Land Management Strategy –
Reforestation by environmental or mallee plantings

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

Overview

The Western Australian Government has developed the *Carbon for Farmers Voucher Program* to support farmers in the South West Land Division to develop a Land Management Strategy (LMS) for carbon farming projects.

A well-prepared LMS will support the landholder understand both how to maintain and integrate carbon sequestration on their land and their broader business objectives. The LMS should consider interaction between changing management practices, soil types, climate and other environmental factors, and broader farm system outcomes.

Professional Service Providers should work collaboratively with the landowner to ensure the obligations, risks, and potential rewards of undertaking a carbon farming project are understood. As the LMS will inform important, long term investment decisions it needs to be tailored to individual business needs and circumstances.

Purpose

The *Land Management Strategy – Reforestation by environmental or mallee plantings* provides a template to enable a detailed, LMS to be developed which sets out the proposed project activities that may increase the success of proposals submitted to the WA Carbon Farming and Land Restoration Program. These submissions are evaluated by the Department of Primary Industries and Regional Development (DPIRD) to determine the project's potential as an ACCU Plus investment.

The process of developing the LMS helps landholders to understand the key details of integrating and maintaining carbon sequestration into their enterprise.

The LMS should include key issues that a landholder needs to consider over the life of the project, and reflect the nominated permanence period (i.e. 25 or 100 years). Landholders need to ensure that they can make informed decisions based on the LMS and other information to deliver their permanence obligations, and to ensure that the project fits their long-term land management and business plans.

Note: this document has used reforestation to align with the Clean Energy Regulator's (CER) methodology naming conventions.

Resources

DPIRD recommends that the author of the LMS refers to the following resources for further compliance and eligibility considerations:

Clean Energy Regulator

Carbon Credits (Carbon Farming Initiative) (Reforestation by Environmental or Mallee Plantings—FullCAM) Methodology Determination 2014

A guide to the reforestation by environmental or mallee plantings - FullCAM method

Western Australian Carbon Farming and Land Restoration Program
These webpages contain a range of information materials.

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

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

Choosing the Right Professional Service Provider for your Carbon Farming Project

In alignment with the CER, DPIRD advises landholders new to the carbon market and Emissions Reduction Fund to seek professional advice regarding the technical and regulatory aspects of a carbon farming project, as well as financial, legal and tax advice.

Instructions for using the template

This document provides a template with headings to support you to develop the LMS.

The contents of the template are considered the minimum requirements. Additional information that supports landholders' decision on carbon farming unique to the project can also be included.

The landowner may wish to include other project related information to assist their decision making. (See the *Carbon for Farmers Voucher Program Guidelines* pg. 6).

This template can be modified to suit other Emissions Reduction Fund methods.

Note:

When claiming reimbursement for the voucher, a separate document with the Executive Summary, signed by the Qualified Person, is to be submitted to demonstrate completion of the LMS.

Land Management Strategy template – reforestation

Proponent and Service Provider details

Proponent: Name of the landowner/s

Strategy Development Team: Name, Role, Business Address, Phone, Email of each Professional Service Provider* who contributed to the development of this LMS.

*Note any familial or business relationship with the landowner as per the CER requirements for independence of advice.

Executive summary

Provide an overview of the farm business and the project to be undertaken.

Include a summary of the project that describes the project location and the high-level objectives that you wish to achieve in running a reforestation project (Minimum 250 words), such as:

- Goals for the project (environmental, business)
- Overview of the farm (location, current farming activities e.g., broad acre cropping of wheat, cattle, mixed grain and sheep)
- Involvement of the proponent in the farm's past and future planning,
- Description of the last 5 years land management activities and proposed changes,
- Estimated carbon sequestration potential for the project, and
- Project priority co-benefits.

Property details

- Property address, rainfall zone (Appendix A).
- State the total property area and the project area (in hectares) within the property boundary that is covered by this LMS.
- Insert a property map showing property and project boundaries, co-ordinates, and legend. If you do not have access to an existing property map, you can generate one using the free [Carbon Farming and Land Restoration Program Co-benefits Information Portal](). Refer to the [user guide]() for tips on how to create and print your map.

Spatial analysis

Vegetation assessment and soil types

The selection of plant species should reflect the objectives of the revegetation plans and other management considerations.

Online resources are available to assist you identify locally occurring (endemic) plant species and other ecological assets. Resources available include:

- [Florabase](), a web-based database of the flora of Western Australia providing scientific information including descriptions, maps, images, conservation status. Florabase can provide results based on several fields including search criteria such as by local government area. This may help with identifying local species for revegetation planning.
- The [Native Vegetation Handbook Series](). These are based on local government areas and identify many environmental values including landscape, soil and

vegetation units/systems and document locally occurring plant species listed by vegetation unit.

