

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

California Department of Food and Agriculture
Remotely Hosted to Accommodate Covid-19 Safety Measures

July 15, 2021

9 AM to 3 PM

Remote Access

https://www.cdfa.ca.gov/oefi/efasap/meetings_presentations.html

MEETING MINUTES

Panel Member in Attendance

Jeff Dlott, LandScan (Chair and Member)
Scott Couch, CalEPA, State Water Board, (Member)
Don Cameron, Terranova Ranch (Member)
Leonard Diggs, Pie Ranch (Member)
Keali'i Bright, DOC (Member)
Amanda Hansen, CNRA (Member)
Judith Redmond, Full Belly Farm (Member)
Doug Parker, PhD. UC ANR (Subject Matter Expert)

State Agency Staff and Presenters

Secretary Karen Ross, CDFA
Geetika Joshi, PhD, CDFA
Scott Weeks, CDFA
Carolyn Cook, M.Sc., CDFA
Amrith Gunasekara, PhD, CDFA
Anthony Mint, Restore CA

AGENDA ITEM 1 – Chair and Member Introductions:

The public meeting of the Environmental Farming Act Science Advisory Panel was called to order at 9:03 am by Chair Dlott. The panel members introduced themselves. A quorum was established with the members listed above. Chair Dlott announced that he has retired from SureHarvest and joined a new company, LandScan.

AGENDA ITEM 2 – Welcome Remarks:

The Secretary of the California Department of Food and Agriculture, Karen Ross, welcomed the panel and gave opening comments to commemorate the fiftieth meeting of EFA SAP under her tenure. Secretary Ross acknowledged the many emergencies that are ongoing at this time in California, several that are climate related including drought and wildfire.

She reflected on the EFA SAP's early discussions and work on ecosystem services and she called upon the panel to work with the State Board of Food and Agriculture to consider topics for the next ten years of agriculture in California. She emphasized the need to focus on equity and recovery from pandemic and drought. She called for the panel to consider the actions and investments that are needed and requested that the panel continue quantifying ecosystem services and find ways for farmers to be compensated for those services. Specifically, she asked for the panel to consider a tool to quantify soil biodiversity to improve understanding of the relationship between soil biodiversity, soil carbon and water retention.

Panel Member Don Cameron recalled the early days of the SAP. Over the years, the group has done well, developing new programs and provided examples for other regions of the nation.

Secretary indicated that there is potential funding for SWEEP, HSP, Conservation Agriculture Planning Grants, and Pollinator Habitat with the current budget discussions.

Chair Dlott thanked Secretary for her remarks, her leadership and support of the EFA SAP and the update on the state budget.

AGENDA ITEM 3 – Minutes:

The panel reviewed the minutes from the previous meeting, held in April 2021. Member Couch introduced a motion to approve the minutes. Member Cameron seconded the motion. The motion was approved without opposition.

AGENDA ITEM 4 – Discussion on Developing a Below-ground Biodiversity Metric

Chair Dlott introduced the agenda item regarding the recommendation of the establishment of an EFA SAP Ad-Hoc Advisory Group co-chaired by the three guest speakers that presented at the April 2021 EFA SAP meeting to further evaluate below ground biodiversity metrics. The product of the Ad-Hoc Advisory Group would be a report on what several below ground metrics may be based on the current best available science and a tool. Chair Dlott suggested that this tool could be in parallel to Comet Planner.

Member Diggs commented that the term ecosystem services is broader than just applying to the work the grower does, but shifts to how we all manage the ecosystems and working landscapes. Member Hansen agreed with Member Digg's comment and indicated that as a representative of California Natural Resources Agency, she is open to this idea of the development of a tool for soil biodiversity. California has strong partners in Washington, so she suggested CDFA ensure that they know what the starting point for this work looks like, and to not work in a silo. Chair Dlott agreed to not reinvent the wheel and that CDFA should coordinate with federal partners.

