



Department of Primary Industries and Regional Development

GOVERNMENT OF WESTERN AUSTRALIA

# Carbon Farming – what's behind the rhetoric?

### **Kerrie House**

### Manager - Low Carbon Futures

### **Carbon – a new opportunity for farmers**



Reduce greenhouse gas emissions - carbon

# **Carbon farming vs Carbon footprint**

What do you want to achieve for your business?



### Carbon Footprint

Measure the emissions produced and offset by farm activities



#### Carbon Farming

Store or avoid greenhouse gas emissions in exchange for carbon credits

# What is Carbon Farming?



#### Carbon farming methods for the agriculture zone



- **Emission Reduction Fund methods** 
  - Soil organic carbon sequestration method Ο
  - 2023 Integrated Farm Management method Ο (stacking)
  - Reforestation by Environmental or Mallee plantings Ο
  - Reforestation and Afforestation  $\bigcirc$
  - **New Farm Forestry Plantations** Ο
  - **Plantation Forestry** Ο

#### **Emissions avoidance methods:**

- Dairy and cattle feed supplements Ο
- Effluent management  $\bigcirc$
- Beef cattle herd management Ο

# Estimation of Soil Organic Carbon Sequestration using Measurement and Models Method 2021

- New *improved* method dubbed the 'Measure-Model-Measure' method (hybrid)
  - Broadens eligible activities
  - Reduces sampling costs by using new models
  - Model calibrated against soil samples
- Land management strategy prepared or reviewed by an independent person advising on what on-ground activities increase and maintain soil organic carbon





### **Integrated Farm Management method - 2023**

- "Stacking" of land-based activities on the same property vegetation, soil, or both.
- Includes:
  - Most, if not all eligible Soil Carbon activities
  - Any vegetation-based activity that improves soil carbon
  - Planting and seeding to establish fodder plantings (saltbush)
  - Infill planting using direct seeding or tube stock to assist regeneration
- Phase 2 may include livestock and other emissions avoidance activities.



# Why get involved in Carbon Farming?

- Provides a new, diversified revenue stream
- Co-benefits to the farmer:
  - Increases agricultural productivity
  - Improves soil health and resilience
  - Provides shelter belts for stock and windbreaks
  - Tackles land degradation, salinity and erosion
  - Restores the landscape biodiversity

#### Other spin-offs:

- New Farm Forestry biomass, biofuels (oil mallees)
- Plantation forestry (hard and soft wood)
- Certified volume of abatement vs estimated volume





Soil carbon projects offer agricultural productivity and soil health co-benefits:

- New land management practices that build soil organic carbon
- Soil health and erosion response:
  - o improving nutrient and input use efficiency
  - o soil organic carbon levels
  - o water retention and reduced erosion by increasing groundcover

## Why start a soil carbon farming project?

#### It's not just about ACCUs

- Soil sampling measures changes in SOC and provides information about soil nutrition and health
- Increasing soil carbon has benefits for agricultural productivity and resilience in the face of climate change



**Diversified revenue** 

Carbon credits provide another income stream for your property.



Farm benefits

Improved soil health, enhanced water retention and drought resilience, and better crop and pasture yields.



Ecosystem health

Helps regenerate degraded land and unlock it for more productive use.



Understand your soil

Manage your land more efficiently using your soil's nutrient data.

# Participating in the Emissions Reduction Fund (ERF)

Steps involved in running a soil carbon project:

- 1. Plan the project feasibility, eligibility, capability.
- 2. Seek advice legal, financial, tax, agronomists, carbon service advisor
- 3. Develop a Land Management Strategy
- 4. Register your project with the Clean Energy Regulator (do this first!)
- 5. Do the baseline testing then start the project activities
- 6. Report to the CER to claim ACCUs at least once every 5 years
- 7. Maintain carbon levels for 25 years (permanence period)







We're working for Western Australia.

#### Land Management Strategy - Soil Carbon

Carbon for Farmers Voucher Program 2022 Carbon Farming and Land Restoration Program



#### Guidance for meeting the requirements of soil carbon land management strategies for 2021 soil carbon projects

This document outlines the key requirements for submitting land management strategies (LMS) for soil carbon projects registered under the Emissions Reduction Fund Carbon Credits (Carbon Farming Initiative – Estimation of Soil Organic Carbon Sequestration using Measurement and Models) Methodology Determination 2021, and the Clean Energy Regulator's (the agency) guidance on meeting these requirements.

