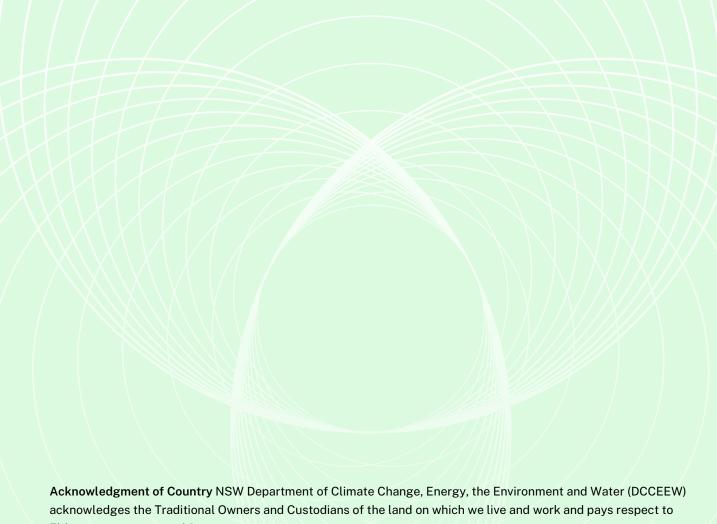
Department of Climate Change, Energy, the Environment and Water

Planting Plan Guide

For the MidCoast LGA







Elders past, present and future.

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1 Creating a planting plan

As part of your Living Carbon grant application, you are required to submit a completed planting plan that is endorsed by an on-ground support partner.

We have developed a planting plan template that you can download from our <u>website</u>, with accompanying regional guides (like this one) and an optional workbook, to help you prepare and complete a planting plan that meets the requirements of the NSW Government's Living Carbon grant program. You must complete your planting plan by using our template which you can find on our <u>website</u>. If your grant application is successful, the plan will guide you through implementation.

1.1 The guide and workbook

This **planting plan guide** (guide) explains how to complete the **planting plan**. It contains general information about grant activities, regional specifications, worked examples and links to useful resources.

There is a unique planting plan guide for each eligible grant region. You must refer to <u>the guide specific to **your region**</u> when planning your Living Carbon project and completing your planting plan. This planting plan guide is for use in the MidCoast LGA.

The **planting plan workbook** (workbook) is an optional tool you can use to help you complete your planting plan. It is an excel workbook/file that contains blank and pre-formatted versions of the tables in the plan. You **do not** need to submit the workbook with your Living Carbon grant application.

If you decide to use the workbook, we recommend that you fill out each table in the workbook first, then copy and paste the completed tables into your planting plan. When you do this, please paste the contents only – without the formulas.

Do this by:

- 1. selecting/highlighting the completed table in the workbook
- 2. right click and select 'Copy'
- 3. go your planting plan, place the cursor where you want to paste/insert the table and right click on it,
- 4. select 'Paste Special'
- 5. select the first icon on the left to 'Keep Source Formatting (K)' (



Please ensure you use the planting plan guide for the region where your project is located.

1.2 Planting plan layout

The guide and planting plan are organised in numbered sections that (in most cases) correspond to one another, to make it easy to move between documents.

The planting plan is divided into the following four key themes:

- Section 2: Property Information
- Sections 3 and 4: Your carbon revegetation project and project activities
- Sections 5 and 6: Target co-benefits and environmental accounting
- Sections 7 and 8: Project delivery and budgets and contractors

1.3 Maps

The following 3 maps will form part of your planting plan:

- 1. 2.3 Landscape map (section 2.3 of the plan): your project in the context of the surrounding landscape.
- 2. 3.3 Planting map (section 3.3 of the plan): your project details and features.
- 3. 5.2 Biodiversity Map (section 5.2 of the plan): biodiversity records to help justify the choice of your intended biodiversity co-benefits.

You must also attach a detailed version of each map in your online SmartyGrants application, as an image or PDF file that is larger than A4 size.

You may use your preferred website or software to create the maps. The on-ground support partner can also assist you with developing maps for your planting plan. Suitable and free software for mapping includes Google Earth, Google Maps and SixMaps. A list of useful mapping tools and resources for mapping biodiversity and vegetation is in Appendix C: Resources.

The maps should include sufficient detail and accuracy to enable checking of measurements, such as the size (in hectares) of individual planting sites and the length of proposed fence construction. All maps should have a compass, legend and scale bar.

2 Property information

This section captures the basic information about the property and the planting project location within the surrounding landscape. Please provide the information below in section 2 of your planting plan.

2.1 Property

Information about the property your project is located on.

- Name of owner (and property manager if applicable)
- Address
- Property area (ha)
- Enterprise(s) run on the property
- Year the current landholders came into ownership of the property
- Natural resource management (NRM) (Local Land Services) region

2.2 Local landscape

Information about the environment on and surrounding the property that your project is located on.

- Average annual rainfall (mm)
- Soil type(s) on the property, particularly where you plan to plant
- Nearest remnant, existing or regenerated native vegetation on the property and adjacent land that your project could connect to (show on the Landscape map)
- Key natural features (waterbodies, elevated areas, rocky outcrops, unique ecosystems, etc.)

2.3 Landscape map

Please provide a satellite/aerial image map of your property and surrounding land showing:

- Important features that impact connectivity and co-benefits, such as nearby bushland, national parks, creeks, rocky outcrops.
- The total carbon estimation area(s) (CEA) for your registered environmental planting carbon project (show the entire project/your total CEA(s), even if your Living Carbon project's area is only a part it).
- Sites with existing revegetation, or other planned revegetation sites.

If you have determined reference sites for your Environmental Account with Accounting for Nature (AfN), and those sites occur within your landscape or planting map, please mark where they are. An example of the landscape map is in Figure 1.

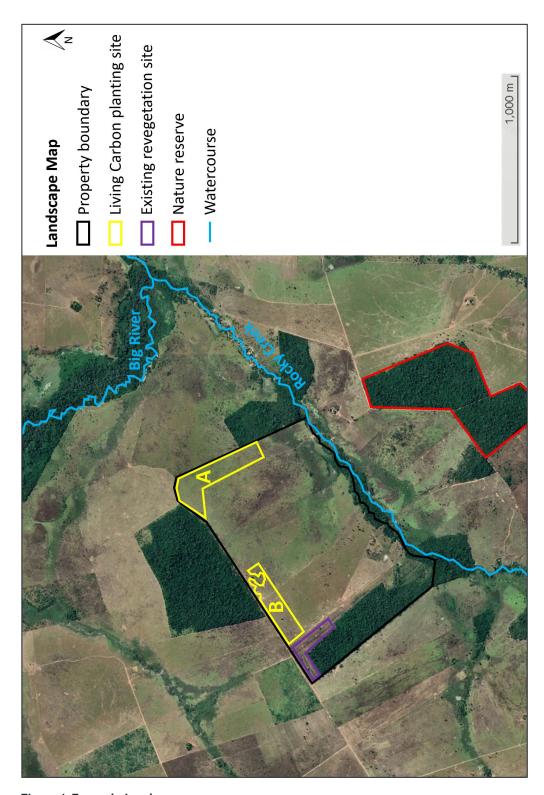


Figure 1: Example Landscape map

3 Carbon revegetation project

Designing your project

When planning your project, you need to consider:

- the carbon project requirements of the Environmental Planting Pilot (EPP) method
- the Living Carbon grant guidelines
- the regional recommendations for planting projects
- the unique needs of your project such as tree protection materials

As a carbon project using the approved Environmental Planting Pilot (EPP) method under the Australian carbon credit units (ACCU) scheme, your revegetation project must meet a series of requirements such as a minimum planting density of 200 stems per hectare.

Your project also needs to comply with the Living Carbon grant requirements, such as a minimum total project area of 10 hectares, and recommendations for your region such as the minimum size for an individual site planted.

Table 3a below outlines differences between some of the requirements of the ACCU Scheme's EPP method for carbon projects and the Living Carbon grants. The Living Carbon grant requirements include regional specifications and recommendations, and at times exceed the ACCU Scheme's requirements.

You should check the rules for EPP projects prior to registering your carbon project as they may change after the publication of this guide. Also note that while the EPP method is scheduled to expire on 30 September 2024, it is expected to be replaced by an equivalent very similar method.

Table 3b below sets out information about the regional specific recommendations for the design of a revegetation project. We have provided a list of useful Regional specific resources for planning revegetation and biodiversity project in the MidCoast region.

Please note, while Table 3a and Table 3b below list the design requirements for your Living Carbon project, you may have to meet higher thresholds to achieve your biodiversity cobenefit target. More detail on co-benefits is in section 5 Target co-benefits

Table 3a: Project design requirements

The design requirements for planting projects using the Environmental Planting Pilot method and seeking funding under Living Carbon grants.

Design element	ACCU Scheme – EPP method	Living Carbon – MidCoast
		region
Total (aggregate) project area (ha)	0.2 – 200 ha	10 – 200 ha
Minimum size of each planting site or CEA	N/A	As per regional requirements in Table 3b, below.
Biodiversity benefit will be measured	No	Yes
Revegetation method	Native plants can be established via planting tubestock and/or direct seeding.	
Plant species composition	A mixture of tree and shrub species that are native to the local area and sourced from seeds stock.	As per regional requirements in Table 3b below.
Structure	Must reflect the structure and composition of the local native vegetation community or what it would have been.	
Species height and crown cover	Must have the potential to reach at least 2 metres in height and achieve a crown cover of at least 20% over the planting area.	
Seed and tubestock sources	Must be sourced from within the natural distribution of the species and must be appropriate to the biophysical characteristics of the proposed planting area.	
Planting density	Must consist of more than a single row of stems, have a stocking density of more than 200 stems per hectare and a density that will achieve forest cover.	As per regional requirements in Table 3b below.

