

Carbon Farming and Natural Resource Management in the Goulburn Broken Catchment

The Goulburn Broken Catchment Management Authority (CMA) coordinates natural resource management (NRM) in the Goulburn Broken Catchment, Northern Victoria, in collaboration with the community, all tiers of government, regional authorities and research and funding organisations.



The Goulburn Broken CMA has led the development of a Climate Change Adaptation Plan with its partners to help integrate climate change planning into NRM activities across the Catchment. The Plan identifies priority landscapes for climate change adaptation and carbon farming in the context of improving the resilience of natural resources and identifies management options for all groups involved in NRM to consider.

The Plan identifies regional priorities for carbon farming activities by considering the co-benefits of these activities for the Catchment's natural resources and the potential risks.

Carbon farming activities included in this assessment are those that aim to capture carbon in vegetation. Approved methods under the Australian Government's Emissions Reduction Fund and NRM principles have been used to guide the assessment of priority landscapes for carbon farming (see maps and tables). The Goulburn Broken CMA encourages carbon farming project proponents to apply these methods and NRM principles to projects under any carbon sequestration market, including voluntary markets.

Carbon farming project proponents can use this summary to:

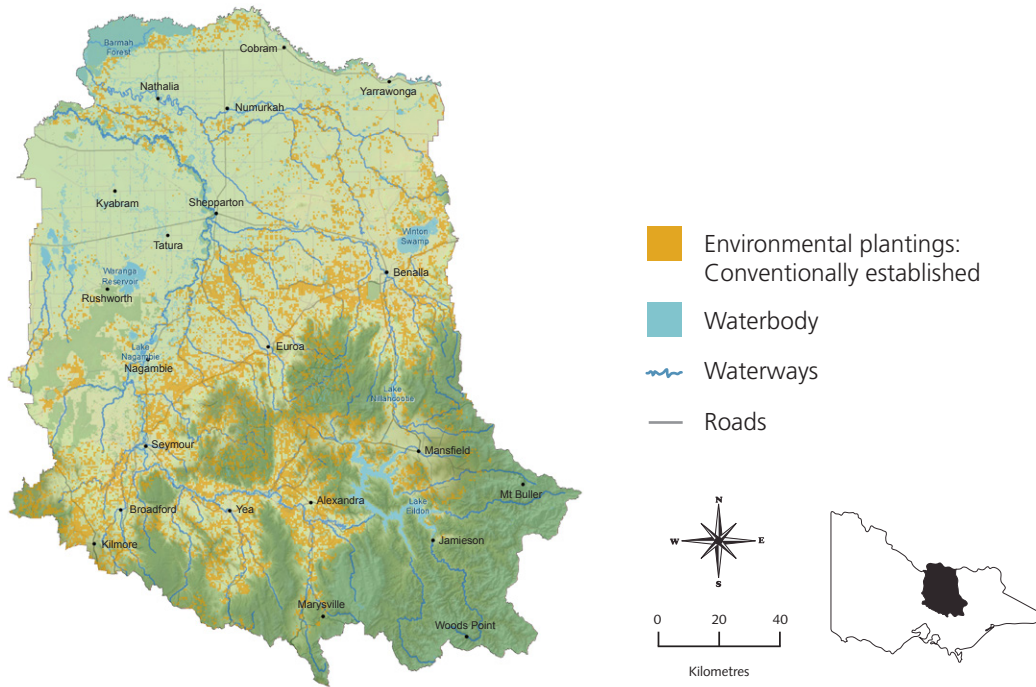
1. identify areas of the catchment suitable for particular carbon farming projects to capture carbon in vegetation (see maps on following pages); and then
2. apply site-specific considerations for carbon farming projects to their particular project (see last page).

The development of the Climate Change Adaptation Plan was managed by a multi-organisation steering committee and informed by extensive consultation with:

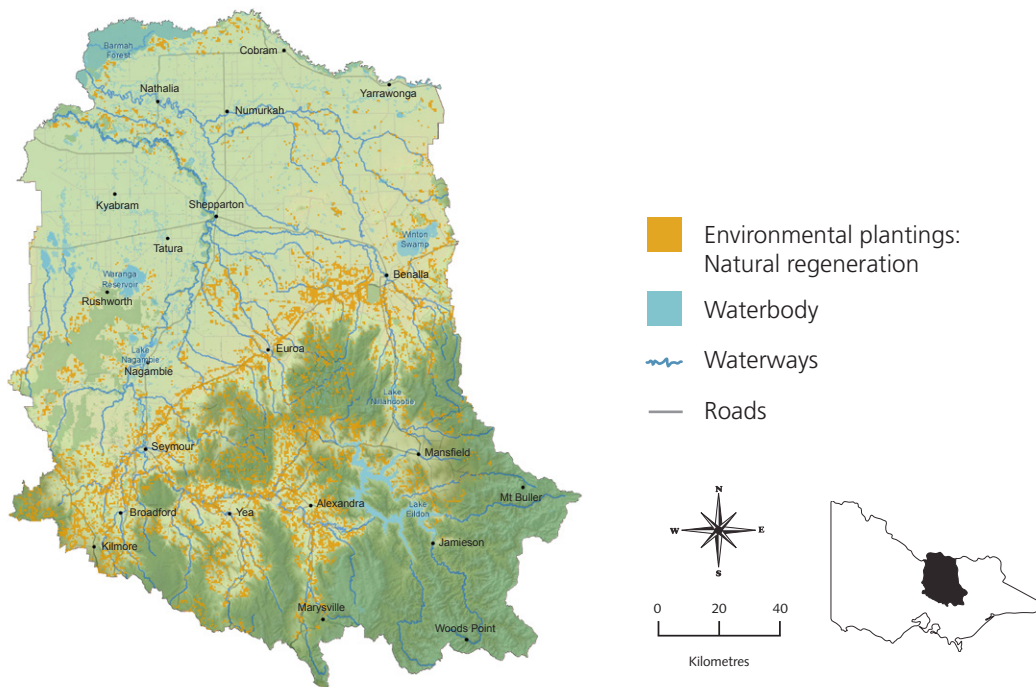
- Goulburn Broken CMA staff and Board
- Commonwealth, State and Local government representatives
- representatives from regional NRM organisations across Victoria and the Murray Basin
- research institutions
- expert consultants
- community and industry representatives.

Priority areas for environmental plantings for carbon farming

Areas of the Goulburn Broken Catchment that could support environmental plantings for carbon farming whilst aligning with NRM principles



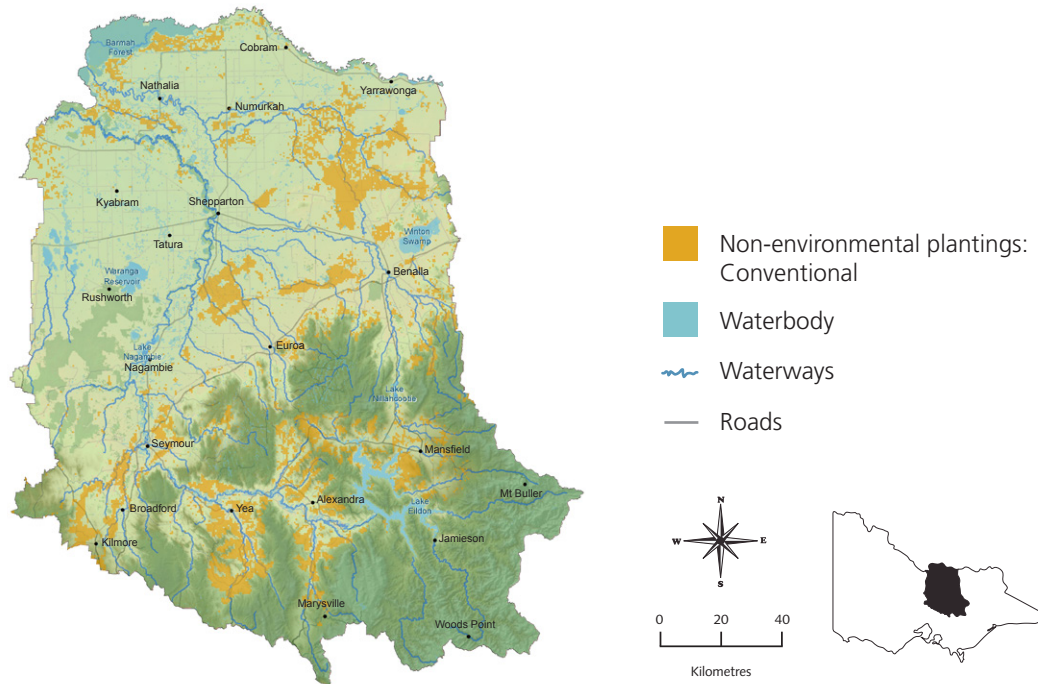
Areas of the Goulburn Broken Catchment that could support natural regeneration for carbon farming whilst aligning with NRM principles



