2021 HEALTHY SOILS PROGRAM
DEMONSTRATION PROJECTS

Request for Grant Applications
Draft for Public Comment

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Comments must be sent via email to CDFA.HSP_tech@cdfa.ca.gov

Office of Environmental Farming and Innovation
California Department of Food and Agriculture
1220 N Street, Sacramento, CA 95814

CONTENTS

BACKGROUND AND PURPOSE

The California Department of Food and Agriculture (CDFA) is pleased to announce funding availability through a competitive grant process for 2021 Healthy Soils Program (HSP) Demonstration Projects.

The 2021 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 2021 HSP Demonstration Projects are funded by the California State Budget, authorized by the Budget Act of 2021 (SB 129, Chapter 69).

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 2021 HSP Demonstration Projects addresses Objectives 2 and 3. Objective 1 is addressed in the 2021 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/healthysoils/.

FUNDING AND DURATION

CDFA was appropriated $50 million from the California State Budget, authorized by the Budget Act of 2021 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 three years and grant funds cannot be expended before TBD or after TBD. 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 2021 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, city and community colleges, 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. As part of not-for-profit entities, use of grant funds for service members through established service programs including AmeriCorps, California Conservation Corps, or a certified local community conservation corps to support the implementation of applicable projects is eligible.
- A project must include at least one farm (private agricultural operation, university/government owned farm or city community garden) to fulfill demonstration requirements. For the purpose of this program, an agricultural operation is defined as row, vineyard, field and tree crops, commercial nurseries, nursery stock production, and livestock and livestock product operations.
- CDFA will award a maximum of two applications submitted by the same applicant, but each application should be for a unique project. Entities receiving grant award funds must be located in California.
- 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 fields and 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 September 1, 2020] to March 31, 2023. 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. All requirements for practice implementation must be followed wherever applicable.
- HSP funds cannot be used to fund fields with existing and ongoing implementation of any agricultural management practices listed under Eligible Agricultural Management Practices, including fields for which a HSP Demonstrations or Incentives project was previously awarded:
    - A previously implemented practice cannot be implemented on same field or APN.
    - A previously implemented practice can be implemented on a new, different field within the same APN.
    - Practices cannot be moved to different fields within an APN during the term of the grant agreement.
    - Practices must be implemented on the same total acreage throughout the term of the grant agreement as proposed in the application and memorialized in the grant agreement. Decrease in acreage of practice implementation and quantified GHG reductions in the project after signature by Recipient and execution of grant agreement may result in elimination of that practice from the project and subsequent reduction of project budget. Additionally, project may be considered incomplete and ten percent of total project budget may be withheld (see Project Verification).

- Awards made through the HSP Demonstrations Projects cannot be used as cost share for any other awards made through the HSP Demonstration Projects or the HSP Incentives Program.
- Compost Application and Whole Orchard Recycling 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).
- Practices may not be implemented on lands or crop types that are not suitable based on NRCS Conservation Practice Standards and NRCS California Practice Scenarios.
- HSP funds cannot be used for projects that use potted plants or other plant growth media.

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 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 2021 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.

PRACTICES FOR DEMONSTRATION AND DATA COLLECTION FOR TYPE A DEMONSTRATION PROJECTS

Specified practices for which a CARB-approved GHG quantification methodology is not currently available are eligible for funding under Type A Demonstration Projects. 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:

I. Cropland, Orchard and/or Vineyard

1. Anaerobic Digestate Application: Cropland application of solids generated from anaerobic digestion of organic materials.
2. Microbial Inoculation with Compost Tea: Cropland application of diluted compost steeped or brewed in water with aeration/stirring (i.e. compost tea).
3. Mycorrhizal Application: Incorporating soil with fungi that form a symbiotic relationship with roots of crop plants.
4. Nutrient Management (CPS 590) (Replacing Synthetic N Fertilizer with Soil Amendments such as beef feedlot manure, chicken broiler manure, chicken layer manure, other manure, dairy manure, sheep manure and swine manure).
5. Nutrient Management (CPS 590) (Use of Nitrification Inhibitors).
6. Nutrient Management (CPS 590) (Use of Slow Release Fertilizers).
7. Vermicompost Application: Application of compost produced from organic materials using various species of worms.
8. Biochar Application: Application of biochar produced from organic materials to soil.
9. Food Waste Hydrolysate Application: Application of hydrolysate product produced from food waste treatment to soil.

II. Grazing Land

1. 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.

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

ELIGIBLE PRACTICES FOR TYPE B DEMONSTRATION PROJECTS

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.

All practices must be implemented in accordance with their respective NRCS CPS requirements for implementation in California, CDFA Compost Application White Paper and CDFA's Whole Orchard Recycling Report. HSP-specific requirements for implementation of eligible practices are based on NRCS CPS documentation and 2021 NRCS California Practice Scenarios (HSP-specific practices only). Refer to the Program Requirements and Appendix A for details.

Eligible practices are categorized based on agricultural systems where they can be implemented. They are divided into three categories below.

I. Cropland

1. Alley Cropping (USDA NRCS CPS 311)
2. Compost Application (CDFA Compost Application White Paper)
    a. Compost Purchased from a Certified Facility
    b. On-farm Produced Compost
3. Conservation Cover (USDA NRCS CPS 327)
4. Conservation Crop Rotation (USDA NRCS CPS 328)
5. Contour Buffer Strips (USDA NRCS CPS 332)
6. Cover Crop (USDA NRCS CPS 340)
7. Field Border (USDA NRCS CPS 386)
8. Filter Strip (USDA NRCS CPS 393)
9. Forage and Biomass Planting (USDA NRCS 512)
10. Grassed Waterway (USDA NRCS CPS 412)
11. Hedgerow Planting (USDA NRCS CPS 422)
12. Herbaceous Wind Barrier (USDA NRCS CPS 603)
13. Mulching
    a. Nature Materials (USDA NRCS CPS 484)
    b. Wood Chips (USDA NRCS CPS 484)
14. Multi-story Cropping (USDA NRCS CPS 379)
15. Nutrient Management (USDA NRCS CPS 590) (15% reduction in fertilizer application *only*)
16. Residue and Tillage Management – No-Till (USDA NRCS CPS 329)
17. Residue and Tillage Management − Reduced Till (USDA NRCS CPS 345)
18. Riparian Forest Buffer (USDA NRCS CPS 391)
19. Riparian Herbaceous Cover (USDA NRCS CPS 390)
20. Strip Cropping (USDA NRCS CPS 585)
21. Tree/Shrub Establishment (USDA NRCS CPS 612)
22. Vegetative Barriers (601) (USDA NRCS CPS 601)
23. Windbreak/Shelterbelt Establishment (USDA NRCS CPS 380)

II. Orchard or Vineyard

1. Compost Application (CDFA Compost Application White Paper)
    a. Compost Purchased from a Certified Facility
    b. On-farm Produced Compost
2. Conservation Cover (USDA NRCS CPS 327)
3. Cover Crop (USDA NRCS CPS 340)
4. Filter Strip (USDA NRCS CPS 393)
5. Hedgerow Planting (USDA NRCS CPS 422)
6. Mulching
    a. Nature Materials (USDA NRCS CPS 484)
    b. Wood Chips (USDA NRCS CPS 484)
7. Nutrient Management (USDA NRCS CPS 590) (15% reduction in fertilizer application *only*)
8. Residue and Tillage Management – No-Till (USDA NRCS CPS 329)
9. Residue and Tillage Management − Reduced Till (USDA NRCS CPS 345)
10. Whole Orchard Recycling (CDFA HSP WOR)
11. Windbreak/Shelterbelt Establishment (USDA NRCS CPS 380)

III. Grazing Land

1. Compost Application (CDFA Compost Application White Paper)
    a. Compost Purchased from a Certified Facility
    b. On-farm Produced Compost
2. Hedgerow Planting (USDA NRCS CPS 422)
3. Prescribed Grazing (USDA NRCS CPS 528)
4. Range Planting (USDA NRCS CPS 550)
5. Riparian Forest Buffer (USDA NRCS CPS 391)
6. Silvopasture (USDA NRCS CPS 381)
7. Tree/Shrub Establishment (USDA NRCS CPS 612)
8. Windbreak/Shelterbelt Establishment (USDA NRCS CPS 380)

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*
Practices that involve planting of woody cover (trees/shrubs)	10 Years
All other practices	3 Years

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

In addition to the NRCS CPS requirements, 2021 NRCS California Practice Scenarios and the table provided above, the following scientific documents were used to establish requirements for implementation of practices:

1. COMET-Planner Report: This report explains the scientific approaches that the quantification methodology has been utilized to estimate greenhouse gas reduction benefits for the CDFA HSP and is available at: http://bfuels.nrel.colostate.edu/health#.
2. White paper titled 'Compost Application Rates for California Croplands and Rangelands for a CDFA Healthy Soils Incentives Program', available at: https://www.cdfa.ca.gov/oefi/healthysoils/docs/CompostApplicationRate_WhitePaper.pdf
3. California Air Resources Board (CARB) Healthy Soils Quantification Methodology (QM) available at: https://ww2.arb.ca.gov/resources/documents/cci-quantification-benefits-and-reporting-materials.
4. CDFA's Report on Whole Orchard Recycling: https://www.cdfa.ca.gov/oefi/healthysoils/docs/CDFA_WOR_Report.pdf

Technical information from these documents was evaluated and synthesized to develop Program Requirements and Practice Implementation Requirements in Appendix A.

