

# Public Listening Session Healthy Soils Program & State Water Efficiency and Enhancement Program

September 4, 2018  
1:00 PM to 4:00 PM  
Fresno County Farm Bureau  
1274 W. Hedges Ave.  
Fresno, CA 93728

## Remote Participation:

Webinar participation is available for members of the public unable to attend a listening session in person. Register for the webinar at:

<https://attendee.gotowebinar.com/register/519454765226725891>

## Listening Session Objectives:

CDFA's Office of Environmental Farming and Innovation will present draft solicitation and application materials for the 2018 Healthy Soils Program (HSP) and 2018 State Water Efficiency and Enhancement Program (SWEEP). Agricultural stakeholders and interested parties are invited to this public meeting to review and provide feedback on programmatic draft solicitation and application materials. CDFA will consider all public comments and feedback prior to finalizing programmatic solicitation and application materials.

## Agenda:

- Welcome and Introductions
- Review of Objectives

### SWEEP - 1:00 PM to 2:15 PM

- Presentation of Draft SWEEP Solicitation
- Demonstration of SWEEP tools and templates
- Questions and Public Comments

### HSP - 2:15 PM to 4:00 PM

- Presentation of Draft HSP Incentive Program Solicitation
- Demonstration of HSP tools and templates
- Questions and Public Comments
  
- Presentation of Draft HSP Demonstration Projects Solicitation
- Demonstration of HSP tools and templates
- Questions and Public Comments

CDFA will continue to accept written public comments on draft SWEEP application materials and draft HSP application materials until Wednesday, September 12, 2018 by 5:00 PM PT. Written public comments should be sent by email to [cdfa.oefi@cdfa.ca.gov](mailto:cdfa.oefi@cdfa.ca.gov)



# 2018 State Water Efficiency and Enhancement Program



Public Listening Session for the Draft Request for  
Applications

# About the Program

- A competitive grant application process conducted by the California Department of Food and Agriculture (CDFA)
- Funded through Proposition 68
- Purpose is to provide financial incentives for California agricultural operations to invest in irrigation systems that save water and reduce greenhouse gas (GHG) emissions



THE OFFICE OF

**environmental farming & innovation**

# Funding and Duration

- SWEEP funding is authorized by Budget Act of 2018
- \$20 million available
  - Two solicitations are planned
- Project Grant Amounts: Not to exceed \$100,000
- Project Duration: 18 months

July 2019 – December 2020



# Eligibility and Exclusions

## Eligibility

- The irrigation project must be on a California agricultural operation.
- For the purposes of this program, an agricultural operation is defined as row, vineyard, field and tree crops, commercial nurseries, nursery stock production, and greenhouse operations producing food crops or flowers as defined in Food and Agricultural Code section 77911.
- An agricultural operation entity cannot receive a total cumulative SWEEP funding amount of more than \$600,000.
- Applications cannot build upon any previously funded SWEEP projects directly affecting the same Assessor's Parcel Numbers (APNs). An applicant must be at least 18 years old.

## Exclusions

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



# Project Types

- Improved irrigation water management
- Soil, Weather, Plant Sensors
- Micro-irrigation
- Improved energy efficiency - Pump replacement or retrofit
- Fuel conversion – Including renewable energy installations
- Variable frequency drives
- Low pressure systems
- Reduced Pumping
- Other projects that combine water savings and GHG reductions



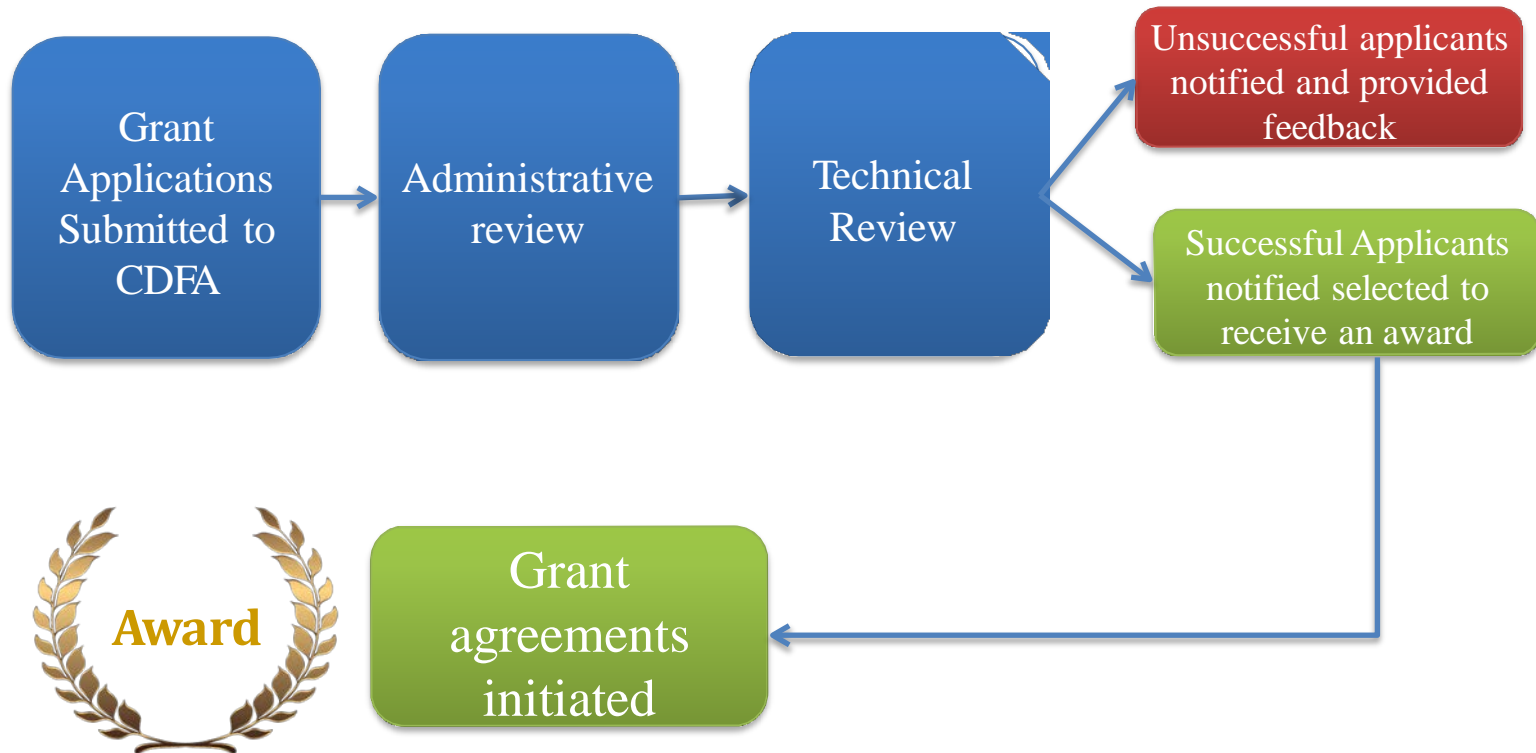
# Solicitation Timeline

Release Request for Grant Applications (RGA)	November 2018
CDFA grant application workshops and webinar	TBD
Grant applications due (8-week application period)	January/February 2019
Announce and award funding	Spring 2019



Website: <https://www.cdfa.ca.gov/oefi/sweep/>

# Solicitation Process





# Review and Evaluation Process

Multiple Levels of Review:

- Administrative Review – Internal
- Technical Review – External

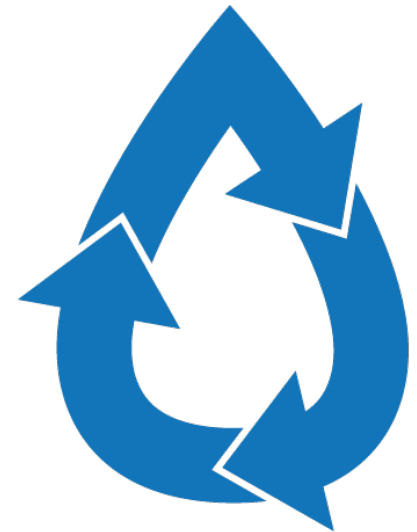
CDFA will select applications for funding based upon the following:

- Score provided by technical reviewer
- Number of additional considerations
- Level of water savings and GHG reductions (per acre)



# Additional Considerations

- Previously unawarded applicant
- Provision of cost share
- Commitment to irrigation training
- Reduction of groundwater pumping in a critically over-drafted groundwater basin
- Implementation of soil management practices
- Benefits to a severely disadvantaged community - \*NEW
- Storm water capture and reuse, use of recycled water - \*NEW



# Program Requirements

Only submit one application using the operation's legal business name and unique tax identification number. If submitting as a sole proprietor, use the last four digits of the individual's social security 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 SWEEP Irrigation Water Savings Assessment Tool to estimate water savings

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.



# Program Restrictions

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 experimental technology or perform research
- Pay for engineering costs associated with the project design, development and planning
- Lease weather, soil and irrigation water based sensors for irrigation scheduling
- Purchase tools and equipment with a useful life of less than two



# Awardee Requirements



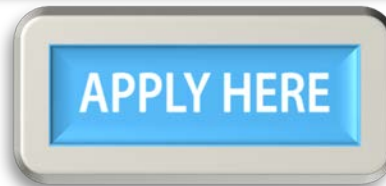
If selected for an award, execution of the Grant Agreement is conditional upon applicants agreeing to the following program requirements:

- Pre-Project consultation conducted by a CDFA Environmental Scientist to confirm project information and discuss implementation plans. During the pre-project consultation the awardee will provide an assessor's map and/or aerial map of impacted acreage to verify the location and acreage of the project;
- Installation of a sign on the nearest road informing the public that project received funds through the California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access For All Act of 2018 (Division 45, Chapter 1. Section 80001 (b)(3) of the Public Resources Code) for the duration of the grant agreement;
- Post-project verification site visit conducted by a CDFA Environmental Scientist, or in partnership with a local RCD, to evaluate the completed project;
- Post-project quantification conducted by a CDFA Environmental Scientist or a third-party representative to evaluate project outcomes;
- Expectation to use and maintain the installed system for a minimum of 10 years.

# How To Apply

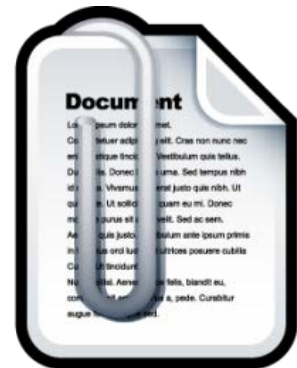
Working on a new application platform

- Applicants will access the application from the SWEEP webpage
- Log in to access application and submit



# Application Attachments

- Project design
- Completed Budget Worksheet
- Solar system quote if the applicant is proposing a solar
- Completed SWEEP Irrigation Water Savings Assessment Tool
- Completed ARB GHG Calculator Tool
- Twelve consecutive months of baseline GHG emission documentation for any pumps that are impacted by the project (e.g., fuel receipts or utility bills)
- Pump efficiency tests and pump specification documents as required by the ARB Quantification Methodology.

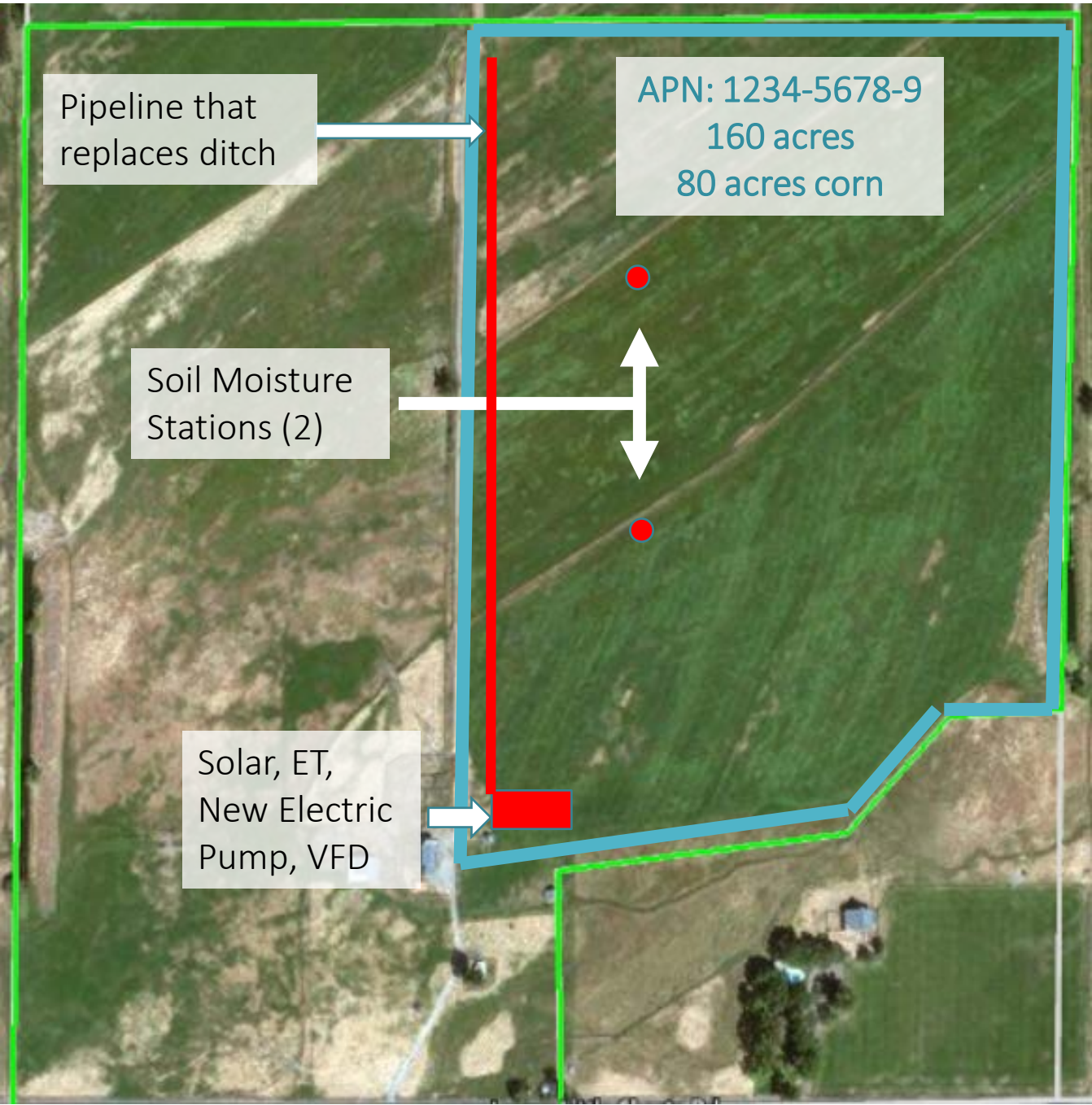




# Project Design

Project designs must include the following, as applicable:

- Labeled Assessor's Parcel Numbers;
- Detailed schematic of the locations of proposed or improved infrastructure and technology including irrigation piping, reservoirs, pumps, and sensors;
- Pertinent agronomic information, such as the crop and water distribution uniformity value of the irrigation system;
- Holistic project overview using aerial imagery software (e.g., online or electronic mapping tools).



