

# State Water Efficiency and Enhancement Program (SWEEP)

## Request for Grant Applications

Released: October 19, 2021

Rolling application submission up to 5:00 p.m. PT on January 18, 2022 or until available funds are expended. Information on available funding can be viewed at [www.cdfa.ca.gov/oefi/sweep](http://www.cdfa.ca.gov/oefi/sweep)

No late submissions accepted.



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interconnection, recipients must take the necessary steps to begin the interconnection process after execution of the Grant Agreement to ensure utility interconnection work is complete by this date. Awardees must complete all proposed activities including activities related to cost share by this deadline. All communications (oral or written) related to grant activities including reimbursements must originate from grant awardee, grant awardee's authorized representative or CDFA staff.

Project implementation must occur on the parcels (APNs) identified in the Grant Agreement's Scope of Work (SOW). Failure to install a project on the APNs identified in the scope of work may result in all or any portion of the grant funding withheld or termination of the Grant Agreement.

CDFA may conduct a Critical Project Review, which may involve an on-site visit, upon reasonable notice at any time during the project term. The purpose is to determine whether deliverables are being met and evaluate project progress to ensure installation is complete within the grant term. Recipients may be required to submit financial records and project documentation to ensure SWEEP funds are used in compliance with the Grant Agreement terms and conditions.

### **Payment Process**

The SWEEP is a reimbursement grant program. CDFA will provide the grant recipient with the necessary grant award and invoicing documents for reimbursement process. CDFA will withhold 10 percent from the total grant award reimbursement until the verification requirement is complete and meets the expectations agreed upon in the Scope of Work.

### **Advanced Payments**

If selected for funding, recipients may be eligible for an advance payment of up to 25 percent of the grant award, subject to the provisions of section 316.1 "Advance Payments" of the [California Code of Regulations, Division 1, Chapter 5](#). If appropriate justification is submitted and awardee is in compliance with grant management requirements, additional advance payments may be issued in accordance with CDFA's Grant Administration regulations.

### **Project Verification**

Following project implementation, the grant awardee must inform the assigned grant specialist that the project is complete and operational as proposed. A CDFA Environmental Scientist, or a CDFA-contracted third party, will then initiate the verification process. The verifier will visit the project site and inspect the completed project to ensure design specifications were met and the system is working effectively. In addition, the verifier will take photographs to document project completion. The grant awardee or a documented authorized representative of the agricultural operation must be present during the time of

verification. If CDFA determines that remote verification is required, the grant awardee will submit geotagged photos of critical project components so that the project can be verified as complete on the intended APN. The verification component must be completed by September 30, 2024.

## **Post-Project Requirements**

### **Project Outcome Reporting**

Execution of the Grant Agreement is conditional upon agreement to post-project reporting requirements. Recipients are expected to maintain documentation related to the SWEEP funded project, including energy and water use documentation, be responsive to requests for information about the project and to report actual water and energy use for a period of three years after project completion. The purpose of this reporting is to evaluate the long-term success of SWEEP awarded projects.

After the project is operational, a CDFA Environmental Scientist will work with recipients to collect the necessary data, evaluate the co-benefits and maintenance of the project and to quantify water savings and GHG emission reductions. This may entail enrollment with a third-party contactor to monitor energy and/or water use from the project site. In the situation that a third-party contractor enrollment is required, the awardee shall take all required steps for timely enrollment. Besides the enrollment, the awardee may be required to provide data which could not be collected utilizing third-party services.

Failure to work with CDFA or its designees to provide the necessary project-related documentation will be considered non-performance. In the event of non-performance, CDFA may take any action deemed necessary to recover all or any portion of the grant funding, including denying eligibility for future funding.

## **State Audit and Accounting Requirements**

In addition to SWEEP program requirements, awarded projects may be subject to State Audit and Accounting Requirements listed below.

### **Audit Requirements**

Projects are subject to audit by the State annually and for three (3) years following the final payment of grant funds. If the project is selected for audit, the Grantee will be contacted in advance. The audit shall include all books, papers, accounts, documents, or other records of Grantee, as they relate to the project. All project expenditure documentation should be available for an audit, whether paid with grant funds or other funds.

