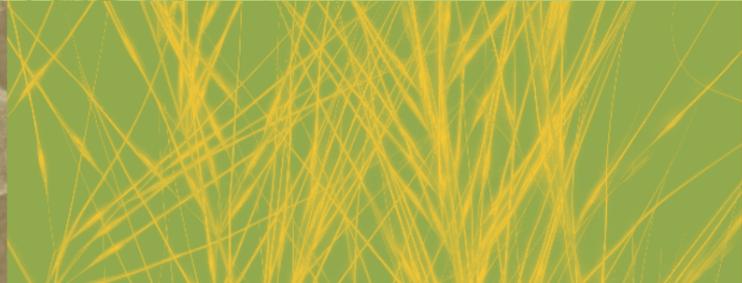
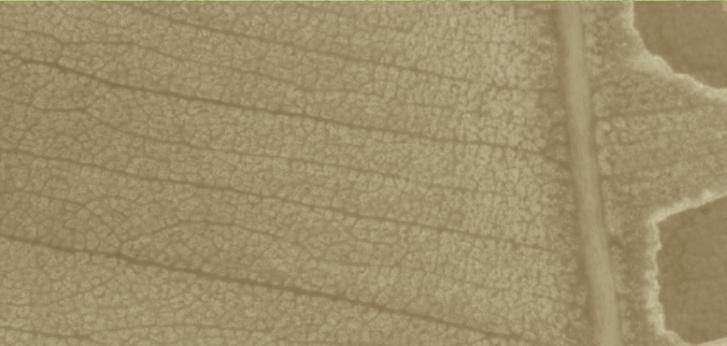


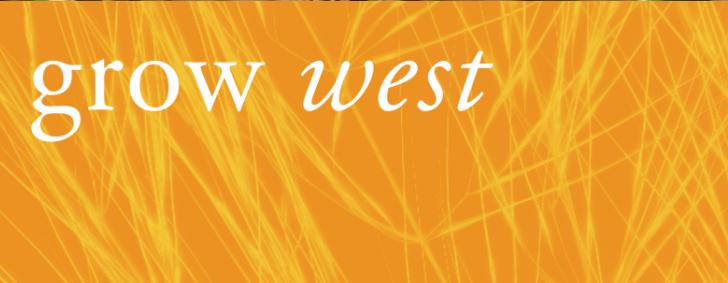


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In the Moorabool Shire area

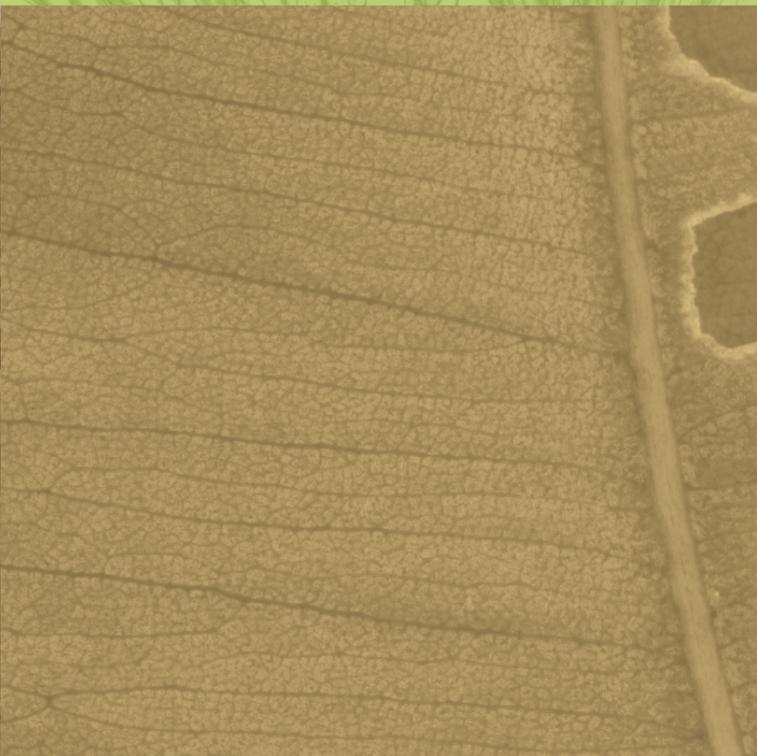
Revegetation: what to plant, where and how



