

The Healthy Soils Program Demonstration Projects

The Healthy Soils Program is funded by California Climate Investments

Request for Grant Applications

Released:
August 8, 2017

Applications Due:
By 5:00 p.m. PDT on September 19, 2017
No late submissions accepted



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1. BACKGROUND AND PURPOSE

The California Department of Food and Agriculture (CDFA) is pleased to announce, in coordination with the California Air Resources Board (CARB), a competitive grant process for the 2017 Healthy Soils Program (HSP) Demonstration Projects.

The 2017 HSP Demonstration Projects is part of the Healthy Soils Program (HSP), which is funded by the Greenhouse Gas Reduction Fund (GGRF), and stems from the [California Healthy Soils Initiative](#), which is a collaboration of state agencies and departments that promotes the development of healthy soils on California's farmlands and ranchlands. All projects that receive GGRF monies are required by statute ([Government Code Section 16428.9](#)) to achieve greenhouse gas (GHG) emission reductions and further the purposes of the Global Warming Solutions Act of 2006 ([AB 32](#)).

The objectives of the HSP are to build soil organic carbon and reduce atmospheric GHGs by (1) providing financial incentives to California farmers and ranchers for agricultural management practices that sequester carbon, reduce atmospheric GHGs and improve soil health, (2) funding on-farm demonstration projects that showcase conservation management practices that mitigate GHG emissions and increase soil health, and (3) creating a platform promoting widespread adoption of conservation management practices throughout the state.

The HSP Demonstration Projects addresses Objectives 2 and 3. Objective 1 is addressed in the 2017 HSP Incentives Program. Request for Applications for both the HSP Incentives Program and HSP Demonstration Projects are available on the HSP website: <https://www.cdfa.ca.gov/oefi/healthysouls/>.

2. FUNDING AND DURATION

The HSP Demonstration Projects will provide up to \$3 million in funding for on-farm demonstration projects. The projects must showcase conservation management practices that mitigate GHG emissions, increase soil health, and create a platform promoting widespread adoption of conservation management practices throughout the state.

- CDFA will fund two types of Demonstration Projects in order to facilitate a diversity of applications and promote widespread adoption of the eligible agricultural management practices. Applicants must indicate the type of project they are applying for on the application. Project types are:
 - **Type A:** Projects are required to implement the selected eligible agricultural management practice(s) and include field measurements of GHG emissions at the on-farm demonstration sites where soil management practices are implemented, in addition to conducting outreach and education to other farmers and ranchers. The

maximum grant award for a Type A project is \$250,000.

- **Type B:** Projects are required to implement the selected eligible agricultural management practice(s) and conduct outreach to other farmers and ranchers at the on-farm demonstration sites. The maximum grant award for a Type B project is \$100,000.
- Grant funds cannot be expended before January 1, 2017 or after December 31, 2019.
- Cost sharing (matching funds or in-kind contributions) must be obtained for approximately one third of the anticipated project costs (See: [8.4 Project Term and Cost Sharing](#)). Grant recipients must expend matching funds during January 1, 2020 – December 31, 2020.
- CDFA reserves the right to offer an award different than the amount requested.
- The HSP Demonstration Projects funds may be combined with other funds from public and private sources as matching funds for the same project.

3. ELIGIBILITY AND EXCLUSIONS

3.1 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 are eligible to apply.
- A project must include at least one farm (privately or university/government owned) to fulfill demonstration requirements.
- Projects must result in net positive GHG benefits from specific eligible agricultural management practices identified in this solicitation for the grant agreement term supported by document(s) of Carbon Sequestration and GHG Estimation Report(s) (See [8.7 GHG Reductions Estimation](#)).
- CDFA will award a maximum of two applications submitted by the same applicant, but each application should be for a unique project.
- There is no limit to the number of applications which a single organization can be a collaborator.
- More than one farm may be included in a single application; however, the same farms cannot be listed on multiple applications.
- Applicants must ensure control of the land under Assessor's Parcel Numbers (APNs) where the project is proposed to ensure project implementation from January 1, 2018 through December 31, 2020. If leasing land, applicants must have documented landowner approval to implement proposed practices(s) from January 1, 2018 through December 31, 2020. If the applicants are leasing property on which practices will be implemented, the applicant is responsible for ensuring that they do not violate the lease agreement or received the consent of the lessor.

- Projects, at a minimum, must implement at least one of the eligible [Soil Management Practices](#) on fields or APNs where it was not implemented previously.

3.2 EXCLUSIONS

- HSP Demonstration Projects funds cannot be used to implement management practices that are not listed as [eligible agricultural management practices](#) in this grant solicitation.
- HSP funds cannot be used to fund fields or APNs with existing and ongoing implementation of any agricultural management practices listed under [Section 6. Eligible Agricultural Management Practices](#).
- Awards made through the HSP Demonstrations Projects cannot be used as matching funds for awards made through the HSP Incentives Program.
- Compost Application Practices must not be implemented on APNs consisting of soils with soil organic matter content greater than 20% by dry weight (in top 20 cm or 8 inch depth).
- HSP funds cannot be used for projects that use potted plants or other plant growth media.

