



W E L C O M E

Healthy Soils Program Overview

2017 Demonstration Projects

Solicitation Process

Financial Assistance Application Submittal Tool

Application Questions



ABOUT THE PROGRAM

- The Healthy Soils Program Incentives and Demonstration competitive grant programs conducted by California Department of Food and Agriculture (CDFA)
- Funded by the Greenhouse Gas (GHG) Reduction Fund - \$7.5 Million total appropriated.
- To build soil carbon and reduce agricultural GHG emissions.
- Funds must be liquidated by June 30, 2020.
 - Healthy Soils Program (HSP) Incentive Program \$3.75 Million available.
 - Healthy Soils Program (HSP) Demonstration Projects \$3 Million available.
 - Type A Projects: Conduct on-farm demonstration, GHG measurements, and outreach activities.
 - Type B Projects: Conduct on-farm demonstration and outreach activities.

2017 HSP DEMONSTRATION PROJECTS FUNDING AND DURATION

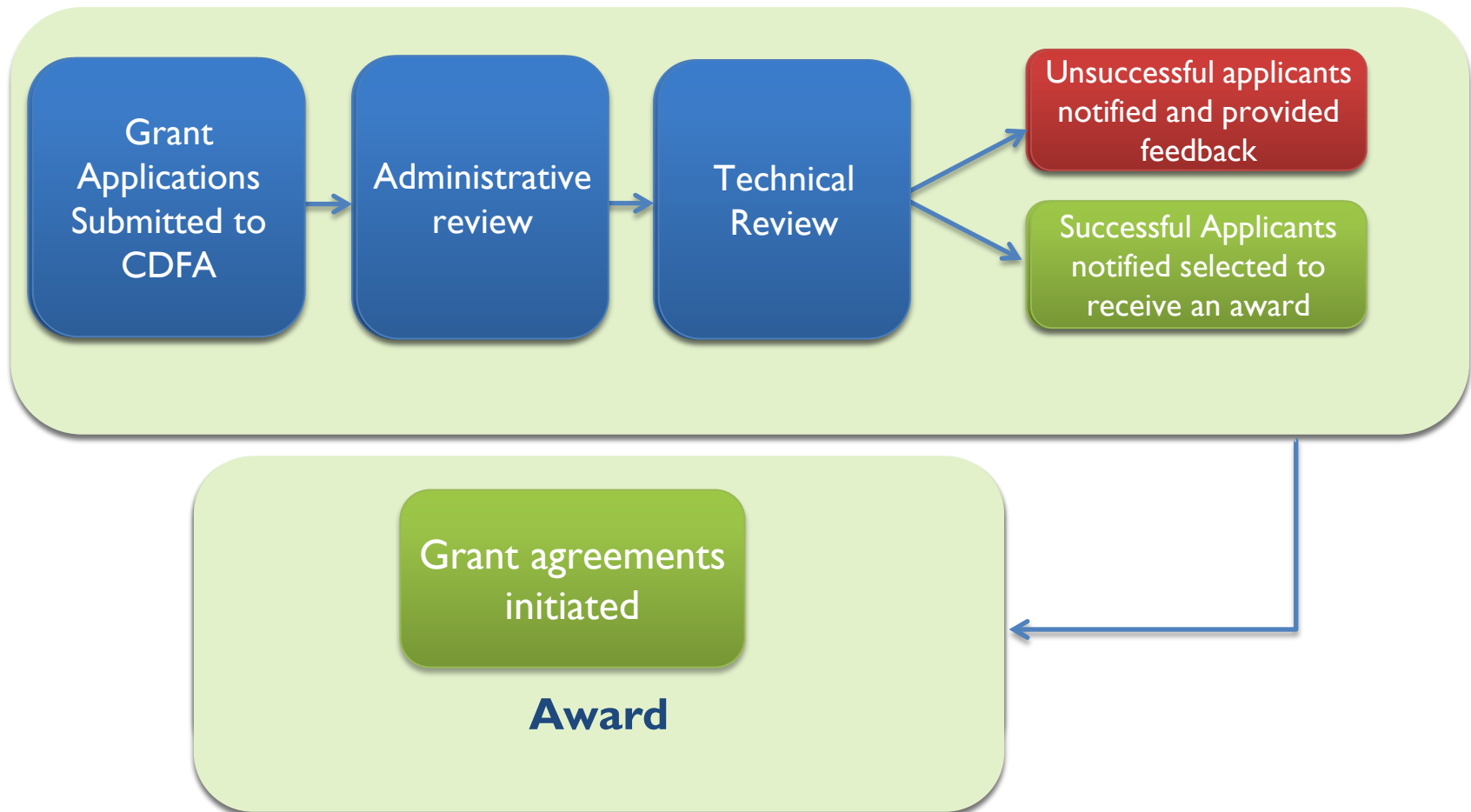
- Maximum Grant Amount:
 - Type A Projects - \$250,000
 - Type B Projects - \$100,000
- Project duration and cost sharing:
 - Project/grant duration: Jan 1, 2018 – Dec 31, 2020
 - Project implementation to begin: no later than Nov 30, 2018
 - HSP funds cover Project Years 1 and 2: Jan 1, 2018 – Dec 31 2019
 - Cost sharing covers Project Year 3: Jan 1, 2020 – Dec 31, 2020
- Applicant must have control of the land for the duration of the grant:
 - Letter of agreement from landowner for leased land.

