Carbon + Biodiversity Pilot

Planting Protocol: Southern Tasmania NRM Region

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Acknowledgement of Country

We acknowledge the Traditional Owners of Country throughout Australia and their continuing connection to land, sea and community. We pay our respects to them and their cultures and to their elders past, present and emerging.

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Introduction

This document details the eligibility, design, establishment and maintenance conditions that apply to environmental planting projects under the Carbon + Biodiversity Pilot Program (C+B Pilot). It is intended to complement the program guidelines available on the C+B Pilot website.

The conditions that apply to projects in the Southern Tasmania Natural Resource Management (NRM) region are contained in Tables 1-4 below in the third column, titled 'C+B Pilot conditions – Southern Tasmania'. The conditions fall into two categories: mandatory (expressed in the tables as 'must') and recommended (expressed as 'should'). All projects must comply with the mandatory conditions. Compliance with the recommended conditions is not mandatory. Words and phrases in italics have defined meanings, which are provided below the first usage of the relevant word or phrase and in the Glossary below the tables.

Further advice on any of the conditions listed here can be obtained from the Department of Agriculture, Water and the Environment, at agstewardship@awe.gov.au.

To assist proponents, the second column, titled 'Emissions Reduction Fund requirements', provides a summary of key requirements that apply to environmental planting projects under the Emissions Reduction Fund (ERF). These are not intended to be comprehensive. For more information on the ERF, proponents should visit the Clean Energy Regulator's website (see here for additional information on the ERF environmental plantings method). You can also contact the Clean Energy Regulator by email at enquiries@cleanenergyregulator.gov.au or by phone on 1300 553 542.

For the avoidance of doubt, C+B Pilot projects must comply with both the ERF requirements and the C+B Pilot conditions in Tables 1-4 below (third column).

People interested in participating in the C+B Pilot should contact their regional NRM group for advice on the establishment and management of plantings. For Southern Tasmania, your NRM group is:

NRM South
website: https://nrmsouth.org.au
Email: ncrane@nrmsouth.org.au
Mobile: 0438 664 524

Table 1. Eligibility conditions

Consideration	Emissions Reduction Fund requirements	C+B Pilot conditions – Southern Tasmania
Area	Must consist of more than a single row of plantings.	The aggregate area of *plantings* in a project **must** be between 5-200 hectares.
Newness and additionality	• The plantings **must** be new and the project activity, including site preparation, **must** not commence until the project is registered under the ERF. • The plantings **must** not be required to be carried out under a law of the Commonwealth, a State or a Territory. • The project **must** not be used to meet a statutory obligation to offset the adverse impacts of another development.	No relevant eligibility conditions. *In applying to participate in the C+B Pilot, proponents **must** not include the cost of management actions that are required to be carried out under a law of the Commonwealth or a State or Territory, or are already funded under another Commonwealth, State, Territory or local government environment program.
Land use history	• The planting area **must** have been clear of forest cover for at least 5 years prior to the date of application. • The planting area **must** not contain woody biomass or an invasive native scrub species that needs to be cleared for planting to occur, other than a known weed species required or authorised by law to be cleared. • The planting area **must** not have been previously illegally cleared of native forest, or have contained a wetland that was illegally drained. • The planting area **must** not have been legally cleared of native forest, or have contained a wetland that was legally drained, within the previous 7 years (or 5 years if there has been a change of ownership).	No relevant eligibility conditions.
Regulatory approvals	Proponents **must** obtain all relevant regulatory approvals that are necessary to enable the project to be undertaken. Regulatory approvals are approvals required under a law of the Commonwealth, a State or a Territory relating to the environment, water or land use and development.	Projects **must** be able to be registered as an eligible offsets project under the ERF's *Carbon Credits (Carbon Farming Initiative) (Reforestation by Environmental or Mallee Plantings—FullCAM) Methodology Determination 2014*.
Legal right to carry out project and consents from other parties	Proponents **must** have the legal right to carry out the project on the land. Proponents **must** obtain written consent to undertake the project from any person who holds an 'eligible interest' in the land.	No relevant eligibility conditions.

Consideration	Emissions Reduction Fund requirements	C+B Pilot conditions – Southern Tasmania
	'Eligible interests' cover a range of interests held in relation to land, including estates and other registered proprietary interests (e.g. leases, easements and covenants), and mortgages and charges held over the land by a bank, financial institution or other party.	
NRM specific requirements	If the project area is covered by a regional NRM plan, the application for registration under the ERF **must** state whether the project is consistent with the plan.	No relevant eligibility conditions.