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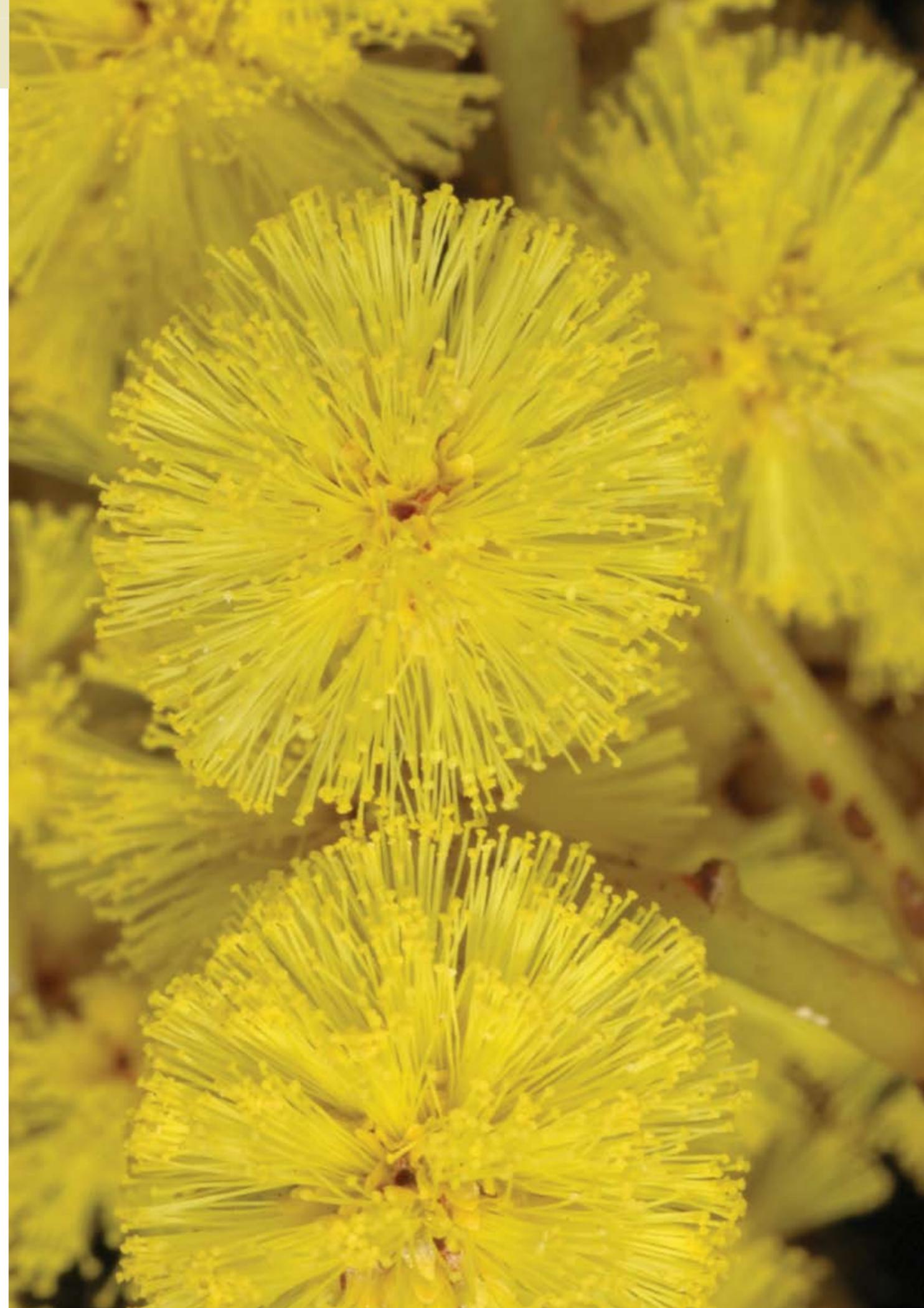
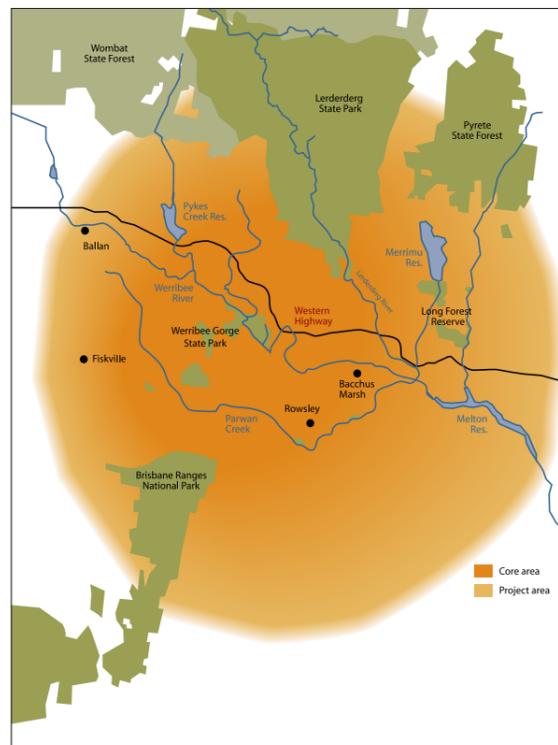
“Grow West is a large-scale, long term project which aims to improve the sustainability of land management, both agriculturally and environmentally, within the project area. The project targets approximately 50,000 hectares between Bacchus Marsh and Ballan, straddling the Western Highway and only 50km west of Melbourne. This area takes in a diversity of landscapes, from fertile alluvial river flats, rolling pastures, slight slopes and steep gorge country.

Grow West is a ground-up project borne from the desire of the local community and stakeholders to improve the degraded landscape of the area. The project works with landholders to address a range of current land management issues such as the loss of natural and agricultural assets, weed infestation, loss of biodiversity, erosion, poor water quality, soil degradation and salinity. To date Grow West has assisted landholders to undertake revegetation and farm forestry works, run a range of educational field days and workshops, produced a Land Suitability Analysis of the area, completed a benchmarking study to assess the impacts of revegetation upon bird populations, and is undertaking saltbush grazing trials.

This book provides landholders and others working in the area with a valuable resource for use in planning and undertaking revegetation works.”



John Cutler, Chair, Grow West Implementation Committee



Revegetation: what to plant, where and how

In the Moorabool Shire area

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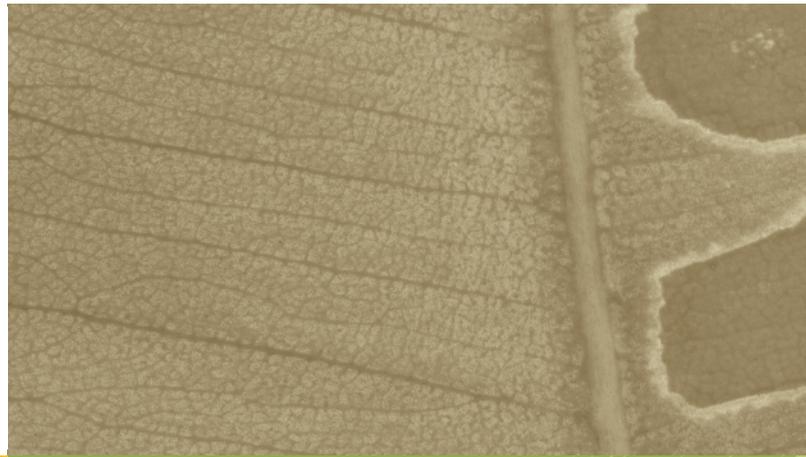
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Further copies of this publication can be obtained by contacting the Grow West Project Coordinator on 03 8781 7900.



