

Thriving Revegetation Action Plan template

This template will become your plan for a successful revegetation project. Revegetation actions and methods are fully described in Five Steps to Thriving Revegetation (5STR).
Complete a new action plan for each area of revegetation.

STEP 1 Create your Thriving Revegetation Action Plan



Property name	
Address	
Landowner	
Author	
Date	
Vision (reason for revegetation, desired outcomes, see page 6 5STR)	
Revegetation location on property	
Budget (\$)	

STEP 2

Design your revegetation



Describe your revegetation site *(tick the relevant box)*

Describe your site:

- ☐ **Watercourse or floodplain**
- ☐ **Gully or slope**
- ☐ **Low-lying and flat**
- ☐ **Hillside facing north / south / east / west (circle direction)**
- ☐ **Hilltop**
- ☐ **Rocky**
- ☐ **Other** _____

Describe your site:

- ☐ **Creating new / expanding existing native vegetation patch**
- ☐ **Creating a corridor between patches of existing native vegetation**
- ☐ **Planting to support a particular wildlife species**
- ☐ **Scattered paddock trees**
- ☐ **Shelter plantings for wind or shade**
- ☐ **Watercourse / wetland / estuary restoration**
- ☐ **Dam enhancement planting**
- ☐ **Other types of revegetation:** _____

Make a map of your revegetation site

Mark up the planting locations on a map. You can hand draw a map, mark an aerial map of your property snipped from Google Maps, or use an online mapping tool (such as NatureMaps), which can calculate the planting area for you.



Choose your method of planting - pg 11 & 12 5STR



How will you put the plants in the ground?

☐

Tubestock seedling planting

For tubestock seedling orders, see our list of local native plant nurseries.

☐

Machine direct seed sowing

For machine direct seed sowing, see our website for a list of specialist contractors and seek advice regarding amount of seed quantity, availability, cost and time frame.

☐

Hand direct seed sowing

For hand direct seed sowing, see our website for a list of native seed suppliers.

Work out your plant numbers - pg 13 5STR

Identify what plant species you would like, their planted spacing and total numbers based on the size of the revegetation planting area.

Work out the area of your revegetation plot

For square or rectangular patches: Length (m) x Width (m) = m²

For round patches: $\pi \times \text{Radius} \times \text{Radius} = \text{m}^2$

(where; radius = half of diameter, and $\pi = 3.14159$)

Size of revegetation area: _____ m² (note: 10,000 m²/hectare or 4,046 m²/acre)

Create a list of appropriate species:

Identify which of the 'historic' pre-European vegetation communities occurred or occur at your site and use the table of plant species at the end of the relevant pre-European Vegetation Community Profiles to develop your plant list. Each of the 55 pre-European Vegetation Communities in the Hills and Fleurieu region have a unique ID code.

Once you have your plant list you can select which species on the list you wish to use.

Your PE_VEG_ID1 code(s): _____

Your vegetation community:

Calculate plant numbers:

Select the appropriate revegetation type for your revegetation project (below), use the formulas provided to calculate plant numbers, then write those numbers in table 2 (on page 17).

Creating and expanding native vegetation

Example formulas for calculating the number of tubestock trees, shrubs, grasses and herbs required for different types of revegetation. The example formulas are calculated for 'tube stock only' planting designs that group midstorey and understorey plantings are provided below. If planning to establish understorey (grasses and herbs) or midstorey (shrubs) plants at revegetation sites greater than 1,000 square meters, consider comparing the cost of direct seeding with tubestock planting before ordering plants. It can be more cost effective to utilise a combination of direct seeding and tubestock planting at large sites. Planting in rows, with sufficient width for ATV access, should also be considered at large revegetation sites, because this makes maintenance weed control and infill planting more efficient and cheaper.