2017 HSP DEMONSTRATION PROJECTS REQUEST FOR GRANT APPLICATIONS

Workshop Outline:

- Solicitation Process and Timeline
- Review and Evaluation Process
- Eligibility and Exclusions
- Eligible Agricultural Management Practices
- Program Requirements
- How to Apply
- Award Process

SOLICITATION PROCESS



SOLICITATION TIMELINE

Item	Date
Release Request for Grant Applications	August 8, 2017
Application Workshops & Webinar	August 15 – 25, 2017
Grant Applications Due	September 19, 2017, 5:00 pm PDT
Review Period	September – November, 2017
Award Announcement	December 2017
Project Implementation Begins	January 2018

No late submissions accepted.

REVIEW AND EVALUATION PROCESS

Multiple Levels of Review:

- Administrative Review: Internal - Conducted by CDFA
- Technical Review: External - Conducted by Technical Advisory Committee comprised of experts from state and federal agencies.

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

2017 HSP DEMONSTRATION PROJECTS 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 or government owned) to fulfill demonstration requirements.
- Maximum two applications from the same applicant, but each application should be for a unique project.
- Implement at least one soil management practice from HSP eligible agricultural management practices on field(s) previously not implemented.
- Projects must reduce agricultural greenhouse gases and sequester soil carbon.

2017 HSP DEMONSTRATION PROJECTS EXCLUSIONS

- ❑ Grant funds **cannot** be used to implement practices other than those listed under HSP RGA Section 6 (page 7).
- ❑ Grant funds **cannot** be used to fund fields or Accessor Parcel Numbers (APNs) with existing and ongoing implementation of any agricultural management practices listed under Section 6.
- ❑ Compost Application Practices **cannot** be implemented on APNs where soil organic matter content is greater than 20% by dry weight in top 20 cm (or 8 inch) depth.
- ❑ Grant funds **cannot** be used for projects that use potted plants or other plant growth media.
- ❑ The same farm **cannot** be included in multiple applications.

2017 HSP DEMONSTRATION ELIGIBLE AGRICULTURAL MANAGEMENT PRACTICES

- **Soil Management Practices (at least one must be implemented)**
 - **Cropland Management Practices**

Must follow NRCS conservation practice standards and associated site specific requirements during implementation.

 - 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](#))
 - Cover crops ([USDA NRCS CPS 340](#))
 - **Compost Application Practices**

Must follow guidance in CDFA Compost Application White Paper (page 8)

 - Compost Application to Annual Crops (CDFA)
 - Compost Application to Perennials, Orchards and Vineyards (CDFA)
 - Compost Application to Grassland (CDFA)

2017 HSP DEMONSTRATION ELIGIBLE AGRICULTURAL MANAGEMENT PRACTICES

■ Cropland to Herbaceous Cover Practices

(1) Must be implemented in combination with at least one soil management practice(s) which is either new or existing for the field/APN, and

(2) Follow NRCS conservation practice standards and associated site specific requirements during implementation.

