

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

August 10, 2023  
9 AM to 12 PM PST

MEETING MINUTES

**Panel Member in Attendance**

Keali'i Bright, DOC  
Dr. Michelle Buffington, Ph. D., CalEPA, California Air Resources Board  
Don Cameron, Terranova Ranch (Participating Remotely)  
Scott Couch, CalEPA, State Water Resources Control Board,  
Vicky Dawley, Tehama RCD (Vice Chair)  
Leonard Diggs, Pie Ranch  
Dr. Jeff Dlott, Ph. D., LandScan (Chair)  
Judith Redmond, Full Belly Farm

**Absent:** Amanda Hansen, California Natural Resources Agency

**State Agency Staff and Presenters**

Dr. Nina Bingham, Ph. D., CDFA  
Carolyn Cook, CDFA  
Virginia Jameson, CDFA  
Dr. Tawny Mata, CDFA  
Dr. Erik Porse, Ph. D., UC California Institute for Water Resources  
Dr. Daniel Rath, Ph. D., UC Davis  
Dr. Kate Scow, Ph. D., UC Davis  
Josh Staab, CDFA

**AGENDA ITEM 1 – EFA SAP Call to Order, Roll Call and Approval of the Minutes**

The public meeting of the Environmental Farming Act Science Advisory Panel was called to order at 9 a.m. by Chair Dlott. Staff from CDFA and the Panel members introduced themselves.

Chair Dlott led the roll call. Roll call was taken, and a quorum was present.

Chair Dlott moved to pass the May 11, 2023, minutes. Moved by Member Cameron and seconded by Vice Chair Dawley. The minutes were presented and unanimously approved.

**AGENDA ITEM 2 – CDFA Office of Environmental Farming and Innovation Updates**

Dr. Tawny Mata, Director of the Office of Environmental Farming & Innovation (OEFI) provided an overview of recent events within the office. Dr. Mata provided highlights from OEFI's award process session as well as the initiatives to provide a more robust application period for many of its programs.

Dr. Mata summarized work being done with her program managers to enhance program applications to reach a larger, more diverse pool of applicants.

Dr. Mata proposed to move the EFA SAP in a new direction, to find ways to interact with stakeholders and staff to better serve the true purpose of the panel. Dr. Mata believes that understanding the real-world issues stakeholders and staff members face may be compromised when an insufficient amount of time to understand these issues is allotted.

Dr. Mata hopes to reshape the way her office interacts both directly and online with stakeholders. Dr. Mata believes these steps will help better understand the challenges and issues they face to build a better-connected network and community.

Dr. Mata envisions better producer-informed information by taking their experiences into account to help the EFA SAP better respond to those considerations.

Member Redmond expressed an openness to changing the focus. Redmond noted she really enjoys those interactions with those people who represent specific organizations as well as individual stakeholders. Member Redmond noted her concern to maintain public interaction and how those interactions inform EFA SAP ideas and decisions. Dr. Mata is open to exploring those possibilities and how they'll incorporate with the panel's current machinations.

Member Couch would like to see scientists coming in from sister organizations to provide presentations on their research. Dr. Mata agreed.

Member Redmond noted how the panel is grounded to provide clarity on where funding is going and how connected it is with CDFA programs that provide it.

Member Dawley asked for clarity on who the panels and workshops would cater to. Dr. Mata clarified that the meetings would be open to anyone who wanted to attend.

Chair Dlott would like to schedule meetings moving forward to better address concerns in accordance with some of the rules and regulations the panel currently faces.

Dr. Porse noted the challenge of parsing through current research and how current science would inform new and current practices. The logistics for providing that information can take time, Dr. Porse noted. Chair Dlott agreed with the time it takes to parse through the research but emphasized how important that effort is for the scientific community.

Member Redmond wondered if there was some way of recording or researching the recording of the follow-ups on the research and outcomes EFA SAP determines.

Chair Dlott then opened the panel to public comment.

Brian Kolodji provided public comment, sharing his opinion that key agricultural parameters, should be included in OEFI program performance indicators including GHG calculators

Sandra Nakagawa provided public comment to support CDFA and is excited to collaborate with CDFA and OEFI moving forward.

### **AGENDA ITEM 3 – Healthy Soils Program Direct-to-Farmer Incentive Program 2023 Update**

Nina Bingham, Environmental Scientist from the CDFA Healthy Soils Program (HSP) provided an update for the office's direct-to-farmer incentive program, including a new RePlan Tool Demonstration.

RePlan Tool is the main platform HSP uses for project design. Dr. Bingham noted that changes to the tool are being implemented based on user feedback, including incorporating GHG reduction benefit calculations. Ms. Bingham noted the objectives for the changes included reduced instances for discrepancies, copy and pasting errors, streamlining grant agreement preparation process with pdf output, and making the system easy to operate.