Eucalyptus open forest:

Trees (planting area (m²)/10,000) x 200 = # of trees to order
(_____ m²/10,000) x 200 = _____ **trees to order**

Shrubs planting area (m²) x 0.5 = Shrub planting area (m²)
_____ m² x 0.5 = _____ shrub planting area (m²)

Shrub planting area (above) / 100 m² = # of shrub groups
_____(m²) / 100 m² = _____ shrubs groups

Number of shrub groups x 22 = # of shrubs to order
_____ x 22 = _____ **shrubs to order**

Grasses and herbs planting area (m²) x 0.5 = grass and herb planting area (m²)
(_____ m² x 0.5 = _____ herb planting area (m²)

Grass and herb planting area (above) / 50 m² = # of grass and herb groups
_____ / 50 m² = _____ grass and herb groups

Number of grass and herb groups x 50 = # of grasses and herbs to order
_____ x 50 = _____ **grasses and herbs to order**

Grassy woodland:

Large trees such as river red gums and manna gums, planted 30 m apart:
(planting area (m²) / 10,000) x 30 = # of trees to order
(_____ m² / 10,000) x 30 = _____ **large trees to order**

Medium trees such as sheoaks and wattles, planted 10-12 m apart:
(planting area (m²) / 10,000) x 70 = # of trees to order
(_____ m² / 10,000) x 70 = _____ **medium trees to order**

Shrubs planting area (m²) x 0.1 = Shrub planting area
_____ m² x 0.1 = _____ shrub planting area (m²)

Shrub planting area (above) / 100 m² = # of shrub groups
_____ / 100 m² = _____ shrub groups

Number of shrub groups x 80 = # of shrubs to order
_____ x 80 = _____ **shrubs to order**



Grassy woodland continued:

Grasses and herbs planting area (m²) x 0.5 = grass and herb planting area (m²)
_____ m² x 0.5 = _____ grass and herb planting area (m²)

Grass and herb planting area (above) / 80 m² = # of grass and herb groups
_____ (m²) / 80 m² = _____ grass and herb groups

Number of grass and herb groups x 80 = # of grasses and herbs to order
_____ x 80 = _____ **grasses and herbs to order**

Shelter plantings:

Calculations for a shelter planting based on the example in Figure 3 on page 14 of the 5STR guide, with three rows and 12 m wide:

Tall trees length of planting area (m) / 4 = # of tall trees to order (for two rows)
_____ m / 4 = _____ **tall trees to order** (for two rows at 8 m spacing)

Smaller trees length of planting area (m) / 4 = # of smaller trees to order (for one row)
_____ m / 4 = _____ **smaller trees to order** (for one row at 4 m spacing)

Shrubs (length of planting area (m) / 4) x 3 = # of shrubs to order (for two rows
planted in groups of three between each tall tree at 2 - 3 m spacing)
(_____ m / 4) x 3 = _____ **shrubs to order**
(for two rows planted in groups of three between each tall tree)

Watercourse planting:

Large trees such as river red gums, blackwoods and manna gums, planted 30 m apart:
(planting area (m²) / 10,000) x 30 = # of trees to order
(_____ m² / 10,000) x 30 = _____ **large trees to order**

Medium trees such as Banksia and wattles, planted 10-12 m apart:
(planting area (m²) / 10,000) x 70 = # of trees to order
(_____ m² / 10,000) x 70 = _____ **medium trees to order**

Shrubs planting area (m²) x 0.2 = Shrub planting area (20% of total area)
_____ m² x 0.2 = _____ shrub planting area (m²)

Shrub planting area (above) / 4 m² = # of shrub groups (for groups of 3-4)
_____ / 4 m² = _____ shrub groups

Number of shrub groups x 3.5 = # of shrubs to order
_____ x 3.5 = _____ **shrubs to order**

Watercourse planting continued:

Sedge (patches)

For sedge patches of 4 m² with sedges planted 0.5 m apart:

Number of sedge patches x 4 m² = Total sedge planting area

_____ x 4 m² = _____ sedge planting area

Total sedge planting area (m²) x 2 = # of sedges to order

_____ m² x 2 = _____ **sedges to order**

Dam planting

For sedge planting, first consider which of the three regions around the dam are to be planted (the inlet, spillway and/or dam wall regions), then estimate the total combined area of those regions (see Figure 6: Plan for planting a dam in the 5STR guide). Remember - only sedges and grasses should be planted into the dam wall.

