

**Environmental Farming Act Science Advisory Panel Ad Hoc Advisory Group
Meeting 1 (January 28, 2021)**

MEETING SUMMARY

Welcome, Introductions and Advisory Group Purpose

Austin McInerny, CSUS Consensus and Collaboration Program (CCP) convened the Ad Hoc Advisory Group (AAG) of the California Department of Food & Agriculture's Environmental Farming Act Science Advisory Panel (EFA SAP) and introduced Dr. Amrith Gunasekara to give the welcome.

Welcome from California Dept. Food & Agriculture (CDFA)

Dr. Gunasekara welcomed everyone and thanked AAG members for their time and willingness to contribute. Dr. Gunasekara is wearing several hats as both is Science Advisor to Secretary Ross, manager of the Office of Environmental Farming and Innovation and CDFA liaison to the EFA SAP that created this subcommittee. Dr. Gunasekara introduced his support team from CDFA, Carolyn Cook, Steph Jamis, Scott Weeks, Casey Walsh Cady and Michael Wolff and said this process will be aided by experienced facilitators from CCP, Austin McInerny and Corin Choppin. Dr. Gunasekara noted advisory group members' insights will be very valuable to the SWEEP program. Dr. Gunasekara gave a brief history of the program starting in 2014 when it received its first allocation of 10 million from the California Greenhouse Gas Reduction Fund. He emphasized that SWEEP must fund projects that achieve both water savings and greenhouse gas reductions. The SWEEP program was the first of its kind and has become very popular amongst farmers and ranchers. Today we are going to consider three questions and make sure you have all the information you need to provide your input. This information will be used to form a report to take back to the EFA SAP and to Secretary Ross. Dr. Gunasekara urged the AAG members to utilize CDFA and CCP staff as resource between meetings.

Facilitator and Advisory Group Member introductions and Ad Hoc Advisory Group charge as given by the EFA SAP CDFA Leadership and Facilitator

Mr. McInerny reviewed the agenda for the day, explained that the meeting will be recorded to enable those not able to attend to view, and asked AAG members and members of the public sign in on a publicly available google sheet. A copy of the attendance is listed in [Attachment A](#) and the meeting recording is available for viewing [here](#).

Public Comment Opportunity

There was one member of the public present however they declined to comment at this time.

Review and Adoption of Charter

Overview of purpose and outline of charter

Mr. McInerny reviewed the draft charter that was created framework for participation, cooperation, communication, and decision-making by the AAG.

Review of input received in pre-meeting survey

Mr. McInerny reported that from the pre-meeting survey of 35 respondents only three wished to discuss the agenda, with the other 32 ready to adopt it as written. Prior to the meeting, Mr. McInerny reached out to those three who

wanted to discuss and found that many of their questions would be covered in the presentation today. He then opened the floor to thoughts from the members.

Group discussion on charter

(Q)uestion: Should there be a provision for having members of the advisory group present the recommendations?

(A)nswer: This was discussed by staff and decided it was not needed in the charter but could be decided by the group as we move through the process.

Show of hands for support for adoption

The facilitator asked if there were any objections to the charter as provided. No objections were raised so the Charter was adopted as drafted.

SWEEP Background Presentation

Program requirements, restrictions, scoring criteria, review process and funding decisions from the latest granting cycle

Ms. Jamis went over the background and requirements of the SWEEP Program. A copy of the PowerPoint is provided in Attachment B (under separate cover).

Mr. Weeks went over the solicitation process and technical review of grants. He emphasized that applicants that were not successful are given feedback so that they can reapply and hopefully be successful in the future. He also presented some data on outcomes of past SWEEP solicitations.

The presentation will be posted on the SWEEP website.

Discussion / Questions

Q: What Mr. Weeks is presenting about water saving and GHG emissions reduction is based on figures reported by applicants, correct? Is CDFA planning at any time to conduct some monitoring & evaluation program to document real figures about water saving and GHG emission reduction? Since 2014 a group of technical reviewers/evaluators has raised this idea of considering land productivity and water productivity (or marginal water productivity) among the metrics of SWEEP performance this is because water saving and energy saving and GHG emission reduction are of interest mostly by regulators but not so much by growers. Will CDFA consider water and energy use productivity among the metrics for performance of SWEEP?

A: CDFA does perform post project quantification on a sample of projects from each appropriation of funds. The process takes 3 years of data collection after the project has been installed. CDFA collects three years of water use and energy use data from awardees and compares to the baseline information that was submitted with the application. CDFA reports post-project data to the agency with authority over the funding (California Air Resources Board or California Natural Resources Agency). CDFA has presented findings from the 2015 awardees to the Environmental Farming Act Science Advisory Panel. This presentation can be found here: <https://www.cdfa.ca.gov/oefi/efasap/docs/Binder-EFASAP-Meeting-01142021.pdf>. CDFA has also used a third party called Ag Monitor to do remote data collection and analysis for the 2016 appropriation. The final report from that contract is posted on the SWEEP website.

