California Department of Food and Agriculture
Office of Grants Administration

2017 State Water Efficiency and Enhancement Program

Grant Solicitation Process

How to Apply

About the Program

- A competitive grant application process conducted by the California Department of Food and Agriculture (CDFA)
- Funded through the Greenhouse Gas Reduction Fund referred to as the “California Climate Investment” program
- Purpose is to provide financial incentives for California agricultural operations to invest in irrigation systems that reduce greenhouse gas (GHG) emissions **and** save water

*Projects **must** reduce GHG emissions **and** save water*

Funding and Duration

- SWEEP funding is authorized by Budget Act of 2016, AB 1613
  - Up to **$4.5 million available**

GGRF → *CDFA* → *Grant Recipients*

- Project Grant Amounts:
  Not to exceed $100,000
- Project Duration:
  June 1, 2017 – May 31, 2018

Eligibility and Exclusions

Eligibility:

- Installation must be on a California agricultural operation
- Projects ***must*** reduce GHG emissions ***and*** save water
- Supporting documentation related to on-farm water and energy use must be provided to be eligible for funding

Exclusions:

- Academic institutions and governmental organizations are ***not*** eligible to apply
- SWEEP funding cannot be combined with NRCS EQIP

Solicitation Process

Grant Applications Submitted to CDFA

Administrative review

Technical Review

Unsuccessful applicants notified and provided feedback

Successful Applicants notified selected to receive an award

Award

Grant agreements initiated

Review and Evaluation Process

- Multiple Levels of Review:
  1. Administrative Review – Internal
  2. Technical Review – External
  3. CDFA will select applications for funding based upon the following:
     - Score provided by technical reviewer
     - Level of GHG reductions and water savings (per acre)
     - Several other additional considerations

CDFA's intent is to fund projects that can produce the highest degree of GHG emission reduction and water savings on a per acre basis.

Solicitation Timeline

Invitation to submit Grant Applications	February 1, 2017
CDFA Grant Application Workshops and Webinar	February 7 – 10, 2017
Grant Applications Due	March 14, 2017 5:00 p.m. PST
Announce and Award Funding	May 2017

Third Party Technical Assistance Workshops schedule and locations are available on the SWEEP website.

Program Requirements

- Only submit one application using the operation's legal business name and unique tax identification number
- Cannot build upon ***any*** previously funded SWEEP project affecting the same Assessor's Parcel Number(s)
- Must include flow meters or demonstrate actual water will be ***measured*** with existing flow meters or by the water supplier

Program Requirements

- Must use the Air Resources Board GHG Quantification Methodology and GHG Calculator Tool
- SWEEP GHG Calculator Tool is intended to assist applicants in determining GHG reductions from estimated on-farm energy savings as a result of project implementation
  - To complete this tool, applicants must attach a pump efficiency test from existing irrigation pumps impacted by the proposed project and provide additional supporting documentation such as baseline energy records and water savings calculator.

The ARB GHG quantification methodology is available at: http://www.arb.ca.gov/cc/capandtrade/auctionproceeds/quantification.htm

Program Requirements

- SWEEP grant funds cannot be used to:
  - Expand existing agricultural operations (i.e., additional new acreage cannot be converted to farmland)
  - Install new groundwater wells or increase well depth
  - Test new technology or perform research

Program Requirements

- If selected for an award, execution of the grant agreement is conditional upon applicants agreeing to the following program requirements:
  - Pre-project consultation to confirm project site information and discuss implementation plans
  - Project verification to evaluate the project site and quantify GHG reductions and water savings
  - All project-related water and energy use records must be made available to CDFA or its designees for three years following project implementation
  - Expectation to use and maintain system for a minimum of 10 years

Budget Worksheet Requirements

- Must be consistent with the Project Design
- Must be attached in Microsoft Excel format
  - Failure to submit the required Budget Worksheet or submission of an alternate template/file may result in disqualification

