

2018 HEALTHY SOILS PROGRAM DEMONSTRATION PROJECTS



The 2018 Healthy Soils Program Incentives Program is funded by the California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access for All Act of 2018 and the California Climate Investments.

Request for Grant Applications

Release date: December 28, 2018.

Applications due by: 5:00 p.m. PT on March 13, 2019.

Late submissions will not be accepted.



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BACKGROUND AND PURPOSE

The California Department of Food and Agriculture (CDFA), in coordination with the California Natural Resources Agency (CNRA) and California Air Resources Board (CARB), is pleased to announce funding availability through a competitive grant process for 2018 Healthy Soils Program (HSP) Demonstration Projects.

The 2018 HSP Demonstration Projects is part of the HSP, which stems from the [California Healthy Soils Initiative](#), a collaboration of state agencies and departments that promotes the development of healthy soils on California's farmlands and ranchlands. The 2018 HSP Demonstration Projects are funded by [California Drought, Water, Parks, Climate, Coastal Protection and Outdoor Access for All Act of 2018](#) (Chapter 10, Section 80134(a and b) and the California Climate Investments, authorized by the Budget Act of 2018 ([SB 856](#); Chapter 30, Section 4).

The objectives of the HSP are to increase statewide implementation of conservation management practices that improve soil health, sequester carbon and reduce atmospheric greenhouse gases (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 collect data and/or 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 2018 HSP Demonstration Projects addresses Objectives 2 and 3. Objective 1 is addressed in the 2018 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/>.

FUNDING AND DURATION

CDFA was appropriated \$10 million from the California Drought, Water, Parks, Climate, Coastal Protection and Outdoor Access for all Act of 2018; and \$5 million from the California Climate Investments, authorized by the Budget Act of 2018 to fund HSP – Incentives Program and Demonstration Projects. Demonstration Projects grant amounts cannot exceed \$250,000 for Type A projects and \$100,000 for Type B projects. The maximum grant duration is two years and nine months and grant funds cannot be expended before July 1, 2019, or after March 31, 2022. CDFA reserves the right to offer an award different than the amount requested.

Cost sharing (matching funds or in-kind contributions) during grant duration is not required but may receive additional consideration (See: [Project Duration and Cost Sharing](#)).

ELIGIBILITY AND EXCLUSIONS

The 2018 HSP Demonstration Projects will fund projects that implement eligible agricultural management practice(s) and conduct outreach to other farmers and ranchers at on-farm demonstration sites. Projects must showcase conservation management practices that mitigate GHG emissions and increase soil health, helping to create a platform promoting widespread adoption of conservation management practices throughout the state.

The HSP Demonstration Projects funds may be combined with other funds from public and private sources as cost-share for the same project. HSP funds cannot cover activities or costs funded by other federal or state grant programs.

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. Individuals are not eligible to apply.
- 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.
- 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 lease, own or otherwise control the Assessor's Parcel Number (APN) where project activities are proposed to occur for the entirety of the project duration. If leasing land, applicants must have documented landowner approval to implement proposed practices(s) from July 1, 2019 through March 31, 2022. If the applicants are leasing property on which practices will be implemented, the applicant is responsible for obtaining the consent of the lessor and ensuring that project implementation does not violate the lease agreement.
- If selected for an award, applicants must be able to execute a grant agreement within 30 days of receiving a notice of award.

EXCLUSIONS

- HSP Demonstration Projects funds cannot be used to implement management practices that are not listed under [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 [Eligible Agricultural Management Practices](#), including APNs for which a HSP Demonstrations or Incentives 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.
- Compost Application Practices must not be implemented on APNs consisting of soils with soil organic matter content greater than 20 percent 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.

TIMELINE

The application period begins December 28, 2018. The deadline to submit a grant application March 13, 2019 at 5:00 pm PST. No exceptions will be granted for late submissions.

Activity	Date
Release Request for Grant Applications (RGA)	December 28, 2018
CDFA Grant Application Workshops and Webinar	January 2019
Applications due	March 13, 2019
Review Period	March – June, 2019
Announce and Award Funding	June 2019

WORKSHOPS AND APPLICATION ASSISTANCE

CDFA will conduct four workshops on the 2018 HSP Demonstration Projects grant application process and program requirements. All workshops will be remotely accessible through live webinar.