PROGRAM REQUIREMENTS

Submitted applications must meet all applicable requirements in this section to be considered for funding.

- 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 by Field or Plot (such as Field 1, Field 2, Field 3, etc.).
    - Each field/plot and corresponding APNs must be outlined clearly on a map.
    - 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 (except for Non-Overlapping Practices), and multiple APNs on the same or different farm(s) may be included in the project.
    - Once awarded, recipients may not change the APNs included in the grant application through the duration of the project.

- Projects proposing to implement Prescribed Grazing must be located on grazing lands (i.e. rangelands, grazed grasslands, and pasturelands). Applications for prescribed grazing must include a Grazing Management Plan prepared by a professional Certified Rangeland Manager.

- Fields where implementation of Riparian Forest Buffer and/or Riparian Herbaceous Cover practices is proposed must be adjacent to and upgradient from water courses or water bodies. Please refer to the USDA NRCS CPS 390 and 391 for more information.

- Projects proposing to implement Conservation Crop Rotation must provide a detailed plan for crop rotation, listing all cash crops and/or cover crops to be planted in the correct sequence as part of the Work Plan.

- Projects proposing to implement Cover Crop may not claim post-termination cover crop residue as mulching practice with natural materials to prevent overestimation of GHG reductions achieved.

- Projects proposing to implement practices that involve establishment of permanent woody cover must take into consideration wildlife and pollinator needs when selecting or siting tree or shrub species. Increasing species diversity, including use of native species, and avoiding species with invasive potential should be considered. Crop trees may not be planted exclusively.

- Implementation of Compost Application Practices must meet the requirements below**.**
    - Compost Application Rates to be demonstrated for funding are provided in the table below.

Crop Type	Compost Type	Dry Short Tons/Acre*
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.

- 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/Site Search website: https://www2.calrecycle.ca.gov/SolidWaste/Site/Search
    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***: Maintain a temperature between 131°F and 170°F for 3 days.
       - ***Windrow Composting***: Maintain 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 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 where the project is located. Externally sourced compost must be purchased from a certified facility.

d. Compost used in this practice cannot be vermicompost.

- Implementation of the Whole Orchard Recycling (WOR) practice must meet the following requirements below:
  - Only orchards with trees at least ten years of age are eligible.
  - Following woodchip incorporation, land must be fallowed or replanted with trees within 3 years.
  - Orchards should be chipped and incorporated in place on the field in which they were grown, without exporting chips off-site or to new fields.
  - The WOR practice must not be implemented in soils with Soil Organic Matter greater than 20%.
  - Chips must be evenly distributed throughout the orchard. If a service provider is contracted, their commitment to spread the wood chips must be in the contract/invoice for verification purposes.
  - Chips must be incorporated into the soil to at least 6 inches depth.

- *Non-Overlapping Practices*: For the purposes of the HSP, practices in the same group cannot be implemented on the exact same land area or field, i.e., cannot overlap or be on top of each other, as noted below. If proposed together, only one practice may be funded.
  - 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 must either be
    - Purchased from a Certified Facility, or,
    - On-farm Produced Compost
  - Group IV:
    - Alley Cropping (USDA NRCS CPS 311)
    - Multi-story Cropping (USDA NRCS CPS 379)
  - Group V:
    - Mulching (USDA NRCS CPS 484)
    - Whole Orchard Recycling
  - Group VI
    - Conservation Cover (USDA NRCS CPS 327)
    - Contour Buffer Strips (USDA NRCS CPS 332)
    - Field Border (USDA NRCS CPS 386)

        - Filter Strip (USDA NRCS CPS 393)
        - Forage and Biomass Planting (USDA NRCS 512)
        - Grassed Waterway (USDA NRCS CPS 412)
        - Herbaceous Wind Barrier (USDA NRCS CPS 603)
        - Range Planting (USDA NRCS CPS 550)
        - Riparian Herbaceous Cover (USDA NRCS CPS 390)
        - Vegetative Barriers (601) (USDA NRCS CPS 601)
    - Group VII
        - 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)

    - Group VIII
        - Any practice listed in Group VI and mulching
        - Any practice listed in Group VI and Group VII with reduced tillage or no-till.

    Note: There may be practices (individual or combination) in addition to those listed above that may not overlap for a specific project. These may be evaluated by CDFA on a case-by-case basis and addressed during pre-project consultation.

- Requirements noted in Appendix A must be followed for all HSP practices.

- Applicants must use the CDFA HSP Re-Plan Tool to develop their project site map, determine if they may be located in AB 1550 Priority Populations, eligibility for compost application and assistance in selecting species to be planted for specific practices based on the USDA NRCS California eVegGuide.

- CDFA strongly encourages applicants to enhance on-farm biodiversity through utilizing plant species (in applicable management practices) that support pollinator habitat and help meet the goals identified in the California Biodiversity Action Plan.

- *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.

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 (2020, baseline data)
      - One year after implementation of funded practices (2021)
      - Two years after implementation of funded practices (2022)
      - Three years after implementation of funded practices (2023

  - Required for Type A projects:
    - Measurements of GHG (e.g. carbon dioxide, nitrous oxide, and methane) emissions on T and C treatment plots where Soil Management Practices are implemented during the entire project term. GHG measurements from other eligible management practices are optional, as applicable.
    - Sampling frequency for GHG emissions should be selected such that it allows collection of both baseline and peak GHG fluxes data associated with practice implementation, weather conditions, and field operations, so that data collected can be used to estimate annual GHG emissions for each treatment and control.

- Crop yield data per year.

- Optional for both Type A and Type B projects:
  - Additional data on soil health[1], 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. Grant recipients must conduct at least one field day per year at the project site to showcase HSP practices to other farmers and ranchers. 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 (name, email, and phone number) 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. Site-specific field days may be conducted via virtual meeting or webinar platforms in situations where in-person field days are not possible, such as the COVID-19 pandemic.

  Outreach to demonstrate HSP practices and project benefits must include a minimum of 120 different individual California based farmers and/or ranchers for the duration of the grant agreement term (i.e., 40 per project year). Farmers and ranchers 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).

  Grant recipients may meet this requirement through outreach and education efforts conducted in addition to the mandatory field days. Outreach events may include presentations at California-specific conferences or meetings where farmers and ranchers are present as participants. However, the additional efforts may not replace the mandatory field days. List of farmers and ranchers present at outreach events (for example, sign in-sheets or conference registration logs specifically showing attendance at the HSP project event) must be compiled by grant recipients and included in reports to CDFA.

  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

[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 https://soilhealth.cals.cornell.edu/training-manual/.

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 TBD to TBD. 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 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	TBD	TBD
2	TBD	TBD
3	TBD	TBD

- *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).

Indirect Costs

University of California (UC) and California State Universities (CSU) may claim their established indirect cost rate with CDFA. All other eligible organizations for HSP Demonstration Projects may claim an indirect cost rate of 20 percent of total direct costs.

Unallowable costs

Unallowable costs include, but are not limited to:

- Costs incurred outside of the grant duration (i.e., prior TBD or after TBD).
- 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 TBD.
- 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).
- Farm equipment purchases may not be allowed for projects without reasonable justification demonstrating that the equipment is critical for widespread adoption of practice(s) by farmers and ranchers and is necessary for demonstration purposes.
- Purchasing project-specific tools and equipment with a useful life of less than two years.
- Expenditures for purchasing or leasing land or buildings.
- Cost of travel to international locations and states with discriminatory laws consistent

with AB 1887.

- *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 (January 2018 – January 2021) in all APN(s)/fields included in the application.
  - Management practice history in the past three years (January 2018 – January 2021) in all APN(s)/fields included in the application.

- *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 are available at https://ww2.arb.ca.gov/resources/documents/cci-quantification-benefits-and-reporting-materials and http://comet-planner-cdfahsp.com/.

  COMET-Planner Report will be generated upon completion of the calculation, which must be included as part of the application.