Pipeline that replaces ditch

APN: 1234-5678-9  
160 acres  
80 acres corn

Soil Moisture Stations (2)

Solar, ET,  
New Electric Pump, VFD

# Budget Worksheet

Itemize all allowable costs related to project in categories

- Supplies
- Equipment
- Labor
- Other

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 the Draft Request for Applications for a list of allowable and unallowable costs



# SWEEP Irrigation Water Savings Assessment Tool

**Field or Ranch Name:** \_\_\_\_\_

**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    15E  
 22S    16E  
 23S    17E  
 24S    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

**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.

**Impacted Acres:** \_\_\_\_\_

**ET Zone 16**



Reference Evapotranspiration (ET) Zones

ET Zone	ET (inches)	ET (mm)
1	1.0	25.4
2	1.5	38.1
3	2.0	50.8
4	2.5	63.5
5	3.0	76.2
6	3.5	88.9
7	4.0	101.6
8	4.5	114.3
9	5.0	127.0
10	5.5	139.7
11	6.0	152.4
12	6.5	165.1
13	7.0	177.8
14	7.5	190.5
15	8.0	203.2
16	8.5	215.9
17	9.0	228.6
18	9.5	241.3
19	10.0	254.0
20	10.5	266.7
21	11.0	279.4
22	11.5	292.1
23	12.0	304.8
24	12.5	317.5
25	13.0	330.2
26	13.5	342.9
27	14.0	355.6
28	14.5	368.3
29	15.0	381.0
30	15.5	393.7
31	16.0	406.4
32	16.5	419.1
33	17.0	431.8
34	17.5	444.5
35	18.0	457.2
36	18.5	469.9
37	19.0	482.6
38	19.5	495.3
39	20.0	508.0
40	20.5	520.7
41	21.0	533.4
42	21.5	546.1
43	22.0	558.8
44	22.5	571.5
45	23.0	584.2
46	23.5	596.9
47	24.0	609.6
48	24.5	622.3
49	25.0	635.0
50	25.5	647.7
51	26.0	660.4
52	26.5	673.1
53	27.0	685.8
54	27.5	698.5
55	28.0	711.2
56	28.5	723.9
57	29.0	736.6
58	29.5	749.3
59	30.0	762.0
60	30.5	774.7
61	31.0	787.4
62	31.5	800.1
63	32.0	812.8
64	32.5	825.5
65	33.0	838.2
66	33.5	850.9
67	34.0	863.6
68	34.5	876.3
69	35.0	889.0
70	35.5	901.7
71	36.0	914.4
72	36.5	927.1
73	37.0	939.8
74	37.5	952.5
75	38.0	965.2
76	38.5	977.9
77	39.0	990.6
78	39.5	1003.3
79	40.0	1016.0
80	40.5	1028.7
81	41.0	1041.4
82	41.5	1054.1
83	42.0	1066.8
84	42.5	1079.5
85	43.0	1092.2
86	43.5	1104.9
87	44.0	1117.6
88	44.5	1130.3
89	45.0	1143.0
90	45.5	1155.7
91	46.0	1168.4
92	46.5	1181.1
93	47.0	1193.8
94	47.5	1206.5
95	48.0	1219.2
96	48.5	1231.9
97	49.0	1244.6
98	49.5	1257.3
99	50.0	1270.0
100	50.5	1282.7

Instructions
Before
After
Water Savings Estimate
Background Info and Assumptions
+

# GHG Calculator Tool & Support

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)

- 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.





California Air Resources Board  
 Greenhouse Gas Emission Reduction Calculator for the  
 California Department of Food and Agriculture  
 State Water Energy Efficiency Program  
 Greenhouse Gas Reduction Fund  
 Fiscal Year 2016-17

General Project Information		
Input Data	Pre-Project	
Field or Ranch Name		
Pump fuel or electricity use (gallons, scf, kWh)		
Fuel type		
Fuel Emissions Factor	#N/A	
Pump and Motor Enhancement and Replacement - This Section required for all applicants		
Input Data	Pre-Project	Post-Project
Motor Rated Horsepower (hP)		
Operational Hours (hr) (if Known) - if unknown, leave cell blank		
Overall Pumping Efficiency (%)		
System Pressure (ft)	User may override system pressure if known.	User may override system pressure if known.
Pumping depth (ft)		
Discharge pressure (ft)		
Friction losses (ft)		
Are you installing a VFD?	N/A	
Irrigation System Enhancement (for systems utilizing pumps)		
Input Data	Pre-Project	Post-Project
Water Savings (SWEEP Water Savings Tool) (%)	N/A	
Fuel Conversions and Renewable Energy		
Input Data	Post-Project	
Renewable energy capacity (kW)		
New fuel type		
Fuel Emissions Factor	#N/A	
Fuel conversion	No change	
Conversion Factor	1	

# Public Comment

Public comments on the draft SWEEP solicitation can be sent to [cdfa.oefi@cdfa.ca.gov](mailto:cdfa.oefi@cdfa.ca.gov) by September 12, 2018 at 5 PM



# CDFA HEALTHY SOILS PROGRAM

2018 HSP Incentives Program  
Request for Grant Applications

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Public Listening Session

*August 30 – September 5, 2018*



CALIFORNIA DEPARTMENT OF  
FOOD & AGRICULTURE



# Outline

- Program Background and Objectives
- Funding and Duration
- Solicitation Timeline and Process
- Review Process and Scoring Criteria
- Eligibility and Exclusions
- HSP Agricultural Management Practices
- Project Duration and Requirements
- How to Apply
- Technical Assistance
- Award and Payment Processes

# PROGRAM BACKGROUND AND OBJECTIVES

- **Healthy Soils Program (HSP)**

Stems from California Healthy Soils Initiative, a collaboration of state agencies and departments that promotes the development of healthy soils on California's farmlands and ranchlands.

**Two components:** HSP Incentives Program and HSP Demonstration Projects

- **Objectives:**

To build soil organic carbon and reduce atmospheric greenhouse gases (GHGs).

- **HSP Incentives Program**

Providing financial incentives to California growers and ranchers to implement agricultural management practices that sequester carbon, reduce atmospheric GHGs and improve soil health which also lead to efficient use of water.

- **HSP Demonstration Projects**

- 1) Funding on-farm demonstration projects that conduct research and/or showcase conservation management practices that mitigate GHG emissions and increase soil health; and
- 2) Creating a platform promoting widespread adoption of conservation management practices throughout the state.



# FUNDING AND DURATION

- **Funding sources:**

- ❑ Budget Act of 2018 - \$8.5 Million through Proposition 68 (California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access for All Act of 2018).
- ❑ Budget Act of 2018 (SB 856) - \$5 Million through the Greenhouse Gas Reduction Fund (GGRF).