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The purpose of this guide

Over the last 30 years, efforts to revegetate sections of the Australian landscape have gone from strength to strength. Awareness and understanding has spread of the vital role played by vegetation in the ongoing health of rural landscapes. With this, techniques for all aspects of revegetation have steadily improved, alongside the development of a vast array of books, fact sheets and websites to assist the landholder wishing to undertake revegetation on any scale.

This publication aims to provide a missing local link in this range of products: a resource to assist landholders in the Shire of Moorabool to select the best species to use in revegetating their land.

Brief information is provided on project design, planning, establishment and maintenance, however these issues have been thoroughly covered in many more detailed works, therefore all that is given here is a general overview of the major issues to consider. Excellent, detailed information on these aspects of revegetation is available in a recent Greening Australia publication, *'Revegetation Techniques: A guide for establishing native vegetation in Victoria'* (Whyte, S, Ed. 2003). Used in conjunction with this booklet, landholders in the Shire of Moorabool are well provided with all the necessary information for undertaking both large and small scale revegetation works.





**Revegetation:
Design, Planning
and Preparation**





What is revegetation?

Revegetation involves the re-establishment of vegetation, either by planting seedlings, sowing seed (direct seeding), or by using techniques to assist in the natural regeneration of the landscape. Revegetation may involve the use of exotic plants (non-Australian natives), Australian native plants, or indigenous plants (Australian natives which are local to the area being revegetated). This booklet focuses on revegetation using indigenous native plants.



Why revegetation?

Vegetation is vital to the environmental health of farmland for a number of reasons:

- A good cover of deep rooted, perennial vegetation reduces the risk of erosion and sedimentation of waterways by holding the soil together and reducing runoff speeds during rain events. This helps to retain soil on the farm, and improves water quality in local waterways
- Deep rooted, perennial plants hold rising groundwater tables at bay, reducing the risk of salinity
- A good cover of shrubs and trees, strategically placed, will greatly reduce windspeeds, with measurable benefits to stock and crop values
- A diversity of indigenous plants provides habitat for local birds and animals.

Trees may also be planted on the farm as a source of fodder, firewood and other saleable products, to assist in weed control, and for aesthetic purposes.

The density and type of vegetation required to achieve each of these objectives will depend on the soil, climate and topography of the particular landscape. For example, an area with steep slopes and easily eroded soils will require different vegetation to maintain that landscape compared with a gently sloping landscape with highly stable soils.



Acacia implexa

Acacia mearnsii

Acacia mucronata var longifolia*

Acacia pycnantha

Acacia verniciflua (Bacchus Marsh variant)

Acacia verniciflua (Bacchus Marsh variant)



Why indigenous?

Indigenous plants are those native plants which originally grew in a particular area, and as such are well evolved to the particular soils, rainfall and climate of that area.

Consequently, indigenous plants will generally grow well with little assistance, will be most likely to withstand the prevailing conditions of your site, and over time are likely to begin regenerating themselves. By choosing from the plant list in this guide, you will generally be able to select a range of indigenous species which suit your purposes.

Recent climate change modelling suggests a likely reduction in annual rainfall in this area. Consideration should therefore be given to the selection of species which will tolerate a slightly drier climate than that which currently exists on your site.

Indigenous plants are essential if the aim of the revegetation is to re-establish the original flora and fauna of an area. Indigenous plants have evolved in conjunction with the indigenous birds and animals of the area, and often depend on one another for aspects of their survival and reproduction. One local example of this involves the leaves of the Blackwood (*Acacia melanoxylon*) which produce a nectar which attracts ants, which in turn protect the tree by preying on wasps and flies which, left unchecked, can cause the production of damaging galls. The seeds of the Blackwood have high-protein funicles¹, making them an attractive food for local birds. The seed then passes unharmed through the digestive tract of the bird for dispersal away from the parent plant. Clearly then, the local ecosystem needs to be cared for as a whole. A great way to start is by planting a range of indigenous flora on your property.



What about provenance?

The most suitable indigenous plants are those grown from seed collected fairly locally, or from the local provenance. A good deal of genetic variation exists within any one species, and by collecting seed locally we ensure that the plants produced are truly suited to the local conditions.

We encourage landholders to use seed collected from sites in the general area that are similar (in terms of topography, soil type, climate) to the intended planting site. The seed collection for any one species should then be made from several individual plants, and ideally from more than one specific location². This ensures that the resultant batch of plants will contain a good measure of the genetic diversity within the local area. For further information on collecting a genetically diverse seed supply, refer to the Floranotes series (www.florabank.org.au). Compromises regarding the collection range must sometimes be made where remnant vegetation is scarce, and it is always important to avoid over-harvesting from any one remnant: the on-going health of a vegetation remnant depends on some seed being left each year for natural regeneration.

If you wish to collect your own seed from public land make sure you speak with officers from Department of Sustainability and Environment to obtain the necessary collection permit (see Resources and Contacts Guide).

When should I use plants that are not indigenous?

There will be times when the use of non-indigenous vegetation is necessary to overcome severe forms of environmental degradation. For example, specially adapted plants may need to be used to re-establish vegetation on particularly saline or eroded land. In these cases, it may be necessary to stabilise the site using exotic species or to source particular varieties of native seed which can cope with the specific conditions. When the site has been stabilised using these specific plants, it may be possible to re-introduce the indigenous vegetation over time. Check that any non-indigenous plants are not regarded as environmental weeds, as this is sometimes the case with the most robust and resilient plant species.

Non-indigenous plants may also be called for where the goal of the vegetation is to produce stock fodder, or the production of timber for future harvest. The Contacts and Resources section at the end of this booklet will assist you in obtaining more detailed information on these situations.



Allocasuarina luehmannii

Allocasuarina verticillata

Bursaria spinosa subsp. spinosa

Eucalyptus baxteri

*Eucalyptus camaldulensis**

Eucalyptus camaldulensis

A word about grasslands

Native grasslands are a vital and yet greatly underrated component of our native vegetation. Due to their gradual replacement with exotic pasture species, they are also one of the most threatened native vegetation communities in Australia. Difficulties in identifying native grasses, which can easily be mistaken for introduced pasture species or even weed species, adds to the vulnerability of this important vegetation type. You can obtain assistance in determining whether your land includes native grasses by contacting Land for Wildlife (see Resources and Contacts).