  For practices that are listed under V. Additional Practices for Demonstration and Data Collection, a 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. In the application, applicants must provide justification and/or estimation on GHG reduction benefits per acre from implementing the proposed practice(s) based on available scientific literature up to date. Methodology and plan for GHG data collection must be described in detail.

TIMELINE

The application period begins TBD. The deadline to submit a grant application is TBD at 5:00 pm PT. No exceptions will be granted for late submissions.

Activity	Date
Release Request for Grant Applications (RGA)	TBD
CDFA Grant Application Workshop Webinars	TBD
Applications due	By 5:00 p.m. on TBD

Review Period	TBD
Announce and Award Funding	TBD

WORKSHOPS AND APPLICATION ASSISTANCE

CDFA will conduct three workshops on the 2021 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 two 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
TBD	TBD
TBD	TBD

For CDFA grant application workshop schedule and locations, visit the HSP Demonstration Projects website: https://www.cdfa.ca.gov/oefi/healthysoils/DemonstrationProjects.html.

GRANT APPLICATION PROCESS

HOW TO APPLY

The 2021 HSP Demonstration Projects is a web-based application available at [Link TBD]. 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 the Preview of Application Questions [Link TBD] 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 comprises of subject matter experts affiliated with state and federal agencies.

CDFA will assess applicants' past grant performance in determining if a new project will receive funding. Prior performance will include timely completion of projects and submission of all required documentation and data during and after project completion.

EVALUATION CRITERIA

Applications are evaluated based on the following criteria. Detailed information is provided under Detailed Scoring Criteria. Applications will be scored and ranked in order of highest score to lowest score to be considered for funding.

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

Past Performance Evaluation (applicable for applicants funded in previous rounds)	Project not funded if minus 30 or greater
Total	**100**

FUNDING PRIORITY

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

- **Benefits to Socially Disadvantaged Farmers or Ranchers**[2]
  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 after they have been scored and ranked by technical reviewers.

- **Benefits to Priority Populations**[3]
  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

[2] "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.

[3] 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.

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 CONSIDERATION

Soil management practices may vary with climatic regions, soil conditions, and crop production systems. Therefore, projects with greater regional and crop production representation may be given additional consideration during the review and evaluation process to achieve widespread adoption of the management practices in the state.

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 90 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 requesting grant funds to cover activities outside the grant duration.
- Applications that do not comply with Eligibility and Exclusions or do not meet Program Requirements.

APPEAL RIGHTS: Any discretionary action taken by the Office of Environmental Farming and Innovation (OEFI) 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 emailed to CDFA.LegalOffice@cdfa.ca.gov (preferred) or sent to the California Department of Food and

Agriculture Office of Hearings and Appeals, 1220 N Street, Sacramento, CA 95814. If submissions are not received within the time frame provided above, the appeal will be denied.

AWARD PROCESS

PRE-PROJECT CONSULTATION

After receiving notification of award, each recipient will be contacted by CDFA via email to conduct a pre-project consultation. In some cases, a phone call with grant recipient may be necessary. A CDFA environmental scientist may discuss with the recipient about the project narrative, work plan, and budget if applicable. The purpose of the pre-project consultation is to ensure that practices and implementation methods in the funded project are compliant with 2021 HSP Demonstration Program requirements.

GRANT AGREEMENT

CDFA will initiate the Grant Agreement process with applicants selected to receive a 2021 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 grant agreement is executed but no later than TBD. Failure to implement the project prior to TBD 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 TBD, respectively.

PROJECT REPORTING REQUIREMENTS

Recipients are required to submit soil organic matter content data before implementing proposed practice(s) and semi-annual reports during the grant agreement term. 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 and annual reports are used to identify milestones, results achieved, success stories, potential concerns, and other pertinent information. CDFA will provide report templates for these reports.

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 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 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 and Appendix A. Verification will be conducted by CDFA environmental scientists who may conduct field evaluations by APN and/or remote evaluations through phone, video conferencing or emails to verify program compliance during the grant agreement term. CDFA may request any or all of the documentation listed in Appendix A in order to successfully complete project verification.

The purpose of project verification is to determine whether and when deliverables are being met

and evaluate project progress to ensure the implementation of eligible agricultural management practice(s) and project goals 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. Specific verification requirements for each practice will be provided in the Grant Awards Procedures manual. The verification must be completed by March 31, 2023.

CDFA will withhold up to 10 percent from the total grant award until the verification requirements are complete.

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, benefits on soil health and its associated environmental co-benefits and ecosystem services from implementation of practices are expected to be achieved in the long term. Recipients are encouraged to continue and/or expand these practices on their operations to achieve long-term benefits. Additionally, grant recipients are required to maintain three years after completion of project, 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 keep records of actual benefits achieved from the project.

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.

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 timecards, 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 • 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 • Is there at least one practice new to the field to be implemented? • Are the Type A research and demonstration practices proposed in the project (if any) appropriately suited to the agricultural system on which project is located? • Are all relevant attachments/supporting documents provided?	
1.3 Project/Experimental Design • Is the control treatment designed to achieve statistically and scientifically sound comparisons to the treatment(s)? • 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, the CDFA Compost Application White Paper and/or CDFA Whole Orchard Recycling Report? • Are all relevant attachments/supporting documents provided?	
2. PROJECT MERIT - PART II: Outreach Component (Section I and II) • 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	
3.1 Project Work Plan (Section III) Are activities necessary to accomplish all project tasks included, suitable and feasible? These should include tasks in each year for the three years for the project, for: • Practice implementation • Data collection • Outreach tasks	**15**

3.2 Evaluation of project success (Section IV) • 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 years) and long-term (≥3 years) provided and feasible? • Are all relevant attachments/supporting documents provided?	
4. PROJECT TEAM QUALIFICATION (Section V)	**10**
4.1 Project Oversight • 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?	
4.2 Team Qualifications • Do key personnel have sufficient expertise to complete the project, for example, in case of Type A projects, the project investigators must be experienced in scientific training and research. • Are support personnel, facilities, and instrumentation sufficient? • Are all relevant attachments/supporting documents provided?	
5. PROJECT BUDGET JUSTIFICATION AND MATCHING FUNDS (Section VI) • 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 or from literature review for Type A – Additional practices • 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?	**15**
TOTAL	**100**
7. PAST PERFORMANCE This criterion is only applicable to applicants that have received HSP Demonstration Projects funding in previous rounds. Points indicated in this section will be deducted from the total points (out of 100) scored by the HSP Technical Advisory Committee.	
7.1 Past grant agreement completion • Project canceled after grant expenses incurred. • Project terminated by CDFA due to non-performance/unresponsive recipient.	**-5** **-10**
7.2 Practice Implementation • Practice(s) not implemented in one or more project year(s) consistent with the grant agreement. • Practice(s) implemented with delay, except for natural causes or CDFA's prior approval.	**-10** **-5**
7.3 Data collection • Project failed to collect any of the following required data in one or more project year(s): o Type A: GHG emissions o Type A: Yield o Type A and B: Soil organic matter or soil carbon • Project failed to collect any other data in the project Scope of Work.	 **-10** **-10** **-10** **-5**
7.4 Outreach • Project failed to conduct 3 field days during grant agreement term. • Project failed to meet 120 farmer/rancher outreach goal:	 **-10**

○ <60 ○ 61-119	**-10** **-5**
7.5 Reporting • Project failed to submit a required report during the grant agreement term. • Delay in submission of one or more required report(s).	**-10** **-5**
7.6 Communication with CDFA • Project made changes to project Scope of Work without prior approval by CDFA.	**-10**
7.7 Post project outcome data • Failure to respond to CDFA post-project data collection inquiry.	**-5**
7.8 Cumulative performance issues • Project receives negative 30 or more points using the above criteria.	**Project will not be funded.**

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 from the HSP website, https://www.cdfa.ca.gov/oefi/healthysoils/DemonstrationProjects.html:

- Project Narrative Template
- Project Work Plan and Budget Template

The mandatory and applicable attachments include:

- Landowner Agreement*
- CDFA HSP Re-Plan Report – Project Site Map
- Project Design Schematic
- A Grazing Management Plan for Prescribed Grazing Practice*
- CDFA HSP COMET-Planner 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 [Link TBD]

APPENDIX A
2021 HSP Demonstration Projects: Requirements and Implementation Guidelines

Application Phase					Implementation Phase	
Agricultural System	**HSP Practice**	**Practice Implementation**	**Payment Scenario**	**Required Document or Information at Submission of Application**	**Implementation Guidelines**	**Verification Requirements**
Cropland	Alley Cropping (NRCS CPS 311)	Replace 20% of Annual Cropland with Woody Plants	Tree-planting, single row	Species and number of trees	(1) Potted hardwood seedling size at ≥2 gal; (2) Plant density at ≥40 trees/acre; (3) Tree protection and irrigation.	(1) 3-5 Geotagged photographs showing established trees, (2) Receipts of seedlings purchased; (3) Species and number of live plants; (4) Maintenance of plant growth in the project term and beyond.
Cropland	Compost Application (CDFA)	Compost (C:N ≤ 11) application to annual crops	On-farm produced compost	Compost C:N ratio, Application Rate, Acres to Be Implemented	(1) Application rate must be between 3-5 tons/acre; (2) Compost materials, method and Composting process must be documented.	(1) 3-5 Geotagged photographs showing compost piles, compost being spread and ground right after compost is applied; (2) A composting log including raw materials, method and temperatures during composting process; (3) Estimated total tonnage of compost applied; (4) Compost analysis report on C:N ratio; (5) Verification when compost is spread.
		Compost (C:N > 11) application to annual crops			(1) Application rate must be between 6-8 tons/acre; (2) Compost materials, method and Composting process must be documented.	