- **Program Funding:**

- ❑ HSP Incentives Program:  
Maximum Grant Amount: \$75,000 per application
- ❑ *HSP Demonstration Projects:*  
Maximum Grant Amount:
  - ✓ *Type A Projects: \$250,000 per application*
  - ✓ *Type B Projects: \$100,000 per application*

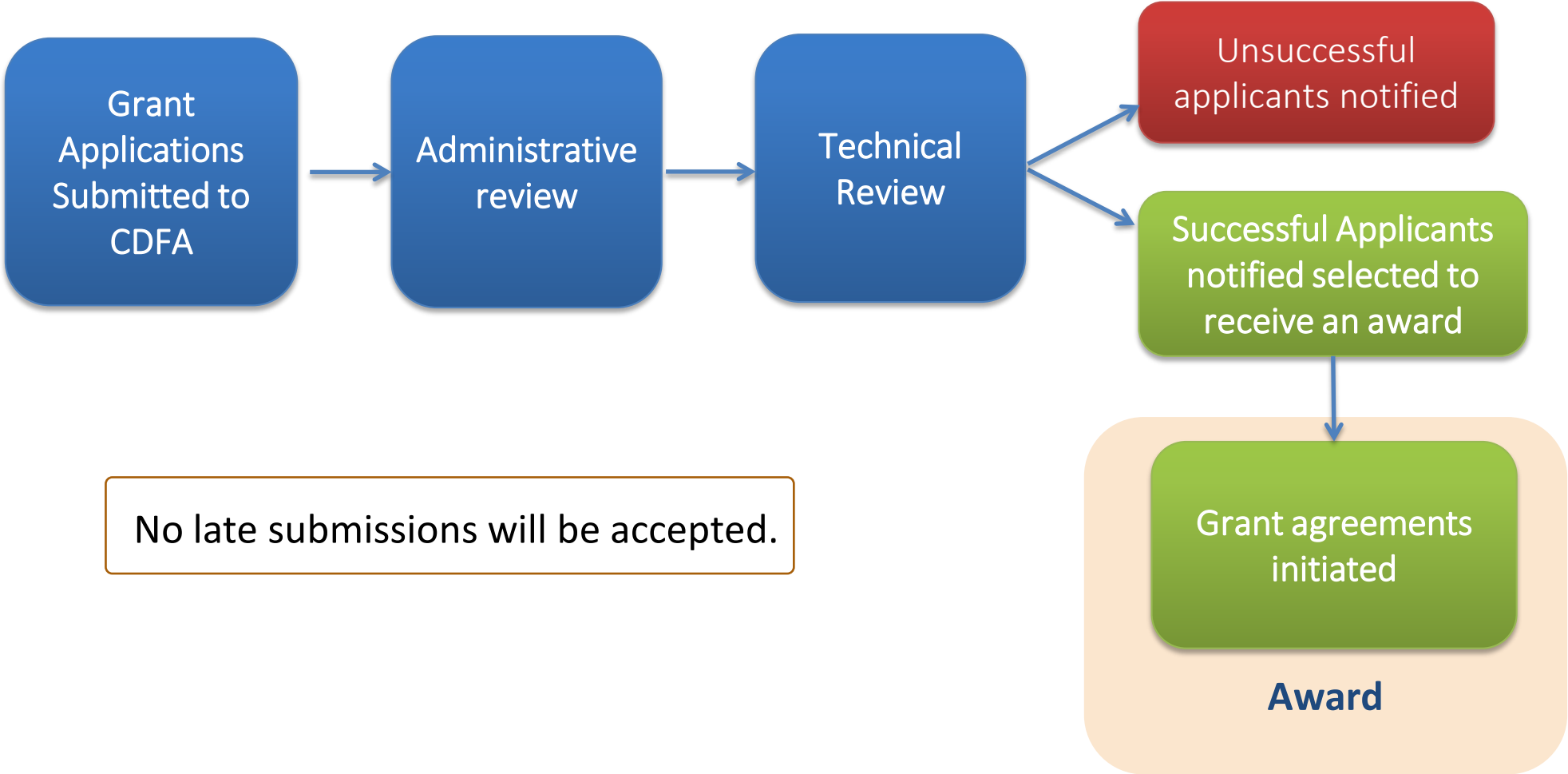
- **Program Duration:**

July 1, 2019 – March 31, 2022

# SOLICITATION TIMELINE

<b>Activity</b>	<b>Tentative Date</b>
Invitation to Submit Grant Applications	November 2018
CDFA Grant Application Workshops and Webinar	December 2018
Applications Due (in eight weeks)	January 2019
Review Period	January – March 2019
Award Announcement	March 2019

# SOLICITATION PROCESS



# REVIEW PROCESS

## **Multiple Stages of Review:**

- Step 1: Administrative Review: Internal – Conducted by CDFA.
- Step 2: Technical Review: External – Conducted by Technical Reviewers (University experts).
- Additional Considerations: cost sharing during grant duration.

# SCORING CRITERIA

<b>Criteria</b>	<b>Score</b>
<b>Project Feasibility (logistics, design, workplan &amp; budget)</b>	<b>40</b>
<b>Project Sustainability</b>	<b>10</b>
<b>GHG Emission Reduction Benefits</b>	<b>20</b>
<b>Soil Health and Environmental Co-Benefits</b>	<b>10</b>
<b>Conservation Plan</b>	<b>10</b>
<b>Benefits to priority populations or SDACs</b>	<b>10</b>
<b>Total</b>	<b>100</b>

# PROGRAM ELIGIBILITY

- California farmers, ranchers and Federal and California Recognized Native American Indian Tribes.
- Projects must be located on California agricultural operations, reduce agricultural GHGs and sequester soil carbon.
- Applicant must have control of the land for the duration of the grant:
  - Letter of agreement from landowner for leased land is required
- One application per unique tax identification number.
- Grant amount cannot exceed \$75,000.
- Implement at least one HSP Agricultural Management Practice.



# PROGRAM EXCLUSIONS

- Grant funds **cannot** be used to implement practices other than those listed in the HSP RGA.
- Grant funds **cannot** be used to fund fields or Assessor Parcel Numbers (APNs) with existing and ongoing implementation of any HSP agricultural management practices.
- Grant funds **cannot** be used to fund fields or Assessor Parcel Numbers (APNs) which a HSP Demonstration or Incentives project was previously awarded.
- Compost Application Practices **cannot** be implemented on APNs where soil organic matter content is greater than 20% by dry weight in top 20 cm (or 8 inch) depth.
- Grant funds **cannot** be used for projects that use potted plants or other plant growth media.