If you have a reasonably intact native grassland on your property, the best thing you can do for the environment is

to manage it by controlling the invasion of weeds and rabbits. Planting trees and shrubs on this land will ultimately shade out many of the grassland species, as well as causing a level of disturbance to the site which will result in the invasion of exotic weeds and pasture species which will outcompete the native grasses. By managing and maintaining a native grassland you will provide habitat for a range of threatened fauna which rely on grasslands for their survival. Native grasslands can be seasonally grazed by sheep and cattle, and there is also the potential for considerable earnings by harvesting seed for sale to the revegetation industry.



Native grasslands are most easily identified during the spring-summer flowering season. Land for Wildlife officers can assist in the identification of native grasses.



Design: it pays to keep your purpose in mind

A good understanding of the purpose of your revegetation will help ensure that you get the result you want. With good design, revegetation can fulfil multiple functions on your property. For example, a windbreak can provide habitat for local fauna, can prevent the spread of Serrated tussock seed, and can gradually be thinned for firewood. Some of the reasons for establishing vegetation (or protecting remnant vegetation) which you may wish to consider in the design stage include:

- Attracting wildlife
- Stabilising soils and waterways
- Sheltering stock and crops by reducing windspeeds, providing shade, providing refuge from rain and frost
- Managing salinity
- Reducing the spread of weed seeds and the movement of dust
- Enhancing aesthetic values
- Production of timber and other plant products for on-farm use or for sale (e.g. firewood, fence posts, furniture timber, building timber, cut foliage)
- Screening unsightly views or creating interest in a bare landscape
- Producing 'Carbon Credits' for environmental reasons and for possible future sale to industry
- For use as 'vegetation offsets' which may be sold to developers³
- Production of fodder crops as a drought reserve.



In designing your revegetation, be conscious of both the practicalities and the aesthetic impact of the layout.

The following information will assist you to design your project to fulfil your particular purposes. Far more detailed information on all of these topics is available by referring to the Resources and Contacts Guide at the end of this booklet. The species selection guide on pages 25 to 55 will help you to choose the specific plants in your Native Vegetation Group which will suit your project design.



Eucalyptus dives*

Eucalyptus goniocalyx*

Eucalyptus
macrorhyncha

Eucalyptus obliqua

Eucalyptus ovata

Eucalyptus ovata

Attracting wildlife to your property

If your property includes any remnants of the original vegetation, this will be a good starting point in re-establishing the wildlife. Otherwise, plan to revegetate in a way that includes as many aspects of the original ecosystem as possible. Some points to consider include:

- Consider fencing off the original vegetation, retaining any non-living landscape features such as rocks, logs and leaf litter. By controlling the weeds and rabbits, you will encourage the regrowth of indigenous seedlings which will then provide habitat for local birds and animals. Remember that the fungi, lichens, mosses and soil microorganisms are a vital part of your site's overall biodiversity and ecological functioning: these are most effectively preserved by looking after and extending an existing remnant of vegetation. Re-establishment of these elements of the ecosystem is very difficult once they are gone
- Even a small group of 'scruffy' remnant trees is quite a valuable starting point and may be enhanced by planting indigenous plants in adjacent areas, and establishing wildlife corridors which enable local fauna to move between remnant patches and ultimately into larger areas of indigenous vegetation. Effective wildlife corridors need to be at least 20m wide
- Speak to your local Land for Wildlife Officer to identify the particular needs of your local bird and animal species
- Identify the Native Vegetation Group(s) that existed on your site (page 26). Try to re-establish the original species according to the density, arrangement and ratios which would have occurred originally. For example, in a forested area the tree cover should be around 20% and the understorey should make up the remaining 80%⁵
- Avoid planting in straight lines, though a multiple use planting may dictate that lines (which may be curved) are necessary for the management and harvesting of firewood etc.



The non-living parts of the landscape provide vital habitat for birds, animals, mosses, lichens and fungi⁴.

- Consider undertaking the revegetation in stages over several years, establishing a 'nurse crop' of overstorey plants before adding in the more delicate understorey. Remember that the inclusion of an understorey of shrubs, herbs and grasses will greatly increase the range of wildlife able to call your revegetation site 'home'
- The inclusion of a water source, natural or man-made, will also encourage birds and animals to make use of your vegetation.

Excellent, detailed information regarding the provision of habitat for wildlife is available in a recent DSE publication (Platt, S. J., 2002).



Providing a microclimate for stock and crops

Trees create a favourable microclimate for livestock and crops in several ways:

- reducing windspeeds and reducing the wind chill factor
- providing shade
- reducing evaporation and evapotranspiration
- reducing erosion from soil surfaces
- reducing lambing losses and increasing stock weight gains.

Good shelterbelt design is essential to getting the most out of your trees. Shelterbelts which aim to reduce windspeeds should ideally be located at right angles to the prevailing wind, though the need for protection from both cold winter winds and hot northerly winds may require some compromise. Very high density windbreaks will cause increased turbulence on either side of the windbreak: a well-designed windbreak will have about 30% porosity (which can be assessed simply by looking for the daylight which comes through the windbreak). Figure 1 shows the reduction in windspeeds which can be achieved at varying distances from the windbreak, expressed as a multiple of the tree height within the windbreak. Windspeeds will be reduced by at least 30% for 225m downwind of a 15m tall windbreak. Figure 2 represents the distribution of sheltered and turbulent zones created on each side of a windbreak (Abel, N et al, 1997).