Table 2. Planting design conditions

Consideration	Emissions Reduction Fund requirements	C+B Pilot conditions – Southern Tasmania
Prohibited planting areas	See Table 1, Land use history.	*Plantings* **must** not occur in: • areas that did not naturally support *trees* and *shrubs* (e.g. some wetlands, grasslands); • ecological communities listed as threatened under relevant State, Territory or Commonwealth legislation (e.g. Natural Temperate Grassland); or • *utility easements*. *Utility easements* are areas of land that utility providers are legally entitled to use and access for the purposes of providing utility services (e.g. electricity, gas, telecommunications and sewerage).
Uniformity of land	The ERF does not require the land included in planting areas to have particular biophysical characteristics. However, under the ERF, planting areas must be mapped and modelled as carbon estimation areas (CEAs). CEAs must meet the uniformity requirements under the environmental plantings method, which require the land in a CEA to: (i) have uniform site characteristics in relation to soil type, aspect and slope; (ii) be planted with the same combination of plant species; and (iii) be established and managed under the same land management regime, including in relation to preparation. Proponents should consider these factors in designing their plantings as it will help reduce the complexity and cost associated with reporting under the ERF.	No additional conditions.
Plant species composition	Plantings **must** consist of a mixture of tree and shrub species that: • are native to the local area of the planting; and • are sourced from seeds from within the natural distribution of the species and are appropriate to the biophysical characteristics of the area of the planting. Plantings may be a mix of trees, shrubs and understorey species that reflect the structure and composition of the local native vegetation community.	*Plantings* **must** be either a *local vegetation community planting*^ or a *simple mixed native planting*. A *local vegetation community planting* is a *planting* that: • as far as practical given the *planting* density, *tree proportion* and crown cover requirements, reflects the structure and composition of the relevant local vegetation community or communities*; and • consists of at least two species of *trees* and four species of *shrubs*

Consideration	Emissions Reduction Fund requirements	C+B Pilot conditions – Southern Tasmania
		from the relevant local vegetation community or communities. A *simple mixed native planting* is a *planting* that: • as far as practical given *planting* density, *tree proportion* and crown cover requirements, performs similar ecological functions to the relevant local vegetation community or communities and generates benefits for local native biodiversity; and • consists of at least two species of *trees* and four species of *shrubs* that are native to the local area. For the avoidance of doubt, *plantings* should include *ground cover species* where possible. ^ *Local vegetation community plantings* will receive higher biodiversity benefit scores, all else being equal. *See Appendix A for resources to assist in identification of relevant vegetation communities. *Trees* are woody plants that at maturity are generally more than 2m tall and either have a single *stem* with branches well above the base or, if multi-*stemmed* from the base (or within 20cm from ground level), their largest *stem* typically has a diameter greater than 5cm measured 130cm above the ground. A *stem* is the ascending axis of a plant and is generally the main structural component of the above-ground portion of *trees* and *shrubs*. *Shrubs* are woody plants that are: • generally less than 2m tall if single-*stemmed*; or • if multi-*stemmed* from the base (or within 20cm from ground level), are generally less than 2m tall or, if more than 2m tall, their largest *stem* typically has a diameter less than 5cm measured 130cm above the ground. *Ground cover species* are herbaceous (non-woody) plants, including grasses and forbs. Proponents should consider the following with respect to species composition:

Consideration	Emissions Reduction Fund requirements	C+B Pilot conditions – Southern Tasmania
		• drought resilience and the potential effects of climate change;* • the availability of tubestock and seed from local nurseries and seed suppliers; • that a diverse and dense mid-storey provides benefits for native birds; and • that ground cover plants require effective control of introduced plant species to achieve high survival rates. *For further information on considering climate change in your *plantings*, see the publication *Climate ready revegetation: A guide for natural resource managers*.
Stem density and tree proportion	Plantings **must** have a stocking density: • of at least 200 stems per hectare; and • that can achieve forest cover. *Stocking densities affect the way carbon stocks are modelled. Three generic model calibrations are available to estimate carbon stocks, which depend on the type of planting geometry: • belt high density generic calibration – **must** be a belt planting with >1500 stems per hectare; • belt low density generic calibration – **must** be a belt planting with between 200-1500 stems per hectare; and • block generic calibration – **must** be a block planting with ≥200 stems per hectare. C+B Pilot projects that model carbon stocks using the block generic calibration and are declared to be alternative assurance projects will not be required to have scheduled third party audits under the ERF. These projects can still be subject to other ERF audits, including compliance audits.	*Tree* and *shrub plantings* **must**: • be no more than 5m apart, measured from stem-to-stem; • have a *stocking density* of at least 400 stems per hectare; • have a *tree proportion* of between 50% and 70%; and • be planted such that each 0.2 hectare portion of the *planting* area has *forest potential*. For the avoidance of doubt, *groundcover species* are not included in stem counts for these purposes. *Tree proportion* means the proportion of individual live *trees* relative to the total of individual live *trees* and *shrubs* in a *planting*. A 0.2 hectare portion of a *planting* area has *forest potential* if the planted *trees* have the potential to reach 2m or more in height and provide crown cover of at least 20% of the portion.
Dimensions of planting	Plantings can be either belt or block plantings. • Belt plantings are plantings in a belt configuration that are ≤40m wide, are at least 40m from the nearest other planting (stem-to-stem) and are not affected by material competition from adjacent trees.	Individual *planting* areas **must** be at least 0.25 hectares (2500m^2). The average width of *plantings* in a belt configuration **must** be at least 30m (stem-to-stem) on the short axis of the *planting*.