# HSP AGRICULTURAL MANAGEMENT PRACTICES (I)

## I. Cropland Management Practices

- Cover Crop ([USDA NRCS CPS 340](#))
- Conservation Crop Rotation ([USDA NRCS CPS 328](#))\*
- Mulching ([USDA NRCS CPS 484](#))
- Nutrient Management ([USDA NRCS CPS 590](#)) (15% reduction in fertilizer application *only*)\*
- Residue and Tillage Management – No-Till ([USDA NRCS CPS 329](#))
- Residue and Tillage Management – Reduced Till ([USDA NRCS CPS 345](#))
- Strip Cropping ([USDA NRCS CPS 585](#))\*
- Compost Application Practices (application rates consistent with those specified in [CDFA Compost Application White Paper](#))
  - Compost Application to Annual Crops
    - Compost Purchased from a Certified Composting Facility
    - On-farm Produced Compost\*
  - Compost Application to Perennials, Orchards and Vineyards
    - Compost Purchased from a Certified Composting Facility
    - On-farm Produced Compost\*

*Practice marked with an asterisk (\*) is a new practice proposed by public and stakeholder groups during Nov. 6 – Dec. 18, 2017. Final inclusion of these practices is subject to CDFA evaluation and public comment.*

# HSP AGRICULTURAL MANAGEMENT PRACTICES (2)

## 2. Herbaceous Cover Establishment on Cropland

- Conservation Cover ([USDA NRCS CPS 327](#))\*
- Contour Buffer Strips ([USDA NRCS CPS 332](#))
- Field Border ([USDA NRCS CPS 386](#))
- Filter Strip ([USDA NRCS CPS 393](#))
- Forage and Biomass Planting ([USDA NRCS 512](#))\*
- Grassed Waterway ([USDA NRCS CPS 412](#))\*
- Herbaceous Wind Barrier ([USDA NRCS CPS 603](#))
- Riparian Herbaceous Cover ([USDA NRCS CPS 390](#))
- Vegetative Barriers (601) ([USDA NRCS CPS 601](#))

*Practice marked with an asterisk (\*) is a new practice proposed by public and stakeholder groups during Nov. 6 – Dec. 18, 2017. Final inclusion of these practices is subject to CDFA evaluation and public comment.*

# HSP AGRICULTURAL MANAGEMENT PRACTICES (3)

## 3. Woody Cover Establishment on Cropland

- Alley Cropping ([USDA NRCS CPS 311](#))\*
- Hedgerow Planting ([USDA NRCS CPS 422](#))
- Multi-story Cropping ([USDA NRCS CPS 379](#))\*
- Riparian Forest Buffer ([USDA NRCS CPS 391](#))
- Tree/Shrub Establishment ([USDA NRCS CPS 612](#))\*
- Windbreak/Shelterbelt Establishment ([USDA NRCS CPS 380](#))

*Practice marked with an asterisk (\*) is a new practice proposed by public and stakeholder groups during Nov. 6 – Dec. 18, 2017. Final inclusion of these practices is subject to CDFA evaluation and public comment.*

# HSP AGRICULTURAL MANAGEMENT PRACTICES (4)

## 4. Grazing Lands Practices

- Compost Application to Grassland (application rates consistent with those specified in [CDFA Compost Application White Paper](#))
  - Compost Purchased from a Certified Composting Facility
  - On-farm Produced Compost\*
- Nutrient Management ([USDA NRCS CPS 590](#)) (Reduce Fertilizer Application Rate by 15%)\*
- Prescribed Grazing ([USDA NRCS CPS 528](#))\*
- Range Planting ([USDA NRCS CPS 550](#))\*
- Silvopasture ([USDA NRCS CPS 381](#))

*Practice marked with an asterisk (\*) is a new practice proposed by public and stakeholder groups during Nov. 6 – Dec. 18, 2017. Final inclusion of these practices is subject to CDFa evaluation and public comment.*

# PROJECT DURATION

<b>Project Year</b>	<b>Duration of Project Year</b>	<b>Practice Implementation Must Begin No Later Than</b>
<b>1</b>	July 1, 2019 – June 30, 2020	November 30, 2019
<b>2</b>	July 1, 2020 – June 30, 2021	November 30, 2020
<b>3</b>	July 1, 2021 – March 31, 2022	November 30, 2021

# PROGRAM REQUIREMENTS (I)

- Baseline data for each APN:
  - Cropping history in the past three years (January 2015 – January 2018).
  - Management history in the past three years (January 2015 – January 2018).
- For Fields/APNs where compost application practices are to be implemented:  
Major soil type (soil series) name and soil organic matter content data sourced from UCD Web Soil Survey at <https://casoilresource.lawr.ucdavis.edu/gmap/>
- Must use the California Air Resources Board (CARB) GHG Quantification Methodology and GHG Calculation Tools.
  - [GHG Quantification Methodology for CDFA Healthy Soils Program](#)
  - [COMET-Planner](#)
  - [Compost-Planner](#)

# PROGRAM REQUIREMENTS (2)

## Requirements on Practice Implementation and Verification

- Implementation of practice(s) must be located on the same field/APN(s) during the entire project duration.
- Implementation of practices must begin prior to November 30 in each project year.
- Reports on soil organic matter content prior to practice implementation, and one, two and three years after practice implementation to be submitted to CDFA.
- Awarded projects are subjected to verification to evaluate the project site and implementation of eligible agricultural management practice(s).
- Awarded projects must post signage on nearest cross-street to inform the public that the project received funds from *the California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access For All Act of 2018* for the project duration.



# Outline

- Program Background and Objectives
- Funding and Duration
- Solicitation Timeline and Process
- Review Process and Scoring Criteria
- Eligibility and Exclusions
- HSP Agricultural Management Practices
- Project Duration and Requirements
- **How to Apply**
- **Technical Assistance**
- **Award and Payment Processes**

# ONLINE APPLICATION PROCESS

## WizeHive

← → ↻ 🏠 [https://webportalapp.com/sp/home/cdfa\\_hsp](https://webportalapp.com/sp/home/cdfa_hsp) 📖 ☆

**Basic Instructions:**

This section will only become active when the Profile is completed. If it is not active for the applicant, they need to return to the Profile and make sure that they have clicked "Save."

To begin their application, the applicant needs to click "+Get Started" on the Submission Card below. This will bring them to the application.

When the applicant returns to this Homepage, they can see the status of their application because the Submission Card will have a colored status bar at the bottom.

GChen -  
Implementation of  
Cover Crop and  
Reduced-Till for

Created on 07/27/2018

Application

**Under Development**

# ONLINE APPLICATION PROCESS

WizeHive

Under Development

[Homepage](#) > GChen - Implementation of Cover Crop and Reduced-Till for Vegetable Productions

(This is where you can put instructions for the Submission Section)

**Basic Instructions:**

## Application

### Application Overview

✔ Complete



(This is where you put instructions/description for this step)

**Basic Instructions:**

If you have not started this section, please click the "Start Now" button to the right.

If you have already started this section, please click the "Pen & Paper" icon to the right to continue.

If you have completed the section and would like to view, please click the "Eye" icon to the right.

### Project Site and Logistics

✔ Complete



(This is where you put instructions/description for this step)

**Basic Instructions:**

If you have not started this section, please click the "Start Now" button to the right.

# APPLICATION CONTENTS

1. Application Overview
2. Project Site and Logistics
3. Project Design
4. Work Plan
5. Project Budget
  - 1) Budget Worksheet
  - 2) Cost Share
6. Project Sustainability
7. GHG Reduction Estimation
8. Soil Health and Environmental Co-benefits
9. Conservation Plan (Optional)
10. Benefits to Priority Populations ([CalEnviroScreen 3.0](#)) or SDACs ([Community FactFinder](#)) (Optional)

# CDFA TECHNICAL ASSISTANCE & QUESTIONS

- CDFA will provide application assistance workshops and webinars to potential applicants.
- CDFA will provide on-demand and timely assistance to local technical assistance providers.
- Questions and Answers (Q&A)
  - CDFA will conduct 5 rounds of Q&A to address general questions about application submissions process and program requirements.
  - Answers to all questions including those received during CDFA's Workshops and Webinars will be posted at <https://www.cdfa.ca.gov/oefi/healthysoils/IncentivesProgram.html>.
  - Email questions to [grants@cdfa.ca.gov](mailto:grants@cdfa.ca.gov).

