CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE (CDFA)
ENVIRONMENTAL FARMING ACT SCIENCE ADVISORY PANEL

San Lorenzo Park
Irrigation Museum Conference Room
1160 Broadway
King City, CA 93930

April 8, 2014

MEETING MINUTES

Panel Members
Don Cameron, Member and Chair
Mark Nechodom, PhD, Member
Mike Tollstrup, Member
Jocelyn Gretz, MSc, Member

Subject Matter Experts
Luana Kiger, MSc, Subject Matter Expert
Doug Parker, PhD, Subject Matter Expert

CDFA Staff
Amrith Gunasekara, PhD
Carolyn Cook, MSc

AGENDA ITEM 1 – INTRODUCTIONS AND UPDATES

The meeting was called to order at 1:10 p.m. by the Chair, Mr. Don Cameron. Introductions were made and a quorum was established. Dr. Gunasekara (herein referred to as CDFA staff) informed the panel that Dr. Jeff Dlott has offered to serve on the panel as a voting member and would attend future meetings. CDFA staff also noted that the bi-annual report has been posted to the Science Panel website and shared with the Secretary of CDFA. A copy was also sent to the USDA Rural Development Office as requested by the Science Panel at the January 31, 2014 meeting.

AGENDA ITEM 2 - Water Efficiency and Enhancement Program review

CDFA staff informed the panel that as of March 1, 2014, CDFA had received $10 million as part of SB 103, an emergency drought legislation bill. The $10 million was from the greenhouse gas emissions fund and was provided to incentivize agricultural operations to invest in water irrigation treatment and distribution systems that reduce water and energy use and increase water and energy efficiency in agricultural operations.

CDFA staff presented the members with a PowerPoint presentation (http://www.cdfa.ca.gov /EnvironmentalStewardship/Meetings_Presentations.html) that contained information and language associated with the funding source, regulatory authority, goals and proposed framework. CDFA will administer the program using the 1995 Environmental Farming Act which states that the department shall establish and oversee an environmental farming program to provide

incentives to farmers whose practices promote the well-being of ecosystems, air quality, and wildlife and their habitat (Division 1, Part 1, Chapter 3, Article 8.5, Sections 560-568 of the Food and Agricultural Code). CDFA staff proposed five major components for a program; 1. Irrigation system design, 2. Implementation, 3. Verification, 4. Financial accountability and 5. Quantification of water savings and greenhouse gas reductions. The program will be based on competitive grants directly to growers. A funding cap of $50,000 with a 50% match, a verification component using a third party, a scoring and ranking system and quantitative reporting on water efficiency and greenhouse gas reductions was proposed by CDFA staff, based on information collected on a similar program at USDA NRCS, for consideration by the Science Panel.

Discussion ensued following the presentation about some of the details of the program and suggested changes were identified. They are discussed below by topic.

Financial Need – CDFA staff informed the Science Panel that clarification has been received from the Governor's office that the drought in itself has created a financial need and therefore the program will be designed to avoid collecting grower financial information which would be subject to a public request act request. Further, it was noted the primary purpose of the program was to "to evaluate projects based on quantifiable water savings/efficiencies and greenhouse gas reductions".

Grower Application – A draft outline of the major components of the WEEP application was presented to the members by CDFA staff. Discussion ensued on the topic of the grant applications being electronic and the amount of time the funded systems should be maintained for (15 years). CDFA staff noted that electronic submission of applications were critical to ensuring the applications could be collected, reviewed, scored, ranked and processed for funding in a manner consistent with the short timelines of this program (funds must be encumbered by June 30, 2015). Members noted that for growers who did not have electronic capabilities, public places such as local libraries offered the opportunity to submit an application. The members however, advised having several training sessions for growers to explain the electronic application process since paper applications would not be offered.

Discussion ensued on the timeline of how long the project should be maintained following project implementation. Staff proposed 15 years based on similar programs established by USDA NRCS (EQIP). Ms. Kiger from USDA NRCS noted that their program, very similar to what CDFA is developing, has language on how long the major components of the system should be used and in place for. They noted that the EQIP program identified 10 years. Although, complete verification of all the funded systems over the 10 years is not feasible, the language provides growers with an expectation of how long the system should be maintained. The life of particular practices varies (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1076947.pdf).

Funding - There was discussion on whether these funds could be combined with NRCS EQIP funds and members recommended that they should not since there would be a larger number of projects implemented if the USDA NRCS and CDFA programs were not combined and independent of each other. Ms. Kiger noted that there are some important components of the USDA NRCS program that CDFA could use (e.g., NRCS schedules for payment).