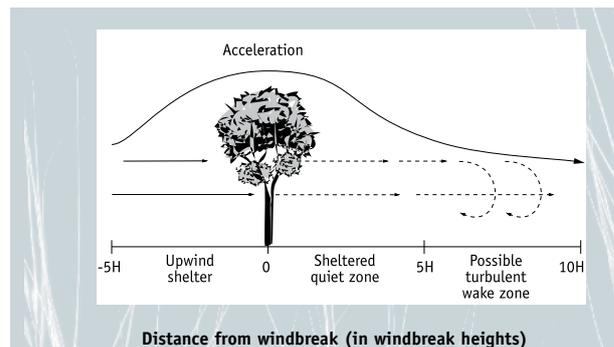
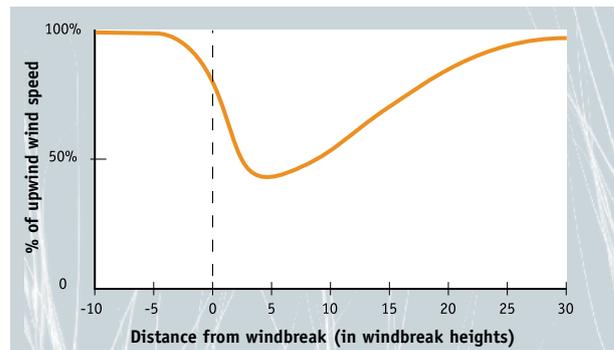


Figure 1 The effect of a windbreak on windspeeds at different distances.

Figure 2 The effect of a windbreak on airflow and turbulence.



Eucalyptus polyanthemos

Eucalyptus tricarpa

Eucalyptus viminalis subsp. viminalis

Eucalyptus yarraensis

Leptospermum lanigerum

*Melaleuca lanceolata subsp. lanceolata**



Using native vegetation to reduce Serrated tussock infestations

Serrated tussock is a noxious, grassy weed which has devastated large areas of Eastern Australia, including significant parts of the Shire of Moorabool. Serrated tussock readily invades areas where competition from other species is low (for example, overgrazed or poorly managed pastures). Serrated tussock often comes to dominate a paddock, and as it is indigestible to stock, renders the invaded area unsuitable for farming.

Strategically placed native vegetation can play an important role in reducing the spread and establishment of Serrated tussock. The seed of Serrated tussock is spread

via wind, and densely planted, low branching vegetation can substantially reduce the movement of seed by forming a physical barrier. Plantations should be sited downwind of existing tussock infestations. Serrated tussock is also vulnerable to competition and shading from other forms of vegetation, and as such is readily displaced by densely planted vegetation. In the Shire of Moorabool many landholders have established farm forestry plantations as an economic alternative to Serrated tussock control on less-productive land.



Improving aesthetic values

Regardless of the primary purpose of your revegetation, it is worthwhile to consider the visual impact at the planning stage to ensure that the result complements, rather than detracts from, the existing landscape. Maintaining and enhancing existing scenic views is of prime importance here. This may include framing an existing view, or ensuring that straight-line plantations do not spoil a naturalistic landscape. A plantation which needs to be in rows for maintenance reasons may be softened with a curved edge, or by planting trees in a series of sweeping arcs. Plantations which follow the natural curves and contours of the land will tend to work with, rather than against, the existing landscape: plantations which follow boundary fence lines are unlikely to be sympathetic with the surrounding landscape. Exceptions to this occur where the surrounding landscape has been developed in a

strongly geometric form: for example, market gardens. Plantations which form part of the horizon should form a similar silhouette to the surrounding native vegetation: pine trees should clearly be avoided in these locations! In a naturalistic landscape, your plantation will fit in better if a range of plant forms are used: a plantation whose primary purpose is for the production of firewood can be made so much more attractive with the inclusion of a scattering of small to medium shrubs, without greatly compromising the productivity of the plantation. The local fauna will appreciate your efforts too!

Tree plantations may also be used to screen out unsightly views, including farming infrastructure, roads etc. Whilst vegetation can be an effective barrier to dust, it is not very effective in screening out noise: a solid barrier is required for this.



Acacia paradoxa

Acacia verticillata

Banksia marginata*

Banksia marginata

Callistemon sieberi

Cassinia arcuata*

Dealing with difficult sites (rocky, steep, eroded or saline sites)

Sites exhibiting specific environmental problems will need to be handled somewhat differently from sites which are in reasonably good condition.

Vegetation can be used to reduce salinity recharge, however specialist advice is required to determine whether your site contains a recharge area. Salinity discharge sites (where salts have risen to within 2 metres of the soil surface) can be rehabilitated by planting out with salt tolerant species, which are likely to include non-indigenous, or even non-native species. Severely affected sites, where vegetation cover is lacking, may be planted out with highly salt tolerant pasture species as a first step. These can then be replaced with salt tolerant indigenous or native species as the watertable drops.

Vegetation can be used to treat eroded sites including eroded gullies, however the best results will be achieved by obtaining specialist on-site advice from private consultants or, in some instances, from DPI or local government officers. Erosion problems need to be treated at the source (for example, by reducing the volume and velocity of rainfall reaching the gully) as well as at the site of the erosion. In the case of gully erosion, look at the land well above the gully head and consider planting this out with trees, shrubs, and groundcovers, to slow the speed of the rainfall and reduce the volume of flow downhill by increasing infiltration into the soil profile.

Rocky and steep sites can be successfully revegetated using manual methods rather than mechanical methods for site preparation, planting and maintenance.



Erosion is a very serious form of land and waterway degradation in the Shire of Moorabool.



Farm Forestry

A direct financial return can be achieved from vegetation on your property by planting and managing species for the production of timber products. These may include firewood, furniture timber, construction timber, fenceposts and woodchips. For example, a multi-purpose plantation might involve a windbreak which is thinned over the years as a source of firewood, and which includes select trees which are managed for furniture-grade timber production. By incorporating farm forestry into a mixed farming enterprise, landholders are able to diversify their sources of income, provide add-on environmental benefits to the farming system, and invest in a long term income source which may be harvested gradually over the retirement years. In other circumstances the farm forestry plot becomes an asset when the property is sold, or an investment for future generations.

Farm forestry is a long term investment which therefore requires careful planning with respect to species selection, plantation design, maintenance and marketing. Vegetation which is intended to be harvested in the future needs to be registered with your local Shire by filling in a simple, one page 'Plantation Development Notice' (available from your local Shire Planning Department or at www.dpi.vic.gov.au/farmforestry). This simply informs your local Shire that your intention is to ultimately harvest your tree plantation, thus avoiding any future difficulties in complying with various tree preservation requirements.