Q: Do you check if applicants also get a rebate from their local provider?

A: CDFA does not check to see if awardees receive rebates, but there is a location on the SWEEP budget template for applicants to indicate the rebates that they will receive.

Q: If someone converted a harvester to a diesel system to electric system or using pressurized water as is common in Southern California would they qualify?

A: Currently methodology is just based on water pumping. the installation of renewable energy, such as a solar system, is allowable and it is conceivable that the renewable energy may be used for additional purpose than water pumping.

(C)omment: Maybe a whole farm approach would be preferable.

Q: There was a question about the color coding on the Severely Disadvantaged Communities (SDAC) map.

A: The map does not have a key. the yellow is in in indicative severely disadvantaged community area, meaning that the census tracts a median income less than 60% of the statewide median household income.

C: It would be beneficial to see a breakdown of benefits for disadvantaged groups and non-disadvantaged groups.

Q: What percentage of applicants were not awarded?

A: The SWEEP program is considerably oversubscribed (about 300%). If an applicant is not successful, they are encouraged to reapply, but CDFA does not have statistics on the success of reapplication.

Q: Is field equipment verified through checking on subscription and activity on the platforms?

A: We do not follow up after project completion regarding whether awardees are using their irrigation water management systems. At the close of the project CDFA does verify that whatever program SWEEP has funded is available to the awardee. Frequently, the farmer will provide the CDFA staff with a demonstration of the water management platform.

Q: Are you working with local power utilities to enable farmers to have Time of Use pumping incentives to schedule pumping during off peak hours?

A: We do not specifically facilitate the Time of Use pumping. It is however mentioned by applicants as opportunity to decrease energy costs, but it is not something that SWEEP is actively facilitating.

Q: Just to be clear you can be awarded a grant if you happen to have a farm in a socially disadvantage community even if you are not socially disadvantaged yourself or in a socially disadvantaged groups, but you might not be high priority. Is that correct?

A: A Severely disadvantaged community is census track information. We do not collect economic information from farmers, so we do rely upon that geographic information to give priority funding. This is different than a socially disadvantaged farmer and rancher (SDFR), which is defined by the Farmer Equity Act. Socially Disadvantaged Farmer and Ranchers also receive priority funding, and we ask applicants to self-identify if they belong to a socially disadvantaged group.

Q: What about communities that rely more on surface water than ground water and areas that do not have access to electricity?

A: Since SWEEP's objective is to reduce greenhouse gas emissions from water pumping on farms, those areas do not fit well into the SWEEP program based on the current criteria.

Q: Have there been any thoughts to more advance payments for smaller operations that cannot cover as high upfront costs?

A: Yes, 25% advance payment is available. There are rules from the state about how advance payments must be processed that can be challenging. SWEEP does withhold 10% of the award until we have done the final verification.

This helps us get projects complete. Historically we have had a 40-day turnaround on invoice payments. That has slowed down to up to 90 days during the pandemic.

C: With community choice aggregators forming all over the state it may be that a project is receiving 100% carbon free power.

Q: Has CDFA considered increased yields from funded projects?

A: We haven't gathered yield information as we want to be protective of growers.

Breakout Group Overview

The facilitator gave a brief overview of the breakout groups. Participants will split into three breakout groups based on which question they want to answer:

1. SWEEP's ability to help farmers improve water use efficiency. What is working well and what might SWEEP seek to improve? How might SWEEP evolve to help farmers address new resource management challenges?
2. How might SWEEP improve participation by agricultural operations that have historically faced barriers in accessing or utilizing the program?
3. How might promotion and coordination of SWEEP be improved with irrigation districts, groundwater sustainability agencies, and the U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS)?

Breakout Groups Report Out and Discussion

Group 1 Report Out

Valerie Perez reported on the discussion on question one. Detailed notes of group one's discussion can be found in [Attachment C](#). Group one took the feedback from the survey and added their thoughts in red and then added some additional comments at the end.

Major themes included:

- New technology adoption pathway
- How maximum grant works – allow for phasing
- Data collection before & after

Group 1 Discussion

There were no questions asked of Group 1.

Group 2 Report Out

Brian Shobe presented for group two. Breakout group 2 categorized some of the farmers facing barriers in accessing or utilizing the program: farmers who use surface water, farmers who receive pressurized water, farmers located in desert regions, farmers whose primary language is not English, farmers who do not have the time or capital to participate in the program, and farmers who use crop rotations. The breakout group brainstormed some ideas to help break down those barriers. A detailed list of their suggestions can be found in [Attachment D](#).

Group 2 Discussion

C: The group discussed raising the award cap, but maybe instead the cap should be lowered so that more groups could be helped considering the oversubscription rate of the program.

C: Project phasing might help speeding up payments.