Applicants can download the Budget Worksheet template from the Request for Grant Applications or SWEEP website

Budget Cost Categories

- **Supplies:** items with an acquisition cost of less than $5,000 per unit that are used exclusively for the project
  - Itemize by providing description and quantity to be purchased
- **Equipment:** an article of nonexpendable, tangible personal property, which equals or exceeds $5,000 per unit
  - Itemize by providing description and quantity to be purchased
- **Labor:** any work on the project performed by individuals associated with a contractor
  - Provide brief description of services and cost/hour for installation
  - Labor costs ***cannot*** exceed 25% of the total SWEEP grant request.
- **Other:** Itemize the estimated costs for any other allowable cost not covered in the previous categories necessary for project implementation (e.g., permits, monthly or annual service charges)

Allowable Costs

- Allowable costs include:
  - Installation of photovoltaic panels to power irrigation systems
  - All components of micro-irrigation systems
  - Sensor hardware and telemetry
  - Software associated with sensors, weather stations
  - Flow meters

Unallowable Costs

- Unallowable costs include, but are not limited to:
  - Project design costs (e.g., engineering)
  - Cost associated with technical assistance
  - Post-project service charges and maintenance costs associated with the irrigation system
  - Non-labor costs (e.g., management) and fees associated with project oversight
  - Labor costs in excess of 25% of the total SWEEP grant request
  - Supplies and equipment costs not related to irrigation or water distribution systems
  - Costs associated with drilling of new or expanding groundwater wells
  - Irrigation training courses
  - Soil management practices
  - Pump efficiency tests

Project Types

- **Water Conservation**
  - **Weather, Soil or Plant Based Sensors for Irrigation Scheduling**:

    Examples include soil moisture or plant sensors (NRCS Conservation Practice Standard 449) with electronic data output or electronic weather station linked to irrigation controller for growers to ensure efficient irrigation scheduling. Use of evapotranspiration (ET) based irrigation scheduling, such as the California Irrigation Management Information System (CIMIS) on existing or proposed projects to optimize water efficiency for crops. Telemetry components that allow the electronic communication between technology devices are eligible for funding through SWEEP.

  - **Micro-Irrigation or Drip Systems**:

    Use of micro-irrigation or drip systems, including sub-surface drip systems. Should follow NRCS Conservation Practice Standard 441.

Project Types

- **Greenhouse Gas Emission Reduction**
  - **Fuel Conversion**:

    The conversion of a fossil fuel pumps to solar, wind, electric, or natural gas resulting in a reduction of GHG emissions. Renewable energy, including solar, installations that power irrigation systems are eligible for SWEEP funding.

  - **Improved Energy Efficiency**:

    Examples include retrofitting or replacing pumps. NRCS Conservation Practice Standard 372 or 533 may apply.

  - **Low Pressure Systems**:

    Use of low pressure irrigation systems to reduce pumping and energy use. For example, the conversion of a high pressure sprinkler system to a low pressure micro-irrigation system or lower pressure sprinkler system. Should follow NRCS Conservation Practice Standards 441 or 442.

Project Types

- **Greenhouse Gas Emission Reduction**
  - **Variable Frequency Drives**

    Use of Variable Frequency Drives to reduce energy use and match pump flow to load requirements. Should follow NRCS Conservation Practice Standard 533.

  - **Reduced Pumping**:

    For example, improved irrigation scheduling may lead to reduced pump operation times.

Project Types

- **Other Management Practices**
  - Innovative projects that do not fit into the project type categories listed under water conservation or greenhouse gas emission reduction priorities.
  - Must be able to calculate water savings and quantify GHG reductions using the Air Resources Board (ARB) Quantification Methodology

How to Apply

- Continued partnership with State Water Resources Control Board to host a web-based application submission process
- Online application system: FAAST
- User account needed to submit grant application
  - How to Create a FAAST Account

Financial Assistance Application Submittal Tool (FAAST): https://faast.waterboards.ca.gov

General Information Tab

- Applicant Organization:
  - Legal business name of the agricultural organization that will receive grant funds.
- Submitting Organization:
  - Name of the organization submitting the application on behalf of the agricultural organization.
- Project Title:
  - Should appropriately and concisely describe the project in 15 words or less.
- Project Description:
  - Summarize the project, including crop and acreage impacted, and describe project types that will be implemented to achieve GHG reductions and water savings.

