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

California Department of Food and Agriculture Main Auditorium 1220 N Street, Sacramento, CA 95814

> March 15, 2018 1 PM – 5 PM

MEETING MINUTES

Panel Members in Attendance

Don Cameron, Terranova Ranch (Chair and Member) Jocelyn Bridson, MSc, Rio Farms, (Co-Chair and Member) Jeff Dlott, PhD. SureHarvent (Member) David Bunn, PhD. Natural Resources Agency (Member) Scott Couch, State Water Resources Control Board (Member) Emily Wimberger, CalEPA, ARB (Member) Judith Redmond, Full Belly Farm (Member) Vicky Dawley, Tehama RCD (Member) Doug Parker, PhD. UC ANR (Subject Matter Expert) Tom Hedt, USDA NRCS (Subject Matter Expert)

State Agency Staff and Presenters

Secretary Karen Ross, CDFA Virginia Lew, CEC Olivier Jerphagnon, MSc, PowWow Energy Kevin Langham, MSc, PowWow Energy Miriam Volat, UC Davis Facilitation Services Carolyn Cook, M.Sc. Guihua Chen, PhD, CDFA Geetika Joshi, PhD, CDFA Amrith Gunasekara, PhD, CDFA

AGENDA ITEM 1 – Introductions

The meeting was called to order at 1:10 PM by the Chair, Mr. Don Cameron. Introductions were made. Present at the meeting were all the members noted above under "Panel Members in Attendance."

AGENDA ITEM 2 – Minutes from Previous Meeting

Chair Cameron introduced the minutes from the January 18, 2018 meetings. A motion was made by Member Bridson to accept the minutes as presented by CDFA staff and

the motion was seconded by Member Dawley. The motion was moved by all members present and accepted without further changes.

AGENDA ITEM 3 – SWEEP Update

Ms. Cook provided a programmatic update on the State Water Efficiency and Enhancement Program (SWEEP). She noted potential future funding sources. Ms. Cook provided a status update on the Joint Program between CDFA and DWR, noting that the North San Joaquin Irrigation District assessment did not pass in support of the project. Therefore, she noted the project would not move forward. The funds allocated to projects under the DWR-CDFA Joint Program would be re-allocated to SWEEP applications received in 2017 that did not receive funding due to insufficient funds.

Ms. Cook explained the monitoring approaches for SWEEP projects funded in 2015 and 2016, noting the different mechanisms that were used for monitoring, namely, comparing paper utility bills in 2015 and third party remote and digitized monitoring through PowWow Energy in 2016. She introduced the next two speakers from California Energy Commission and PowWow Energy.

Virginia Lew, California Energy Commission

Ms. Lew explained the California Energy Commission's (CEC) Agriculture-related Energy Efficiency Research. She noted the various policy drivers behind the CEC programs, such as the Electric Program Investment Charge (EPIC) and the Natural Gas Research and Development Program. The 2018 EPIC Investment Plan has a focus on energy and water use efficiency in irrigation technologies. Ms. Lew shared examples of some current projects funded through EPIC, such as the Wexus Energy and Water Management Mobile Software for farmers. The funded projects provide growers with easy-to-use, farm-integrated decision-making assistance technologies to help them maximize their water and energy efficiencies. Ms. Lew facilitated questions and provided responses to member questions.

Olivier Jerphagnon and Kevin Langham, PowWow Energy

Mr. Jerphagnon provided a presentation on water-energy monitoring systems developed by their company funded by the grant received through CEC EPIC. He noted their collaboration with UC Santa Barbara and UC Davis to develop energy and water savings technologies, respectively. He explained how the technology was customized for use in SWEEP verifications. Mr. Langham gave a presentation specifically noting their work on SWEEP. Each SWEEP recipient part of the verification was provided with a SMART meter and showed examples of data created by PowWow, such as well pumping and solar energy use. Mr. Langham showed an example of the data generated for SWEEP verifications, including energy savings, water savings and GHG savings. Mr. Langham and Jerphagnon facilitated questions from the panel members and provided responses.

Address by Secretary Karen Ross

Secretary Ross arrived and welcomed the Panel Members. She noted that Chair Cameron had accepted a new position as President of the State Board of Food and Agriculture and would be stepping down as current Chair of the EFA-SAP. Co-Chair Bridson was appointed as the new Chair of the EFA-SAP. Secretary Ross thanked Chair Cameron for his service and presented him with a Certificate of Appreciation. She welcomed Ms. Bridson in her new role as Chair. She would begin to take on the responsibilities as Chair at the May 24, 2018, meeting.

AGENDA ITEM 4 – Healthy Soils Program (HSP) Update

Chair Cameron introduced Dr. Chen who provided an update to the Science Panel on the Healthy Soils Program (HSP). She discussed the projects selected for funding and distribution of awardees for the HSP Incentives Program and HSP Demonstration Projects. She explained the proposed management practices to be considered for inclusion under the HSP and presented an update on CDFA's mechanism for evaluation and inclusion of these practices. Dr. Chen also presented an update on the 2017 Healthy Soils Program Second Solicitation, noting the differences from the previous round.

Several questions from the Panel were facilitated by Dr. Chen and CDFA staff. Topics included remaining GHG reductions achieved via various practices, clarifications on the verification process, and clarifications on CDFA's process for including new practices in future rounds of HSP.

AGENDA ITEM 5 – Strategic Planning on Future Topics

Dr. Gunasekara provided a point-by-point update on Strategic Plan processes that occurred in the last two EFA-SAP meetings, including each major recommendation made by the Science Panel at the October, 2017 and January, 2018 meetings. He noted that a public process will be initiated to solicit stakeholder input on the Strategic Plan if approved by the members with a finalized Plan to be presented at the next meeting.

AGENDA ITEM 6 – Public Comments

Several questions and comments from the public were accommodated by Chair Cameron and CDFA staff. They included clarifying questions for PowWow Energy on increasing sample size for SWEEP verifications for data-based future decisions relating to choosing irrigation technologies, distribution efficiency, and modification of the GHG quantification methodology based on PowWow data findings. Additional public comments related to incomplete application analysis for the HSP, concerns regarding scheduling of awarded project site verifications, increased technical assistance and consideration of existing programs and plans (e.g. Carbon Farm plans), potentially increasing award amount for both Incentives Program and Demonstration Projects, support for several new practices being evaluated for inclusion in the HSP, including onfarm composting, allowing multi-species (mixing leguminous and non-leguminous) cover crops, integrated cropland ruminant grazing, and one-time compost application; and concerns regarding lack of soil health benefits and potential for ammonia volatilization by nitrification inhibitors, and potential crusting or increased run-off from anaerobic digestate application were expressed. Additional clarification was provided in support of on-farm composting to be allowed for those regions where commercial composting facilities may not be available by members of the public.

AGENDA ITEM 7 – Next Meeting and Location

Dr. Gunasekara stated that the next meeting will be May 24, 2018, in Tehama County. A new co-chair will be selected at the next meeting. Final recommendations for the long-term strategic plan for the Panel will be presented at the next meeting. The meeting was adjourned at 4:02 PM by Chair Cameron

Respectfully submitted by:

Amrith Gunasekara, Ph.D.

<u>May 24, 2018</u> Date