Group 3 Report Out

Michael Wolff presented on the question that tackled institutional coordination and program promotion. He noted that the breakout group considered expanding “coordination” to include more than just the three departments listed in the question. The group also discussed level and strategy and brainstormed ideas and obstacles to help with promotion. For detailed notes from their discussion see [Attachment E](#).

Group 3 Discussion

C: Collaboration between all the entities that provide grant funding could be very helpful.

General Discussion

The facilitator noted that along with the survey response a lot of ideas were generated and that the task of the group would now be to start refining these recommendations.

Public Comment Opportunity

No members of the public wished to speak at this time.

Next Steps

We have three meetings to finalize the group’s recommendations. Most of the work will be done in breakout groups which are more able to dig into details. We will also use surveys to get feedback from the group between meetings to help us refine the suggestions so that we can use the limited meeting time efficiently.

Q: One group member requested that the facilitation team pose the question to every member of the group, “how is SWEEP working for you?”

C: Need to give more emphasis to energy utilization.

Q: What is the process after our recommendations are submitted?

A: We would present the recommendations at the April Science Advisory Panel meeting. The SWEEP team will then give its feedback on the recommendations. The Science Advisory Panel will then give direction to CDFA on their recommendations on what should be incorporated into SWEEP.

Requests from the group for the next meeting.

(R)equst: It was requested that members be able to review all the suggestions from this meeting prior to the next meeting so that they can comment.

Q: When the Healthy Soils Program began there was an agreement that farmers could get money from both sources (HSP and NRCS EQIP). Has that happened?

A: In the early years of SWEEP, farmers were not eligible to receive funding from both EQIP and SWEEP. However, that has changed. We just require that the funds not fund the same items.

R: An analysis of types of trainings applicants have completed. What institution did they get the training from and what was covered?

R: Take the map of where funds are spent and add the effects on greenhouse gas savings and water savings.

**State Water Efficiency and Enhancement Program (SWEEP)
Environmental Farming Act Science Advisory Panel (EFA SAP)**



R: Map of SWEEP funds allocated vs agricultural output.

A: There is a strong correlation between areas that have a lot of technical assistance and receiving grants.

Q: Can we share reports that we think will be helpful to the group?

A: Yes, please send reports that you think might be helpful to facilitation team for distribution.

Adjourn

Carolyn Cook with CDFA thanked everyone for all their hard work. The meeting concluded at 3:05pm.

List of Attachments:

- A: Meeting Attendance
- B: CDFA Presentation (in separate file)
- C: Breakout Group 1 Summary of Discussion
- D: Breakout Group 1 Summary of Discussion
- E: Breakout Group 1 Summary of Discussion

Ad Hoc Advisory Group Meeting Attendance

NAME	AFFILIATION	Title	LOCATION	January 28	February 25	March 25	Breakout Group
Ali Montazar	University of California	Irrigation and Water Management Advisor	Holtville	X			2
Ben Faber	University of California	Soils/Water/Subtropical Horticulture Advisor	Ventura				1
Brian Shobe	CalCAN	Associate Policy Director	Sacramento	X			2
Chris Terrell	Wexus Technologies, Inc	CEO/Co-founder	San Francisco	X			3
Christine Gemperle	Gemperle Orchards	Owner/Operator	Ceres	X			2
Craig Elmore	Desert Sky Farms	Farmer	Imperial Valley	X			1
Dana Koppes	TRC	Field Engineer	Lathrop	X			2
Daniel Hartwig	Woolf Enterprises	Resource Manager	Fresno				2
Daniele Zaccaria	University of California	Agricultural Water Management Specialist	Davis	X			3
Daryn Miller	Constellation Brands, Inc	Vineyard Manager	Paso Robles	X			1
Dave Evans	Airometrix	Senior Engineer and Program Manager	Irvine	X			2
Dave Runsten	Community Alliance with Family Farmers	Policy Director	Davis	X			2
Ellen Bruno	University of California	Assistant Cooperative Extension Specialist	Berkeley	X			1
Emma Torbert	The Student Farm at UC Davis	Farm Manager	Davis				2
Greg Norris	NRCS	State Conservation Engineer		X			3
Greg Rawlings	Farmer - Jacobs Farm	Organic Farmer	Davenport	X			3
Jarrad Fisher	San Mateo Resource Conservation District	Program Manager	Half Moon Bay	X			2

