

## ENVIRONMENTAL FARMING ACT SCIENCE ADVISORY PANEL (EFA SAP) CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE

### MEETING AGENDA

**July 15, 2021**

**9 AM to 3 PM**

### REMOTE ACCESS

Webinar information

Registration URL: <https://attendee.gotowebinar.com/register/5499186931465456396>

Webinar ID 564-383-699

Presentation materials will be posted at the following link prior to the meeting:

[https://www.cdfa.ca.gov/EnvironmentalStewardship/Meetings\\_Presentations.html](https://www.cdfa.ca.gov/EnvironmentalStewardship/Meetings_Presentations.html)

Topic	Presenter	Action Level
1. Chair and Member Introductions	Chair Dlott	Informational Item
2. Welcome remarks	Secretary Karen Ross, CDFA	Informational Item
3. Minutes	Chair Dlott	Action Item Requires EFA SAP Approval
4. Discussion on developing a Below-ground Biodiversity Metric	Chair Dlott	Action Item Requires EFA SAP Approval

At the last EFA SAP meeting, CDFA organized a scientific panel on below ground biodiversity metrics. The invited panel members included Kate Scow, PhD, and Howard Ferris, PhD, from the University of California Davis and Margaret Smither-Kopperl, PhD, from the USDA-NRCS Lockeford Plant Materials Center. This agenda item will continue the discussion on how to work towards establishing a below-ground biodiversity metric in agricultural systems in California. CDFA staff recommends the establishment of an EFA SAP Ad-Hoc Advisory Group co-chaired by the three panel members to further evaluate a below ground biodiversity metric. The product of this Ad-Hoc Advisory Group would be a report on what a or several below ground metrics may be based on the current best available science.

The meeting complies with Bagley Keene requirements and the Governors Executive Orders on Covid-19 which allows for remote participation and voting at public meetings.

Questions regarding this public meeting can be directed to Amrith Gunasekara, PhD, at (916) 654-0433 or [CDFA.OEFl@cdfa.ca.gov](mailto:CDFA.OEFl@cdfa.ca.gov)  
More information at: <http://cdfa.ca.gov/Meetings.html> and [http://www.cdfa.ca.gov/EnvironmentalStewardship/Meetings\\_Presentations.html](http://www.cdfa.ca.gov/EnvironmentalStewardship/Meetings_Presentations.html)

- |  |   |                    |
|--|---|--------------------|
| 5. Restore CA; Update on current and future activities | Anthony Myint<br>Director of Partnerships | Informational Item |
|--|---|--------------------|

Restore CA recently awarded \$325,000 in grants to 18 projects across the state which is expected to remove 7000 tons of carbon from the atmosphere in collaboration with regional RCDs and UCANR staff. An update on past and future activities will be presented by Mr. Myint.

- |   |            |                    |
|---|------------|--------------------|
| 6. Climate Smart Agriculture Conservation Agriculture Planning Program; Update on current and future activities | CDFA Staff | Informational Item |
|---|------------|--------------------|

The Conservation Agriculture Planning Program is a new program under CDFA Climate Smart Agriculture portfolio and allows for planning grants so agricultural operations in California can plan for climate change mitigation and adaption activities. A draft Request for Proposals for the Climate Smart Agricultural Conservation Agriculture Planning Program was released for public comment on 5/13/2021 through 6/15/2021 following the last EFA SAP meeting. Public comments have been collected and evaluated. In this agenda item, the CDFA team will present the findings from the public comments. Public comment letters will be posted online as well. Any future funding to any Climate Smart Agriculture program in the Office of Environmental Farming Innovation will also fund the Conservation Agriculture Planning Program.

- |  |                  |                    |
|--|------------------|--------------------|
| 7. State Water Efficiency and Enhancement Program (SWEEP); Update on Ad Hoc Sub-Advisory Group and Public Comments | SWEEP Team, CDFA | Informational Item |
|--|------------------|--------------------|

The Science Panel, in response to stakeholder requests in 2020, formed an Ad Hoc Sub-Advisory Group to develop recommendations around several questions to evaluate the SWEEP program and determine how the program can be improved further to provide efficient irrigation services to farmers to mitigate and adapt to climate change impacts. A summary of that report was presented to the Science Panel members at the last meeting by the CDFA SWEEP Team. The report was released for public comment on 5/17/2021 through 6/16/2021 for public comment. The CDFA SWEEP Team is in the process of evaluating how to integrate them into the program. The next SWEEP Request for Proposals will be released for public comment and will include some of the recommendations from the report. Public comment letters received as part of this effort are now available online.

- |   |                          |                    |
|---|--------------------------|--------------------|
| 8. Healthy Soils Program (HSP); Program Updates | Healthy Soils Team, CDFA | Informational Item |
|---|--------------------------|--------------------|

An update on the Healthy Soils Program will be provided.

9. Technical Assistance Program; Program Updates	Technical Assistance Team, CDFA	Informational Item
An update on the Technical Assistance Program will be provided.		
10. Public Comments	Chair Dlott	Informational Item
11. Next Meeting	Chair Dlott	Informational Item

### EFA SAP MEMBERSHIP

<https://www.cdfa.ca.gov/oefi/efasap/>

Jeff Dlott, PhD, SureHarvest, Member and Chairperson

Vicky Dawley, Tehama RCD, Member and Vice Chairperson

Don Cameron, Terranova Ranch, Member

Judith Redmond, Full Belly Farm, Member

Leonard Diggs, Pie Ranch, Member

Keali'i Bright, California Department of Conservation, Member

Amanda Hansen, California Natural Resources Agency, Member

Scott Couch, State Water Resources Control Board, CalEPA, Member

Michelle Buffington, PhD, California Air Resources Board, CalEPA, Member

Greg Norris, USDA Natural Resources Conservation Services, Subject Matter Expert

Doug Parker, PhD, Subject Matter Expert

The meeting complies with Bagley Keene requirements and the Governors Executive Orders on Covid-19 which allows for remote participation and voting at public meetings.

Questions regarding this public meeting can be directed to Amrith Gunasekara, PhD, at (916) 654-0433 or [CDFA.OEFl@cdfa.ca.gov](mailto:CDFA.OEFl@cdfa.ca.gov)  
More information at: <http://cdfa.ca.gov/Meetings.html> and [http://www.cdfa.ca.gov/EnvironmentalStewardship/Meetings\\_Presentations.html](http://www.cdfa.ca.gov/EnvironmentalStewardship/Meetings_Presentations.html)

# AGENDA ITEM 1

# AGENDA ITEM 2

# AGENDA ITEM 3

# AGENDA ITEM 4

# AGENDA ITEM 5



# AGENDA ITEM 6



# Conservation Agriculture Planning Grants Program



CALIFORNIA DEPARTMENT OF  
FOOD & AGRICULTURE

# Program Update

- ▶ Draft Request for Proposals presented during April 2021 EFA SAP meeting
- ▶ Public Comment Period
  - ▶ May 13, 2021 - June 16, 2021
  - ▶ CDFA received 15 public comment letters
    - ▶ Comment letters posted on the program website  
<https://www.cdfa.ca.gov/oefi/planning/>
  - ▶ CDFA staff to review and incorporate public comments into Draft Request for Proposals (where feasible)
- ▶ Release Request for Proposals
  - ▶ To be determined based on availability of funding

# AGENDA ITEM 7

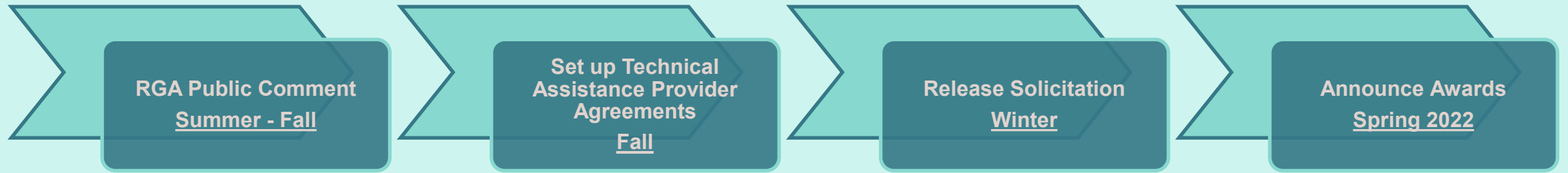


# State Water Efficiency and Enhancement Program

## *Funding & Ad Hoc Advisory Group Update*

Science Advisory Panel Update  
7/15/2021

# Funding Update and Anticipated Timeline



- Funding is anticipated for SWEEP in the 2021-22 Budget
- Expect to release draft Request for Grant Applications soon for public comment
- Will also announce technical assistance funding



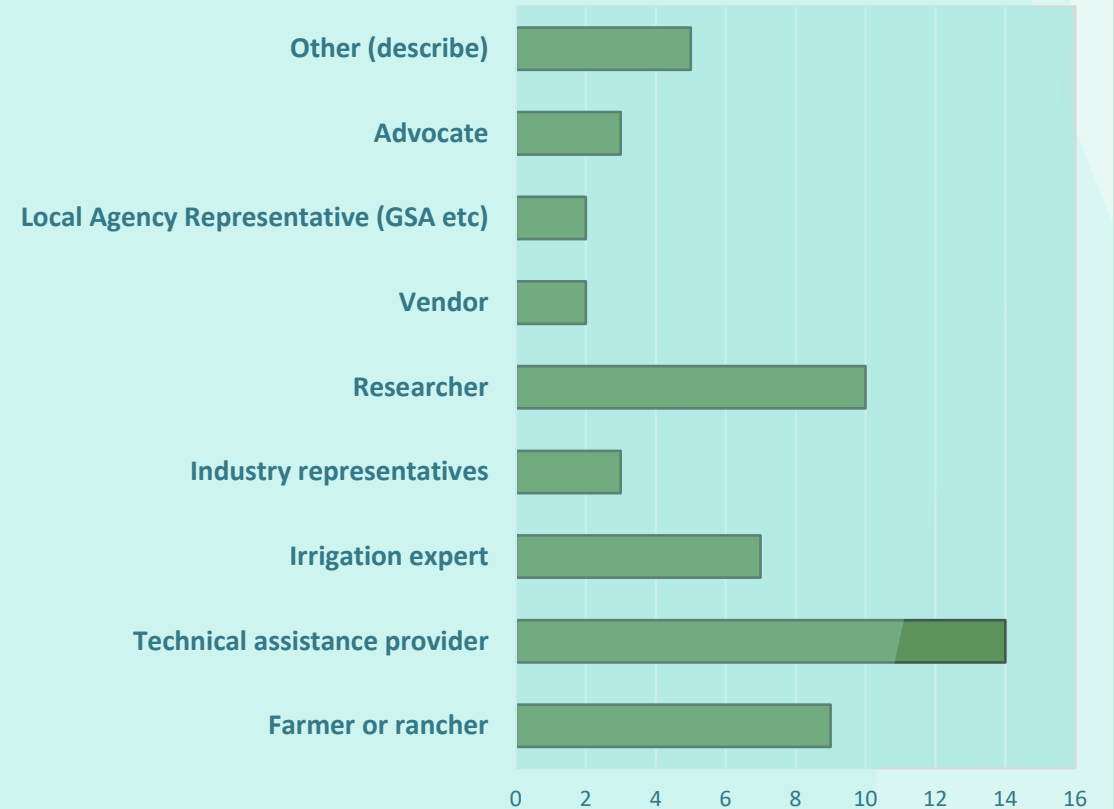
# Ad Hoc Advisory Group (AAG)