4. TIMELINE

The application period begins August 8, 2017. The deadline to submit a grant application is September 19, 2017 at 5:00 p.m. (PDT). *No exceptions will be granted for late submissions.*

Invitation to Submit Grant Applications	August 8, 2017
CDFA Grant Application Workshops and Webinar	August 15 – 25, 2017
Applications Due (in six weeks)	5:00 p.m. PDT, September 19, 2017
Review Period	September – November, 2017
Award Announcement	December, 2017
Project Implementation Begins	January, 2018

5. APPLICATION ASSISTANCE WORKSHOPS

CDFA will conduct four workshops on the 2017 HSP grant application process. One of the workshops will also be offered as a webinar to allow for remote attendance. For information about the CDFA Grant Application Workshops, including the schedule and locations, visit the HSP Demonstration Projects website:

<https://www.cdfa.ca.gov/oefi/healthsoils/DemonstrationProjects.html>

6. ELIGIBLE AGRICULTURAL MANAGEMENT PRACTICES

CDFA has identified eligible agricultural management practices that sequester carbon, reduce atmospheric GHGs, and improve soil health for the 2017 HSP. Applicants must implement at least one of the Soil Management Practices or maintain an existing Soil Management Practice on APN(s) where it has not been implemented previously (See [3.1 Eligibility](#)). An applicant must include the APN(s) of the field(s) where the eligible management practice(s) will be implemented. An applicant is allowed to include multiple practices on the same APN or the same practice on multiple APNs.

The following management practices were selected from the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Conservation Practice Standards (CPS) and CDFA specified Compost Application:

Soil Management Practices (at least one must be selected):

- Cropland Management Practices
 - Cover Crop ([USDA NRCS CPS 340](#))
 - Mulching ([USDA NRCS CPS 484](#))
 - Residue and Tillage Management – No-Till ([USDA NRCS CPS 329](#))
 - Residue and Tillage Management – Reduced Till ([USDA NRCS CPS 345](#))
- Compost Application Practices (CDFA)
 - Compost Application to Annual Crops (CDFA)
 - Compost Application to Perennials, Orchards and Vineyards (CDFA)
 - Compost Application to Grassland (CDFA)

Cropland to Herbaceous Cover Practices (must be implemented in combination with at least one Soil Management Practice):

- Contour Buffer Strips ([USDA NRCS CPS 332](#))
- Field Border ([USDA NRCS CPS 386](#))
- Riparian Herbaceous Cover ([USDA NRCS CPS 390](#))
- Filter Strip ([USDA NRCS CPS 393](#))
- Vegetative Barriers (601) ([USDA NRCS CPS 601](#))
- Herbaceous Wind Barrier ([USDA NRCS CPS 603](#))

Establishment of Woody Cover Practices (must be implemented in combination with at least one Soil Management Practice):

- Woody Plantings Practices
 - Hedgerow Planting ([USDA NRCS CPS 422](#))
 - Riparian Forest Buffer ([USDA NRCS CPS 391](#))
 - Windbreak/Shelterbelt Establishment ([USDA NRCS CPS 380](#))

- Grazing Lands Practices
 - Silvopasture ([USDA NRCS CPS 381](#))

7. TECHNICAL SPECIFICATIONS FOR ESTIMATION OF GHG BENEFITS

- For the purpose of estimating the net GHG benefits due to a practice implementation, the expected life of the practice is as follows:

Eligible Agricultural Management Practice	Practice Lifespan*
Soil Management Practices	3 Years
Cropland to Herbaceous Cover Practices	3 Years
Woody Cover Establishment Practices	10 Years

*Practice lifespan for the HSP is different from that required by USDA-NRCS.

- Compost Application Rates Eligible for Funding:

Crop Type	Compost Type	Dry Tons/Acre*
Annual Crops	Higher N (C:N \leq 11)	2.2 – 3.6
	Lower N (C:N $>$ 11)	4.0 – 5.3
Tree / Perennial	Higher N (C:N \leq 11)	1.5 – 2.9
	Lower N (C:N $>$ 11)	4.0 – 5.3
Rangeland	Lower N (C:N $>$ 11)	4.0 – 5.3

*Compost application rates eligible for funding through this program were developed under the guidance of the [Environmental Farming Act – Science Advisory Panel \(EFA-SAP\)](#) and are published in a white paper report titled “Compost Application Rates for California Croplands and Rangelands for a CDFA Healthy Soils Incentives Program” (abbreviated as [Compost Application White Paper](#)) by CDFA.

- Feet-to-Acre Conversion for Eligible Agricultural Management Practices:

Several of the eligible agricultural management practices supported by the HSP Incentives Program are implemented by length (in feet). However, applicants must enter the total **acres** of management practice implementation into the GHG reduction estimation calculator tools (see [8.7 GHG Reductions Estimation](#)) to estimate project GHG reductions. A methodology to convert feet of practice implementation to acres is included in [Appendix II, Document 6: Feet-To-Acre Conversion for Implemented Practices](#).

8. PROGRAM REQUIREMENTS

Eligible agricultural management practices can be implemented alone (must be a Soil Management Practice) or in combinations. Single or combined agricultural management practice groupings can

be implemented on one APN or several APNs.

For the purposes of the grant application, name specific fields within each APN that will have agricultural management practice(s) implemented on them as Field 1, Field 2, Field 3, etc.

All fields must have the selected agricultural management practices implemented each year for the three project years from January 1, 2018 through December 31, 2020. Implementations must begin prior to the end of each project year.

8.1 PRACTICE IMPLEMENTATION REQUIREMENTS

For the purpose of this program, a Treatment field (**T**) is defined as a field where at least one of the [eligible Soil Management Practices](#), that has not been implemented previously, will be implemented. Control (**C**) is defined as a field which includes the current management practices being implemented on the project site, to serve as a comparison to **T**.

- A Project must include at least one of the [eligible Soil Management Practices](#) to be implemented on **T** where it has not been implemented previously (applies to both Type A and Type B projects).
- 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 (applies to both Type A and Type B projects).
- 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 (applies to both Type A and Type B projects).
- **T** and **C** must not be changed to a different location within the APN during the complete project term, i.e. January 1, 2018 through December 31, 2020.
- Each **T** must have a corresponding **C** and both must have a minimum of three replicates (applies to Type A projects only).