Cropland	Compost Application (CDFA)	Compost (C:N ≤ 11) application to annual crops	Purchased from a Certified Composting Facility	Compost C:N ratio, Application Rate, Acres to Be Implemented	Application rate must be between 3-5 tons/acre	(1) 3-5 Geotagged photographs showing compost piles, compost being spread and compost on the field floor, (2) Receipts of compost purchased; (3) Compost analysis report on C:N ratio; (4) Verification when compost is spread.
		Compost (C:N > 11) application to annual crops			Application rate must be between 6-8 tons/acre	
Cropland	Conservation Cover (NRCS CPS 327)	Convert Irrigated or Non-Irrigated Cropland to Permanent Unfertilized Grass Cover or Grass/ Legume cover	Introduced species	(1) Introduced perennial or selected using CalFlora, (2) seeding rate & planting method	(1) Seeding rate at 21-40 pure live seeds per sqft; (2) Plant protection from animal damage and growth maintenance.	(1) 3-5 Geotagged photographs of fields showing established plants (>60% plant cover); (2) Receipts of seeds purchased including species names; (3) Good plant growth during the project term.
			Introduced species with foregone income		(1) Seeding rate at 41-60 pure live seeds per sqft; (2) Plant protection from animal damage and growth maintenance.	
			Native species	(1) Mix of native perennials, (2) seeding rate & planting method	(1) Seeding rate at 21-40 pure live seeds per sqft; (2) Plant protection from animal damage and growth maintenance.	
			Native species with foregone income			
			Monarch species – mix species	(1) Mix of native perennial grass & forbs for wildlife, pollinators, or ecosystem restoration; (2) Seeding rate & planting method	(1) At least 4% native milkweeds (*Asclepias* spp.) and less than 50% grasses; (2) Seeding rate at 21-40 pure live seeds per sqft; (3) Plant protection from animal damage and growth maintenance.	
			Monarch species – mix species with foregone income			
			Pollinator species	(1) Mix of native perennial grasses, legumes, and forbs to provide habitat for pollinators; (2) Seeding rate & planting method	(1) Mixed native species with less than 50% grasses; (2) Seeding rate at 21-40 pure live seeds per sqft; (2) Plant protection from animal damage and good maintenance.	
			Pollinator species with foregone income			

Cropland	Conservation Crop Rotation (NRCS CPS 328)	Decrease Fallow Frequency or Add Perennial Crop to Rotations	Basic rotation	A rotation plan including all crops in the sequence with at least one annual crop.	Effective implementation of the rotation plan to add higher residue and/or perennial crops to reduce erosion and increase other benefits.	(1) 3-5 Geotagged photographs of fields showing practice is implemented (2) A farming log recording rotation implementation.
			Specialty crops			
Cropland	Contour Buffer Strips (NRCS CPS 332)	Convert Strips of Irrigated Cropland to Permanent Unfertilized Grass Cover or Unfertilized Grass/Legume Cover	Introduced species, foregone income	(1) A design schematic; (2) Perennial species; (3) seeding rate and planting method.	(1) Width of strips: ≥15 feet if ≥50% grass species OR ≥30 feet when legume/forbs are used alone, or ≥50% legumes; (2) Seeding rate at 41-60 pure live seeds per sqft; (3) Inoculate legumes at planting time; and (4) Good maintenance.	(1) 3-5 Geotagged photographs of fields showing established strips (>60% plant cover); (2) Receipts of seeds purchased; (3) Plant species name and seeding rate; (4) Good plant growth during the project term.
			Native species, foregone income	(1) A design schematic; (2) Native perennial species; (3) seeding rate, planting method	(1) Width of strips: ≥15 feet if grass species consists of 50% or more OR ≥30 feet when legume/forbs are used alone, or legumes consist of 50% or more; (2) Seeding rate at 21-40 pure live seeds per sqft; (3) Inoculate legumes at planting time; and (4) Good maintenance.	
			Wildlife Pollinator, foregone income	(1) A design schematic; (2) at least 3 pollinator friendly native perennial species; (3) Seeding rate, planting method	(1) Width of strips: ≥15 feet if grass species consists of 50% or more OR ≥30 feet when legume/forbs are used alone, or legumes consist of 50% or more; (2) Seeding rate at 21-40 pure live seeds per sqft; (3) Inoculate legumes at planting time; and (4) Good maintenance.	
Cropland	Cover Crop (NRCS CPS 340)	Add Non-Legume Seasonal Cover Crop to Irrigated or Non-Irrigated Cropland	One species	(1) APN/field and acres; (2) cover crop species; (3) Seeding rates; (4) Planting date and method; (5) Termination date and method	(1) Single or multiple species cover crop is planted without fertilizer. (2) Cover crop is allowed to grow to produce as much biomass as possible. (3) Cover crop biomass/residue should not be removed to other places.	(1) 3-5 Geotagged photographs showing established cover crops in the field (≥60% plant cover), (2) Receipts of cover crop seeds purchased, (3) Cover crop species name and seeding rate.
			Multiple species			

Cropland	Field Border (NRCS CPS 386)	Convert Strips of Irrigated Cropland to Permanent Unfertilized Grass Cover or Permanent Unfertilized Grass/Legume Cover	Introduced species	Introduced perennial species, seeding rate, planting method	(1) Seeding rate at 41-60 pure live seeds per sqft; (2) Maintain plant growth during the project term.	(1) 3-5 Geotagged photographs of fields showing established field border (>60% plant cover); (2) Receipts of seeds purchased; (3) Plant species name and seeding rate; (4) Good plant growth during the project term.
			Native Species	Native perennial species; seeding rate; planting method	(1) Seeding rate at 21-40 pure live seeds per sqft; (2) Maintain plant growth during the project term.	
			Pollinator Species	Diverse mix of native perennial grasses, legumes and forbs that are pollinator friendly; seeding rate; planting method	(1) Species flower throughout the growing season with ≤50% grasses in the mix; (2) Seeding rate at 21-40 pure live seeds per sqft; (3) Maintain plant growth in the project term.	
Cropland	Filter Strip (NRCS CPS 393)	Convert Strips of Irrigated Cropland to Permanent Unfertilized Grass Cover or Grass/ Legume Cover	Native species	(1) Filter strip design map; (2) Perennial plant species names; (3) Seeing rate and planting method	(1) Native perennial species; (2) Seeding rate at 41-60 pure live seeds per sqft; (3) Maintain good plant growth during project term.	3-5 Geotagged photographs of fields showing established filter strip (>60% plant coverage); (2) Receipts of seeds purchased; (3) Plant species name and seeding rate; (4) Good plant growth during the project term.
			Introduced species		(1) Introduced cool season perennial species; (2) Seeding rate at ≥60 pure live seeds per sqft; (3) Maintain good plant growth during the project term.	
Cropland	Forage and Biomass Planting (NRCS CPS 512)	Conversion of Annual Cropland to Irrigated or Non-Irrigated Grass/Legume Forage/Biomass Crops	Nonnative, high seeding rate with lime	Plant species, seeding rate, planting method, and irrigation availability	(1) Introduced perennial grasses, legumes, and/or forbs; (2) Seeding rate of 30 lb/acre pure live seed (PLS) or 41-60 pure live seeds per sqft; (3) Lime application if applicable.	(1) 3-5 Geotagged photographs of fields showing established planting (>60% plant coverage); (2) Receipts of seeds purchased; (3) Plant species name and seeding rate; (4) Maintain plant growth during the project term.
			Nonnative, high seeding rate without lime			
			Nonnative, standard seeding rate with fertilizer		(1) Introduced perennial grasses, legumes, and/or forbs; (2) Seeding rate of 9 lb/acre pure live seed (PLS) or 21-40 pure live seeds per sqft; (3) Fertilizer application if applicable.	
			Nonnative, standard seeding rate without fertilizer			