## Recommendation Development Timeline

Meeting 1 – Information Delivery/Exchange	January 28, 2021
Meeting 2 – Recommendations Formed	February 25, 2021
Meeting 3 – Recommendations Finalized	March 25, 2021
Recommendations Presented	April 29, 2021 EFA SAP Meeting
Public Comment Period	May 17 - June 16, 2021

## AAG Membership Categories

(Members can pick more than one)



# Summary of Public Comments

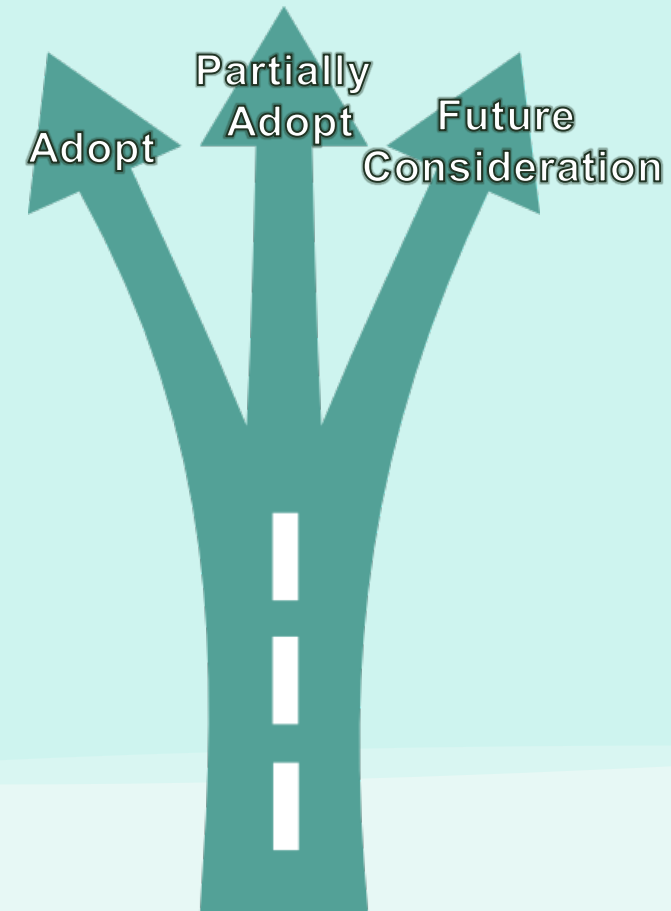
- Received 10 comments from agricultural organizations and members of the public during the comment period
- Comments have been summarized into a table and the table and original comments have both been posted to the SWEEP website
- CDFA staff evaluated the recommendations included in the comments and provided them to leadership for consideration





# Staff Evaluation of AAG Recommendations

- Organized recommendations based off the “Themes” established
- Reviewed level of support and opposition from AAG
- Considered current CDFA actions that support the intention of the recommendation
- Scientific Considerations (e.g., quantification of water and GHG benefits)
- Administrative Concerns (e.g., funding source, staffing constraints, fiscal policies)
- Three Determinations:
  - Adopt
  - Partially Adopt
  - Unable to Adopt/Future Consideration.
- Public comments posted on the SWEEP website



# Recommendation To Adopt

- **Recommendation:** CDFA should improve resources (videos, translation) available to non-native English-language farmers and ranchers (Spanish, Hmong, Chinese, Punjabi).
- **CDFA Response:** CDFA can expand efforts to provide outreach materials in non-English languages. OEFI can work with the Farm Equity Advisor and public affairs to identify appropriate and effective actions (examples of actions may be to translate the RGA or hire a live translator during a workshop)



# Recommendation To Adopt

- **Recommendation:** CDFA should create pathway for innovative technology inclusion. CDFA should find a way to allow for new innovative technology to be allowable within SWEEP. There should be a clear pathway for new, innovative technologies or practices to be included in SWEEP.
- **CDFA Response:** CDFA can gather information on new technologies through a Request for Proposals every two years, similar to other CDFA Climate Smart Agriculture incentive programs. This would be an opportunity for technologies to be proposed for inclusion in SWEEP. A technical advisory committee of irrigation efficiency experts could be convened to evaluate the proposals, consider their merits, and determine if water and GHG benefits could be quantified from their implementation.



# Recommendation To Adopt

**Recommendation:** CDFA should encourage innovative approaches by updating the application and GHG/water savings output to allow for growers to insert additional "alternative technologies and practices." CDFA should allow for the Technical Reviewer (TR) to approve "alternative technologies and practices." CDFA should allow applicants to provide additional documentation to support the GHG and water saving of the project. Examples such as fertigation, weed control. CDFA should exclude non-vetted technology and practices. CDFA should stick with the water and GHG calculators and give it an additional consideration point if the TR approves. CDFA should cap the amount of points attributed to the GHG/ water offset to 5% for all "alternative technologies and practices" that are approved by the Technical Reviewer.

**CDFA Response:** CDFA can continue to allow for alternative technologies and practices that technical reviewers identify as having merit as part of holistic irrigation improvement project. Additionally, CDFA is pursuing an update to the GHG QM that will consider reduction in nitrous oxide emissions which may capture the GHG emission reductions resulting from improvements to irrigation system.

CDFA can gather information on new technologies through a Request for Proposals every two years, similar to other CDFA Climate Smart Agriculture incentive programs. This would be an opportunity for technologies to be proposed for inclusion in SWEEP. A technical advisory committee of irrigation efficiency experts could be convened to evaluate the proposals, consider their merits, and determine if water and GHG benefits could be quantified from their implementation.

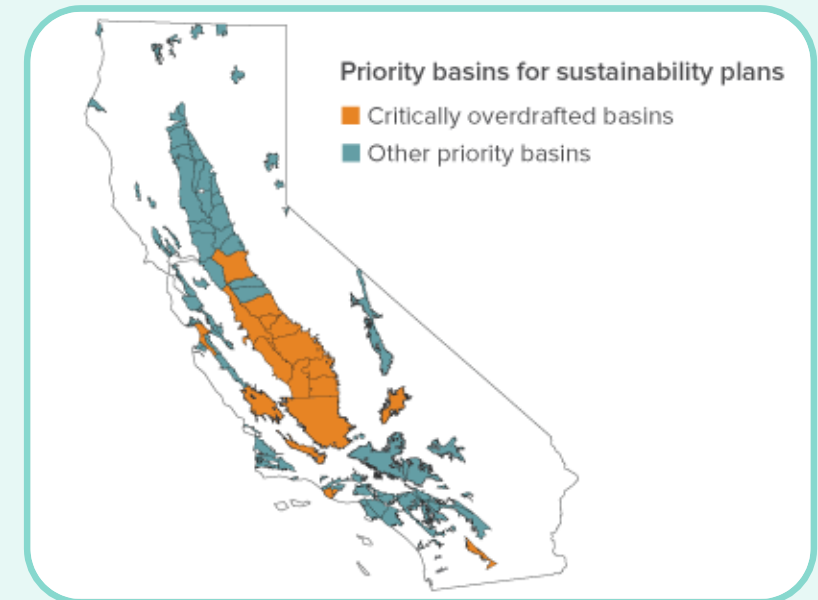
# Recommendation To Adopt

- **Recommendation:** The Environmental Farming Act Science Advisory Panel should coordinate with Groundwater Sustainability Agencies (GSAs), irrigation and water districts, and California Air Resources Board to identify overall water conservation and GHG emissions reduction goals for SWEEP.
- **CDFA Response:** GSAs, Irrigation districts, and CARB are valued partners in the objectives of SWEEP. CDFA can work to provide opportunity for engagement with regional GSAs, irrigation, and water districts with EFA SAP.



# Recommendation To Adopt

- **Recommendation:** CDFA should give some priority to critically (or approaching critically) over-drafted groundwater basins.
- **CDFA Response:** The SWEEP application review process gives additional consideration to projects that reduce groundwater pumping in critically over drafted groundwater basins.

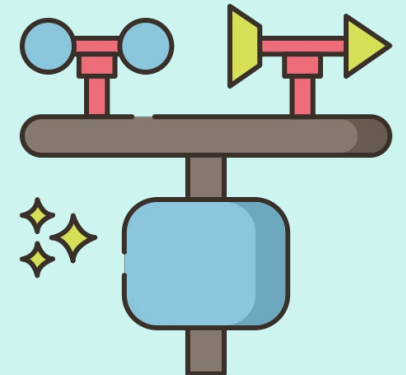


# Recommendation To Partially Adopt

- **Recommendation:** CDFA should allow Irrigation Water Management (IWM) systems to have 3 years of funding for the annual subscription. CDFA should reduce the life of the project for IWM from 10 to 3. The AAG would like to require CDFA to verify that the IWM application platform is operating during the time of verification. The AAG would like to require CDFA to verify prolonged operation during the 3-year term. CDFA should account for this change in the water/GHG calculations.
- **CDFA Response:** CDFA fiscal policies do not allow for payment of subscription services outside of the grant term, but CDFA can improve follow up with awardees during the three-year project outcome monitoring period to evaluate the continued use of IWM technologies and services. Currently CDFA allows for payment of subscription over the grant agreement term (18 months).

# Recommendation Unable to Adopt

- **Recommendation:** CDFA should require a justification from applicants that apply for on-farm weather stations as to why CIMIS information is not sufficient.
- **CDFA Response:** The support for this recommendation among the AAG members is low. CDFA has not required justification for any project components. Technical reviewers may consider whether CIMIS should be adequate when evaluating the merits of a project application.





# Website Updates on Project Status

- The SWEEP team has been releasing updates on the progress of individual projects
- Updates on both 2018 and 2019 projects released quarterly and are posted on the website

Year	Recipient (Person or Entity)	Percent Expended	County	Start Date	Date Complete	Grant Award	Matching Funds	Total Project Budget	Acreage	Estimate Water savings per year (ac-in)	Project GHG savings per year (MTCO2e)
2018	Advanced Growth Management, Inc.	100%	Fresno	9/1/19	7/10/20	\$56,370	\$1,370	\$58,240	20	114.0	10.9
2018	Albert Smith	54%	Fresno	9/1/19	In Progress	\$100,000	\$20,773	\$120,773	46	1449.9	1.9
2018	Ubelia A. Smith	81%	Fresno	9/1/19	In Progress	\$92,913	\$17,787	\$110,700	44	818.4	4.4
2018	Alfredo Diaz	100%	Glenn	9/1/19	6/15/20	\$87,297	\$3,937	\$91,234	28	294.0	14.2
2018	Almond Joy Inc	90%	Tulare	9/1/19	In Progress	\$22,172	\$0	\$22,172	158	428.2	1.5
2018	Amarjit Sohal	90%	Yuba	9/1/19	In Progress	\$64,687	\$67,582	\$132,269	105	598.5	37.3
2018	Antonio Segura Ybarra Jr	100%	Tulare	9/1/19	9/27/20	\$81,771	\$2,630	\$84,401	15	178.5	1.5
2018	Larry P. Mettler	0%	San Joaquin	9/1/19	In Progress	\$99,909	\$22,300	\$122,209	78	1107.6	7.1
2018	Aylene Norris	93%	Santa Barbara	9/1/19	8/7/20	\$42,398	\$7,280	\$49,678	5	29.0	1.1
2018	Baughman Properties LLC	100%	Kern	9/1/19	8/28/20	\$86,558	\$0	\$86,558	32	172.8	11.7
2018	Behring Family LLC	100%	Butte	9/1/19	10/1/20	\$100,000	\$190,946	\$290,946	200	1558.0	65.6
2018	Frank G. Bellino	100%	San Joaquin	9/1/19	1/13/21	\$99,807	\$163,621	\$263,428	249	1967.1	61.3
2018	Bennett Agcomm LLC	100%	Siskiyou	9/1/19	12/3/20	\$99,894	\$29,885	\$129,779	135	364.5	54.9



# Thank you!

## **SWEEP TEAM**

Carolyn Cook

Scott Weeks



# Recommendations of SWEEP Advisory Group

Staff Considerations and Determinations - June 2021

The three tables below summarize the recommendations developed by the SWEEP Ad Hoc Advisory Group (AAG) of the Environmental Farming Act (EFA) Science Advisory Panel (SAP) and identify staff considerations for the incorporation of each recommendation into future solicitations of SWEEP. The tables are organized into two sections: 1) Recommendations and indications of support and opposition of the AAG members on the left and 2) staff considerations and determination on the right.