- o [Habitat for Nature Conservation](#) – includes a number of links to revegetation documents and case studies
- o Your local Natural Resource Management (NRM) organisation also holds this information for your geographic region.

Soil types identify the project's Carbon Estimation Areas (CEAs). Identifying CEAs according to their inherent capability (better soil, better tree growth and survival rates) will help you determine the most appropriate areas for your reforestation project and may increase profitability.

- Include a property map and a description of soil types and vegetation system/s identified in the project area (use a legend or key). Existing maps can be included, or you can access maps using DPIRD's Natural Resource Info (WA) [digital mapping tool](#).

Carbon planning tool

Online tools are available to help estimate the carbon sequestration potential of your project:

- o LOOC-C - a carbon abatement calculator that provides sequestration estimates to help you consider whether a project is viable based on project size and land condition. It provides estimates of possible sequestration of ERF projects. Access LOOC-C at https://looc-c.farm/
- o FullCAM (the Full Carbon Accounting Model) - a calculation tool that can generate abatement estimates for ERF vegetation methods. Download FullCAM for free at https://www.industry.gov.au/data-and-publications/full-carbon-accounting-model-fullcam

- Include plans, maps, reports (e.g., LOOC-C, FullCAM report) or self-assessments that indicate the carbon sequestration potential of your project over a 25 year project period.

Other desktop analysis

- Include any relevant spatial analysis that includes data such as rainfall, topography, locations of nearby remnant vegetation, analysis of vegetation types, threatened species layer, and co-benefit analysis.

Baseline period land management activities

The baseline period accounts for the years prior to registration of the project.

- Outline what the land has been used for in the previous 5 years.

Project activities

A *Reforestation by environmental or mallee plantings* project involves establishing and maintaining vegetation such as trees, shrubs and other local plant species on land that has been clear of forest for at least 5 years. You can plant either a mix of trees, shrubs and understory species native to the local area or species of mallee Eucalypts.

Factors to be considered when planning:

- Are local or State government approval or permits required? This may include but is not limited to local planning approval and [notice to drain or pump water](#).

- Consider the most appropriate planting configuration (belt or block plantings) to fit with existing practises (e.g., grazing/cropping rotations) and to achieve the project outcomes (including carbon and co-benefits).

- Provide detailed technical and operational information on the planned reforestation activities including:

  - Hectares to be revegetated
  - Site preparation method
  - Species to be planted, and proportion of seed to tubestock
  - Revegetation establishment method (e.g., tubestock, direct seeding, handplanting, combination).
  - Intended machinery use (e.g., tree planter with/without seeding capability, niche or specialised seeder, handplanting equipment, other).
  - Proposed weed and pesticide control program
  - Fencing (type and kilometres)

- Identify the carbon permanence period identify the permanence period (either 25 or 100 years after the first ACCUs are issued).

- Timing of project implementation (e.g., detail how many years the reforestation program will be implemented over)

- Provisions considered for project activity timing and operational flexibility. Factors to consider include but are not limited to:

  - allowing for adverse environmental conditions
  - issues with supply such as accessing seed or nursery space
  - securing environmental professionals, and the need to in-fill plant losses

Budget

- Include a detailed budget that identifies the input costs and ongoing management costs to allow adequate funding to be planned. This should include CER auditing and reporting, noting the reduced requirements for projects under 200ha (Alternative Assurance Framework).

Excluded and restricted activity statement

See **Appendix B** for activities not to be conducted or to be restricted.

- Include a statement confirming that activities which are restricted in **Division 3.8** of the [reforestation by environmental or mallee plantings method](#) will not be conducted.

Example: *I, the project proponent, confirm I am aware of the obligations to act consistently with the requirements of Division 3.8, and that the activities restricted by Division 3.8 are not being conducted or proposed to be conducted.*

Monitoring and evaluation consideration

For the purposes of this document, "co-benefits" are defined as the environmental, social, or economic benefits arising from a carbon farming project in addition to carbon abatement.

With reference to the Priority Investment Co-benefits Standard

- Identify the priority co-benefits, categories and criteria to be delivered by your project.
- Describe the steps needed to monitor and measure how the activity(s) are achieving reforestation objectives and environmental and productivity co-benefits, and the metrics to be used including:
  o Contracting an independent ecologist, local land care/NRM group or relevant professional to assess the site to demonstrate the project's environmental values.
  o On-ground monitoring techniques (e.g., plant counts (e.g., survival rates of seedlings and direct seeding) photographic and/or satellite imagery) to demonstrate survival, evidence of implementation and ongoing reforestation health.
  o Contracting a service provider experienced in FullCAM to calculate the carbon stock held in the project's trees, shrubs, and debris.