Ad Hoc Advisory Group Meeting Attendance

NAME	AFFILIATION	Title	LOCATION	January 28	February 25	March 25	Breakout Group
John Peairs	XiO	Water system designer	San Anselmo	X			3
Josué Medellín-Azuara	University of California	Associate Professor	Merced	X			2
Judith Redmond	Full Belly Farm and Science Advisory Panel	Co-Owner		X			3
Khaled Bali	University of California	Irrigation Water Management Specialist	Parlier	X			1
Kiti Campbell	Westlands Water District	Supervisor of Resources	Fresno	X			3
Lindsey Liebig	Sacramento County Farm Bureau	Executive Director	Galt	X			3
Mark Battany	University of California	Water Management and Biometeorology Advisor	San Luis Obispo	X			1
Miguel Garcia	Napa County Resource Conservation District	Sustainable Agriculture Project Manager	Napa				2
Nancy Comstock	Pumping Efficiency Testing Services (PETS)		Sebastopol				3
Nathan Harkleroad	Agriculture and Land-Based Training Association (ALBA)	Program Director	Salinas	X			3
Pat Bidy	Vanguard Ag	Senior Manager	Sanger	X			1
Patricia Poire	Kern Groundwater Authority	Executive Director	Bakersfield	X			3
Pramod Pandey	University of California	Associate Specialist/AES Faculty	Davis	X			1
Qi Zhou	University of California	Small Farm Specialist	San Jose	X			1
Ronald Leimgruber	Ronald C Leimgruber Farms	Owner	Holtville	X			1

Pre-Meeting Survey – Question #1 Responses

"Regarding SWEET's ability to help farmers improve water use efficiency, what's working well and what might the program seek to improve?"

Data or information needed that would help develop appropriate recommendations:

1. Breakdown of grants by type of irrigation and pump systems installed or upgraded.
 - a. Information on ground water vs surface water projects, irrigation types that are being adopted, pump types being used, conservation of fuel, IWM and telemetry adoption.
2. Data on the training grantees completed as part of their grant agreement if they were given additional consideration for training.
 - a. Break out of who takes irrigation training and they type/resources
3. Breakdown of grants by type of water the system is using (groundwater, surface water, etc.)
 - a. Anything additional aside from what was presented?
 - b. Insite as to why ground water project applies more. Tail water, recycled water, storm water capture, etc.
4. We will need an overview of the types of projects that have been successful and those that have had challenges. We will need to hear feedback from the grant recipients. An overview of the projects funded will be helpful.

Elevate success stories.

Hear more from growers on what was challenging and what worked for them.
5. Before answering this question, I went looking into the projects that were last funded and review those projects. Would like to know of those projects, how many are completed?

List of all projects is available on SWEET web site.

Can you categorize what projects are not funded, what is challenging in application process?
6. First, I'd want to know how much water use efficiency improved as a result of SWEET. I'd want to see data on water use efficiency before and after SWEET. Then I'd want to compare those to the costs of the SWEET program in order to assess the value of the program and whether it is working well or not. Data on both efficiency improvements and program costs would inform where the program might seek to improve.

How can grant recipients be better targeted, in terms of target future funding. Compare before/after for those who received and those who were not successful. How to figure in crop choices? Propose idea of collecting 3 years of preliminary data for water, GHG and crops.

This might make the application more complex.

If this were optional, might not get responses from all participants.

Maybe ask for this data post project? But most don't have flow meters before.

7. It would be good to know what devices, practices, knowledge has improved over time, not just 18 months. So, the ability to back to some of the original awardees and see what has worked.

Request for getting this information by a survey.

8. I would like to know if there are any analyses made of California agricultural irrigation practices that indicate 1) What sectors of ag (or regions) have seen little improvement in water use efficiency and what are the issues preventing improvement? Do we have an idea of what sectors of ag (or regions) have the greatest water saving potential?
9. Does CDFA have data on which projects were prepared by 3rd parties. Maybe add that to the application, did they receive technical assistance? CDFA-sponsored? 3rd party grant writer or vendor?
10. Graphical representation of which technologies have received the highest award amount.

Initial feedback on this question:

1. The program checks most of the boxes on its motivation of reducing GHG and improve water use efficiency. The request for grant applications provides extensive guidance and reference to resources that can be used by applicants to build strong cases. In fact, I am truly impressed by the spreadsheet tools provided for GHG and water use reduction calculations. At the same time, some elements of the proposal might become burdensome particularly to smaller farmers. The technical assistance funded support is very helpful and overcome entry issues. I noticed often times larger request amounts come from perhaps larger operations. Perhaps motivating more Non-Profits, advocacy groups in disadvantaged communities to either provide the technical assistance (if they count with the training) or staff could also help expanding the pool of applicants so smaller farmers or disadvantaged communities can increase representation in the applications.
2. Need to change maximum amount of grant

Grants are too high, fewer people benefit totally.

If Phasing were allowed then may allow for this.

Potentially have tiered approach – then require more cost-share as requests go up.

Introduce growers to other solar developers and/or other incentive programs that cover that part.

If larger project, then have this be addressed in phases.

Tie in award amount to amount of GHG or water savings.