Dr. Gunasekara responded to Member Digg's comment that CDFA has already defined the term of ecosystems services and he shared the CDFA OEFI webpage with the definition. Dr. Gunasekara elaborated by showing the additional language CDFA crafted on the webpage on ecosystems services. Member Diggs commented that centering the language on farmers and ranchers may be too focused and could be elaborated that the services come from nature - farmers enhance services through management. Chair Dlott indicated that the panel could update the definition or ask the CDFA staff to present some options for a refined definition at the next meeting. Member Cameron agreed. Member Cameron moved to request staff to provide options for a revised definition at the next meeting, Member Redmond seconded the motion. The motion to refine the definition to acknowledge the nature-based origin of ecosystem services was unanimously passed.

Member Hansen asked what the time frame is for forming the soil biodiversity ad-hoc group and the proposed number of members. Dr. Gunasekara recommended the panel identify the co-chairs and have them solicit further members from the academic institutions in California. The current goal is to have the report ready by the January 2022 meeting. Chair Dlott suggested that the panel would create ideas that would go through public comment. Chair Dlott added that CDFA should have alignment with federal partners. Dr. Gunasekara indicated that Margaret Smither-Kopperl (one of the potential co-chairs) could serve as that "federal bridge" since she works for USDA-NRCS. Dr. Gunasekara recommended that this topic be opened for public comment.

Public member Elizabeth Pearce, Founder of SymSoil in Solano County, commented on current efforts going on in this field. SymSoil farms soil microbes to create products for farmers to improve soil health. She indicated that the National Science Foundation already formed a soil dynamics technology committee with academics from universities in California, Washington, Iowa, and Oklahoma. Most of the members are engineers interested in sensor technologies. She offered to serve as a resource and indicated that she was also working with the head of the soil department at Stanford.

Public Member Marty Meisler commented on the “ecosystem services” definition on the CDFA OEFI website and indicated what’s missing is the larger picture benefits for healthy soils for climate resiliency. He suggested it would be good to highlight these benefits.

EFA SAP Decision on Action Item:

- 1) OEFI staff to create an updated definition of “ecosystems services” to focus on more nature-based source foundational aspects. OEFI staff to review and report back on during the next EFA SAP meeting. Chair Dlott proposed the motion, Member Cameron moved it and it was seconded by Member Redmond.
- 2) Dr. Gunasekara proposed to establish the ad-hoc group with the suggested 3 members as co-chairs. The group could then invite other academics to join the subcommittee. The subcommittee will look at tools to establish below ground biodiversity metrics. The subsequent report would be brought to the January 2022 meeting for review and recommendations and opened up for public comments. Member Diggs moved the motion. It was seconded by Member Couch. The motion unanimously passed.

AGENDA ITEM 5 – Restore CA; Update on Current and Future Activities

Presentation by Anthony Myint from Restore CA on “Zero Footprint – Mobilizing the Food World around the Agricultural Climate Solutions.”

Mr. Myint described that the goal of the program is to create a circular economy that would help restaurants move to carbon neutrality while also helping growers. The program was initially interested in soil carbon credits but determined that this might not be the most effective path. The program has been getting guidance from Project Drawdown and aims to work with restaurants implementing a 1% sales carbon neutral tax, or table to farm funding.

This funding could take many forms and could even look like an addition of \$1 on waste hauler bills. Since 2020, the program has awarded \$550,000 for removing 10,000 tons of carbon from the atmosphere. This program is largely inspired by the HSP but is focused on the private sector. The program uses the Comet Planner tool and works with RCDs for implementation. The program focuses on beginning a systematic approach at improving land stewardship. The current pilot is funded by RCDs and other funding sources. One of the goals of the program is to broaden access to meaningful solutions to local farms and ranches for the table to farm movement. Consumers are willing to pay extra for sustainable raised goods, so it seems reasonable that these slight taxes/charges would be palatable. It is also possible to link the program to SB1383. Zero Footprint does retain 5% of program funds and allocates the other 95% to farmers/ranchers. This is not a carbon credit program and growers are asked to not sell their carbon reductions. Farmers/ranchers get paid 50% of the awarded amount for initial implementation and get the remaining 50% at the end of implementation.

Member Hansen asked if the practices funded are only funded if they are in Comet Planner. Mr. Myint indicated that this was the case except for compost application on rangeland, in which they reference CDFA and Carbon Cycle Institute rates.