Shape of plantings	Any shape or configuration provided it consists of more than a single row.	Plantings can be either linear corridors, block plantings or a combination of both.
Position of plantings	Must be on land that has been cleared for 5 years.	
	Must not be undertaken under powerlines, within easements where they may interfere with utilities, or on crown land without approval. Plantings can occur along riparian, lower, mid or	
	upper slopes. Refer to Table 3b below regional recommendations.	

Table 3b: Regional specific recommendations for the design of revegetation projects

Design element	MidCoast specifications and recommendations
Minimum size of an individual planting site	Individual planting sites should be a minimum of 4 ha
Plant species composition and	Plantings should be a mix of tree and shrub species that reflect the structure and composition of the local native vegetation community.
diversity	A minimum of 8 tree species and 5 shrub species should be included in the planting mix. At least 30% of the total canopy trees should be koala food tree species (specific to the MidCoast koala population).
	Refer to Appendix B: Regional resources and information for a list of species to plant for koala habitat in different areas of the MidCoast.
	The planting of native ground cover species including grasses is recommended to create a balanced ecosystem (not funded by Living Carbon grants).
Planting density	All plantings need to be a minimum of three rows with 4 - 5 m between each row and plants spaced at least 4 - 5m along the row to achieve a preferred planting density of approximately 400 stems/ha.
Shape of plantings	Linear plantings should be a minimum of three rows (and > 20metres total width).

Position of	If possible, plantings that connect existing habitats or are along riparian,	
plantings	lower slopes, and flood plains should be prioritised to maximise	
	biodiversity benefits.	

Regional specific resources

Below is a list of resources that will support land managers in the MidCoast to understand, plan and implement a carbon and/or a revegetation project that has biodiversity co-benefits. Remember, there is also support available by getting in touch with MidCoast Council.

- Hunter LLS website and Local Land Services' information about Natural Capital
- Hunter Natural Resource Management Plan
- Local Land Services' resources:
 - Rural-Living-Handbook-2020.pdf
 - Planting your patch (Hunter version),
 - Recognising habitat features (Hunter version)
 - State Vegetation Type Map: Upper Hunter available free, online on the SEED website (Click the link, then scroll down on the right-hand side and click "Show on SEED Map".)
- MidCoast Council's koala feed tree lists (see Appendix B: Regional resources and information)
- Koala habitat restoration guidelines
- Biodiversity Framework 2021-2030,

3.1 Registered carbon project

Please record information about your ACCU Scheme carbon project's registration with the Clean Energy Regulator (CER) in section 3.1 of your planting plan:

- ACCU Scheme Project ID: the CER provided this to you at registration and will use it to identify your project in the CER's public carbon project register.
- ACCU Scheme Project name: the name of your project registered under the ACCU Scheme.
- Total carbon estimation area (ha): the total area (ha) of your carbon project, calculated from the map of the carbon estimation area(s) for your registered carbon project.
- Total area of the CEA that will also be part of your Living Carbon project (ha).
- Project description: the description of your project when you registered it under the ACCU Scheme.

Note: You can use this guide to help plan your carbon project before registering it with the ACCU Scheme. If you do this, then you can leave this section blank and return to complete it once you have the relevant information for your registered carbon project.

3.2 Living Carbon project

Once you have reviewed Table 3a and Table 3b above, complete Table A in your planting plan. This will provide an overview of your Living Carbon project's design and demonstrate that it aligns with regional specifications for planting projects in the MidCoast region. Include the Plant Community Types (PCT) that you will be planting at each site. A worked example of Table A is provided below to show you how to fill in this table.

Then complete the check list in your planting plan to confirm that your design meets the requirements of this guide (refer to Table 3b above). See the Example check list in Figure 2 below.

Your on-ground support partner can assist you with information about the most appropriate Plant Community Types to plant. Refer to the definition of planting sites for Living Carbon projects in Appendix A: Terms and definitions

Planting site(s)	Area (ha)	Stems per ha	Target canopy (%)	Plant community type	Description
A	7.5	400	25%	PCT 3250: Northern Foothills Blackbutt Grassy Forest	Approx. 600m long and 90-270 m wide corridor running along the northeastern boundary. PCT 3250 is the likely original PCT, as classified for the adjacent remnants, and will provide suitable habitat for the target species.
В	5.0	400	25%	As above	512 m long and 110 m wide corridor running along the north-eastern boundary, excluding areas around several existing remnant trees. See above comment for PCT 3250.
Total	12.5				

Figure 2: Example check list for MidCoast region

- ☑ The smallest planting site/CEA for the Living Carbon project is **4** ha.
- △ All planting sites/CEAs have a species composition containing a minimum of **8** trees and **5** shrubs being planted. The species composition of all sites combined is in Table I.
- oximes All planting sites have a planting density of **400** stems or more, per the regional requirements.
- ⊠ Seed and tubestock will be purchased from local suppliers. To ensure local provenance, only seeds or tubestock generated from seeds collected within **50 km** radius will be planted.

3.3 Planting map

In section 3.3 of your planting plan, please provide a map that shows the following:

- The planting site(s) for which you are seeking funding from the Living Carbon grant. These sites should be detailed in your planting plan. Please label the site(s) how you will refer to them in your plan, for example, sites A, B and C. Your Living Carbon project's planting sites will likely match the CEA(s) for your registered carbon project.
- If your Living Carbon project is only part of the total CEA(s) of your registered carbon project (shown in the Landscape map), then please show the difference in the planting map.
- Any fences that will be installed or repaired, and existing fences, that will be used to
 protect plantings. Use different colours or symbols to distinguish between fences that
 exist, will be installed or will be repaired.
- The places where you plan to have your photo monitoring points.

An example of the planting map is in Figure 3.

You should also provide a brief description of the main features of the map.

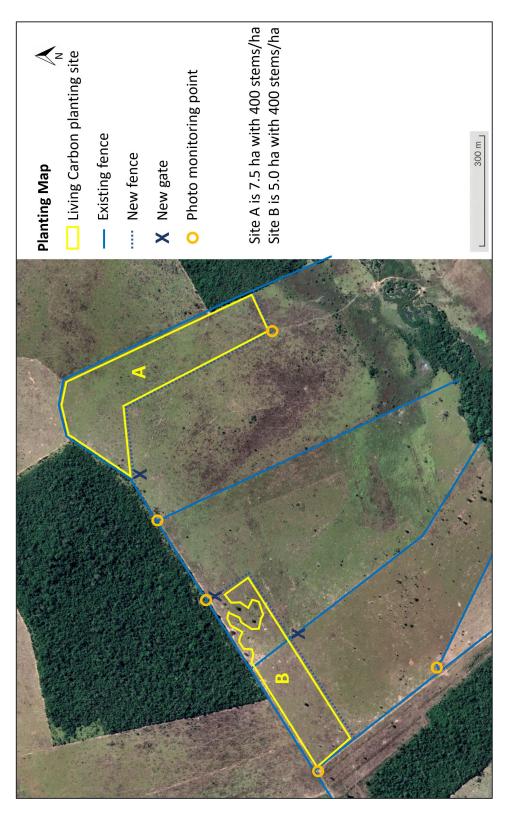


Figure 3: Example Planting map

4 Project Activities

You need to consider the specific needs of your project are or will be, throughout its different stages, to ensure the long-term survival and success of your plantings. This could include tailoring site preparation, using tree protection materials, installing and/or fixing fencing to protect plantings, and planning targeted maintenance and monitoring activities.

The needs and requirements of each project will differ based on location, soil, climate and the species being planted. Advice is provided in sections 4.1 to 4.5, along with the regional resources previously listed in section 3. Your on-ground support partner can also assist you to identify the needs of your project and complete the relevant details in your planting plan.

Note: When completing Tables B to F in section 4 of your plan you can combine different planting sites that use the same revegetation methods onto one line.

4.1 Revegetation method

You can revegetate the planting sites in your project by direct seeding or tubestock planting. Complete Table B in your planting plan with details about which revegetation method you will use for your planting site(s) and how many plants will be allocated to individual sites and/or revegetation methods. A worked example for Table B is provided below to help you understand how to fill in your table.

Example Table B: Revegetation method(s) of your Living Carbon project

Revegetation method	Planting site(s)	Number of stems	Description and reasons
Tubestock	A	3,000	Quality tubestock is locally available for this relatively small planting project and will likely establish better than direct seeding due to significant weed pressure. 400 stems/ha x 7.5 ha
Tubestock	В	2,000	400 stems/ha x 5.0 ha
Total	-	5,000	-

4.2 Site preparation

There are different approaches to preparing a site for direct seeding or tubestock planting. Preparing a site for tubestock may involve reducing biomass, ripping or using an auger, weed control and pest control. Preparing a site for direct seeding may involve reducing biomass,

weed control and pest control. Your approach should be discussed with your on-ground support partner.

Table 4a below includes general information about revegetation projects and specific information relevant to projects in the MidCoast region.