CDFA cannot assist in the preparation of grant applications; however, general questions may be submitted to cdfa.HSP_Tech@cdfa.ca.gov. CDFA will conduct five rounds of Questions and Answers (Q&A) to address general questions about the application submission process and program requirements. Responses to all questions received during the workshops and webinars or by email will be posted to CDFA's [HSP Demonstration Projects](#) website according to the schedule below.

Questions Received by	Answers Provided by
January 4, 2019	January 11, 2019
January 18, 2019	January 25, 2019
February 1, 2019	February 8, 2019
February 15, 2019	February 22, 2019

February 25, 2019	March 1, 2019
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For CDFA grant application workshop schedule and locations, visit the HSP Demonstration Projects website: <https://www.cdfa.ca.gov/oefi/healthsoils/DemonstrationProjects.html>.

PROJECT TYPES

CDFA has identified two types of Demonstration Projects 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. The eligible project types are:

- (i) *Type A*: Projects are required to (a) implement the selected eligible agricultural management practice(s), (b) collect data on field measurements of GHG emissions, and (c) collect co-benefit data including benefits to soil health and environmental water and air quality data to address knowledge gaps regarding implementation of specific practices identified as “Practices for Demonstration and Data Collection” (See [Eligible Agricultural Management Practices](#)). In addition, the project must conduct outreach and education to other farmers and ranchers on the benefits of these practices to agricultural and environmental sustainability. The maximum grant award for a Type A project is \$250,000.
- (ii) *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 on the benefits of these practices to agricultural and environmental sustainability. The maximum grant award for a Type B project is \$100,000.

ELIGIBLE AGRICULTURAL MANAGEMENT PRACTICES

CDFA has identified eligible agricultural management practices that sequester carbon, reduce atmospheric GHGs, and improve soil health for the 2018 HSP projects. Applicants must implement one or more of the following management practices on APN(s) where it has not been implemented previously (See [Eligibility](#)). An applicant must include the APN(s) of the field(s) where the eligible management practice(s) will be implemented. Applicants may include multiple practices on the same APN or the same practice on multiple APNs. Some practices may not be implemented on the exact same field as part of the same project. Refer to [NON-OVERLAPPING PRACTICES](#) for details.

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 Practices. HSP-specific GHG Quantification Methodology is currently available for these practices.

Soil Management Practices

- 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](#)) (Reduce Fertilizer Application Rate by 15%)
 - 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
 - Compost Application to Annual Crops
 - Compost Purchased from a Certified Facility
 - On-farm Produced Compost
 - Compost Application to Perennials, Orchards and Vineyards
 - Compost Purchased from a Certified Facility
 - On-farm Produced Compost

Note: Technical specifications for compost application and type of compost eligible for funding are noted under [Technical Specifications for Estimation of GHG Benefits](#).

Establishment of Herbaceous Cover on Cropland Practices:

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

Woody Cover Establishment on Cropland Practices:

- 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](#))

Grazing Lands Practices

- Compost Application to Grassland
 - Compost Purchased from a Certified Facility
 - On-farm Produced Compost

Note: Technical specifications for compost application and type of compost eligible for funding are noted under [Technical Specifications for Estimation of GHG Benefits](#).
- Prescribed Grazing ([USDA NRCS CPS 528](#))
- Range Planting ([USDA NRCS CPS 550](#))
- Silvopasture ([USDA NRCS CPS 381](#))

Additional Practices for Demonstration and Data Collection (Type A Projects only)

In addition to the above practices, additional practices are eligible for funding through Type A projects. A GHG quantification methodology is not currently available for these practices, therefore, field GHG measurements must be included as part of the proposed projects. Projects proposing these practices will be required to collect scientific data to fulfill the following priorities and to inform development of implementation standards for these practices in the long-term:

- (i) Demonstrate soil organic carbon sequestration and GHG reduction potential of the practice in diverse California climate types, soil types and crop types, through collection of data including but not limited to field measurement of GHG emissions and soil health indicators.
- (ii) Address knowledge gaps regarding environmental and eco-system impacts and co-benefits resulting from implementation of these practices at field-scale.
- (iii) Develop and/or standardize methodology for practice implementation, and, formulation and characterization of material(s) needed for implementation of practices including but not limited to vermicompost and microbial inoculation with compost tea.