Consideration	Emissions Reduction Fund requirements	C+B Pilot conditions – Southern Tasmania
	• Block plantings are plantings that do not meet the requirements of a belt planting and consist of more than a single row of trees or shrubs. * C+B Pilot projects can be either belt or block plantings. However, to be eligible to be declared an alternative assurance project under the ERF (and thereby have no scheduled third party ERF audits), proponents must model the carbon stocks using the block generic calibration.	
Distance from other vegetation, including plantings	The distance to other vegetation determines whether plantings are able to be modelled as belt plantings. Belt plantings **must** be at least 40m from the nearest other planting (stem-to-stem) and they **must** not be affected by material competition from adjacent trees. Adjacent trees are trees that lie within 20m of the stems of the closest project tree. There are rules for when adjacent trees are deemed to be causing material competition. These requirements do not apply to block plantings.	No additional conditions.
Surrounding vegetation in the landscape	No requirement.* *Proximity to other vegetation affects whether plantings meet the definition of belt plantings and can apply the belt calibrations when modelling abatement.	No additional conditions.
Fire risk	No specific requirements concerning the design of plantings. However, participants are required to provide a permanence plan that explains the steps that will be undertaken to ensure carbon remains stored in the project area for the permanence obligation period. See Table 4 below for requirements concerning fire management during the permanence obligation period.	*Planting areas*: • **must** not be within 50m of buildings used for residential or commercial purposes; and • should not be within 50m of any other buildings.
Regulatory compliance	See Table 1, Regulatory approvals.	*Plantings* **must** be sited, established and managed in accordance with all applicable Commonwealth and State laws relating to planning, environment and heritage.* *Approval may be required under the *Forest Practices Act 1985* (Tas) to undertake an environmental *planting* project.

Consideration	Emissions Reduction Fund requirements	C+B Pilot conditions – Southern Tasmania
Workplace health and safety	No requirement.	Proponents should prepare a workplace health and safety plan for their project.
Cultural heritage	No requirement.	In siting, establishing and managing *plantings*, proponents should consider cultural heritage impacts and follow relevant Commonwealth, State and local guidelines concerning the protection and management of cultural heritage sites. Contact your regional NRM group for further information.

Table 3. Establishment conditions

Consideration	Emissions Reduction Fund requirements	C+B Pilot conditions - Southern Tasmania
Establishment method	Plantings **must** be established using propagated seedling stock (tubestock) or direct seeding.	No additional conditions
Site preparation – weed control	Not specified.	Where weed control is carried out using herbicides, the herbicides **must** be applied in accordance with all applicable Commonwealth and State laws and the manufacturer's instructions.
Site preparation – soil	Not specified.	Soil preparation **must** not be done by deep-ripping or other mechanical methods that involve significant soil disturbance (e.g. mound ploughing) in *planting* areas with significant biodiversity or natural or cultural heritage values, including areas that contain remnant native vegetation, old native *trees*, patches of native grass or sites of Indigenous cultural significance.
Site preparation – total grazing pressure	Not specified.	All livestock grazing **must** be excluded until the *tree plantings* have become established (approximately 1.5m tall). Vertebrate pests and overabundant native species (including kangaroos) should be managed where they present a threat to the establishment of the plantings. In managing overabundant native vertebrate species, preventative control measures (e.g. fencing and guards) should be prioritised over lethal control and any lethal control **must** only be to the extent necessary to protect the plantings. All vertebrate pest and overabundant native vertebrate species management **must** be undertaken in accordance with applicable Commonwealth, State and local laws and guidelines.
Timing	Not specified.	No additional requirements.
Tree protection	No requirement. *Where grazing or another event kills the plantings in ≥5% of the planting area, the proponent is required to notify the Clean Energy Regulator and take actions to mitigate the impacts of the disturbance. This may require the area to be replanted. Proponents will also be required to re-stratify the carbon estimation area.	*Plantings* should be protected from livestock and other herbivores. If fencing is used: • the top strand of wire around *plantings* must not be barbed to reduce the chance of wildlife entanglement; and • it should be erected prior to *planting* or direct seeding.

Consideration	Emissions Reduction Fund requirements	C+B Pilot conditions - Southern Tasmania
Watering	No requirement.	Proponents should consider watering *plantings*, particularly tubestock *plantings*, at the time of establishment.

Table 4. Maintenance

Consideration	Emissions Reduction Fund requirements	C+B Pilot conditions - Southern Tasmania
Longevity	Plantings **must** be maintained for a permanence period of either 25 or 100 years, which commences when the first ACCUs are issued to the project. Proponents can choose a 25- or 100-year permanence period when submitting a project registration application. The permanence period cannot be varied.	*Plantings* **must** be protected and maintained for the *C+B permanence period*. The *C+B permanence period* means the 25-year period commencing on the day the project is registered under the ERF.
Remedial planting	Remedial plantings may be required if a planting has failures that impact the carbon stocks and the planting's ability to achieve forest cover. This will affect the planting and modelling date. Proponents must keep a record of any remedial plantings.	Throughout the *C+B permanence period*, each 0.2 hectare portion of the *planting* area should have either *forest potential* or *forest cover*. Remedial *plantings* should be established in a *planting* area if mortality results in a 0.2 hectare portion of a *planting* area no longer having *forest potential* or *forest cover*. A 0.2 hectare portion of a *planting* area has *forest cover* if the planted *trees* are 2m or more in height and provide crown cover of at least 20% of the portion. Remedial *plantings* should be established in a *planting* area if: • it was originally designed to reflect the structure and composition of the relevant local vegetation community or communities; and • mortality results in the *planting* no longer reflecting the structure and composition of the relevant local vegetation community or communities. Remedial *plantings* should be established in a *planting* area if: • it was originally designed to perform similar ecological functions to the relevant local vegetation community or communities and generate benefits for local native biodiversity; and • mortality results in the *planting* no longer performing similar ecological functions to the relevant local vegetation community or communities and generating benefits for local native biodiversity.