Table 4a: Details and regional information for preparing a site for planting

Site preparation activities	Information
Weed control	 For sites being direct seeded – sites need to be prepared by reducing biomass to allow for spraying one month prior to direct seeding. For sites being planted using hiko cells/tubestock – sites need to be prepared by reducing biomass, followed by ripping, then spraying one month prior to planting.
	One month prior to planting/direct seeding, apply knockdown and residual herbicide on 1 m wide strips along the rip line/planting line. This will control weed competition after planting.
	Soil preparation is required for planting tubestock, but not for direct seeding.
Soil preparation	 Includes ripping, auguring or similar activities. Ripping is the most common method for large scale plantings. Using an auger or other hole-digging techniques are an alternative for smaller areas, particularly those that are sensitive (e.g. prone to erosion) or difficult to access.
	Ripping
	For tubestock planting, ripping should be done in the following manner:
	 Prior to ripping, check that there are no utilities or services such as power lines, sewer pipes or telephone cables that could be disturbed. Rip tree lines while the ground is dry using a winged ripper for deep shattering of the soil a minimum of three months prior to planting. Rip to a minimum depth of 450 mm. Don't rip under the drip line of existing trees. Rip across the slope where possible. Cultivate soil after ripping if there are large clods. Mound soil over rip lines if the site is damp.
	Livestock must be kept off sites that have been ripped for planting, or else soil compaction may occur.

	Planting line – augering
	In some sites, ripping may be preferable (such as soils prone to erosion). At these locations, planting may preferably be established in planting lines using biomass controls combined with augering of holes for the planting of the tubestock. Grasses may be harnessed to give the planted tubestock some protection from impacts of frost, wind, grazing pests or desiccation.
Pest control	Seek advice from your regional Local Land Service on the control of pests such as rabbits, hares, feral deer and feral pigs six months prior to planting. This may avoid the added expense of tree guards and replanting.

When planning your site preparation, consider whether your proposed activities may harm Aboriginal objects. Following the process set out in the Due Diligence Code of Practice for Aboriginal Objects Protection in NSW can help you to comply with legal requirements to protect Aboriginal objects.

Complete Table C in your planting plan to outline your planned site preparation activities. A worked example of Table C is provided below to help you understand how to fill in this table.

Example Table C: Site preparation activities of the project

Site preparation activity	Planting site(s)	Length (m) or area (ha)	Description and reasons
Weed control	A & B	12.5 ha	Biomass reduction by crash grazing to reduce biomass before ripping and spraying.
Soil preparation	A & B	12.5 ha / 25,000m	Ripping is the most cost-effective method for preparing both sites, totalling 25,000m with rows 5m apart, before spraying.
Weed control	A & B	12.5 ha	Spray Glyphosate on 1 m wide strips along the rip lines one month before planting, to help control weed competition after planting.

No on-ground project works, including site preparation, should be undertaken prior to:

- registering your project with the Clean Energy Regulator
- successfully applying for the Living Carbon grant

Note: Grant funds can only be used to fund soil preparation (ripping, augering or similar activities) for site preparation. Other site preparation activities related to weed control, including removal of biomass and pest control, will need to be fully paid for by co-contribution funds.

4.3 Fencing

If your project requires fencing, please read the information below and complete Table D in your planting plan, including the cost of materials and labour to install your project's fencing. Make sure to include any new or repaired fencing shown on your map planting map. Provide information about the type of fencing you plan to install or repair, where it will be installed or repaired around planting sites(s), and the reasonings. You can also include any additional fencing activities required for your project.

Points to note when planning fencing and choosing fencing materials:

- The type of fencing you choose to install must be fit for your intended purpose, whether that is excluding stock, pest animals or native fauna from the planting areas.
- Electric fencing is a useful option if you would like to remove fencing once the trees and shrubs in your planting are mature and grazing will not impact the trees, as permitted by the CER.
- Barbed wire fencing is not recommended, especially on the top wire, due to the potential impact on wildlife. Please discuss the use of barbed wire with your region's on-ground support partner.
- The cost of fencing is a combination of materials, labour costs for preparation and installation, and additional costs because of variations in terrain.
- Be aware, when planning the shape of your planting sites, that some shapes require a
 greater distance (perimeter) of fencing for the same area protected. The cost of fencing an
 irregular shaped planting block on difficult terrain may make your project difficult to
 justify due to the high overall cost per hectare.

Further information about the recommendations and specifications for fencing in the MidCoast region are detailed in Table 4b below.

Table 4b: Fencing design elements and considerations

Plantings must be protected from livestock and other herbivores. All fencing must have a minimum set-back of 2.5 m from existing or proposed standing vegetation and have an average set-back of 10 m from the edge of the defined bank in riparian sites. Fencing type All fencing must be stockproof and include a minimum of 1 gate for maintenance access. The top strand of wire around plantings must not be barbed to reduce the chance of wildlife entanglement.

Note: Please be aware that the Living Carbon grant limits the amount of grant funds that can be spent on fencing. **Grant funds must not exceed 50% of the total cost** of the fence and

may only be used to pay towards fencing costs that are equivalent to what a standard stock fence would cost. If you want to install a fence that will cost more than a standard stock fence, you need to provide a quote for both types of fencing to clearly show that the grant funds requested are only up to 50% of the equivalent stock fence cost. For example, if a standard stock fence for your project would cost \$10,000 but you choose to build a higher specification fence costing \$13,000, you would still only receive a maximum of \$5,000 (50% of \$10,000) in grant funding for fencing.

Please discuss which fencing materials are most suited to the needs of your planting project with the on-ground support partners or a local expert, and then complete the information in Table D in your planting plan. Please write the costs for materials and costs for labour on different lines.

A worked example of Table D is provided below to help you understand how to fill in this table.

Example Table D: Fencing materials and labour

Materials or labour	Planting site(s)	Length (m)	Description and reason
Fencing Materials	А	870	Fencing wire and posts for new stock fence along the north, east and west side of Site A. \$4,350 based on \$5,000/km.
Fencing Materials	В	700	Fencing wire and posts for new stock fence along the eastern side of Site B. \$3,500 based on \$5,000/km.
Fencing Materials	-	-	New gate added to existing fence between Site A and B to provide vehicle and stock access between the north and south paddocks (because the existing gate in that fence will now be within planting site B). One new gate for each of Site A & B. \$650 for 3 gates and materials.
Fencing Labour	A and B	-	Fencing labour and equipment by the landowner as in- kind. Est. 150 hours general fence (~10m/h) + 20 hours for stays = 170 h @ \$50/h labour & equipment use.

4.4 Tree protection

If your project requires tree protection materials (such as tree guards, water crystals or native plant fertiliser) or labour, please provide details in Table E of your planting plan. Include information about the type and quantity of plant protection (for example tree guards), materials, and labour your project needs, the reasons for use, and which areas they will be used in. You are encouraged to discuss this with the on-ground support partner.

Points to note about plant protection and materials:

Not all plants require tree protection.

- The tree protection needs of sites planted by tubestock versus direct seeding will differ.
- Tree guards can be sourced in a variety of heights, sizes and materials including plastic, cardboard and metal. Consider what suits your site best. Biodegradable cardboard guards are recommended when near watercourses.
- Tree guards require stakes (bamboo, wood, metal) to hold them up in the ground. Please ensure you purchase enough stakes to install the guards. Usually, 1 3 stakes are needed per guard, depending on the type.
- Using planting materials, specifically a native slow-release fertiliser and water crystals, is useful but may not be realistic for larger plantings.
- Tree guards must be removed at the appropriate time.

Further information and regional specifications for MidCoast are in Table 4c below.

Table 4c: Regional information for planning planting activities and tree protection materials

Timing of planting	 Planting/direct seeding to occur a minimum of 6 weeks after residual weed control. Planting/direct seeding should occur 2 months after the autumn break and before mid-August. Planting should occur only when there is satisfactory soil moisture.
Tree protection and planting materials	 Recommend 1L cardboard tree guards with two stakes per guard. These are biodegradable and cost effective. MidCoast Council recommends a wetting agent or water crystals if harsh dry weather is expected within the next 12 months or if watering every fortnight for the first summer is impractical. Water crystals need to be used carefully as they can hinder and even kill trees through drawing out all of the moisture into the crystal.

Note: Grant funds can be used for up to 100% of the cost of tree planting protection, materials and labour. Equipment, such as post hole diggers, mallets (for putting in stakes) and watering equipment, are ineligible grant expenditure. You will need to fund or seek third party funding for these items if you require them for your project.

Please discuss which tree protection and materials are most suited to the needs of your planting project with the on-ground support partners or a local expert and complete Table E in your planting plan. A worked example of Table E is provided below to help you understand how to fill in this table.

Example Table E: Tree protection materials and labour

Tree protection materials / labour	Planting site(s)	Description and reasons (include quantity)
Tree protection materials	A and B	5,000 tree guards (one per plant), 1L cardboard – to protect from rabbits and wind.
Tree protection materials	A and B	10,000 stakes (2 per guard), 600mm bamboo – to support tree guards
Planting – Labour A (all) and B (incl. tree guards) (4ha only)		Planting tubestock and installing tree guards, 100 hours contracted labour.
Planting – Labour (incl. tree guards) B (1ha only)		Planting tubestock and installing tree guards, 50 hours volunteer labour (Landcare event, 20 people x 2.5 h each).

4.5 Monitoring and maintenance

Regular activities involved in monitoring and maintaining revegetation projects include:

- watering, if required, particularly in the first 12 18 months
- checking survival rate of plantings
- minimising the impact of weeds
- checking whether grazing stock or feral pests are damaging the plantings
- assessing damage after severe weather events and fixing any damaged tree protection materials or fencing
- performing any regional or project specific activities that may be required (see table 4d below)

Table 4d: Regional recommendations and information for monitoring and maintenance

Monitoring	Regional recommendations
Restricted grazing of	 Once planted, livestock grazing must be excluded for a minimum of 3 years from hikocells/tubestock planted areas, and for 5 years for
sites	directly seeded areas.Grazing must be limited to pulse or crash grazing.