The practices eligible under this category are:

- Anaerobic Digestate Application: Cropland application of solids generated from anaerobic digestion of organic materials.
- Microbial Inoculation with Compost Tea: Cropland application of diluted compost steeped or brewed in water with aeration/stirring (i.e. compost tea).
- Mycorrhizal Application: Incorporating soil with fungi that form a symbiotic relationship with roots of crop plants.
- 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).
- 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: Application of compost to grazed grasslands at rates higher than currently supported by Healthy Soils Program 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.

CDFA HSP Demonstration Projects will not support the development of proprietary products. Information and data generated as a result of funded projects must be made available publicly. Publication in peer-reviewed and open-access scientific journals is strongly encouraged.

NON-OVERLAPPING PRACTICES

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](#))

TECHNICAL SPECIFICATIONS FOR ESTIMATION OF GHG BENEFITS

Expected Life of Practices:

To estimate the net GHG benefits due to a practice implementation, the expected life of the practice is as follows:

Eligible Agricultural Management Practice	Expected Life of Practice*
Soil Management Practices	3 Years
Cropland to Herbaceous Cover Practices	3 Years
Grazing Lands Practices, except Silvopasture	3 Years
Woody Cover Establishment Practices and	10 Years

*Expected Life of Practice for the HSP is different from that required by USDA-NRCS, and distinct from the grant duration.

Practice Implementation Requirements

- **USDA NRCS Practices**

Implementation of each of the practices must be consistent with the USDA NRCS Conservation Practice Standards (CPS) as specified in California.

- **Compost Application Practices**

Implementation of Compost Application practices must meet requirements below.

1) Compost Application Rates eligible for funding are provided in the table below.

Crop Type	Compost Type	Dry Short
Annual Crops	Higher N (C:N ≤ 11)	2.2 – 3.6
	Lower N (C:N > 11)	4.0 – 5.3
Tree / Perennial	Higher N (C:N ≤ 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.

2) Sources of compost eligible for funding must meet the following requirements.

- If compost is purchased:
 - a. Compost must be produced by a facility permitted or otherwise authorized by state and local authorities that can demonstrate compliance with all state regulations. STA (US Composting Council’s Seal of Testing Assurance Program) or CDFA-OIM (Organic Input Material) Program certified compost is recommended. Applicants may look up certified composting facilities at the CalRecycle SWIS Facility/Site Search website [here](#).
 - b. A report of laboratory analysis on compost C:N ratio is required.
- If compost is produced on-farm:
 - a. Plant and animal materials must be composted through the processes outlined below and a farm log must be maintained to document the process.
 - ***In-vessel or Static Aerated Pile System:*** Maintained a temperature between 131°F and 170°F for 3 days;
 - ***Windrow Composting:*** Maintained a temperature between 131°F and 170°F for 15 days. The materials must be turned a minimum of five times.
 - b. C:N ratio and moisture content of the compost to be applied must be verified through laboratory testing before application. Type of material(s) used for composting must be documented.

- c. Compost used in this practice must be produced at the agricultural operation that the project is located on. Externally sourced compost must be purchased from a certified facility.
- d. Compost used in this practice cannot be vermicompost.

Assistance in selecting species to be planted when implementing cover crop, herbaceous, and woody cover establishment practices is available through the USDA NRCS California eVegGuide, at <https://www.calflora.org/nrcs/>. Step-by-step instructions to use the USDA NRCS California eVegGuide are available in [Instructions to Use CalFlora](#).

There may be additional requirements or guidelines for implementation of specific practices in addition to those provided in the respective USDA NRCS CPS documentation. Refer to [HSP Practices: Implementation Guidelines and Verification Requirements](#) for guidance.