In the far-left column, the AAG recommendations are provided and organized under themes. The second column, the Support Score, indicates the overall level of support, determined by a final vote of AAG members on each recommendation. The support score = ((2\*strong support + moderate support) -(2\*opposition)). The maximum support score possible is 2.0, indicating that all members strongly support the recommendation. A support score of 0.0 would indicate that all members oppose the recommendation. Opposition statements are summarized in the third column. When evaluating each recommendation of the AAG for incorporation into the SWEEP program, staff considered current actions that support the intent of the recommendation, any scientific considerations, and general concerns (such as administrative, resource, or policy barriers). The final column includes one of three staff determinations: 1) Adopt, 2) Partially adopt, and 3) Do not adopt. A general justification that summarizes staff considerations is included.

TABLE 1: ADOPT (17 of 48 recommendations; 35%)

Recommendations of AAG			SWEEP Staff Considerations and Determination			
Recommendation	Support Score	Summarized Opposition Statements	Current Actions that Support this Recommendation	Scientific Considerations	Concerns	Staff Determination and Justification
Technology Support for Applicants and Awardees						
CDFA should coordinate more broadly on efficient pump designs and standards.	0.67	<ul style="list-style-type: none"><li>None provided</li></ul>	CDFA has an approved greenhouse gas (GHG) quantification methodology (QM) that requires actual pump efficiency to be input. SWEEP has a technical resources webpage where information about pumps, pump testing resources can be included.		The recommendation is not clear regarding what CDFA should consider when coordinating on efficient pump design and standards	<b>Adopt</b>  This request is broad. SWEEP could expand coordination with relevant agencies and organizations to provide more information to applicants and awardees regarding efficient pump designs and standards.
CDFA should create pathway for innovative technology inclusion. CDFA should find a way to allow for new innovative technology to be allowable within SWEEP. There should be a clear pathway for new, innovative technologies or practices to be included in SWEEP.	0.64	<ul style="list-style-type: none"><li>Research should be funded by another program.</li><li>SWEEP funding should not be used in this area. Other state programs provide funding for research.</li><li>Technologies that are not at the commercial stage and proven should not be funded.</li></ul> <p>There are other places and other funding streams for this.</p>	SWEEP allows for the technical reviewers to assess the merit, feasibility of technology to result in water savings and GHG reductions. CDFA requires that a technology be commercially available but does not have a list of approved technologies. "Other practices" are allowed if the GHG QM can be used to estimate benefits. These are	New technologies need research and demonstration to be adopted widely. Any new technology will need to align with SWEEPs GHG QM, or the QM will need to be revised.	Lack of technical information on novel technologies Time constraints	<b>Adopt</b>  CDFA can gather information on new technologies through a Request for Proposals every two years, similar to other CDFA Climate Smart Agriculture incentive programs. This would be an opportunity for technologies to be proposed for inclusion in SWEEP. A technical advisory committee of irrigation efficiency experts could be convened to evaluate the proposals, consider their merits, and determine if water and GHG benefits could be quantified from their implementation.

Recommendations of AAG			SWEEP Staff Considerations and Determination			
Recommendation	Support Score	Summarized Opposition Statements	Current Actions that Support this Recommendation	Scientific Considerations	Concerns	Staff Determination and Justification
		<ul style="list-style-type: none"> <li>This is not the place to vet or test new technology. Innovative Technologies Grants are being provided and technologies developed through the California Energy Commission, this includes the agricultural water and energy sector and savings focus. Additionally, PG&amp;E provides New Energy and Water Technology development moneys through their Innovative Technologies Program. Innovative Technology Development grants offered by CDFA in addition to the aforementioned, would be a duplication of numerous corporate grants.</li> </ul>	vetted in the technical review process.			
CDFA should encourage innovative approaches by updating the application and GHG/water savings output to allow for growers to insert additional "alternative technologies and practices." CDFA should allow for the Technical Reviewer (TR) to approve "alternative technologies and practices." CDFA should allow applicants to provide additional documentation to support the GHG and water saving of the project. Examples such as	0.87	<ul style="list-style-type: none"> <li>This could lead to speculation and there is no direct connection between these practices and water/energy savings. The SWEEP program should not be paying farmers to implement routine farming practices such as proper weed control.</li> </ul>	<p>Currently SWEEP allows for fertigation equipment and other supplementary technologies to be included in the budget and reviewed by the technical reviewer as part of a holistic application for irrigation improvements.</p> <p>SWEEP has an "other management practices" category in the listed water and GHG reduction strategies that are eligible for funding.</p>	The CARB approved QM is limited in scope to irrigation pumping. It does not account for all the GHG reductions that may be possible through other strategies.	Edits to the GHG QM Tool redesign Time constraints	<p><b>Adopt</b></p> <p>CDFA can continue to allow for alternative technologies and practices that technical reviewers identify as having merit as part of holistic irrigation improvement project. Additionally, CDFA is pursuing an update to the GHG QM that will consider reduction in nitrous oxide emissions which may capture the GHG emission reductions resulting from improvements to irrigation system.</p> <p>CDFA can gather information on new technologies through a Request for Proposals every two years, similar to other CDFA Climate Smart Agriculture incentive programs. This would be an opportunity for technologies to be proposed for inclusion in SWEEP. A</p>

Recommendations of AAG			SWEEP Staff Considerations and Determination			
Recommendation	Support Score	Summarized Opposition Statements	Current Actions that Support this Recommendation	Scientific Considerations	Concerns	Staff Determination and Justification
fertigation, weed control. CDFA should exclude non-vetted technology and practices. CDFA should stick with the water and GHG calculators and give it an additional consideration point if the TR approves. CDFA should cap the amount of points attributed to the GHG/ water offset to 5% for all "alternative technologies and practices" that are approved by the Technical Reviewer.						technical advisory committee of irrigation efficiency experts could be convened to evaluate the proposals, consider their merits, and determine if water and GHG benefits could be quantified from their implementation.
CDFA should establish a technology committee or an innovation team that understands pump efficiency and water metering technology to benefit both groundwater sustainability agencies and farmers.	0.77	<ul style="list-style-type: none"> <li>This knowledge already exists in the Irrigation Training &amp; Research Center at Cal Poly San Luis Obispo and the Center for Irrigation Technology at Fresno State.</li> </ul>	CDFA consults with irrigation specialists at California universities regarding these technical issues. CDFA provides a list of technical resources including links to the university training centers.		Establishment of a standing committee will require staff resources	<p><b>Adopt</b></p> <p>CDFA is open to information from GSAs, farmers and pump efficiency and water metering experts regarding technologies that will align SWEEP with SGMA objectives and help farmers adapt to the full implementation of the regulation.</p> <p>CDFA can gather information on new technologies through a Request for Proposals every two years, similar to other CDFA Climate Smart Agriculture incentive programs. This would be an opportunity for technologies to be proposed for inclusion in SWEEP. A technical advisory committee of irrigation efficiency experts could be convened to evaluate the proposals, consider their merits, and determine if water and GHG benefits could be quantified from their implementation.</p>
Technology-Specific Requirements and Restrictions						

Recommendations of AAG			SWEEP Staff Considerations and Determination			
Recommendation	Support Score	Summarized Opposition Statements	Current Actions that Support this Recommendation	Scientific Considerations	Concerns	Staff Determination and Justification
CDFA should identify return on investment points for solar within SWEEP, potentially leveraging fallowed lands.	0.87	<ul style="list-style-type: none"><li>None provided</li></ul>	SWEEP funds the installation of renewable energy, including solar arrays.	Technical reviewers evaluate costs of solar arrays in consideration of GHG benefits. This can be reflected in the score of the project.  Solar energy to be installed on land to be fallowed would need to be combined with a project that saves water on acreage that will continue to be farmed to meet SWEEP's dual objectives.	Staff time and resources in consulting with experts; other agencies (CEC) have this jurisdiction.	<b>Adopt</b>  CDFA can coordinate with experts in renewable energy and other state agencies (CEC, DOC).
Ease Language Barriers						
CDFA should improve resources (videos, translation) available to non-native English-language farmers and ranchers (Spanish, Hmong, Chinese, Punjabi).	1.31	<ul style="list-style-type: none"><li>None provided</li></ul>	CDFA funds technical assistance providers and considers their ability to provide outreach in different languages. Some of these providers may be able to provide translated outreach materials and provide videos for non-English speakers.		Time and funding needed to accommodate translation services	<b>Adopt</b>  CDFA can expand efforts to provide outreach materials in non-English languages. OEFI can work with the Farm Equity Advisor and public affairs to identify appropriate and effective actions (examples of actions may be to translate the RGA or hire a live translator during a workshop).
Additional Considerations for Prioritizing Farms for Award						



Recommendations of AAG			SWEEP Staff Considerations and Determination			
Recommendation	Support Score	Summarized Opposition Statements	Current Actions that Support this Recommendation	Scientific Considerations	Concerns	Staff Determination and Justification
CDFA should give some priority to lower income brackets.	1.05	<ul style="list-style-type: none"> <li>None provided</li> </ul>	Priorities have been given depending on funding source, including priority populations (low-income). TAPs also prioritize small farmers and socially disadvantaged farmers and ranchers (SDFRs).		Collection of financial information would create a new information security concern and may reduce willingness of applicants to apply.	<b>Adopt</b> Priority applicants have been determined by legislation and by funding source, including Priority Populations which include low income communities. The collection of additional financial information would create new information security concerns.
Streamline Application Process						
CDFA should use case studies in training materials and provide examples of successful applications.	1.21	<ul style="list-style-type: none"> <li>None provided</li> </ul>	CDFA posts a list of all awarded projects on the SWEEP website with the projects' description. CDFA posts videos highlighting projects that received funds. Technical assistance providers can use TA funding to develop case studies for distribution.		Case studies could be prescriptive and suggest a desired project type. Providing samples of application documents, especially the budget, can be misleading and not representative of costs throughout the state.	<b>Adopt</b> CDFA will provide one-page case studies and videos on projects. The Public Records Act process allows for the public to access project applications.
Distribution of Grant Funds						
CDFA should allow farmers to apply for 25% advance payment more than once, so that they can request an additional payment after they have used up their first 25%.	1.44	<ul style="list-style-type: none"> <li>None provided</li> </ul>	The SWEEP program currently allows for multiple advance payments on a case by case benefits. This is guided by CDFA grant administration regulations and fiscal policies.		More paperwork Delays with receiving funds Slows project completion	<b>Adopt</b> The SWEEP program will allow for multiple advanced payments in accordance with CDFA's grant administration regulations and fiscal policies.
SWEEP's Role in State Level Strategy						
Through discussion with agency partners and Governor's office, CDFA should identify SWEEP's role in state-level planning around water resilience.	1.03	<ul style="list-style-type: none"> <li>None provided</li> </ul>				<b>Adopt</b> Communicating with the Governor's Office and agency partners can highlight SWEEP's impact on water resilience and demonstrate agriculture's engagement.