8.2 DATA COLLECTION REQUIREMENTS

The following data collection will be required for both **T** and **C** in each APN identified in the project (and [14.3 Project Reporting Requirements](#)):

- Soil organic matter from each APN that is part of the project:
 - After the award has been made and before implementation of funded practices,
 - Three annual data submissions, beginning one year after initial implementation of practice(s) and ending one year after the final implementation of practice(s).
 - Additional data on soil health¹, co-benefits, and/or ecosystem services are

¹ To determine what kinds of data may be considered indicators of soil health, please see Table 2.02 in the Comprehensive Assessment of Soil Health: The Cornell Framework (2017) at <http://www.css.cornell.edu/extension/soil-health/manual.pdf>. Additional soil health data are also listed in [Appendix II, Document 3: Soil Sampling Protocol for Soil Organic Matter Analysis](#).

encouraged (applies to both Type A and Type B 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 (applies to Type A projects only).
- Crop yield data is required for Type A projects. Detailed economic analyses may be submitted as optional.

8.3 OUTREACH REQUIREMENTS

A minimum of 120 different individual farmers and/or ranchers for three years from January 1, 2018 through December 31, 2020 (i.e., 40 per year) must attend the demonstration project site(s) so the project awardees can showcase the project benefits and co-benefits and share information on the implemented management practice(s). CDFA encourages creative approaches (e.g., holding outreach events multiple times in a year) to attract new individuals and also support those already familiar with [eligible agricultural management practices](#) to the sites in order to share knowledge and benefits of eligible agricultural management practices. Approaches such as SMART² (Specific, Measurable, Achievable, Relevant and Time-bound) goals are encouraged.

Demonstration project awardees will be required to provide documentable outreach and attendance records as part of the project reporting to CDFA (See [14.3 Project Reporting Requirements](#)). Failure to meet outreach and education requirements may be considered grounds for termination of the CDFA HSP Demonstration Projects Grant Agreement. Projects that fail to meet outreach and education obligations will not be considered for future HSP Demonstration Project funding.

Outreach requirements apply to both Type A and Type B projects.

8.4 PROJECT TERM AND COST SHARING

Cost sharing must be obtained for approximately one third of the anticipated project costs. Cost sharing can be in the form of matching funds or an in-kind contribution. Matching funds refers to a dollar amount committed to a project from a source other than the HSP. An in-kind contribution is the estimated dollar value of any time, property, or supplies donated to a project.

The HSP Demonstration Projects will provide funds for implementation of [eligible agricultural management practice\(s\)](#) beginning January 1, 2018 to December 31, 2019. This will include funds to implement in Project Years 1 and 2. If awarded, grant recipients are required to continue implementing eligible agricultural management practice(s) during January 1, 2020 through December 31, 2020 (Project Year 3) with cost sharing (See: [Timeline table](#) below).

² For more information on SMART, please visit http://www.hr.virginia.edu/uploads/documents/media/Writing_SMART_Goals.pdf

Applicants will be required to provide documentation of the cost sharing obtained for Project Year 3 ([Appendix I: Attachment D](#)). In addition, applicants must certify the project will continue to completion in order to receive any funds withheld for verification by March 31, 2020 (See: [8.8 Certification of Project Completion](#) and [16. Project Verification](#)).

Table: Timeline for funding expenditures of awarded projects.

Project Year	Duration of Project Year	Implementation Must Begin No Later Than	Reimbursement Schedule
1	January 1, 2018 – December 31, 2018	November 30, 2018	January 1, 2018 – March 31, 2019
2	January 1, 2019 – December 31, 2019	November 30, 2019	April 1, 2019 – March 31, 2020
3	January 1, 2020 – December 31, 2020	November 30, 2020	None; to be covered by matching funds.

8.5 ALLOWABLE AND UNALLOWABLE COSTS

8.5.1. Allowable Costs

Project costs must be itemized and clearly support installation of eligible agricultural management practices including supplies, equipment, labor, and any other allowable costs necessary for project implementation. Project costs must be reasonable and consistent with costs paid for equivalent work on non-grant funded activities or for comparable work in the labor market.

Examples of allowable costs include but are not limited to:

- Cost of implementation of proposed eligible agricultural management practices.
- Cost of sample analyses for Type A projects.
- Costs of meals/snacks/refreshments may be allowed when reasonable and necessary for hosting an official demonstration of the project's eligible agricultural management practices (excluding travel meal costs). Expenses must be reasonable and appropriate for the purpose and nature of the meeting. Allowable costs should follow the applicant organization's established policies or [California State Human Resources \(CalHR\) policy](#).
- Cost of materials needed for outreach activities (e.g., printed handouts or brochures).

8.5.2. Unallowable costs

Unallowable costs include but are not limited to:

- Costs incurred outside of the grant agreement term, i.e., January 1, 2018 – December 2020.
- Training costs to obtain professional certification and certification costs for project award recipients.
- Costs covered by another State or Federal grant program.
- Pre-development costs for project design, grant application preparation, and other activities

that occur prior to January 1, 2018.

- 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.

8.6 BASELINE DATA

Applicants must submit the following baseline data at the time of application.

Required baseline data include:

- Cropping history in the past three years (July 2014 – July 2017) in all APN(s) included in the application.
- Management practice history in the past three years (July 2014 – July 2017) in all APN(s) included in the application.
- Applicants proposing to include Compost Application Practices in their projects must submit either of the following documents for each APN where compost application will be implemented:
 - One soil organic matter test result taken within the last five years for each APN (if available), or
 - Major soil type (soil series) name and organic matter content data sourced from Web Soil Survey at <https://casoilresource.lawr.ucdavis.edu/gmap/> (copy and paste this link into your browser) for the specific APNs where project implementation will occur to confirm that soil organic matter content of APNs in the project site does not exceed 20 percent by dry weight for a 20 cm or 8-inch depth. Instructions to use Web Soil Survey are provided in [Appendix II, Document 4: Step-by-Step Instructions to determine Soil Organic Matter Content Using Web Soil Survey](#).

