



November 6, 2015

Attn: Mr. Fethi BenJemaa  
California Department of Water Resources  
Division of Statewide Integrated Water Management  
Water Use and Efficiency Branch  
PO Box 942836  
Sacramento, CA 94236-0001

**Re: Comments on Draft Agricultural Water Use Efficiency 2015 Grants Guidelines and Proposal Solicitation Package**

Dear Mr. BenJemaa,

Thank you for the opportunity to comment on the *Draft Agricultural Water Use Efficiency Grant Guidelines and Proposal Solicitation Package* ('Draft Guidelines'). California Climate and Agriculture Network (CalCAN) and Community Alliance with Family Farmers (CAFF)<sup>1</sup> are pleased to provide our input on the draft, and look forward to sharing the solicitation with our networks once it is released in 2016.

CAFF and CalCAN supported the \$100 million allocation that created this program as the Legislature weighed options for its water bond language last year. Specifically, we encouraged legislators to include the option that agricultural water use efficiency projects could occur outside of Integrated Regional Water Management (IRWM) plans. Our objective in doing so was to improve access to bond-funded projects for the numerous agricultural stakeholders for whom previous bond funding was not available because agriculture was often not included in local IRWM groups.

In reviewing this draft solicitation, we have kept a few objectives in mind. We have observed a pressing need for water use efficiency efforts that are specifically targeted to achieve results at the *end user* level, i.e. the on-farm context. This end user context has not been a focus of previous agricultural water use efficiency bond expenditures through the Department. In order to achieve these end user efficiencies, we believe grower technical assistance and outreach are an absolutely crucial – and chronically under-funded – piece of the puzzle. We also seek to make sure that non-profit organizations and other entities that normally conduct this on-the-ground outreach and education are not excluded by the funding rules, in particular the 50% cost share.

Here are our recommendations as you prepare the next draft of the PSP and guidelines:

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<sup>1</sup> CalCAN is a network of sustainable agriculture advocates, farmers, ranchers and agricultural experts that advances policy solutions at the nexus of agriculture and climate change ([www.calclimateag.org](http://www.calclimateag.org)). CAFF's

**1. All projects should be designed to achieve or facilitate end-user, on-farm water use efficiencies.**

As is noted in the *Draft Guidelines*, the California Water Action Plan’s *Action Number One* is “Make Conservation a California Way of Life”. In the agricultural sector, one of the most powerful ways to support this Action is to promote projects and practices that produce tangible benefits at the end-user level, i.e. at the farm- or ranch-scale, and not only at the irrigation district level.

Particularly in the context of the ongoing historic drought, when public perception of the need for water conservation is at its height, bond funds should be used to directly influence or facilitate citizens’ water management best practices wherever possible. In the urban sector, for which the majority of Proposition 1 water use efficiency funds were designated, programs to remove turf and replace in-home toilets are geared directly toward influencing end-user water use practices.

In the *Draft Guidelines*, an analogous on-farm context is largely absent. This is a missed opportunity to facilitate an even greater focus on “conservation as a way of life” amongst agricultural producers. To be clear, we do not intend to suggest that *all* funded projects should directly involve growers, only that a primary objective of projects should be to in some way facilitate or encourage improved farm-level water management. The CDFA/DWR collaboration mentioned at Footnote 1 will provide a good example of this by encouraging irrigation districts to implement water conveyance improvement projects that directly enable growers to be more efficient as well. Infrastructure projects that are funded outside of the CDFA/DWR collaboration should also pursue a similar objective (alongside their other efficiency goals).

A project’s ability to facilitate farm-level efficiencies should be included as a primary consideration criterion of both Section A and Section B projects.

In the ‘Eligible Projects’ section (page 8), under ‘All projects must:’, we suggest adding to the list: ***“Directly achieve or be designed to help facilitate water use efficiencies at the agricultural end-user level.”***

In the ‘Project Priorities’ section (page 9), we suggest adding to the list: ***“Demonstrate how funded efforts would achieve or facilitate on-farm water use efficiencies.”***

**2. Encourage a diversity of project types, including projects that promote alternative water stewardship practices.**

As CAFF found in its 2014 report, *Beyond the Irrigation District: Investing in On-Farm Water Stewardship for California’s Future*, past bond funds for agricultural water use efficiency have overwhelmingly gone to hardware and infrastructure costs. Of the \$88.9 million in Proposition 50 agricultural water use efficiency funds that DWR has allocated since 2005, nearly 71% went to engineering projects such as pipelines, canals and pumps.