Recommendations of AAG			SWEEP Staff Considerations and Determination			
Recommendation	Support Score	Summarized Opposition Statements	Current Actions that Support this Recommendation	Scientific Considerations	Concerns	Staff Determination and Justification
The Environmental Farming Act Science Advisory Panel should coordinate with Groundwater Sustainability Agencies (GSAs), irrigation and water districts, and California Air Resources Board to identify overall water conservation and GHG emissions reduction goals for SWEEP.	1.00	<ul style="list-style-type: none"><li>None provided</li></ul>				<b>Adopt</b> GSAs, Irrigation districts, and CARB are valued partners in the objectives of SWEEP. CDFA can work to provide opportunity for engagement with regional GSAs, irrigation, and water districts with EFA SAP.
Outreach Coordination						
CDFA should target SWEEP outreach to certain groups of farmers with a common lack of solutions, keeping in mind that farmers may distrust the government and that there is a need to be sensitive in recruitment and respect traditional methods.	0.74	<ul style="list-style-type: none"><li>None provided</li></ul>	CDFA contracts with TAPs who provide local outreach; these organizations are often trusted in their communities			<b>Adopt</b> This recommendation is not clear in what CDFA should change and what groups of farmers should be targeted. CDFA is currently targeting outreach to disadvantaged farmers, socially disadvantaged farmers and ranchers, and small farmers through the TAP program.
As an outreach strategy, CDFA should work with organizations to identify farmers who are "ready."	0.46	<ul style="list-style-type: none"><li>The program is oversubscribed. Clarity is needed on what organizations are intended and what does "ready" mean.</li></ul>	CDFA funds TAPs who provide assistance to ensure farmers are ready with a project design and prepared for an application period.			<b>Adopt</b> This recommendation is not clear in what CDFA should change and what organizations can identify farmers who are ready with a SWEEP project. Currently TAPs help to identify and prepare potential applicants to be ready within the application timeframe.



Recommendations of AAG			SWEEP Staff Considerations and Determination			
Recommendation	Support Score	Summarized Opposition Statements	Current Actions that Support this Recommendation	Scientific Considerations	Concerns	Staff Determination and Justification
CDFA should coordinate with the Association of California Water Agencies.	0.39	<ul style="list-style-type: none"> <li>It is not clear what the coordination will do. It has not been their experience that water agencies do not work with agriculture, they wonder if there was some misinterpretation that this is supposed to be agriculture's Clean Water Alliance.</li> </ul>				<p><b>Adopt</b></p> <p>CDFA will reach out to ACWA to better understand their potential partnership.</p>
CDFA should prioritize strategic outreach coordination in appropriate locations with Farm Bureaus and Groundwater Sustainability Agencies (because they are involved with all sizes of farms) and at trade shows and commodity groups.	0.85	<ul style="list-style-type: none"> <li>Projects should be awarded and disbursed by CDFA, not a third party.</li> <li>Outreach by Farm Bureau and GSAs should not be prioritized. These groups do not prioritize outreach into disadvantaged communities.</li> <li>There are other water organizations that currently provide help to farmers besides the Farm Bureau and groundwater sustainable agencies. In the Imperial Valley, IVH2O or Imperial Valley Water helps farmers and there isn't a groundwater agency because there is no useable groundwater.</li> </ul>	<ul style="list-style-type: none"> <li>SWEEP has been involved with trade shows and been in communication with Farm Bureaus.</li> <li>In past funding cycles, CDFA has placed notices in Farm Bureau publications. Farm Bureaus and other non-profits are eligible to receive technical assistance funding through the Climate Smart Agriculture technical assistance grant program.</li> </ul>		Additional outreach and coordination tasks	<p><b>Adopt</b></p> <p>CDFA can increase outreach efforts to local farm bureaus, GSAs, and commodity groups. Coordinating with additional local agencies and organizations should result in higher workshop turnout and have an increase in applications</p>
Considerations Around the Sustainable Groundwater Management Act						
CDFA should give some priority to critically (or approaching critically) over-drafted groundwater basins.	0.92	<ul style="list-style-type: none"> <li>In the past it seems that the SWEEP program gave priority to specific areas, and it marginalized some farmers who were not eligible or receiving SWEEP grants.</li> </ul>	CDFA gives an additional consideration to project applications that will reduce groundwater pumping in critically over drafted groundwater basins			<p><b>Adopt</b></p> <p>The SWEEP application review process gives additional consideration to projects that reduce groundwater pumping in critically over drafted groundwater basins.</p>

Recommendations of AAG			SWEEP Staff Considerations and Determination			
Recommendation	Support Score	Summarized Opposition Statements	Current Actions that Support this Recommendation	Scientific Considerations	Concerns	Staff Determination and Justification
<p>CDFA should evaluate projects on land to be fallowed due to Sustainable Groundwater Management Act. Groundwater Sustainability Agencies should evaluate projects and provide letters of support if in approval of project. Support letters would be advisable, but not mandatory to apply to SWEEP and applicable to medium and large cost projects. CDFA and the Science Panel should continue discussion with GSAs due to uncertainties in the future due to SGMA.</p>	0.46	<ul style="list-style-type: none"><li>GSAs shouldn't be involved because many have growers on the board and there could be conflicts of interest.</li><li>Support CDFA and the EFA SAP having more regular communication with GSAs. However, they oppose GSAs reviewing projects and providing letters of support for three reasons: 1) the AAG member thinks that GSAs likely do not have capacity to take this on anytime in the near future; 2) the AAG member thinks that some GSAs have not done a good job representing the interests of small-scale farms, so the member would not want small-scale farms' SWEEP applications to be disadvantaged by not being able to get a letter from their GSA; 3) the AAG member thinks that GSAs will not be deciding which lands get fallowed, so cannot provide CDFA with that information.</li><li>In an area of multiple high-priority groundwater basins where fallowing will likely be part of our response, nobody has any idea right now where such fallowing may occur. The concept is good, but the circumstances do not exist</li></ul>	<p>CDFA provides an additional point for projects that reduce groundwater pumping in critically over drafted groundwater basins.</p>		<p>Adds a document to the review process</p>	<p><b>Adopt</b></p> <p>CDFA can provide opportunity for an applicant to attach a letter of support to their SWEEP application. This could improve the technical reviewers' scoring of merit and feasibility.</p>

Recommendations of AAG			SWEEP Staff Considerations and Determination			
Recommendation	Support Score	Summarized Opposition Statements	Current Actions that Support this Recommendation	Scientific Considerations	Concerns	Staff Determination and Justification
		to allow this to happen. The best way to avoid having farmers receive funds for unexpectedly short-lived projects is to make sure they themselves have significant financial "skin in the game".				

TABLE 2: PARTIALLY ADOPT (9 of 48 recommendations; 19%)

Recommendations of AAG			SWEEP Staff Considerations and Determination			
Recommendation	Support Score	Summarized Opposition Statements	Current Actions that Support this Recommendation	Scientific Considerations	Concerns	Staff Determination and Justification
Technology-Specific Requirements and Restrictions						
CDFA should allow Irrigation Water Management (IWM) systems to have 3 years of funding for the annual subscription. CDFA should reduce the life of the project for IWM from 10 to 3. The AAG would like to require CDFA to verify that the IWM application platform is operating during the time of verification. The AAG would like to require CDFA to verify prolonged operation during the 3-year term. CDFA should account for this change in the water/GHG calculations.	1.02	<ul style="list-style-type: none"><li>None provided</li></ul>	CDFA pays for IWM subscription services during the grant agreement only.	SWEEP projects have a 10-year project life for the estimation of benefits. This means that awardees may need to contribute funding to maintain and update IWM technology and service over the 10-year period. Having a 3-year project life for IWM and 10-year project life for other components would complicate the QM significantly and make estimation of project benefits convoluted.	Fiscal policies	<b>Partially Adopt</b> CDFA fiscal policies do not allow for payment of subscription services outside of the grant term, but CDFA can improve follow up with awardees during the three-year project outcome monitoring period to evaluate the continued use of IWM technologies and services. Currently CDFA allows for payment of subscription over the grant agreement term (18 months).
Quantification of Program Benefits						
CDFA should encourage innovative approaches by updating the application and GHG/water savings tool to allow for growers to insert their own project types. Specifically, CDFA should allow for an "Other" section in the GHG and water savings tools so growers can add their own projects and explain how they came to the savings they insert. CDFA should clarify in the application that other practices, besides the short list of common practices (drip irrigation, pump conversion, etc.), are allowed and encouraged. Fertilizer	1.21	<ul style="list-style-type: none"><li>It is true that portable equipment can lend itself to efficiency improvement, however, moveable or portable equipment can very quickly become taken advantage of and misused. Permanent equipment is the best way that the taxpayer can be assured that the claimed benefits are being realized.</li></ul>	SWEEP currently includes "Other management practices" as a water savings or GHG reduction strategy that growers can indicate on the application. Applicants need to provide information for the reviewer to evaluate and the project must still be able to utilize the GHG QM tool to estimate a GHG reduction.  CDFA is pursuing an update to the QM that will allow for GHG reductions from nitrous oxide to be estimated. This update would likely allow more growers to be eligible	Correctly and consistently quantifying project types that fall into the "Other" category may not be possible		<b>Partially adopt</b> CDFA is working on an update to the QM that would capture nitrous oxide emission reductions. This would open the program up to additional farmers. Adding an "Other" category is too broad and would not allow for consistent quantification of benefits. Alternatively, CDFA can solicit proposals for the inclusion of new practices or technologies through a request for proposals. The proposals would be evaluated by a committee of experts in consideration of how the QM can be modified to include the proposal.

Recommendations of AAG			SWEEP Staff Considerations and Determination			
Recommendation	Support Score	Summarized Opposition Statements	Current Actions that Support this Recommendation	Scientific Considerations	Concerns	Staff Determination and Justification
application type could be in the other category that is developed. This would require an update to the Quantification Tool to include an "other" selection.			and competitive for SWEEP funding			
Ease Language Barriers						
CDFA should provide outreach, educational materials and, to the degree possible, the application in multiple languages, prioritizing Spanish. Additionally, technical assistance in various languages should also be provided and prioritized.	1.36	<ul style="list-style-type: none"><li>The materials in languages other than English were not an effective method of getting the information across. The more effective method is to have personal representatives available for non-English speakers to assist in the application process and overall program information.</li></ul>	CDFA funds technical assistance providers and considers their ability to provide outreach in different languages. Technical assistance providers may also contract with translators to provide one-on-one assistance to non-English speakers or translate outreach materials.		Would require multiple application platforms and significant time and resources for translation of application questionnaire, calculator tools. SWEEP staff and reviewers would need translation assistance in reviewing and administering applications that are submitted in a language other than English; this issue would continue through the grant agreement establishment, project implementation and invoicing stages.	<b>Partially adopt</b> CDFA can work with technical assistance provider and with internal translation resources to develop outreach materials in languages other than English. CDFA will continue to require application material in English. Technical and administrative staff do not have the language abilities to accept documentation in languages other than English. Contracting with multi-lingual technical assistance providers to work with growers from application to project close out is the most efficient way for CDFA to serve non-English speakers