Member Cameron asked what the program does with growers that are already following these practices. Mr. Myint indicated that they are still eligible for grants, but that an attestation of need may be needed. Member Cameron also asked how much compost is currently being produced in California, and how much Mr. Myint anticipates after the implementation of SB1383. Mr. Myint estimates that 10% of organic matter is diverted, so maybe the current market could expand by threefold.

Member Bright asked how these grants are different from HSP grants. Mr. Myint indicated that the application process is more streamlined and that grantees get half of the money up front. The program is hoping for a closer collaboration with HSP, for example adding a checkbox on the HSP application indicating that “I would like to be contacted about more funding opportunities.” This could

also potentially pair well with EQIP grants or the new CDFA planning program.

AGENDA ITEM 6 – Climate Smart Agriculture Conservation Agriculture Planning Program; Update on Current and Future Activities

Presentation by Dr. Gunasekara from CDFA providing an update on the status for the program. He indicated that public comments have been received, however due to the quick turnaround before the EFA SAP meeting, OEFI staff haven't been able to do an in-depth analysis. They received 16 comment letters from the public, and OEFI staff will incorporate the comments into another draft RFP. The comments focused on eligible entities, eligible plans, grant term lengths, payment structures, and application process. Regarding the previous concerns of what fundable plans are included, he emphasized that organic systems plans (OSPs) are included. Funding for this program is unclear.

Member Redmond had a question about the summary of comments, because in several of the letters there were discussions on streamlining the implementation of planning grants. She was curious on CDFA staff thoughts because the people who commented have experience in the process from planning to implementation. Dr. Gunasekara indicated that the panel did have a previous discussion on implementation and reminded that this program only focuses on planning efforts and not implementation. He elaborated that due to funding encumbrance and liquidation deadlines, CDFA won't have enough time to ensure implementation and monitoring of these projects and farmers may not want to start implementation work immediately after planning. Chair Dlott asked if there is a desire to incentivize implementation, for example adding an additional scoring criterion for implementation programs if planning grantees apply for funding.

Member Redmond indicated that she had been in correspondence with the USDA NRCS TSP director and acting state agronomist, and that at the national level the NRCS is reorganizing the payment structure caps. It is based on implementation and including some practical questions when the practices are being done. Chair Dlott asked about the timeline for the transition, and Member Redmond indicated that it would be implemented 2022. Member Redmond reemphasize how this planning program should support the transition to organic farming. She is concerned that the program as it now stands no longer follows this intent. According to NRCS, the practice of organics system planning is radically underutilized (CAP 138), so she recommended this program allow for its standalone development. She also recommended that the program should include state certified pest/crop managers as eligible applicants. She indicated that public comments also included concerns about the payment structure, and that NRCS is required to follow national guidelines, however CDFA has flexibility to make a payment structure that works at the state level.

Member Hansen seconded the comment to focus on organic systems planning, and that she was pleased to hear that the RFP was going through a second round of public comments. She also recommended holding focused workshops to get intel with TA providers and practitioners to determine "on-the-ground" rollout of the program. She indicated that CNRA programs focusing on natural resources meet regularly to coordinate with each other to build connections within their guidelines to support grantees for successful planning and suggested that this program could do something similar. Chair Dlott and Member Redmond agreed on the idea of having focused workshops with practitioners.

Chair Dlott discussed how there are several public comments that ask for the expansion of planning efforts, not just focusing on OSP. He expressed concern on determining which practices to include and if any should be prioritized. Member Redmond agreed with Chair Dlott's comments of having more than OSP practices but emphasized that this program shouldn't be irrelevant to organic transition progress. Chair Dlott agreed with Member Redmond's comment.

Chair Dlott indicated that he saw a comment about the burden of getting TSPs and wanted to know how more TSPs could be trained in organic transition since currently there are only 2. He asked on potential incentives for people to become TSPs and be trained. Dr. Gunasekara clarified that an

individual doesn't have to be a TSP to qualify to make OSPs. The RFP specifies that people can provide resumes showing that they are qualified to create these plans.