3. SWEEP really help small growers to update their old system and improve water use efficiency. Some of growers are very short in budget, 25% advanced payment is not enough for them.
4. The SWEEP Program does a good job overall providing pathways to technical assistance for grant applicants and making available the funding needed to plan and implement water use efficiency and energy efficiency projects. The program could expand the list of eligible practices to encourage more participation and provide auditing services for farmers. The program can put smaller operations at a competitive disadvantage who do not have the staffing resources to complete all the required documentation for the grant application. Local RCD's and NRCS staff often do not have the resources to help these operations fully develop and write a competitive and complete grant.
5. The program could recommend working with a technical expert in the farmers area to recommend specific system upgrades.
6. The program might benefit from conducting surveys to determine the specific adoption barriers on different regions of California.
7. Help streamline the process to ensure the application reaches those growers and ranchers unable to dedicate personnel to applying on their behalf. Assist in more guidance of how to best go about utilizing RCDs and other resources to improve likelihood of receiving a grant.
8. Key to success. Interesting that initial emails and documentation focused on Farmer's Equity Act (FEA), obscuring SWEEP's Charter. Understand that FEA has to be included, but it seems to overshadow.
9. The program and its accessibility to farmers and ranchers of various sizes has greatly improved over the years. CDFA should provide educational/training efforts coupled with financial incentive to improve on-farm irrigation equipment, hardware and irrigation practices. Also, CDFA should document the program's achievements in terms of water conservation and reduction of greenhouse emissions on the basis of realistic metrics and field measurements, and not based on facts and figures reported by growers and ranchers or metrics calculated with online calculators.

10. Be open to non-standard conservation methods
11. In my opinion, awards cover a much greater proportion of the project cost than a recipient would actually need to be persuaded to make the proposed beneficial changes. If recipients would be willing to make these changes if someone else covered 20% of the costs but the program covers 100%, then the program is not extracting the potential value from the award dollars.
12. Need to change maximum amount of grant.
13. Working well: Farmers love this program! It makes them more resilient in the face of drought, SGMA, etc. besides reducing their energy bills and GHG emissions. To improve: The grant management and invoicing process could be streamlined and made more efficient.
14. I'm not sure whether this will be helpful, but I wonder if there could be an element to help them identify ways to use new energy technologies toward more efficient water usage.
15. I would add more robust auditing of the use of technologies, require training for their use and set up a program similar to the NRCS Technical Service Provider program to assure companies providing services and products to growers are qualified and available for the term of the program agreement.
16. It offers an appropriate sum of money which incentivizes farmers toward big, necessary, improvements. SWEEP can be improved by awarding a broader range of on-farm conservation practices, like mulching or ground covers which absorb more applied water while decreasing evaporation. I feel it is very important that we make the application easier for farmers to fill out.
17. Follow-up assistance to assure the user will learn and utilize the new technology.
18. Providing technical assistance opportunities is helpful. The biggest challenge I see is having projects have to show both water and GHG savings. There are often really fantastic water projects (or energy projects) that don't have direct impact on GHG reductions. Growers end up 'adding in' solar panels or another accessory energy project just to 'check the box' of GHG reductions, when really it makes more sense given limited grant dollars to maximize water (or energy) savings. Why couldn't growers either show GHG savings, water savings, or both? This would ensure the most optimized projects would be put forward.
19. This program is extremely helpful to farmers and ranchers trying to improve their water efficiency projects. The access to those programs needs to be maintained in order to continuing to offer programs for farmers.
20. Incentivizing growers to put these technologies in their fields have been a double-edged sword. It is great that growers are seeing the need and utilization of sensors for better

irrigation scheduling practices. It has greatly improved and expedited the adoption rate of these tools that can help growers more efficiently use water, but these pros have been outweighed by the cons. We have seen the attrition of companies that would normally go out of business due to bad products/ services stay for a few more years due to SWEEP grants and “free money”. These companies do not have the grower and their water use as a priority; it is normally “market share” to make their boards happy, this ultimately is a huge disservice to the grower. This is seen by the grower in many ways such as, companies going out of business, not making telemetry 4G cellular capable so then growers must either reinvest in another brand or stop using the technology, or once the sale is made the company “disappears” moving on to the next sale and the grower gets no support. There definitely needs to be services in the contract to help the growers make better decisions. Possibly a poll sent to past grant recipients to score their telemetry and sensor providers to create a “blacklist” this would help to hold companies accountable. Another idea is to have companies’ “interview” to be put onto a preferred providers list, this list can be reevaluated each round and companies added or subtracted. This would give growers an approved list and a good direction for them to start their water savings journey.

21. Further detailing list of eligible water saving projects that can be taken by the farmer.
22. Larger farming operations that have the manpower and resources seem to be utilizing the program and retrofitting efficient equipment.
23. GHG emission component of SWEEP program is a real obstacle for the low desert region.
24. The application is long and complex. A small operator may not have the time or expertise to complete it. Are the grants significant enough to be worth applying?
25. Allow for applicants to apply several times, allow for expansion, and phasing.
26. Some growers have received \$\$ to reduce water – but companies look at this as free \$\$ - then company leaves town, leaves grower without support. Suggest instituting “preferred provider”. Company needs to be vetted or on “list”. Mainly on irrigation management systems. Especially with 10-year term, this is an issue.
27. Include newer techniques/technologies may be able to reduce solar evaporation. EG Floating PV on reservoirs. A) Training opportunity to know, b) positive review.
28. Partial shade panels, decreases ET – might work well for high value, smaller-sized farms.
29. Need for pathway for new technologies to be included in SWEEP.
30. First season review needed, were growers able to use technologies? Also how is it being used 3 years later?
31. Costs sheets need to be flexible, as the quotes can change.