Recommendations of AAG			SWEEP Staff Considerations and Determination			
Recommendation	Support Score	Summarized Opposition Statements	Current Actions that Support this Recommendation	Scientific Considerations	Concerns	Staff Determination and Justification
CDFA should require training opportunities to both potential applicants and to awardees in various languages from relevant experts on related topics, including, but not limited to, effectively using relevant new technologies, equipment, and practices.	1.05	<ul style="list-style-type: none"> <li>CDFA should host training opportunities for both potential applicants and awardees, but it should not be required. The grant is currently set up where attending a training gives an applicant an extra point and this system is working well.</li> </ul>	Local TAPs may be able to provide training to farmers in their native language.		Requiring training from a potential applicant could be overly burdensome on small farmers and would make the application process more difficult	<b>Partially adopt</b> Irrigation training is worth an additional point in scoring; the training should not be required but should be encouraged. CDFA can work with technical assistance organizations to develop and advertise training in non-English languages.
CDFA should require training opportunities to both potential applicants and to awardees in various languages from relevant experts on related topics, including, but not limited to, effectively using relevant technologies, equipment (e.g., irrigation system maintenance) and practices (i.e., distribution uniformity, irrigation scheduling, etc.).	1.03	<ul style="list-style-type: none"> <li>Anytime some requirement is added onto an already extensive list requirements, potential good projects drop off because it becomes not worth the applicant's time.</li> <li>Training should not be required.</li> </ul>	Local TAPs, contracted by CDFA, may provide training to farmers in their native language.		Requiring training from a potential applicant could be overly burdensome on small farmers and would make the application process more difficult	<b>Partially adopt</b> Irrigation training is worth an additional point in scoring and the training should not be required but should be encouraged. CDFA can work with TAPS to develop, advertise, and make available training courses in non-English languages.
Increase Opportunities for Surface Water Users						
CDFA should allow for farmers to apply for funding for a storage and compensation reservoir so that the farmer can capture the water on the intervals that water is delivered or diverted. CDFA should allow for the pressurization, filtration and the use of pressurized irrigation coming from the storage reservoir. This could result in optimization of water and energy usage. CDFA should allow for the utilization of GHG savings that was offset from	1.36	<ul style="list-style-type: none"> <li>None provided</li> </ul>	SWEEP allows for funding of reservoirs but not the pressurization of non-pressurized water unless that increase in energy/GHG is offset by another aspect of the project.	Projects can reduce GHG emissions by reducing pumping at one source and increasing pumping at another. Surface water can be seasonal and not always available year to year and will make for challenges with consistency within the QM. The current QM tool will not allow for the addition of new pumps, it will take time to develop new tool	Development of a QM tool that can incorporate new pumps	<b>Partially adopt</b> SWEEP allows for funding of reservoirs but not the pressurization of non-pressurized water unless that increase in energy/GHG is offset by another aspect of the project. Updates to the GHG calculator tool would be required to allow for the addition of new pumps to the project. CDFA can explore with partner agencies.

Recommendations of AAG			SWEEP Staff Considerations and Determination			
Recommendation	Support Score	Summarized Opposition Statements	Current Actions that Support this Recommendation	Scientific Considerations	Concerns	Staff Determination and Justification
one source as GHG credit that can be used for a new GHG producing source such as a new pump that is used to pressurize the storage reservoir.						
CDFA should allow for individual farmers that are supplied pressurized water from an irrigation district a pathway to apply for the SWEEP program. CDFA should make sure that the farmers that are supplied with surface water delivery systems are allowed.	1.26	<ul style="list-style-type: none"><li>None provided</li></ul>	In the past SWEEP has allowed for these types of projects through a joint solicitation with DWR. A GHG QM was developed for that solicitation.	The regular SWEEP GHG QM tool will need to be amended to allow for this type of project. A farmer could apply for funds from SWEEP with the current QM showing that they will eliminate on-farm pumping by accepting pressurized surface water, but that would not account for the increase in GHG from the off-farm pressurization.	Current tool and the tool in draft will not support this correctly. Research is needed to correctly incorporate	<b>Partially adopt</b> Research and coordination are needed to better understand how to incorporate this type of project into the GHG QM. CDFA can consult with partner agencies; CARB in particular
Streamline Application Process						
CDFA should Increase the pre-application outreach period to six months and the application window to 90 days to accommodate farmers' harvest and work schedules. CDFA should hold the application period in early winter when most farmers are not in harvest or planting season, but ensure it is long enough so that technical assistance providers are not impacted during holiday season.	1.54	<ul style="list-style-type: none"><li>None provided</li></ul>	CDFA aims to hold application periods in the winter months to accommodate harvest schedules. CDFA aims to provide sufficient outreach and application periods, while also balancing encumbrance deadlines.		Encumbrance periods Need for sufficient time for administrative tasks and grant implementation	<b>Partially adopt</b> CDFA will aim accommodate this request as encumbrance, and liquidation deadlines allow. CDFA must balance the time needed for administrative activities such as establishing grant agreements and time needed by awardees for project implementation.
Considerations Around the Sustainable Groundwater Management Act						

Recommendations of AAG			SWEEP Staff Considerations and Determination			
Recommendation	Support Score	Summarized Opposition Statements	Current Actions that Support this Recommendation	Scientific Considerations	Concerns	Staff Determination and Justification
CDFA should coordinate with Groundwater Sustainability Agencies to avoid incentivizing projects on land that will be fallowed due to Sustainable Groundwater Management Act. Groundwater Sustainability Agencies should thoroughly investigate and review projects and provide letters of support if able. This would be most applicable to medium and large funding requests.	0.87	<ul style="list-style-type: none"> <li>Support CDFA and the EFA SAP having more regular communication with GSAs. However, oppose GSA's reviewing projects and providing letters of support for three reasons: 1) the AAG member thinks that GSAs likely do not have capacity to take this on anytime in the near future; 2) the AAG member thinks that some GSAs have not done a good job representing the interests of small-scale farms, so the member would not want small-scale farms' SWEEP applications to be disadvantaged by not being able to get a letter from their GSA; 3) the AAG member thinks that GSAs will not be deciding which lands get fallowed, so cannot provide CDFA with that information. Not all areas currently have GSAs organized to an extent that they would even be able to entertain the idea of reviewing a proposed project. It may be several more years before some areas have reached the level of organization where this type of request could be responded to.</li> </ul>			Additional time for GSA review Information sharing restrictions	<p><b>Partially adopt</b></p> <p>CDFA is not aware of the capacity at GSAs to review SWEEP applications or to provide support letters. Alternatively, CDFA can develop an email list specific for GSAs and notify GSAs when application summaries and award lists are posted to the SWEEP webpage.</p>



TABLE 3: UNABLE TO ADOPT AT THIS TIME (22 of 48 recommendations, 46%)

Recommendations of AAG			SWEEP Staff Considerations and Determination			
Recommendation	Support Score	Summarized Opposition Statements	Current Actions that Support this Recommendation	Scientific Considerations	Concerns	Staff Determination and Justification
Technology Support for Applicants and Awardees						
CDFA should develop and maintain a roster of manufacturers and vendors who are willing to provide cost quotes for small farm/ranch operations.	1.03	<ul style="list-style-type: none"><li>Too time consuming and expensive to manage and maintain.</li></ul>	CDFA contracts with Technical assistance providers (TAPs) who have vendor connections.		Time constraint Lack of CDFA resources Lack of regionally specific information on vendors Concern over criteria for inclusion in list Vendors on the list may raise prices	<b>Do not adopt</b> Rosters of local resources exist via other online resources. CDFA would have limited capacity to verify vendors abilities, maintain a public resource in an evolving market, and provide adequate statewide distribution. CDFA does not have the statutory authority to adopt this recommendation
CDFA should post a list of regional vendors on the website based off vendors that wish to be included on this list. CDFA should send out emails or web postings to have vendors signed up to be on this list. CDFA should use the list that CDFA already has, based off past applications, as a steppingstone for creating this list. CDFA should allow for growers to provide "reviews" on this list.	0.92	<ul style="list-style-type: none"><li>Too much time and expense for this small program to have to manage a vendor list and it is a duplication of information readily available to the public through numerous sources.</li></ul>	CDFA contracts with TAPs who have vendor connections. On the SWEEP Irrigation Training resources webpage, CDFA has included the Cal Poly Irrigation Training and Research Center's Consumer Bill of Rights. This document is a helpful resource for farmers to reference as they seek out and interact with vendors.		Development of a review portal on CDFA's webpage. This could lead CDFA to display farmer/vendor disputes Time constraints Lack of CDFA resources Lack of regionally specific information on vendors Concern over criteria for inclusion in list Potential CDFA liability	<b>Do not adopt</b> Rosters and reviews of local resources exist via other online resources. CDFA would have limited capacity to verify vendors abilities, maintain a public resource in an evolving market, and provide adequate statewide distribution. CDFA does not have the statutory authority to adopt this recommendation

Recommendations of AAG			SWEEP Staff Considerations and Determination			
Recommendation	Support Score	Summarized Opposition Statements	Current Actions that Support this Recommendation	Scientific Considerations	Concerns	Staff Determination and Justification
CDFA should develop a "Technical Service Provider list" (vendors) to assure suppliers have experience and stable support for the irrigation water management (IWM) products for the length of term. Have vendors and technology associated with IWM vetted. A committee should be formed to determine further development of this providers list.	0.77	<ul style="list-style-type: none"> <li>Too costly and time consuming for this small program and there are numerous other sources the public can utilize to determine the validity of services providers.</li> <li>There is no need for a committee.</li> <li>A big project, and not appropriate for a CDFA committee to evaluate technical service providers.</li> <li>It was not apparent that there had been a sufficient level of difficulty with the technical service providers to justify this effort.</li> </ul>	<p>CDFA contracts with TAPs who have vendor connections and expertise regarding IWM. TAPS can share recommendations on the type of technology the applicant might wish to pursue and provide information on local vendors.</p> <p>On the SWEEP Irrigation Training resources webpage, CDFA has included the Cal Poly Irrigation Training and Research Center's Consumer Bill of Rights. This document is a helpful resource for farmers to reference as they seek out and interact with vendors.</p>	<p>Irrigation water management practices do not need to be vetted, but this recommendation may be aiming to address vendor reliability and stability.</p> <p>There is an ongoing UC project to evaluate several types of IWM technologies. CDFA can make the results of this study available when complete.</p>	<p>Time constraints</p> <p>Lack of CDFA resources</p> <p>Lack of regionally specific information on vendors</p> <p>Concern over criteria for inclusion in vendor list or committee</p> <p>CDFA liability</p>	<p><b>Do not adopt</b></p> <p>CDFA is not the appropriate institution to vet IWM vendors and this would put unfair scrutiny upon one sector of the irrigation efficiency industry. As UC completes research on available IWM technologies, CDFA can make this information available on the Irrigation Resources page. CDFA does not have the statutory authority to adopt this recommendation</p>
Technology-Specific Requirements and Restrictions						
CDFA should allow for move-able technologies. Some water saving technologies can move with rotating growers (movable pump, portable soil moisture, etc.). CDFA should allow for technologies to move APNs. This would need to be determined to be acceptable by technical reviewers and included in the application.	1.08	<ul style="list-style-type: none"> <li>It is true that portable equipment can lend itself to efficiency improvement, however, moveable or portable equipment can very quickly become taken advantage of and misused. Permanent equipment is the best way that the taxpayer can be assured that the claimed benefits are being realized.</li> </ul>	<p>None, SWEEP currently requires that all project components remain on the project site for the life of the project.</p>	<p>This recommendation may apply to pumps and IWM technologies. If this recommendation was adopted, it could allow growers to impact more acreage with the benefits of the SWEEP project, but consultation with California Air Resources Board (CARB) would be needed regarding updating the QM</p>	<p>The current GHG QM is based upon items that will be installed on the project at specific locations (APNs) for the 10-year life of the project. Lack of accountability</p>	<p><b>Do not adopt</b></p> <p>Water and energy savings are connected to a specific parcel number in the SWEEP program. Allowing moveable technologies on multiple APNS would lead to lack of accountability.</p>