Note: Grant funds cannot be spent on monitoring and maintenance. These activities will need to be fully paid for by your co-contribution to the grants.

Please discuss which monitoring and maintenance practices are most suited to the needs of your planting project with the on-ground support partners or a local expert and complete the

Table F in your planting plan. A worked example of Table F is provided below to help you understand how to fill in this table.

Example Table F: Maintenance and monitoring of planting project

Maintenance and monitoring	Planting site(s)	Description and reasons
Initial monitoring	A and B	Monitor survival rate as per schedule and if likely to drop below 80% then order more plants and replace dead ones
Initial monitoring	A and B	Monitor soil moisture and arrange watering if cost-benefit assessment indicates it is worthwhile
Initial monitoring	A and B	Regularly monitor weeds and organise any control if required to reduce competition
Initial monitoring	A and B	After extreme events (wind, rain, hail, fire, flood) check tree health, guards etc and organise repair/replace if needed
Initial monitoring	A & B	Exclude livestock for at least 5 years and until plants won't be damaged; monitor for damage from other animals and organise maintenance if needed

5 Target co-benefits

Living Carbon projects aim to demonstrate co-benefits that can be gained from revegetation carbon projects. Applicants must plan their project to deliver co-benefits to a minimum of one flora species, or fauna species or threatened ecological community, as outlined in section 6.3 of the Living Carbon grant guidelines.

We recommend you complete the tables for this section in the planting plan workbook and then copy and paste them into your planting plan. See section 1.1 for instructions.

Note: Funding for the Living Carbon grant program in the MidCoast region is provided by the NSW Koala Strategy and it is required that koalas are a target species of your project.

5.1 Target co-benefits

List the targeted iconic and/or threatened species or Threatened Ecological Communities (TEC) that will benefit from your planting project in Table G of your planting plan. Include information about why you are choosing those species and whether they are threatened or not. For example, revegetation activities have been identified to help restore koala habitat under the NSW Koala Strategy, or a particular plant species is a known koala food tree for the region.

A worked example of Table G is provided below to help you understand how to fill in this table.

See Appendix B: Regional resources and information for a list of potential species and threatened ecological communities that MidCoast projects could target and aim to deliver biodiversity co-benefits for.

Example Table G: Targeted biodiversity co-benefits your project aims to achieve and justification

Туре	Commo n name	Scientific name	Status	Justification
Fauna	Grey- crowned Babbler	Pomatostomus temporalis	Vulnerable	Associated with PCT 3250. Recorded within 2km of planting sites with good habitat connection. SOS activities to assist recovery include restore areas of woodland habitat in areas being used by them; increasing the size of existing woodland remnants by planting trees.

Fauna	Koala	Phascolarctos cinereus	Endangered	Associated with PCT 3250. Recent records include adjacent property with habitat connected to planting sites. The planting project will help meet Koala Strategy restoration goals.
Fauna	Wompoo Fruit- Dove	Ptilinopus magnificus	Vulnerable	Associated with PCT 3250. Recent record adjacent to plantings and nearby. SOS activity to assist recovery includes replanting, especially fruit-bearing trees/shrubs
Fauna	Yellow- bellied Glider	Petaurus australis	Vulnerable	Associated with PCT 3250. Recent record within 2km of planting sites with suitable corridor connection. SOS activity to assist recovery includes maintain connectivity between habitat patches; rehabilitate habitat to increase area.

5.2 Biodiversity Map

In section 5.2 of your planting plan, please provide a map showing:

- Current or historical records (occurrences) of any target fauna and/or flora species
- Current or historical maps of any threatened ecological community you aim to restore

You can use records from various sources, including your own observations, as long as they are reliable. Some useful and free sources of biodiversity records include: <u>BioNet</u>, <u>Atlas of Living Australia</u> and <u>Sharing and Enabling Environmental Data in NSW (SEED)</u>. Previous ecological reports on the property or nearby could also be useful.

Local vegetation mapping may be available for identifying threatened ecological communities (TEC) or other target vegetation types. Some council websites also have interactive maps of the vegetation for their area. Otherwise, the NSW State Vegetation Type Map provides a reasonable guide. An example of the biodiversity map is in Figure 4 below

What is the purpose of this map?

As part of your Living Carbon project, you must choose at least one iconic native species, threatened species or threatened ecological community (TEC) that you can demonstrate over time has benefitted from your planting project. The aim of the biodiversity map is to show that those species or threatened ecological community are currently found locally or have occurred there historically. Therefore, you can be confident that they will likely benefit from your project. You do not have to map all species that will benefit, just the ones you will directly focus on and promote to add value to your carbon credits.

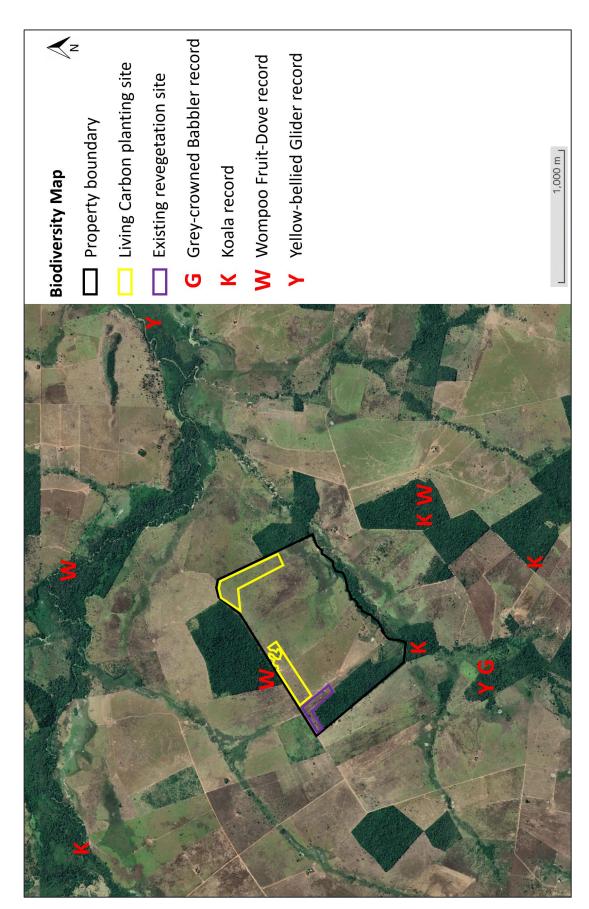


Figure 4: Example Biodiversity map

5.3 Species diversity and abundance to be planted

Complete Table H in your planting plan, listing the tree and shrub species you intend to plant, their type (shrub or tree) and how many of each species you will be planting. If a flora species is being planted to directly benefit a target fauna species, for example koala food tree species, or as part of a threatened ecological community that is being restored, please specify that in the far-right column of the table (Target species or community benefited).

A worked example of Table H is provided below to help you understand how to fill in this table.

Example Table H: Species list, diversity, and abundance of species planned to be planted

#	Flora species (scientific name)	Type (T, S*)	Quantity to be planted	Target species or community benefited.
1	Allocasurina torulosa	Т	200	K2
2	Angophera costata	Т	200	K2
3	Baloghia inophylla	Т	100	
4	Billardiera scandens	S	200	
5	Breynia oblongifolia	S	200	
6	Callistamon salignus	Т	100	
7	Corymbia intermedia	Т	400	K1
8	Dendrocnide excelsa	Т	300	
9	Diploglottis australis	Т	100	
10	Eucalyptus biturbinata	Т	400	K1
11	E. canaliculate	Т	400	K1, W
12	E. microcorys	Т	400	K1
13	E. pilularis	Т	200	K2
14	E. propinqua	Т	400	K1, W
15	E. resinifera	Т	100	
16	E. tereticornis	Т	200	K1
17	Glochidion ferdinandi	S	200	
18	Heritiera actinophylla	Т	100	
19	Leptospernum polygalifolium	S	200	
20	Melaleuca linariifolia	Т	100	
21	M. nodosa	Т	100	
22	Polyscias sambucifolia	S	200	
23	Syncarpia glomulifera	Т	200	K2

^{*}Type: T for Tree, S for shrub

[^] Only complete if there is a direct co-benefit to a targeted species or community

K1 = primary Koala use; K2 = secondary koala use; W = Wompoo fruit-dove feed tree

For your carbon project you must plant species that are indicative of the original or predicted Plant Community Type(s) (PCT) for the area being revegetated. This also ensures the best outcomes for habitat restoration.

If you complete Table H in the workbook, Table I will automatically update with the total figures and the total number of species providing a target co-benefit. You can then copy the tables from the workbook and paste them into your planting plan.

If you manually complete Table H in your plan, you will also need complete Table I manually. To do this, count the number of tree species and the total quantity of trees to be planted, and add these numbers to Table I. Do the same for shrub species. You can then review the number of each plant type (noting the requirements for species diversity for your region in section 3 in Table 3b) and calculate the percentage of trees vs shrubs.

A worked example of Table I is provided below to help you understand how to fill in this table.

Example Table I: Summary of the planting project's species diversity, abundance and co-benefits

Plant type	Total type	Quantity to be planted	% of total quantity
Trees	18	4,000	80%
Shrubs	5	1,000	20%
Total	23	5,000	100%
Providing a direct biodiversity co-benefit	10	3,000	60%

6 Environmental accounting

6.1 Designing your environmental account

You must provide information about the design of the Environmental Account which you will register if your Living Carbon grant application is successful. The on-ground support partner can assist you with determining the most suitable method.