8.7 GHG REDUCTIONS ESTIMATION

An estimation of the reduction in GHG emissions from the selected eligible agricultural management practices must be calculated using the Quantification Methodology (QM) and calculator tools developed by the CARB (See: [6. Eligible Agricultural Management Practices](#)). The QM and calculator tools used for this program can be accessed at the CARB Quantification Materials website: <https://www.arb.ca.gov/cc/capandtrade/auctionproceeds/quantification.htm>. Once on the website, click on the QM for instructions on how to use the GHG reduction calculation tools for the selected type of management practice (as indicated below). The web links to the GHG calculator tools are provided in the QM.

There are two GHG reduction calculation tools as part of the QM: Compost-Planner QM and Tool (this will be used to estimate GHG reduction from Compost Application Practices) and Comet-Planner QM and Tool (this will be used to estimate GHG reduction from all other eligible agricultural management Practices).

A Carbon Sequestration and GHG Estimation Report will be generated upon completion of the calculation. One Compost-Planner Carbon Sequestration and GHG Estimation Report is required if Compost Application Practice(s) is/are selected. One COMET-Planner Carbon Sequestration and GHG Estimation Report is required if any of the other eligible NRCS practice(s) is/are selected. If both NRCS practice(s) and Compost Application Practices are selected in the project, then one COMET-Planner Carbon Sequestration and GHG Estimation Report and one Compost-Planner Carbon Sequestration and GHG Estimation Report are required.

Projects eligible for HSP funding must achieve net GHG reductions, i.e., GHG reductions estimated using the QM and calculator tools must be positive in consideration of all the practices selected.

8.8 CERTIFICATION OF PROJECT COMPLETION

Applicants will be required to certify in the application and the Grant Agreement that the project will continue through the end of the Year 3 project completion date (December 31, 2020) using the cost sharing obtained for this purpose (See: [8.4 Project Term and Cost Sharing](#)).

9. APPLICATION PROCESS

9.1 HOW TO APPLY

CDFA has partnered with the State Water Resources Control Board (SWRCB) to host a web based application submission process. Applicants will utilize the SWRCB's Financial Assistance Application Submittal Tool (FAAST). FAAST can be accessed through the SWRCB website at <http://faast.waterboards.ca.gov/>. Applicants must create a user account in FAAST to submit a grant application.

FAAST is organized into several tabs and includes a question and answer format. The questionnaire tab in FAAST contains the grant application, which is a series of questions regarding the proposed project. Questions are answered in one or more of the four following formats: a drop down menu; a text box with predetermined character limitations; or as a document attachment. Responses to all questions must be submitted in the manner and format required by the application questionnaire in FAAST without exception.

The SWRCB website contains a Frequently Asked Questions section and a User Manual for the FAAST system. Applicants that have additional questions about the FAAST System should contact FAAST customer service at (866) 434-1083, Monday through Friday, 8:00 am to 5:00 pm or via email, faast_admin@waterboards.ca.gov.

Prior to completing the application questionnaires in FAAST, applicants are encouraged to gather all required information using [Appendix II, Document 1: Grant Application Checklist](#) and

[Appendix II, Document 2: FAAST Grant Application Questions](#) to facilitate effective and timely submission of the grant application.

9.2 GRANT APPLICATION

Applicants must respond to the following questions under the General Information, Project Budget, Cooperating Entities, and Application Questionnaire tabs in the FAAST system. Failure to answer one or more application questions may result in disqualification.

Applicant Organization:

Legal name of the organization that will serve as lead for the project and will receive grant funds.

Submitting Organization:

Legal name of the organization submitting the application on behalf of the applicant.

Cooperating Entities:

List the cooperating entities and identify the role or contribution each will make to the project.

Project Title:

Concisely describe the project in 15 words or less.

Project Description (abstract):

Summarize the need for the project, describe the goals and outcomes, and present a plan for evaluating and measuring the success of the project. The Project Description should minimize the use of technical terms and be appropriate for dissemination to the public as it may be included with information shared publicly for projects funded through California Climate Investments.

Project Budget

- **Funds Requested:** The total amount of funds requested for the project. This number must match the amount listed in the project's budget narrative template. Requests outside of the range allowed for the project type may result in disqualification.
- **Local Cost Match:** The total amount of cost sharing (matching funds and in-kind contributions) committed to the project from other sources. Cost sharing is not a requirement in Project Years 1 and 2 (January 1, 2018 – December 31, 2019); however, cost sharing is encouraged and may serve as evidence to demonstrate commitment to, or support for, the project. Cost sharing is required for Project Year 3 (January 1, 2020 – December 31, 2020).
- **Total Budget:** The sum of Funds Requested plus Local Cost Match.

Applicants must respond to all of the following grant application questions, with the exception of

questions that do not apply to the applicant's project type, on the Application Questionnaire tab as well as attach the required documents on the Attachments tab in FAAST (for Supplemental Attachments use the naming convention in parentheses). Failure to answer one or more questions, may result in disqualification:

I. Project Merit

1) Organization Type:

Using the drop down menu, select the organization type that best describes the applicant.

2) Project Type:

Using the drop down menu, select Project Type A or Project Type B. Failure to select a Project Type will result in disqualification.

3) Agricultural Operation Data:

Using the boxes provided, enter all of the required data regarding the agricultural operation(s) that will participate in the project. This section will include information about the Grower Partner(s), if applicable.

Supplemental Attachments:

If Applicable:

- Landowner agreement (Letter of Agreement).
- Letter(s) of support (LOS) from farmer and rancher Partner(s) (LOS 1, LOS2, etc.).

4) Project Logistics:

Using the boxes provided, enter all of the required data regarding the proposed project logistics. This will include a list of APNs, the eligible agricultural management practices to be implemented and acreage involved for each practice.