Project Budget Tab

- Funds Requested:
  - Total amount of SWEEP funds requested.
  - Must match cell B5 in the project's Excel budget worksheet.
  - The maximum funding is $100,000
- Local Cost Match:
  - Total amount of matching funds or in-kind contributions committed to this project from other sources, if applicable.
- Total Budget:
  - Funds Requested + Local Cost Match = Total Project Cost

Questionnaire Tab

1. Previously Funded SWEEP Project
2. Property Information
3. Current Irrigation System and Practice
4. Project Types
5. Project Duration
6. Proposed Irrigation System and Practice
7. Water Calculations
8. GHG Calculations
9. Additional Considerations

Questionnaire Tab

1. Previously Funded SWEEP Project

- If an agricultural operation received prior SWEEP funding, enter the agreement number(s), award amounts and the assessor's parcel number(s)

Example: SWE20073, $75,900, 003-020-029-000;

APNs impacted by any previously funded SWEEP project are not eligible; however, applicants are encouraged to apply for projects on different parcels.

Questionnaire Tab

2. Property Information

- Must clearly identify the parcels involved in the proposed project and current land use.
  - Assessors parcel numbers (APNs)
  - Address or nearest cross streets
  - City and zip code
  - County
  - Census Tract
  - Current crop and acreage
- Indicate whether water used for irrigation is from surface water supplies or from groundwater pumped on-farm or a mix of both.

Questionnaire Tab

3. Current Irrigation System and Practice

- Intended to provide an understanding of the ***current*** irrigation system.
- Describe in detail the current crop, acreage, irrigation type and irrigation management practices, and energy sources.

Questionnaire Tab

4. Project Types

- Indicate “yes” or “no” for each project type.
  - Select “yes” if project integrates the project type described and provide a detailed explanation.
  - Do not indicate “yes” if the project type is already in practice on-farm.
  - If “yes” is selected, must explain how the proposal integrates that project type.

Projects must achieve GHG reductions and water savings to be eligible for SWEEP funding.

Questionnaire Tab

5. Project Duration

- Provide an estimated start date for your proposed project and an estimated completion date.

Reminder: Projects must start on or after June 1, 2017 and be completed on or before May 31, 2018.

Questionnaire Tab

6. Proposed Irrigation System and Practice

- Intended to provide an understanding of the ***proposed*** irrigation system.
- Describe in detail the proposed crop, acreage, irrigation type and management level, and energy sources.
- Indicate how water use will be measured after project implementation.

Questionnaire Tab

7. Water Calculations

- The applicant must complete the SWEEP Irrigation Water Savings Assessment Tool before completing this section of the FAAST questionnaire.
- Outputs of the calculator must be inserted into the application.
  - Baseline Water Use
  - Estimated Water Savings

Questionnaire Tab

8. Greenhouse Gas Calculations

- The applicant must complete the ARB GHG Calculator for SWEEP before completing this section of the FAAST questionnaire.
- The questions regarding GHG calculations revolve around establishing baseline of energy use and the estimated GHG reductions resulting from the project.