Recommendations of AAG			SWEEP Staff Considerations and Determination			
Recommendation	Support Score	Summarized Opposition Statements	Current Actions that Support this Recommendation	Scientific Considerations	Concerns	Staff Determination and Justification
				and project requirements.		
CDFA should require a justification from applicants that apply for on-farm weather stations as to why CIMIS information is not sufficient.	0.46	<ul style="list-style-type: none"><li>• There are many reasons that a CIMIS station would not provide accurate weather data at a farm level. A key one is for frost prediction which needs to be correct and a station 5 miles away cannot do this. A grower should not have to justify this, a local on-farm station is a correct and important tool.</li><li>• CIMIS stations lack accuracy. Also, these are widely spaced and do not take into account for microclimates.</li><li>• Microclimates differ greatly in California and actual on-farm weather sites give better information. They do support capping the amount paid for these weather stations.</li><li>• CIMIS is a nice template in a general sense for how plants are using water. However, there are microclimates even within each ranch and it seems like overkill to</li></ul>	CDFA allows for both use of CIMIS and on-farm weather stations towards irrigation water management level	On-farm weather stations allow for more granular information than CIMIS data provides.	Extending an already long application	<p><b>Do not adopt</b></p> <p>The support for this recommendation among the AAG members is low. CDFA has not required justification for any project components. Technical reviewers may consider whether CIMIS should be adequate when evaluating the merits of a project application.</p>

Recommendations of AAG			SWEEP Staff Considerations and Determination			
Recommendation	Support Score	Summarized Opposition Statements	Current Actions that Support this Recommendation	Scientific Considerations	Concerns	Staff Determination and Justification
		<p>make someone justify this.</p> <ul style="list-style-type: none"><li>• In-situ weather stations can provide better and more accurate information to make irrigation decisions. In-situ weather stations are recommended for better water savings.</li><li>• CIMIS stations are not being periodically maintained as they originally had been planned to be. Hence, the majority of evapotranspiration rates at many of the state's CIMIS stations are not up to date.</li></ul>				
CDFA should cap the amount of funding per project for weather stations.	0.67	<ul style="list-style-type: none"><li>• These are inexpensive already so this would add another layer that is not necessary.</li><li>• CIMIS data is often unreliable and prone to large gaps/missing data.</li><li>• California has hundreds of microclimates so having an on-site weather station is more accurate and useful than CIMIS.</li></ul>	The budget is considered in the technical review of applications; weather stations with exorbitant costs may result in poor score in the budget category of the review.		This would add tasks to administrative review of applications and would require follow up attention during grant implementation.	<p><b>Do not adopt</b></p> <p>The overuse or excessive spending on weather stations has not been shown to be an issue over funding cycles. Cost is considered during the technical review.</p>
Quantification of Program Benefits						

Recommendations of AAG			SWEEP Staff Considerations and Determination			
Recommendation	Support Score	Summarized Opposition Statements	Current Actions that Support this Recommendation	Scientific Considerations	Concerns	Staff Determination and Justification
CDFA should develop statewide or regional database to represent GHG use associated with specific crops types. This would allow growers to not need to have on farm data records when they wish to apply and would allow for them to apply without records based on the statewide or regional average.	1.10	<ul style="list-style-type: none"> <li>None provided</li> </ul>		<p>To create a comprehensive database on GHG associated with crop type and regions would take a large effort and significant resources.</p> <p>It would also reduce the accountability of SWEEP awardees and applicants. One benefit of the SWEEP program is increasing individual awareness of climate impact. The GHG QM approved by CARB requires individual applicants to submit farm specific records and estimate GHG benefits specific to their farm</p>	<p>Research time. Significant funding required. This would be a contracted research project</p> <p>The number of crops grown throughout California makes this impractical. Would need to revise CARB-approved GHG QM</p>	<p><b>Do not adopt</b></p> <p>The implementation of this recommendation would take significant resources and research (including funding and expertise); would reduce the accountability of SWEEP participants.</p>
CDFA should develop a "Whole Farm" criteria which includes actions to reduce carbon on an operational basis. e.g., conversion of diesel equipment to electric. CDFA should add a GHG benefit if charging is done with onsite solar and battery storage. This recommendation is for a consortium of farmers that might be able to save GHG on a	0.80	<ul style="list-style-type: none"> <li>Although this might be more comprehensive, it will likely become so complicated that it cannot be realistically used. To support something this complicated, we need further information. SWEEP should maintain</li> </ul>		<p>Data on whole farm approach is not sufficient to incorporate into the GHG methodology.</p>	<p>lack of QM tool that would be needed, scope of SWEEP changes</p>	<p><b>Do not adopt</b></p> <p>Adopting this recommendation would significantly change the scope of the SWEEP program, which is focused on irrigation systems rather than life cycle analysis/whole farm. A whole farm life cycle analysis may not show a positive water or ghg reduction on farms. Other programs and funding sources exist to help farmers with</p>



Recommendations of AAG			SWEEP Staff Considerations and Determination			
Recommendation	Support Score	Summarized Opposition Statements	Current Actions that Support this Recommendation	Scientific Considerations	Concerns	Staff Determination and Justification
larger level using things such as refrigeration, which is a large energy saver. Allowing for a consortium of farmers can result in a larger group savings of GHG. This would allow for packing houses, etc. to be included.		<p>its focus on water efficiency.</p> <ul style="list-style-type: none"> <li>There are other state programs incentivizing the transition to electric vehicles and more energy-efficient agricultural processing.</li> <li>This opens up a wide range of potential proposals which will be very difficult to review and compare. Could a consortium apply to purchase electric cars to give to their employees to use for commuting?</li> </ul>				other GHG reduction strategies on farm (examples include utility programs, HSP, FARMER, EQIP)
CDFA should use water and energy "productivity" and not savings when calculating water and energy. CDFA should calculate based off the yield per unit of energy/water unit. CDFA should obtain water use data and yield records pre- and post-project. CDFA should incorporate this an either/or option so that farmers can demonstrate savings using either approach. CDFA should require the cost of that energy/water to be delivered in the application. This allows for a calculation of the cost associated with the savings.	0.33	<ul style="list-style-type: none"> <li>Productivity is related to many factors and not just water/energy. This approach could make some projects that have a lot of benefit in one area and not the other not funded. A comparison of analyses needs to be shown before it can be supported. <ul style="list-style-type: none"> <li>This sounds complicated. Diverse operations may not have all the yield data that would be necessary to complete these calculations.</li> </ul> </li> <li>This is too complex &amp; subjective. Most growers do not want to share yield data.</li> </ul>		<p>The State's objectives with SWEEP have been water savings and GHG reductions. Using productivity as the metric for assessing project merit or estimating benefits would diverge from the objectives.</p>	<p>Complete tool and framework redesign Require crop yield/value data for baseline and estimates for future, proprietary information Productivity metrics may result in favoring crop conversion and/or specific crops. Additional analysis will be needed to be able to compare productivity metrics across crops and throughout the state.</p>	<p><b>Do not adopt</b></p> <p>SWEEP was established as an emergency drought program, with the intent of promoting water conservation and emissions reductions on farms. Evaluating projects with productivity metrics instead of environmental benefits deviates from the state's objectives.</p> <p>To use productivity metrics to evaluate projects would require additional data collection and would be complex in comparing projects around the state and across crops. CDFA would be need to collect proprietary information regarding yields and value. This recommendation did not receive a high level of support from the members of the AAG.</p>

Recommendations of AAG			SWEEP Staff Considerations and Determination			
Recommendation	Support Score	Summarized Opposition Statements	Current Actions that Support this Recommendation	Scientific Considerations	Concerns	Staff Determination and Justification
		<ul style="list-style-type: none"> <li>The idea of productivity, often at the expense of natural resources, human rights, and ecological diversity got us the point of critically over-drafted ground water basins and over-subscribed water delivery systems. Productivity alone will not protect California agricultural lands for the centuries ahead.</li> </ul>				
Program Buckets						
CDFA should divide funding into two categories: "Water-focused" or "Water- and GHG-focused", potentially setting aside specific funding amount for each category of project.	1.26	<ul style="list-style-type: none"> <li>There is usually energy savings in water savings projects so want to capture the GHG reductions due the energy savings in the water projects.</li> </ul>	CDFA is pursuing an update to the QM that will allow for GHG reductions from nitrous oxide to be estimated. This update would likely allow more growers to be eligible for SWEEP funding without relying only on on-farm pumping to secure the GHG reductions.	Water focused projects that do not have GHG requirements could result in an increase in GHG production due to the switch from non-pressurized to efficient pressurized irrigation.	Would require additional staff resources to administer if the program were to be split into two buckets. Water-focused projects would not be eligible for Greenhouse Gas Reduction Funds (GGRF) and so could result in confusion and complication if SWEEP has rotating or multiple funding sources.	<p><b>Do not adopt</b></p> <p>Water savings only projects may result in an increase in GHG as farmers switch from non-pressurized flood to pressurized. CDFA instead will pursue an update to the QM that can capture nitrous oxide reductions; this may help previously ineligible farmers to estimate the necessary GHG reductions.</p>

Recommendations of AAG			SWEEP Staff Considerations and Determination			
Recommendation	Support Score	Summarized Opposition Statements	Current Actions that Support this Recommendation	Scientific Considerations	Concerns	Staff Determination and Justification
Instead of only one maximum request for SWEEP, CDFA should define two cost category scales for SWEEP projects including (1) small cost projects (\$50,000 maximum request with simplified application), (2) medium cost projects and large cost projects (\$50,000-130,000 maximum request).The majority of funds would go to the medium bucket; however, the number of small projects and reach would far exceed that of larger projects.	1.23	<ul style="list-style-type: none"> <li>This is too complicated, doesn't streamline the process.</li> </ul>	SWEEP funds small and medium cost projects, budget is considered during review. CDFA contracted technical assistance providers prioritize small and medium farms in their provision of assistance.	A simplified application for the lower cost projects would lower the scientific rigor of the quantifications.	Additional administrative tasks to divide funds into these categories. The recommendation does not indicate how CDFA should simplify the application for projects with a smaller budget request.	<p><b>Do not adopt</b></p> <p>A simpler application lowers the scientific rigor of the program and could lead to less program and awardee accountability. SWEEP currently allows for lower cost, smaller projects to receive funds and the budget is considered during the technical review.</p>
CDFA should divide funding into three program categories: GHG-first, Water-first, and Combined projects. Allow growers to apply for funds to cover "water-focused" or "GHG-focused" projects, potentially setting aside specific funding amount for each category of project.	1.21	<ul style="list-style-type: none"> <li>None provided</li> </ul>	CDFA is pursuing an update to the QM that will allow for GHG reductions from nitrous oxide to be estimated. This update would likely allow more growers to be eligible for SWEEP funding without necessarily relying only on on-farm pumping to secure the GHG reductions.	Water focused projects that do not have GHG requirements could result in an increase in GHG production due to the switch from non-pressurized to efficient pressurized irrigation.	Would require additional staff resources to administer if the program were to be split into two buckets. Water-focused projects would not be eligible from GGRF funds and so could result in confusion and complication if SWEEP has rotating or multiple funding sources.	<p><b>Do not adopt</b></p> <p>Water savings only projects may result in an increase in GHG as farmers switch from non-pressurized flood to pressurized. CDFA instead will pursue an update to the QM that can capture nitrous oxide reductions; this may help previously ineligible farmers to estimate the necessary GHG reductions.</p>
Availability of Technical Assistance						