32. Need translation for whole process for SDFR.
33. Track who needs translation.
34. Signing of documents – can an e-signature be allowed? Also, can the documents all come at once?
35. Can't document water/energy savings right away with new practices. Maybe have an allocation (%) for newer technologies.
36. Can consulting costs be included to help farmer ensure that they are using technology properly?

MAJOR THEMES

- New technology adoption pathway
- How maximum grant works – allow for phasing.
- Data collection before & after.

Pre-Meeting Survey – Question #2 Responses

"How might the program improve participation by operations that have historically faced barriers in accessing or utilizing the program?"

Data or information needed that would help develop appropriate recommendations:

1. Analysis of grant applications and grants awarded by the primary language spoken of the applicant
2. An analysis of grants by farm size in comparison to 2017 Ag Census Data on CA farm sizes
3. An analysis of grants awarded by county
4. What languages are the outreach materials available in?
5. What programs does CDFFA have to do outreach in SDACs and to SD farmers and ranchers?
6. I'd want to know what exactly those barriers are first. And what are the qualities/characteristics of the operations that are facing those barriers generally.
7. It would be helpful to know exactly what the barriers are in order make changes to improve access. I might guess that the lack of knowledge of existing programs is one and that the application process might also be daunting to many especially in some of the groups the SWEEP program is trying to reach and help.
8. Are results of grants to each operator shared with others for repeatability?

Initial feedback on this question:

1. The call for grant applications improves prospects by referring applicants to technical assistance and lowering the score needed to be considered for priority funding for disadvantaged community benefits or small farmers and ranchers. Nevertheless, some of these groups might still not get to apply due to lack of knowledge of the program or application preparation skills or hesitation to reach out to for the technical assistance. Reach out to community organizations, community advocacy groups and some non-profits to inform community members and small farmers and ranchers
2. Need to allow gravity feed irrigation system to be able to apply.
3. SWEEP provide tremendous help to socially disadvantaged farmers, there are so many growers in our region that do not speak English at all, we need A LOT language support for SWEEP program.
4. Increasing the total funding amount available and allowing for advanced payment instead of reimbursement would be helpful. It can be difficult for smaller operations that do not have a

lot of capital to float the up-front costs of implementation until reimbursement is dispersed. Also, if website and materials are not available in Spanish and other languages those should be made available.

5. Increasing the maximum grant award amount and allowing operations the ability to receive advanced payment instead of reimbursement. This can be very challenging for operations that do not have the capital to float the up-front costs of implementation until reimbursement is received.
6. The program would likely gain more farmers that have initially faced barriers in utilizing the program by translating the documents into multiple languages.
7. Open the funding to include flow meters.
8. The program could improve participation of historically underserve communities by providing application assistance in their native language.
9. Cross marketing with other agricultural associations, utilities, vendors, etc. Highlight the availability of the Technical Assistance.
10. Continue to provide workshops, perhaps now via webinar, also encourage growers to utilize companies to help them apply that will be doing some of the installation work and include it as part of their service charge.
11. Divide program into Small Projects/Large Projects so that all types of projects would have separate consideration. Didn't see in review much in the way of Success Stories.
12. More capillary trainings and outreaching events in the different counties and rural areas where under-represented communities are located. Promote irrigation training and educational events for non-English speakers in those areas.
13. Have more study/help meetings. Possibly have staff available to review applications before they are submitted
14. Try to simplify the application materials as much as possible and ensure that all potential applicants are aware of the availability of assistance in creating applications.
15. Need to allow gravity feed irrigation system to be able to apply.
16. Making the application process, grant management, invoicing, etc. more feasible.
17. After review of the last project list and where those projects are located, maybe with the assistance of the GSAs and Irrigated Lands Coalitions might be able to assist in getting farmers to participate.