5) Baseline Data:

Using the boxes provided, enter all of the required baseline data for the proposed project APNs. These should include cropping and management histories in the past three years.

Supplemental Attachments (if Compost Application Practices are selected):

- One soil organic matter test result taken within the last five years for each APN (if available),
OR,
- Major soil type (soil series) name and soil organic matter content data sourced from Web Soil Survey at <https://casoilresource.lawr.ucdavis.edu/gmap/> (copy and paste this link into your browser) for the specific APNs where project implementation will occur to confirm

that soil organic matter content of APNs in the project site does not exceed 20% by dry weight for a 20 cm (or 8-inch) depth. Instructions to use Web Soil Survey are provided in [Appendix II, Document 4: Step-by-Step Instructions to Determine Soil Organic Matter Content Using Web Soil Survey](#).

6) Project Justification:

All of the following must be addressed within the text boxes provided:

- Describe the mechanism of the proposed agricultural management practices in reducing GHG emissions, increasing carbon sequestration, improving soil health, and/or providing other environmental benefits.
- Describe the geographic location and/or state or regional representation of the project.
- Provide a rationale for the crop(s) (including cash crops and other plant species) selected for the project.
- Describe the agronomic, environmental, or other impacts the project anticipates having on a local, and statewide basis.
- Describe the possibility for, and state or local scale, at which the project anticipates influencing farmers and ranchers to adopt the demonstrated agricultural management practices.

Supplemental Attachments:

Optional:

- If additional space is needed to address the Project Justification, attach a Word document of no more than two pages using 12-point Times New Roman font and one inch margins (Project Justification).

7) Experimental and/or Project Design

All projects must include a Design Schematic that consists of a detailed map of the agricultural operation showing the following:

- The specific APNs where eligible management practices will be implemented.
- A layout of where all eligible management practices will be implemented.
- The total acreage for each eligible management practice to be implemented.
- Names of plant species to be planted, if applicable.

Type A Projects:

All of the following must be addressed within the text boxes provided:

- Provide an experimental design that is statistically sound (randomized and replicated) that includes a schematic representation of the agricultural management practice implementation and how it fits into the production system.
- Outline the methods and scheme for monitoring soil health indicators and GHG emission measurements along with crop yield data collection or economic analysis.

- Describe the proposed approach, procedure, or methodology for project. The approach should be realistic, suitable and feasible for the project.

Supplemental Attachments:

Required:

- Design schematic (Schematic).

Optional:

- If additional space is needed to address the Experimental Design, attach a Word document of no more than two pages using 12-point Times New Roman font and one inch margins (Exp Design 1).
- Additional diagrams or other representations needed to address Experimental Design (Exp Design 2, Exp Design 3).

Type B Projects:

All of the following must be addressed within the text boxes provided:

- Provide a project design that includes a schematic representation of the agricultural management practice implementation and how it fits into the production system.
- Describe the proposed approach, procedure, or methodology for project. The approach should be realistic, suitable and feasible for the project.

Supplemental Attachments:

Required:

- Design schematic (Schematic).

Optional:

- If additional space is needed to address the Project Design, attach a Word document of no more than two pages using 12-point Times New Roman font and one inch margins (Project Design 1).
- Additional diagrams or other representations needed to address Project Design (Project Design 2, Project Design 3).

8) Outreach Design:

All of the following must be addressed within the text boxes provided:

- Describe the proposed outreach activities. These must include on farm Field Day activities. Other activities such as workshops, farmer and/or rancher meetings, social media communications, and publications are encouraged.
- Describe the proposed approach, procedure, or methodology for the outreach activities. Include and clearly describe the methods for notification, recording attendance, distributing and collecting surveys and how they are suitable and feasible for the project.

Supplemental Attachments:

Optional:

- If additional space is needed to address the Outreach Design, attach a Word document of no more than two pages using 12-point Times New Roman font and one inch margins (Outreach Design).

II. Project Timeline and Implementation Plan

9) Work Plan:

Download the required [Work Plan template](#), complete it, and attach it to your application using the attachments tab in FAAST. The Work Plan attachment must be submitted as a Microsoft Word Document (do not submit a PDF), must use the required Microsoft Word Document template (do not alter the template in any way, except to add or remove rows as needed), and must not exceed six pages.

All of the following must be addressed in the Work Plan template:

- **PIN:** Provide the five digit number assigned to the application in FAAST.
- **Project Start Date and Project End Date:** The date project activities will begin and the date project activities will end. Projects may not start before January 1, 2018 and or end after December 31, 2020.

Table I. Management Practice Implementation Plan (applies to both Type A and Type B Projects)

- **APN:** Provide APNs where the project will be implemented.
- **Field Number:** Identify the named Field (e.g., Field 1, Field 2, etc.) on which the eligible management practices will be implemented within an APN or APNs identified in the previous column in the table included in the template.
- **Management Practice Name:** Provide the names of the eligible management practice being implemented as part of the project.
- **Activities:** Describe the tasks necessary to accomplish implementation of all selected agricultural management practices for each field in chronological order for all three project years.
- **Performed by:** In the table provided, identify which members of the project team will do the work for each activity listed (examples include but not limited to personnel, project participants, and/or contractors). All individuals for whom HSP funding is requested in the Budget Narrative attachment must be responsible for activities listed in the Work Plan attachment.
- **Timeline:** In the table provided, provide the estimated beginning and end dates for when each activity will be accomplished (e.g., mm/yyyy – mm/yyyy). Only include activities occurring within the grant period (January 1, 2018 through December 31, 2020).