Example: *Environmental co-benefit metrics will include documentation from an independent ecological assessment and surveys that confirms significant species (i.e., rare, threatened) have increased in density, diversity, and occurrence.*

Risk assessment and permanence considerations

- Identify potential risks to the delivery of your project, the probability of those risks eventuating, and the mitigation actions that you will implement. All risks can be listed in a table and a risk matrix and guidance tables as exampled on **Appendix C** can be used to assess risk, consequence, likelihood and an evaluation of risk acceptance.

- Include information on the risk mitigation activities planned to protect and maintain the carbon stocks credited to the project for the permanence period (e.g., fire, drought or flood risk mitigation, poor establishment, weed and pest control, restrictions on grazing).

Risks that remain high after mitigation/control actions have been implemented should be considered as significant limiting factors to successful delivery of the proposed activities. Landholders will need to assess the risk profile of their project and make decisions on what they are prepared to accept and manage over the life of their project given their resources.

Consider any potential negative environmental, community, or economic impacts that may be caused by your project (e.g., adverse impacts on neighboring properties).

Qualified person statement

Provide information outlining the qualifications of the person who prepared and/or reviewed the LMS:

Business Name,
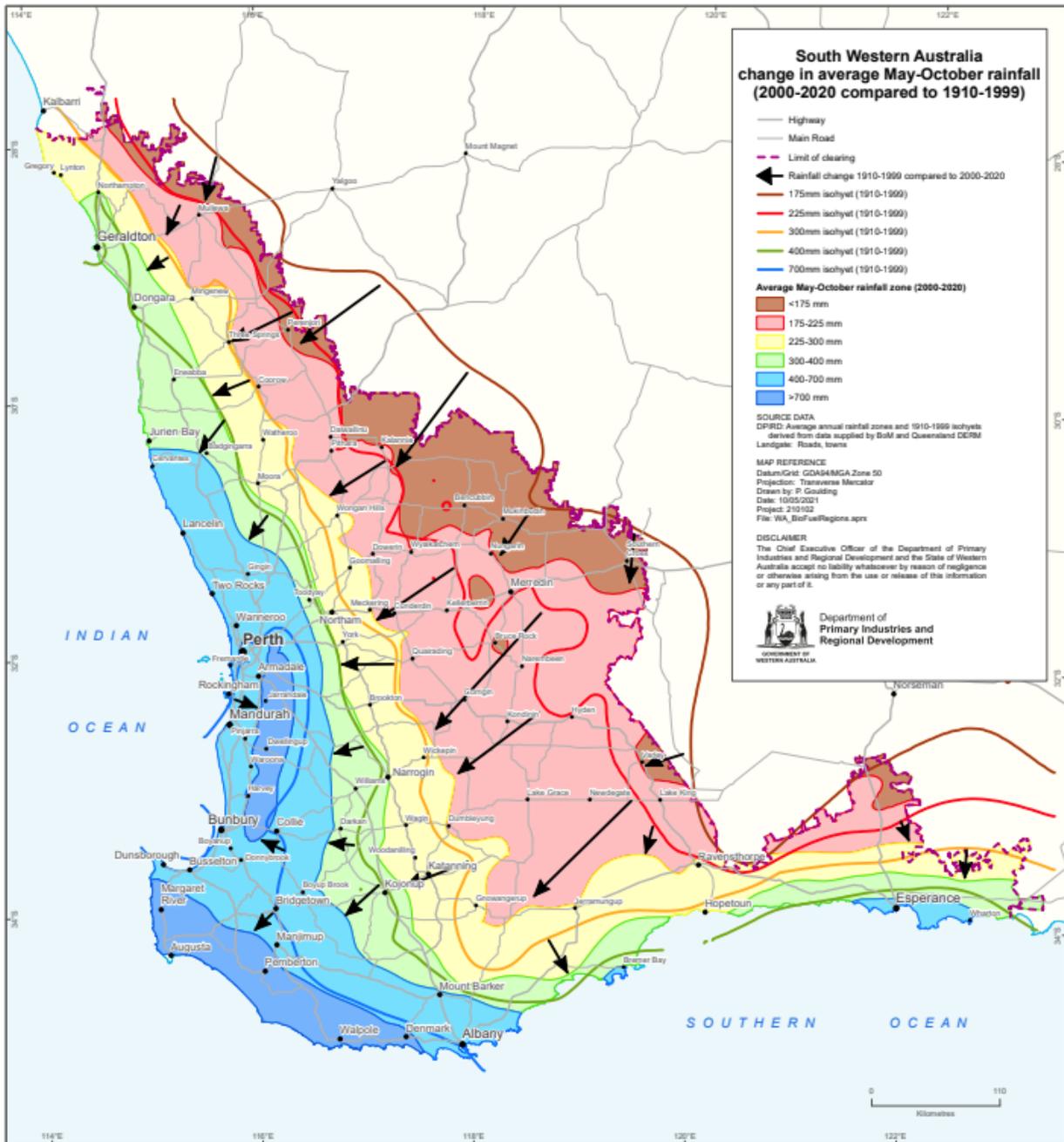
ABN/ACN:

Address,

Phone,

Email,

Qualifications,

Experience,

Professional Memberships,

Acknowledgement of having no financial interest in the project.

Appendix A

Appendix B

Division 3.8 Restricted activities

3.45   Harvesting

(1) Subject to section 3.24, biomass must not be removed from a carbon estimation area except in accordance with this Division.

(2) Up to 10% of fallen timber may be removed from a carbon estimation area in a calendar year for personal use.

(3) In this section:

personal use, of fallen timber, means use that does not involve the sale, or other commercial use, of the timber.

3.46   Other permitted removals

Biomass may be harvested:

(a) subject to section 3.48, for thinning for ecological purposes; or

(b) to remove debris for fire management; or

(c) to remove fruits, nuts, seeds, or material used for fencing or as craft materials, if those things are not removed for sale; or

(d) in accordance with traditional indigenous practices or native title rights.

3.47   Grazing

If grazing occurs in a carbon estimation area:

(a) the grazing must not affect the achievement or maintenance of forest cover in the area; and

(b) the Regulator may request evidence that demonstrates that the grazing has not prevented:

(i) for a generic calibration—the achievement or maintenance of forest cover; or

(ii) for a specific calibration:

(A) compliance with the requirements for stocking density and/or tree proportion for the calibration; and

(B) the achievement or maintenance of forest cover.

Note   Evidence may include date-stamped, geo-referenced, remotely-sensed imagery.

3.48   Thinning

If thinning occurs in a carbon estimation area:

(a) a specific calibration cannot be used; and

(b) the generic calibration must be used;

for the purpose of Division 4.3.

Note   Section 4.8 specifies the primary requirements to be met for the use of a specific calibration.

3.49   Use of lime or fertiliser

If the use of lime or fertiliser occurs in a carbon estimation area:

(a) a specific calibration cannot be used; and

(b) the generic calibration must be used;

for the purpose of Division 4.3.

Note   Section 4.8 specifies the primary requirements to be met for the use of a specific calibration.

Appendix C

Risk matrix

Consequence	Likelihood				
	A Rare	B Unlikely	C Possible	D Likely	E Almost Certain
1 Insignificant	L	L	L	M	M
2 Minor	L	L	M	H	H
3 Moderate	L	M	H	H	H
4 Major	M	H	H	E	E
5 Catastrophic	H	H	E	E	E

Consequence Rating		
Rank	Descriptor	Environmental
1	Insignificant	No impact of delivery of predicted gains
2	Minor	Short term or low-level long-term impact on predicted gains
3	Moderate	Long term impact significantly limiting predicted gains
4	Major	Extensive, long term impact on predicted gains with uncertain outcomes
5	Catastrophic	Impacts are irreversible and/or permanent

Likelihood Rating			
Rank	Descriptor	Frequency	Description
A	Rare	Will occur once every 30 years Once in 30 years or less frequent.	The event may occur in exceptional circumstances. Not likely to occur, but it's not impossible.
B	Unlikely	Will occur once in 10 years. Could occur once in 10 years or multiple times over 20 years.	The event could occur at some time, usually requires a combination of circumstances to occur.
C	Possible	Will occur once every 5 years. Once in 5 years or multiple times over 10 years.	The event should occur at some time. Is sporadic, but not uncommon.
D	Likely	Once per year. Once in a year or so.	Known to re-occur approximately annually.

| E | Almost Certain | Will occur more than once a year. Multiple times in a year. | The event is expected or known to occur often. |

Rank	Acceptance evaluation This decision should be considerate of compliance requirements and As Low As Reasonably Practicable (ALARP)	Description
Extreme	Unacceptable Rick to outcome	Revegetation shall not proceed without further controls to reduce risk.
High	Undesirable risk to outcome	Work shall only proceed when the landholder is comfortable with risk management. Mitigation measures should be recorded.
Moderate	Monitor activity and ongoing risk	Work may proceed with ongoing monitoring of control measures.
Low	Acceptable Proceed	Work may proceed, working in accordance with planned controls.

Important disclaimer