Sedges

Total planting area (m²) x 2 = # of sedges & grasses to order

and grasses _____ m² x 2 = _____ **sedges and grasses to order**

For shelter planting along the side of the dam to reduce wind and provide shade, see the Shelter Plantings section.

Scattered paddock trees

For shelter planting along the side of the dam to reduce wind and provide shade, see the Shelter Plantings section.

Select the desired tree density based on requirements for pasture production and stock shelter and factor in the number of remnant trees present.

Large trees such as Eucalypts and sheoaks high density, planted 15 m apart:

(planting area (m²) / 10,000) x 50 = # of trees to order

(_____ m² / 10,000) x 50 = _____ **trees to order**

or low density, planted 30 m apart:

(planting area (m²) / 10,000) x 10 = # of trees to order

(_____ m² / 10,000) x 10 = _____ **trees to order**



Order your plants - pg 18 5STR

How to fill in Table 2 on page 9:

1. Using the appropriate formulas for your planting project from pages 5, 6 and 7, write the total number of calculated trees and shrubs and understorey plants in the first column.
2. Identify the species you would like to plant from your appropriate species plant list and write their common and/or scientific names beside their form type in Table 2.
3. Write the desired number of each species in the last column.

An example of a shelterbelt planting, 200 m in length:

Location: hill slope with northerly aspect on well-drained sandy loam soil.

Desired biodiversity benefits: to provide a range of nectar, pollen and seed sources to support native insects and birds

Current land use: a sheep paddock with exotic pasture grass understorey.

Tall trees length of planting area (m) / 4 = **# of tall trees to order** (for two external rows at 8m spacing)
200 m / 4 = 50 tall trees to order

Smaller trees length of planting area (m) / 4 = **# of smaller trees to order** (for one row)
200 m / 4 = 50 smaller trees to order
Total number of trees to order: 50 + 50 = 100

Shrubs (length of planting area (m) / 4) x 3 = **# of shrubs to order** (for two rows planted in groups of three between each tall tree)
(200 m / 4) x 3 = **150 shrubs to order**



Plant species selection:

Example seedling order for a 200m shelter belt that contains 100 trees and 150 shrubs, at a site where the pre-European vegetation community is identified as South Australian Blue Gum (*Eucalyptus leucoxylon* ssp. *leucoxylon*) + Pink Gum (*Eucalyptus fasciculosa*) Woodland (code ML2001PE).

Total to be ordered	Scientific name #	Common name #	Order *
Trees			
100	<i>Eucalyptus leucoxylon</i> ssp. <i>leucoxylon</i>	South Australian blue gum	25
	<i>Eucalyptus fasciculosa</i>	South Australian pink gum	25
	<i>Allocasuarina verticillata</i>	Drooping sheoak	50
Shrubs			
150	<i>Dodonaea viscosa</i>	Sticky hop-bush	30
	<i>Bursaria spinosa</i>	Sweet bursaria	30
	<i>Xanthorrhoea semiplana</i> ssp. <i>semiplana</i>	Yacca	30
	<i>Olearia ramulosa</i>	Twiggy daisy-bush	30
	<i>Spyridium parvifolium</i>	Dusty miller	30

Table 2: Plant species and numbers to be ordered from a local native plant nursery

Total to be ordered	Scientific name #	Common name #	Order *
Trees			
Shrubs			
Understorey			

STEP 3

Prepare for planting



Protect your plants from herbivores - pg 20 5STR

- ☐ **Install or fix fencing and/or access gates**
- ☐ **Organise alternative water points for stock, such as troughs and tanks**
- ☐ **Tree guards:** Tree guard types: _____
Tree guard and stake numbers: _____
Supplier: _____
Equipment needed for guard installation: hammer, etc.