A LMS is a document which takes a whole-of-system approach to considering the soil carbon sequestration potential of a project. The intention of the LMS is to manage expectations of what activities may influence soil carbon and the quantum of abatement that may be achievable. The requirements of the LMS encourage landholders to consider how to achieve soil carbon outcomes in a way that does not conflict with broader business objectives, and ensures that interactions between changing land management activities, climate, environment and whole-of-system outcomes are considered.

A LMS must identify at least one eligible management activity that will be undertaken or maintained by a project to build soil carbon throughout the permanence period of the project (either 25 or 100 years). The method requires the LMS to be prepared or reviewed by someone with appropriate knowledge of agronomy, plant nutrition and soil carbon, and experience in providing agricultural production advice. Land management strategies are required to be submitted when projects register, when new areas are added to a project, and when projects transfer to the 2021 soil carbon method from another soil carbon method.

Elements of a LMS could be used across multiple projects, provided that project specific information is included where appropriate. Multiple LMSs may apply to a project where new areas have been added to the project over time (see guidance for s13(4)).

The LMS can also be used to provide the agency with an explanation of actions project proponents have taken or will take (or ensure landholders take) to protect the carbon credited to their project for their nominated permanence period as required by s13(1)(p) of the *Carbon Credits* (*Carbon Farming Initiative*) *Rule* 2015 (the CFI Rule) as part of project registration applications, and s70(4A) of the CFI Rule as part of the offsets reports in years 8 and 24 of the project. Submitting a LMS supersedes the requirement to submit a separate permanence plan.

A LMS needs to be revised:

- at least once every 5 years during the crediting period then at least once every 10 years for the remaining duration of the permanence period, and
- if the land management activities being conducted change materially from those outlined in the LMS.

## Land Management Strategy (LMS)

- A well-prepared LMS will support the landholder to understand how to maintain and integrate carbon farming with broader business objectives
- The CER provides guidance on the requirements
- DPIRD has developed a template with additional information for participation in the Carbon Farming and Land Restoration Program.

# Carbon Service Providers (CSPs) and Project Developers

### DIY:

- Landholder can manage all aspects and phases of project development and implementation.
  - Do you or people in your business have good administration skills and the time to work on the project? Will this affect your core business?

#### Service providers:

- Partner with a carbon service provider or project developer. They can :
  - o provide support for specific phases of the project or
  - run the project from planning to the sale of ACCUs
- If using a carbon service provider, the landholders' main obligation is to maintain the carbon sequestration activity and protect carbon stock.
- Farmers already use expert consultants. Carbon service providers are another service. Important famers always understand their obligations and what is involved.

# **Carbon Farming and Land Restoration Program (CF-LRP)**

- Focus on the South West Land Division
- Carbon farming plays an important role in the financial and climate resilience of agriculture and improving agricultural productivity
- Addresses the impact of wide-scale clearing

   dryland salinity, loss of biodiversity, declining soil health, erosion
- Overcome barriers to entry provides funding for new projects to support early adopters who will show the way



# Carbon Farming and Land Restoration Program (CF-LRP)



## ACCU Plus B - Soil

- ERF soil carbon projects in the low rainfall, eastern Wheatbelt
- Delivery of data and co-benefits is the focus
- Partnership shared learning
- Encourages farmers to participate in a soil carbon project,
- Funding can cover sampling and practice change costs.
- Reduces the risk and provides tangible benefit to the farmer and the State.



# Finally - Prepare to be involved in CF-LRP Round 2

- This is a long-term investment
- Be informed review the info available
- Talk to agronomists, financial and legal experts; NRMs, grower and land care groups
- Understand:
  - Range of methods which is right for you?
  - Eligibility and additionality not 'business as usual'
  - Project obligations auditing and reporting, cost to change practice and continue the activities i.e., adding organic matter, pasture levels
  - How many ACCUs could be generated? Independent consultants can work this out. Be conservative.
  - Land management strategies for soil and vegetation for project planning



# Thank you

Visit: <u>agric.wa.gov.au/CF-LRP</u>

Google: Carbon Farming and Land Restoration Program Email: CarbonFarming@dpird.wa.gov.au

#### Important disclaimer

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### **Resources and Support**

CF-LRP https://www.agric.wa.gov.au/CF-LRP https://www.agric.wa.gov.au/CF-LRP/Resources

#### **Emissions Reduction Fund – all the methods and requirements**

http://www.cleanenergyregulator.gov.au/csf/Pages/CSF-home.aspx

Carbon Market Institute – peak industry body https://carbonmarketinstitute.org/markets/

**Check DPIRD service provider directory** 

Mapping tools https://looc-c.farm/farmDetails CSIRO carbon estimation

Many new players! Keep an eye out