Recommendations of AAG			SWEEP Staff Considerations and Determination			
Recommendation	Support Score	Summarized Opposition Statements	Current Actions that Support this Recommendation	Scientific Considerations	Concerns	Staff Determination and Justification
CDFA should develop clear criteria to identify farmer groups/consortiums, nonprofits, Resource Conservation Districts, etc. to be permitted to administer and/or support small farm projects.	0.98	<ul style="list-style-type: none"> <li>None provided</li> </ul>	A TAP program currently exists through which organizations can apply for funding to assist with application and implementation of projects. The TA program does not pass the SWEEP grant funds through the TA organizations. Farmers apply to CDFA and work with CDFA to be reimbursed for the awarded projects.		A program that would pass the SWEEP funding through another organization would reduce accountability and transparency of the SWEEP program. Would add additional layer of administrative expenses.	<b>Do not adopt</b> CDFA has the TAP program which accomplishes the purpose of providing local technical assistance but does not pass the SWEEP funds through another organization. Using other organizations to distribute SWEEP funds has the potential to reduce transparency and accountability and would add another layer of administration.
Additional Considerations for Prioritizing Farms for Award						
CDFA should weigh the value of types of benefits with or against regional needs.	0.56	<ul style="list-style-type: none"> <li>This would require a major analysis and could cut out some really good projects.</li> <li>The need for GHG reduction and water use savings cuts across regions. How will CDFA determine what regional needs are?</li> </ul>			Unclear recommendation on how CDFA should consider regional needs	<b>Do not adopt</b> This recommendation does not give direction in how CDFA should consider regional needs. Every region in California benefits from saved water and a reduction in GHG emissions. CDFA can work with local groups to understand regional priorities with the goal of better aligning SWEEP with regional efforts.
During the application process, CDFA should give priority to small farmers beyond Severely Disadvantaged Communities and Socially Disadvantaged Farmers & Ranchers based upon a statement of need and survey response. Survey questions could include the following: 1) Acreage farmed, 2) Income range of farmer, 3) Number of employees, 4) Percentage of employees that are family members, 5) Primary language other than English, 6) Production costs as a percentage of income, 7)	1.03	<ul style="list-style-type: none"> <li>Many small farms are lifestyle endeavors and generate very little profit. These operations should not receive funding priority over full-time farmers who are focused on producing crops.</li> </ul>	TAPs prioritize small farmers and SDFRs. Other priorities have also been given depending on funding source.		This would significantly complicate the application for small farmers and farmers of need. Collection of financial information would create a new information security concern and may reduce willingness of applicants to apply. More research and information gathering will be required of CDFA to understand	<b>Do not adopt</b> This would add a layer of complexity for small farmers and counter to the objectives of simplification of the grant process for small farmers. Currently, CDFA supports small farmers through the provision of technical assistance. Priority applicants have been determined by legislation and by funding source. The collection of additional financial information would create new information security concerns.

Recommendations of AAG			SWEEP Staff Considerations and Determination			
Recommendation	Support Score	Summarized Opposition Statements	Current Actions that Support this Recommendation	Scientific Considerations	Concerns	Staff Determination and Justification
Commodity grown, 8) Gross receipts (under \$250k)					how to utilize this information to establish priority.	
CDFA should develop a three-tiered approach for funding projects. CDFA should add consideration in the evaluation of small agricultural operations. This could be a tiered approach of applications by the agricultural operations size (or grant request amount).	0.90	<ul style="list-style-type: none"> <li>None provided</li> </ul>	Technical Assistance Providers prioritize support to operations less than 500 acres		<p>Additional complexity to the application and review process.</p> <p>Small farm is not defined</p> <p>It is not clear what the three tiers will be based upon.</p>	<p><b>Do not adopt</b></p> <p>This recommendation is not clear in intent nor direction. CDFA does not have a definition for farm size, making it a challenge to implement this recommendation.</p>
CDFA should give some priority to regions with higher agricultural production.	0.46	<ul style="list-style-type: none"> <li>SWEEP already has a reputation that only certain regions of California get SWEEP awardees. This will only heighten those discrepancies. It's important that potential applicants feel they all have an equal chance at receiving grants.</li> <li>There are areas with low agricultural production with high populations of underserved farmers.</li> <li>In the past it seemed that the SWEEP program gave priority to specific areas, and it marginalized some farmers who were not eligible or receiving SWEEP grants.</li> </ul>		Unclear if there is a baseline metric for "production" given that different crops are grown in different regions.	Would require the establishment of a production metric	<p><b>Do not adopt</b></p> <p>Currently regions of high agricultural production receive more grants in general. The exception is Imperial Valley which largely uses non-pressurized surface water.</p> <p>This recommendation did not receive strong support from the AAG members. SWEEP is a statewide program.</p>
CDFA should give some priority to regions with higher agricultural employment.	0.36	<ul style="list-style-type: none"> <li>Farmers should be able to seek grants irrespective of where</li> </ul>			Establishment of a metric regarding agricultural	<b>Do not adopt</b>

Recommendations of AAG			SWEEP Staff Considerations and Determination			
Recommendation	Support Score	Summarized Opposition Statements	Current Actions that Support this Recommendation	Scientific Considerations	Concerns	Staff Determination and Justification
		<p>they are located. The program already has restrictions in terms of water efficiency and GHG reductions.</p> <ul style="list-style-type: none"> <li>Regions that are prioritized should be based on natural resource needs rather than agricultural production factors.</li> <li>In the past it seemed that the SWEEP program gave priority to specific areas, and it marginalized some farmers who were not eligible or receiving SWEEP grants.</li> </ul>			employment on which to base prioritization.	<p>This recommendation did not receive strong support from the AAG members.</p> <p>Regions with high agricultural employment already receive a significant number of SWEEP grants. SWEEP does not collect information on employment.</p>
Streamline Application Process						
<p>Pump test and energy/water records should not be required to apply for SWEEP support but would be required to receive funding if the project is approved. SWEEP application to include pump efficiency estimate (based on pump age or expert judgement) with actual test completed if project is selected.</p> <p>For projects selected, allow applicants to submit pump test costs as a project expense. Also, allow other entities to cover the cost of the smaller pump tests (&lt; 30 horsepower) for farmers who have submitted applications to SWEEP. Pump tests are encouraged, but not required at time of application submittal.</p>	1.21	<ul style="list-style-type: none"> <li>Requiring the info up front helps reduce the potential for funding projects that can't be supported by a lack of documentation. Good planning up front is valuable.</li> <li>The water records and pumps testing are the low cost, no cost starting point for the determination of water and energy savings projects.</li> <li>Pump testers provide both the energy/GHG and water statistics that the project applicants, engineers, and pump contractors</li> </ul>		<p>Without information from pump test and energy records, the GHG QM tool cannot be used effectively to estimate benefits of the project. This could impact project scoring. Projects that do not have pump tests complete might not be ready to receive a SWEEP grant because that aspect of preparing to apply</p>	<p>A two-phase program slows grant processes and adds administrative tasks. Lowers data quality for reviewer</p> <p>Lowers SWEEP accountability standards</p> <p>Increases difficulty in assessing project benefits without baseline information. Pump tests and baseline energy records are required by the CARB QM methodology. Without these documents, projects are not eligible to receive funding</p>	<p><b>Do not adopt</b></p> <p>Energy records are easily obtained and provision of these demonstrate accountability on behalf of the applicant.</p>

Recommendations of AAG			SWEEP Staff Considerations and Determination			
Recommendation	Support Score	Summarized Opposition Statements	Current Actions that Support this Recommendation	Scientific Considerations	Concerns	Staff Determination and Justification
		utilize to determine if there is a project to apply for.		to SWEEP informs the project design.	through GGRF so adding the step of collecting this information will slow administrative process.	
CDFA should simplify the application process for all applicants by only requiring relevant information. CDFA should consider removing requirements for 3 years control of land and historical records and removing questions that would be a barrier to applicants who do not want to expose sensitive information (e.g., crop yields, etc.).	0.92	<ul style="list-style-type: none"> <li>Farmers who are applying to receive a large amount of money should be willing to share meaningful information about the operation in question, if that information assists in the evaluation of the merits of the proposal.</li> </ul>	The information gathered in the application period is needed to evaluate the merits of the project, estimate benefits, or evaluate the project in consideration of CDFA and state priorities. Information gathered in the three years following project implementation provide accountability, transparency. Awardees that lose control of the land within three years are not included in the project monitoring phase.		Oversimplification of the application will result in less clear project objectives and quantifiable benefits CDFA must comply with funding source requirements. In the case of GGRF, CDFA is required to collect data following project implementation for 3 years.	<p><b>Do not adopt</b></p> <p>Keeping the application simple helps both the applicant and CDFA. CDFA will continue to evaluate the application questionnaire and post project data collection processes to simplify.</p> <p>CDFA will continue to collect post project data for three years following implementation to provide accountability regarding GHG and water reductions.</p>
Collaborative Projects						
CDFA should allow for collaborative solar installations (with multiple farmers).	1.00	<ul style="list-style-type: none"> <li>Large solar projects could pull too much funding from program limiting the number of growers who can participate.</li> <li>Solar installation is an economic decision that ag producers make. The goal of SWEEP is to help producers reduce the amount of water used and amount of GHG produced, not to help them convert operations based on economic variables.</li> </ul>	CDFA allows for solar systems to be installed that supply energy to multiple parcels or participate in net metering.	Coordination efforts for where the energy generated will need to be clear during the application. The GHG QM does not support this level of complexity.	Farmer coordination Lack of a GHG QM tool to support the solar combined with other irrigation improvements Challenges in distribution of funds to awardees Significant challenges in post project outcome monitoring	<p><b>Do not adopt</b></p> <p>The SWEEP program focuses on individual farm's ability to reduce GHG emissions. Allowing farmers to apply as co-applicants would add complexity to application review, grant administration, and post-project outcome monitoring.</p>

Recommendations of AAG			SWEEP Staff Considerations and Determination			
Recommendation	Support Score	Summarized Opposition Statements	Current Actions that Support this Recommendation	Scientific Considerations	Concerns	Staff Determination and Justification
CDFA should create an avenue for application by irrigation districts, incorporating groups of growers.	0.46	<ul style="list-style-type: none"> <li>It would be hard to implement and these groups typically represent a region and not statewide that puts farmers outside the area covered by a given group at a disadvantage.</li> <li>The existing efforts such as Water Smart should be analyzed to determine if this avenue is really needed, or even feasible. This adds additional layers and doesn't streamline the process. Politics could come into play with growers sitting on these boards.</li> <li>There are already other avenues for this type of funding such as IRWMP and BLM's Water Smart Grants that groups of growers can apply for.</li> <li>Most Irrigation districts have funds for water improvements. Plus, an individual farmer is easier to oversee than a group. With individual farmers there is no question who met or didn't meet the criteria.</li> </ul>	<p>CDFA funds individual growers that are within the same irrigation district.</p> <p>Eligible organizations for the Climate Smart Agriculture technical assistance grant program can provide assistance to organized groups of growers. Some irrigation districts may qualify for this funding.</p>		Farmer coordination, data conveyance, lack of a QM to support, significant challenges in post project assessment, low staffing at CDFA	<p><b>Do not adopt</b></p> <p>The recommendation does not fully clarify the request. In a past pilot project with DWR, SWEEP combined funds with DWR to host a joint application period through which both the district and farmers could receive awards. The AAG does not specify if this is the model being recommended, but currently CDFA and DWR do not have the opportunity to combine funding in a similar manner. As current avenue that may be explored by irrigation districts would be to apply for and receive an award through the Climate Smart Agriculture Technical Assistance grant program. Some irrigation districts may be directly eligible if they are non-profit organizations. Alternatively, they could partner with another eligible organization.</p>

# AGENDA ITEM 8



# CDFA HEALTHY SOILS PROGRAM



---

Geetika Joshi, Ph.D.