Cropland	Grassed Waterway (NRCS CPS 412)	Convert Strips of Irrigated or Non-Irrigated Cropland to Permanent Unfertilized Grass or Grass/Legume Cover	Base Waterway	For area where peak runoff is expected, and erosion control is needed. A design schematic, plant species and planting method.	(1) Planting area is from tops of the bank on both sides; (2) Perennial species at seeding rate ≥60 pure live seeds per sqft. (3) For waterway with checks, fabric or stone checks installed every 100 feet along the waterway perpendicular to waterflow and 2/3 the waterway top width to reduce maintenance and provide temporary protection until vegetation is established. Fabric Checks are installed 18" deep with 12" laid over on the surface.	(1) 3-5 Geotagged photographs of fields showing established grassed waterway (>60% plant coverage); (2) Receipts of seeds purchased; (3) Plant species name and seeding rate; (4) Maintain plant growth during the project term.
			Base waterway with checks	For area where peak runoff is expected, and erosion control is needed. A design schematic, plant species and planting method.		
Cropland	Hedgerow Planting (NRCS CPS 422)	Replace a Strip of Cropland with 1 Row of Woody Plants	Single Row	Length to plant, Plant species and number of each species	(1) Pollinator-friendly trees, shrubs and perennial wildflowers; (2) Plant density at ≥200 live plants/acre; (3) Average height at ≥3 feet and extend 15 feet wide at maturity; (4) Plant protection & irrigation.	(1) 3-5 Geotagged photographs of fields showing established hedgerow plants (2) Receipts of plants purchased; (3) Plant species name and number of live plants; (4) Maintain plant growth in the project term.
Cropland	Herbaceous Wind Barriers (NRCS CPS 603)	Convert Strips of Irrigated or Non-Irrigated Cropland to Permanent Unfertilized Grass or Grass/Legume Cover	Cool Season Perennial Species	cool season perennial plant species, seeding rate and planting method	(1) Plant species must be tolerant to soil deposition and stiff; (2) Width of the Herbaceous Wind Barrier must be at least 2 feet.	(1) 3-5 Geotagged photographs of fields showing established barrier plants (>60% plant cover); (2) Receipts of seeds purchased; (3) Species name and seeding rate; (4) Maintain plant growth in the project term.
Cropland	Mulching (NRCS CPS 484)	Add Mulch to Croplands	Natural Materials	Cropland condition where mulch to be implemented, mulch materials and source	(1) Materials produced off site; (2) ≥70% soil coverage by mulch materials at 1-3 inches thickness or 1-2 tons/acre if using straw.	(1) 3-5 Geotagged photographs of fields showing mulching is implemented including thickness and surface coverage, (2) Receipts of materials purchased, or donated with proof documents.

Cropland	Mulching (NRCS CPS 484)	Add Mulch to Croplands	Wood Chips	Cropland condition where mulch to be implemented, mulch materials and source	(1) Materials produced off site (2) Chip size 3/4-2 inch in diameter; (3) Mulch thickness at 2-4 inches; (4) Application rate at ≥40 cubic yards/acre or ≥10 tons/acre.	(1) 3-5 Geotagged photographs showing mulching is implemented including thickness and surface coverage, (2) Receipts of materials if purchased or donated with proof documents.
Cropland	Multistory Cropping (NRCS CPS 379)	Replace 20% of Annual Cropland with woody plants	Native Tree or shrub planting	Plant species and number of each species	(1) Native seedlings with 50% medium size (1 quart to gallon pot or 10 cubic inches container); (2) Plant density at ≥40 live trees/acre; (3) Tree protection and irrigation.	(1) 3-5 Geotagged photographs showing planted trees, (2) Receipts of seedlings purchased; (3) Species and number of live plants; (4) Tree maintenance in the project term.
Cropland	Multistory Cropping (NRCS CPS 379)	Replace 20% of Annual Cropland with woody plants	Non-native tree or shrubs planting	Plant species and number of each species	(1) Shrub seedlings: bare root at 36-60 inches tall or container ≥20 cubic inches; tree seedlings: bare root or container ≥20 cubic inches; (2) Plant density at ≥40 live trees/acre; (3) Tree protection and irrigation.	(1) 3-5 Geotagged photographs of fields showing planted trees, (2) Receipts of seedlings purchased; (3) Species and number of live plants; (4) Tree maintenance in the project term.
Cropland	Nutrient Management (NRCS CPS 590)	Improved N Fertilizer Management on Irrigated or Non-irrigated Cropland - Reduce Fertilizer Application Rate by 15%	Basic nutrient management	For cropland where synthetic nutrient fertilizers have been applied annually. Nitrogen application rate and associated crop(s) in the past 3 years.	(1) A nutrient management plan for each field(s) based on soil test analysis and university of California recommendation. (2) A farming log records all fertilization activities (fertilizer name, nitrogen content, application rate & date) for each crop year.	(1) 3-5 Geotagged photographs of fields showing the crop and fertilization event(s), (2) Receipts of nitrogen fertilizers purchased, (3) farming log must demonstrate that nitrogen application rates is 15% less than what was used in the past 3 years or UC recommended rates, (3) Verification is at the end of the project year or crop year as applicable.

Cropland	Residue and Tillage Management, No-Till (NRCS CPS 329)	Convert Tillage to No Till in on Irrigated or Non-irrigated Cropland	No-Till or Strip-Till	Tillage implemented prior to application deadline	(1) No tillage; (2) all planting methods are no-till drill or broadcast if applicable. (3) Residues are kept on soil surface and not burned or removed; (4) A farming log recording all field activities.	(1) 3-5 Geotagged photos showing field operations, field floor and overview of the whole field at end of project year; (2) The farming log; (3) verification at the end of project year.
Cropland	Residue and Tillage Management, Reduced Till (NRCS CPS 345)	Intensive Till to Reduced-Till on Irrigated or Non-irrigated Cropland	Reduced-Till	Conventional tillage implemented prior to application deadline	(1) Tillage methods (Mulch/vertical tillage, chiseling or disking) that limit soil disturbance, or (2) Fewer tillage operations. (3) Plant residue covering soil surface during winter- spring period; (4) A farming log recording all field activities related to soil disturbance.	(1) 3-5 Geotagged photos for each field showing field operations (including equipment used), field floor and overview of the whole field at end of each project year. (2) A farming log to demonstrate implementation requirements are met; (3) Verification by the end of the project year.
Cropland Cropland	Riparian Forest Buffer (NRCS CPS 391)	Replace a Strip of Cropland Near Watercourses or Water Bodies with Woody Plants	Bare-root, hand planted	Area of practice implementation must be upgradient from and adjacent to a stream	(1) Seedling size: 18-36 inches tall or 10-20 cubic inches container for shrubs and hardwood; 1-year old seedlings or 4-6 cubic inches container for conifer; (2) Plant protection; (3) Plant density ≥35 live plants/acre.	(1) 3-5 Geotagged photographs of fields showing planted trees, (2) Receipts for number and sizes of seedlings/cuttings purchased; (3) Species and number of live trees/shrubs at verification; (4) Tree protection and maintenance.
			Cuttings, Small to Medium Size		(1) Cutting size: 0.25-1 inch in diameter and 2-4 feet long; (2) Plant protection; (3) Plant density ≥35 live plants/acre.	
			Cuttings, Medium to Large Size		(1) Cutting size: medium (0.25-1 inch in diameter and 2-4 feet long) to large (2-6 inch in diameter and 6 ft long); (2) Plant protection; (3) ≥35 live plants/acre.	

