

October 30, 2015

Mr. Richard Corey
Executive Officer
California Air Resources Board
1001 I St.
Sacramento, CA 95814

RE: Draft Short-Lived Climate Pollutant Reduction Strategy Comments

Dear Mr. Corey:

Placer County Air Pollution Control District submits the following comments in response to the Draft Short-Lived Climate Pollutant (SLCP) Reduction Strategy (Plan) with the sincere intention of bringing more focus and attention on the important issue of the impact of black carbon on climate change. While the current draft does a good job of explaining the needed activities in the forest, such as prescribed fire and fuel thinning, there are a few important points that should be clarified, and there are some significant omissions as well. The District is pleased to provide the following information and hopes that it will be incorporated into the final version of the Plan.

Black Carbon from Wildfire

The Plan fails to adequately establish goals or recommended actions relating to emissions from the greatest single source of black carbon: wildfire.

It also seems to generally downplay the role of wildfire in the short lived climate pollutants inventory. For example, Section A on page 36 of 91 (page 22 of Plan) does not iterate the extent of black carbon within the overall California Mix; this should be reiterated here and on page 49 of 91 (page 35 of Plan). The pie chart should be clear that it is comparing sources discussed in a previous section (anthropogenic sources vs. forest sources). Also, the placement of the sections on anthropogenic sources are overemphasized, as they are the smaller source when compared to forest sources. Generally speaking, the Plan needs edited to reflect the true importance of the contribution of wildfire, and it needs additional information in order to meet the statutory requirements of SB 605 (Lara, 2014).

Avoided wildfire through fuel thinning

The District is supporting ongoing research work that is quantifying the air emissions reduction benefits that are provided by hazardous forest fuel reduction treatments.¹ Fuels treatments involve the selective thinning and removal of trees and brush to return forest ecosystems to more

¹ <http://www.placer.ca.gov/~media/apc/documents/APCD%20Biomass/SIGDraft%20Report.pdf>

natural fuel stocking levels, resulting in more fire-resilient and healthy forests. Fuels treatments reduce air pollution by mitigating wildfire behavior, size and intensity, stimulating forest growth and vigor, and reducing tree mortality. Forest thinning also produces wood products that continue the sequestration of carbon. When fuels treatment projects include removal of excess biomass in the forms of limbs, tops, smaller trees and brush, the resulting biomass can be utilized for energy production and thus reduce the need for fossil fuels.

The Plan should identify this work effort being led by the District, and support the effort with commitments of funding and staff time. As mentioned in the Plan, there is substantial information already available that supports the links between fuels thinning and wildfire reduction, but additional research is still needed. Also, the funding of fuel thinning activities themselves, and the waste disposal needs for residues produced, is critical in the fight to reduce black carbon.

Biochar and Gasification

The District applauds the Plan for taking time to recognize biochar, the byproduct of pyrolysis (also called gasification), as a potentially excellent way of sequestering carbon. The District recommends utilizing the biochar discussion on page 37 as a source for recommended actions. The District hopes that CARB is seriously considering the protocol we developed, and that is currently in use at CAPCOA.² A biochar protocol such as this could act as a market stimulus for carbon credits. Also, research gaps, such as the effect of tilling soil on the stability of biochar, could be identified within the Plan. Funding should be identified to fully explore the benefits of biochar. Note that the Plan should also encourage research into whether Gasification technologies could support biofuel development, and are indeed a more efficient at producing electricity at a distributed generation scale (small scale) than scaled down traditional combustion systems. There is a significant benefit that could be gained from advances in these research areas.

Development of a black carbon protocol based on avoidance of open pile burns

The Plan is sorely lacking in options to suggest how to reduce forest related black carbon. Avoiding open pile burning could significantly reduce black carbon. The District is currently working with the Missoula Fire Lab to better understand the black carbon emissions associated with forest burning, based on species, moisture content and elevation. After this research, and hopefully more like it, has been completed, the carbon benefits from many different avoided burn scenarios will be quantifiable. This is a clear research need that should be explicitly listed in the Plan as a commitment of CARB to support with staff time and funding. The District hopes such work can be done in conjunction with District Staff, who have begun the current project and are eager to collaborate.

² See attachment: Letter to Mr. Richard Corey from Placer APCD dated October 3, 2015.

Recommended Goals and Actions

The District believes that setting a goal for a certain percentage of wildfire reduction to be obtained, within the same timelines as other CARB plans, would meet the statutory requirements and demonstrate a sincere commitment to black carbon reduction. Many scientists, and the Plan itself, agree that prescribed fire is a necessary tool for forest health. In order to make room in our air shed for those control burns, it is necessary to reduce catastrophic wildfire. Some recommended actions include:

1. Support the utilization of biomass waste, that would have otherwise been open pile burned, for energy production, as follows:
 - a. increase interconnection opportunities for new facilities (of any size) by working with CAISO and CPUC.
 - b. offer funding for mini-direct combustion technologies that could work at a distributed generation scale.
 - c. offer funding for new technologies that convert wood to biofuel.
 - d. offer funding for biochar producing technology development.
 - e. offer funding to support workforce training in rural areas to:
 - i. work with new conversion technologies
 - ii. use new supporting equipment needed to chip wood into densities needed for new conversion technologies,
 - iii. build business networks, entities and fuel contracting expertise.
2. Provide hauling subsidies for wood in far reaching communities that do not have interconnection capacity.
3. Provide research dollars at CEC to perform economic research, and develop policies which ensure that biomass to energy production does not incentivize commercial logging, to ensure that public dollars are focused on public lands fuel reductions and private land WUI interface areas. Part of this work task should include rural public education outreach that explain outcomes of findings to rural communities.
4. Cross reference more specifics from bioenergy action plan and include as items to fund.