Acre Conversion for Eligible Agricultural Management Practices Measured in A Different Unit

Several of the eligible agricultural management practices In the HSP Demonstration Projects are implemented by length (in feet) or number of woody plantings. However, applicants must enter the total acres of management practice implementation into the into the GHG reduction estimation calculator tools (See [GHG Reductions Estimation](#)) to estimate project GHG reductions. A methodology to convert feet of practice implementation or number of plantings to acres is included in [Feet-to-Acre Conversion for Implemented Practices](#).

PROGRAM REQUIREMENTS

- Eligible agricultural management practices can be implemented alone or in combinations, except where specified, on one APN or several APNs. Specific fields within each APN where agricultural management practice(s) will be implemented should be named Field 1, Field 2, Field 3, etc.
 - All fields must have the selected agricultural management practices implemented each year for the duration of the project term. If practices under the [Additional Practices for Demonstration and Data Collection](#) category are proposed to be implemented for less than 3 years, applicant must provide appropriate justification under the Project Merit section of the application. Data collection under this category must be conducted for three years.
 - Implementations must begin prior to the end of each project year.
 - Multiple management practices may be included within the same APN.
 - Once awarded, recipients may not change the APNs included in the grant application through the duration of the project.

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 Agricultural Management Practices](#), that has not been implemented previously, will be implemented; a Control field (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.

For both Type A and Type B projects:

- 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, 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 complete project term, (i.e., July 1, 2019 through March 31, 2022).

For all 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.
- A minimum of three replicates for each T and C is required.

DATA COLLECTION REQUIREMENTS

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

- 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 (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 health¹, co-benefits, and/or ecosystem services.
 - Detailed economic analyses on production profitability for selected practice(s).

OUTREACH REQUIREMENTS

Outreach requirements apply to both Type A and Type B projects. All outreach events being conducted as part of awarded projects will be posted online on CDFA HSP Demonstration Projects website. Recipients must notify CDFA of the events being conducted at least 30 days prior to event date. In addition to providing event date, time and location, recipients will be required to designate a project representative whose contact information will be published on CDFA's HSP website. The designated project representative will be responsible for managing public inquiries about the demonstration site, including attendance of interested parties at outreach events, and ensuring sufficient availability of the demonstration site to meet the outreach and education requirements of the program.

A minimum of 120 different individual farmers and/or ranchers for three years from July 1, 2019 through March 31, 2022 (i.e., 40 per year) must attend the demonstration project site(s) so the Recipients 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 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 using [SMART](#) (Specific, Measurable, Achievable, Relevant and Time-bound) goals are encouraged.

Recipients will be required to provide documentable outreach and attendance records as part of the project reporting to CDFA (See [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.

PROJECT DURATION AND COST SHARING

The HSP Demonstration Projects will provide funds for the grant duration beginning July 1, 2019 to March 31, 2022.

Though not required, applicants are encouraged to provide cost share to the project through the grant duration. Cost share 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

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>.

HSP Demonstrations Project. An in-kind contribution is the estimated dollar value of any time, property, or supplies donated to a project, including costs associated with labor for work involved in the implementation of the proposed project. (see table below). Applicants are required to certify that cost-share, if provided, has been secured at the time of application submission.

Timeline for funding expenditures of awarded projects is provided in the table below.

Project Year	Duration of Project Year	Implementation Must Begin No Later Than
1	July 1, 2019 - June 30, 2020	December 31, 2019
2	July 1, 2020 – June 30, 2021	December 31, 2020
3	July 1, 2021 – March 31, 2022	December 31, 2021

ALLOWABLE AND UNALLOWABLE COSTS

Allowable Costs

Project costs must be itemized and clearly support implementation of eligible agricultural management practices including supplies, special purpose 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. Applicants should utilize equipment or tools they already have on-hand to implement the proposed project.