Cropland Cropland	Riparian Forest Buffer (NRCS CPS 391)	Replace a Strip of Cropland Near Watercourses or Water Bodies with Woody Plants	Small container, hand planted	Area of practice implementation must be upgradient from and adjacent to a stream	(1) Potted seedling size: 1 quart to 1 gallon; (2) Plant protection; (3) ≥35 live plants/acre.	(1) 3-5 Geotagged photographs of fields showing live plants, (2) Receipts for sizes of seedlings/cuttings purchased; (3) Species and number of live trees/shrubs; (4) Tree protection and maintenance.
			Large container, hand planted		(1) Potted seedling size: 2 gallons or larger; (2) Plant protection; (3) ≥35 live plants per acre.	
Cropland	Riparian Herbaceous Cover (NRCS CPS 390)	Convert Irrigated or Non-Irrigated Cropland to Permanent Unfertilized Grass or Grass/legume Cover Near Aquatic Habitats	Broadcast Seeding	Area of practice implementation must be upgradient from and adjacent to a stream	(1) Native perennial grasses, legumes and forbs with ≤50% grasses; (2) Plug planting or broadcast planting and/or no-till drill seeded at rate of 41-60 pure live seeds/sq ft; (3) Plant maintenance in the project term.	(1) 3-5 Geotagged photographs of fields showing established riparian herbaceous cover (>60% plant coverage); (2) Receipts for materials purchased; (3) Planting method and seeding rate; (4) Maintenance of established riparian zone - an adapted, diverse vegetative plant community that is under close management to ensure long term survival & ecological succession.
			Broadcast Seeding with Foregone Income			
			Plug Planting		(1) Native aquatic plants plug-planted; (2) Plant maintenance in the project term.	
			Combination Broadcast Seeding and Plug Planting	Area of practice implementation must be upgradient from and adjacent to a stream	(1) Native aquatic plants plug-planted; (2) Native perennial grasses, legumes and forbs with ≥50% grasses broadcast and/or no-till drill seeded at 41-60 pure live seeds/sq ft; (3) Plant maintenance in the project term.	
			Pollinator Cover	Area of practice implementation must be upgradient from and adjacent to a stream	(1) Native perennial species with ≤50% grasses; (2) 2-12 species to ensure ≥2 species in bloom at any given time of the growing season; (3) Broadcast or no-till drill seeded at rate of 41-60 pure live seeds/sq ft; (4) Plant maintenance in the project term.	

Cropland	Strip Cropping (NRCS CPS 585)	Add Perennial Cover Grown in Strips with Irrigated or Non-Irrigated Annual Crops	Wind and water erosion control	Strip design: diagram on the APN where strips are located, number of strips, width & length of each strip. Plant species, sending rate and method.	(1) Two or more strips are required; (2) ≥ 50% vegetation cover must be perennial and erosion resistant species. (3) Do not include erosion-susceptible crops in adjacent strips at the same time during the year.	(1) 3-5 Geotagged photographs of fields showing established strips (>60% plant coverage); (2) receipts of seeds purchased; (3) Number, width & length of strips; (4) Maintenance in project term.
Cropland	Tree/Shrub Establishment (NRCS CPS 612)	Conversion of Annual Cropland to a Farm Woodlot	Conservation, hand planted, browse protection	Plant species and number of each species	(1) Bareroot shrub seedings at 6-18 inches tall or hardwood seedlings at 18-36 inches tall. (2) Plant protection and growth maintenance. (3) Plant density: ≥150 live trees per acre	(1) 3-5 Geotagged photographs of fields showing planted trees/shrubs; (2) Receipts of seedlings purchased, species and number of live plants; (3) Tree protection, and irrigation; (4) Plant maintenance in the project term.
Cropland	Vegetative Barrier (NRCS CPS 601)	Convert Strips of Irrigated or Non-Irrigated Cropland to Permanent Unfertilized Grass or Grass/Legume Cover	Vegetative Planting	Location: where sheet or rill erosion is of concern. Plant species: must meet stiffness index and is tolerant to soil erosion, seeding rate and method	(1) Permanent strips of stiff, dense vegetation established along the general contour of slopes; with vegetation stiffness index (VSI) of 0.05-0.10; (2) Broadcast or drill seeds in a strip of 3 feet or wider; (3) plant maintenance.	(1) 3-5 Geotagged photographs taken at both ends & middle of established barrier (>60% plant cover); (2) Receipts of seeds purchased; (3) Plant maintenance in project term.
Cropland	Windbreak/ Shelterbelt Establishment (NRCS CPS 380)	Replace a Strip of Cropland with 1 Row of Woody Plants	1-row, trees, containers, hand planted, with tree protected	Length to plant, Plant species and number of each species	(1) Containered seedlings at 15-20 cubic inches or bare root seedlings at 2-3 years old before transplanting (2) Plant protection and irrigation are required; (3) Plant density ≥200 live plants/acre.	(1) 3-5 Geotagged photographs taken at both ends & middle of the tree line; (2) Receipts of seedlings purchased; (3) Species and number of live plants; (4) Tree protection and irrigation; (5) Plant maintenance in the project term.
			1-row, trees or shrub, with wind protection fence	Length to plant, Plant species and number of each species	(1) Containered seedlings at 15-20 cubic inches or bare root seedlings at 2-3 years old before transplanting (2) A wind-protection fence and irrigation are required; (3) Plant density ≥200 live plants/acre.	

Orchard or Vineyard	Compost Application (CDFA)	Compost (C:N ≤ 11) application to orchards or vineyard	Purchased from a Certified Composting Facility	Compost C:N ratio, Application Rate, Acres to Be Implemented	Application rate must be between 2-4 tons/acres	(1) 3-5 Geotagged photographs showing compost piles, compost being spread and ground right after compost is applied, (2) A copy of receipt for compost purchased; (3) Compost analysis report on C:N ratio; (4) Verification when compost is spread.
		Compost (C:N > 11) application to application to orchards or vineyard			Application rate must be between 6-8 tons/acres	
Orchard or Vineyard	Compost Application (CDFA)	Compost (C:N ≤ 11) application to orchards or vineyard	On-farm produced compost	Compost C:N ratio, Application Rate, Acres to Be Implemented	(1) Application rate must be between 2-4 tons/acres; (2) Compost materials, method and Composting process must be documented.	(1) 3-5 Geotagged photographs showing compost piles, compost being spread and ground right after compost is applied, (2) A composting log including materials, method and temperatures during composting process; (3) Estimated total tonnage of compost applied; (4) Compost analysis report on C:N ratio; (5) Verification is when compost is spread.
		Compost (C:N > 11) application to application to orchards or vineyard			(1) Application rate must be between 6-8 tons/Acres;(2) Compost materials, method and Composting process must be documented.	
Orchard or Vineyard	Conservation Cover (NRCS CPS 327)	Convert Idle Land near Orchard/Vineyard to Permanent Unfertilized Grass Cover or Grass/Legume cover	Introduced species	(1) Introduced perennial or selected using CalFlora, (2) seeding rate & planting method	(1) Seeding rate at 21-40 pure live seeds per sqft; (2) Plant protection from animal damage and growth maintenance.	(1) 3-5 Geotagged photographs of fields showing established plants (>60% plant cover); (2) Receipts of seeds purchased including species names; (3) Good plant growth in the project term.
			Introduced species with foregone income		(1) Seeding rate at 41-60 pure live seeds per sqft; (2) Plant protection from animal damage and growth maintenance.	
			Native species	(1) Mix of native perennial, (2) seeding rate & planting method	(1) Seeding rate at 21-40 pure live seeds per sqft; (2) Plant protection from animal damage and growth maintenance.	
			Native species with foregone income			

Orchard or Vineyard	Conservation Cover (NRCS CPS 327)	Convert Idle Land near Orchard/Vineyard to Permanent Unfertilized Grass Cover or Grass/Legume cover	Monarch species – mix species	(1) Mix of native perennial grass and forbs for wildlife, pollinators or ecosystem restoration (2) seeding rate & planting method.	(1) At least 4% native milkweeds (*Asclepias* spp.) and less than 50% grasses; (2) Seeding rate at 21-40 pure live seeds per sqft; (3) Plant protection from animal damage and growth maintenance.	(1) 3-5 Geotagged photographs of fields showing established plants (>60% plant cover); (2) Receipts of seeds purchased including species names; (3) Good plant growth in the project term
			Monarch species – mix species with foregone income			
			Pollinator species	(1) Mix of native perennial grasses, legumes, and forbs to provide habitat for pollinators, (2) seeding rate & planting method	(1) Mixed species with less than 50% grasses; (2) Seeding rate at 21-40 pure live seeds per sqft; (2) Plant protection from animal damage and good maintenance.	
			Pollinator species with foregone income			
Orchard or Vineyard	Conservation Cover (NRCS CPS 327)	Plant Permanent Grass Cover or Grass /Legume Cover in Orchard/Vineyard Alleys	Orchard or Vineyard Alleyways	Perennial species, seeding rate and planting and maintenance methods	(1) Inoculate legumes at planting time if legume species is used, and (2) Maintain permanent vegetation	(1) 3-5 Geotagged photographs of fields showing established alley plants, (2) Receipts of seeds purchased, species names and seeding rate; (3) method of alley plants maintenance.
Orchard or Vineyard	Cover Crop (NRCS CPS 340)	Add Legume /Legume Mix or Non-Legume Cover Crop to Orchard/Vineyard Alleys	One species	(1) APN/field and acres; (2) cover crop species; (3) Seeding rates; (4) Planting date and method; (5) Termination date and method	(1) Single or multiple species cover crop is planted without fertilizer. (2) Cover crop is allowed to grow to produce as much biomass as possible. (3) Cover crop biomass/residue should not be removed to other places.	(1) 3-5 Geotagged photographs of fields showing established cover crops (≥60% coverage), (2) Receipts of cover crop seeds purchased, (3) plant species name and seeding rate.
			Multiple species			
Orchard or Vineyard	Filter Strip (NRCS CPS 393)	Convert Idle Land Near Orchard/Vineyard to Permanent Unfertilized Grass Cover or Grass /Legume Cover	Native species	Filter strip design map, plant species, seeing rate, and planting method	(1) Native perennial species; (2) Seeding rate at 41-60 pure live seeds per sqft; (3) Maintain plant growth in project term.	(1) 3-5 Geotagged photographs of fields showing established filter strip; (2) Receipts of seeds purchased; (3) Plant species name and seeding rate; (4) Good plant growth during the project term.
			Introduced species		(1) Introduced perennial species; (2) Seeding rate at ≥60 pure live seeds per sqft; (3) Maintain plant growth in the project term.	