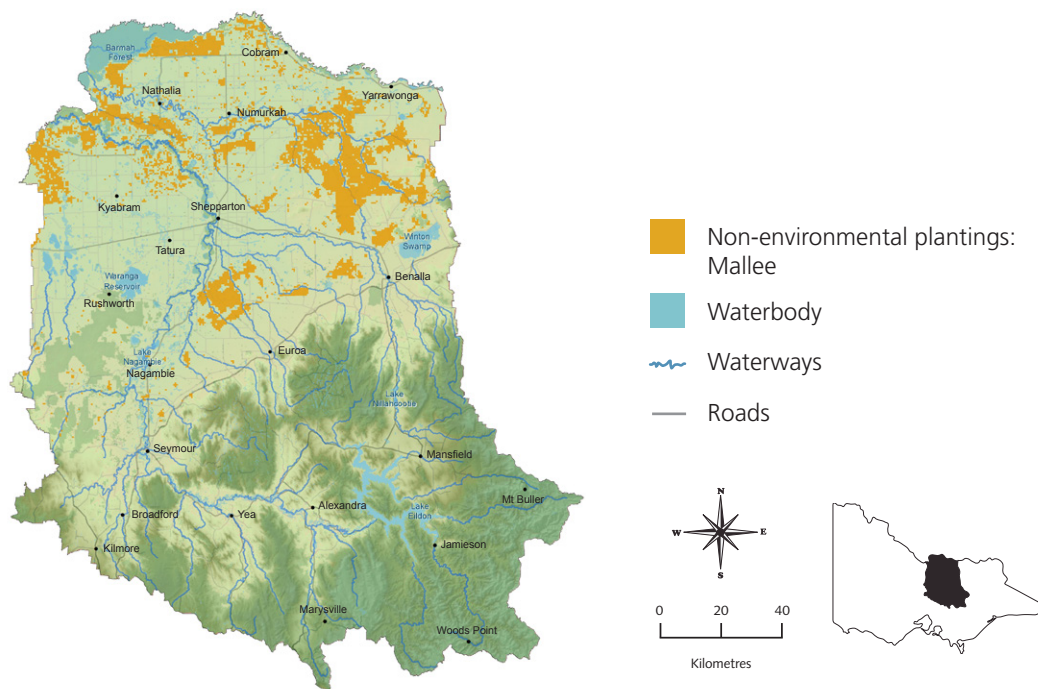
PROMOTION PRINCIPLES	AVOIDANCE PRINCIPLES
Proximity to existing native vegetation	Reduction in water yield with revegetation
Regional priority for improving landscape vegetation connectivity / biodiversity value	Current land use is of high social and/or economic value
Carbon sequestration potential	
Vulnerability to climate change	

Priority areas for non-environmental plantings for carbon farming

Areas of the Goulburn Broken Catchment that could support conventional non-environmental plantings for carbon farming whilst aligning with NRM principles



Areas of the Goulburn Broken Catchment that could support Mallee plantings for carbon farming whilst aligning with NRM principles



PROMOTION PRINCIPLES	AVOIDANCE PRINCIPLES
Carbon sequestration potential	Proximity to existing native vegetation
Vulnerability to climate change	Reduction in water yield with revegetation
	Current land use is of high social and/or economic value

Site-specific considerations for carbon farming

The following information can help carbon farming proponents plan projects and assess a potential project's alignment with the Goulburn Broken Regional Catchment Management Strategy. Further detail can be found in the Climate Change Adaptation Plan for NRM in the Goulburn Broken Catchment at <http://weconnect.gbcma.vic.gov.au/>.

The Goulburn Broken CMA supports carbon farming activities that:

1. contribute to mitigation of and adaptation to climate change;
2. contribute to the protection and enhancement or restoration of natural resources to increase their resilience; and
3. maintain or enhance the resilience and cohesion of regional communities.

Carbon farming projects should:

- Protect and enhance or restore areas of high biodiversity conservation value (non-environmental plantings should be directed away from areas of existing native vegetation and waterways to reduce risks associated with the introduction of new genetic material and water interception).
- Improve landscape resilience through enhancing remnant native habitat and improving connectivity.
- Increase the resilience of soils.
- Prioritise the use of low value agricultural land and degraded landscapes.

Carbon farming activities that can support the implementation of the Goulburn Broken Regional Catchment Strategy include:

- Natural regeneration – to assist carbon stocks associated with existing native habitat.
- Environmental plantings – to increase terrestrial carbon stocks through revegetation, especially along waterways, and to buffer and connect high value remnant native vegetation.
- Grazing system change – to increase soil carbon in agricultural systems by implementing management actions such as flexible grazing techniques based on pasture and livestock requirements that maintain productivity and improve ground cover.
- Cropping system change – to increase soil carbon in broad-acre cropping systems as a result of implementing management actions such as no-till cropping and retaining organic matter.
- Blue carbon sequestration through the conservation and restoration of wetlands.
- Non-environmental plantings – establishment of a new plantation (trees, shrubs) on land that has not recently supported native vegetation. The new plantation could include environmental plantings, farm forestry, groundwater recharge or discharge management or long-rotation hardwood plantations.

For further information about carbon farming activities please refer to the Australian Government Clean Energy Regulator at <https://www.environment.gov.au/climate-change/emissions-reduction-fund/methods>.

Project proponents should consider:

- Contacting the Goulburn Broken CMA to discuss a proposed project's alignment with regional NRM plans.
- Federal, State and local legislation and regulations regarding such issues including, but not exclusive to, water interception, fire management, native vegetation retention, land use planning, cultural heritage and invasive plants and animals.
- The eligibility of projects under the Emissions Reduction Fund and other carbon markets (e.g. Mallee plantings are only eligible in areas with less than 600mm average annual rainfall).
- The viability of plant species under climate change scenarios.



Australian Government

The development of the Climate Change Adaptation Plan for Natural Resource Management in the Goulburn Broken Catchment, Victoria 2016 was supported by funding from the Australian Government.

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