Examples of allowable costs include but are not limited to:

- Cost of implementation of proposed eligible agricultural management practices.
- Cost associated with on-farm GHG measurements for Type A projects.
- Cost of data analyses for soil organic matter content, other soil health data, ecosystem service and/or yield data.
- 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 [California State Human Resources \(CalHR\) policy](#) except for awards to the Regents of the University of California (UC) which should follow the established UC policy.
- Cost of materials needed for outreach activities (e.g., printed handouts or brochures).

Unallowable costs

Unallowable costs include, but are not limited to:

- Costs incurred outside of the grant duration (i.e., July 1, 2019 – March 31, 2022).
- 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 July 1, 2019.
- General purpose equipment which is not specific for the proposed research, scientific or technical activities specific to project needs and not utilized for other purposes (e.g., office equipment and furnishings, or farm equipment used for non-project purposes).
- Purchasing project-specific tools and equipment with a useful life of less than two years.
- Expenditures for purchasing or leasing land or buildings.

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 (December 2015 – November 2018) in all APN(s) included in the application.
- Management practice history in the past three years (December 2015 – November 2018) in all APN(s) included in the application.
- Applicants proposing to include Compost Application Practices in their projects must use the [California Air Resources Board's Compost Ineligible Tool](#) to check if the project site is eligible for compost application. Compost Application is not allowed on an APN that has soil organic matter content greater than 20 percent by dry weight for a 20 cm (or 8 inch) depth. Instructions to use the tool are available in [Instructions to Use CARB Compost Ineligible Tool](#).

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 California Air Resources Board (CARB). The QM and calculator tool are adapted from the USDA-NRCS COMET-Planner methodology. The QM and calculator tool used for HSP is available at the CARB Quantification Materials website: www.arb.ca.gov/cci-resources.

Once on the website, scroll down to find the Healthy Soils Program, 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.

A Carbon Sequestration and GHG Estimation Report will be generated upon completion of the calculation, which must be included as part of the application.

For practices that are under the Demonstration and Data Collection Category, the Quantification Methodology (QM) and Calculator Tool are not available. Recipients are required to report to CDFA annual GHG emissions based on on-farm measurements associated with the implementation of each proposed practice annually through the grant duration.

GRANT APPLICATION PROCESS

HOW TO APPLY

The 2018 HSP Demonstration Projects is a [web-based application](#) process. The grant application 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 check box; 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 electronically without exception. Please review [Preview of Application Questions](#) prior to beginning your application.

Applicants are encouraged to gather all required information using information provided under [Required Application Documents](#) to facilitate effective and timely submission of the grant application.

REVIEW AND EVALUATION PROCESS

REVIEW PROCESS

CDFA will conduct multiple levels of review during the grant application process. The first level review is an administrative review to determine whether application requirements were met and if applicable, assess an applicant's past CDFA grant performance. All required documentation must be submitted to avoid disqualification.

The second level is a technical review conducted by the HSP Technical Advisory Committee (TAC) to evaluate the merits of the application and overall expected success of the project, including sufficient data generated to demonstrate the expected benefits on GHG emission reductions, carbon sequestration, soil health improvement, and dissemination of the information to wide audience including but not limited to industry stakeholders and community members. The TAC is comprised of subject matter experts affiliated with state and federal agencies.

EVALUATION CRITERIA

Applications are evaluated based on the following criteria. An application must receive a total score of 80 to be considered eligible for funding. Detailed information is provided under [Detailed Scoring Criteria](#).

Criteria	Score
Project Merit:	
1. Type A Projects:	
a. Demonstration Component	25
b. Outreach Component	15
2. Type B Projects:	
a. Demonstration Component	15
b. Outreach Component	25
Project Timeline and Implementation Plan	15
Project Team Qualifications	10
Project Budget and Justification	20
GHG Emission Reduction Benefits	15
Total	100

FUNDING PRIORITY

The following applicants and/or projects will be prioritized for funding:

- **Benefits to Severely Disadvantaged Communities (SDACs)²**

The 2018 HSP funding source, Proposition 68, requires that CDFA award fifteen percent of the appropriated \$10 million to serve severely disadvantaged communities. CDFA must prioritize funding to projects that meet this criterion and therefore, these projects will receive priority funding if they meet a minimum score of 80 points during the technical review. To qualify as serving severely disadvantaged communities, projects must

- Be located within a SDAC as identified using the Community Fact Finder developed by the Department of Parks and Recreation available at: <http://www.parksforcalifornia.org/communities> or
- Provide benefits to SDACs such as
 - i. Including SDAC residents in outreach and education events to share information about healthy soils benefits. CDFA encourages targeting outreach to farmers located in SDACs and/or providing translation services for languages other than English.
 - ii. Including part of the demonstration site, in addition to a farm, an urban community garden site located in an SDAC; or
 - iii. Employing workers/contractors from SDACs.