Only 8% went to Outreach, Education, and Technical Assistance projects, and about 21% to Research and Demonstration projects.<sup>2</sup>

As we discuss below (**Recommendation #4**), there are challenges to an approach that funds equipment without adequate training and technical assistance on how to maximize equipment performance. But there is also a need to promote ‘low-tech’ soil management techniques and other on-farm practices that allow soils to store more water, such as cover-cropping, conservation tillage, and the application of organic amendments including compost. Soil Organic Matter (SOM) has the ability to store 20 times its weight in water; each 1% increase in SOM has been estimated to hold an additional 16,000 gal of water per acre, reducing the need for irrigation (with proper management). Growers sometimes lack the specific data, advice, information-sharing, and incentives they need to implement these types of practices. Water bond dollars could help to facilitate broader adoption of these practices for their proven water retention and conservation potential.

Given the required 10-year lifespan of capital expenditures supported by bond funds, we understand that funding specific incentives for the implementation of water-saving soil management practices may not be feasible. But other options to promote these innovative actions should be clearly highlighted as project possibilities through the research, demonstration, and technical assistance options in the Section B category.

We recommend that you add the following to the list of “different types of Section B projects” in Exhibit I (page 5 of the Exhibits document):

- ***Conduct research or demonstrations, or equip growers with expertise and resources to facilitate soil management practices that improve water use efficiencies***

### **3. Require or strongly encourage plant water needs monitoring in all projects with an on-farm irrigation efficiency component.**

For projects intended to create efficiencies in or improve management of on-farm irrigation systems, a fundamental feature must be some form of plant water needs monitoring. Without adequate soil moisture and/or evapotranspiration monitoring in place, even the most efficient sprinkler head or drip system cannot be operated at its maximum efficiency. To facilitate irrigation scheduling and applications that best align with plant water needs, all projects that propose to install or improve irrigation technologies should be required to include soil moisture sensors, evapotranspiration monitoring, or some other form of plant water needs data collection.

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<sup>2</sup> David Runsten, Kendall Lambert, and Jalal Elhayek. *Beyond the Irrigation District: Investing in On-Farm Water Stewardship for California’s Future*. June 2014. Community Alliance with Family Farmers. Online at: [www.caff.org/water](http://www.caff.org/water)

This is consistent with the intent of Efficient Water Management Practice (EWMP) #12: “Provide for the availability of water management services to users, [including] normal year and real-time irrigation scheduling and crop evapotranspiration information...”

A requirement that projects install more efficient on-farm irrigation projects be married with plant water needs monitoring could be mentioned as a criterion in the ‘Funding Rules’ section (page 9), in the description of ‘Project Types’ (page 8), or mentioned in ‘Attachment 4: Project Plan and Description’ (page 24).

We note that CDFA’s SWEEP program has included a similar stipulation in its most recent water use efficiency funding rounds. CalCAN’s preliminary analysis of the program shows that, as a result, over three-quarters of the 230+ SWEEP-funded projects to-date have installed some form of soil moisture monitoring equipment.

#### **4. Target gaps in technical assistance and outreach by complementing CDFA’s SWEEP program.**

Many of the irrigation system upgrades supported by these grants will only produce the targeted water, energy and GHG savings if operated properly by the grower. In many cases, it is not sufficient to fund only the installation of this equipment, even if it includes moisture monitoring technology; both initial and ongoing training are needed to implement irrigation management practices that work best within the individual operation’s context.

There is a tremendous gap in funding for appropriate technical assistance and outreach in the state, even as the state allocates millions of dollars for these equipment upgrades. Unfortunately, CDFA’s SWEEP program cannot provide the complementary technical assistance and training alongside their grants for equipment upgrades, due to restrictions on the Greenhouse Gas Reduction Fund (GGRF). But DWR’s water bond funds could be used to fill this critical gap.

A primary objective of the bond funds should be to facilitate better on-farm management of these systems to maximize the benefits of installing new equipment, and also to provide the knowledge needed to make conservation a “way of life” (i.e., more fully integrated into day-to-day management of growers’ water management planning/decisions). To that end, we suggest creating a specific fund for ‘Section C’ projects that would be designated solely for projects that complement CDFA SWEEP’s granting efforts. Resource Conservation Districts, Cooperative Extension, and other technical assistance providers could apply to run programs that specifically work with SWEEP recipients to support irrigation scheduling, monitoring, and improved management practices in the context of their SWEEP-funded system upgrades.