Consideration	Emissions Reduction Fund requirements	C+B Pilot conditions - Southern Tasmania
Harvesting and other biomass removal	Plantings **must** not be harvested other than: • thinning for ecological purposes; • to remove debris for fire management; • to remove firewood, fruit, nuts, seeds, or material used for fencing or as craft materials, if those things are not for sale; or • in accordance with traditional Indigenous practices or native title rights. No more than 10% of fallen timber may be removed from a CEA in a calendar year for personal use.	Plantings **must** not be harvested or otherwise cleared, other than thinning for ecological purposes where: • the *planting* was originally designed to reflect the structure and composition of the relevant local vegetation community or communities and the *thinning* is necessary to ensure the *planting* achieves this objective; or • the *planting* was originally designed to perform similar ecological functions to the relevant local vegetation community or communities and generate benefits for local native biodiversity and the *thinning* is necessary to ensure the *planting* achieves this objective; and • approval is obtained from the Department of the Agriculture, Water and the Environment before the *thinning* commences. All fallen timber **must** be left within the *planting*. Any fallen timber that is moved from firebreaks, access tracks or fences **must** be placed within the *planting* area.
Total Grazing Pressure post-establishment	Livestock grazing is permitted provided it does not affect the achievement or maintenance of forest cover in a CEA.	Total grazing pressure **must** be managed to protect the biodiversity values of the site. Livestock grazing: • **must** not be undertaken until the *plantings* have become established (approximately 1.5m tall); • **must** be limited to pulse or crash grazing; and • **must** not be undertaken if it adversely affects the *plantings* or their biodiversity values. Management of overabundant native vertebrate species (including kangaroos) should be undertaken only where they present a threat to the biodiversity value of the site. Where possible, preventative control measures (e.g. fencing and guards) should be prioritised over lethal control and any lethal control **must** only be to the extent necessary to protect the biodiversity values of the site. All vertebrate pest and overabundant native vertebrate species management

Consideration	Emissions Reduction Fund requirements	C+B Pilot conditions - Southern Tasmania
		must be undertaken in accordance with applicable Commonwealth, State and local laws and guidelines. Fences and other *tree* protection measures should be well maintained to ensure the exclusion of livestock and other overabundant native vertebrates.
Invertebrate pest control	Invertebrate pests should be managed as necessary to meet the requirements of the permanence plan.	Invertebrate pests should be managed where necessary to protect the present and future biodiversity value of the site. Where pest control is carried out using pesticides, the pesticides **must** be applied in accordance with all applicable Commonwealth and State laws and the manufacturer's instructions.
Fire	Fire should be managed as necessary to meet the requirements of the permanence plan. If there is a fire that affects the sequestered (stored) carbon, the proponent **must**: • take all reasonable steps to prevent the on-going loss of the sequestered carbon; • identify the impacted area and quantify the impact; and • notify the Clean Energy Regulator of the disturbance within 60 days. Prescribed burning is permitted but the greenhouse gas emissions from these burns **must** be accounted for and, if a burn kills the plantings, steps **must** be taken to mitigate the impacts (this may include remedial plantings).	Fire **must** not be intentionally introduced to the *planting* if it is likely to adversely affect the biodiversity values of the site, unless it is critical to the protection of life or property.
Watering	No additional requirement but watering should be considered to reduce tree and shrub mortality where necessary.	Proponents should consider watering *plantings* (particularly tubestock *plantings*) during the first summer after *planting* if there is inadequate rainfall.
Ongoing consistency with NRM plans	If a registered ERF project is changed and, as a consequence, it becomes inconsistent with an applicable regional NRM plan, the proponent **must** notify the Clean Energy Regulator within 90 days.	No additional conditions.

References

Carbon Credits (Carbon Farming Initiative) (Reforestation by Environmental or Mallee Plantings—FullCAM) Methodology Determination 2014 (Cth) https://www.legislation.gov.au/Details/F2018C00118.

Department of Environment Regulation. 2016. A Guide to Preparing Revegetation Plans for Clearing Permits. Government of Western Australia.

Department of Sustainability and Environment 2006. Revegetation planting standards – Guidelines for establishing native vegetation for net gain accounting. Victorian Government, Department of Sustainability and Environment, East Melbourne.

Greening Australia. Undated. A Revegetation Guide for Temperate Riparian Lands. Department of Sustainability, Environment, Water, Population and Communities and Landcare Australia.

Hancock, N., Harris, R., Broadhurst, L. and Hughes, L. 2018. Climate-ready revegetation. A guide for natural resource managers. Version 2. Macquarie University, Sydney.