# LOCAL TECHNICAL ASSISTANCE

- CDFA has partnered with local Resource Conservation Districts (RCDs) and other not-for-profit organizations throughout the state to provide application technical assistance to potential applicants.
  - One-to-one on-demand technical assistance
  - Workshops (Optional)
- List of local technical assistance providers, technical experts, and/or technical assistance workshops will be posted at:  
<https://www.cdfa.ca.gov/oefi/healthysoils/IncentivesProgram.html>

# GROUNDS FOR DISQUALIFICATION

- Incomplete grant applications: applications with one or more unanswered questions necessary for administrative or technical review.
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# AWARD AND PAYMENT PROCESSES

- If selected for an award, execution of the grant agreement is conditional upon applicants agreeing to the following program requirements:
  - Project reporting requirements;
  - Practice verification
  - Maintaining practice implementation for a minimum of three years; and
  - Maintaining documentation related to HSP for a minimum of three years.
- Grant payment will be on a reimbursement basis through yearly invoicing upon practice verification.
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# CDFA LOOKING FORWARD TO WRITTEN COMMENTS



**Comments are due to**

**[cdfa.oefi@cdfa.ca.gov](mailto:cdfa.oefi@cdfa.ca.gov)**

**by September 12, 2018, 5:00 p.m. PDT.**



CALIFORNIA DEPARTMENT OF  
FOOD & AGRICULTURE

# CDFA HEALTHY SOILS PROGRAM

2018 HSP Demonstration Projects  
Request for Grant Applications

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Public Listening Session

*August 30 – September 5, 2018*



CALIFORNIA DEPARTMENT OF  
FOOD & AGRICULTURE

# Outline

- Program Background and Objectives
- Funding and Duration
- Solicitation Timeline and Process
- Review Process and Scoring Criteria
- Eligibility and Exclusions
- HSP Agricultural Management Practices
- Project Duration and Requirements
- How to Apply
- Technical Assistance
- Award Process

# PROGRAM BACKGROUND AND OBJECTIVES

- **Healthy Soils Program (HSP)**

Stems from California Healthy Soils Initiative, a collaboration of state agencies and departments that promotes the development of healthy soils on California's farmlands and ranchlands.

**Two components:** HSP Incentives Program and HSP Demonstration Projects

- **Objectives:**

To build soil organic carbon and reduce atmospheric greenhouse gases (GHGs) through

- **HSP Incentives Program**

*Providing financial incentives to California growers and ranchers for agricultural management practices that sequester carbon, reduce atmospheric GHGs and improve soil health which also lead to efficient use of water.*

- **HSP Demonstration Projects**

- 1) Funding on-farm demonstration projects that conduct research and/or showcase conservation management practices that mitigate GHG emissions and increase soil health; and
- 2) Creating a platform promoting widespread adoption of conservation management practices throughout the state.

# HSP DEMONSTRATION PROJECTS

## PROJECT TYPES

To facilitate a diversity of applications and promote widespread adoption of HSP agricultural management practices.

**Type A Projects:** Maximum grant award per project is \$250,000.

- a) Implement the selected HSP agricultural management practice(s),
- b) Collect data on field measurements of GHG emissions, and/or Conduct research to address knowledge gaps regarding implementation of specific practices identified as “Research Practices”
- c) Conduct outreach to other farmers and ranchers at the on-farm demonstration sites.

**Type B Projects:** Maximum grant award per project is \$100,000

- a) Implement the selected HSP agricultural management practice(s) and
- b) Conduct outreach to other farmers and ranchers at the on-farm demonstration sites.



# FUNDING AND DURATION

- **Funding sources:**

- ❑ Budget Act of 2018 - \$8.5 Million through Proposition 68 (California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access for All Act of 2018).
- ❑ Budget Act of 2018 (SB 856) - \$5 Million through the Greenhouse Gas Reduction Fund (GGRF).

- **Program Funding:**

- ❑ *HSP Incentives Program:*

*Maximum Grant Amount: \$75,000 per application*

- ❑ HSP Demonstration Projects:

Maximum Grant Amount:

- ✓ Type A Projects: Maximum amount \$250,000 per application
- ✓ Type B Projects: Maximum amount \$100,000 per application

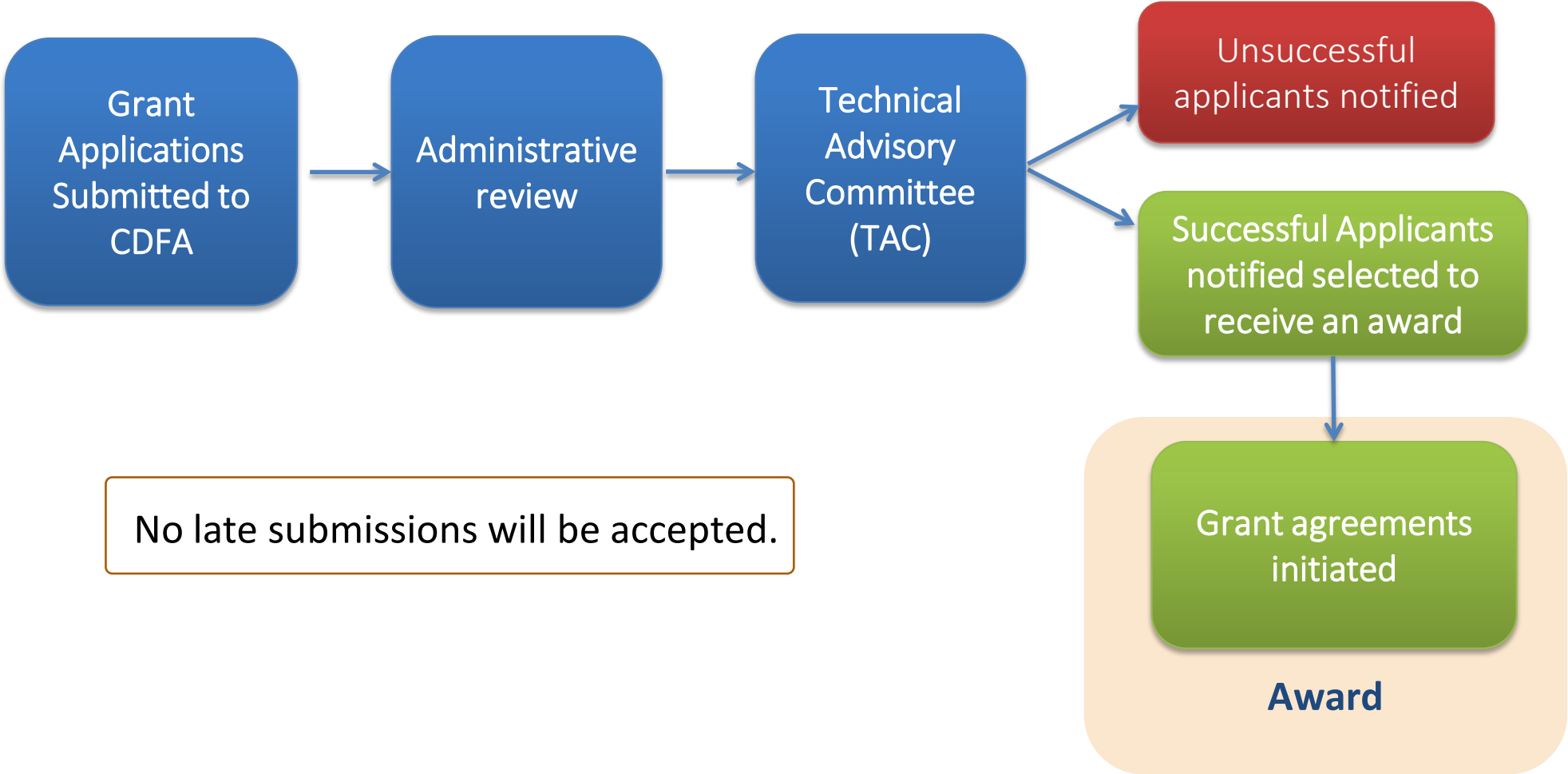
- **Program Duration:**

July 1, 2019 – March 31, 2022

# SOLICITATION TIMELINE

<b>Activity</b>	<b>Tentative Date</b>
Invitation to Submit Grant Applications	November 2018
CDFA Grant Application Workshops and Webinar	December 2018
Applications Due (in eight weeks)	January 2019
Review Period	January – March 2019
Award Announcement	March 2019

# SOLICITATION PROCESS



No late submissions will be accepted.