Orchard or Vineyard	Hedgerow Planting (NRCS CPS 422)	Plant 1 Row of Woody Plants on Border of Orchard/Vineyard	Single Row	Length to plant, Plant species and number of each species	(1) Pollinator-friendly trees, shrubs and perennial wildflowers; (2) Plant density at ≥200 live plants/acre; (3) Average height at ≥3 feet and extend 15 feet wide at maturity; (4) Plant protection & irrigation.	(1) 3-5 Geotagged photographs of fields showing established hedgerow plants (2) Receipts of plants purchased; (3) Plant species name and number of live plants; (4) Maintain plant growth in the project term.
Orchard or Vineyard	Mulching (NRCS CPS 484)	Add Mulch to Orchard or Vineyard	Natural Materials	Orchard/Vineyards where mulch to be implemented, mulch materials and source	(1) Materials produced off site; (2) ≥70% soil coverage by mulch material at 1-3 inches thickness or 1-2 tons/acre if using straw.	(1) 3-5 Geotagged photographs of fields showing mulching is implemented including thickness and surface coverage, (2) Natural materials: receipts of materials if purchased, or donated with proof documents, (3) Wood chips: receipts of materials if purchased or estimated amount of wood chips if produced on farm, or donated with proof documents.
		Add Mulch to Orchard or Vineyard	Wood Chips		(1) Materials produced off site (2) Chip size 3/4-2 inch in diameter; (3) Mulch thickness at 2-4 inches; (4) Application rate at ≥40 cubic yards/acre or ≥10 tons/acre	
Orchard or Vineyard	Nutrient Management (NRCS CPS 590)	Improved N Fertilizer Management on Orchard/Vineyard - Reduce Fertilizer Application Rate by 15%	Basic nutrient management	Nitrogen application rate and associated crop(s) in the past 3 years.	(1) A nutrient management budget/plan will be developed for each field(s) based on soil test analysis and University of California recommendation rates or crop removal rates by a professional agronomist, forester or biologist. (2) A farming log records all fertilization activities (fertilizer name, nitrogen content, application rate and date) for each crop or project year.	(1) 3-5 Geotagged photographs of fields where practice is implemented, (2) Receipts and farm log of nitrogen fertilizers showing application rates is 15% less than what was used in the past 3 years or UC recommended rates, (3) Verification is at the end of the project year or crop year as applicable.
Orchard or Vineyard	Residue and Tillage Management, No-Till (NRCS CPS 329)	Convert Tillage to No-Till in Orchard/Vineyard Alleys	No-Till or Strip-Till	Tillage implemented prior to application deadline	(1) No tillage; (2) all planting methods are no-till drill or broadcast if applicable. (3) Residues are kept on soil surface and not burned or removed; (4) A farming log recording all field activities.	(1) 3-5 Geotagged photos showing field operations, field floor and overview of the whole field at end of project year; (2) A farming log; (3) verification at the end of project year.

Orchard or Vineyard	Residue and Tillage Management, Reduced Till (NRCS CPS 345)	Convert Tillage to Reduced Till in Orchard/Vineyard Alleys	Reduced-Till	Conventional tillage implemented prior to application deadline	(1) Tillage methods (Mulch/vertical tillage, chiseling or disking) that limit soil disturbance, or (2) Fewer tillage operations. (3) Plant residue covering soil surface during winter- spring period; (4) A farming log recording all field activities.	(1) 3-5 Geotagged photographs of fields showing practice is implemented, (2) Must meet depth, frequency or percent area of soil disturbance as described/proposed in the project scope of work, (3) A field operation log for the entire project year, (4) Verification by the end of the project year.
Orchard	Whole Orchard Recycling (CDFA)	Whole Orchard Recycling Followed by Orchard Replant within 3 years	Whole Orchard Recycling Followed by Orchard Replant within 3 years	Age of recycled trees, time to be chipped and incorporated, time of new trees to be planted, acres to be implemented	(1) An operation log recording the whole process; (2) Chips must be incorporated into soil to at least 6 inches deep	(1) 3-5 Geotagged photographs of fields showing tree removal, chipping, spreading and incorporation of wood chips; (2) A farm log including chipping details (e.g. tons of chips, size); (3) Before and after pictures of orchard; (4) Verification is when chips are incorporated.
Orchard/ Vineyard	Windbreak/ Shelterbelt Establishment (NRCS CPS 380)	Plant 1 Row of Woody Plants on Border of Orchard/Vineyard	1-row, trees, containers, hand planted, with tree protected	Length to plant, Plant species and number of each species	(1) Containered seedlings at 15-20 cubic inches or bare root seedlings at 2-3 years old before transplanting (2) Plant protection and irrigation are required; (3) ≥200 live plants/acre.	(1) 3-5 Geotagged photographs taken at both ends & middle of the tree line. (2) Receipts of seedlings purchased; (3) Species and number of live plants; (4) Tree protection and irrigation; (5) Plant maintenance during the project term.
			1-row, tree or shrub, with wind protection fence		(1) Containered seedlings at 15-20 cubic inches or bare root seedlings at 2-3 years old before transplanting (2) A wind-protection fence and irrigation are required; (3) ≥200 live plants/acre.	

Grazing Land	Compost Application to Grassland (CDFA)	Compost (C:N > 11)Application to Grazed Grassland, Grazed, Irrigated Pasture	Compost purchased from a certified composting facility	Compost C:N ratio, Application Rate, Acres to Be Implemented	Application rate must be between 6-8 tons/Acres	(1) 3-5 Geotagged photographs showing compost piles, compost being spread and ground right after compost is applied, (2) Receipts of compost purchased; (3) Compost analysis report on C:N ratio; (4) Verification when compost is spread.
Grazing Land	Compost Application to Grassland (CDFA)	Compost (C:N > 11)Application to Grazed Grassland, Grazed, Irrigated Pasture	On-farm produced compost	Compost C:N ratio, Application Rate, Acres to Be Implemented	(1) Application rate must be between 6-8 tons/Acres; (2) A Composting log to record materials, method and temperate tracking during composting process.	(1) 3-5 Geotagged photos showing compost piles, compost being spread and ground right after compost is applied, (2) A composting log including raw materials, method and temperatures during composting process; (3) Estimated tons of compost applied (4) Compost analysis report on C:N ratio; (5) Verification at spread.
Grazing Land	Hedgerow Planting (NRCS CPS 422)	Replace a Strip of Grassland with 1 Row of Woody Plants	Single Row	Length to plant, Plant species and number of each species	(1) Pollinator-friendly trees, shrubs and perennial wildflowers; (2) Plant density at ≥200 live plants/acre; (3) Average height at ≥3 feet and extend 15 feet wide at maturity; (4) Plant protection & irrigation.	(1) 3-5 Geotagged photographs taken at both ends and middle of the hedgerow line. (2) Receipts of plants purchased; (3) Plant species name and number of live plants; (4) Maintain plant growth in the project term.
Grazing Land	Prescribed Grazing (NRCS CPS 528)	Grazing Management to Improve Irrigated Pasture Condition or Rangeland or Non-Irrigated Pasture Condition	Pasture, basic	A grazing management plan by a certified range manager or equivalent professional to enhance pasture or rangeland health & ecosystem function	(1) Follow the grazing management plan, (2) A grazing log records of grazing dates and stubble height after grazing; (3) Monitoring - photos of forage before and after grazing; (4) Sensitive area protection as applicable.	(1) The grazing log; (2) 3-5 geotagged photos monitoring forage, and other documents as applicable; (3) verification at the end of each project year.
			Range, basic			