Lindenmayer, D.B. 2018. Ten lessons in 20 years: Insights from monitoring fauna and temperate woodland revegetation. Ecological Management and Restoration, 19(S1): 36-43.

Lindenmayer, D.B., Knight, E.J., Crane, M.J., Montague-Drake, R., Michael, D.R., MacGregor, C.I. 2010. What makes a good restoration planting for woodland birds? Biological Conservation, 143:289-301.

Lindenmayer, D.B., Blanchard, W., Crane, M., Michael, D., Sato, C. 2018. Biodiversity benefits of vegetation restoration are undermined by livestock grazing. Restoration Ecology, 26(6): 1156-1164.

Munro, N.T., Lindenmayer, D.B., Fischer, J. 2007. Faunal response to revegetation in agricultural areas of Australia: A review. Ecological Management & Restoration 8(3): 199-207.

NESP Threatened Species Recovery Hub. 2021. What makes an effective planting for supporting biodiversity on farms? How-to Guide. National Environmental Science Program.

NSW Biodiversity Conservation Trust. 2019. Restoring Native Vegetation. Guidelines for Assisted Regeneration and Revegetation. NSW Government.

Vegetation Matters. 2014. North Burnett Riparian Revegetation Guidelines. Burnett Catchment Care Association.

Glossary

Defined terms under the C+B Pilot

C+B permanence period means the 25-year period commencing on the day the project is registered under the ERF.

ERF means the Emissions Reduction Fund. The Emissions Reduction Fund is a voluntary offset certification scheme established under the *Carbon Credits (Carbon Farming Initiative) Act 2011* (Cth).

Forest cover—in relation to the C+B Pilot, a 0.2 hectare portion of a planting area has forest cover if the planted trees are 2m or more in height and provide crown cover of at least 20% of the portion.

Forest potential—in relation to the C+B Pilot, a 0.2 hectare portion of a planting area has forest potential if the planted trees have the potential to reach 2m or more in height and provide crown cover of at least 20% of the portion.

Ground cover species means species of herbaceous (non-woody) plants, including grasses and forbs.

Local vegetation community planting means a planting that:

- as far as practical given the planting density, tree proportion and crown cover requirements, reflects the structure and composition of the relevant local vegetation community or communities; and
- meets the minimum local tree and shrub species requirements outlined in Table 2.

Planting means:

(a) as a verb, to put or set in the ground tree, shrub and (where relevant) ground cover species using propagated seedling stock or direct seeding; and

(b) as a noun, an area of trees, shrubs and (where relevant) ground cover species established using propagated seedling stock or direct seeding.

Planting area means the area of land on which plantings are established under the C+B Pilot in accordance with the requirements of the Planting Protocol.

Stocking density means the number of live individual trees or shrubs per hectare in a planting area.

Shrub means a species of woody plant that:

- is generally less than 2m tall if single-*stemmed*; or
- if multi-*stemmed* from the base (or within 20cm from ground level), is generally less than 2m tall or, if more than 2m tall, its largest stem typically has a diameter less than 5cm measured 130cm above the ground.

Simple mixed native planting means is a planting that:

- as far as practical given planting density, tree proportion and crown cover requirements, performs similar ecological functions to the relevant local vegetation community or communities and generates benefits for local native biodiversity; and
- meets the minimum local tree and shrub species requirements outlined in Table 2.

Stem, in relation to the C+B Pilot, means the ascending axis of a plant and is generally the main structural component of the above-ground portion of trees and shrubs.

Thinning means the selective removal of trees or shrubs for ecological purposes, including to maintain species diversity or ground cover.

Tree, in relation to the C+B Pilot, means a species of woody plant that at maturity is generally more than 2m tall and either has a single stem with branches well above the base or, if multi-stemmed from the base (or within 20cm from ground level), its largest stem typically has a diameter greater than 5cm measured 130cm above the ground.

Tree proportion means the proportion of individual live trees relative to the total of individual live trees and shrubs in a planting.

Utility easement means an area of land that utility providers are legally entitled to use and access for the purposes of providing utility services (e.g. electricity, gas, telecommunications and sewerage).

Summary of key defined terms relevant to the ERF Environmental Plantings Method

Set out below is a summary of key terms and phrases that are used in, or in relation to, the ERF's Environmental Plantings Method. Where only a summary is provided, references are provided to the statutory instrument(s) that contain the full definition. ***Readers should note that terms and phrases that are defined under the ERF do not necessarily have the same meaning under the C+B Pilot. Key terms and phrases that have different meanings under the C+B Pilot are marked below with an asterisk (*)***.

Belt plantings are plantings in a belt configuration that are at least 40m wide, are at least 40m from the nearest other planting (stem-to-stem) and are not affected by material competition from adjacent trees. For the full definition, see *Carbon Credits (Carbon Farming Initiative) (Reforestation by Environmental or Mallee Plantings—FullCAM) Methodology Determination 2014*.

Block plantings are non-belt plantings, other than plantings consisting of a single row. For the full definition, see *Carbon Credits (Carbon Farming Initiative) (Reforestation by Environmental or Mallee Plantings—FullCAM) Methodology Determination 2014*.