# REVIEW PROCESS

## Multiple Stages of Review:

- Step 1: Administrative Review: Internal – Conducted by CDFA.
- Step 2: Technical Review: External – Conducted by Technical Advisory Committee – subject matter experts affiliated with state and federal agencies.
- Additional considerations
  - Cost share
  - Regional distribution and crop production representation

# SCORING CRITERIA

<b>Criteria</b>	<b>Score</b>
<b>Project Merit:</b>	
<b>1. Type A Projects:</b>	
a. <b>Demonstration Component</b>	<b>25</b>
b. <b>Outreach Component</b>	<b>15</b>
<b>2. Type B Projects:</b>	
a. <b>Demonstration Component</b>	<b>10</b>
b. <b>Outreach Component</b>	<b>30</b>
<b>Project Timeline and Implementation Plan</b>	<b>15</b>
<b>Project Team Qualifications</b>	<b>10</b>
<b>Project Budget and Justification</b>	<b>15</b>
<b>GHG Emission Reduction Benefits</b>	<b>15</b>
<b>Benefits to Priority Population or SDACs</b>	<b>5</b>
<b>Total</b>	<b>100</b>

# PROGRAM ELIGIBILITY

- Not-for-profit entities, University Cooperative Extensions, Federal and University Experiment Stations, Resource Conservation Districts (RCDs), Federal and California Recognized Native American Indian Tribes, and, farmers and ranchers in partnership with one of the aforementioned entities.
- A project must include at least one farm (privately or university/government owned) to fulfill demonstration requirements.
- CDFA will award a maximum of two applications submitted by the same applicant, but each application should be for a unique project.
- More than one farm may be included in a single application; however, the same farms cannot be listed on multiple applications.
- Applicant must have control of the land for the duration of the grant:
  - Letter of agreement from landowner for leased land is required.
- Implement at least one HSP Agricultural Management Practice.

# PROGRAM EXCLUSIONS

- Individuals **are not** eligible to apply.
- Grant funds **cannot** be used to implement practices other than those listed as *eligible* under the HSP RGA
- Grant funds **cannot** be used to fund fields or Assessor Parcel Numbers (APNs) with existing and ongoing implementation of any HSP agricultural management practices.
- Grant funds **cannot** be used to fund fields or Assessor Parcel Numbers (APNs) which a HSP Demonstration or Incentives project was previously awarded.
- Compost Application Practices **cannot** be implemented on APNs where soil organic matter content is greater than 20% by dry weight in top 20 cm (or 8 inch) depth.
- Grant funds **cannot** be used for projects that use potted plants or other plant growth media.

# HSP AGRICULTURAL MANAGEMENT PRACTICES (I)

## I. Cropland Management Practices

- Cover Crop ([USDA NRCS CPS 340](#))
- Conservation Crop Rotation ([USDA NRCS CPS 328](#))\*
- Mulching ([USDA NRCS CPS 484](#))
- Nutrient Management ([USDA NRCS CPS 590](#)) (15% reduction in fertilizer application *only*)\*
- Residue and Tillage Management – No-Till ([USDA NRCS CPS 329](#))
- Residue and Tillage Management – Reduced Till ([USDA NRCS CPS 345](#))
- Strip Cropping ([USDA NRCS CPS 585](#))\*
- Compost Application Practices (application rates consistent with those specified in [CDFA Compost Application White Paper](#))
  - Compost Application to Annual Crops
    - Compost Purchased from a Certified Composting Facility
    - On-farm Produced Compost\*
  - Compost Application to Perennials, Orchards and Vineyards
    - Compost Purchased from a Certified Composting Facility
    - On-farm Produced Compost\*

*Practice marked with an asterisk (\*) is a new practice proposed by public and stakeholder groups during Nov. 6 – Dec. 18, 2017. Final inclusion of these practices is subject to CDFA evaluation and public comment.*

# HSP AGRICULTURAL MANAGEMENT PRACTICES (2)

## 2. Herbaceous Cover Establishment on Cropland

- Conservation Cover ([USDA NRCS CPS 327](#))\*
- Contour Buffer Strips ([USDA NRCS CPS 332](#))
- Field Border ([USDA NRCS CPS 386](#))
- Filter Strip ([USDA NRCS CPS 393](#))
- Forage and Biomass Planting ([USDA NRCS 512](#))\*
- Grassed Waterway ([USDA NRCS CPS 412](#))\*
- Herbaceous Wind Barrier ([USDA NRCS CPS 603](#))
- Riparian Herbaceous Cover ([USDA NRCS CPS 390](#))
- Vegetative Barriers (601) ([USDA NRCS CPS 601](#))

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# HSP AGRICULTURAL MANAGEMENT PRACTICES (3)

## 3. Woody Cover Establishment on Cropland

- Alley Cropping ([USDA NRCS CPS 311](#))\*
- Hedgerow Planting ([USDA NRCS CPS 422](#))
- Multi-story Cropping ([USDA NRCS CPS 379](#))\*
- Riparian Forest Buffer ([USDA NRCS CPS 391](#))
- Tree/Shrub Establishment ([USDA NRCS CPS 612](#))\*
- Windbreak/Shelterbelt Establishment ([USDA NRCS CPS 380](#))

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# HSP AGRICULTURAL MANAGEMENT PRACTICES (4)

## 4. Grazing Lands Practices

- Compost Application to Grassland (application rates consistent with those specified in [CDFA Compost Application White Paper](#))
  - Compost Purchased from a Certified Composting Facility
  - On-farm Produced Compost\*
- Nutrient Management ([USDA NRCS CPS 590](#)) (Reduce Fertilizer Application Rate by 15%)\*
- Prescribed Grazing ([USDA NRCS CPS 528](#))\*
- Range Planting ([USDA NRCS CPS 550](#))\*
- Silvopasture ([USDA NRCS CPS 381](#))

*Practice marked with an asterisk (\*) is a new practice proposed by public and stakeholder groups during Nov. 6 – Dec. 18, 2017. Final inclusion of these practices is subject to CDFa evaluation and public comment.*



# HSP AGRICULTURAL MANAGEMENT PRACTICES (5)

## 5. Research Practices (Type A Projects only)

- Anaerobic Digestate Application
- Microbial Inoculation with Compost Tea
- Nutrient Management ([CPS 590](#)) (Replacing Synthetic N Fertilizer with Soil Amendments)
- Nutrient Management ([CPS 590](#)) (Use of Nitrification Inhibitors)
- Nutrient Management ([CPS 590](#)) (Use of Slow Release Fertilizers)
- One-Time Compost Application with Higher Rates for Grazed Grasslands (once every ten years)
- Vermicompost Application: Application of compost produced from organic materials using various species of worms
- Whole Orchard Recycling: Grinding of whole trees and incorporating into soil during orchard removal