Dr. Gunasekara discussed that when CAPs are developed, there is a lot of information that is included, so OSPs can be broad. Chair Dlott indicated that the program may run into the dilemma of what other plans should be included as that might open the flood gates for many plans. Dr. Gunasekara explained that the CAPs are listed because it helps show that the plans are qualified. Carbon farm plans have been included in the RFP even though it doesn't have a CAP yet, which could leave CDFA staff in a difficult position since all other practices have associated USDA NRCS CAPs. Member Redmond asked if CDFA had done previous workshops and if they could do them for this program. Dr. Gunasekara indicated that they had and that they could hold 1 to 2 workshops once the draft RFP is released again. Member Couch agreed on the holding of workshops.

Chair Dlott wanted to discuss the NRCS payment structure revision timeline and what is the proposed source of funding for this program. Dr. Gunasekara indicated that funding might come from other programs and that Secretary Ross must decide if she would fund these activities with that funding, or this program may directly get funding through the budget. OEFI staff will study the public comments within the next 2 weeks and start the coordination for the public workshops. OEFI staff believes the program aligns with the initial ask.

Chair Dlott indicated that there are no action items at this time and that the next steps are for further public comments and the workshops. Chair Dlott indicated that the discussion regarding payment rates versus paying for actual costs incurred could be a topic at one of the workshops. Member Cameron commented that this budget serves as an opportunity for staff to move forward as quickly as possible so they can make decision in October.

Member Hansen and Member Redmond suggested to take public comment at this time. Chair Dlott opened up the meeting for public comments.

Public Member Adria Arko, from San Mateo RCD, wanted to express her excitement that CDFA is looking into supporting conservation planning. She also wanted to emphasize that RCDs are largely unfunded, funds mostly coming from grants, and that the proposed payment rates in the RFP would not cover their costs. Costs should be reimbursed for work conducted since activities like reporting and administrative activities are not covered in the proposed payment rates. Many RCDs are familiar with public grant reporting requirements, so it is more important to have costs cover versus having to submit additional documentation like timesheets. For context she explained that to write a carbon farm plan, which follows the 9 step RMS NRCS process, it takes on average 80 to 110 hours to prepare.

Public Member Brian Shobe, from the California Climate Action Network, had comments on this item. He suggested that the program should include the option for farmers to choose a qualified TA provider to meet their unique needs, and clarify that farmers not develop the plans themselves. He also indicated that to ensure equitable participation, pay TA providers for full costs of developing plans. The proposed payment rate doesn't account for diversity in helping all types of farmers including those with lower capacity. He also suggested eliminating the first come first serve process as it can disadvantage first time applicants. He also supported the continued conversation of linking these planning efforts to implementation and connecting grantees to other sources of funding. He additionally supported the inclusion of OSPs and recommended clarifying in the RFP to fund OSPs or CAPs OSPs. They are similar, but not the same. Lastly, he emphasized that certified crop and pest advisors should be allowed to be funded to do this work.

Public Member David Runsten urged that the process for developing this RFP should be slowed down. He emphasized paying people adequately, and not repeating mistakes from the HSP, like the complicated application process.

Public Member Noah Lakritz, from CCOF, agrees with a lot of the previous comments by public members. He wanted to share his perspective working at CCOF and indicated that when farmers want to transition to develop an OSP, CCOF is not allowed to consult on farms that they certify, but they do have list of referrals like certified crop advisors that they share with the farmer. That farmer would then hire one of those people to develop the plan. He thinks it is important for the farmer to get the money so there is flexibility to hire an advisor. This program could give them flexibility to hire someone local they trust. Additionally, he wanted to comment that becoming a TSP for NRCS is a long process, which may be why there are not as many of them. Lastly, he wanted to support having OSPs as a standalone option since that's how it works for most farmers already.

Public Member Taylor Roschen, from the California Farm Bureau Federation, wanted to flag that the program currently allows for up to 25% advance payment based on an assumed number of growers that the applicant would be helping. However, she expressed concern that there is a possibility that the advance payment might not be totally expended, if the number of growers helped is less than anticipated. She suggested applicants with advance payment provide a list of confirmed growers that they will assist. She also suggested flexibility of the program to prioritize vetted plans. Ms. Roschen also expressed concerns on confidentiality for the growers meeting other requirements of the program. She emphasized to the panel that farmers and ranchers should be the ultimate beneficiaries to the program.