² “Severely disadvantaged community” means a community with a median household income less than 80 percent of the statewide average.

- **Benefits to Socially Disadvantaged Farmers or Ranchers³**

CDFA will ensure the inclusion of Socially Disadvantaged Farmers and Ranchers in all programs, including HSP, consistent with the [Farmer Equity Act of 2017](#). Farmers and ranchers who identify as belonging to a socially disadvantaged group will receive priority for funding if they meet a minimum score of 80 points during the technical review with or after funding to projects in SDACs as defined above.

- **Benefits to Priority Populations⁴**

[SB 535](#) established statutory requirements 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. Assembly Bill (AB) 1550 (Gomez, Chapter 369, Statutes of 2016), amended these requirements by increasing the percent of funds for projects located in disadvantaged communities from 10 to 25 percent and added a focus on investments in low-income communities and households. Collectively, these communities are referred to as ‘priority populations’. AB 1550 investment minimums apply to the overall appropriations of monies from the GGRF, not the individual agency programs. However, all California Climate Investments programs including the HSP are encouraged to maximize benefits to disadvantaged communities, low-income communities and low-income households.

Priority populations can be identified using the mapping tools provided by CARB at www.arb.ca.gov/cci-resources. Projects are not required to provide benefits to priority populations. However, the projects that are determined to be providing benefits based on their responses to the application questions will be prioritized for funding. To be considered as providing benefits to Priority Populations, applicants must provide answers to questions in the “Benefits to Severely Disadvantaged Communities, Socially Disadvantaged Groups and Priority Populations” Section of the electronic application and supporting documentation verifying that the projects meet the requisite criteria.

ADDITIONAL CONSIDERATIONS

During the review process, the following additional considerations will be evaluated when

³ “Socially disadvantaged farmer or rancher” means a farmer or rancher who is a member of a socially disadvantaged group (SDAG). “Socially disadvantaged group” means a group whose members have been subjected to racial, ethnic, or gender prejudice because of their identity as members of a group without regard to their individual qualities. These groups include all of the following:

- (1) African Americans.
- (2) Native Indians.
- (3) Alaskan Natives.
- (4) Hispanics.
- (5) Asian Americans.
- (6) Native Hawaiians and Pacific Islanders.

⁴ Priority populations include residents of: (1) census tracts identified as disadvantaged by California Environmental Protection Agency per SB 535; (2) census tracts identified as low-income per AB 1550; or (3) a low-income household per AB 1550. See Section VII.B for more information on the definitions of priority populations.

selecting projects for an award of funds based on the number of additional criteria met:

- Projects that provide additional matching funds through the grant duration.
- 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 to achieve widespread adoption of the management practices in the state.

NOTIFICATION AND FEEDBACK

All applicants will be notified by email 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.

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 requesting funding for more than the maximum award amount.
- Applications with unallowable costs or activities not necessary to complete the project objectives.
- Applications that include activities outside the grant duration.

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, Sacramento, CA 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.

AWARD PROCESS

GRANT AGREEMENT

CDFA will initiate the Grant Agreement process with applicants selected to receive a 2018 HSP Demonstration Projects grant award. Applicants with projects selected for an 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.

PROJECT IMPLEMENTATION

Once a Grant Agreement is executed, the grant recipient may 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 grant agreement.

Implementation must begin on or after July 1, 2019, but no later than December 31, 2019. Failure to implement the project prior to December 31, 2019 may result in all or any portion of the grant funding withheld or termination of the Grant Agreement. Implementation of soil management practices in project years 2 and 3: must begin prior to December 31 in 2020 and 2021, respectively.