Dr. Bingham then provided a demonstration using the RePlan Tool in real time. The demonstration showed how to choose a practice for a specific portion of land, as well as how implementation scenarios could play out.

Dr. Bingham transitioned from the RePlan Tool demonstration to providing the EFA SAP with updates from across the HSP. Dr. Bingham reviewed several proposed changes to the program, including the application and review process.

Dr. Bingham provided an overview of the updated application process, asking for input from the panel. The proposal addresses some critiques of the "first-come, first-served" process, including application benefits for SDFRs and/or Priority Populations, applications from first-time applicants, and the potential for complex projects to lose out because they take more time to prepare.

Member Redmond asked about the disparity between the communities of applicants in terms of priority populations versus other communities.

Member Cameron asked how to define priority populations and how those communities could benefit from the proposed program changes.

Dr. Porse asked about the increased rates in payouts for recipients and how those payments will work out in real time for recipients.

Member Couch had a question about APNs, and where the information for them comes from. Would landowners know where they can go to verify those APNs? Dr. Bingham clarified that the RePlan Tool discloses where its updated information comes from, according to land parcel metrics.

Chair Dlott opened to Public Comment.

Ms. Nakagawa requested another public comment. Ms. Nakagawa is excited to see the prioritizations HSP is making. Ms. Nakagawa would like to receive additional information about where specific funds go in order to build better research about program practices.

The panel and Chair considered the revisions to the program and its metrics before opening up to a motion to make said revisions. The motion was passed unanimously.

#### **AGENDA ITEM 4 – State Water Efficiency Enhancement Program 2023 Update**

Carolyn Cook, supervising senior environmental scientist with the CDFA State Water Efficiency and Enhancement Program provided the panel with an update. Ms. Cook provided an update on a new SWEEP Assessment Tool, which provides project design information, water savings calculations, GHG emissions (including the addition of nitrous oxide) calculations, as well as spatial layers important to calculations and applications.

Ms. Cook explained the need for a more intuitive tool for users. It's an interactive map that incorporates all the above layers if the user so chooses to use them. Ms. Cook then provided a breakdown of the tool and illustrated some of its machinations.

Ms. Cook hopes the tool can help producers create a landscape design for their projects. Once created, the tool provides a comprehensive report which can be downloaded as an Excel file. This will be useful to the technical review of the project, Ms. Cook said.

Ms. Cook moved on to a summary of the proposed major updates for the SWEEP for 2023. The first was a return to the competitive application process. Ms. Cook explained the program staff expects that a competitive process with a single deadline, will result in improved applications, outcomes and grant management, and will be supportive of technical assistance providers as they work to develop projects with Socially Disadvantaged Farmers and Ranchers.

Another update included the choice applicants will have to use quantification tools.

A proposal for eligibility of previously funded parcels was provided by Ms. Cook. Applicants may apply for funding on parcels that have previously been funded by SWEEP, under specific conditions. One reason for this proposal is that many early SWEEP projects were simple with an opportunity to improve other aspects of irrigation water and energy efficiency. Ms. Cook believes this will benefit small-acreage producers.

Ms. Cook then outlined the proposed revamp of the scoring rubric that is focused on maximizing beneficial impacts of the program. The technical review scoring criteria is converted to a benefit-focused rubric, focusing the work of technical reviewers on validating water savings and GHG emissions calculations, as well as integrating "additional considerations" which have been objective, yes/no factors that reflect priorities. Ms. Cook then shared the concept for the scoring rubric, including categories, criteria, and the points available under each circumstance.

Regarding the use of the budget category of the scoring rubric to encourage comprehensive and balanced projects, Member Dawley asked for insight into how significant this change will be and whether the change is necessary. Ms. Cook believes the impact will be minor in point allocation, but she believes the change will encourage applicants toward a more balanced and irrigation-focused project.

Member Dawley asked about the creation of the project design within the new tool and whether it will be required to use the tool for project design. Ms. Cook clarified that the new spatial tool can be a resource for applicants to develop a project design, but it won't be required. Applicants can continue to use other resources to develop a project design.

Member Buffington asked about the metrics related to air quality benefits in terms of meeting criteria for points within the scoring rubric. Ms. Cook clarified the metrics associated with project co-benefits such as air quality would be qualitative versus quantitative and related to a reduction in fossil fuel combustion. Member Buffington noted that she thinks it's great to consider ways to think about co-funding to tap into other resources to benefit projects. In relation to the proposal that renewable energy aspects of the projects should be balanced with irrigation-focused components, she indicated that on-farm renewable energy projects can be especially important during seasons of extreme heat and the burden that puts on energy producers.

While reflecting on the use of the budget category in the scoring rubric, Member Bright voiced a challenge he's experienced in funding programs when costs increase, and an awardee is unable to complete the project as originally planned. Chair Dlott asked to move to public comment, based on time constraints.