Public Member Torri Estrada, from Carbon Cycle Institute, wanted to express appreciation for the program, and indicate that the HSP, AMMP, and SWEEP are helpful programs. He let the members know that it is an ongoing process with producers to identify syngenetic opportunities because so many operations are diverse. Mr. Estrada provided a detailed comment letter and wanted to express support for the proposed workshops. Mr. Estrada also expressed concerns on issues of scaling up on TA providers since not as many are available and suggested including Chico State Center for Regenerative Agriculture and Resilient Systems as well as other agriculture schools to expand the network.

AGENDA ITEM 7 – State Water Efficiency and Enhancement Program (SWEEP); Update on Ad-Hoc Sub-Advisory Group and Public Comments

Presentation by Mr. Scott Weeks from CDFA's SWEEP on the timeline of the upcoming program cycle and the adoption of recommendations from the Ad-Hoc Advisory Group. The SWEEP received 10 public comments regarding the recommendations from the Group. These were summarized and analyzed by SWEEP staff into scientific considerations and administrative concerns. Recommendations were determined to be adopted, partially adopted, or would be considered in the future. Out of the 48 recommendations, most of them fell into the adopted, or partially adopted categories. Mr. Weeks presented on examples from each category. He also indicated that the SWEEP is now releasing public quarterly updates on projects through the SWEEP webpage. Chair Dlott commented that he appreciated the adopt, partially adopt, and consider for future categories model for the Group's recommendations. There were no questions or comments from the Panel.

AGENDA ITEM 8 – Healthy Soils Program (HSP); Program Updates:

Dr. Geetika Joshi presented a Healthy Soils Program update in two parts. The first half of the presentation covered the staff proposed updates to HSP Incentives and Demonstration program. These updates are geared toward streamlining the application process.

Dr. Joshi paused for comments and questions and Member Diggs thanked staff for the updates to RePlan and other streamlining of the application. He asked a question regarding enhancements of practices, similar to the USDA NRCS options for management practices. Dr. Joshi indicated that Comet Planner does not account for enhancement scenarios. Member Hansen reflected on the inflection point and acknowledged the success of HSP. Suggested a lesson learned discussion venue. Chair Dlott agreed that the lessons learned is a good idea.

Dr. Joshi continued with presentation and reported on new management practice updates. Nine proposals were received during the last solicitation for proposals. Proposals were submitted by stakeholders, posted by CDFA and evaluated by the technical advisory committee (TAC). Staff recommendations were presented, and public comment will be received.

1. Desaturation of delta peat through rice cultivation or managed wetland: TAC would like to include this practice through the HSP incentive program with the NRCS practice of wetland restoration. This practice is not in Comet Planner so a modeling effort will be needed. Staff recommends including in incentive program and Type B demonstration. Since some modeling and preparation is needed, HSP would not be able to include in the next round of funding but would hope to include in the next funding cycle.
2. Biochar application: The TAC suggested inclusion in demonstration projects Type A. At this time there is still not an established user application rate so for the inclusion in HSP Demonstration Type A, the team recommends that awardees would need to significant data collection, and an experimental design.
3. Application of Food Waste Hydrolysate: This practice was recommended by the TAC for Demo Type A.
4. Application of Humates: The TAC recommended not to include this practice due to lack of submitted information.
5. Application of biomineral fertilizer: The TAC recommended not to include this practice due to lack of submitted information.
6. Organic Residential Compost Sharing: This practice was not recommended as it is out of scope of the HSP program.
7. No-till pasture seeding and manure application: This practice was not recommended for inclusion in the HSP program because it was a grant proposal (not a practice proposal). It lacked in submission requirements.

Dr. Joshi outlined next steps which include holding a public comment period and update of the HSP RGA, making awards for technical assistance providers, training technical assistance providers, and then accepting applications for HSP in fall of 2021.

