August 31, 2015

Honorable Mary Nichols, Chair

California Air Resources Board

1001 I Street

Sacramento, CA 95814

Dear Chairwoman Nichols:

Thank you for the opportunity to comment on the Draft Concepts for the Cap and Trade Auction Proceeds Second Investment Plan. The following comments are organized to address specific draft investment concepts in each of the three categories (transportation & sustainable communities, clean energy and energy efficiency, and natural resources & waste diversion) in the context of the following overarching themes: innovative technologies; efficient financing mechanisms to maximize investment; short-lived climate pollutants (SLCPs); and rural communities and small businesses.

Sustainable Conservation has worked for many years to find ways to reduce GHG emissions from dairies, including, but not limited to, the use of anaerobic digesters to capture methane for beneficial uses. We recently completed a report, *Greenhouse Gas Mitigation Strategies for California Dairies*, which we have presented to CARB to assist in the creation of a comprehensive strategy for short-lived climate pollutants (SLCPs): <http://suscon.org/news/pdfs/GHG_Mitigation_for_Dairies_Final_July2015.pdf> . These comments will make reference to the contents of that report.

**1. Transportation & Sustainable Communities.** Sustainable Conservation supports investment in advanced vehicle technologies and alternative fuels. While waste-to-fuel is specifically referred to as part of the Natural Resources & Waste Diversion category, we feel that it should be a significant part of this category as well. The biogas captured via anaerobic digestion of dairy manure can be refined into biomethane and compressed for use as vehicle fuel in natural gas vehicles. Investment in development of CNG truck engines and conversion of diesel trucks, refinement of dairy biogas into CNG, and fueling infrastructure for fleets in regions of the state with high concentrations of dairies will spur innovative technologies. Our report identified the need and opportunity for innovative financing mechanisms from the state in order to overcome obstacles to obtaining private sector funding for dairy-derived vehicle fuel projects. Prioritizing anaerobic digestion as a source of vehicle fuel will also reduce methane emissions, and conversion of heavy-duty vehicles from diesel to biomethane CNG will reduce black carbon, thereby furthering the state’s SLCP reduction goals. Finally, development of dairy waste-to-vehicle fuel refining and distribution can provide economic and environmental benefits to the rural areas that are home to the state’s dairies.

**2. Clean Energy & Energy Efficiency.** We heartily concur with the following statement in the Investment Plan: “While there are many renewable energy incentives in California, bio-energy systems in California lag and need additional financial support to advance the market.” As is the case with waste-to-fuel, we feel that bioenergy should be an intrinsic part of a clean energy/energy efficiency strategy as well as one for natural resources and waste diversion. We recommend that the state consider both economic and regulatory initiatives to allow for reliable and affordable interconnection of rural distributed generation facilities, such as dairy digesters, to the grid in order to ensure that the benefits of achieving the 2020 target of 12,000 Mw of new distributed generation align with the Investment Plan’s overarching goal of providing opportunities to rural California.

**3. Natural Resources and Waste Diversion.** We believe that the analysis and recommendations found in our report on GHG mitigation strategies, to which we have provided a link (above) can provide a great deal of information that could assist in the development of this category of investment concepts, and we urge you to refer to it. We would like to make some additional comments.

We believe that all of the Concept Paper’s overarching themes we have identified (innovative technologies; efficient financing mechanisms to maximize investment; SLCPs; and rural communities and small businesses) can be significantly advanced by a substantial commitment of cap-and-trade auction revenues to create incentives to reduce methane emissions from dairies. As we find in our report, achieving this goal will require incentives to develop the necessary innovative technologies and financing mechanisms, and will result in major reductions in the state’s SLCPs along with significant environmental and economic co-benefits for the rural regions in which dairies are located. We strongly recommend that the Investment Plan make a substantial commitment to incentives to reduce dairy methane emissions.

While we applaud the attention paid to livestock manure, and the recommendation to support dairy digester development, we believe that more research is necessary before making a large-scale investment in conversion of dairies from flush to scrape manure management systems. We refer you to the sections of our report on flush-to-scrape for more detail. While this form of manure management can result in significant reductions of methane emissions, there are many unanswered questions about the costs and impacts of converting to scrape in California. Getting high levels of methane emission reduction depends as much or more on how the manure is handled after scraping as it is on the method by which it is removed. Conversion to scrape also does not necessarily result in water savings.

We recommend that the Investment Plan direct funding to a robust flush-to-scrape conversion pilot program in order to provide clear and reliable answers to questions concerning costs, practicality, and what sort of additional manure management and other practices are needed in order to ensure maximum GHG emission reductions and other environmental co-benefits.

Dairies in California exist in a wide range of geographies and configurations. As we recommend in our report, the state will receive the best results for methane reduction by providing for a suite of practices and technologies from which dairies can choose those that best suit their particular circumstances. It is important to note that these practices and technologies will be much more effective if presented as incentives rather than mandates. We think it particularly important to be sure to provide mechanisms for smaller, pasture-based dairies to benefit from the state’s investments through community digesters, distributed electricity generation, and other practices.

We strongly support the focus on compost as a worthwhile source of investment. We do note that compost appears to be discussed primarily in the context of municipal solid waste and wastewater. We urge you to include compost from dairies as an integral part of this strategy. Whether the feedstock is solid manure collected by a scrape system, digestate from a dairy digester, or the result of solid separation, compost from dairies has a key role to play in the furtherance of the goals of soil health and carbon sequestration established by the Concept Paper and the Healthy Soils Initiative.

As stated in our comments on the transportation investment concepts, we are strongly supportive of the Concept Paper’s explicit reference to creating and using dairy biomethane as vehicle fuel.

One element that is perhaps outside the scope of the Investment Plan, but which will be necessary in order for these investments to truly succeed, is a thorough examination of the potential regulatory and permitting roadblocks that could impede the implementation of these strategies. Based on our own experience, we believe this to be of particular importance for the composting of dairy manure in the San Joaquin Valley, but it extends to many other aspects of the investment strategies put forth in the Concept Paper. We believe that this could cripple worthwhile projects if not addressed in a systematic and cross-jurisdictional way. It is a natural companion to the overarching theme of efficient financing mechanisms. Along with providing loan guarantees, credit enhancements, and clean energy finance centers, the state will need to be able to assure private investors that, while all environmental and public health requirements will need to be met, they will be able to do so in an efficient and affordable way. Interagency coordination will be crucial.

Once again, thank you for the opportunity to comment on the Concept Paper. We look forward to actively participating in the process of developing the Second Investment Plan.

Sincerely,



J. Stacey Sullivan

Policy Director