Mr. Kolodji requested more robust systems and technology be provided by the SWEEP awards, including tools he believes better address water savings calculation tools as well as GHG emissions calculator tools, expanding the scoring rubric, and expanding the pool of possible applying recipients.

Ms. Nakagawa voiced her appreciation for the SWEEP and CDFA OEFI programs. She agreed with the tools and expansions to the SWEEP. Ms. Nakagawa agreed with the goal of returning the application process to competitive. Ms. Nakagawa suggested one proposal to further expand the opportunities available to a more robust applicant pool.

Dr. Bruce Kimball commented, voicing his successful experience sequestering carbon through carbon dioxide enrichment of crops. He mentioned a need to emphasize projects' "efficiency" metrics to evaluate program success.

Motion presented by Member Diggs. The motion was duly passed unanimously by the panel.

#### **AGENDA ITEM 5 – Belowground Biodiversity Advisory Committee Report Release and Q&A**

CDFA Deputy Secretary Virginia Jameson provided an introduction about the BBAC and its executive order for creation. Jameson provided a background on the creation of the committee and why it was created to address the improvement of biodiversity on California's working lands.

Kate Scow and Daniel Rath, from the University of California, Davis, provided an update to the panel from the Belowground Biodiversity Advisory Committee.

Ms. Scow noted soil is the most biodiverse singular habitat, noting the abundance of organisms living in the soil – nearly 60 percent of earth's biodiversity. Agriculture benefits greatly from biodiversity, Ms. Scow said.

Ms. Scow noted the diversity of researchers on the committee, coming from a diverse work experience.

Ms. Scow provided a breakdown of the BBAC's latest 120-page report, including the background on soil biodiversity, selecting soil biodiversity indicators, the framework and example case studies for California, and finally, recommendations and opportunities.

Ms. Scow provided an overview of the threats to soil biodiversity as well as the taxa present in soil. There has been a renaissance of soil biodiversity in terms of the reporting.

Mr. Rath took the handoff from Ms. Scow to discuss how soil biodiversity is measured. Mr. Rath explained how the BBAC worked to make those metrics easy to understand and how to identify the indicators. Mr. Rath discussed the challenges the committee faced in identifying and understanding how tiny organisms interact with soil and how they contribute to overall biodiversity. All indicators have different characteristics associated with them.

Four criteria were identified, Mr. Rath said.

- Meaningful and targeted to the goal of the assessment

- Relevant to the scale and biology of the organisms
- Feasible to measure and easy to interpret at both scientific and policy levels
- Have an established and standardized plan

Mr. Rath explained the need for a framework to identify these indicators. The framework would make it easier to identify indicators to fully describe why and how they will be measured and used. For this to happen, input from stakeholders will be required. Mr. Rath went on to provide that framework. To create the framework, BBAC created four example scenarios or “use cases” for soil biodiversity assessment. The goal was to provide practical examples of case studies.

Mr. Rath provided a breakdown of the goals of the assessment.

Ms. Scow wrapped up the presentation by providing several recommendations, including:

- The use of soil biodiversity as a key metric
- Integrate soil biodiversity assessment into CDFA’s HSP
- Use and refine preliminary Indicator Selection Framework to assess soil biodiversity under range of applications and conditions
- Develop an adaptive management framework, expand infrastructure, and increase capacity.

Ms. Scow provided some specific and broader recommendations and opportunities including optimizing regional, statewide, and global partnerships to promote CA soil biodiversity through collaboration, communication, and outreach.

The presentation was then opened to Panel Discussion and Public Comment.

Member Diggs opened the discussion by acknowledging all the thorough research and work to provide the update. Member Diggs called for a larger group of individuals to incorporate the information from the report as the essential element needed based on the findings.

Member Redmond asked how the additions of biodiversity sampling correlate would, and help the testing being done and how they help prioritize incentives. The soil biotesting might relate to the practices, she said.

Specific organisms can retain nutrients from the soil, so it is complimentary.

Dr. Mata would be interested in how these metrics could be incorporated with the data her programs are currently using. Dr. Mata did have concerns of the quality of the data received from recipients, and that it was something she would be considering how to improve.

Member Diggs noted if the risks associated with the benefits aren’t addressed, they may not necessarily ever be correlated with the biodiversity.

Chair Dlott opened the conversation up to the public. None was given.

Chair Dlott was impressed with the quality of the content, the scope of the committee, how it crosses multiple institutions, and how it’s created a forum that is “unstoppable,” in terms of the research and theses that come out of the scientific community.

## **AGENDA ITEM 6 – Public Comment**

Brian Kolodji offered public comment to consider including robust criteria for OEFI programs.

**AGENDA ITEM 7 – Meeting Adjournment**

Chair Dlott motioned to adjourn the meeting at 12:22 p.m. PT, which was seconded by Member Couch and Member Buffington. The motion was then approved unanimously.

Respectfully submitted by:

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Josh Staab, Public Information Officer, California Department of Food and Agriculture