PROJECT REPORTING REQUIREMENTS

Recipients are required to submit soil organic matter content data before implementing proposed practice(s) and semi-annual progress reports during the grant agreement term (July 1, 2019 – March 31, 2022). 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, whichever comes first. The progress report is used to identify milestones, results achieved, success stories, potential concerns, and other pertinent information.

Information to be provided to CDFA may include:

- Annual soil organic matter content for each APN/ Field: once prior to project implementation, one year after, and two years following initial project implementation.
- Status of project implementation including all work completed and any reportable data.
- Plan for next six months.
- Management practice implementation activities and impacts (Type A and B Projects).
- Project data, including but not limited to 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).
- Upon completion of project, barriers encountered and overcome, and recommendations for successful implementation (Type A and B Projects).

PAYMENT PROCESS

CDFA will provide the grant recipient with the necessary grant award and invoicing documents. Grant recipients will be required to submit at least a quarterly invoice for reimbursement of actual expenses incurred to support the approved project activities. Invoice must include documentation

to support reimbursement requested. Salary and wage amounts charged to grant-supported projects or programs for personnel services must be based on an adequate payroll distribution system that documents such distribution in accordance with generally accepted practices of like organizations. Grant Recipients for projects located in SDACs, DACs, and SDAGs may be eligible to receive an advance payment up to 25 percent of the total grant award to begin project implementation (See [Advance Payments](#)). The remaining funds will be allocated on a reimbursement basis through quarterly invoicing.

ADVANCE PAYMENTS

If selected for funding, recipients may be eligible for advance payments of up to 25 percent of the grant award, subject to the provisions of section 316.1 “Advance Payments” of the [California Code of Regulations, Division 1, Chapter 5](#).

PROJECT VERIFICATION

Recipients will be subjected to verification that the eligible agricultural management practices are 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 the grant agreement term. CDFA will be responsible for the expense of verification.

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.

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, 2022.

Consistent with SB 5 (2018), the State of California has the right to review project documents and conduct audits during project implementation and over the project life.

POST-PROJECT COMPLETION REQUIREMENTS

Execution of the Grant Agreement is conditional upon agreement to post-project completion requirements. Recipients are required to maintain implementation of practices funded through this program through the program term. 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 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 after the grant term.

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.

STATE AUDIT AND ACCOUNTING REQUIREMENTS

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

AUDIT REQUIREMENTS

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

Grantee must have project records, including source documents and evidence of payment, readily available and must provide an employee with knowledge of the project to assist the auditor. Grantee must provide a copy of any document, paper, record, etc., requested by the auditor.

ACCOUNTING REQUIREMENTS

Grantee must maintain an accounting system that:

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

RECORDS RETENTION

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

DETAILED SCORING CRITERIA

CRITERIA	MAX POINTS
1. PROJECT MERIT- PART I: Demonstration Component (Sections I and II)	
1.1 Project Justification <ul style="list-style-type: none"> • Are mechanisms of proposed practice(s) to achieve GHG reduction, soil C sequestration and other co-benefits clearly described? • Is the rationale of selected cash crop(s) and other plant species to be used described adequately? • Is anticipated adoption by participating growers discussed? • Are all relevant attachments/supporting documents provided? 	Type A: 25 Type B: 15
1.2 Project Logistics <ul style="list-style-type: none"> • Is there at least one soil management practice new to the field to be implemented? • Is soil organic matter content at 0-20 cm depth in the field where compost application to be implemented less than 20%? • Are all relevant attachments/supporting documents provided? 	
1.3 Project/Experimental Design <ul style="list-style-type: none"> • Are treatments and controls clearly identified in the schematic? • Is the design randomized with at least three replicates (Type A only)? • Are proposed approaches, procedures or methodologies for GHG sampling and data collection reasonable and feasible? • Will proposed management practice(s) be consistent with the requirements in the corresponding NRCS CPS documentation (for all practices except Compost Application) and/or with the requirements in the CDFR Compost Application White Paper (for Compost Application)? • Are all relevant attachments/supporting documents provided? 	
2. PROJECT MERIT - PART II: Outreach Component (Section I and II) <ul style="list-style-type: none"> • Are outreach objectives clearly described, adequate, appropriate, and measurable? • Are proposed outreach activities reasonable, feasible and able to meet program requirements? These include (1) required on-farm Field Days and (2) Optional: workshops or other activities. • Are approach, procedures, or methodologies for outreach clearly described, suitable, and feasible? • Will outreach products sustain outreach functions beyond the life of the project? • Are all relevant attachments/supporting documents provided? 	Type A: 15 Type B: 25
3. PROJECT TIMELINE AND IMPLEMENTATION PLAN	15
3.1 Project Work Plan (Section III) Are activities necessary to accomplish all project tasks included, suitable and feasible?	