Eligible interest, in relation to an offset project under the ERF, refers to a range of interests held in relation to land, including estates and other registered proprietary interests (e.g. leases, easements and covenants), and mortgages and charges held over the land by a bank, financial institution or other party. For the full definition, see sections 43, 44, 45 and 45A of the *Carbon Credits (Carbon Farming Initiative) Act 2011* (Cth).

Eligible interest holder, in relation to an offset project under the ERF, means a person who holds an eligible interest in the land on which the project is located.

Forest means land of a minimum area of 0.2 of a hectare on which trees:

(a) have attained, or have the potential to attain, a crown cover of at least 20% across the area of land; and

(b) have reached, or have the potential to reach, a height of at least 2 metres.

Forest cover**—*land has ***forest cover if the vegetation on the land includes trees that:

(a) are 2 metres or more in height; and

(b) provide crown cover of at least 20% of the land.

Forest potential**—*land has ***forest potential if:

(a) the land has an area of at least 0.2 hectares; and

(b) the vegetation on the land includes trees that have the potential:

(i) to reach 2 metres or more in height; and

(ii) to provide crown cover of at least 20% of the land.

FullCAM means the Full Carbon Accounting Model, a calculation tool used by the Australian Government to model Australia's greenhouse gas emissions from the land

sector and to model emissions and removals from vegetation projects under the ERF. For further information, see here.

Planting means:

(a) as a verb, to put or set in the ground species that are eligible under the *Carbon Credits (Carbon Farming Initiative) (Reforestation by Environmental or Mallee Plantings—FullCAM) Methodology Determination 2014* using:

(i) propagated seedling stock; or

(ii) direct seeding, including in rows or broadcast;

for the purposes of growing project trees;

(b) as a noun, an area of project trees established using direct seeding or propagated seedling stock.

Regulatory approval, in relation to an offset project under the ERF, means an approval, licence or permit (however described) that:

(a) relates to, or to an element of, the project; and

(b) is required under a law of the Commonwealth, a State or Territory that relates to:

(i) land use or development; or

(ii) the environment; or

(iii) water.

Shrub* means a perennial plant that has primary supporting structures consisting of secondary xylem and that does not have, or have the potential for its stem diameter to be measured at breast height (DBH), where DBH is defined as 130 centimetres in height.

Stem means the ascending axis of a plant and the main structural component of the above-ground portion of trees and shrubs.

Stocking density* means the number of live individual trees or shrubs per hectare in a carbon estimation area and/or the number of live individual seedlings or seeds per hectare at establishment.

Tree* means a perennial plant that has primary supporting structures consisting of secondary xylem and that has, or has the potential to for its stem diameter to be measured at 130 centimetres height (i.e. DBH).

Tree proportion means the proportion of individual live trees relative to the total of individual live trees and shrubs in a mixed-species environmental planting.

Appendix A: Guidance in identifying the relevant local vegetation communities for your planting

This Appendix sets out some sources for information on natural vegetation in your region. The sources selected are generally the most up to date, which are accessible online. It is not a comprehensive list, and most parts of Australia are covered by numerous published guides and studies that can also help with plant species selection, particularly for simple mixed native plantings. Sources of native plants and seeds, such as nurseries, can also help, as can your local Natural Resource Management body or Landcare group.