CDFA staff recommended a funding cap of between $50,000 and $100,000 should be established. The members suggested a cap of $50,000 with a 50% match. These funding recommendations were based on several factors which are noted below;

- Feedback from USDA NRCS who has a similar program and that irrigation systems typically cost between $50,000 and $100,000 in California
- The level of funding will encourage matching funds
- CDFA proposed using USDA farm size designation as a method of equally dispersing the funds among small, medium, and large growers. The Science Panel discusses using acreage instead of USDA designation due to the inability to collect or verify financial information provided by applicants. It was decided that using a cap and matching funds would allow a spectrum of growers to be awarded funding. Establishing this level of funds will allow for a greater number of applications (approximately 180 projects) for a host of different farm sizes compared to larger sums of money which may be utilized by less farmers that are large in size (e.g., $100,000 would mean 95 projects).
- Matching funds for such systems are now common practice
- These systems, with the drought, would go in anyways so the allocated funds are to incentivize more systems being implemented in the state

Ranking - Nine different criteria for ranking the applications were presented to the members for consideration. Discussion ensued on the nine criteria proposed with several changes made. The members agreed to the following nine criteria used for ranking the applications. Applications that use multiple criteria will be ranked higher than those that use fewer criteria.

1. Largest water savings (acre-inches/year/acre)
2. Largest GHG savings (Tonnes CO_2 equivalent/year/acre)
3. In a D3 or D4 drought designation area as of April 29, 2014
4. Use of soil moisture sensors (NRCS Practice Standard 449) with electronic data output and flow meters, or electronic weather station linked to irrigation controller, for growers to ensure efficient irrigation scheduling (must specify with a new or existing system); new systems get higher ranking.
5. Use of evapotranspiration (ET) based irrigation scheduling, such as the California Irrigation Management Information System (CIMIS), and flow meters on existing or proposed projects to optimize water efficiency for crops.
6. Reduction of GHGs from water pumping. For example, the conversion of a fossil fuel pump to solar, wind or electric.
7. Use of micro-irrigation or drip systems to replace flood or furrow irrigation. Must follow NRCS Conservation Practice Standards 441 or 442.
8. Use of low pressure irrigation systems to reduce pumping and energy use.
9. Use of Variable Frequency Drives to reduce energy use and match pump flow to load requirements. Recommend following NRCS Conservation Practice Standard 533.

Members also noted that it is important that applicants submit a design plan for review. CDFA staff proposed that CalEnviroScreen should be used to determine and rank applications as they related to disadvantaged communities as one of the criteria. After viewing an example of the map displayed at the meeting however, the members observed that the rankings used on the map may miss some disadvantaged communities, and recommended that instead applicants should

describe how the social and environmental co-benefits of the proposed project will contribute to disadvantaged communities and some recognition should be provided upon review.

Verification – CDFA staff noted that a third party should be used for the verification component of the grants since CDFA does not have field level resources to complete this important task. Important aspects of the design component were provided to the members for consideration including the importance of using a distribution uniformity value. The Resource Conservation Districts were proposed as a good verifier given their knowledge on conservation practices and relationship with growers in the state.

A timeline of activities was provided to the members for comments and suggestions. Several public stakeholder meeting were also scheduled to inform farmers about the program and those dates were provided to the members. The dates of the two public meetings will be April 11, 2014 in Sacramento and April 18, 2014, in Modesto. Additional application training sessions will be organized and advertised on the WEEP website.

Public comment was considered. Among the public members, attending was Mr. Paul Robbins from the Monterey County Resources Conservation District who provided feedback on the implementation of the program. A vote was taken to move all the recommendations for the program made by staff in consideration of the changes requested by the members. A motion was made by Dr. Nechodom and seconded by Mr. Tollstrup for moving ahead on the program in consideration of the changes requested by the members.

AGENDA ITEM 3 – GEELA

CDFA staff provided language for the new agricultural category that would be part of the Governor's Environmental and Educational Leadership Awards. Also presented were the selection criteria that CDFA staff would identify as important to the GEELA application. CDFA will work with CalEPA to finalize the language for the GEELA award.

AGENDA ITEM 4 – EGPR

Suggested language for ensuring food security was proposed by CDFA staff to the members for consideration. The members agreed that the language should be shared with the Secretary and communicated to the Governor's Office of Planning and Research, the authors of the Environmental Goals and Policy Report.

AGENDA ITEM 5. NEXT MEETING DATE

Dr. Parker offered to host the next meeting at the field experiment station in Hopland, CA. Dr. Gunasekara will organize a Doodle poll to gather member availabilities. The expected time period for the next meeting would be towards the end of June, 2014. The meeting was adjourned at 4 pm.

Respectfully submitted by:

Amrith Gunasekara, Ph.D.

05/20/2014
Date