To ensure widespread adoption of more efficient water use management systems, these projects could also help spur SWEEP participation amongst growers and communities who might not otherwise have the capacity to apply to the program. Some of these

‘Section C’ funds could be used by RCDs or Extension to conduct outreach to smaller and harder-to-reach growers, and assist them in designing irrigation system upgrades that they could then apply to SWEEP to fund.

To address this clear gap in state funding, we suggest setting aside at least \$1 million for this effort, which could be designed and implemented in collaboration with CDFA as it moves forward in spending its FY 2015-16 SWEEP budget of \$40 million.

## **5. Clarify opportunities for carbon sequestration and provide tools for measuring greenhouse gas (GHG) benefits.**

Among the ‘Project Priorities’ are actions that help “the GHG emission reduction or carbon sequestration goals” (page 10). This is an important piece that we are pleased to see included. Certain agricultural management practices that increase Soil Organic Matter can improve water-holding capacity while also sequestering carbon and/or reducing GHGs.

Although carbon sequestration benefits are mentioned as a project priority in the *Draft Guidelines*, however, no guidance is given as to how applicants can demonstrate these benefits. Applicants should be able (and encouraged) to demonstrate the ways in which their project produces both carbon sequestration and GHG emission reduction benefits.

COMET-Planner (<http://www.comet-planner.com>), an online tool from USDA-NRCS, could be useful for applicants to use in calculating the GHG and carbon sequestration benefits of certain actions their project is designed to facilitate or promote.

DWR may also wish to include a link to CDFA’s ‘Greenhouse Gas Emission Calculator for Fuel Savings’ web tool (<https://apps1.cdffa.ca.gov/emissioncalculator>), which provides greater ease-of-use when estimating on-farm savings than the table in Attachment 12 (page 45) does.

## **6. Lower the barrier to entry that a 50% cost share requirement creates for Section B projects.**

The *Draft Guidelines* state that projects in disadvantaged communities (DACs) or economically distressed areas (EDAs) may be eligible for a waiver or reduction of the required 50% local cost share (page 9). However, it is unclear how most projects focused on technical assistance, research, education and outreach (Section B projects) will be able to demonstrate eligibility for the waived or reduced cost share.

Many of the organizations that provide these services will not have matching funds available for the specific purposes contemplated in this PSP, and it seems apparent that these types of activity are not what the Legislature had in mind when the 50% cost share requirement was entered into statute.

The idea that research or outreach can reasonably demonstrate eligibility for the waivers for DACs or EDAs is also problematic under the approach currently being proposed. Research will have wide benefits far beyond any particular group. Outreach can be conducted within designated DAC or EDA locations but screening participants in workshops or field days is infeasible. It is an almost insurmountable barrier to entry to simply apply the 50% cost share requirement to outreach, research, education, and technical assistance projects without providing some leeway in the definition of what ‘direct benefit’ to these communities can look like.

We recommend that DWR reconsider the uniform application of the 50% cost share requirement for Section B projects and that DWR adopt a flexible approach for evaluating DAC and EDA waiver/reduction eligibility. A project that is mainly occurring in EDAs and/or DACs, or that can reasonably be expected to produce a broad-based benefit that also helps EDAs/DACs, should qualify for a full waiver.

**7. Urban water district projects should be required to demonstrate direct benefit to agricultural water management planning and efficiencies.**

The *Draft Guidelines* include urban water suppliers as eligible applicants for the agricultural water use efficiency funds. We understand that this is necessary because some urban water suppliers also serve agricultural customers. However, DWR should be sure to avoid the use of limited agricultural water use efficiency funds for projects that have limited or dubious direct benefit within the agricultural context.

We recommend adding a stipulation in the PSP that urban water district applicants need to explicitly demonstrate or explain how their project(s) will produce benefits for the water management planning and efficiencies of their agricultural water customers.

Thank you again for the opportunity to comment. Please let us know if you have any questions or would like to discuss our recommendations. We are excited to see the impact these funds can make in improving agricultural water use efficiencies in the state.

Sincerely,



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