Grantee must have project records, including source documents and evidence of payment, readily available and must provide an employee with knowledge

of the project to assist the auditor. Grantee must provide a copy of any document, paper, record, etc., requested by the auditor.

### **Accounting Requirements**

Grantee must maintain an accounting system that:

- Accurately reflects fiscal transactions, with the necessary controls and safeguards.
- Provides a good audit trail, including original source documents such as purchase orders, receipts, progress payments, invoices, employee paystubs and timecards, evidence of payment, etc.
- Provides accounting data so the total cost of each individual project can be readily determined.

### **Records Retention**

Records must be retained for a period of three (3) years after final payment is made by the State. Grantee must retain all project records at least one (1) year following an audit.

## Appendix A: Grant Application Checklist

### Application Components

- Completed Online Application

### Application Attachments

- Project Design (map of components locations including field-based sensors, pumping station, solar, and other project components)
- [Budget Worksheet](#)
- SWEEP Irrigation Water Savings Assessment Tool  
<http://www.cdfa.ca.gov/oefi/SWEEP/docs/IrrigationWaterSavingsAssessmentTool.xlsm>
- ARB GHG Calculator Tool  
[http://www.cdfa.ca.gov/oefi/SWEEP/docs/GHG\\_CalculatorTool.xlsx](http://www.cdfa.ca.gov/oefi/SWEEP/docs/GHG_CalculatorTool.xlsx)
- GHG Baseline Use Documentation (e.g. utility bills, fuel receipts, field operational logs, etc. covering 12 months of peak irrigation season)
- Pump Efficiency Test (pump efficiency test for current pumps, pump and motor specifications for any proposed pumps)

### Optional Application Attachments (only if applicable to project)

- Cost Share (optional)
- Quotes for solar projects (required if requesting funding for a solar installation)
- Letter of Support from Groundwater Sustainability Agency
- Supplemental information to support water use baseline
- All Other Supplemental Documents (e.g., irrigation training certificates) (optional)



## Appendix B: Preview of Grant Application Questions

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### SECTION I: APPLICANT INFORMATION

Provide details about the applicant including the name of the agricultural operation and the personal contact information for the individual affiliated with the agricultural operation. This must be the organization or person who would, if awarded, receive the grant and sign a grant agreement with CDFA.

Name of agricultural operation applying for a SWEEP grant \*

Total size of the agricultural operation (acres) \*

What is the type of entity applying for the SWEEP grant? \*

Sole Proprietor/individual  Corporation/partnership/trust

If the applicant has a Federal Employer Identification Number select Cooperation

Enter the applicant's Federal Employer Identification Number (FEIN) \*

Physical mailing address \*

(Where a letter can be sent)

City \*

State \*

Applicants outside the state of California will be disqualified

Zip code \*

Full name of primary contact person - This the person who would sign a grant agreement if the project is selected for funding \*

Primary contact's office phone number \*

(xxx) xxx-xxxx

Primary contact's cell phone number

Primary contract's email address \*

Applicant's gender \*

Male  Female  Decline to state

Has the applicant served on active duty in the U.S. Armed Forces, Reserves, or National Guard? \*

Yes  No  Decline to state

The California Department of Food and Agriculture (CDFA) is committed to equitable access for all Californians and investing in the long-term prosperity of our food and farming systems, starting with our farmers. To better ensure the inclusion of California's socially disadvantaged farmers in this and other Climate Smart Agriculture grant programs, CDFA requests that applicants self-identify as part of the application process by responding to the question below:

Does the applicant belong to a socially disadvantaged group as defined below? \*

Yes  No

"Socially disadvantaged group" means a group whose members have been subjected to racial, ethnic, or gender prejudice because of their identity as members of a group without regard to their individual qualities. The Farmer Equity Act of 2017 identifies the following as socially disadvantaged groups: African Americans; Native Indians; Alaskan Natives; Hispanics; Asian Americans; and Native Hawaiians and Pacific Islanders.

