



Planning a Reforestation Project

This document provides an overview of how to plan, implement and manage a reforestation project. The Australian ACCU Scheme Reforestation by Environmental or Mallee Plantings FullCAM method is the focus, however, other carbon farming methods, agroforestry and commercial woody crops use similar practices to reforestation.

A carbon farming project must be registered with the Clean Energy Regulator (CER) to receive Australian carbon credits and has permanence obligations (25 or 100 years). The requirements of the Reforestation method are found at the end of this document.

Objectives of the project

When considering a reforestation carbon farming project, the landowner should first identify their long-term business plans which includes succession planning and future land sales.

For a farmer, an area of unproductive land could become a reforestation carbon farming project with the potential to create carbon credits for the business, as an asset, and for income. These projects could also create shelter for stock, reduce erosion and waterlogging, and enhance conservation and biodiversity outcomes by increasing habitat for native fauna.

Project design and species selection

- A Carbon Farming Plan can help you plan the project and determine how it fits with your broader business objectives. DPIRD has developed the Carbon Farming Plan template and a range of guidance and other resources to assist.
- Identify the area best suited to the plantings, the preferred configuration (e.g., belt, patch, block planting or a combination) and how it fits with grazing and cropping practices.
- Estimate the total planting area and row spacing to determine the number of seedlings, seed, and any soil conditioning. A carbon farming project needs at minimum of 200 stems per hectare.
- Using local (endemic) species is a requirement under the Australian ACCU Scheme Reforestation by Environmental or Mallee Plantings FullCAM method.

- Seek professional advice from local and specialist nurseries and consultants who can advise on species suitable for the soil and changing climatic conditions. DPIRD's [Service Provider Directory](#) also has a range of advisors who can provide support.
- Determine whether to use tube stock, direct seeding or a combination.
- Identify how to protect the seedlings from stock and native animals including birds (i.e., fences, tree guards). Fencing should allow movement of native animals, but not compromise seed or seedling survival. Decide whether fencing is most appropriate before or after planting.
- Consider adding habitats for specific fauna species (e.g., sand heaps, rock piles, logs, nesting boxes).
- Local or state government approval may be needed e.g. development approvals, [notice to drain or pump water](#). Seek advice at the planning stage to meet any requirements.
- [Case studies](#) have been developed for both revegetation and soil projects under the Carbon Farming and Land Restoration Program.

Planting machinery, weed and pest control

- Determine the requirements for tree planters, a specialised seeder or handplanting (i.e., Pottiputki tree planters, seedling buckets). Sources of equipment includes local governments, farm tree nurseries, land care groups, and private contractors.
- Consider site preparation requirements prior to planting to address site and soil constraints. This may include surface or ground water management, scalping, spraying, mounding, or ripping.
- Weed and pest control can be discussed with Natural Resource Management (NRM) or landcare groups, [DPIRD](#), local government or private contractors.
- Develop control programs for weed and pests (vertebrate and invertebrate). Red-legged earth mites, rabbits, and feral pigs can have significant, rapid impact on seedlings.
- The impact of kangaroos may be reduced with fencing and tree guards. Talk to your local biosecurity group or local [Department of Biodiversity, Conservation and Attractions officers](#) (DBCA). (NB: kangaroos are a protected species.)
- Allow time for pest control [permits](#) (rabbit, fox, feral pig).

Timing

- A carbon farming project must be registered with the CER before it is started – this includes site preparation and planting/seeding. Once you decide to go ahead, register the project as it can take upwards of 90 days.
- Continuously review and adapt your plan - remain flexible to accommodate supply or skills shortages, the weather, and the demands of your business. Some activities are implemented over several years.
- Consult regularly with seedling and seed suppliers prior to the planting activities to identify any short fall and substitution options.
- Implement the pest and weed control program early to get on top of these and maximise the success of the planting.
- When direct seeding, residual and pre-emergent herbicides can adversely impact germination so ensure the soil is not contaminated.
- Plan for contingencies and allow for:
 - adverse environmental conditions e.g., too much rain or not enough
 - when the species need to be planted – early, mid or late winter
 - seed availability and the ability of the nurseries to fill orders (orders in by October)

- availability of contractors and environmental service providers
- the need to in-fill and replace losses.

Management

Plan and budget for on-going management such as fire mitigation, pest and weed control.