Please note that many of these action items support the economic development of the rural poor in forested areas of California. These populations are largely missing from many recent state actions to support disadvantaged communities. This may be because they are not accounted for in the “enviroscreen” process. Nevertheless, on page 81 of 91, (page 67 of Plan), there is no mention of how local communities can work to reduce forest related black carbon. Disadvantaged and impoverished residents of rural California can make a difference; this part of the Plan should be expanded to account for Sierra Nevada residents.

Black carbon emissions from existing biomass facilities

On Page 22 of the report, the black carbon discussion begins in the second paragraph with the statement that “Black carbon is emitted from burning fuels such as coal, diesel, and biomass.”

This statement is misleading because biomass waste would create far more black carbon if it were left to open pile burn, rather than used for energy production. One could say that the best use of agricultural, urban or forest residues is for soil amendments or compost, biofuels, biochar, or use in anaerobic digestion processes. Some of the woody waste is not appropriate for such uses, however, and at this time there is significantly more waste than there is capacity for such uses. Also, in the forest setting, masticating wood and placing it in the forest floor only increases kindling for wildfire.

The alternative disposal method for this biomass waste that is generally used is open pile burning. While open pile burning is generally prohibited³, it still occurs when there are no viable alternatives for the removal of this waste.⁴ **When the emissions of an open pile burn are compared to that of combustion of a facility, there is over 95% reduction in black carbon (and other criteria pollutants).**⁵ The general public needs to understand that even older biomass facilities are far cleaner than open pile burning. Biomass is not like coal or diesel because it uses waste for power that must be disposed of in some fashion.⁶

The Plan should spend at least some time explaining this important distinction between fossil fuel use and biomass for energy production, to prevent the common misconceptions from continuing to occur. The Plan should at least tacitly express support for efforts to ensure existing facilities that process biomass waste, that would have otherwise been burned or decomposed producing uncontrolled methane, to receive fair and equitable Power Purchase Agreements when their current contracts for power sales expire. Otherwise, black carbon amounts will increase from uncontrolled open pile burning that will be the only option for anyone disposing of woody biomass waste.

Commit to Reducing Black Carbon

The District simply asks that the Air Resources Board commit to reducing black carbon from forest sources in this Plan. The Plan refers to the need for 100 million dollars for “each sector,” but reads as if it excludes black carbon, even while mentioning the needs of the Sierra within the same section – see page 28 of 91 (page 14 of Plan). The pertinent language is excerpted below:

“Many of the sources and sectors responsible for SLCP emissions are concentrated in communities with high levels of pollution or unemployment, which could especially benefit from targeted investments to improve public health and boost economic growth. These include SLCP emissions from sources of organic waste and dairies in the Central Valley; ports and freight corridors in the East Bay, Los Angeles area and Inland Empire; and oil production, landfills and other sources of SLCP emissions throughout the State. **Many**

³ Cal Health & Saf Code § 41800,

⁴ Cal PRC 4423, Cal Health and Safety Code, § 39011, 17 CCR 93113

⁵ <http://www.placer.ca.gov/~media/apc/documents/APCD%20Biomass/EmissionReductionsFromWoodyBiomassAWMA.pdf> ; Agriculture, July-September 2015, Volume 69 Number 3.

⁶ The District notes that more work is also needed to fully understand the effects of organics left to decompose into methane in a non-controlled environment.

communities in these areas, along with forested and rural communities in the northern part of the State and the Sierra, have some of the worst pollution burdens in the State, and high rates of poverty and unemployment. They are also where many billions of dollars in public and private investment will accrue in the coming years to reduce SLCP and CO2 emissions and strengthen our agricultural sector, build sustainable freight systems, and grow healthy forests.

Initial estimates regarding infrastructure build out to meet the goals identified in this Draft Strategy is similar for both the waste sector and dairy sector. Cal Recycle and CDFA both estimate that investments or incentives on the order of \$100 million per year for five years would be needed in each sector to build the necessary initial infrastructure. There could be some opportunity to optimize investments and co-locate infrastructure or utilize existing infrastructure, especially excess digestion capacity that exists at many wastewater treatment plants, which could potentially reduce the level of incentive funding needed to reach the targets outlined in this Draft Strategy. Additional research and working group efforts will focus on opportunities to optimize infrastructure rollout and maximize benefit from any State investment.” [Emphasis added.]

Please ensure that each sector refers to and includes funding goals and recommended actions that will reduce forest related black carbon. Thank you for your consideration of these comments. The District is looking forward to working with the Board and its staff in the near future on these issues.

Sincerely,



Christiana Darlington (Oct 30, 2015)

Christiana Darlington
Special Counsel
Placer Co. Air Pollution Control District



PCAPCD SLCP Reduction Strategy Comments

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