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

2017 HSP DEMONSTRATION ELIGIBLE AGRICULTURAL MANAGEMENT PRACTICES

■ **Establishment of Woody Cover Practices**

- (1) Must be implemented in combination with at least one soil management practice(s) which is either new or existing for the field/APN, and*
- (2) Must follow NRCS conservation practice standards and associated site specific requirements during implementation.*
- (3) Expected life of practice is 10 years.*
- **Woody Plantings Practices**
 - Windbreak/Shelterbelt Establishment ([USDA NRCS CPS 380](#))
 - Riparian Forest Buffer ([USDA NRCS CPS 391](#))
 - Hedgerow Planting ([USDA NRCS CPS 422](#))
- **Grazing Lands Practices**
 - Silvopasture ([USDA NRCS CPS 381](#))

PROGRAM REQUIREMENTS – I

Project Design

For both Type A and B Projects

- Must have a Treatment field (**T**) where at least one HSP Soil Management Practice (Section 6) is new to the field and to be implemented.
- Must have a Control field (**C**) to serve as a comparison to **T**.
- **T** and **C** must be located side-by-side and differ from each other with respect to presence or absence of the soil management practice(s) while keeping all other field activities the same as much as possible.
- Both **T** and **C** must have similar cropping & management histories, field conditions (e.g., soil properties, drainage, landscape), and size as much as possible.
- **T** and **C** must be on the same field (i.e., locations within an APN) from January 1, 2018 through December 31, 2020.

PROGRAM REQUIREMENTS – II

Data Collection

For Type A Projects

- **T** and **C** must have minimum three replicates.
- Must measure GHG emissions from all **T** and **C**.
- Must record crop yield for all **T** and **C**.
- Optional: economic analysis and comparison for **T** and **C**.

For both Type A and B Projects

- Must submit lab report on soil organic matter content for each field
 - Prior to practice implementation,
 - One, two and three years after practice implementation.
- Optional: additional data on soil health, co-benefits and ecosystem services are encouraged.

PROGRAM REQUIREMENTS – III

Outreach Activities

For both Type A and B Projects

- Must hold on-farm field day event(s) every year to showcase practice(s) implementation and associated benefits.
- Must disseminate and share knowledge and benefits of HSP eligible management practices to a broad audience.
- Must provide documentable outreach and attendance records as part of the project reporting to CDFA.
- A minimum of 120 different individual farmers/ranchers must attend field day events during the three-year project duration.

PROGRAM REQUIREMENTS – IV

- Must use the California Air Resources Board (CARB) GHG Quantification Methodology and GHG Calculation Tools.
- The Healthy Soils Program GHG Calculation Tools, COMET-Planner and Compost-Planner, are to assist applicants in determining GHG reductions as a result of implementation of eligible agricultural management practices.
 - To complete this tool, applicants must select eligible agricultural management practice(s) to be implemented and total acreage on which they will be implemented.
 - Depending on which management practice(s) is to be implemented, applicants must attach COMET-Planner Carbon Sequestration and Greenhouse Gas Estimation Report and/or Compost-Planner Carbon Sequestration and Greenhouse Gas Estimation Report.

The CARB GHG quantification methodology is available at:

<https://www.arb.ca.gov/cc/capandtrade/auctionproceeds/quantification.htm>

HOW TO APPLY

- Partnership with State Water Resources Control Board
- Online application system: FFAST
- User account needed



Financial Assistance Application Submittal Tool (FFAST):
<https://faast.waterboards.ca.gov>

GENERAL INFORMATION TAB

- Applicant Organization:
 - Legal name of the organization.
- Submitting Organization:
 - Name of the organization submitting the application on behalf of the applicant.
- Cooperating Entities:
 - List all cooperating entities and identify their roles and contributions in the project.
- Project Title:
 - Appropriately and concisely describe the project in 15 words or less.
- Project Description (Abstract):
 - Describe project goals and outcomes and present a plan for evaluating and measuring the success of the project.

2017 HSP DEMONSTRATION PROJECTS PROJECT BUDGET TAB

- 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.
 - The maximum funding is \$250,000 and \$100,000 for Type A and B Projects, respectively.
- Local Cost Match:
 - Total amount of matching funds and/or in-kind contributions committed to this project from other sources.
- Total Budget:
 - Funds Requested + Local Cost Match = Total Project Cost.

