**November 11, 2015**

Mary Nichols

Chairman

California Air Resources Board
1001 "I" Street
Sacramento, CA 95814

**Re: Cap-and-Trade Auction Proceeds Second Investment Plan**

Dear Chairman Nichols,

I appreciate this opportunity to comment on the California Air Resources Board’s (ARB’s) Concept Paper for the Cap-and-Trade Auction Proceeds Second Investment Plan.

I am the co-founder of the Marin Carbon Project, a coalition of land stewards whose mission is to enhance carbon sequestration in rangeland, agricultural, and forest soils through applied research, demonstration, and implementation. In 2007, in response to the rapid pace of global climate change and spurred by AB32, we began our research into managing agriculture as a climate solution. We discovered that by increasing soil carbon through a topical application of a carbon and nitrogen amendment (compost), the soil system’s capacity for taking in additional carbon through the process of photosynthesis increased. A onetime application of compost acted as a catalyst for an ongoing carbon sink. Additionally, the soils that had compost applied retained more water and produced higher volumes of more nutritious forage. This means that managing for carbon in the soil has ongoing climate benefits while simultaneously producing an abundance of high value carbohydrates in the form healthy food, fibers and fuels.

Our vision is for landowners and land managers of agricultural ecosystems to serve as stewards of soil health and to undertake carbon farming in a manner that can improve on-farm productivity and viability, enhance ecosystem functions, and stop and reverse climate change. I applaud the ARB on the Second Investment Plan, particularly the increased focus on natural and working lands and productive reuse of organic waste.

Below are my comments on both sections of the Second Investment Plan.

1. **Increased Focus on Organic Waste.** I am very pleased that the ARB has included a heightened focus on the productive recycling and re-use of organic waste. The decomposition of organic waste in landfills and other waste collection sites generates a significant portion of the state’s short-lived climate pollutants and other potent greenhouse gases including nitrous oxide, which is 289 times more potent than carbon dioxide. The state is wise to take action to incentivize practices that avoid methane and nitrous oxide generation and move to alternative means of managing organic waste that enhance soil health and sequester carbon.
	1. **Co-Location of Compost and Anaerobic** **Digesters**. Anaerobic digestion is a capitol intensive and therefore very expensive solution to organic waste management. ***For this reason, I propose that the ARB allow waste producers receiving incentives the option of pursuing composting under best management practices instead of, or in addition to, building an anaerobic digester.*** I am also pleased the ARB has included a push for incentives to create compost from organic byproducts of anaerobic digestion. This allows the digestate produced by existing anaerobic digesters to be productively reused.
	2. **Incentives for Onsite Agricultural Compost Development and Application**. Agricultural producers create both greenwaste and manure waste that can be beneficially reused onsite in several ways, including through onsite composting. Compost production onsite allows an agricultural producer to reuse waste, in the form of compost, as a soil amendment, reducing the need to expend GHG emissions by trucking from large, offsite producers, and allowing the agricultural producer to offset the use of chemical fertilizers with a more stable, and still beneficial organic amendment. Substituting synthetic fertilizers with compost has both GHG emissions reductions benefits as well as water quality benefits, as the non-soluble nitrogen present in compost is released at a much slower rate than from synthetic fertilizers, ensuring that more nitrogen is absorbed by the plants instead of running off into groundwater or surface water. ***For this reason, I encourage incentives for agricultural waste producers to generate and utilize compost onsite.***
	3. **Incentives for Compost Facility Permitting.** The state has set several ambitious targets aimed at increasing organics recycling and reuse. AB 341 (Chesbro) requires 50% of organic waste to be diverted from landfills, with a goal of 75% diversion by 2020. The Short-Lived Climate Pollutants Plan goes even further, proposing almost a complete ban of organics in landfills. Additionally, the Governor’s Healthy Soils Initiative calls for 100 new compost or anaerobic digester facilities by 2020.

