

# CDFA HEALTHY SOILS PROGRAM

2020 HSP Demonstration Projects  
Request for Grant Applications

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Technical Assistance Workshop



CALIFORNIA DEPARTMENT OF  
FOOD & AGRICULTURE

# Outline

- Program Overview
- Funding Sources 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
- Award Process

# PROGRAM OVERVIEW

- **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.

Competitive grant program: [HSP Incentives Program](#) and [HSP Demonstration Projects](#)

- **Objectives:** To increase statewide implementation of conservation management practices that improve soil health, sequester carbon and reduce atmospheric greenhouse gases (GHGs).
- **HSP Demonstration Projects:** (1) funding on-farm demonstration projects that collect data 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 Sources and Duration



- **Funding source:**

Budget Act of 2019 - \$28 Million through the California Climate Investments (CCI).

- **Program Funding:**

- HSP Demonstration Projects
  - Maximum Grant Amount per application
    - Type A Projects: \$250,000
    - Type B Projects: \$100,000

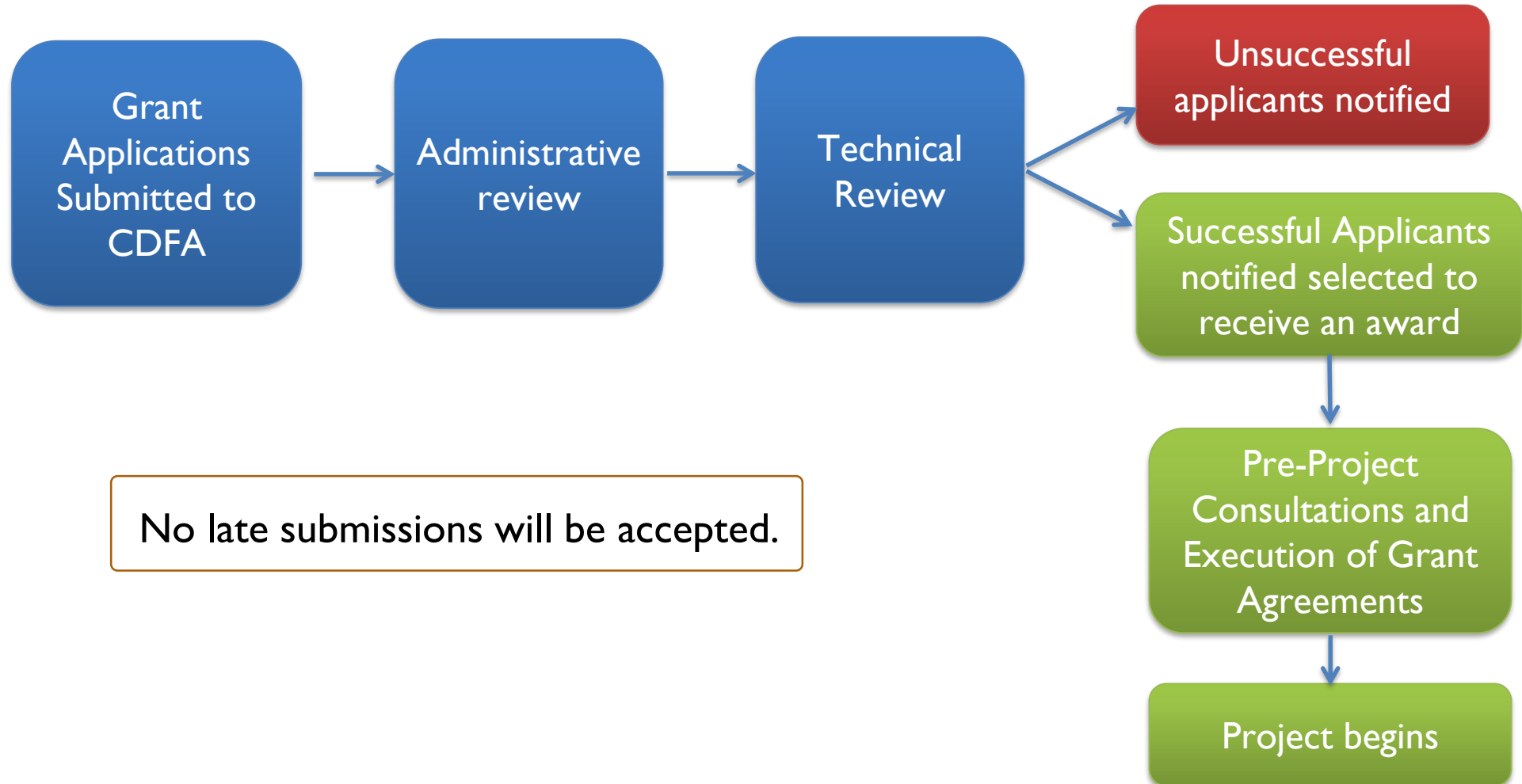
- **Grant (Project) Duration:**

September 1, 2020 – March 31, 2023

# SOLICITATION TIMELINE

Activity	Dates
Release Request for Grant Applications	February 27, 2020
CDFA Grant Application Workshops and Webinars	March 2020
Applications Due	April 23, 2020 5:00 pm PT
Review Period	April – July 2020
Award Announcement	August 2020

# SOLICITATION PROCESS



# REVIEW PROCESS

## **Multiple Stages of Review:**

- Step 1: Administrative Review: Internal – Conducted by CDFA
- Step 2: Technical Review: External – Conducted by Technical Advisory Committee (State and Federal Agency Subject Matter Experts)
  - Each application will be scored and ranked in order of highest score to lowest score to be considered for funding.
- Applications Prioritized for Funding: Projects provide benefits to Socially Disadvantaged Farmers or Ranchers, and/or Priority Populations
- Additional Consideration:
  - Soil management practices may vary with climatic regions, soil conditions, and crop production systems. Therefore, projects with greater regional and crop production representation may be given additional consideration during the review and evaluation process to achieve widespread adoption of the management practices in the state.