Complete the design of your Environmental Account by following the steps outlined for Step 1
Design on Accounting for Nature's website then complete section 6 in your planting plan.

Most of the information you need to design your Environmental Account with Accounting for Nature (AfN) can be found in other sections of your planting plan.

Table 6a below directs you to where you might find information in your planting plan to help you design your environmental account.

Table 6a: Information needed to design an Environmental Account and where to find it in the planting plan

Design element	Existing location of information provided
Choose an approved AfN method(s)	Select from options in Table 6b, below.
Environmental Account boundary	This is typically your entire property, however it can be just your Living Carbon project planting area or your entire carbon project registered with the CER.
	Mapped in the Landscape Map in section 2.3 of your planting plan.
Environmental Asset Account boundary(s)	Each planting site could define an asset boundary in your environmental account, however refer to the instructions for the method(s) you choose. Mapped in the Planting Map in section 3.3.
Environmental Assets and sub-assets	Your project's target co-benefits are listed in Table G of your plan and could be the target asset(s) for your environmental account.
Reference site for vegetation and fauna	Should be considered now but can be determined if your grant application is successful. Optional detail in the Landscape Map.
Monitoring plan	Included in the schedules in section 7 and can be finalised if your grant application is successful.
Engage an expert	If needed, refer to the Accounting for Nature method instructions.

Choosing a method

You must choose a minimum of one Accounting for Nature (AfN) method and accuracy level to apply to your project. Select from the list in Table 6b which narrows all the methods down to seven that will suit Living Carbon projects and will not require extensive expertise. The onground support partner can assist you with determining the most suitable method.

The Accounting for Nature methods are developed at a particular 'accuracy level' which reflects the robustness of a method's approach to measuring the condition of the Environmental Asset. Certain methods offer only one accuracy level, while others offer a choice of 2 or 3 accuracy levels. The higher the accuracy level, the greater the survey effort and/or technical expertise expected. You are responsible for choosing a method and accuracy level that is suitable to your project and aims. Find the instructions for each method on AfN's Method Catalogue (see also Appendix C and the note below).

Table 6b: Eligible methods for Living Carbon

	Method	80%	90%	95%
	F-01 Accounting for Natural Mammal Condition Method			
FAUNA	F-02: A native woodland bird assessment methodology for diverse regenerating farmlands			
	F-04 Koala Population and Habitat Condition Method			
	NV-03: Green Collar Native Vegetation Condition Monitoring Method			
VEGETATION	NV-06: AfN and Landcare Native Vegetation			
	NV-07 Bush Heritage Australia – Native Veg <u>Assessment</u>			
	NV-13 NSW BCT Native Veg Monitoring			

NOTE for applicants considering F-02 and NV-07

Methods NV-07 or F-02 require approval from the method author and negotiation of a licencing fee. NSW Government have negotiated approvals and licence fees for Living Carbon projects. If you are interested in using one of these methods please talk to your on-ground support partner or email the Net Zero Land team requesting further information (netzero.land@environment.nsw.gov.au).

Chosen Environmental Assets ("Assets"), method(s) and accuracy level

In section 6.1 of your planting plan, provide information for each Asset Account you are planning to register as part of your project. An example of how to fill out this section is shown in Figure 5 below.

Figure 5: Example environmental asset account information

Environmental Asset Account 1:

Asset class: Vegetation

Environmental Asset: All vegetation in planted areas.

Sub-Asset(s): N/A

Method and Accuracy: NV-06: AfN and Landcare Native Vegetation 80%

Applicable planting areas: All

Environmental Asset Account 2:

Asset class: Fauna

Environmental Asset: Native woodland birds

Sub-Asset(s): N/A

Method and Accuracy: F-02: A native woodland bird assessment methodology for diverse

regenerating farmlands 90% **Applicable planting areas:** All

Environmental Asset Account 3:

Asset class: Fauna

Environmental Asset: Koalas

Sub-Asset(s): N/A

Method and Accuracy: F-04 Koala Population and Habitat Condition Method

Applicable planting areas: All

6.2 Specific method requirements

Specific information about the requirements of individual methods can be found on <u>AfN's</u> <u>website</u> and in the instructions document for each method (specifically the "Overview of Process" section). It is recommended that you read these instructions before deciding which method(s) you will use.

There is a section in the planting plan for you to record specific notes for your reference about the requirements for the method(s) you have chosen.

7 Project Delivery

This section provides timelines and activity schedules that you can follow when implementing your project both short and long-term. This will allow you to organise and prioritise tasks you need to achieve to meet project outcomes on time.

Revegetation projects require planning, site preparation, planting and long-term maintenance. All Environmental Accounts registered with Accounting for Nature (AfN) require the collection of data and site monitoring at regular intervals. Your revegetation project and Environmental Account will continue beyond the life of the grant project. This section focuses on three timelines:

- 1. Activity schedule specifically for Living Carbon grant (18 months)
- 2. Activity schedule for 1 to 5 years, including overlap with your Living Carbon grant
- 3. Long-term project and Environmental Account maintenance, 6 to 25 years

The information in sections 4 and 7.1 about project activities and their timing should be reflected in all three timelines.

The planting plan workbook contains outlines of all three schedules, for you to use as a starting point. You do not have to use these outlines. You can develop your activity schedules in your preferred format. Examples are also shown below.

7.1 Timing considerations

Understanding the optimal time to plant, planting thresholds and unexpected events that may impact your project, is essential to planning. Copy the information in Table 7a below into Table J of your planting plan. You may add your own information if you want to.

Table 7a: Environmental thresholds for revegetation

Site factor	Threshold level
Most appropriate season for revegetation	Autumn (after the summer/autumn break)
Preferred soil moisture levels	>20%
Unexpected events that may change revegetation schedule	 Natural disasters – flood or fire Drought conditions Delay in autumn break Early onset of hot dry weather Irruptions of damaging feral pest animals

7.2 Project schedule for 18 months of the Living Carbon grant

This is a month-by-month activity schedule that you can follow when implementing your Living Carbon project. It will help you to prioritise your time, hire or purchase materials on time, and plan for upcoming actions. We have provided an outline of an 18-month timeline in the workbook in worksheet 7_TimeOto18mnths, and an example in Example Table K below.

The outline divides tasks by relevance into three categories: revegetation tasks, carbon and environmental accounting, and Living Carbon grant administration. It includes:

- Activities and outcomes that **must** be completed as part of your Living Carbon project and when to complete them. You should include these in your 18-month schedule.
- A row for each type of activity you may do, for example site preparation or fencing.
 Replace these with the actual tasks you will complete and when you will complete them.
 For example, the one row for site preparation might be replaced with three rows: crash graze planting sites to reduce biomass (3-6 months before planting), ground preparation (1-3 months before), and weed control (one month before).

You may find the MidCoast and Hunter brief activities schedule for revegetation in Appendix C: Resources useful when creating your 18-month schedule. Remember under the EPP method, you must complete the planting for your ACCU Scheme registered project within 18 months of the CER approving your carbon project.

Note: You must plan to complete the planting for your Living Carbon project **within 12 months** of your project's start date so that you can include a 6-month stem survival rate report with your final progress report. If your project's circumstances change, you will be able to apply for an extension to complete your planting.

7.3 Project schedule for 1 to 5 years

The first five years of a carbon revegetation project are the most important to its long-term success. Project activities by quarter from planting onwards for 1 to 5 years should be added in Table L, understanding that a detailed plan for the first 18 months including pre-planting activities is in Table K. An example schedule is shown below in Example Table L.

7.4 Project schedule for 6 to 25 years

The maintenance workload of revegetation projects significantly reduces after about 5 years. You will need to complete regular actions to maintain your active carbon project and environmental account for at least 25 years. Project activities from 6 to 25 years should be added in Table M for each year. An example schedule is shown below in Example Table M.

Example Table K: Project schedule for 18 months of the Living Carbon grant period

Calendar month (October 2024 – March 2026)	0	Ν	D	J	F	М	Α	М	J	J	Α	S	0	Ν	D	J	F	М
Revegetation activities																		
Order plants and materials; book contractors		х																
Fencing – Build new and repair old fences/gates		х	х	х														
Site preparation – Ripping			х															
Site preparation – Weed and pest control			х					х										
Planting									х									
Maintenance – Monitor soil moisture and water								х		х		x		х		х		
Maintenance – Monitor tree guards and repair										х		х		х		х		
Maintenance – Monitor tree damage; control pests										х		х		х		х		
Maintenance – Monitor survival rate and replace												x				х		
Maintenance – Monitor weeds and control												x				х		
Carbon and environmental accounting																		
First carbon project report and earn ACCUs													х					
Register the Environmental Account		х																
Build the Environmental Account			х	х														
Certify the Environmental Account					х	х												
First Env. Account certification compliance report													х					
Living Carbon grant admin																		
Sign grant funding deed	х																	
Complete grantee survey		Х													Х			
Project case study															Х			
Submit grant progress report		1				2						3				4		
Consider extra communications activity															Х			

Example Table L: Project schedule for 1 to 5 years

Year	2026			2027				20	2028				2029				2030			
Quarter	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Revegetation activities																				
Monitor soil moisture & water if needed	х																			
Monitor tree guards & repair if needed	х	х	х	х	х	х	х	х												
Monitor tree damage & control pests if needed	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х				
Monitor survival rate & replace if needed	х		х		х		х		х		х									
Monitor weeds & control if needed	х		х		х		х													
Carbon and environmental accounting																				
Annual carbon project report + earn ACCUs			х				х				х				х				х	
Annual EA certification compliance report	х				х				х				х				х			
5-year audit of the Environmental Account																			х	

Note: Assess impacts from natural hazard events (e.g. bushfires, floods) when needed, report, and take appropriate actions.