Questionnaire Tab

9. Additional Considerations

- During the selection process, projects addressing the following will receive extra consideration:
  - Attendance of irrigation training or provide evidence of completed irrigation training.
  - Reduce groundwater pumping in a critically over-drafted groundwater basin.
  - Soil management practices that increase water-holding capacity.
  - Commitment of matching funds
  - New SWEEP Applicants

Attachments Tab

- Use this tab to upload the ***attachments***:
  1. Budget Worksheet
  2. Project Design
  3. SWEEP Irrigation Water Savings Assessment Tool
  4. ARB GHG Calculator Tool
  5. GHG Supporting Documents
  6. Matching Funds
  7. Irrigation Training

Required Attachments

1. Budget Worksheet
2. Project Design
3. Completed SWEEP Irrigation Water Savings Assessment Tool
4. Completed ARB GHG Calculator Tool
5. GHG Emission Documentation
   - Baseline energy documentation
   - Pump efficiency test and pump specifications

Unable to submit application in FAAST unless at least 5 documents are uploaded and attached

Required Attachments

1. Budget Worksheet

- Itemize all allowable costs related to project.
- Must be consistent with project design.
- Use the USDA NRCS EQIP Payment schedules as a guide, to the extent feasible, to determine reasonable costs.

See Appendix E in the Request for Grant Applications for the USDA NRCS EQIP Payment Schedules

Required Attachments

2. Project Design

- Project designs must include the following, as applicable:
  - **For new infrastructure**, such as new irrigation piping, pumps, or sensors, include a detailed schematic and locations of the where that infrastructure will be installed on the field
  - **For improvements to existing infrastructure**, include a schematic illustrating where the improvements will be made to the existing infrastructure
  - **Identify pertinent agronomic information**, such as the crop and water distribution uniformity value of the irrigation system
  - **For use of ET based irrigation scheduling**, show water deliveries can be made on a consistent basis to accommodate that scheduling
  - **Projects that include the installation of renewable energy**, such as photovoltaic panels, must include the location, engineering and energy output specifications of the proposed installation.

Required Attachments

3. SWEEP Irrigation Water Savings Assessment Tool

Field or Ranch Name:

Impacted Acres:

Predominant Soil: Sand, Loamy Sand, Sandy Loam, Fine Sandy Loam, Loam, Silt, Clay Loam, Clay

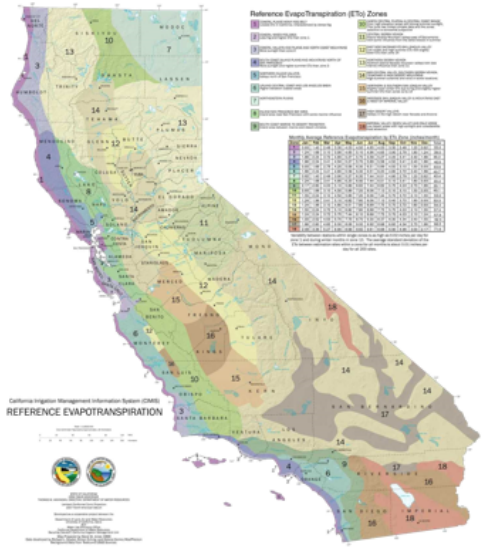
Crop: Alfalfa, Almonds, Apple, Artichokes, Asparagus, Avocado, Barley (planting 11/30), Barley (planting 4/30)

Baseline, Township, Range: Humboldt, Mt. Diablo, San Bernadino; 21S, 22S, 23S, 24S; 15E, 16E, 17E, 18E

Practice: SURFACE IRRIGATION (Under optimal conditions (lined ditch, tailwater recovery, good DU)); SURFACE IRRIGATION (With an Unlined ditch); SURFACE IRRIGATION (With a leaky pipeline); SURFACE IRRIGATION (With a Low DU); SURFACE IRRIGATION (Without a tailwater recovery system)

Estimated "before" water use 105.0 Ac-in/Ac

ET Zone 16



Notes:
The outputs of this tool are intended as estimates only for the purpose of understanding the potential for various irrigation practices and management techniques to save water.

Before and after practice water use estimated as crop ET adjusted by appropriate system efficiencies. Water provided by effective rainfall and water required for other beneficial uses are not considered because the effect on water savings is negligible.