Use the references in the Resources and Contacts Guide to obtain further information on farm forestry.



Farm forestry plantations require careful planning and a commitment to on-going maintenance to achieve optimal financial returns.



Casinia longifolia*

Goodenia ovata*

Leptospermum continentale

Leptospermum continentale

Leptospermum myrsinoides

Muehlenbeckia florulenta*

Other design considerations

A few of the other issues you should consider during the design phase of the project are listed below:

- Check for powerlines above your proposed site, and if in any doubt use the dial-before-you-dig service (call 1100) to check for any cables below the site
- If your revegetation is for the purpose of providing vegetation offsets to satisfy local government planning requirements, ensure that you comply with the requirements of 'Native Vegetation Revegetation Planting Standards: Guidelines for Establishing Native Vegetation for Net Gain Accounting' (DSE 2006)
- Ensure that you leave room for adequate vehicular access for maintenance (and harvesting in the case of farm forestry). Any fencing should include at least one gate.

Planning your revegetation project

Timing

Good planning is essential to a successful result.

Revegetation is not complicated, however most steps in the process can only be undertaken in certain seasons, and some steps, such as growing the seedlings, take considerable time. The exact timing of each phase of your project will depend on your location (in terms of climate, topography etc.), and the current seasonal conditions. Some examples of the variation which needs to be taken into account include:

- In general, planting can begin any time after the arrival of autumn rains (which vary each year, but often arrive in May) and before the end of spring. The idea is to plant into soils that are moist and likely to remain moist for 2-3 months

- On poorly drained sites, a better result may be achieved by planting towards the end of winter, so that newly planted seedlings do not have to sit in saturated soils for months
- On drier sites, plant as soon as possible after autumn rains to take advantage of winter rainfall
- Ripping aims to shatter the soil to assist with aeration and penetration of rainfall. Ripping must therefore occur on soils which are dry enough to shatter but not so dry as to impede the progress of the implement. On soils which are too wet, a slicing effect will result rather than a shattering effect. Ripping is best done before soils dry out fully in summer, or after the first autumn rains. The exact timing will depend on soil type and the particular season
- The necessity for an initial weed control (in the spring prior to the year of planting) depends upon the vigour of weed/pasture growth and the species present.

The Revegetation Planner (Figure 3) will serve as a useful reminder to ensure that you are keeping your planning on track. Remember, however, that the timing of each phase of a revegetation project will vary with each site and with each season, so local advice from experienced neighbours, Landcare Groups, and local Departmental and Shire officers is invaluable in the planning phase.



Revegetation Planner

This Planner is a general guide to the timing and sequence of activities. The exact timing of activities will depend on a myriad of factors including the characteristics of the particular season, soil type, weed species and level of infestation etc. Use this Planner as a general guide in conjunction with discussions with local people involved in revegetation.

	YEAR 1			YEAR 2		
Approximate order of events	Winter	Spring	Summer	Autumn	Winter	Spring
Planning, design, ordering of plants or seed	█	█	█			
Fencing		█	█	█		
First weed control (if necessary ⁶)		█	█			
Rabbit control			█	█		
Optional soil ripping				█	█	
Second weed control (essential)				█	█	
Plant seedlings					█	█
Advisable third weed control for direct seeding only					█	█
Direct seeding						█
Ongoing monitoring	█	█	█	█	█	█

Figure 3 Revegetation Planner

⁶ Dependant upon timing, planting date, weed species and weed density.

Preparing for planting day: ensure that everything is ready to go at the right time

Your task in planning a successful revegetation project is to ensure that several elements all come together on planting day: well grown, suitable seedlings (or seed), a well prepared site (including the necessary weed control, rabbit control, and ripping if necessary), the right equipment and people for the scale of the job. Each of these aspects can involve several months of advance planning, so allow yourself plenty of time for a successful result. Remember that trees take time to grow, and in the overall scheme of things, you may be better off delaying your project by one year to ensure an adequate planning phase. Ideally, you need to start the planning for your project 1-2 years before planting (or sowing) day.

Seeds, seedlings, or regeneration?

You need to decide which establishment technique(s) to use, as preparation requirements vary. Often a combination of establishment techniques is appropriate. Where a good quality patch of remnant vegetation exists, simply fencing it off to exclude stock (and ideally rabbits) will often result in the emergence of indigenous seedlings. Weed control will probably be necessary, however this is a simple, cheap and very natural way of re-establishing the indigenous flora.

Direct seeding also gives a fairly naturalistic look as seedlings from a mixture of species emerge at random spacings. Direct seeding is generally carried out using a tractor or 4WD mounted implement, and is a very inexpensive way of establishing plants on a large scale, though it is not recommended on hard setting or caking soil types. Direct seeding can also be awkward for smaller projects as specialist machinery must be brought in to undertake the seeding. On a smaller scale, hand-direct seeding can be carried out by preparing a seedbed using a hoe and hand broadcasting a seed mix. This can also be a useful method on very steep or rocky sites which are inaccessible to machinery.



Direct seeding is an inexpensive method of achieving large scale revegetation, however planting seedlings may be a better technique for the beginner.

Whilst establishment costs for direct seeding are very low, the risk factor is high as the failure of anticipated rains at critical stages can result in the loss of almost all seedlings.

The use of seedlings is often preferred by landholders in small to medium sized projects, although it is a more expensive and labour intensive option than direct seeding. For landholders undertaking revegetation for the first time, the use of seedlings carries with it a lower risk of failure and is therefore often preferred. If trees are to be harvested for farm forestry purposes, planting seedlings at uniform spacings is generally more desirable as this promotes more uniform growth rates. On medium to large scale projects, a combination of direct seeding and seedlings can be a good approach.