# PROJECT DURATION

<b>Project Year</b>	<b>Duration of Project Year</b>	<b>Practice Implementation Must Begin No Later Than</b>
<b>1</b>	July 1, 2019 – June 30, 2020	November 30, 2019
<b>2</b>	July 1, 2020 – June 30, 2021	November 30, 2020
<b>3</b>	July 1, 2021 – March 31, 2022	November 30, 2021

# PROGRAM REQUIREMENTS (I)

- Baseline data for each APN:
  - Cropping history in the past three years (January 2015 – January 2018).
  - Management history in the past three years (January 2015 – January 2018).
- For Fields/APNs where compost application practices are to be implemented:  
Major soil type (soil series) name and soil organic matter content data sourced from UCD Web Soil Survey at <https://casoilresource.lawr.ucdavis.edu/gmap/>
- Must use the California Air Resources Board (CARB) GHG Quantification Methodology and GHG Calculation Tools.
  - [GHG Quantification Methodology for CDFA Healthy Soils Program](#)
  - [COMET-Planner](#)
  - [Compost-Planner](#)

# PROGRAM REQUIREMENTS (2): EXPERIMENTAL DESIGN

## **For both Type A and Type B projects:**

- A Project must include at least one of the HSP Agricultural Management Practices as Treatment (T) where it has not been implemented previously.
- A Project must also include Control (C) to serve as a comparison to T.
- T and C should be located side-by-side, and differ from each other with respect to the presence/absence of new management practice(s) implementation while keeping all other activities the same as much as possible.
- When selecting locations in the APN to layout T and C, ensure field conditions such as soil properties, drainage, landscape, and cropping and management histories and size are as similar as possible.
- T and C must not be changed to a different location within the APN during the entire project term, (i.e., July 1, 2019 through March 31, 2022).

## **For Type A projects:**

- Each T must have a corresponding C.
- Plot size of T and C must be equal and large enough to allow meaningful data collection and farming operation based on practice(s) selected.
- Minimum three replicates for each T and C are required.

# PROGRAM REQUIREMENTS (3): DATA COLLECTION

## **Required for both Type A and Type B projects:**

- Soil organic matter from each APN:
  - prior to initial implementation (2019, baseline data),
  - One year after implementation of funded practices (2020)
  - Two years after implementation of funded practices (2021)
  - Three years after implementation of funded practices (2022)

## **Required for Type A projects:**

- Measurements of GHG emissions on T and C project sites where Soil Management Practices are implemented. GHG measurements from other eligible management practices are optional, as applicable.
- Crop yield data.

## **Optional for both Type A and Type B projects:**

- Additional data on soil health, co-benefits, and/or ecosystem services.
- Detailed economic analyses on production profitability for selected practice(s).

# PROGRAM REQUIREMENTS (4): OUTREACH

## Required for both Type A and Type B projects:

- At Least one outreach event per year will be provided
- A schedule of outreach events must be submitted to CDFA at least 30 days prior to the event date to be posted on HSP website. Event information to be provided includes
  - Name of practice(s) to showcase
  - Location
  - Date and time
  - A designated project representative and contact information
- A minimum of 120 different individual farmers and/or ranchers for three years (July 1, 2019 to March 31, 2022) must attend the demonstration project site(s).
- Documentable outreach and attendance records must be submitted to CDFA as part of the project report.

# PROGRAM REQUIREMENTS (5): PROJECT REPORTING

- Semi-annual and annual progress reports during the grant term (July 1, 2019 – March 31, 2022).
  - Annually soil organic matter content for each APN/ Field\*.
  - Status of project implementation including all work completed and any reportable data.
  - Plan for next six months.
  - Management practice implementation activities and impacts.
  - Project data, including but not limited to (1) soil organic matter data, (2) GHG fluxes/annual emissions, crop yield or economic analysis (Type A Projects only), (3) co-benefits and ecosystem services (optional).
  - Outreach activities and impacts.
  - Demonstration and outreach plan for next 6 months.
  - Upon completion of project, barriers encountered and overcome, and recommendations for successful implementation.
- A Final Performance Report must be submitted no later than 30 calendar days following the expiration date of the grant agreement or after the project is complete.

*\* If not specified, it is required for both Type A and B Projects.*

# PROGRAM REQUIREMENTS (6)

## **Project Implementation and Verification**

- Implementation of practice(s) must be located on the same field/APN(s) during the entire project duration.
- Implementation of practices must begin prior to November 30 in each project year.
- Awarded projects are subjected to verification to evaluate project site, practice implementation, and outreach activities.
- Awarded projects must post signage on nearest cross-street to inform the public that the project received funds from *the California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access For All Act of 2018* for the project duration.



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- **Technical Assistance**
- **Award Process**

# ONLINE APPLICATION PROCESS

## WizeHive

Under Development

The screenshot shows a web browser window with the URL [https://wizehivetalapp.com/sp/home/cdfa\\_hsp](https://wizehivetalapp.com/sp/home/cdfa_hsp). The page content includes:

**Basic Instructions:**  
This section will only become active when the Profile is completed. If it is not active for the applicant, they need to return to the Profile and make sure that they have clicked "Save."  
To begin their application, the applicant needs to click "+Get Started" on the Submission Card below. This will bring them to the application.  
When the applicant returns to this Homepage, they can see the status of their application because the Submission Card will have a colored status bar at the bottom.

The main content area features three submission cards:

- Add Another:** A dashed border card containing a blue plus sign and the text "Add Another".
- Chen - Compost Application and Silvopasture on Rangeland:** A card with the title "Chen - Compost Application and Silvopasture on Rangeland", a creation date of "Created on 07/30/2018", and an orange status bar at the bottom labeled "Application".
- GChen - Implementation of Cover Crop and Reduced-Till for:** A card with the title "GChen - Implementation of Cover Crop and Reduced-Till for", a creation date of "Created on 07/27/2018", and an orange status bar at the bottom labeled "Application".

# ONLINE APPLICATION PROCESS

## WizeHive

Under Development

[Homepage](#) > GChen - Implementation of Cover Crop and Reduced-Till for Vegetable Productions

(This is where you can put instructions for the Submission Section)

**Basic Instructions:**

**Application**

### Application Overview

✔ Complete



(This is where you put instructions/description for this step)

**Basic Instructions:**

If you have not started this section, please click the "Start Now" button to the right.

If you have already started this section, please click the "Pen & Paper" icon to the right to continue.

If you have completed the section and would like to view, please click the "Eye" icon to the right.

### Project Site and Logistics

✔ Complete



(This is where you put instructions/description for this step)

**Basic Instructions:**

If you have not started this section, please click the "Start Now" button to the right.

# APPLICATION CONTENTS

1. Application Overview
2. Project Justification
3. Project Design
  - 1) Experimental Design
  - 2) Outreach Design
4. Work Plan
  - 1) Practice Implementation Plan
  - 2) Data Collection Plan
  - 3) Outreach Plan
5. Project Evaluation and Success
6. Project Team Qualification
7. Project Budget Justification
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- Grant recipients will be required to submit quarterly invoice for reimbursement of actual expenses incurred for the approved project activities and supporting documentation.
- CDFA will withhold ten percent from the total grant award until the verification requirement is complete to ensure grant recipients complete the project.
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