Data Sources:
Crop ET from NRCS CA Consumptive Use database, representative planting and harvesting dates, UC crop coefficients and CIMIS normal ETo data.

"Predominant Soil" menu: If the actual infiltration rate of a soil at a practice site is significantly different than would be expected for its texture, then select a soil texture that best represents the actual infiltration rate.

For a more detailed explanation of how this tool works, see the "**Background Info and Assumptions**" tab.

Instructions | Before | After | Water Savings Estimate | Background Info and Assumptions

Required Attachments

4. ARB GHG Calculator Tool

- Must follow the ARB GHG Quantification Methodology, which includes a GHG Calculator Tool to estimate GHG emission reductions from changes in fuel use.
- Application must include:
  - A completed copy of the GHG Calculator Tool
  - An explanation of inputs used in the calculator
  - GHG supporting documents (pump tests, pump specifications, energy records)

GHG Calculator Tool:
http://www.arb.ca.gov/cc/capandtrade/auctionproceeds/cdfasweepcalc.xlsx

Required Attachments

5. GHG Emission Documentation

- Actual baseline GHG emission value provided in an application must be supported by documentation (i.e., on-farm energy use records).
- Must cover at least ***six months*** from the prior peak irrigation and growing season.
- A pump efficiency test and information on pump/motor specification must also be attached.

TIP: if project involves project crop rotation, up to three years of supporting documents may be provided to substantiate a representative baseline of energy use from pumping

Technical Assistance

A partnership between USDA NRCS and CDFA provided technical assistance support for SWEEP.

A list of awardees to provide technical assistance for 2017 SWEEP applicants is available on the SWEEP website.

Workshop Provider	Contact Person	Workshop Cities	Workshop County
Northern California			
Butte County RCD	Sarah Reynolds bc-rcd@carcd.org (530) 534-0112 ext 122	Oroville	Butte
Northwest C\A Resource Conservation and Development Council	Mark Lancaster mlancaster@5counties.org (530) 623-3967 x 111	Weaverville, Hayfork, Salyer	Trinity
Resource Conservation District of Tehama County	Kevin Greer Kevin@tehamacountyrcd.org 530 527-3013 x5167	Red Bluff and Corning	Tehama
Central California			
Cachuma Resource Conservation District	Jamie Whiteford jamie.k.whiteford@gmail.com 805-764-5132	Santa Barbara and Santa Maria	Santa Barbara County
Ventura County Resource Conservation District	Jamie Whiteford jamie.k.whiteford@gmail.com 805-764-5133	Ventura and Oxnard	Ventura County
Resource Conservation District of Santa Cruz County	*Sacha Lozano slozano@rcdsantacruz.org 831-464-2950 ext 11*	*Watsonville*	*Santa Cruz*
University of California Cooperative Extension, Fresno County	*Ruth Dahlquist-Willard rdahlquistwillard@ucanr.edu 559-241-7513*	*Fresno, CA*	*Fresno*
RCD of Monterey County	Paul Robins paul.robins@rcdmonterey.org 831-424-7377 x 124	Salinas	Monterey County
Southern California			
Imperial Valley Water (IVH2O)	Cherie Watte ccwatte@hotmail.com 916 690-3111	El Centro	Imperial
Mission Resource Conservation District	Judy Mitchel Judy@missionrcd.org 760-728-1332	Fallbrook, Oceanside	San Diego

Grounds for Disqualification

- Applications from individuals or organizations not meeting the definition of an agricultural operation.
- Applications not identifying a unique Tax ID
- Applications that include APNs previously funded in a SWEEP project
- Incomplete grant applications:
  - Applications with one or more unanswered questions
  - Applications with missing, blank, unreadable, corrupt, or otherwise unusable attachments
- Applications for more than the maximum award amount
- Applications not meeting supporting documentation requirements.

Assistance and Questions

- CDFA will post Frequently Asked Questions (FAQs) to address general program questions
  - Email questions to: grants@cdfa.ca.gov

Questions