2017 HSP DEMONSTRATION PROJECTS QUESTIONNAIRE TAB

Application Sections:

- Section I: Project Merit
- Section II: Project Timeline and Implementation Plan
- Section III: Project Team Qualifications
- Section IV: Project Budget and Justification
- Section V: GHG Emission Reduction Benefits
- Section VI: Additional Considerations

SECTION I: PROJECT MERIT

40 POINTS

- **Section I: Project Merit**
 - Organization Type
 - Project Type
 - Agricultural Operation Data
 - Project Logistics
 - Baseline Data
 - Project Justification
 - Experimental and/or Project Design
 - Outreach Design



SECTION I: PROJECT MERIT

- **Section I: Project Merit**

- Agricultural Operation Data

- a. Farm acreage

- b. Property location

- i. Assessor's Parcel number(s)

- ii. Address or Nearest cross streets

- iii. City, zip code

- iv. County

- v. Census Tract : can be identified from Tract Finder

- c. Ownership of the land

- Attachment:** Letter of agreement from land owner for leased land.



SECTION I: PROJECT MERIT

- **Section I: Project Merit**

- Organization Type
- Project Type
- Agricultural Operation Data

- Project Logistics

- a. Names of eligible management practice(s)

Indicate as Treatment(s) and Control

- b. Fields/APNs where implemented

- c. Acres on which implemented

For practices implemented in rows (feet), conversion is needed!



PROJECT LOGISTICS

How to determine acreage for practices that are implemented in rows?

1. See HSP Demonstration Projects website:
Appendix II, Document 6:
[Feet-To-Acre Conversion for Implemented Practices](#)
2. Download the excel sheet.
3. Enter the length of implementation for each practice (feet).
4. Acreage will be calculated automatically by built-in formula.
5. Note the calculated acreage rounded up to the nearest hundredth (i.e., two decimal places).



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APPENDIX II, DOCUMENT 6: FEET-TO-ACRE CONVERSION FOR
IMPLEMENTED PRACTICES



SECTION I: PROJECT MERIT

■ Section I: Project Merit

- Organization Type
- Project Type
- Agricultural Operation Data
- Project Logistics
- Baseline Data
 - a) Cropping history during July 2014 – July 2017
 - b) Management practice history during July 2014 – July 2017
 - c) Soil Organic Matter (SOM) content for fields where **Compost Application** is to be implemented



HOW TO GET SOIL ORGANIC MATTER CONTENT DATA

- Soil organic matter test result taken within the last five years for each APN (if available)
[Attachment](#): laboratory report;

OR

- Find major soil type (i.e. soil series name) and soil organic matter content data sourced from UCD Web Soil Survey. Guidance can be found at HSP Demonstration Project website [Appendix II Document 4](#).
 - Example: UC Davis Russell Ranch, Experimental Station, Kinsella Lane, Davis, CA:
 - Note and enter in FFAST:
 - [Field 1: Yolo silt loam, SOM: 2%](#)
 - [Field 3: Rincon silty clay loam, SOM 2.0%](#)



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APPENDIX II, DOCUMENT 4:

STEP-BY-STEP INSTRUCTIONS TO DETERMINE SOIL ORGANIC MATTER USING WEB SOIL SURVEY



SECTION I: PROJECT MERIT

- **Section I: Project Merit**
 - Organization Type
 - Project Type
 - Agricultural Operation Data
 - Project Logistics
 - Baseline Data
 - Project Justification
 - Experimental and/or Project Design
 - Outreach Design

PROJECT JUSTIFICATION

- 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/or other plant species) selected for the project.
- Describe the agronomic, environmental, or other impacts the project anticipates to have on a local and statewide basis.
- Describe the possibility of farmers and/or ranchers to adopt the demonstrated agricultural management practices at state or local scale.

SECTION I: PROJECT MERIT

- **Section I: Project Merit**
 - Organization Type
 - Project Type
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 - Project Justification
 - Experimental and/or Project Design
 - Outreach Design

PROJECT DESIGN - I

- Project Design Must Provide:

- For both Type A and B Projects

- a. Detailed Schematic including specific Fields/APNs;
- b. A layout of all **T** and **C** are to be implemented;
- c. Acreage for each **T** & **C** to be implemented;
- d. Plant species to be used, if applicable.

Attachment: Design schematic

EXAMPLE OF SCHEMATIC MAP

Example of Schematic Map

- Farm map, if available.

OR

- Google Earth map.
- Must include land marks such as road intersection.
- Indicate where **T** and **C** are.