Refer to the CER's Reducing the risk of fire and preserving sequestered carbon in ACCU Scheme (ERF) projects guidance document to understand the requirements.

Depending on the complexity and scale of the project, you may want to discuss on-going management with the NRM, landcare or biosecurity group, or a carbon service provider.

Additional Resources

- Revegetation Industry Association of WA, Environmental Consultants Association (WA) and WA Landcare Network
- Dandjoo – a biodiversity data repository managed by DBCA
- MyPestGuide, Herbiguide and DPIRD - weeds, pests and disease information.
- Florabase - database of WA flora species including descriptions, maps, images, and conservation status. Results can be filtered by search criteria such as by local government area. Helpful with identifying local species for revegetation planning.
- Native Vegetation Handbook Series – information based on local government areas.
- Florabank – provides knowledge and information for the native seed sector.

Reforestation by environmental or mallee plantings - FullCAM method

The table below summarises the key features of the ACCU Scheme method.

Crediting period	25 years – the crediting period is the amount of time the proponent has to claim a project's Australian carbon credit units (ACCUs). This is separate to the permanence period - 25 or 100 years after the first ACCUs are issued.
Eligibility requirements	<p>There are general eligibility requirements in the Act, which include:</p> <ul style="list-style-type: none"> • <u>newness</u> • <u>regulatory additionality and funding from other government programs</u> • <u>legal right.</u> <p>Projects can be run in any area of Australia with FullCAM modelling data, and plantings must be established on land that has been clear of forest cover for at least 5 years previously.</p>
Project activities	<p>A project involves establishing and maintaining vegetation such as trees or shrubs on land that has been clear of forest for at least the last 5 years. This can be either a mallee eucalypt planting or a mixture of endemic native species, termed a mixed-species environmental planting.</p> <p>Trees can be planted as either seeds or tubestock, in rows or randomly, and in areas that are either linear belts or blocks. They must be planted at a density that will allow them to achieve forest cover, which means they must have the potential to reach a height of at least 2 metres and provide crown cover over at least 20% of the land.</p>
Exclusions	<ul style="list-style-type: none"> • The land used for a project must not contain woody biomass or an invasive native scrub species that needs clearing before planting can occur, except for known weed species that are required or authorised by law to be cleared.

	<ul style="list-style-type: none"> • Certain types of activities, such as harvesting and grazing, are restricted. • Mallee eucalypt plantings are excluded from areas that receive more than 600 millimeters of long-term average rainfall unless the planting meets the exemption requirements under Section 4.9 of the method.
How is abatement calculated	<p>Abatement is calculated using a computer modelling tool called the <u>Full Carbon Accounting Model (FullCAM)</u>.</p> <p>FullCAM uses a variety of settings, called calibrations, to model the amount of carbon stored in different types of plantings.</p> <p>The data used as inputs to FullCAM includes the project's location, planting dates, planting type, planting geometry (i.e., belts or blocks), plant spacing (distance between rows within a planting, distance between adjacent plantings), stocking density and tree proportion, where relevant.</p>
Reporting requirements	<p>The method sets out method-specific requirements for the first and subsequent reports. The information you are required to provide includes:</p> <ul style="list-style-type: none"> • net abatement amount and related carbon stock data • data on emissions from biomass burning and fuel use, • project area, forest management and forest cover information • FullCAM files and output data.
Monitoring requirements	<p>The method describes specific monitoring requirements, including using on-ground observation and/or remote-sensing imagery to:</p> <ul style="list-style-type: none"> • monitor management and disturbance events, • demonstrate the requirements for any specific calibrations have been met.
Record-keeping requirements	<p>The method describes record-keeping requirements related to:</p> <ul style="list-style-type: none"> • forest cover and plantings • stratification into carbon estimation areas • fires • fuel use • FullCAM modelling • forest management • any specific calibrations used. • the project area.
Audits	<p>All projects receive an audit schedule when the project is declared and must provide audit reports according to this schedule. In most cases, a minimum of 3 audits will be scheduled and additional audits may be triggered.</p> <p>An initial audit report must be submitted with the first report for your project.</p>
Specialist skills	<p>To ensure the required level of accuracy of the inputs to FullCAM for calculating carbon stock, it may be necessary to seek assistance from a technical expert. You should consider the cost of this service before deciding to run a project.</p>

Important Disclaimer

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