- **Acres of Practice Implementation:** Enter the total numbers of acres on corresponding Field and APN that the practice(s) will be implemented on
- **Identify if this field is Treatment (T) or Control (C):** Indicate a T or C depending on if the corresponding Field will serve as the treatment (i.e., a new practice is being implemented that was not implemented previously) or control field (i.e., current/existing management practices to serve as a comparison to T).

Table II. Data Collection Plan

- **Activities:** Describe the tasks necessary to accomplish GHG and other data collection from the project site (both T and C fields as applicable) in chronological order for all three project years. Soil organic matter data collection activities should be listed for both Type A and Type B projects. GHG, crop yield and any other additional data collection activities should be listed for Type A projects.
- **Performed by:** In the tables provided, identify which members of the project team will do the work for each activity listed (examples include but not limited to personnel, project participants, and/or contractors). All individuals for whom HSP funding is requested in the Budget Narrative attachment must be responsible for activities listed in the Work Plan attachment.
- **Timeline:** In the tables provided, provide the estimated beginning and end dates for when each activity will be accomplished (e.g., mm/yyyy – mm/yyyy). Only include activities occurring within the grant period (January 1, 2018 through December 31, 2020).

Table III. Outreach Plan (applies to both Type A and Type B projects)

- **Activities:** Describe the tasks necessary to meet the outreach objectives for the project in chronological order for all three project years.
- **Performed by:** In the tables provided, identify which members of the project team will do the work for each activity listed (example include but not limited to personnel, project participants, and/or contractors). All individuals for whom HSP funding is requested in the Budget Narrative attachment must be responsible for activities listed in the Work Plan attachment.
- **Timeline:** In the tables provided, provide the estimated beginning and end dates for when each activity will be accomplished (e.g., mm/yyyy – mm/yyyy). Only include activities occurring within the grant period (January 1, 2018 through December 31, 2020).

10) Evaluation and Project Success:

All of the following must be addressed within the text boxes provided:

- Describe the methods that will be used to assess the progress and success of practice implementation (and data collection for Type A projects). Describe the cost/benefit for

adoption of the agricultural management practices and anticipate any barriers to adoption, if applicable.

- 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). (examples include but not limited to estimated percent increase in farmers and/or ranchers outreach participation, percent increase in adoption of demonstrated management practices by farmers and/or ranchers, and associated benefits such as more GHG reductions and large acreage in soil health improvement in state.)

Supplemental Attachments:

Optional:

- If additional space is needed to address the Evaluation and Project Success, attach a Word document of no more than two pages using 12-point Times New Roman font and one inch margins (Project Success).

III. Team Qualifications

11) 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.

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.

Supplemental Attachments:

Required:

- Attach project leader or PIs Resumes (R) or Curriculum Vitae (CV) and name files R1, R2, CV1, CV2, etc.
- Attach cooperator and collaborator letters and name files as CL1, CL2, etc.

IV. Project Budget and Justification

12) Budget Narrative:

Download the required [Budget Narrative template](#), complete it, and attach it to your application using the attachments tab in FFAST. The Budget Narrative attachment must be submitted as a

Microsoft Word Document (do not submit a PDF) and must use the required Microsoft Word Document template (do not alter the template in any way, except to add or remove rows in the tables as needed). Instructions on required information for each budget section are provided in in the Budget Narrative template.

13) Cost Sharing:

Download the required [Cost Sharing template](#), complete it, and attach it to your application using the attachments tab in FAAST. The Cost Sharing attachment must be submitted as a Microsoft Word Document (do not submit a PDF) and must use the required Microsoft Word Document template (do not alter the template in any way, except to add or remove rows in the table as needed).

All of the following must be addressed in the Cost Sharing template:

- **PIN:** Provide the five digit number assigned to the application in FAAST.
- **Total Amount of Cost Share Committed to the Project:** Enter the grand total of all matching funds and in-kind contributions committed to the project. Cost sharing is required to cover all costs associated with implementation and demonstration of agricultural management practices for Project Year 3.
- **Amount:** In each row of the table, list the amount of cost share committed from a contributing organization. Add or remove rows in the table, as needed.
- **Type of Cost Share:** Specify whether the cost share is in the form of matching funds or an in-kind contribution. Matching funds refers to a dollar amount committed to a project from a source other than the HSP. An in-kind contribution is the estimated dollar value of any time, property, or supplies donated to a project.
- **Source:** Specify the name and contact information for the organization that will be contributing the cost share.
- **Summary of Activities or Costs Covered with Matching Funds or In-kind Contributions:** Describe what costs or activities the cost share will cover.

V. GHG Emission Reduction Benefits

14) GHG Reductions Estimation Report(s)

In the box provided, enter the total GHG reduction estimated to be achieved from the project, i.e., total tonnes of CO₂ equivalent (CO_{2e}) in the Compost-Planner and/or COMET-Planner Carbon Sequestration and GHG Estimation Report (or sum if both calculator tools were used).

For practices that are measured in length, conversion of the total length to acreage is needed. Please refer to [Appendix II, Document 6: Feet-to-Acre Conversion for Implemented Practices](#).

Supplemental Attachments:

- COMET-Planner Carbon Sequestration and GHG Estimation Report, **and/or**
- Compost-Planner Carbon Sequestration and GHG Estimation Report.

VI. Additional Considerations

15) Disadvantaged Communities

Providing benefits to disadvantaged communities (DACs) is optional, however, applications that include this consideration are eligible to receive additional points during review (See: [Evaluation Criteria](#)).

Consistent with [CARB Funding Guidelines for Administering Agencies \(Final Supplement – December 2016\)](#), projects that maximize benefits to disadvantaged communities, (DACs) using the following criteria, will be given additional consideration. These criteria are addressed as questions within FAAST. Please provide documents verifying that the projects meet the criteria below to receive additional points.

Attachments

- A map of where the project is located in relation to local DACs(attach as PDF file)
- Other documents as needed (attach as PDF file).

