need to continue to prioritize EPIC funding for new biomass facilities that take fuel from High Hazard Zones, as required by the Governor's Emergency Proclamation)
- Potential for low carbon fuels funding and programs to help reduce forest carbon (ie, ARB and CEC funding programs and the LCFS program).

D. Priority measures that provide cobenefits, including improved air and water quality –

The Forest Carbon Plan should clearly identify the cobenefits of each potential measure for comparison purposes and to maximize cobenefits. Some measures, such as prescribed burn and large-scale biomass facilities using direct combustion have very different impacts on air quality than small-scale gasification facilities.

The Forest Carbon Plan should also consider benefits to water quality and quantity that result from reducing catastrophic wildfire. The Draft Plan mentions these benefits, but does not provide any quantification or data to assess the level of current impacts or the potential to improve water quality and quantity with different carbon related measures.

E. Plan for coordination with other state agencies on the comprehensive strategy, including identification of funding opportunities -

The Forest Carbon Plan does not contain any plan for inter-agency coordination between state agencies or with federal and local partners. Failing to clearly identify which agency is responsible for which actions, and which agencies must cooperate, to achieve specific goals makes achievement of those goals virtually impossible. BAC urges the state to clearly identify the required actions in each area and the responsible and participating agencies. The *2012 Bioenergy Action Plan* provides a good example of clearly identifying responsible and coordinating agencies by action item. A clear plan for coordination is critical to ensure success and is required by SB 605.

The Forest Carbon Plan is an extremely important plan for helping to achieve the state's climate change goals. As currently drafted however, it will not meet this

purpose nor will it satisfy the requirements of SB 605, which it must now do since the SCLP Strategy delegates the black carbon from wildfire strategy to the Forest Carbon Plan. BAC urges the state, therefore, to refocus the Forest Carbon Plan on carbon, to remove sections that go beyond carbon sequestration and emissions, and to provide much more detail in the areas required by SB 605.

Sincerely,

A handwritten signature in cursive script that reads "Julia A. Levin".

Julia A. Levin  
Executive Director