If yes, select from the socially disadvantaged groups below: \*

Full name of alternate contact person

Alternative contact's role (e.g., farm manager, family member, adviser)

Alternate contact's phone number

Alternate contact's email address

List any additional contacts names and contact information

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## SECTION II: PREVIOUSLY FUNDED PROJECT

Has the agriculture operation received a SWEEP award in the past? \*

Yes  No

If "Yes," provide the SWEEP Agreement Number(s) and corresponding Assessor's Parcel Number(s) of where each of the project(s) were implemented. (ex. SWE50xxx, or 17-0xxx-000) \*

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### SECTION III: PROJECT LOCATION INFORMATION

Provide details about the property location(s) where the proposed project will be implemented. Provide property information for each Assessor's Parcel Number (APN) that will be impacted by the proposed SWEEP project.

County \*

Assessor's Parcel Number(s) \*

**IMPORTANT REMINDER:** Be sure to use the APN format that is used by the county's Assessor's Office. Visit the county's Assessor's Office in person or the Assessor's Office webpage to look up or verify the APN(s).

Address or Nearest Cross Streets of Project Site Location(s) \*

City \*

Zip Code \*

Representative GPS Coordinate \*

\*Provide a single representative GPS waypoint in decimal degree format.

Example: xx.xxxxx, -xxx.xxxxx

(<https://www.google.com/maps/>)

Census Tract

\*To identify the census tract of each APN use the census tract finder

at: <https://geomap.ffiec.gov/FFIECGeocMap/GeocodeMap1.aspx>

type in address and click Census Demographic Data. If the location does not have an address select

"User Select Track" and select its location on a map. Once selected click "Census Demographic Data" and copy the MSA-State County-Track number (ex: xxxxx-06-xxx-xxxx.xx)

Legislative Information: Identify the applicants Senate and Assembly Districts: [Click here](#)

Assembly District Number \*

Senate District Number \*

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## SECTION IV: CURRENT IRRIGATION SYSTEM & PRACTICE

The questions in Section IV apply to the current irrigation and/or distribution system. The purpose of this section is to understand an applicant's current irrigation infrastructure and water use system.

Description of current water use system \*

Describe in detail the current water use system and the associated energy sources. At a minimum, applicants should address the current crop, irrigation type, irrigation management practices, horsepower of pump(s) and fuel type.

Description of current water use system \*

Indicate if the property location(s) water source is surface water (i.e., water delivered to the property) or groundwater pumped from on-farm wells. If the property utilizes both surface water and groundwater, provide an estimate of the percentage from both sources (example: surface water 50%, groundwater 50%) \*

Is current water use from all sources measured either on farm or by the water supplier (e.g., with a flow meter)? Please explain. \*

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## SECTION V: PROJECT OVERVIEW

Project title \*

Provide a short project title

Project description \*

Provide a concise project description. The project description should summarize the main pre and post project components, crop and acreage, and relevant pump HP and energy conversions. Description should be written in third person and highlight upgrades.

What is the number of acres that would be impacted by the SWEEP project? \*

List current crop(s) and corresponding acreage that would be impacted by the proposed SWEEP project. If crops are in rotation, list the primary crops which are present the majority of of crops during the irrigation season (Example: Alfalfa: 40 acres, Corn: 20 acres) \*

Is the project acreage undergoing a crop conversion? \*

List the future crop(s) and corresponding acreage.

All projects must allow for water to be measured after project implementation. Provide an explanation of how the proposed project will measure applied water after the project is installed. \*

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## SECTION VI: PROJECT TYPES

The questions in Section VI apply to the SWEEP project types for which the applicant is applying.

Project Types: Address all applicable project types and provide an explanation for all types selected. Only indicate project types that are being incorporated as part of the project. **Do not indicate a project type if it is already the current practice at the project site.**

Water Conservation

Weather, soil, plant, or flow based sensors for irrigation scheduling \*

Yes  No

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 CIMIS

How many new flow meters will be installed as part of this project? Describe

How many new soil moisture stations will be installed as part of this project? Describe

How many new Et/weather stations will be installed as part of this project? Describe

How many new alternative irrigation water management pieces of equipment will be installed as part of this project?