Grazing Land	Range Planting (NRCS CPS 550)	Seeding forages to improve rangeland condition	Native species broadcast	Plant species (must be mixture of native perennial grasses, legumes, and/or forbs), seeding/planting rate, planting method	(1) Native adapted perennial species; (2) Seeding rate at 18 lb/acre PLS or 40 pure live seeds/sqft.	(1) 3-5 Geotagged photographs of fields showing established range plants (>60% plant coverage); (2) Receipts of seeds purchased; (3) Species, seeding rate; (4) Documentation of planting method (farming log and photos); (5) Maintenance of range plants.
			Native species high forb drilled		(1) Native perennial species; and (2) No-till or range drill seeding at 41-60 pure live seeds/sq ft.	
			Native species low forb drilled		(1) Predominately native adapted perennial species; (2) no-till or range drill seeding at 18 lb/acre PLS or 40 pure live seeds/sqft.	
			Nonnative species broadcast	Plant species (must be mixture of Introduced perennial grasses, legumes, and/or forbs), seeding/planting rate, planting method	(1) mixture of non-native adapted perennial species; (2) Seedbed preparation; (3) Seeding rate at 18 lb/acre PLS or 40 pure live seeds/sqft.	
			Nonnative species drilled		(1) Mixture of non-native adapted perennial species; (2) No-till or range drill seeding at 41-60 pure live seeds/sq ft.	
			Shrub plugs	Shrub species, planting density (at least 1000 plants/ac) and method	(1) Shrub species such as Sage Brush, Bitter Brush or other species; (2) seedling or transplant; bareroot shrubs at 3-5 feet tall or containerized seedlings ≥20 cubic inches; (3) Planting density at 1000 plants/acre.	
Grazing Land	Riparian Forest Buffer (NRCS CPS 391)	Replace a Strip of Grassland Near Watercourses or Water Bodies with Woody Plants	Cuttings, Small to Medium Size	Area of practice implementation must be upgradient from and adjacent to a stream	(1) Cutting size: 1/4 to 1 inch in diameter and 24-48 inches long; (2) Plant protection; (3) ≥35 live plants per acre.	(1) 3-5 Geotagged photographs of the field showing planted trees, (2) Receipts for number and sizes of seedlings/cuttings purchased; (3) Species and number of live trees/shrubs at verification; (4) proof of planting method; (5) Tree protection (fence or other protection, and irrigation as needed) and maintenance.

Grazing Land	Riparian Forest Buffer (NRCS CPS 391)	Replace a Strip of Grassland Near Watercourses or Water Bodies with Woody Plants	Cuttings, Medium to Large Size	Area of practice implementation must be upgradient from and adjacent to a stream	(1) Cutting size: medium (0.25-1 inch in diameter and 2-4 feet long) to large (2-6 inch in diameter and 6 ft long); (2) Plant protection; (3) ≥35 live plants/acre.	(1) 3-5 Geotagged photographs of the field showing planted trees, (2) Receipts for number and sizes of seedlings/cuttings purchased; (3) Species and number of live trees/shrubs at verification; (4) proof of planting method; (5) Tree protection (fence or other protection, and irrigation as needed) and maintenance.
			Large container, hand planted		(1) Potted seedling size: 2 gallons or larger; (2) Plant protection; (3) ≥35 live plants per acre.	
Grazing Land	Silvopasture (NRCS CPS 381)	Tree/Shrub Planting on Grazed Grasslands	Establish trees, existing grasses	Plant species and number	(1) Seedling size: containerized conifer at 4-6 cubic inches; or bare root conifer at one year old; (2) Plant density at ≥20 live plants per acre; (2) Tree protection (fence and irrigation, etc.)	(1) 3-5 Geotagged photographs of fields showing planted trees/shrubs; (2) Receipts showing sizes & number of seedlings purchased; (3) Species and number of live trees/shrubs; (5) Tree protection (fence or other protection and irrigation as needed).
Grazing Land	Tree/Shrub Establishment (NRCS CPS 612)	Conversion of Grassland to a Farm Woodlot	Conservation, hand planted, browse protection	Plant species and number of each species	(1) Bareroot shrub seedings at 6-18 inches tall or hardwood seedlings at 18-36 inches tall. (2) Plant protection and growth maintenance. (3) Plant density: ≥150 live trees per acre	(1) 3-5 Geotagged photographs of fields showing practice is implemented, (2) Receipts of seedlings purchased, species and number of live plants; (3) Tree protection, and irrigation as needed; (4) Tree growth maintenance during the project term.
Grazing Land	Windbreak/ Shelterbelt Establishment (NRCS CPS 380)	Plant 1 Row of Woody Plants on Border of Orchard/Vineyard	1-row, trees, containers, hand planted, with tree protected	Length to plant, Plant species and number of each species	(1) Containered seedlings at 15-20 cubic inches or bare root seedlings at 2-3 years old before transplanting (2) Plant protection and irrigation are required; (3) Plant density ≥200 live plants/acre.	(1) 3-5 Geotagged photographs taken at both ends & middle of the tree line. (2) Receipts of seedlings purchased; (3) Species and number of

			1-row, trees or shrub, with wind protection fence		(1) Containered seedlings at 15-20 cubic inches or bare root seedlings at 2-3 years old before transplanting (2) A wind-protection fence and irrigation are required; (3) Plant density ≥200 live plants/acre.	live plants; (4) Tree protection and irrigation; (5) Plant maintenance during the project term.

Definitions:
Cropland, Annual or Perennial: Land where the crop(s) grown is identified as annual or perennial crop according to the Annual and Perennial Crop List for the Purpose of Conservation Compliance under the Food and Security Act of 1985, as amended or is determined as annual or perennial by the local USDA NRCS if it is not included in the list. Perennial cropland includes orchards and vineyards.
Grazing land: Land used primarily for production of forage plants maintained or manipulated primarily through grazing management.
Grassland: Land where the vegetation is dominated by grasses and other herbaceous (non-woody) plants, such as forbs.
Rangeland: Land on which the potential plant cover is composed principally of native grasses, grass-like plants, forbs or shrubs suitable for grazing and browsing, and introduced forage species that are managed like rangeland.
Pasture is a land use type having vegetation cover comprised primarily of introduced or enhanced native forage species that is used for livestock grazing. Pasture receives periodic renovation and cultural treatments such as tillage, fertilization, mowing, weed control, and may be irrigated. Pasture vegetation can consist of grasses, legumes, other forbs, shrubs or a mixture. Pasture differs from range in that it primarily produces vegetation that has initially been planted to provide preferred forage for grazing livestock.
Foregone Income: Reduced revenue that is generated mainly from reduced production because the land area used for growing cash crop(s) will be converted to Permanent Unfertilized Grass Cover or Grass/ Legume Cover. A payment scenario name that includes Foregone Income has higher payment rate because it takes consideration of both the reduced revenue and the expense for implementing the conservation management practice.
Geotagged photograph: A geotagged photograph is a photograph which is associated with a geographic position by assigning a latitude and longitude to the image. For pictures taken with a mobile phone or digital camera, this can be achieved by enabling the GPS function of the device prior to capturing a picture. Geotagging helps CDFA confirm the correct location of practice implementation consistent with Project Design at the time of verification. Please check the link https://www.cdfa.ca.gov/oefi/healthysoils/docs/InstructionsOnHowToTakeGeotaggedPhotos.pdf for instructions on how to take and send geotagged photos.

APPENDIX B: CONFIDENTIAL INFORMATION

The California Public Records Act (Government Code sections 6250, et seq.) and related statutory definitions of "confidential or proprietary information" (also known as "trade secrets") determine what information provided by the applicant is exempt from public disclosure. The following describes how questions are resolved regarding what information is confidential, the legal protections for confidential information, and internal and program procedures to maintain confidentiality.

What is "confidential?"

The California Public Records Act prevents the disclosure of confidential or proprietary information including, but not limited to:

- Confidential Business and financial information, including volume of business, costs and prices, customers, financial condition, trade secrets, and similar information obtained under an express or implied pledge of confidence. (Ev. Code § 1060 and Gov. Code § 6254).
- Personal data including tax information prohibited from disclosure. (Gov. Code § 6254 and Rev. & Taxation Code § 19542.
- Information Practices Act of 1977 (Civ. Code section 1798 et seq.)

Applicants are directed to clearly marked, on each page, “confidential/proprietary information” those documents they feel contain confidential or proprietary information. However, the mere marking of documents as "confidential/proprietary information" will not result in their being treated as confidential if they are not exempt from disclosure under the California Public Records Act.

What if there is a question about what is confidential?

The CDFA Legal Office will review the records and make a determination as to whether or not the records are exempt from disclosure.

What program procedures will keep information confidential?

Financial information will be analyzed, on a need-to-know basis, by staff from the CDFA, kept confidential, and will be maintained with restricted access. Grantee businesses will agree to provide specific key financial information for three years to develop benchmarks to evaluate the program. The records will be kept for the amount of time set forth in CDFA’s Internal Record Retention Policy.