# SCORING CRITERIA

Criteria	Score
<b>Project Merit</b>	
<b>1. Type A Projects</b>	
<b>a. Demonstration Component</b>	<b>25</b>
<b>b. Outreach Component</b>	<b>15</b>
<b>2. Type B Projects</b>	
<b>a. Demonstration Component</b>	<b>15</b>
<b>b. Outreach Component</b>	<b>25</b>
<b>Project Timeline and Implementation Plan</b>	<b>15</b>
<b>Project Team Qualification</b>	<b>10</b>
<b>Project Budget and Justification</b>	<b>20</b>
<b>GHG Emission Reduction Benefits</b>	<b>15</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. Individuals are not eligible to apply.
- A project must include at least one farm (privately or university/government owned) to fulfill demonstration requirements.
- Maximum two unique project applications submitted by the same applicant (lead applicant), each application must be for a unique project.
- An organization can be collaborator on multiple projects.
- More than one farm may be included in a single application; however, the same farms cannot be listed on multiple applications.
- Applicants must lease, own or otherwise control the Assessor's Parcel Numbers (APNs) where project activities are proposed to occur for the entirety of the project duration.
- If selected for funding, applicants must be able to execute a grant agreement within 30 days of receiving a notice of award.

# PROGRAM EXCLUSIONS

- Grant funds **cannot** be used to implement practices other than those listed in the HSP RGA (Request for Grant Applications).
- Grant funds **cannot** be used to fund existing and ongoing implementation of HSP agricultural management practices, including fields within the Assessor Parcel Numbers (APNs) in which a HSP Demonstration Project was previously awarded.
- Awards made through the HSP Demonstrations Projects cannot be used as cost share for awards made through the HSP Incentives Program, vice versa.
- Compost Application and Whole Orchard Recycling **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 to implement a practice that does not match the agricultural system as shown in HSP Agricultural Management Practices.
- Grant funds **cannot** be used for projects that use potted plants or other plant growth media.