<p>These should include tasks in each year for the three years for the project, for:</p> <ul style="list-style-type: none"> • Practice implementation • Data collection • Outreach tasks 	
<p>3.2 Evaluation of project success (Section IV)</p> <ul style="list-style-type: none"> • Are methods to assess progress and success of practice implementation provided and feasible? • Will cost/benefits for adoption of the proposed practice(s) and/or anticipated barriers be measured and discussed? • Will methods and indicators that measure outreach progress and success in short (<2 yrs) and long-term (≥3 yrs) provided and feasible? • Are all relevant attachments/supporting documents provided? 	
<p>4. PROJECT TEAM QUALIFICATION (Section V)</p>	10
<p>4.1 Project Oversight</p> <ul style="list-style-type: none"> • Are roles of key personnel clearly identified? • Are cooperators/collaborators' roles, estimated time commitment, and statements of agreement to participate clearly identified? • Is a plan articulated for project management, including time allocated for attainment of objectives and delivery of products, maintenance of partnerships and collaborations? • Are all relevant attachments/supporting documents provided? 	
<p>4.2 Team Qualifications</p> <ul style="list-style-type: none"> • Do key personnel have sufficient expertise to complete the project? • Are support personnel, facilities and instrumentation sufficient? • Are all relevant attachments/supporting documents provided? 	
<p>5. PROJECT BUDGET JUSTIFICATION AND MATCHING FUNDS (Section VI)</p> <ul style="list-style-type: none"> • Is the budget justification concise and clearly stated? • Do all budget items and activities solely support implementation of the project? • Does the budget clearly allocate sufficient resources to carry out project activities that will lead to desired outcomes? • Are the budgetary items realistic and costs justified? • Are costs for personnel and labor reasonable? • Are any of the line item costs, including labor and contractual costs, duplicative? • Is cost sharing (amount, source and activities to cover) clearly identified and certified? • Are all relevant attachments/supporting documents provided? 	20

6. GHG EMISSION REDUCTIONS AND CO-BENEFITS (Section VII)

- GHG reductions Estimation from COMET-Planner
- Input data (county, practice and acreage) is consistent with what is provided in the project design.
- Acreage to calculate GHG reductions is only for each new practice or new acreage of expanded existing practice(s).
- For cover crop practice implementation where legume and non-legume species are to be used in the same field, only acreage for legume species should be entered.
- Are there any anticipated GHG emission reductions through adoption of demonstrated practices by growers/ranchers during the project term?

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REQUIRED APPLICATION DOCUMENTS

All required application documents must be submitted by the deadline specified in this solicitation. In addition to the mandatory and optional attachments each applicant will provide, applicants must download, complete and upload the following templates.

- [Project Narrative Template](#)
- [Project Work Plan Template](#)
- [Budget Narrative Template](#)

The mandatory and applicable attachments include:

- Landowner Agreement (if applicable)
 - Screenshot of result from Compost Ineligibility Tool*
 - Design Schematic
 - Carbon Sequestration and GHG Estimation Report
 - Applicant organization's Indirect Rate Policy*
 - Resumes/CVs
 - Cooperator/Collaborator letters
 - Letters of Support
- (* If applicable.)

Applicants are encouraged to review the following documents which help them prepare applications.

- [Preview of Application Questions](#)