Example Table M: Project schedule for 6 to 25 years

Year (20xx)	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
Carbon and environmental accounting																				
Annual carbon project report + earn ACCUs	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х
Annual EA certification compliance report	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х
5-year audit of the Environmental Account					х					х					х					х

Note: Assess impacts from natural hazard events (e.g. bushfires, floods) when needed, report, and take appropriate actions.

8 Budget and contractors

8.1 Budget

Complete your budget in Table N of the planting plan. An Example Table N is shown below.

The planting plan workbook has options to assist with budgeting. If you want to use it, you can list your project activities in worksheet 4_ProjectActivities in the workbook. If you then fill in the cost of each activity, and which sources of funding will pay for it, the values will automatically add up in worksheet 8_Budget. You can then copy Table N from your workbook into your planting plan. Below shows how this works.

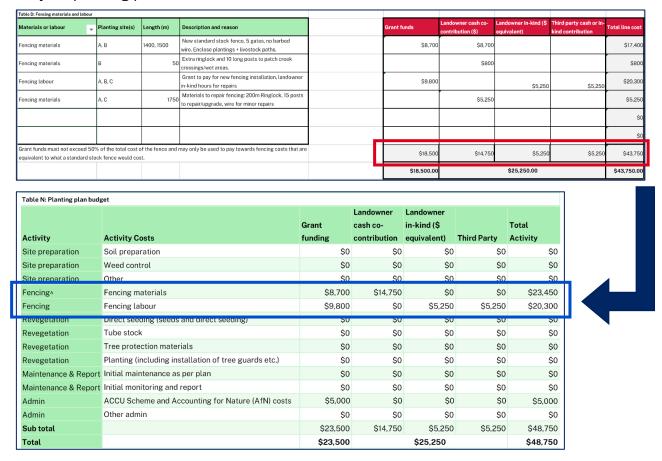


Figure 1 How to use the Workbook to generate a project budget.

In the top table, left hand side, four fencing activities have been listed. On the right-hand side, the cost of each activity has been entered by funding source. The total cost by funding source is calculated at the bottom (highlighted in the red box). The cost for the fencing activities, split into materials and labour, is now automatically calculated in worksheet 8_Budget sheet (highlighted in the blue box).

Example Table N: Planting plan budget

Project stage	Activity Costs	Grant funding	Landowner cash co- contribution	Landowner In-kind	Third party contribution	Total Cost
Site preparation	Soil preparation	\$11,000				\$11,000
	Weed control		\$5,000			\$5,000
Fencing	Fencing materials	\$8,500				\$8,500
	Fencing labour			\$8,500		\$8,500
Revegetation	Direct seeding (seeds and direct seeding)					
	Tube stock	\$12,500				\$12,500
	Tree protection materials	\$4,000				\$4,000
	Planting labour (including augering, installation of tree guards etc.)	\$9,000			\$2,000	\$11,000
Maintenance and Report	Initial maintenance as per plan			\$13,000		\$13,000
	Initial monitoring and report			\$2,000		\$2,000
Admin	ACCU Scheme and Accounting for Nature	\$5,000	\$4,000	\$1,000		\$10,000
	Other			\$1,000		\$1,000
	Sub total	\$50,000	\$9,000	\$25,500	\$2,000	\$86,500
	Budget total	\$50,000			\$36,500	\$86,500

Note: You are required to provide two quotes for each activity cost in your planting plan budget for which you seek grant funding of more than \$5000. If you are unable to provide two quotes, you must provide a justification. NSW Government may accept the justification at its full discretion.

Please check all calculations to confirm that the values in your budget are correct.

8.2 Nominating contractors

Contractors must be qualified, licensed, insured and experienced to take on the works you are contracting them for. You are required to upload and attach contractor quotes in SmartyGrants when completing your grant application. You can keep information about your chosen contractors in the workbook for your own reference in sheet 0_Contractors.

9 Landholder commitment and on-ground support partner endorsement

Landowner commitment

At the end of the planting plan, in section 9, there is a commitment statement that must be signed by the legal owner of the property or their appointed representative. The person signing on behalf of the property owner should understand the plan to confirm that it is accurate, including all the values given for planting areas, materials and budgets. They should also believe that the plan is achievable and will deliver on the aims of the Living Carbon grant program, specifically a significant amount of carbon sequestration and improvements in biodiversity. Also, assuming the project is supported by the Living Carbon grant, they can provide the additional resources needed to implement the plan.

On-ground support partner endorsement

The planting plan must be developed with guidance from the on-ground support partner, MidCoast Council. MidCoast Council has dedicated staff to support Living Carbon projects. A representative of this team must have been to the property and be familiar with the project area and surrounding landscape. MidCoast Council staff must confirm and agree that the contents of the plan are accurate, that the proposed activities and budget is realistic, based on their knowledge of the project area and experience with similar projects. They will also review the expected outcomes from the project and assess the likelihood of meeting the objectives of the Living Carbon grant, particularly restoring koala habitat.

For further information please contact:

MidCoast Council Koala Safe Spaces team

Koala Project Officer

E koalasafespaces@midcoast.nsw.gov.au **P** (02)7955 7777

W https://haveyoursay.midcoast.nsw.gov.au/koala-safe-spaces-program

Note: If the on-ground partner does not agree with any element of the plan they are not obligated to sign it and you will not be able to apply for a Living Carbon grant. It is strongly recommended that you talk with your on-ground support partner about your proposed project early in the development of the plan, to help ensure that their representative will agree to endorse the final plan.

10 Appendix

Appendix A: Terms and definitions

The following terms are used throughout the planting plan guide and planting plan.

Term	Definition
Accounting for Nature Ltd (AfN)	An independent not-for-profit organisation that administers the Accounting for Nature® Framework ('the Framework'). The Framework provides a system for measuring, verifying, certifying, and publicly reporting Environmental Condition Accounts ('Environmental Accounts').
Accredited AfN method	Refers to any method listed on Accounting for Nature's website Method Catalogue. Accredited Methods provide detailed instructions on how to measure the Condition of a specific Environmental Asset, at a particular Accuracy Level, at a particular Scale, and to support a specific Purpose and/or Claim.
ACCU	Australian Carbon Credit Unit
ACCU Scheme	ACCU Scheme (formerly known as the Emissions Reduction Fund) is a voluntary scheme that provides incentives for organisations and individuals to adopt new practices and technologies to reduce or remove carbon emissions from the atmosphere. It is administered by the Clean Energy Regulator (CER).
Applicant	An entity referred to in these guidelines that applies for a Living Carbon grant
Application	Submission of an application form and other required documents for a Living Carbon grant
Asset Account	An AfN Environmental Asset account (Asset Account) individually reflects the condition of one Environmental Asset as specified by a single Accredited method
Carbon project	Means verified carbon sequestration activities, registered with the ACCU Scheme, which reduce, avoid, or remove greenhouse gas

	emissions from the atmosphere and contribute to the mitigation of climate change. Carbon projects eligible for funding under Living Carbon must be registered under the Environmental Planting Pilot method, however an alternative equivalent method may also be accepted if the EPP method becomes unavailable.
Clean Energy Regulator (CER)	Administer schemes legislated by the Australian Government for measuring, managing, reducing or offsetting Australia's carbon emissions. This includes the ACCU Scheme.
Carbon estimation area (CEA)	The area(s) within a carbon project registered under the ACCU Scheme where the carbon management activity (such as storing carbon in trees in an environmental planting project) takes place. The Total carbon estimation area is the area of all CEAs combined.
Co-benefits	The additional benefits associated with carbon projects. This may include environmental benefits, such as enhanced biodiversity, economic gains from increased productivity, increased community resilience, and Aboriginal cultural co-benefits
Co-funding	Financial support of a successful project provided by the Department and a private sector entity or entities
Corporations Act	Corporations Act 2001 (Commonwealth)
DCCEEW	The NSW Department of Climate Change, Energy, the Environment and Water
Environmental Account	As in an Environmental Account registered with Accounting for Nature. An Environmental Account is a single registered environmental accounting project that reports on the condition of one or more Environmental Assets within a defined boundary (Environmental Account boundary). Environmental Accounts are comprised of one or more individual Environmental Asset Accounts (contained within an Asset Account Boundary). Under the Framework an Environmental Account includes all Environmental Account data and the Information Statement.
Environmental Asset "Asset"	Any biophysical features in nature that can be measured. Environmental Assets can be specific, such as an individual fauna species, or broad such as a group of fauna species or an ecosystem.

	Environmental assets generally fall into one of the following Asset Classes: fauna, vegetation, soil, water, and ecosystems.
Guidelines	Approved framework for the operation and administration of Living Carbon funding. NOTE: The grant guidelines will be amended and updated by NSW Department of Climate Change, Energy, the Environment and Water as needed to be current and accurate.
Ineligible expenditure	Expenditure of the kind defined as ineligible in section 2.8.2 Funding inclusions and exclusions of the Living Carbon grant guidelines
Living Carbon	Means the grant program being developed by NSW Department of Climate Change, Energy, the Environment and Water to support landholders to implement and demonstrate carbon projects with biodiversity benefits
Minister	The Minister with responsibility for Living Carbon funding, which at the time of publishing for these guidelines is the NSW Minister for Climate Change, Minister for Energy, Minister for the Environment, Minister for Heritage
NRM Region	Natural Resource Management region as outlined on NRM Regions Map – NRM Regions Australia. Landholders in NSW can find what NRM region they part of here: Look up your Local Land Services region – Local Land Services.
NSW	The State of New South Wales
On-ground support partner	NSW Department of Climate Change, Energy, the Environment and Water is working with two key partners: NSW Local Land Services (North Coast and Riverina regions), and the NSW Koala Strategy (MidCoast region). These partners will play a key role in assisting applicants in eligible regions with their pre-application requirements and will be involved during project implementation to ensure planting work is done in-line with endorsed planting plans.
Planting site or individual planting site	A defined area where planting is occurring as part of a project. A project may comprise of one or more individual planting sites. Note, there may be conditions for what the minimum area of a planting site may be in some regions. Each planting area should be assigned a unique number, letter or name, to make it easy to refer to.