# HSP AGRICULTURAL MANAGEMENT PRACTICES (I)

## I. Cropland Practices

- 1) Alley Cropping ([USDA NRCS CPS 311](#))
- 2) Compost Application Practices (application rates consistent with those specified in [CDFA Compost Application White Paper](#))
  - ❑ Compost Purchased from a Certified Composting Facility
  - ❑ On-farm Produced Compost (*compliant with all requirements in the RGA*)
- 3) Conservation Cover ([USDA NRCS CPS 327](#))
- 4) Conservation Crop Rotation ([USDA NRCS CPS 328](#))
- 5) Contour Buffer Strips ([USDA NRCS CPS 332](#))
- 6) Cover Crop ([USDA NRCS CPS 340](#))
- 7) Field Border ([USDA NRCS CPS 386](#))
- 8) Filter Strip ([USDA NRCS CPS 393](#))
- 9) Forage and Biomass Planting ([USDA NRCS 512](#))
- 10) Grassed Waterway ([USDA NRCS CPS 412](#))

# HSP AGRICULTURAL MANAGEMENT PRACTICES (2)

## I. Cropland Practices (Cont'd)

- 11) Hedgerow Planting ([USDA NRCS CPS 422](#))
- 12) Herbaceous Wind Barrier ([USDA NRCS CPS 603](#))
- 13) Mulching ([USDA NRCS CPS 484](#))
- 14) Multi-story Cropping ([USDA NRCS CPS 379](#))
- 15) Nutrient Management ([USDA NRCS CPS 590](#)) (15% reduction in fertilizer application *only*)
- 16) Residue and Tillage Management – No-Till ([USDA NRCS CPS 329](#))
- 17) Residue and Tillage Management – Reduced Till ([USDA NRCS CPS 345](#))
- 18) Riparian Forest Buffer ([USDA NRCS CPS 391](#))
- 19) Riparian Herbaceous Cover ([USDA NRCS CPS 390](#))
- 20) Strip Cropping ([USDA NRCS CPS 585](#))
- 21) Tree/Shrub Establishment ([USDA NRCS CPS 612](#))
- 22) Vegetative Barriers (601) ([USDA NRCS CPS 601](#))
- 23) Windbreak/Shelterbelt Establishment ([USDA NRCS CPS 380](#))

# HSP AGRICULTURAL MANAGEMENT PRACTICES (3)

## II. Orchard or Vineyard Practices

- 1) Compost Application Practices (application rates consistent with those specified in [CDFA Compost Application White Paper](#))
  - ❑ Compost Purchased from a Certified Composting Facility
  - ❑ On-farm Produced Compost (*compliant with all requirements in the RGA*)
- 2) Conservation Cover ([USDA NRCS CPS 327](#))
- 3) Cover Crop ([USDA NRCS CPS 340](#))
- 4) Filter Strip ([USDA NRCS CPS 393](#))
- 5) Hedgerow Planting ([USDA NRCS CPS 422](#))
- 6) Mulching ([USDA NRCS CPS 484](#))
- 7) Nutrient Management ([USDA NRCS CPS 590](#)) (15% reduction in fertilizer application *only*)
- 8) Residue and Tillage Management – No-Till ([USDA NRCS CPS 329](#))
- 9) Residue and Tillage Management – Reduced Till ([USDA NRCS CPS 345](#))
- 10) Whole Orchard Recycling ([CDFA Whole Orchard Recycling Report](#))
- 11) Windbreak/Shelterbelt Establishment ([USDA NRCS CPS 380](#))

# HSP AGRICULTURAL MANAGEMENT PRACTICES (4)

## III. Grazing Land Practices

- 1) Compost Application Practices (application rates consistent with those specified in [CDFA Compost Application White Paper](#))
  - Compost Purchased from a Certified Composting Facility
  - On-farm Produced Compost (*compliant with all requirements in the RGA*)
- 2) Hedgerow Planting ([USDA NRCS CPS 422](#))
- 3) Prescribed Grazing ([USDA NRCS CPS 528](#))
- 4) Range Planting ([USDA NRCS CPS 550](#))
- 5) Riparian Forest Buffer ([USDA NRCS CPS 391](#))
- 6) Silvopasture ([USDA NRCS CPS 381](#))
- 7) Tree/Shrub Establishment ([USDA NRCS CPS 612](#))
- 8) Windbreak/Shelterbelt Establishment ([USDA NRCS CPS 380](#))