Decide when you will plant

For most plantings, the best time to do your revegetation is from May to August. The timing of your plantings depends on when and how much rainfall your location receives.

Get your site ready

☐ **Weed control**

What weeds are present? Mark on your map the areas where weed outbreaks exist and note their density - are there a few scattered individuals or dense thickets?

Declared weeds and their densities:

--

Other weeds and their densities:

--

☐ **Control of pasture grasses prior to planting:**

Mark on your map (from step two) the areas where pasture grass control is needed and the method you will use.

☐ Crash-grazing

☐ Slashing

☐ Spraying

☐ **Control of herbivores prior to planting:**

Herbivores are present and need controlling: What signs and/or plant damage can you detect and attribute to the following herbivores?

Mark on your map (from step two) the areas where the most damage is evident and note below.

☐ Livestock _____

☐ Rabbits _____

☐ Goats _____

☐ Deer _____

☐ Overabundant kangaroos _____

☐ Other: _____



STEP 4

Plant your site



When you have collected your tubestock seedlings, ensure that they are stored in full sun and watered daily until planting day.

Set a date for planting your seedlings _____

☐ **Invite friends and family to assist with planting**

☐ **What tools will be needed for each person assisting with planting?**

☐ Shovel / trowel / mattock / garden fork

☐ Watering can / hose / water container

☐ Gloves

☐ Auger

☐ **Provide clear planting instructions** to helpers about planting technique and locations. A map may be required for large planting sites to ensure the right plants are planted in the right place.

☐ **Water your seedlings after planting**, if possible. This will greatly assist seedling survival.

Extra comments or notes:

STEP 5

Maintain and monitor your plantings



What maintenance and monitoring are required? - pg 28 5STR

- ☐ **Watering over the first summer?**
If yes, how often and how? _____
- ☐ **Weed control** (Note: ongoing weed control will likely be required for all projects)
- ☐ **Fence inspections and maintenance** (due to fallen tree limbs or damage from herbivores creating access points)
- ☐ **Maintenance or replacement of tree guards** (ensure guards have not collapsed and smothered seedlings, or stakes have not fallen over)
- ☐ **Removal of tree guards** (before plants outgrow them)
- ☐ **Control of herbivores**
 - ☐ Rabbits
 - ☐ Deer
 - ☐ Overabundant kangaroos
- ☐ **Infill planting** (Note: You will be able to identify if infill planting is needed in the year(s) following planting)

What monitoring will you do?

Calculate plant survival – number or % of plants that have survived after year 1, 2 etc.?

(To determine %, take the number that have survived, and divide by number that was planted; multiply this number by 100; this will be your percentage of plants that have survived).

- ☐ **Photo points** (record the location of permanent photo points on your map)
- ☐ **Weed surveys** (changes in extent, species and density)
- ☐ **Herbivore damage** (look for evidence of animals: diggings, scats, chewed plants)



Suggested schedule

Suggested timings for different activities are indicated by coloured blocks.

Year 1 Planning and preparation:

Task	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Planning revegetation project												
Place plant order*												
Order tree guards												
Weed control												
Herbivore control if applicable (e.g. rabbits, deer, overabundant kangaroos)												
Alternative water points for stock e.g. troughs (by this date)												
Construction of fencing and/or access gates (by this date)												

*Check with local nursery as they may require longer lead in times.

Year 2 Planting:

Task	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Herbivore control if applicable (e.g. rabbits, deer, overabundant kangaroos).												
Pasture control (e.g. slashing or final graze by livestock)												
Halo spraying each individual planting spot (at least 2-3 weeks prior to planting)												
Planting & installation of tree guards												
Watering												

Year 3+ Monitoring and maintenance:

Task	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Weed control												
Herbivore control if applicable (e.g. rabbits, deer, overabundant kangaroos).												
Fence inspections (anytime)												
Monitoring of planting survival												
Maintenance or removal of tree guards												
Infill planting to replace plants that didn't survive												