10. REVIEW AND EVALUATION PROCESS

10.1 REVIEW PROCESS

CDFA will conduct multiple levels of review during the grant application process:

1. The first level review is an administrative review to determine whether application requirements were met.
2. The second level review is a technical review by The HSP Technical Advisory Committee, comprised of a group of experts affiliated with state and federal agencies. The technical reviewers will evaluate grant applications based on the overall expected success of the project including sufficient data generated to demonstrate the expected benefits on GHG emissions reduction, carbon sequestration, soil health improvement, and dissemination of the information to a wide audience.
3. CDFA will select applications for funding based upon the score provided by the review committee. CDFA aims to fund projects that will result in increased knowledge in the eligible agricultural management practices and widespread adoption of these management practices by California farmers and ranchers.

10.2 EVALUATION CRITERIA

Applications are evaluated based on the following criteria.

Criteria	Maximum Points
Project Merit – Type A Projects	
• Demonstration Component	20
• Outreach Component	20
Project Merit –Type B Projects	
• Demonstration Component	10
• Outreach Component	30
Project Timeline and Implementation Plan	10
Project Team Qualifications	10
Project Budget and Justification	15
GHG Emission Reduction Benefits	15
Additional Considerations	10
Total	100

Additional Considerations

During the review process, the following additional considerations will be evaluated when selecting projects for an award of funds based on the number of additional criteria met:

- 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 in order to achieve widespread adoption of the management practices in the state.
- Projects providing benefits to disadvantaged communities³ (DACs) by targeting outreach to farmers located in DACs and/or providing translation services for languages other than English.

11. ASSISTANCE AND QUESTIONS

CDFA cannot assist in the preparation of grant applications; however, general questions may be submitted to grants@cdfa.ca.gov. Please specify HSP Demonstration Projects (Project Type A or B) in the subject line of the email.

CDFA will post Frequently Asked Questions (FAQ) on August 8, 2017 on the HSP Demonstration Projects website: <https://www.cdfa.ca.gov/oefi/healthysouils/DemonstrationProjects.html>. In order to ensure all potential applicants benefit from receiving all submitted questions and answers, CDFA

³ SB 535 requires that a minimum of 25 percent of California Climate Investments is allocated to projects that provide benefits to disadvantaged communities, and of that 25 percent, a minimum of 10 percentage points is allocated to projects that are also located within disadvantaged communities. The California Environmental Protection Agency (CalEPA) identified disadvantaged communities using CalEnviroScreen, a tool developed by the Office of Environmental Health Hazard Assessment that assesses all census tracts in California to identify the areas disproportionately burdened by and vulnerable to multiple sources of pollution.

will post Questions and Answers (Q&A) and responses to the questions will be posted according to the following schedule:

Questions received by	Responses posted by
August 17, 2017 8:00 a.m.	August 22, 2017 5:00 p.m.
August 28, 2017 8:00 a.m.	September 1, 2017 5:00 p.m.

In order to maintain the integrity of the competitive grant process, CDFA is unable to advise and/or provide applicants with any information regarding specific grant applications during the solicitation process.

12. NOTIFICATION AND FEEDBACK

All applicants will be notified regarding the status of their grant application. Applicants not selected for funding will receive feedback on their grant application within 60 days after receiving notification.

13. DISQUALIFICATIONS

The following will result in the disqualification of a grant application:

- Incomplete grant applications: applications with one or more unanswered questions necessary to administrative or technical review.
- Incomplete grant applications: applications with missing, blank, unreadable, corrupt, or otherwise unusable attachments.
- Applications for more than the maximum award amount.
- Applications with unallowable costs or activities necessary to complete the project objectives.

APPEAL RIGHTS: Any discretionary action taken by the Office of Grants Administration (OGA) may be appealed to CDFA's Office of Hearings and Appeals Office within ten (10) days of receiving a notice of disqualification from CDFA. The appeal must be in writing and signed by the responsible party named on the grant application or his/her authorized agent. It must state the grounds for the appeal and include any supporting documents and a copy of the OGA decision being challenged. The submissions must be sent to the California Department of Food and Agriculture Office of Hearings and Appeals, 1220 N Street, 4th Floor, Sacramento 95814 or emailed to CDFA.LegalOffice@cdfa.ca.gov. If submissions are not received within the time frame provided above, the appeal will be denied.

14. AWARD PROCESS

14.1 GRANT AGREEMENT

CDFA will initiate the Grant Agreement process with applicants selected to receive a 2017 HSP Demonstration Projects grant award. Applicants with projects selected for award of funds will receive a Grant Agreement package with specific instructions regarding award requirements including information on project implementation, project reporting, verification, and payment process.

14.2 PROJECT IMPLEMENTATION

Once a Grant Agreement is executed, the grant recipient can begin implementation of the project. Recipients are responsible for the overall management of the awarded project to ensure all project activities are completed as identified in the Work Plan Template ([Appendix I, Attachment B](#)).

Implementation must begin on or after January 1, 2018, but no later than November 30, 2018. Failure to implement the project prior to November 30, 2018 may result in all or any portion of the grant funding withheld or termination of the Grant Agreement.

14.3 PROJECT REPORTING REQUIREMENTS

Recipients are required to submit soil organic matter content data before implementing proposed practice(s), mid-year and annual progress reports during the grant agreement term (January 1, 2018 – December 31, 2020) and a final report in the third year. Financial records and other project documentation may be required to ensure HSP funds are used in compliance with the Grant Agreement terms and conditions.