Seed and seedling supply

Seed and seedling availability is likely to be limited unless you place an order early. Many seedlings are only grown 'to order' and may take six months from sowing until they are ready to plant out, and in some cases seed is collected 'to order' as well. Placing a seed order two years ahead of the proposed planting/seeding date is ideal, though not essential: shorter lead times will simply limit your choice of species. Seed will generally be sown at the nursery from mid-spring onwards, and your plants should be ready for collection the following autumn. For direct seeding, larger quantities of seed are required and these can be collected by a contract seed collector, or purchased from a Seedbank (see Resources and Contacts). Greening Australia maintain excellent information on both indigenous nurseries and seed collectors within Victoria. Note that not all indigenous plants are able to be grown from seed in a nursery situation, and not all seed is suitable for direct seeding, so your choice will be narrower than the full range of indigenous plants for your area.

Seedlings are supplied in a number of pot types, suited either to hand planting or mechanical planting. Collect your seedlings from the nursery close to planting day, as they will require daily maintenance after collection. Seedlings rapidly outgrow their pots, especially in spring, so aim to plant your seedlings as soon as possible after they are ready.

Some landholders choose to collect their own seed and/or grow their own seedlings. If you wish to collect your own seed ensure you obtain a permit from Department of Sustainability and Environment before collecting seed on public land. Straightforward information on collecting and growing seed is available from Department of Primary Industries' 'Information Note' series, available at www.dpi.vic.gov.au or by calling 136 186. Alternatively, seedlings can be inexpensively obtained from a volunteer organisation called Tree Project, which provides your seed to trained volunteers, who then provide seedlings back to you for planting (see Resources and Contacts).



Indigenous seed may be ordered through a local seedbank or seed collecting contractor.



*Pultenaea daphnoides**



*Pultenaea humilis**



*Pultenaea pedunculata**



*Pultenaea scabra**



Rhagodia parabolica



Chrysocephalum apiculatum s.l.

Weed control

Experienced treeplanters often say that the three most important stages in a revegetation project are 'Weed control, weed control, weed control...'. Of course there are other important tasks, but weed control is surely one of the most vital! It is important to achieve good weed control in the 1 m² around each seedling. However the amount of ground disturbance should be kept to a minimum as open ground is an invitation to fresh weed establishment. Therefore spot spraying of 1 m² plots is more advantageous than spraying a continuous 1 m strip, though the former approach is more time consuming. Care should also be taken not to damage any existing native grasses and herbaceous plants in the area. Weed control may include a range of methods, including grazing to reduce weed seed set, cultivating and mulching. Usually, however, herbicides will be used at some stage to reduce weed competition prior to planting or sowing due to their effectiveness and low labour requirement. Many landholders will feel some resistance to the use of herbicides on environmental grounds, however one needs to balance any negatives against the vast tracts of vegetation establishment that, in practical terms, are only possible due to the strategic use of herbicides.

For seedling establishment, the first application of herbicide should occur in the spring prior to planting, with a follow up application a couple of weeks before planting. For direct seeding, weed control is even more vital as the tiny emerging seedlings are so easily outcompeted by more vigorous weed species. Two herbicide controls are considered a minimum, and a third control 6-12 weeks after the second control (and just before seeding) is advisable. If woody weeds are present (for example blackberries, boxthorn or gorse), particular herbicides will need to be used which take several months to take effect, and this will need to be factored into your planning schedule. The exact choice of herbicide will depend on the weeds present, and should be discussed with your local farm supplies retailer.



Effective pest plant and animal control is an essential part of preparation.



Pest animal control

Pest animal control, where necessary, should occur some months before planting. In heavily rabbit infested areas, a reduction in rabbit numbers must be achieved prior to planting. This is usually done using a combination of destruction of harbour (boxthorn, gorse), shooting, baiting, fumigating and warren ripping. Individual plants are then protected using rabbit guards. In areas with fewer rabbits, guarding alone may provide sufficient protection. In some instances guarding may not be necessary, particularly in higher rainfall areas where alternative food sources may exist for the rabbits in the form of lush pastures. Rabbit guarding is an expensive and labour intensive part of your project, and consideration needs to be given to its' benefits. When establishing seedlings, guards not only protect plants from rabbits, they also serve an important role in reducing stress from high winds and are therefore useful on exposed sites. Direct seeded areas cannot be cost effectively guarded making comprehensive rabbit control essential.

Native animals such as kangaroos and wallabies can sometimes be a problem during revegetation establishment, however the destruction of native wildlife is prohibited without a permit. Exclusion fencing may be necessary if the problem is severe, however this is an expensive option. Wallabies can be deterred with the use of a spray on product, WR-1, however this needs to be re-applied every 6-8 weeks during establishment. Various insects, including red-legged earth mite, slugs and snails can impede plant establishment, and may require control both before and during seeding or planting.

Fencing

The need to fence out areas under revegetation needs to be carefully considered due to the high costs involved. Consideration of proposed future land use and layout will help ensure that any new fences are located to best effect.

Some of the factors to consider with regard to fencing and tree planting are listed below:

- smaller shrubs and understorey plants will always require protection from stock
- larger shrubs and trees will need protection from stock for the first 5-6 years, possibly longer in slower-growing conditions
- In a farm forestry plot, most trees will require protection for at least 5-10 years
- stock will generally inflict less damage if an area is 'crash-grazed' for a few days at a time, rather than being constantly stocked with fewer animals
- if windbreaks are exposed to stock, the lower branches will be stripped of foliage, reducing the windbreak effect
- Consider whether a larger block planting would remove the need for additional fencing
- Consider the use of electric fencing for cost-effective, reusable protection.



Austrodanthonia duttoniana

Carex appressa

Lepidosperma laterale
var. majus

Lepidosperma laterale

Lomandra longifolia

Lomandra longifolia

Ripping and mounding

On clay soils and compacted soils, deep ripping is advisable to aerate the soil, assist in moisture penetration and to assist root growth. Ripping should occur on dryish soils during summer or just after the autumn break, the aim being to achieve a 'shatter' of the soil. Do not rip wet soils as this will result in a 'slicing' rather than 'shattering' effect. Driving a tractor tyre over the ripped line will assist in breaking up large clods and reconsolidating the soil to avoid large air pockets. A winged ripper should be used to a depth of 30-60cm.