Summarize the proposed irrigation water management changes \*

Irrigation system changes \*

Yes  No

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

What best describes the proposed irrigation system? \*

Summarize the proposed irrigation system changes. \*

Greenhouse Gas Emission Reduction

Fuel conversion \*

Yes  No

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.

Are you installing solar or other forms of renewable energy? \*

Yes  No

What is the kW capacity of the system that is proposed? \*

Note: use the kW capacity and not the yearly kWh anticipated generation

Summarize the proposed fuel conversion \*

Improved energy efficiency of pumps and variable frequency drives (VFD) \*

Yes  No

Examples include retrofitting or replacing pumps and the use of variable frequency drives to reduce energy use and match pump flow to load requirements. NRCS Conservation Practice Standard 372 or 533 may apply.

Will a VFD be installed as part of the proposed project? \*

Yes  No

How many VFDs will be installed and what is the horsepower? \*

Who is the projects utility provider?

Are there any additional pumps besides those included in the SWEEP proposal for which the applicant is considering installing a VFD?

Yes  No

Would you be interested in information on rebates or on-bill financing offered by the utility? If so, CDFA will provide your contact information to your utility provider.

Yes  No

Summarize the proposed improvements. \*

Converting to a lower pressure systems \*

Yes  No

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. NRCS Conservation Practice 441 or 442


Summarize the proposed low pressure system improvements. \*

Reduced pumping through water savings strategies \*

Yes  No

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

Summarize the proposed improvements that result in reduced pumping. \*



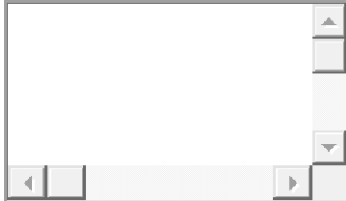
Other Management Practices

The use of dairy effluent to irrigate using sub-surface drip irrigation \*

Yes  No

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

Summarize the proposed use of dairy effluent \*



Other management practices and items not details in pervious categories \*

Yes  No

For projects implementing any other management practices that result in GHG reductions and water savings.

Summarize the proposed other management practices improvements. \*



Reminder: GHG emission reductions must be calculated according to the ARB GHG Quantification Methodology and with the ARB Calculator Tool.

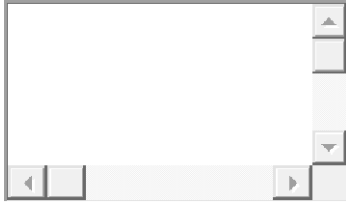
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## SECTION VII: DESIGN OF PROPOSED IRRIGATION SYSTEM & PRACTICE

The questions in Section VII apply to the proposed water use system on the property. The purpose of this section is to estimate the potential water savings and reductions in greenhouse gas emissions.

Description of proposed water use system \*





Explain in detail the proposed water use system and associated energy sources. At a minimum, applicants should address the proposed crop, irrigation type, pump HP and fuel type, irrigation management (e.g., ET irrigation scheduling using CIMIS and/or sensors), fuel source(s), and water source(s).

Are there any anticipated permits that are needed to complete the proposed project?

Describe the permits that may be needed \*

Upload the Project Design \*

Choose File

Project design should include the following: APN number, location of critical project components, etc

\*Please name file Application ID number - SWEEP Design. Example: "12345678-SWEEP Design".

\*ID# is found at the top of the page

Budget Overview - In the fields below enter information about the proposed project budget. The maximum grant request is \$200,000. Matching funds are encouraged, but not required. The summary entered here should reflect what is entered on the budget worksheet.