18. Find out where those growers are selling their crops and go to that place to recruit applicants. Go to State Water Resources Control meetings where growers are taking exams and promote the program. Give CE units for participating.
19. Simplified the application process and fund smaller projects. From a review of previous programs too much funding went to too few large projects.
20. We need to make the application easier to fill out. Instead of the need to go seek quotes for the work, the application should offer cost projections that the farmer can use.
21. Outreach with an informal informational meeting by UC Extension Small Farm staff.
22. Providing application materials and the ability to apply in Spanish. It is extremely hard for English as a second language Growers to do technical applications in English. It is often these same growers who feel uncomfortable asking for help from technical service providers (who are often not Spanish-fluent). Kicking out Growers who have applied and been approved for a very small technical issue (e.g., type on APN number, etc.) also significantly disadvantages small Growers. Growers should be given a second chance to correct a small technical error before being removed from the program. It would be helpful to understand what % of applicants were English speaking-as-a-second-language.
23. We can explore opening the criteria and outreach of the program to reach more farmers and ranchers that have previously not utilized the program.
24. Getting the word out there that is the biggest obstacle. Most growers do not know about this program but would benefit greatly. Also, the application process is tedious, and most growers cannot fill them out themselves. This leads to smaller growers that have lower operating budgets either not applying or incorrectly filling out the application and getting denied. Larger operations hire a grant writer and have a better chance of being approved and getting grant money.
25. Informing the solar installers/ water efficiency distributors in these areas of the program.
26. The program could improve its outreach/marketing through digital channels (email campaigns, social media) and in-person channels (industry trade groups, agriculture conferences) to gain more traction with medium and small sized farmers to help generate awareness, help them apply for funding with technical grant assistance, and streamline the application process.
27. I prefer to call it regions rather than operations. To improve participation from all over the state, it is better to allocate a % grant to each region rather than compare all applications to each other. Having current complications in the desert (well water as the only source of irrigation water) makes competition difficult for low desert growers.

Additional notes:

For this breakout group, we brainstormed to determine the groups of farmers facing barriers in accessing or utilizing the program: farmers who use surface water, farmers who receive pressurized water, farmers located in desert regions, farmers whose primary language is not English, farmers who do not have the time or capital to participate in the program, farmers who use crop rotations.

- Water conservancy issues in Imperial Valley, where farmers are using surface water instead of ground water. Do not add water productivity as an additional measurement. How can we bring more flexibility between groundwater and surface water; need for encompassing growers that are using groundwater.
- Concerns about inclusivity of Imperial Valley County and other desert regions. ET is very high, and rainfall is minimal, should be taken into consideration into water calculator and perhaps also in the scoring system. Questions on how we can include these concerns in the broader group.
- Concerns about program being too ground-water-centric. Suggestions to make the program more geared towards whole-farm efficiency. Suggestion to include on-farm vehicles and other large equipment.
- Concern about application being too complicated, may not be too inclusive towards smaller farmers.
- Unfair or unequal distribution of SWEEP funds. Suggestion to allocate funds by regions or by crop.
- Requiring that growers maintain project in same APN(s) for ten years can be problematic. Particularly for those who are using crop rotations over different APNs not included in SWEEP funding.
- Spanish language for documents, presentations, and applications.
- More streamlined approach for application process, particularly for smaller grants, to encourage easier access for smaller growers.
- Application is daunting; create or promote accessibility.
- Importance of working with water districts and considering carry-over water.
- Concerns about reduction of total grant award not being enough to fund larger-scale irrigation upgrades and large projects. Not enough to fund new and modern irrigation systems as opposed to irrigation modifications.

- Making repayment schedule faster, particularly for farmers that may not be able to front large amounts of money.
- Proposal to include water reservoirs.
- Suggestion to have awardees to work with several entities, particularly larger projects.
- Incorporate more methods for water and GHG practices in both the water and GHG calculator tools. Currently, practices you can 'implement' through the calculators are very limited, which constrains what type of grower can use the funds.
Recommendation to provide an 'alternative' and allow Growers to document the water / energy savings of their proposed project in application to encourage innovation.
- Determine barriers to SDFRS: internet access or access to technology, and education. Providing door-to-door service to educate growers on SWEEP project and offer technical support.
- Suggestion to allow growers or others outside of CDFA to use CDFA logos.
- Suggestion to include engineering costs that may be incurred over the course of the project term.
- Suggests that CDFA have some liaisons with water management districts to determine what their clients may need.
- Improve outreach to SDACs, particularly in other languages.
- How do SDAC or SDFR projects compare to non-SDAC or SDFR projects (in terms of post project quantification).
- In order to allocate the grant more uniformly across the state, may want to divide SWEEP funding:
 - Allocate a certain amount (%) of grant to each region, instead of whole-state, to allow region-based competition instead of statewide competition.
 - Or divide SWEEP funds by projects into different competitive groups: conserving water, projects reducing GHG, or projects that conserve water AND GHG. Then assign a percentage of the grant to each of these categories
- Crop-based allocation of funding suggestion may not help much to solve the issue of unequal allocation of funding.
- Clarify allowable and unallowable costs.