Project	A project described in an application for funding under Living Carbon. A project may be comprised of one or more individual planting sites.
Smarty Grants	The Department's online grant administration system provided by Our Community Pty Ltd
Threatened Ecological Community (TEC)	An ecological community becomes listed as threatened when it becomes at risk of extinction. An ecological community may be listed as vulnerable, endangered or critically endangered depending on the level of threat and risk of its collapse. A community can be listed in NSW (under the Biodiversity Conservation Act 2016) or nationally (under the Environment Protection and Biodiversity Conservation Act 1999).
Threatened species	A native species listed as threatened with extinction locally or regionally (under a Regional Natural Resources Management Plan), state-wide (under the NSW Biodiversity Conservation Act 2016), nationally (under the Environment Protection and Biodiversity Conservation Act 1999) or internationally (under the International Union for Conservation of nature IUCN). This includes threatened populations of species.

Appendix B: Regional resources and information

This section contains the resources listed below (click on the text to go the information):

- Koala planting lists by planting regions
 - Bulahdelah
 - Gloucester and the slopes
 - Taree
 - MidCoast
- Potential species and TECs in MidCoast Council area that will benefit from diverse mixspecies plantings
- MidCoast and Hunter brief activities schedule for revegetation

Koala planting lists by planting regions

The section below lists tree species that are recognised primary and secondary food trees for koalas in different regions within the MidCoast Council area. The lists do not include shrub species or other tree species that may provide habitat for koalas.

If your project aims to benefit other fauna species, in addition to koalas, then speak to your on-ground partner about what other tree and shrubs species you should plant.

Bulahdelah

Table B1: Koala feed trees of the MidCoast - Bulahdelah

Primary ranking / koala use

Scientific name	Common name
Eucalyptus biturbinata	Grey Gum
Eucalyptus canaliculata	Large-fruited Grey Gum
Eucalyptus carnea	Thick-leaved White Mahogany
Eucalyptus grandis	Flooded Gum
Eucalyptus microcorys	Tallowwood
Eucalyptus moluccana	Grey Box
Eucalyptus patentinervis	Hybrid – robusta x tereticornis
Eucalyptus propinqua	Small-fruited Grey Gum
Eucalyptus punctata	Grey Gum
Eucalyptus resinifera	Red Mahogany
Eucalyptus robusta	Swamp Mahogany
Eucalyptus saligna	Sydney Blue Gum
Eucalyptus siderophloia	Grey Ironbark
Eucalyptus tereticornis	Forest Red Gum

Secondary ranking / koala use

Scientific name	Common name
Allocasuarina littoralis	Black She-oak
Allocasuarina torulosa	Forest Oak
Angophora costata	Smooth-barked Apple
Angophora floribunda	Rough-barked Apple
Angophora subvelutina	Rough-barked Apple
Casuarina cunninghamiana	River Oak
Corymbia gummifera	Red Bloodwood
Corymbia intermedia	Pink Bloodwood
Corymbia maculata	Spotted Gum
Eucalyptus acmenoides	White Mahogany

Eucalyptus agglomerata	Blue-leaved Stringybark
Eucalyptus amplifolia	Cabbage Gum
Eucalyptus eugenioides	Thin-leaved Stringybark
Eucalyptus fibrosa	Broad-leaved Red Ironbark
Eucalyptus globoidea	White Stringybark
Eucalyptus paniculata	Grey Ironbark
Eucalyptus pilularis	Blackbutt
Eucalyptus piperita	Sydney Peppermint
Eucalyptus placita	Grey Ironbark
Eucalyptus rudderi	Rudder's Box
Eucalyptus signata	Scribbly Gum
Eucalyptus umbra	Broad-leaved White Mahogany
Melaleuca quinquenervia	Broad-leaved Paperbark
Syncarpia glomulifera	Turpentine

Gloucester and the slopes

Table B2: Koala feed trees of the MidCoast - Gloucester and the slopes

Primary ranking / koala use

Species	Common Name
Eucalyptus biturbinata	Grey gum
Eucalyptus canaliculata	Large - fruited grey gum
Eucalyptus carnea	Thick - leaved white mahogany
Eucalyptus glaucina	Slaty red gum
Eucalyptus grandis	Flooded gum
Eucalyptus microcorys	Tallowwood
Eucalyptus moluccana	Grey box
Eucalyptus propinqua	Small - fruited Grey Gum
Eucalyptus punctata	Grey gum
Eucalyptus resinifera	Red mahogany
Eucalyptus saligna	Sydney blue gum
Eucalyptus seeana	Narrow leaved red gum
Eucalyptus siderophloia	Grey ironbark
Eucalyptus tereticornis	Forest red gum

Secondary ranking / koala use

Species	Common Name
Allocasuarina littoralis	Black she - oak
Allocasuarina torulosa	Forest oak
Angophora floribunda	Rough - barked apple
Angophora subvelutina	Rough - barked apple
Corymbia intermedia	Pink Bloodwood
Corymbia maculata	Spotted Gum
Eucalyptus acmenoides	White mahogany
Eucalyptus agglomerata	Blue - leaved Stringybark
Eucalyptus amplifolia	Cabbage Gum
Eucalyptus eugenioides	Thin - leaved stringybark
Eucalyptus laevopinea	Silver - top stringybark
Eucalyptus largeana	Craven grey box
Eucalyptus nobilis	Forest ribbon gum
Eucalyptus obliqua	Messmate Stringybark (high altitude)
Eucalyptus oreades	Blue Mountains ash
Eucalyptus paniculata	Grey ironbark
Eucalyptus placita	Grey ironbark
Eucalyptus rudderi	Rudder's Box
Eucalyptus umbra	Broad - leaved White Mahogany
Eucalyptus viminalis	Ribbon Gum (high altitude)

Taree

Table B3: Koala feed trees of the MidCoast - Taree

Primary ranking / koala use

Species	Common Name
Eucalyptus biturbinata	Grey Gum
Eucalyptus canaliculata	Large-fruited Grey Gum
Eucalyptus carnea	Thick-leaved White Mahogany
Eucalyptus glaucina	Slaty Red Gum
Eucalyptus grandis	Flooded Gum
Eucalyptus microcorys	Tallowwood
Eucalyptus moluccana	Grey Box
Eucalyptus patentinervis	Hybrid – robusta x tereticornis

Eucalyptus propinqua	Small-fruited Grey Gum
Eucalyptus punctata	Grey Gum
Eucalyptus resinifera	Red Mahogany
Eucalyptus robusta	Swamp Mahogany
Eucalyptus saligna	Sydney Blue Gum
Eucalyptus seeana	Narrow-leaved Red Gum
Eucalyptus siderophloia	Grey Ironbark
Eucalyptus tereticornis	Forest Red Gum

Secondary ranking / koala use

Species	Common Name
Allocasuarina littoralis	Black She-oak
Allocasuarina torulosa	Forest Oak
Angophora costata	Smooth-barked Apple
Angophora floribunda	Rough-barked Apple
Angophora subvelutina	Rough-barked Apple
Casuarina cunninghamiana	River Oak
Corymbia gummifera	Red Bloodwood
Corymbia intermedia	Pink Bloodwood
Corymbia maculata	Spotted Gum
Eucalyptus acmenoides	White Mahogany
Eucalyptus agglomerata	Blue-leaved Stringybark
Eucalyptus amplifolia	Cabbage Gum
Eucalyptus eugenioides	Thin-leaved Stringybark
Eucalyptus globoidea	White Stringybark
Eucalyptus obliqua	Messmate Stringybark (high altitude)
Eucalyptus oreades	Blue Mountains Ash
Eucalyptus paniculata	Grey Ironbark
Eucalyptus pilularis	Blackbutt
Eucalyptus piperita	Sydney Peppermint
Eucalyptus placita	Grey Ironbark
Eucalyptus rudderi	Rudder's Box
Eucalyptus signata	Scribbly Gum
Eucalyptus viminalis	Ribbon Gum (high altitude)
Melaleuca quinquenervia	Broad-leaved Paperbark

Syncarpia glomulifera

Turpentine

MidCoast

Table B4: Koala feed trees of the MidCoast

Primary ranking / koala use

Species	Common Name
Eucalyptus biturbinata	Grey Gum
Eucalyptus canaliculata	Large-fruited Grey Gum
Eucalyptus carnea	Thick-leaved White Mahogany
Eucalyptus glaucina	Slaty Red Gum
Eucalyptus grandis	Flooded Gum
Eucalyptus microcorys	Tallowwood
Eucalyptus moluccana	Grey Box
Eucalyptus patentinervis	Hybrid – robusta x tereticornis
Eucalyptus propinqua	Small-fruited Grey Gum
Eucalyptus punctata	Grey Gum
Eucalyptus resinifera	Red Mahogany
Eucalyptus robusta	Swamp Mahogany
Eucalyptus saligna	Sydney Blue Gum
Eucalyptus seeana	Narrow-leaved Red Gum
Eucalyptus siderophloia	Grey Ironbark
Eucalyptus tereticornis	Forest Red Gum