Senior Environmental Scientist, Office of Environmental Farming & Innovation

**Environmental Farming Act – Science Advisory Panel Meeting**

*July 15, 2021*

*Sacramento, CA*

# Outline

- Proposed Updates to the HSP for Future Rounds:
  - Updates Applicable to both HSP Incentives Program and HSP Demonstration Projects
  - Updates to the HSP Incentives Program
  - Updates to the HSP Demonstration Projects
- Update: New Management Practices Under Consideration for Inclusion Under the HSP



# Proposed Updates to the HSP

- **Eligibility and Exclusions:**

- Practices must be implemented on the same total acreage throughout the term of the grant agreement.

- **Program Requirements:**

- Projects proposing to implement Cover Crops may not claim post-termination cover crop residue as mulching practice with natural materials.
- Non-Overlapping Practices:
  - Reduced-till or no-till cannot overlap with permanent herbaceous and woody cover practices (Conservation Cover, Contour Buffer Strips, Field Border, Filter Strip, Forage and Biomass Planting, Grassed Waterway, Herbaceous Wind Barrier, Riparian Herbaceous Cover, Vegetative Barrier, Alley Cropping, Hedgerow Planting, Multi-story Cropping, Riparian Forest Buffer, Tree/Shrub Establishment, Windbreak/Shelterbelt Establishment).

# Proposed Updates to the HSP

- **Project Verification:**

- Clarified that project verification may be conducted remotely through phone, video conferencing, emails.
- Project Verification Requirements have been updated to reflect submission of 3-5 geotagged photographs as part of documentation for project verification.
- For practices that involve planting of milkweed species to establish monarch butterfly habitat, clarification added to specify plant species and minimum percentage in plant mixes.
- For mulching practice, clarified that materials used must be produced off-site.

# Proposed Updates to the HSP

- **CDFA HSP RePlan Tool:**

- Update of map layers specific to AB 1550 Priority Populations
- Update of list of non-overlapping practices and spatial enforcement (i.e., applicant will get error message if selects non-overlapping practices on same field)
- Automated calculation of acres of pollinator-friendly species planted for applicable practices.
- Automated calculation of co-benefits from applicable practices consistent with the CARB Co-Benefits Quantification Methodology and Calculator Tool
- Update of applicable acreage for practices implemented in orchard and vineyard rows in consultation with subject matter experts from UCANR and CalPoly
  - Cover crop, conservation cover, reduced-till and no-till
  - 70% for orchards and 60% for vineyards

# Proposed Updates to the HSP

- **CDFA HSP RePlan Tool:**

- Automated determination of a project providing benefits to AB 1550 Priority Populations, eliminating up to 3 questions from the HSP application
  - Determination requires three steps:
    1. Project must be located within the boundaries of a disadvantaged community census tract, low-income community census tract, ½ mile of a disadvantaged community and within a low-income community census tract: CalEnviroScreen 3.0 map layers integrated into the CDFA HSP RePlan Tool
    2. Project must address a need (alternative approach): List of Common Needs identified by CARB Funding Guidelines include reduction in exposure to criteria air pollutants.
    3. Project must provide a benefit: CARB Co-Benefits Calculator, integrated in CDFA HSP RePlan tool, can calculate net reduction in criteria air pollutants achieved by a project.

# Proposed Updates to the HSP

- **CDFA HSP RePlan Tool:**

- Practice requirements will be displayed on the project's RePlan output and included in the grant agreement – easier reference for the grant recipient.
- Results generated from CDFA HSP RePlan Tool will be automatically entered into the HSP electronic application hosted on the Wizehive application platform

- **CDFA HSP COMET-Planner Tool:**

- Update of data tables and software coding that would speed up the tool

# Proposed Updates to the HSP

- **CDFA HSP Electronic Application Platform (Wizehive):**
  - Results generated from CDFA HSP RePlan Tool will be automatically entered into the HSP electronic application hosted on the Wizehive application platform
    - Eliminates manual entry and upload of PDF report
  - CDFA and future grant recipients able to manage their grants through the electronic system, providing streamlined functions and communication with CDFA

# Proposed Updates to the HSP Incentives Program

- **Payment Rates:**
  - Updated to be consistent with 2021 California NRCS EQIP payment schedule.
- **CDFA HSP COMET-Planner Tool:**
  - Project Budget calculation in CDFA HSP COMET-Planner Tool:
    - Applicants will be able to enter tons of compost to allow an accurate calculation of project budget
    - Applicants will get error message if project total exceeds the maximum allowable grant amount (\$100,000)

# Proposed Updates to the HSP Demonstration Projects

- **Eligibility:**

- Clarified that AmeriCorps, California Conservation Corps or a certified local community conservation corps are eligible to apply under non-profit entities
- Practices must be implemented on the same total acreage throughout the term of the grant agreement.

- **Project Types:**

- Type A: May only include “Practices for Demonstration and Data Collection” that are **not** currently included under the HSP Incentives Program and CDFA HSP COMET-Planner Tool.
- Type B: May only include practices that are currently included under the HSP Incentives Program and CDFA HSP COMET-Planner Tool.



# Proposed Updates to the HSP Demonstration Projects

- **Outreach Requirements:**

- Clarify that field days may be conducted via virtual meeting or webinar platforms in situations where in-person field days are not possible, such as the COVID-19 pandemic.
- Clarified that minimum number of farmers and ranchers for outreach must be California based.
- Clarified that farmer/rancher conferences or meetings, if used to meet outreach requirements, must be California based.

- **Review and Evaluation Process**

- CDFA may assess applicants' past grant performance in determining if a new project will receive funding. Prior performance will include timely completion of projects and submission of all required documentation and data during and after project completion.

# New Management Practices for Consideration Under the CDFA HSP

# NEW MANAGEMENT PRACTICES UPDATE

- Proposals submitted between June 29, 2020 and August 28, 2020.
- 9 proposals received including practices such as biochar application, manure application, re-saturation of delta soils, food waste hydrolysate application, humates application and organic residential compost sharing.
- List of submitted proposals at:

<https://www.cdfa.ca.gov/oefi/healthysoils/docs/2020-HSPNewPracticesProposalsSummary.pdf>



# 1. Re-saturation of Delta peat soils through rice cultivation or construction of managed wetlands

- **Technical Sub-Committee Evaluation**
  - Practice can be included under the HSP Incentives Program as this practice is covered under existing USDA NRCS CPS 657 – Wetland Restoration
- **Considerations**
  - USDA NRCS CPS 657 is not currently included in COMET-Planner.
  - CDFA will work with CARB and USDA NRCS to commence process for evaluation and modeling to include in the CDFA HSP COMET-Planner. Time needed to update CDFA HSP COMET-Planner and CDFA HSP RePlan Tool to accommodate the new practice.
- **Recommendation**
  - Include under the HSP Incentives Program and HSP Demonstration Projects – Type B.
  - Practice cannot be included in the upcoming round of HSP due to time needed to develop GHG reduction quantification methodology.
  - Quantification development work will commence so that practice can be included in subsequent rounds.

## 2. Biochar Application

- **Technical Sub-Committee Evaluation**
  - Practice can be included under the HSP Demonstration Projects Type A
- **Considerations**
  - Project experimental design must include
    - Biomass feedstock
    - Application rate and method
    - Soil characteristics and crop type
    - Any restrictions or limitations with implementation of biochar
  - Applicants would be required to include data collections on
    - Biochar C, N, P and K contents and pH
    - GHG emissions
    - Crop yield and economic analysis
    - Co-benefits and/or adverse impacts
- **Recommendation**
  - Include in HSP Demonstration Projects – Type A

# 3. Application of Food Waste Hydrolysate

- **Technical Sub-Committee Evaluation**
  - Practice recommended for inclusion under the HSP Demonstration Projects Type A
- **Considerations**
  - Project experimental design must include:
    - Protocol for food waste hydrolysate production. Standardized protocol for making food waste hydrolysate across various feedstocks is needed so as not to incentivize a single proprietary product.
    - Practice implementation guidelines
  - Applicants would be required to include data collections on:
    - Hydrolysate properties such as C, N, P and K contents and pH
    - GHG emissions
    - Crop yield or economic analysis
    - Co-benefits and/or adverse impacts
- **Recommendation**
  - Include in HSP Demonstration Projects – Type A

# 3. Application of Humates

- **Technical Sub-Committee Evaluation**
  - Not recommended for inclusion.
- **Considerations**
  - Proposal lacked clear description of what humates are or how to implement practice.
  - No data on GHG reductions or carbon sequestration.
- **Recommendation**
  - Practice should not be included under the HSP.

# 4. Application of Biomineral Fertilizer

- **Technical Sub-Committee Evaluation**
  - Not recommended for inclusion.
- **Considerations**
  - Proposed product is not commercially available.
  - No data on GHG reductions or carbon sequestration and soil health.
- **Recommendation**
  - Practice should not be included under the HSP.



# 5. Organic Residential Compost Sharing

- **Technical Sub-Committee Evaluation**
  - Not recommended for inclusion.
- **Considerations**
  - Proposal did not meet submission requirements and is a one-page outline of a proposed study.
- **Recommendation**
  - Practice should not be included under the HSP.

# 6. No-till Pasture Seeding and Manure Application

- **Technical Sub-Committee Evaluation**
  - Not recommended for inclusion.
- **Considerations**
  - Proposal did not meet submission requirements and is a grant application to implement range planting with no-till seeding method and manure application.
- **Recommendation**
  - Practice should not be included under the HSP.

# NEXT STEPS

- Public Comment periods will be announced in July/August 2021 for:
  - Proposed updates to the HSP; draft Request for Grant Applications (RGA)
  - HSP New Management Practices CDFA HSP Team Recommendations
- Program RGAs will be finalized upon consideration of public comments and funding source requirements (if applicable)
- CDFA awaits funding decision by the Legislature for FY 2021-22
  - Upon funding appropriation:
    - Technical Assistance Providers for the HSP will be selected for awards
    - Technical Assistance Providers and UCCE Community Education Specialists will be provided training on new application submission tools and process
    - HSP funding anticipated to be announced toward end of the year

# Thank you!

Questions?

Contact us:  
[CDFA.HSP\\_Tech@cdfa.ca.gov](mailto:CDFA.HSP_Tech@cdfa.ca.gov)



# AGENDA ITEM 9

# Climate Smart Agriculture Technical Assistance

Update to the Environmental Farming Act  
Science Advisory Panel

July 15, 2021



## Proactive Solicitation

- Held proactive solicitation for Healthy Soils Program (HSP) & State Water Efficiency and Enhancement Program (SWEEP) in February 2021
  - 39 applications received
  - Early action funding did not arrive
- Anticipate funding to both SWEEP and HSP in coming weeks
  - CDFA will announce awards when funding appropriations finalized
  - Will work with awardees to update workplans and budgets due to changed timelines

## Planning for AMMP- Specific Solicitation

- The anticipated budget includes funding for the Alternative Manure Management Program (AMMP)
- Following the appropriation, will hold an AMMP-specific technical assistance solicitation

Check for updates at:

<http://www.cdfa.ca.gov/oefi/technical/>



# AGENDA ITEM 10