- Pre-project planning may be difficult because RCDs may not always have an engineer on staff for helping with project design. Funding may not be adequate for providing enough assistance for applicants. Concerns about small farmers (Hmong, for example) paying for a pump test prior to application, with no guarantee that they may receive award funding. Suggestion to support small farmers to pay for pump test assistance.
- Suggestion to improve irrigation training – suggestion to not advise requiring training upfront, as that would add another barrier and cost burden. Suggestion to see data or analysis from CDFA on the type of training farmers have obtained (what program, what sort of training, etc). Because the understanding is the type of training needed is hands-on, in the field, multilingual, etc.
- Allow for RCDs and others who receive Technical Assistance Funding to bring in engineering services, irrigation audit services etc. to help farmers get the background info that they need to apply. This is if the RCD or other organization does not have that technical expertise on staff.
- Create map that correlates amount of funding allocated to projects as well as GHG and water savings (how many ac-feet of water is saved). Want to see what the effect of the program is geographically. Also, could be helpful to understand the value of crops produced in a county versus the amount of money received in SWEEP funding. Helpful to determine if SWEEP is overfunding particular regions and underfunding other regions.
- Suggestion for CDFA to work with utility companies and grower associations.
- Maybe include Cost Effectiveness during evaluation process of applications. Might open up more regions that can deliver water or GHG savings cheaper. Also, PG&E has subsidies available for pump tests and perhaps SCE does too.

Question #3 Notes Taken

“How might promotion and coordination of SWEEP be improved with irrigation districts, groundwater sustainability agencies, and the U.S. Department of Agriculture’s Natural Resources Conservation Service (NRCS)?”

The following notes are all in addition to the Survey responses, which were ultimately not directly discussed.

Unaddressed questions:

1. How does EQIP overlap with SWEEP?
2. How, and to what extent, has SWEEP been planned out thus far in dialogue with high-level agencies and entities?

Coordination

- “Why only these three?” Suggesting working with:
 - Dept. of Water Resources (handling water movements, more so after SGMA implementation?)
 - Bureau of Reclamation (allocates water rights)
 - Regional Water Quality Coalitions
- Times are changing with SGMA, at least GSAs will be stepping in to limit water use in specific ways and SWEEP could complement those coming efforts.
- Note that 2017-18 (?) joint application pilot between growers and irr districts “ran aground” on bureaucratic complications. Effort could be redoubled.
- Look for synergy in issues like flow meter payments which are also being provided by GSAs.
- Interference with lands to be fallowed under SGMA – violating SWEEP rules, among other issues?

Level and Strategy

- Involve more high-level agencies for above-farm focus; some advocate “rethink,” understanding SWEEP’s origins but looking toward the future.
- How can we confront “use it or lose it” water rights assumptions?
- Such partners could counsel on strategy of SWEEP investments in the changing landscape
 - For example, a GSA insider could serve on EFA SAP.
- What happens to water upstream and downstream and in the aquifer should be considered.
- [Despite SWEEP improvements] [High-Value] crops will need more groundwater *unless they can get water assured when they need it.*

- For that reason storage above and belowground are proposed as important areas of expansion for SWEEP.
- Total water use may fall at first with high-efficiency irrigation like that incentivized by SWEEP. But it is likely to rebound as more acreage is planted, if other areas of the world serve as examples (“rebound effect”). But then, mandatory water use reductions with SGMA may contain the rebound effect.
- Has SGMA changed the appropriate direction of EQIP and SWEEP?
- Is SWEEP causing more pumping? Or more energy use because of on-farm focus? Not aligned with overall water efficiency goals?
- If program is already over-subscribed, shouldn’t incentives be given out more strategically as investments for particular goals?
 - Prioritizing particular practices by farmer size?
 - Prioritizing particular practices by regional issues, like saltwater intrusion?
- Small community water systems are dwarfed by some industrial pumpers. But voices should be heard in proportion to need.
- Money needed...

Promotion

- Ways to promote to small farmers:
 - organic certifiers
 - commodity groups, boards, commissions and associations; more widely, western growers association
 - farmers’ markets?
 - Local Farm Bureaus exist to do things like this and have a lot of overlapping participants with other organizations, and high trust.
 - GSAs.
 - Utilities (PGE and SoCal Edison but also smaller CCAs) can help target appeals to the right people and combine initiatives for energy efficiency.
- Program overlap and program fatigue are issues for farmers with limited hours in the day.
- Who has the ears of farmers? GSAs and Farm Bureaus especially, on water issues.
- TAPs already working in GSAs would have people’s ears and without “distracting” them. Could they do site visits to help plan or suggest SWEEP projects?
- If an application is not right for SWEEP, why not recommend to other programs or agencies?
- SWEEP training of TAPs within an organization increases its involvement almost automatically.
- Could engineering firms, like those that contract with irrigation districts, be put under contract for technical assistance in formulating plans?
- Narrow window to provide Tech Assistance:

- broadening it would deepen understanding and preparation
- broadening would allow more “Targeted” project apps from TAP’s point of view
- Often people bail out of applying because of time constraints after hearing about that year’s application round and after starting the paperwork.
- Persistent barriers for small farmers include:
 - Hard to get quotes for small installations
 - Timely promotion in advance
 - Continue to consider language issues.
 - Because of relative lack of orientation, more “lists of providers by expertise” could be very helpful. Indeed, Farm Bureaus tend to keep such lists.