Sustainable Conservation

March 8, 2013

The Honorable Mary Nichols, Chair
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Dear Chairwoman Nichols:

Sustainable Conservation requests that funding be provided to innovative agricultural practices that provide climate-related benefits as part of the initial Investment Plan for the allocation of AB 32 auction revenues. Other organizations have presented comments in which they identify the important role that the preservation of agricultural lands play in sequestering carbon and providing other greenhouse gas (GHG) reduction benefits. We fully acknowledge the importance of agricultural land preservation in addressing climate change and achieving AB 32's goals, and support the provision of auction revenues to that end. However, we believe that the wide range of GHG emission-combating practices currently or potentially employed in the management of those lands is at least an equally valuable means of reaching AB 32's goals, and deserving of support from auction revenues.

Sustainable Conservation has been working with California agriculture for many years to find solutions to environmental problems that also make economic sense. Much of that work has been focused on finding sustainable solutions to the impacts of dairy wastes on the environment. Dairies are a significant source of methane, a potent GHG 21 times more potent than CO2. Current methods of irrigation and cultivation of diary silage can release N2O, another extremely potent GHG, into the atmosphere. Intensive cultivation also generates GHG emissions from diesel engines. Through our work we have identified a number of practices that, if fully developed, could provide significant progress towards the achievement of AB 32's goals by addressing these and other sources of GHG emissions. They also provide environmental co-benefits to air and water quality.

- Methane capture and destruction. Technologies currently exist or are being developed that can capture the methane generated by dairy wastes, which can then be destroyed through combustion. Anaerobic digestion of dairy wastes generates biogas, a non-fossil fuel renewable energy source that can be used for electricity generation, pipeline injection, and/or vehicle fuel.
- Reduction of fossil fuel-based synthetic nitrogen fertilizer use. Synthetic nitrogen use can be reduced by developing and deploying methods to turn dairy waste into compost or a commercially viable fertilizer product.
- Conservation tillage. Sustainable Conservation has played a leading role in the adoption of conservation tillage (CT) in the cultivation of corn silage by the dairy industry. CT is being adopted by growers of other crops as well. CT reduces

98 Battery Street Suite 302 San Francisco, CA 94111 www.suscon.org
PHONE 415-977-0380 **FAX** 415-977-0381 **EMAIL** suscon@suscon.org

GHG emissions in at least two ways. The reduction in cultivation reduces N2O emissions, and the reduced number of tractor passes per field reduces vehicular emissions and diesel fuel use.

- Cultivation and irrigation methods that reduce N2O emissions. Research being conducted at UC Davis has generated promising results showing that changes in cultivation and irrigation methods can significantly reduce N2O emissions from agriculture. An important co-benefit of this is that many of the practices identified as reducing N2O can also be employed to reduce the contamination of groundwater by nitrates.
- Mitigation and adaptation as a single continuum. AB 1532 authorizes, where applicable and to the extent feasible, auction revenues to be used to "lessen the impacts and effects of climate change on the state's communities, economy, and environment." We believe it is essential to look at climate change mitigation and adaptation as a single continuum. We support the use of auction revenues for the development of ecosystem services markets that provide benefits for farmers and ranchers who adopt and pursue practices that both reduce GHG emissions and provide resilience and protection in the face of the impacts of climate change.

Underpinning all of the above-mentioned practices – both those currently in use and those still in development – is the need for a commitment of resources to research. We are proud to be co-signatories of a letter authored by John Diener and A.G. Kawamura requesting support for the University of California Sustainable Agriculture Research and Education Program (SAREP) in its work to develop and implement methods to actively address GHG emissions in the agricultural sector. UC SAREP, along with the Agricultural Sustainability Institute at UC Davis, are engaged in vital research into developing climate-friendly agricultural practices. Equally important is the need to provide resources for technical support, education, and outreach to landowners, agricultural workers, and others engaged in practices that provide both mitigation and adaptation of climate change. UC Cooperative Extension, the Department of Conservation, and the state's Resource Conservation Districts all have the authority and expertise to promote these practices and would be provide efficient, effective benefits if funded in that task by AB 32 auction revenues.

Thank you for your consideration of our comments.

Sincerely,

J. Stacey Sullivan
Policy Director

98 Battery Street Suite 302 San Francisco, CA 94111 www.suscon.org
PHONE 415-977-0380 **FAX** 415-977-0381 **EMAIL** suscon@suscon.org