<https://www.cdfa.ca.gov/oefi/sweep/docs/2021-sweep-budgetworksheet.xlsx>

Will this project use dairy effluent to irrigate using sub-surface drip irrigation? \*

Yes  No

Attach The Project's Budget Worksheet \*

Choose File

\*Please name file Application ID number - SWEEP Budget. Example: "12345678-2019-SWEEP-BudgetWorksheet" \*ID# is found at the top of the page

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## SECTION VIII: PROJECT DURATION

The maximum grant duration for a proposed project is 24 months. Grant funds cannot be expended before the project start date and a grant agreement has been fully executed.

Does the applicant acknowledge that the project will be completed within the grant term? \*

Yes  No

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## SECTION IX: WATER CALCULATIONS

Applicants must use the SWEEP Irrigation Water Savings Assessment Tool to provide an estimate of current baseline water use and the estimated water savings due to the proposed project. Use the units of acre-inches per year per acre. Instructions are provided on the "Instructions" tab of the SWEEP Irrigation Water Savings Assessment Tool.

<https://www.cdfa.ca.gov/oefi/sweep/docs/IrrigationWaterSavingsAssessmentTool.xlsm>

To determine soil characteristics: <https://casoilresource.lawr.ucdavis.edu/gmap/>  
To determine baseline, township, and range: <https://apps.wildlife.ca.gov/bios/>

- enable PLSS map layer (Humboldt (H), Mount Diablo (M), San Bernardino (S))

Using the SWEEP Irrigation Water Savings Assessment Tool

What is the baseline water use (acre-inches/acre) from the SWEEP Irrigation Water Savings Assessment Tool, located in cell F3 of the "Water Savings Estimate" tab? \*

What is the estimated "after" scenario water use (acre-inch/acre) from the SWEEP Irrigation Water Savings Assessment Tool, located in cell F4? \*

What is the estimated water savings (acre-inches/acre) from the project, located in cell F5? \*

Water Savings Assessment Tool Upload \*

Choose File

\*Please name file Application ID number - SWEEP Water Savings Assessment Tool. Example: "12345678-IrrigationWaterSavingsAssessmentTool" \*ID# is found at the top of the page

Are there any further comments or clarifications regarding the supporting water documentation or calculations? Indicate "Yes" or "No."

Yes  No

If "Yes," provide your explanation. \*

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## SECTION X: GHG CALCULATIONS

Applicants are required to use the California Air Resources Board ARB GHG Calculator Tool, which can be found [HERE](#), to quantify GHG reductions from their proposed project. Attach the entire completed Excel workbook, and attach all supporting documents that provide inputs to the calculator, including pump efficiency tests, pump and motor specifications, actual fuel invoices, electric bills, and field operational logs. After completing all required tabs and saving and attaching the tool, provide a response to the following questions:

What is the total baseline fuel or electricity use for all the fields involved in the proposed SWEEP project? This information is located in cell B14 of the "Input" tab(s) of the workbook. Complete all that apply below.

Select baseline fuel type \*

Electricity (kWh/yr)  Diesel (gallons/yr)  Motor gasoline (gallons/yr)  Biodiesel/renewable diesel (gallons/yr)  Natural gas (scf/yr)  Renewable (kwh/yr)

Select secondary baseline fuel type, if applicable

Electricity (kWh/yr)  Diesel (gallons/yr)  Motor gasoline (gallons/yr)  Biodiesel/renewable diesel (gallons/yr)  Natural gas (scf/yr)  Renewable (kwh/yr)

Explain how the supporting baseline GHG documents (such as fuel invoices, electricity bills, pump efficiency tests, field operational logs, etc.) were used to provide inputs to the ARB GHG Calculator Tool. In other words, provide a sufficient explanation to identify inputs of the GHG Calculator to allow the calculations to be replicated. \*



Energy Documents Attachment \*

Choose File

Will need to combine files into single document. This can be done using adobe or scan all the documents into a single file \*Please name file: Application ID number - Energy Doc. Example: "12345678-Energy Doc". \*ID# is found at the top of the page

Additional Energy Documents (If needed)

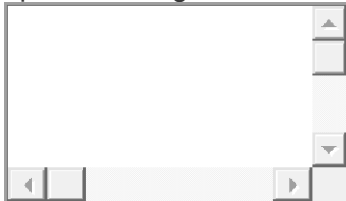
Choose File

Will need to combine files into single document

Were operational logs included in the GHG calculations?

