

## Resource Conservation Districts & Carbon Farming Resources

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## **Resource Conservation Districts** (RCDs)

- Over 85 years of conservation experience
- Addressing the natural resource issues facing our communities
- Providing technical assistance on the ground (agriculture, forestry, restoration, etc.)
- RCDs always work with their constituents on a **voluntary basis** a key reason they are considered a trusted resource in their communities.





## **RCD program offerings**

- Farm and ranch technical assistance
- Habitat restoration
- Fire and fuels management
- Community engagement
- Planning and monitoring on natural and working lands



#### **Technical** assistance



PC: Yolo County RCD

Monitoring & reporting

Project management

Coordinating funding

Design and engineering

**Environmental compliance** 

Conservation planning

Trusting relationships with farmers

Local planning and program development





# Common funding sources for growers

US	DA



- Healthy Soils Program (HSP)
- State Water Efficiency & Enhancement Program (SWEEP)
  - Direct applications or apply to a block grant with a local entity
- Environmental Quality Incentives Program (EQIP; partner with NRCS)



#### What is carbon farming?



Carbon farming is a relatively new term used to describe whole farm conservation practices that optimize carbon capture in working landscapes.

A carbon farm plan provides a roadmap of climate mitigation and resilience opportunities on a whole farm or ranch.



PC: Carbon Cycle Institute

# Why carbon farming?

#### Investing in soil has multiple co-benefits



**Food security** 



Climate change mitigation



**Biodiversity** 



Water conservation



**Public health** 



Profit



When natural resources are depleted so too is the farm operation's climate resilience and long-term economic viability

Investments in natural climate solutions are also investments in habitat provision, biodiversity, groundwater and streamflow recharge, water quality, farm viability and diversification

#### **Orchard planting**

- 19+ MT CO<sub>2</sub>e/ac/yr
- Diversified production/income

#### Managed grazing

- 0.18+ MT CO<sub>2</sub>e/ac/yr
- Biodiversity
- Reduced feed imports

Hedgerow
 8+ MT CO<sub>2</sub>e/ac/yr
 Pollinator habitat

Windbreak
 8+ MT CO<sub>2</sub>e/ac/yr
 Habitat/biodiversity

#### **Riparian restoration**

- 18+ MT CO<sub>2</sub>e/ac/yr
  - Diverse bird habitat
    - (69 species/ranch)
- Water quality

## Carbon farm planning in the Sacramento Valley

		Modeled		
# Carbon Farm Plans	# Acres	GHG benefits per year (Mg CO2e/yr)	Total GHG benefits at year 20 (Mg CO2e)	
8	13,787	13,452	287,057	
Equivalent # of vehicles off the road each year:		2,924	62,404	

- 7 carbon farm plans currently in the pipeline for 2024-25
  - Sacramento Valley RCDs have applied for funds for 152 more carbon farm plans over the next 5 years



#### **Carbon Farming Framework**

#### Carbon Farm Planning Process

Pre-Planning	Inventory & Analysis	Decision Support	Implementation	Monitoring
Understanding the role of carbon in resilience and climate change mitigation     Relationship building     Initiating producer communication     Understanding options     Communicate that there is a problem     Establishing planning team and respective roles     Focus attention on the most important reasons to	<ul> <li>Identify opportunities</li> <li>Determine goals and objectives</li> <li>Inventory resources</li> <li>Analyze resource data</li> </ul>	<ul> <li>Formulate alternatives</li> <li>Evaluate alternatives</li> <li>Make decisions</li> </ul>	<ul> <li>Implement selected alternatives</li> <li>Provides detailed practice implementation information</li> </ul>	<ul> <li>Evaluate effectiveness of plan</li> <li>Make adjustments as needed</li> </ul>
change	Collection and Analysis Steps 1–4	Decision Support Steps 5-7	Application Step 8	Evaluation Step 9

CPA

DIA

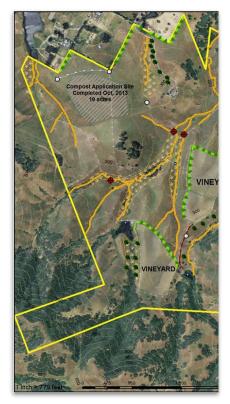
CEMA

#### **USDA-NRCS** Conservation Planning

Conservation Planning Activities (CPAs) - Activities that result in a conservation plan that documents client decisions regarding selected alternatives including identification of desired primary and supporting practices that the client would like to use to treat identified resource concerns.

Design and Implementation Activities (DIAs)- Activities that allow for development of specific practice designs, management prescriptions, or other instructions that allow the client to implement the conservation practice or system of conservation practices. (Does not include assistance with conservation practice installation, review, and checkout)

Conservation Evaluation and Monitoring Activities (CEMAs): Activities that include evaluation, monitoring, testing, or assessment for a specific purpose, to complete practice implementation requirements, or to determine the effectiveness of conservation practices and activities. CEMAs may be used at any point in the planning process.



# What are the steps in carbon farming?

- 1. Contact your local RCD
- 2. Pre-planning
- 3. Inventory and analysis
- 4. Decision making
- 5. Implementation
- 6. Monitoring and follow up



## Contact your local RCD

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- 95 districts across the state organized into 10 regions
- Regional hubs provide support for RCDs
- Major cities tend not to have RCDs (Sacramento, San Francisco, San Diego, LA) but there may be opportunities to work with nearby RCDs



#### **Pre-planning**

- Relationship building
- Working towards increased carbon cycle and climate literacy



#### Inventory and analysis

- Identify ALL options forward
- Determine long-term goals
- Analyze existing resource data, farm history
- Field surveys



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#### **Decision making & support**

- Driven by producer, supported by planning team
- Scope and evaluate alternative practices (COMET planner)
- Outcome: Complete carbon farm <u>plan</u>



#### Implementation

- REQUIRES A CARBON FARM PLAN
- Usually separate funding stream than planning (varying availability at RCDs)
- Sometimes can happen faster through HSP/SWEEP applications for individual practices
- Stack practices to work towards farm plan
- RCDs can offer technical assistance



### Monitoring and follow up

- Evaluate efficacy
- Make adjustments to implemented practices
- RCDs available to provide ongoing technical assistance and monitoring



Local and regional conservation is a core strategy in creating healthy, climate-resilient farming systems.

contributing to

#### Global climate change mitigation

#### through

#### Recarbonization and reducing GHG emissions

Building economic resilience and agroecological adaptation

# Thank you!

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