# HSP AGRICULTURAL MANAGEMENT PRACTICES (5)

## **IV. Additional Practices for Demonstration and Data Collection (Type A Projects only)**

- 1) Anaerobic Digestate Application: Cropland application of solids generated from anaerobic digestion of organic materials.
- 2) Microbial Inoculation with Compost Tea: Cropland application of diluted compost steeped or brewed in water with aeration/stirring (i.e. compost tea).
- 3) Mycorrhizal Application: Incorporating soil with fungi that form a symbiotic relationship with roots of crop plants.
- 4) Nutrient Management (CPS 590): Replacing Synthetic N Fertilizer with Soil Amendments such as beef feedlot manure, chicken broiler manure, chicken layer manure, other manure, dairy manure, sheep manure and swine manure.
- 5) Nutrient Management (CPS 590): Use of Nitrification Inhibitors
- 6) Nutrient Management (CPS 590): Use of Slow Release Fertilizers
- 7) One-Time Compost Application with Higher Rates for Grazed Grasslands: Application of compost to grazed grasslands at rates higher than currently supported by Healthy Soils Program.
- 8) Vermicompost Application: Application of compost produced from organic materials using various species of worms.

# NON-OVERLAPPING PRACTICES (I)

**Practices in the same group cannot be implemented on the exact same land area or field, i.e., cannot overlap.**

- Group I
  - ❑ Cover Crop ([USDA NRCS CPS 340](#))
  - ❑ Conservation Crop Rotation ([USDA NRCS CPS 328](#))
  - ❑ Strip Cropping ([USDA NRCS CPS 585](#))
- Group II:
  - ❑ Residue and Tillage Management – No-Till ([USDA NRCS CPS 329](#))
  - ❑ Residue and Tillage Management – Reduced Till ([USDA NRCS CPS 345](#))
- Group III:
  - Compost Application: Compost is either
    - ❑ Purchased from a Certified Facility
    - ❑ On-farm Produced Compost
- Group IV:
  - ❑ Alley Cropping ([USDA NRCS CPS 311](#))
  - ❑ Multi-story Cropping ([USDA NRCS CPS 379](#))



# NON-OVERLAPPING PRACTICES (2)

**Practices in the same group cannot be implemented on the exact same land area or field, i.e., cannot overlap.**

- Group V
  - Mulching ([USDA NRCS CPS 484](#))
  - Whole Orchard Recycling
- Group VI:
  - 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](#))

# NON-OVERLAPPING PRACTICES (3)

**Practices in the same group cannot be implemented on the exact same land area or field, i.e., cannot overlap.**

- Group VII
  - Alley Cropping ([USDA NRCS CPS 311](#))
  - 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](#))
- Group VIII:
  - Any Practice in Group VI
  - Mulching ([USDA NRCS CPS 484](#))

# PROJECT DURATION

<b>Project Year</b>	<b>Duration of Project Year</b>	<b>Practice Implementation Must Begin No Later Than</b>
<b>1</b>	Septemeber 1, 2020 – June 30, 2021	December 31, 2020
<b>2</b>	July 1, 2021 – June 30, 2022	December 31, 2021
<b>3</b>	July 1, 2022 – March 31, 2023	December 31, 2022

# PROGRAM REQUIREMENTS (I)

## **Project Design – Required for both Type A and Type B Projects:**

- Treatment field (T) and Control field (C)
  - A Project must include at least one of the Eligible Agricultural Management Practices to be implemented on T where it has not been implemented previously.
  - A Project must also include 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 (or absence) of new management practice(s) implementation while keeping all other field 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, 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., September 1, 2020 through March 31, 2023).

# PROGRAM REQUIREMENTS (2)

## **Project Design – Required for Type A Projects Only:**

- Treatment field (T) and Control field (C)
  - Each T must have a corresponding C.
  - If multiple practices are to be demonstrated (e.g., combination of cover crop and compost application as one treatment), treatment fields should also include cover crop alone and compost application alone, while the control field should be no cover crop no compost application.
  - 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.
  - A minimum of three replicates for each T and C is required.