Meanwhile, state regulation of compost facilities and associated costs for operation, is ever increasing. Local air boards, water quality control boards, and CalRecycle regulate compost facilities. The General Order on compost passed by the State Water Resources Control Board earlier this year will increase the cost of operation for compost producers, forcing many small and mid-sized existing facilities to go out of business at a time when compost holds the promise of solving multiple environmental and social issues. If the state seeks to support the development of new compost facilities, it must provide support for existing producers to make infrastructure improvements required by new regulation instead of shutting their doors and ending green jobs. It must also provide incentives for new producers to enter the market. ***An innovations grant, similar to the Carl Moyer Program for vehicles, is one option. Another option is to require cities and counties to issue RFP’s detailing the amount of organic waste they produce yearly. This would allow compost producers to plan infrastructure improvements based on a stable and predictable feedstock*.**

1. **Focus on Natural and Working Lands.** I appreciate the Air Resources Board’s continued support of new funding opportunities for carbon sequestration and greenhouse gas reductions on natural and working lands. These climate-beneficial projects are uniquely positioned to engage rural communities, provide benefits to disadvantaged communities, reduce short-lived climate pollutants, maximize environmental and economic co-benefits, and promote climate adaptation on natural and working lands. Between the Governor’s Healthy Soils Initiative and the state’s commitment to reducing short-lived climate pollutants, California has an opportunity to create transformative change on rangelands and agricultural lands in California.

As new California specific, robust, peer-reviewed research and over 70 years of Natural Resources Conservation Service (NRCS) conservation practice implementation has shown, a variety of land management practices can lead to increases in soil organic matter and carbon sequestration. California’s arable lands can represent a significant decrease in atmospheric carbon and simultaneously be buffered against the effects of prolonged drought and heavy rainfall events, if managed to increase soil organic matter. If the state’s 16-30 million acres of Mediterranean rangelands achieved even a 1% increase in SOC in the plow layer (top 6.7”) alone, the associated water holding capacity increase would be 2.67 - 5 million acre feet. CO2e sequestered in the increased SOC would be 528 - 990 million metric tons. Increasing soil organic carbon also reduces erosion, increases water quality, increases productivity and crop yields, increases biodiversity in soils, and increases wildlife habitat.

* 1. **Incentive Program.** The ARB should continue to support the creation of incentives to implement a variety of carbon farming practices across a range of geographies and working land and crop types, including arable, pasture and rangeland systems across the state. The incentive program would provide support for implementation of practices that increase carbon capture and/or reducing GHG emissions on these landscapes, as well for quantification of the benefits of applied practices. This can be achieved through the Governor’s Healthy Soils Initiative, CDFA’s Environmental Farming Act, the Department of Conservation’s Sustainable Agricultural Lands Conservation Program, or through a new program.

***Support for early implementation of carbon farming practices will allow scientists to continue to study and measure the climate, environmental, and economic benefits of carbon farming practices.*** Extensive research that can be used by the State in establishing the scientific basis for the Healthy Soils Initiative already exists, and is being employed by IPCC, USDA and others. The ARB and CDFA can increase efficiency and usefulness of new research by creating a shortlist of key research questions that the State needs answered to support and advance the Initiative as a GHG and drought remediation strategy. This will ensure that current or future research is not duplicative and that research efforts are focused on critical knowledge gaps.

* 1. **Technical Assistance and Financial Incentives Key to Success.** Within the Healthy Soils Initiative and the 3-Year Investment Plan, CDFA and the ARB will need to include technical assistance for producers to identify and implement practices appropriate to their unique production systems. This includes both funding for increased composting infrastructure and for the use of compost and deployment of other carbon farming practices. ***Leveraging existing resources and institutions, including USDA-NRCS, UCCE and Resource Conservation Districts, will be critical to the success of this effort.*** Financial incentives and robust metrics are key to unlocking the enormous potential of California’s agriculture to mitigate drought impacts and help the state address the challenge of climate change.

Thank you very much for the opportunity to comment on the Concept Paper. I am happy to answer any questions you might have. Please feel free to contact me at johnwick@sonic.net. I look forward to supporting implementation of this plan through the legislative budget process.

Sincerely,

John Wick