Practice Name	Materials	Acre
T (Cover crop)	Triticale (120 lb/ac)	$0.2 \times 3 = 0.6$
C (no cover crop)	N/A	$0.2 \times 3 = 0.6$



PROJECT DESIGN – II

- Project Design must include:

For Type A Projects

- a. Provide an experimental design that is statistically sound (randomization and replication);
- b. Describe approaches, procedures, and methodologies for the project;
- c. Outline methods and scheme for measurements of GHG emissions, crop yield, soil organic matter, and/or other data.

For Type B Projects

- a. Describe approaches, procedures, and methodologies for the project;
- b. Outline scheme for measurements of soil organic matter content or other data on soil health and co-benefits.

SECTION I: PROJECT MERIT

- **Section I: Project Merit**
 - Organization Type
 - Project Type
 - Agricultural Operation Data
 - Project Logistics
 - Baseline Data
 - Project Justification
 - Experimental and/or Project Design
 - Outreach Design

OUTREACH DESIGN

For both Type A and B Projects

- Describe proposed outreach activities:
 - On-farm Field Day activities;
 - Optional: workshops, farmer and/or rancher meetings, social media communications, and publications.
- Describe proposed approach, procedure, or methodology for the outreach activities, including methods for notification, recording attendance, distributing and collecting surveys and how they are suitable and feasible for the project.

SECTION II: PROJECT TIMELINE AND IMPLEMENTATION PLAN 10 POINTS

- **Section I: Project Merit**
- **Section II: Project Timeline and Implementation Plan**
 - Work Plan
 - Evaluation and Project Success



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APPENDIX I: ATTACHMENT B: [WORK PLAN TEMPLATE](#)



SECTION II: PROJECT TIMELINE AND IMPLEMENTATION PLAN

Evaluation and Project Success:

- Methods to assess the progress and success of practice implementation (for both Type A and Type B Projects) and data collection (for Type A projects).
- Cost/benefit for adoption of the agricultural management practices and anticipate any barriers to adoption, if applicable.
- Methods to assess the success of outreach activities. Think beyond attendance counts from outreach events!
 - Methods and indicators to quantify potential impacts in the short (1-2 years) and long term (3 or more years).
 - Examples: percent increase in outreach participation, percent increase in adoption of demonstrated management practices by growers, and associated benefits such as more GHG reductions and more acreage in soil health improvement in state.

SECTION III: PROJECT TEAM QUALIFICATIONS

10 POINTS

- Section I: Project Merit
- Section II: Project Timeline and Implementation Plan
- **Section III: Project Team Qualifications**
- Section IV: Project Budget and Justification
- Section V: GHG Emission Reduction Benefits
- Section VI: Additional Considerations

SECTION III: PROJECT TEAM QUALIFICATIONS

Section III: Team Qualifications

- Project Oversight
 - Describe for all project management personnel in the project.
 - Roles
 - Specific time commitments
 - How they will impact the proposed project.
 - For each project director or principal investigators (PIs), [Attachments include](#)
 - 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
 - A letter with detailed contact information ([Attachment](#))
 - A description of the role in the project;
 - Estimated time commitment, and
 - A statement of agreement to participate in the project.

SECTION IV: PROJECT BUDGET AND JUSTIFICATION 15 POINTS

- Section I: Project Merit
- Section II: Project Timeline and Implementation Plan
- Section III: Project Team Qualifications
- **Section IV: Project Budget and Justification**
- Section V: GHG Emission Reduction Benefits
- Section VI: Additional Considerations



SECTION IV: PROJECT BUDGET AND JUSTIFICATION

Section IV: Project Budget and Justification

- Budget Narrative
- Cost Sharing

Download

[Budget Narrative Template \(Appendix I: Attachment C\)](#)

https://www.cdfa.ca.gov/oefi/healthsoils/docs/2017-HSPDemo_Budget.doc

[Cost Sharing Summary Template \(Appendix I: Attachment D\)](#)

https://www.cdfa.ca.gov/oefi/healthsoils/docs/2017-HSPDemo_CostShare.doc

BUDGET NARRATIVE

Allowable Costs:

- Costs to implement proposed eligible agricultural management practices (**T**s and **C**s).
- Costs to collect and analyze samples.
- 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).
- Costs of materials needed for outreach activities (e.g., printed handouts or brochures).