# PROGRAM REQUIREMENTS (3)

## **Data Collection:**

- Required for both Type A and Type B projects:
  - Soil organic matter from each APN that is part of the project:
    - Prior to initial implementation of funded practices (2020, baseline data)
    - One year after implementation of funded practices (2021)
    - Two years after implementation of funded practices (2022)
    - Three years after implementation of funded practices (2023)
- 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:
  - A grant recipient must conduct at least one field day per year at the project site to showcase HSP Practices to farmers and/or ranchers.
    - Recipients must notify CDFA of the events being conducted at least 30 days prior to event dates.
    - All outreach events will be posted on HSP Demonstration Projects website.
  - Farmer and rancher attendance and outreach for demonstration of HSP projects must include a minimum of 120 different individual farmers and/or ranchers for the duration of the grant agreement term (i.e., 40 per project year for the three project years).
    - Farmers and ranchers must attend the demonstration project site.
    - Grant recipients may meet this requirement through outreach efforts conducted in addition to the mandatory field days.
    - Outreach events may include presentations at conferences or meetings where farmers and ranchers are present as participants.
    - List of farmers and ranchers present at outreach events must be included in reports to CDFA.

# ONLINE APPLICATION PROCESS

- WizeHive HSP Demonstration Projects Application Portal:  
[https://webportalapp.com/sp/login/2020\\_cdfa\\_hsp\\_demo](https://webportalapp.com/sp/login/2020_cdfa_hsp_demo)
- Important documents to review before starting:
  - [2020 HSP Demonstration Projects Request for Grant Applications \(RGA\)](#)
  - [Frequently Asked Questions](#)
- Important documents to download for preparing application:
  - [Project Narrative Template](#)
  - [Project Work Plan Template](#)
  - [Budget Worksheet Template](#)



# APPLICATION CONTENTS

## Applicant Information

- I. Project Overview
- II. Project Narrative
- III. Project Work Plan
- IV. Evaluation of Project Success
- V. Project Team Qualifications

## VI. Project Budget

- i. Budget Template
- ii. Optional cost share

## VII. GHG Reduction Estimation

## VIII. Benefits to (*Optional, Prioritized*)

- i. Socially Disadvantaged Farmers and Ranchers, ***and/or***
- ii. Priority Populations  
([www.arb.ca.gov/cci-resources](http://www.arb.ca.gov/cci-resources))

# Live Demonstration

WizeHive HSP Demonstration Projects Online Application

[https://webportalapp.com/sp/login/2020\\_cdfa\\_hsp\\_demo](https://webportalapp.com/sp/login/2020_cdfa_hsp_demo)

# I. PROJECT OVERVIEW

- Project Title:
- Project Description (project abstract) (200 words)
- Project Budget
  - Funds Requested
  - Cost Share (optional)
  - Total Project Budget (funds requested + cost share)
- General information of agricultural operation to be included in the project
- Identify and list your State Assembly and Senate Members

## II. PROJECT NARRATIVE

- **Project Site Map and Design Schematic**

- Project site map – [CDFA HSP RePlan Tool](#)
- Project Design schematic:
  - Outline each treatment/control plot (Type A and B)
  - Outline replicates and sampling locations in the plot as applicable (Type A)

- **Project Narrative**

- [Project narrative template](#)

# Live Demonstration

[CDFA HSP RePlan Tool](#)

# Live Demonstration

[Project Narrative Template](#)

# III. PROJECT WORK PLAN

**Download the project work plan template, follow the instructions to fill out all information required.**

- Management Practice Implementation Plan
- Data Collection Plan
- Outreach Plan

Live Demonstration

Project Work Plan Template



## IV. PROJECT SUCCESS

- Describe the methods that will be used to assess the progress and success of practice implementation (both Type A and Type B projects) and data collection (Type A projects).
- Describe the cost/benefit for adoption of the agricultural management practices and anticipate any barriers to adoption, if applicable (both Type A and Type B projects).
- Describe the methods that will be used to assess the success of outreach activities. This must go beyond attendance counts from outreach events to include methods and indicators to quantify potential impacts in the short (1-2 years) and long term (3 or more years) (both Type A and Type B projects).