Yes  No

If "Yes," explain how those logs were maintained and how data was collected on-farm. Note: If field operational logs were used, the logs MUST be attached as supporting documentation. \*



Attach operational logs. \*

Choose File

Pump test(s) \*

Choose File

Will need to combine files into single document \*Please name file: Application ID number - Pump Test. Example: "12345678-Pump Test". \*ID# is found at the top of the page

Indicate the estimated greenhouse gas emission reductions per acre from the project (Tonnes of CO2 equivalent/acre), located in cell B16 of the "Summary" tab of the ARB GHG Calculator Tool. \*

Upload the ARB GHG Calculator \*

Choose File

\*Please name file Application ID number - SWEEP ARB GHG Calculator. Example: "12345678-GHG\_CalculatorTool". \*ID# is found at the top of the page

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## SECTION XI: ADDITIONAL CONSIDERATIONS

Section XI is not required, but the following will receive additional consideration

### Training

If awarded funding, will a representative from the agriculture operation agree to attend irrigation training?

Yes  No

IMPORTANT REMINDER: If the answer is indicated as "Yes," irrigation training will become a term of the Grant Agreement if the project is awarded funding. This training will be at the cost of the agriculture operation.

Does the project location fall within a critically over-drafted groundwater basin as identified by the Department of Water Resources?

Yes  No

Critically Over-Drafted Groundwater Basin: [Click Here](#)

If "Yes," identify the basin number.

Indicate which, if any, of these management practices will be implemented with the goal of increasing soil organic matter and water-holding capacity of the soil.

Cover cropping  Mulching  Compost application  Resource conserving crop rotation

IMPORTANT REMINDER: If these practices are selected and additional consideration is awarded, the selected practices will become a term of the Grant Agreement and are at the cost of the agricultural operation (these soil management practices are not eligible for funding through SWEEP).

### Linked Profile

Type to search...

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## SECTION XII: ADDITIONAL ATTACHMENTS

(Optional) Did the local ground water sustainability agency (GSA) provide a letter of support? If so, attach here.

Choose File

This is where the applicant can attach price quotes, additional water and energy use data, and/or any additional consideration

Additional attachment 1

Choose File

\*Please name file: Application ID number - additional. Example: "12345678-quote". \*ID# is found at the top of the page

Description of attachment 1

Additional attachment 2

Choose File

Description of attachment 2

Additional attachment 3

Choose File

Description of attachment 3

Additional attachment 4

Choose File

Description of attachment 4

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### SECTION XIII: ACKNOWLEDGMENT

Did the applicant receive any technical assistance in completing the application?

Yes  No

Check the boxes for all technical assistance that was provided

Non-Profit  University  Resource Conservation District  CDFA lead workshop   
Irrigation Company/Vendor

What organization provided the bulk of the assistance?

What is the name of the individual that provided the bulk of the assistance?

Would you be interested to have your project highlighted/showcased?

CDFA would first notify you and seek additional consent before showcasing any individual project

Please write your name in the signature box. By doing this you are indicating that all information submitted is true and current to the best of your knowledge

The information in this application is true and current to the best of my knowledge \*

Yes  No

Date \*

## Appendix C: USDA NRCS Payment Schedule

Adapted from [Environmental Quality Incentives Program Payment Rate Summary List](#) Regular Rates.

This table provides the USDA NRCS EQIP rates for some project components that are relevant to SWEEP. This list is intended to provide guidance for expected costs and is not a complete list of all projects types or items that may be funded through SWEEP.