BUDGET NARRATIVE

Unallowable Costs :

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



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APPENDIX I: ATTACHMENT C: BUDGET NARRATIVE TEMPLATE





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APPENDIX I: ATTACHMENT D: YEAR 3 COST SHARING SUMMARY TEMPLATE



SECTION V: GHG EMISSION REDUCTION BENEFITS 15 POINTS

- Section I: Project Merit
- Section II: Project Timeline and Implementation Plan
- Section III: Project Team Qualifications
- Section IV: Project Budget and Justification
- **Section V: GHG Emission Reduction Benefits**
- Section VI: Additional Considerations

SECTION V: GHG EMISSION REDUCTION BENEFITS

Section V: GHG Emissions Reduction Benefits

- Carbon Sequestration and GHG Reduction Estimation Report(s)

COMET-Planner Carbon Sequestration and Greenhouse Gas Estimation Report,

AND/OR

Compost-Planner Carbon Sequestration and Greenhouse Gas Estimation Report



COMET-PLANNER/COMPOST-PLANNER CARB SEQUESTRATION AND GREENHOUSE GAS ESTIMATION REPORT

1. Open at HSP Demonstration Program website Appendix I Attachment A: [CARB Quantification Methodology and Tools](#).
2. Scroll down on the web site to section “**Clean Energy and Energy Efficiency**”, in the table below, you will see in the second row “[Department of Food and Agriculture \(CDFA\)](#)”.
3. In the same row, bottom of the second column, you will see “*Healthy Soils Program* [Quantification Methodology for FY 2016-17 \(PDF\)](#)”.
4. Open and read the document thoroughly.
5. Page 5 : [Steps to estimating Net GHG benefits](#).



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APPENDIX I ATTACHMENT A: CARB QUANTIFICATION METHODOLOGY AND TOOLS



SECTION VI: ADDITIONAL CONSIDERATIONS

10 POINTS

- Section I: Project Merit
- Section II: Project Timeline and Implementation Plan
- Section III: Project Team Qualifications
- Section IV: Project Budget and Justification
- Section V: GHG Emission Reduction Benefits
- **Section VI: Additional Considerations**

SECTION VI: ADDITIONAL CONSIDERATIONS

Section VI: Additional Considerations

- Disadvantaged Communities
 - Projects that maximize benefits to disadvantaged communities will receive additional points during review.
 - See page 22 for more information.
 - To determine if projects provide direct, meaningful and assured benefits to disadvantaged communities and meaningfully address an important community need, provide an answer questions listed in [FAAST Section VI](#).
 - Benefits are determined using criteria consistent with CARB's Cap-and-Trade Auction Proceeds Funding Guidelines for Administering Agencies.

2017 HSP DEMONSTRATION PROJECTS ATTACHMENTS TAB

Required Attachment Files:

- Project Design Schematic
- Budget Narrative
- Work Plan Template
- Cost Sharing Template
- Resumés/Curriculum Vitae
- Carbon Sequestration & GHG Estimation Report(s)

2017 HSP DEMONSTRATION PROJECTS ATTACHMENTS TAB

Other Attachment Files if applicable

- Collaborators' Letters
- Letter of Landowner's Agreement
- Soil Organic Matter Content Report
- Project Justification
- Experimental or Project Design
- Map to Identify Disadvantaged Communities and Report
- Outreach Design
- Project Success

GROUNDS FOR DISQUALIFICATION

- Incomplete grant applications: applications with one or more unanswered questions necessary for 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 not necessary to complete the project objectives.

AWARD PROCESS & REPORTING REQUIREMENTS

- If selected for an award, execution of the grant agreement is conditional upon applicants agreeing to the following program requirements:
 - Year 3 Cost Share.
 - Project reporting requirements.
 - Project Verification.
 - Maintain implementation for a minimum of three years.
 - Maintain documentation related to HSP for a minimum of three years.

ASSISTANCE AND QUESTIONS

- CDFA will conduct two rounds of Questions and Answers (Q&A) to address general questions.
- Email questions to: grants@cdfa.ca.gov
- Q&A will be posted to the Healthy Soils Program website: www.cdfa.ca.gov/oefi/healthypoils/
- To ensure fair competition, CDFA will not answer questions outside of the Q&A process.

*Final deadline to submit questions:
August 28, 2017 by 8:00 am*