

July 31, 2008

Mary Nichols  
California Air Resources Board  
1001 "I" St. | PO Box 2817  
Sacramento, CA 95812

**Re: AB 32 Draft Scoping Plan - Agricultural Water Stewardship Measures**

Dear Chairperson Nichols,

We applaud the State of California and the Air Resources Board in its far-reaching greenhouse gas emission reduction goals and work so far toward implementation of AB 32. We are writing to encourage CARB to consider further action on agricultural water conveyance and use in meeting target reductions in greenhouse gas emissions. There is significant opportunity for CARB to support water efficient agriculture measures to achieve a strong agricultural economy and reduced energy use.

Water inputs are an essential need for growing the nation's food. Yet the high amount of energy required for agricultural water distribution in California has the unintended consequence of contributing to climate change. We recognize that roughly 4 percent of all electricity used in California is for pumping agricultural irrigation water, in addition to 88 million gallons of diesel and 18 million therms of natural gas.<sup>1</sup> Water-related electricity use represents over 90 percent of all electricity used in agriculture and, as such, is a significant contributor of greenhouse gasses.<sup>2</sup> The AB 32 Draft Scoping Plan recognizes opportunities for emissions reductions from water efficiency measures in the preliminary recommendations for the agriculture sector but no concrete preliminary recommendations related to agricultural water use are advanced. *There is significant opportunity for AB32 implementation measures to include incentive and support structures for agricultural water stewardship approaches that concomitantly help agriculture reduce greenhouse gas emissions and insulate growers from insecure water supplies and rising energy costs.*

Minimizing water diversions for agriculture through agricultural water stewardship approaches<sup>3</sup> will significantly lower energy use by reducing the energy required for long-distance conveyance and on-farm pumping. The California Agricultural Water Stewardship Initiative is currently cataloguing the contribution of these approaches to reducing water diversions and increasing on-farm water security in California and looks forward to the opportunity to share data and recommendations with CARB in future. Additional opportunities for emissions reductions include the increased use of renewable energy sources, such as wind and solar, in the movement and pumping of water.

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<sup>1</sup> Klein, G., M. Kregs, V. Hall, T. O'Brien, B. Blevins. (2005, November) California's Water-Energy Relationship. California Energy Commission Report CEC-700-2005-011-SF; Navigant Consulting (2006, December). Refining estimates of water-related energy use in California. Prepared for California Energy Commission. Document # CEC-500-2006-118.

<sup>2</sup> Klein, G., M. Kregs, V. Hall, T. O'Brien, B. Blevins. (2005, November) California's Water-Energy Relationship. California Energy Commission Report CEC-700-2005-011-SF.

<sup>3</sup> These practices include, for example, appropriation of winter storm water to on-farm storage ponds for irrigation, land management practices such as conservation tillage and soil structure enhancement for augmented water retention, farm water recycling, favoring crops that complement local water availability, and applying irrigation regimes (e.g., regulated deficit irrigation) that reduce consumptive use.

AB 32 implementation should include a clear focus on providing incentives for agricultural water management options such as those outlined above. CARB should assist the agriculture sector in contributing to emissions reductions by developing strong incentives for voluntary adoption. More research is needed to develop protocols that would enable farmers who implement these practices to obtain credits. Finally, other available funding sources and programs can mitigate the cost burden of incentives for agricultural water stewardship practices that reduce water withdrawals, including both cost-sharing and technical assistance. These include Farm Bill programs such as EQIP and CSIP, and recent water bond measures (including Propositions 40, 50 and 84) that involve funds for agricultural water quality and water security. The ARB and the Legislature should examine whether these programs can be given regulatory or statutory guidance to include mitigation of GHG emissions as an allowable use of funds. Furthermore, CARB can collaborate with agencies such as USDA NRCS and organizations such as the California Association of Resource Conservation Districts to provide technical support. Finally, CARB can identify policy opportunities to support a transition of water pumps to operate using sources of renewable energy such as solar panels.

Not only will support for agricultural water stewardship practices help meet greenhouse gas emission reduction goals, but it will help insulate our food producers from future water shortages, deliver a range of environmental benefits such as wildlife habitat and improved water quality and stream flows, and improve flood control. As such, the opportunities for collaboration and sharing of resources are great.

The undersigned members of the California Agricultural Water Stewardship Initiative look forward to working with you to further refine and implement these proposals.

Sincerely,

Agriculture and Land-Based Training Association - Craig Ficenece  
California Institute for Rural Studies - Ron Strohlic  
Community Alliance with Family Farmers - Dave Runsten  
Ecological Farming Association - Kristin Rosenow  
OAEC WATER Institute - Brock Dolman  
Polaris Institute - Katy Mamen