Practice Code	Practice Name	Component	Unit Type	Unit Cost
372	Combustion System Improvement	Electric Motor in-lieu of IC Engine, >= 500 HP	Ea	\$39,855.25
372	Combustion System Improvement	Electric Motor in-lieu of IC Engine, 125-174 HP	Ea	\$9,488.57
372	Combustion System Improvement	Electric Motor in-lieu of IC Engine, 12-69 HP	Ea	\$3,278.87
372	Combustion System Improvement	Electric Motor in-lieu of IC Engine, 175-224 HP	Ea	\$12,410.81
372	Combustion System Improvement	Electric Motor in-lieu of IC Engine, 225-274 HP	Ea	\$14,837.62
372	Combustion System Improvement	Electric Motor in-lieu of IC Engine, 275-399 HP	Ea	\$19,947.70
372	Combustion System Improvement	Electric Motor in-lieu of IC Engine, 400-499 HP	Ea	\$24,642.42
372	Combustion System Improvement	Electric Motor in-lieu of IC Engine, 70-124 HP	Ea	\$6,799.30
372	Combustion System Improvement	IC Engine Repower, >25 bhp	BHP	\$108.63
441	Irrigation System, Microirrigation	Filter replace	ac	\$294.79

Practice Code	Practice Name	Component	Unit Type	Unit Cost
441	Irrigation System, Microirrigation	Orchard-vineyard, >10ac	ac	\$705.40
441	Irrigation System, Microirrigation	Orchard-vineyard, 10ac or less	ac	\$1,404.47
441	Irrigation System, Microirrigation	Orchard-vineyard, durable tubing replace	ac	\$343.08
441	Irrigation System, Microirrigation	Row Crop, Above Ground PE Manifold	ac	\$1,032.62
441	Irrigation System, Microirrigation	Row Crop, Buried Manifold	ac	\$990.51
441	Irrigation System, Microirrigation	SDI (Subsurface Drip Irrigation)	ac	\$1,245.91
441	Irrigation System, Microirrigation	SDI (Subsurface Drip Irrigation), Manure	ac	\$2,444.28
441	Irrigation System, Microirrigation	Small Acreage	ac	\$2,061.21
442	Sprinkler System	Big Gun, Stationary	Ea	\$3,022.38
442	Sprinkler System	Center Pivot, < 600 Ft	ft	\$49.77
442	Sprinkler System	Center Pivot, > 600 Ft	ft	\$42.68
442	Sprinkler System	Handline system	ft	\$4.27
442	Sprinkler System	Linear Move System	ft	\$57.49
442	Sprinkler System	Pod System	Ea	\$337.11
442	Sprinkler System	Solid Set System	ac	\$1,359.66
442	Sprinkler System	Solid Set, Above Ground Laterals	ac	\$1,558.82
442	Sprinkler System	Traveling Gun System, > 3 inch Hose	Ea	\$22,720.61
442	Sprinkler System	Traveling Gun System, >2 to 3 inch Hose	Ea	\$4,812.03

Practice Code	Practice Name	Component	Unit Type	Unit Cost
442	Sprinkler System	Traveling Gun System, 2 inch or less diameter Hose	Ea	\$5,096.56
442	Sprinkler System	Wheel Line System	ft	\$12.88
449	Irrigation Water Management	IWM with Soil Moisture Sensors	Ea	\$768.37
449	Irrigation Water Management	IWM with Soil Moisture Sensors with Data Recorder	Ea	\$1,547.61
533	Pumping Plant	Electric-Powered Pump <= 3 Hp	HP	\$1,056.29
533	Pumping Plant	Electric-Powered Pump <= 3 HP with Pressure Tank	HP	\$1,248.06
533	Pumping Plant	Electric-Powered Pump >10 to 40 HP	HP	\$348.81
533	Pumping Plant	Electric-Powered Pump >3 to 10 HP	HP	\$334.96
533	Pumping Plant	Electric-Powered Pump >40 HP, Centrifugal	HP	\$235.14
533	Pumping Plant	Solar <1 Hp	Ea	\$2,535.31
533	Pumping Plant	Solar >3 Hp	Ea	\$6,454.12
533	Pumping Plant	Solar 1-3 Hp	Ea	\$4,233.76
533	Pumping Plant	Turbine, Pump Only	HP	\$145.01
533	Pumping Plant	Variable Frequency Drive only (no pump) <=15Hp	Ea	\$1,910.84
533	Pumping Plant	Variable Frequency Drive only (no pump) >15 Hp	HP	\$92.79
533	Pumping Plant	Vertical Turbine Pump, Deep Well, >100 Hp	HP	\$295.77
533	Pumping Plant	Vertical Turbine Pump, Deep Well, <100 Hp	HP	\$368.43
533	Pumping Plant	Water Ram Pump	ln	\$862.28
533	Pumping Plant	Windmill-Powered Pump	ft	\$709.89