Secondary ranking / koala use

Species	Common Name
Allocasuarina littoralis	Black She-oak
Allocasuarina torulosa	Forest Oak
Angophora costata	Smooth-barked Apple
Angophora floribunda	Rough-barked Apple
Angophora subvelutina	Rough-barked Apple
Casuarina cunninghamiana	River Oak
Corymbia gummifera	Red Bloodwood
Corymbia intermedia	Pink Bloodwood
Corymbia maculata	Spotted Gum
Eucalyptus acmenoides	White Mahogany
Eucalyptus agglomerata	Blue-leaved Stringybark
Eucalyptus amplifolia	Cabbage Gum

Eucalyptus eugenioides	Thin-leaved Stringybark
Eucalyptus fibrosa	Broad-leaved Red Ironbark
Eucalyptus globoidea	White Stringybark
Eucalyptus laevopinea	Silver-top Stringybark
Eucalyptus largeana	Craven Grey Box
Eucalyptus nobilis	Forest Ribbon Gum
Eucalyptus obliqua	Messmate Stringybark (high altitude)
Eucalyptus oreades	Blue Mountains Ash
Eucalyptus paniculata	Grey Ironbark
Eucalyptus pilularis	Blackbutt
Eucalyptus piperita	Sydney Peppermint
Eucalyptus placita	Grey Ironbark
Eucalyptus rudderi	Rudder's Box
Eucalyptus signata	Scribbly Gum
Eucalyptus umbra	Broad-leaved White Mahogany
Eucalyptus viminalis	Ribbon Gum (high altitude)
Melaleuca quinquenervia	Broad-leaved Paperbark
Syncarpia glomulifera	Turpentine

Potential species and TECs in MidCoast Council area that will benefit from diverse mix-species plantings

Table B5: Potential species and threatened ecological communities that MidCoast projects could target and aim to deliver biodiversity co-benefits for. This information is provided by MidCoast Council.

Type (flora, fauna, TEC)	Common name	Scientific species name (N/A for TECs)	Status	Justification
Fauna	Koala	Phascolarctos cinereus	Endangered	Koalas are found across most of the MidCoast region, though population density varies. High density populations occur in areas around Bootawa, Krambach and Bunyah / Wang Wauk. Koalas depend on a relatively small number of preferred tree species, including red gums, grey gums, tallowwood and swamp mahogany. Including these species as appropriate in a mixed planting assists recovering koala populations. Better quality habitat includes natural water sources and sheltered, cooler areas (used as refuges).
Fauna	Glossy Black Cockatoo	Calyptorhynchus lathami	Vulnerable	This rare species requires large tree hollows for nesting and feeds only on the seeds of Allocasuarina trees. Widespread but infrequently seen, this species would benefit from the inclusion of forest oak and black oak in plantings.
Flora	Craven Grey Box	Eucalyptus largeana	Endangered	This tree has a very restricted distribution on the MidCoast. It occurs in wet forest, on sloping sites, in sub-coastal ranges, in the Gloucester to Craven district. Increasing the representation of this species in areas of its natural distribution will improve its conservation status. It is a preferred koala food tree.
Flora	Slaty Red Gum	Eucalyptus glaucina	Vulnerable	Slaty Red Gum occurs in grassy woodland from Taree to Gloucester and south to the Hunter Valley. It is very localised. This species is also a preferred koala food tree species.
Fauna	Brush-tailed Phascogale	Phascogale tapoatafa	Vulnerable	The Brush-tailed Phascogale occurs in dry forests and woodlands and occasionally heathlands with emergent trees in coastal areas and low coastal

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				ranges. It can occur in very open woodland, provided that hollow-bearing trees are well-represented. It uses hollows for denning. This species eats invertebrates and small vertebrate animals.
Fauna	Swift Parrot	Lathamus discolor	Endangered	The Swift Parrot is a rare visitor to our region. It is mobile and accesses stands of winter-flowering plants, particularly forest red gum, ironbarks and some banksias. Establishing new plantings inclusive of winter-flowering trees will benefit this species.
TEC	River-flat Eucalypt Forest on Coastal Floodplain	-	Endangered	River-flat Eucalypt Forest is the name given to a native vegetation type that occupies silt, clay-loam and sandy loam soils on alluvial flats, drainage lines and river terraces associated with rivers and their valleys across the MidCoast. It is dominated by species such as cabbage gum, rough-barked apple, forest red gum and river oak. The community has been extensively cleared in the past.
Fauna	Grey- crowned Babbler	Pomatostomus temporalis	Vulnerable	The Grey-crowned Babbler is a social, active woodland bird that occurs around Gloucester, Monkerai and Krambach. It nests in small trees in grassy open woodland and forages on the ground or on the trunks and branches of trees. Planting increased woodland patches will improve the ability of the landscape to support populations of this species.

MidCoast and Hunter brief activities schedule for revegetation

ACTIVITY	MONTH																
	S	0	N	D	J	F	М	Α	М	J	J	А	S	0	N	D	J
Planning	←																
Order plants																	
Ground preparation (deep ripping, weed control and pest animal control)																	
Fencing																	
Final ground preparation just prior to planting (slashing, weed control, finer cultivation)																	
Planting (provided there is a good soil moisture profile)																	
Ongoing maintenance (watering, weed control, pest animal control, monitoring)												-					-

Appendix C: Resources

Accounting for Nature

Website: https://www.accountingfornature.org/

Glossary of terms: https://www.accountingfornature.org/key-documents

Method catalogue (regulations can be found under each method)

https://www.accountingfornature.org/method-catalogue

Method regulations:

 <u>F-01 Accounting for Natural Mammal Condition Method</u>: https://www.accountingfornature.org/s/AFN-METHOD-F-01-V2-Accredited-26-Auguest-2021.pdf

 F-02: A native woodland bird assessment methodology for diverse regenerating farmlands

Available on request. A video about the method is available here:

 $\frac{https://www.youtube.com/watch?index=6\&list=PLb_hirBxCu2H5KV6ku7RSRDQ26nXukP}{6J\&v=n5Yjl9JYRCU}$

• F-04 Koala Population and Habitat Condition Method:

 $\underline{\text{https://www.accountingfornature.org/s/AFN-METHOD-F-04-V11Accredited-14-December-2021.pdf}$

Video available: https://youtu.be/CywQWx-3ahw

 NV-03: GreenCollar Native Vegetation Condition Monitoring Method: https://www.accountingfornature.org/s/AfN-METHOD-NV-03v22-6tnj.pdf

Video available: https://youtu.be/qXs-bAft140

- NV-06: AfN and Landcare Native
 Vegetation: https://www.accountingfornature.org/s/AfN-METHOD-NV-06-v21-AfN-Landcare-Native-Veg-Method-Accredited-08-Feb-2021.pdf
- NV-07 Bush Heritage Australia Native Veg Assessment :
 https://www.accountingfornature.org/s/AfN-METHOD-NV-07-Accredited-26-June-2021-v31July-2022.pdf
- NV-13 NSW BCT Native Veg Monitoring : https://www.accountingfornature.org/s/AfN-METHOD-NV-13-v10Accredited-August-2023.pdf

Mapping and biodiversity and vegetation maps

Atlas of Living Australia, https://www.ala.org.au/

NSW BioNet resources, https://www.environment.nsw.gov.au/topics/animals-and-

plants/biodiversity/nsw-bionet/resources

NSW State Vegetation Type Map of Plant Community Types on the SEED Portal,

https://www.seed.nsw.gov.au/news-and-resources/news/nsw-state-vegetation-type-map-of-

plant-community-types-now-available

SEED portal, https://www.seed.nsw.gov.au/

SIX Maps (nsw.gov.au), https://maps.six.nsw.gov.au/

Google Earth, https://www.google.com/earth/about/

Regional resources and other guides

BCT's Restoring Native Vegetation guidelines,

https://www.bct.nsw.gov.au/sites/default/files/2019-

08/Restoring%20Native%20Vegetation%20Guidelines.pdf

Biodiversity Framework 2021-2030 for the MidCoast,

https://haveyoursay.midcoast.nsw.gov.au/biodiversity-framework

Hunter LLS website, https://www.lls.nsw.gov.au/regions/hunter

Hunter Region Natural Resource Management Plan 2023 - 2028,

https://www.lls.nsw.gov.au/regions/hunter/projects-and-programs/NRM-

biodiversity/hunter-region-natural-resource-management-plan

Koala habitat restoration guidelines, https://www.environment.nsw.gov.au/-

/media/OEH/Corporate-Site/Documents/Animals-and-plants/Threatened-species/koala-habitat-restoration-guidelines-220154.pdf

Koala safe spaces program, https://haveyoursay.midcoast.nsw.gov.au/koala-safe-spaces-program

Recognising Habitat Features,

https://www.lls.nsw.gov.au/__data/assets/pdf_file/0010/1434295/LLS_RecognisingHabitatFeatures-Hunter-LLS-Web-Version-Nov22.pdf

Rural-Living-Handbook-2020.pdf (nsw.gov.au),

https://www.lls.nsw.gov.au/__data/assets/pdf_file/0007/1147804/Rural-Living-Handbook-2020.pdf

Planting Your Patch,

https://www.lls.nsw.gov.au/__data/assets/pdf_file/0007/1259647/PlantingYourPatch-Hunter-LLS-Web-Version-Nov22.pdf

Wildlife We Love, https://haveyoursay.midcoast.nsw.gov.au/wildlife-we-love

Net Zero Plan