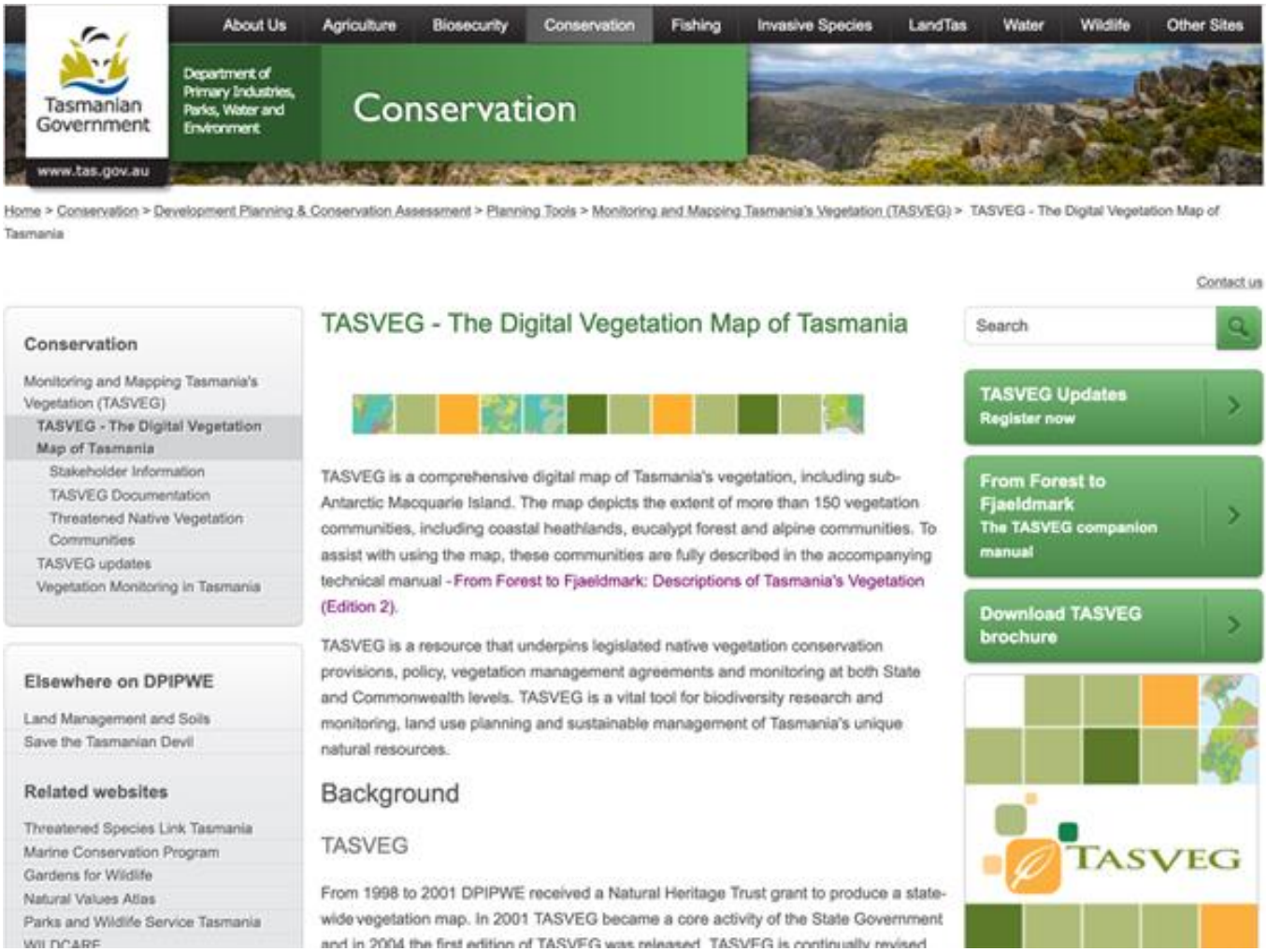
If you have confidence in your understanding of the natural vegetation across your planting areas you may not need more information to decide on an appropriate species mix. For example, if there are enough paddock trees or roadside patches and other reminders of the native vegetation you might have enough to design a local vegetation community planting that closely reflects local ecosystems.

But even if you know your local plants, the data described here, plus other local sources, should be consulted to confirm natural combinations of species in your region, and also to confirm the scientific names and natural range for species you might know best by a common name. The Atlas of Living Australia is a valuable national resource for biodiversity information.

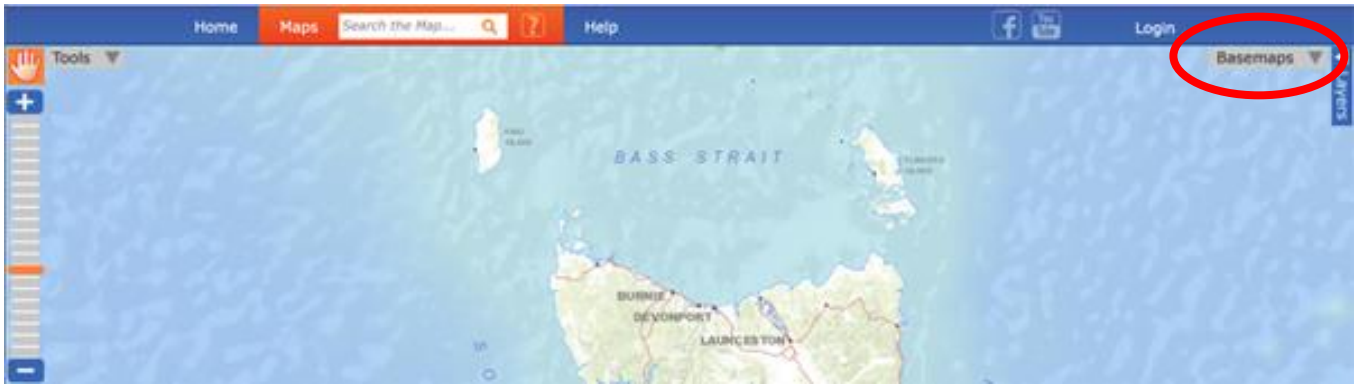
The Tasmanian Government's "TASVEG" provides comprehensive digital maps that depict the extent of more than 150 vegetation communities across Tasmania. Descriptions of these communities, to be used in conjunction with the mapping, are provided in an accompanying technical manual.