## Appendix D: Technical Review Scoring Guidance

CRITERIA	MAX POINTS
<p><b>MERIT AND FEASIBILITY</b></p> <ul style="list-style-type: none"> <li>• Project design clearly identifies the following items: project location (APN and fields where project is to be installed), proposed irrigation system layout, pump locations and any fertigation and filtration stations, location of solar system, sensor locations, water sources, groundwater wells and pump discharge, crops and acreage per crop.</li> <li>• The estimated project completion date is compatible with the grant duration of 24 months.</li> <li>• The project has merits in terms of water efficiency, GHG reductions and economic return for the farm and the State.</li> <li>• The project demonstrates a deliberative and holistic effort by the applicant to improve farm water and energy efficiency.</li> <li>• The project has long-term viability.</li> <li>• The project improves farm resilience to drought and aligns with sustainable groundwater efforts and /or surface water conservation.</li> <li>• The project replaces or reduces diesel fuel consumption.</li> </ul>	12
<p><b>WATER SAVINGS</b></p> <ul style="list-style-type: none"> <li>• The applicant estimated projected water savings accurately using SWEEP tools and provided sufficient explanation for calculations and/or supporting documentation.</li> <li>• Water savings strategies are clear from the baseline scenario to the projected savings.</li> <li>• The proposed project will result in measurement of water use from all water sources on the impacted acreage.</li> <li>• The proposed project can achieve real and notable per acre water savings and maintain the water benefits over 10 years.</li> </ul>	12
<p><b>GREENHOUSE GAS REDUCTIONS</b></p> <ul style="list-style-type: none"> <li>• The applicant estimated GHG reductions correctly using the SWEEP GHG calculator tool and provided sufficient explanation and supporting documentation for calculations.</li> <li>• The GHG calculator reflects what is included in the project design and application narrative.</li> <li>• The GHG reduction strategies are clear in the project design and application.</li> <li>• The GHG calculator acreage matches the acreage of the project design.</li> </ul>	12

<ul style="list-style-type: none"> <li>The proposed project will achieve real GHG reductions and maintain these GHG reduction benefits for a project life of 10 years.</li> </ul>	
<p><b>BUDGET</b></p> <ul style="list-style-type: none"> <li>The project budget worksheet provides sufficient detail on the project components.</li> <li>If relevant, the project includes the appropriate number of flow meters and irrigation water management (IWM) equipment to meet the project IWM goals.</li> <li>Labor costs are reasonable and do not exceed 25 percent of the total budget.</li> <li>The budget does not include unnecessary or duplicative items.</li> <li>The applicant provides itemized quotes to support the budget. Quotes are required for solar systems, but not for all project components.</li> </ul>	8
<p><b>PREVIOUSLY UNAWARDED APPLICANTS</b></p> <ul style="list-style-type: none"> <li>Applicant has not received an award in past SWEEP funding cycles. (CDFA staff to verify). (3 Points)</li> </ul>	3
<p><b>ADDITIONAL CONSIDERATIONS</b></p> <ul style="list-style-type: none"> <li>Applicant commits to completing an irrigation training course during the course of the grant agreement or has completed irrigation training within the last two years. (1 Point)</li> <li>The proposed project will reduce groundwater pumping within a critically over-drafted groundwater basin. (1 Point)</li> <li>The applicant indicates that they will implement one or more of the four soil management practices. (1 Point)</li> </ul>	3
<b>Total Points Available</b>	<b>50</b>