- Soil organic matter content for each APN before practice implementation (Type A and B Projects).
- Mid-year progress report due every June should include (Type A and B Projects):
 - Status of project implementation including all work completed and any reportable data.
 - Plan for next six months.
- Annual progress report due every December should include:
 - Management practice implementation activities and impacts (Type A and B Projects).
 - Soil organic matter data (Type A and B Projects).
 - GHG fluxes/annual emissions, crop yield or economic analysis (Type A Projects only).
 - Co-benefits and ecosystem services (*optional* for both Type A and B Projects).
 - Outreach activities and impacts (Type A and B Projects).
 - Demonstration and outreach plan for next year (Type A and B Projects).
- Final report due in December, 2020 should include:

- Summary on project implementation activities, barriers encountered and overcome, and recommendations for successful implementation (Type A and B Projects).
- Summary on outreach activities and impacts (Type A and B Projects), including:
 - Recommendations on forms and methods for effective outreach events.
 - Changes in participants' number, knowledge, and depth of involvement.
 - Adoption of demonstration practices by farmers and/or ranchers.
- Improvement in soil health and/or co-benefits, ecosystem service including quantitative (e.g., soil organic matter content) and qualitative description impacts from 3-year implementation of the practices. (Type A and B Projects).
- GHG reduction and profitability from practice implementation (Type A projects only):
 - Reduction in GHG emissions: Compare GHG emissions data and carbon sequestration between **T** and **C**, based on field measurements.
 - Crop yield data (and economic analysis, if available) from **T** and **C**, to identify profitability in the short (1-2 years) and long-term (≥ 3 years) to implement [eligible management practices](#).

15. PAYMENT PROCESS

CDFA will provide the grant recipient with the necessary grant award and invoicing documents. Grant recipients may be eligible to receive an advance payment up to 25 percent of the total grant award for a project. The remaining funds will be allocated on a reimbursement basis through quarterly or monthly invoicing.

CDFA will withhold 10 percent from the total grant award until the verification requirement is complete to ensure grant recipients complete the project as approved by CDFA. Invoicing and closeout of all project expenditures must be completed no later than March 31, 2020.

Applicants will be required to certify the project will continue to completion as part of the verification process and to receive funds withheld (See: [17. Project Verification](#)).

16. PROJECT VERIFICATION

Applicants will be subjected to verification that the eligible agricultural management practices were implemented in a manner consistent with the USDA NRCS CPS guidelines. Verification will be conducted by CDFA or a third-party contracted entity who will conduct field evaluations by APN to verify program compliance during January 1, 2018 through December 31, 2020.

The purpose of project verification is to determine whether and when deliverables are being met and evaluate project progress to ensure the eligible agricultural management practice(s) are

completed within the grant agreement term, i.e., from January 1, 2018 through December 31, 2020.

Recipients may be required to submit financial records and project related documentation (such as receipts for payment of services/goods) to ensure HSP Demonstration Projects funds are used in compliance with the Grant Agreement terms and conditions. The verification must be completed by March 31, 2020.

Consistent with the [CARB Funding Guidelines for Administering Agencies \(Final Supplement – December 2016\)](#), the State of California has the right to review project documents and conduct audits during project implementation and over the project life.

17. POST-PROJECT COMPLETION REQUIREMENTS

Execution of the Grant Agreement is conditional upon agreement to post-project completion requirements. Awardees are required to maintain implementation of practices incentivized through this program for a minimum of three years. However, practices are expected to be maintained, and improved soil health and its associated environmental co-benefits and ecosystem services are expected to be achieved, for the long term. Recipients are encouraged to continue and/or expand these practices on their operations in order to achieve long-term benefits. Additionally, applicants are required to maintain documentation related to the HSP funded project, including records documenting maintenance of the agricultural management practice(s) and any soil testing reports for the project APNs, to report actual benefits achieved for three years.

Failure to work with CDFA 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.

CDFA will contact a randomly selected subset of awarded projects to collect data including, but not limited to, eligible agricultural management practice implementation and GHG reduction estimates, for three years after project completion, consistent with [CARB Funding Guidelines for Administering Agencies \(Final Supplement – December 2016\)](#).

Appendix I: Required Attachments to the Application

- Attachment A. CARB Quantification Methodology and Tools
Accessible at: <https://www.arb.ca.gov/cc/capandtrade/auctionproceeds/quantification.htm>
- Attachment B: Work Plan template
Accessible at: https://www.cdfa.ca.gov/oefi/healthysoils/docs/2017-HSPDemo_WorkPlan.doc

- Attachment C: Budget Narrative template
Accessible at: https://www.cdfa.ca.gov/oefi/HealthySoils/docs/2017-HSPDemo_Budget.doc
- Attachment D: Year 3 Cost Sharing Summary template
Accessible at: https://www.cdfa.ca.gov/oefi/healthysoils/docs/2017-HSPDemo_CostShare.doc

Appendix II: Reference Documents to Assist Preparation of Application

- Document 1: Application Check List
Accessible at: https://www.cdfa.ca.gov/oefi/healthysoils/docs/2017-HSPDemo_CheckList.pdf
- Document 2: FAAST Grant Application Questions
Accessible at: https://www.cdfa.ca.gov/oefi/healthysoils/docs/2017-HSPDemo_FAASTQs.pdf
- Document 3: Soil Sampling Protocol for Soil Organic Matter Analysis
Accessible at: https://www.cdfa.ca.gov/oefi/healthysoils/docs/HSP_SoilSampling.pdf
- Document 4: Step-by-Step Instructions to Determine Soil Organic Matter Content Using Web Soil Survey
Accessible at: https://www.cdfa.ca.gov/oefi/healthysoils/docs/HSP_SoilSurvey.pdf
- Document 5: References for Field GHG Emissions Measurements
Accessible at: https://www.cdfa.ca.gov/oefi/healthysoils/docs/2017-HSPDemo_GHGMeasurements.pdf
- Document 6: Feet-to-Acre Conversion for Implemented Practices
Accessible at: https://www.cdfa.ca.gov/oefi/healthysoils/docs/2017-HSPDemo_FeetAcre.xlsx