To access vegetation mapping:

1. Go to https://dpipwe.tas.gov.au/conservation/development-planning-conservation-assessment/planning-tools/monitoring-and-mapping-tasmanias-vegetation-(tasveg)/tasveg-the-digital-vegetation-map-of-tasmania

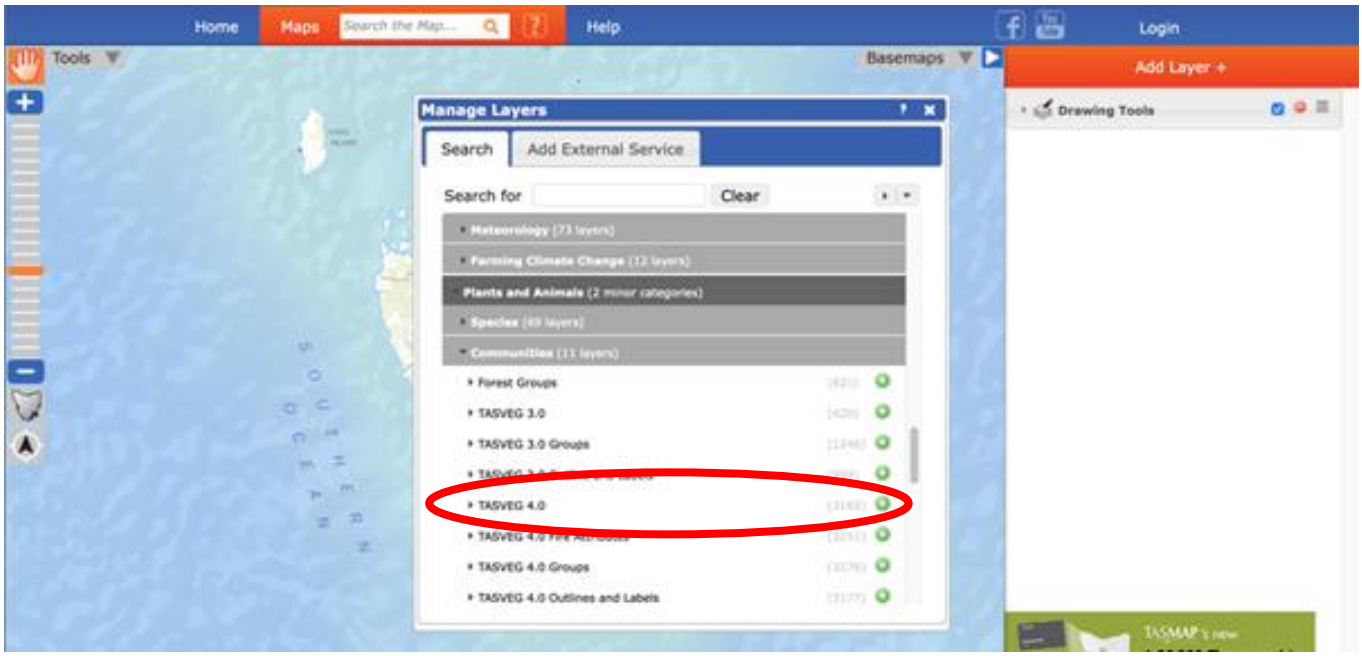


2. Click on the link to LISTmap under the heading "How to access TASVEG" to take you to the mapping viewer at https://maps.thelist.tas.gov.au/listmap/app/list/map
3. Use the map controls to locate your planting area(s).
4. Aerial photography can be added to the map by clicking on "Basemaps" on the right hand side of the screen, select "ESRI Imagery". To add the TASVEG layer to the map, click on the "Layers" tab on the top right hand side of the page.



5. Click on "Add Layer +" and navigate down to "Plants and Animals", expand "Communities" and select "TASVEG 4.0" to add the latest official release to the map. The

transparency of this vegetation layer can be adjusted by clicking the small arrow to the left of "TASVEG 4.0" on the right hand side of the screen.



6. Click on areas of vegetation closest to the proposed planting area to identify the community present.

7. A popup box will identify a vegetation community and its code – in the example above this is (WRE) *Eucalyptus regnans* forest.
8. To find a list of species typical of this vegetation community, you must search the accompanying technical manuals.
9. The description for *Eucalyptus regnans* forest can be found in the Wet Eucalypt and Forest document.

Wet eucalypt forest and woodland (*revised May 2018*)
Description of wet eucalypt forest and woodland vegetation communities.

Forest to Fjaeldmark: Wet eucalypt forest and woodland (3Mb)

10. A detailed description for WRE *Eucalyptus regnans* forest is provided in the document under the heading "Vegetation composition and structure".

Eucalyptus regnans forest (WRE)

General description

Tall forest dominated by *Eucalyptus regnans*, with a dense, shrubby or forested understorey.

South Springfield. Micah Visoiu

Example locality

Mount Field National Park.

Distinguishing features and similar communities

The forest community is characterised by emergent *Eucalyptus regnans* trees over a wet sclerophyll or rainforest understorey. It has some similarities with *Eucalyptus obliqua* wet forest (undifferentiated) (WOU) and *Eucalyptus globulus* wet forest (WGL).

RFA mapping unit

Bioregional occurrence

BEL, FUR, TCH, TNS, TSE, TSR, TWE.

Site characteristics, habitat and ecology

This community grows on deep, fertile soils in high-rainfall areas, from sea level to about 600 m.

Vegetation composition and structure

The community is dominated by *E. regnans* and is typically in single-aged stands because the trees are sensitive to fire and will not re-sprout after a hot fire. *E. regnans* is a very tall tree generally between 40

Questions and feedback

Any questions or feedback about this document should be sent to agstewardship@awe.gov.au or you can contact the Department of Agriculture, Water and the Environment on 1800 329 055.