Dr. Joshi facilitated questions from the panel. Member Diggs asked about residential compost sharing practice proposal. He felt it was a provocative concept and thought it might be way to connect urban and rural communities. An urban compost practice which might have modest gains in terms quantified benefits could develop social capital and knowledge. Member Diggs wanted to express that he felt this proposal had merit.

Subject Matter Expert Dr. Parker asked if a Life Cycle Analysis (LCA) would be completed or considered in the Demonstration Program projects for biochar and food waste hydrolysate. Dr. Joshi indicated that to date a LCA has not been used in the Comet Planner practices but depending on panel comments and public comment this is something that CDFA can consider for the inclusion of those new practices in the HSP program.

AGENDA ITEM 9 – Technical Assistance Program; Program Updates

Ms. Carolyn Cook from CDFA presented on the Technical Assistance Program at OEFI. She indicated that a proactive solicitation was held for TA providers in February 2021, however with the previous uncertainty of funding, awards were not announced. Now that the state budget funding has been clarified for the SWEEP and HSP, the TA providers awarded can be announced. Moving forward, if the AMMP receives funding then CDFA will have a TA solicitation for that program as well.

AGENDA ITEM 10 – Public Comments

Public Member Marianna Castiaux, who works with UCANR, had comments on the HSP. She works with Hmong vegetable growers in the Central Valley and had some critiques of the HSP. She first emphasized that the compost payment rates for the program do not account for equipment rentals for compost application. The program may have a greater financial benefit to larger farms because

they already have equipment versus smaller farmers that don't have equipment and must rent. This demonstrates a lack of flexibility for growers, especially ones that are trying these practices for the first time. The program is also not designed for farms with rotating crops. These challenges may come from the program itself or from the larger agencies that have regulations that control the program. She strongly advocated for CDFA staff to coordinate a meeting between stakeholders, CDFA, CARB, and the state finance office to help address the issues identified.

Public Member Brian Shobe, who works with the California Climate Agricultural Network, had comments on the SWEEP and HSP. For the SWEEP, he first wanted to thank CDFA staff for going through the ad-hoc panel review process and the adoption of some of the recommendations. He was disappointed that the recommendation to divide the money into two categories was not adopted. He understands staff concerns though that this wouldn't have met GGRF requirements but pointed out that SWEEP hasn't been funded by GGRF for several years. He emphasized that he would be happy to serve as an advocate for the program on behalf of CalCAN to support any legislative efforts particularly regarding funding encumbrance and liquidation. Regarding HSP, he emphasized that farmer demand for this program has increased sixfold over the past few years. While this merits celebration, it also provides an opportunity to analyze what is and is not working for the program. CalCAN published report last December on HSP identifying opportunities to improve, and recommended the panel read it. Some recommendations today include organizing a convening with key agencies to talk about lessons learned on the program and how other state-funded programs can learn from it and convening a one-day workshop with practitioners to discuss practice implementation and economics. This may help people trying to scale this work up and help inform state agencies trying to implement state plans.

Public Member Stephanie Courtman, who works with the California State University, Monterey Bay, had comments on the HSP. She currently helps manage HSP demonstration projects and identified key challenges in the work. It was unclear what the GHG data goals are for CDFA and what will be the comparison over the projects. To achieve reasonable GHG estimates, monitoring must be more frequent, but the HSP does not have funds sufficient to cover this type of sampling. Also, timelines should much longer to determine better reductions – on the scale of a decade. She agrees with previous commenters that there is value in scheduling a meeting between stakeholders, HSP grantees, and the finance office.

AGENDA ITEM 11 – Next Meeting

Dr. Gunasekara indicated that the next meeting would be October 14, 2021. The meeting will most likely be in person at the CDFA Headquarters conference room in Sacramento, as well as remotely. In-person option to change dependent on the Covid-19 pandemic.

Chair Dlott introduced the motion to adjourn the meeting. The motion was moved by Member Cameron and seconded by Member Couch. Panel members unanimously voted to adjourn. Meeting was adjourned at 1:57 PM.

Respectfully submitted by:

Amrith Gunasekara, Ph.D.
Liaison to the Environmental Farming Act Science Advisory Panel