# V. PROJECT TEAM QUALIFICATIONS

- Project Oversight: For project management, describe roles of all personnel in the project. Note specific time commitments and how they will impact the proposed project.
- For each project director or principal investigators (PIs), attach a current resume, a description of current outreach activities, and information on current/recent planned or pending research and/or outreach projects. Combine into one PDF file to upload.
- For cooperators and collaborators, include a letter with detailed contact information, a description of the role in the project, the estimated time commitment, and a statement of agreement to participate in the project. Combine into one PDF file to upload.

# VI. PROJECT BUDGET WORKSHEET (I)

Live Demonstration

[Project Budget Template](#)

# VI. PROJECT BUDGET WORKSHEET (2)

## **Examples of Unallowable Costs:**

- Costs incurred outside of the grant agreement term.
- Costs covered by another State or Federal grant program.
- Pre-development costs for project design, grant application preparation.
- General purpose equipment which is not required for research, scientific, or technical activities (e.g., office equipment and furnishings).
- Expenditures for purchasing or leasing land or buildings.

## VII. GHG REDUCTION BENEFITS

- Follow instructions provided at CARB GHG Quantification Webpage  
<https://www.arb.ca.gov/cci-resources>
  - 2020 HSP Quantification Methodology
- Must use CDFA HSP COMET-Planner to estimate GHG reduction benefits  
<http://comet-planner-cdfahsp.com/>
  - Acreage of control fields should not be included in the calculation, as the practice is not being implemented on control fields.

*Please note: CDFA HSP COMET-Planner Tool also calculates estimated payment rates for each practice. However, these payment rates are applicable only to HSP Incentives Program. Applicants of the HSP Demonstration Projects are allowed to prepare their itemized budgets as explained in the previous section.*

# Live Demonstration

[CDFA HSP COMET-Planner](#)

## VIII. BENEFITS TO SDFRS AND PRIORITY POPULATIONS (OPTIONAL, PRIORITIZED)

- **Socially Disadvantaged Farmers and Ranchers**
- **Priority Populations**
  - Check yes and proceed only if it is identified on the CDFA HSP RePlan Report
    - Census tracts identified as disadvantaged community per SB 535; or
    - Census tracts identified as low-income community per AB 1550.
  - Follow Instructions in the application to identify if a proposed project will benefit priority populations.
    - This includes answering questions in each of the Steps 1 through 3.
    - In addition to answering yes/no questions, supporting documents must be provided in case making a claim for benefits provided (i.e. selecting yes as answers in any of the Steps 1, 2 or 3).

# GROUNDNS FOR DISQUALIFICATION

- Incomplete grant applications:
  - ❑ Applications with one or more unanswered questions necessary for administrative or technical review.
  - ❑ Applications with missing, blank, unreadable, corrupt, or otherwise unusable attachments.
- Applications not meeting the program requirements.
- Applications requested for more than the maximum award amount.
- Applications with unallowable costs or activities not necessary to complete the project objectives.
- Funding requested for activities outside the grant duration.



# AWARD PROCESS & REPORTING REQUIREMENTS

- If selected for an award, execution of the grant agreement is conditional upon applicants agreeing to the following program requirements:
  - ❑ Project implementation for a minimum of three years
  - ❑ Project reporting requirements
  - ❑ Project verification
  - ❑ State audit and accounting requirements
  - ❑ Maintain documentation related to HSP for a minimum of three years.

# ASSISTANCE AND QUESTIONS

- CDFA has posted [Frequently Asked Questions](#) on the HSP Demonstration Projects website.
- CDFA cannot assist in the preparation of grant applications. However, general questions may be submitted to [cdfa.HSP\\_Tech@cdfa.ca.gov](mailto:cdfa.HSP_Tech@cdfa.ca.gov).
- Answers to questions will be posted on [HSP Demonstration Projects](#) website according to the schedule below.

Questions Received by	Answers Provided by
5:00 P.M., March 13, 2020	March 20, 2020
5:00 P.M., March 27, 2020	April 3, 2020
5:00 P.M., April 10, 2020	April 17, 2020

# CONTACTS

- Email to: [cdfa.HSP\\_Tech@cdfa.ca.gov](mailto:cdfa.HSP_Tech@cdfa.ca.gov)
- Visit: HSP Demonstration Projects website:  
<https://www.cdfa.ca.gov/oefi/healthysoils/DemonstrationProjects.html>
- Sign up for: [Email Notification](#)