In poorly drained soils, mounding will improve drainage and provide a greater depth of topsoil for the establishing seedling. This will improve establishment and growth rates, however mounding is expensive and may only be feasible in farm forestry projects where there is an expectation of a direct monetary return.

Planting

Good planting technique helps to get your plants off to a good start. The main points to observe are as follows:

- Water plants thoroughly the night before planting
- Loosen soil in an area slightly larger than the pot to provide a friable soil bed for the seedling
- Remove the plant from the pot by tapping the edge of the pot on a hard surface (your boot, or a rock, for example). Do not pull the plant out by the stem
- Ensure the stem is planted to the same depth as in the pot (i.e. don't bury the stem, and don't leave roots exposed)
- Ensure good contact between the plant root ball and the surrounding soil (i.e. break up large clods of earth and gently 'firm-in' the plant to avoid large air pockets underground which have a drying effect).



Ripping improves moisture penetration and soil tilth, mounding improves drainage and topsoil depth.



Watering

Ideally, seedlings should be watered (or rained upon) within one day of planting. The primary purpose of this watering is to reconsolidate the soil around the seedling, removing large air pockets in the root zone which will otherwise contribute to ongoing root drying. A secondary purpose is to reduce transplant shock by ensuring the plant has adequate moisture for the first few days post-planting. In some cases, this initial watering is not possible, in which case extra care should be taken to ensure that plants are well watered the night before planting. Extra care should also be taken to manually break down large clods of earth in contact with the root ball and adequately 'firm in' each seedling at planting time. Subsequent watering should not be necessary to the survival of indigenous plants, provided they are planted at the correct time of year and assuming that drought conditions are not prevalent. On smaller scale projects, however, a landholder may wish to water two or three times in the first summer to increase survival rates and speed growth.

Don't just walk away: the importance of ongoing maintenance

It will be a very long time before a revegetated area can fully look after itself. With a history of site disturbance due to farming activities, and the disturbance which occurs during revegetation, weed control will be necessary for some years. The site will probably not be grazed for several years following planting, and during this time weeds will flourish if given the opportunity. For this reason, revegetation is often done in lines to allow for slashing for both weed control and fire prevention.

Maintain regular surveillance of your site, checking to ensure that rabbit populations are not causing excessive damage, that tree guards and fences are in place, and that additional watering is not required. Monitor plant losses so that you can plan for any follow up plantings which may be necessary in the following season.

Farm forestry plantations require significant additional maintenance in the form of thinning and pruning over several years. Additional information should be sought regarding the appropriate maintenance of farm forestry sites.



Phragmites australis

Phragmites australis

Poa labillardierii

Poa sieberiana

Tetrarrhena juncea

Themeda triandra

The page features a collage of botanical images. At the top, there are white, fibrous, hair-like structures against a light green background. Below this, a yellow horizontal band contains a brown seed pod with three seeds. Underneath the yellow band is a grey horizontal band with the text 'Species Selection'. Below the grey band is a light green horizontal band with a brown seedling. At the bottom left, there is a close-up image of a green, segmented plant stem with several brown, cone-like structures. The bottom right background is a textured green.

Species Selection

This section will assist you in choosing the correct indigenous plant species for your site. Firstly, you will need to determine which Native Vegetation Group(s) (NVG(s)) originally occurred on your project site, then you can use the species selection list to choose species belonging to those NVG(s).



A Word of Explanation: Ecological Vegetation Classes and Native Vegetation Groups

Ecological Vegetation Classes (EVCs) are a classification system for the many different types of vegetation found in Victoria. Areas of vegetation belonging to the same EVC will be similar in several ways:

- Vegetation structure (i.e. the way that trees, shrubs, grasses and herbs are distributed and combined in the landscape)
- Position in the landscape (e.g. plains, foothills, slope etc.)
- Occurrence in the landscape in terms of geology, soil type, aspect
- Floristics (i.e. the number, distribution and relationships of plant species).

Each EVC includes a collection of floristic communities (i.e. groups based on co-occurring plant species) that occur across a biogeographic range, and although differing in species, have similar habitat and ecological processes operating. Approximately 300 EVCs have been described for Victoria. For simplicity, these have been grouped into just 20 Native Vegetation Groups (NVGs). Detailed information regarding EVCs and related matters is available from DSE (see Resources and Contacts Guide, page 56).

There are 35 EVCs within the Shire of Moorabool, grouped into just 14 Native Vegetation Groups. The species list in this booklet is grouped into these NVGs, because the quality of vegetation mapping currently available in the Moorabool Shire area is insufficient to accurately define the locations of individual EVCs.

This guide will enable you to determine the NVG(s) which originally occurred on your site, and to compile a species list which includes typical species from these NVG(s).



The Shire of Moorabool covers many different vegetation types which are classified into some 35 different EVCs.

How to select the right species for your land

Step 1 >

Try to build a picture of the kind of remnant vegetation which originally occurred on your land: talk to neighbours, DPI and Local Government staff (see Resources and Contacts Guide on page 56). Look at local vegetation remnants which occur on similar soils and topography to your site and try to assess the ‘percentage cover’ of trees, shrubs and groundcovers. Find out what the most common species were.



Step 2 >

Using your knowledge from Step 1 and the Catchment Descriptor on page 28, choose which section of the catchment you are in.



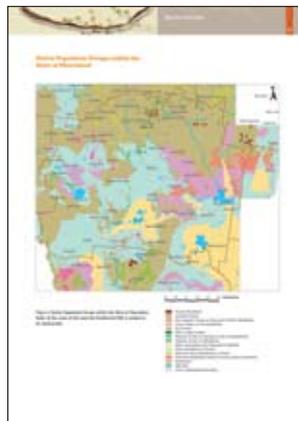
Step 3 >

Select the Native Vegetation Group(s) which most correspond to your situation (pages 29-36).



Step 4 >

Use the NVG Map on page 37 to verify your NVG selection. Note that the NVG map is based on modelling of limited accuracy and should be used for indicative purposes only.



Step 5 >

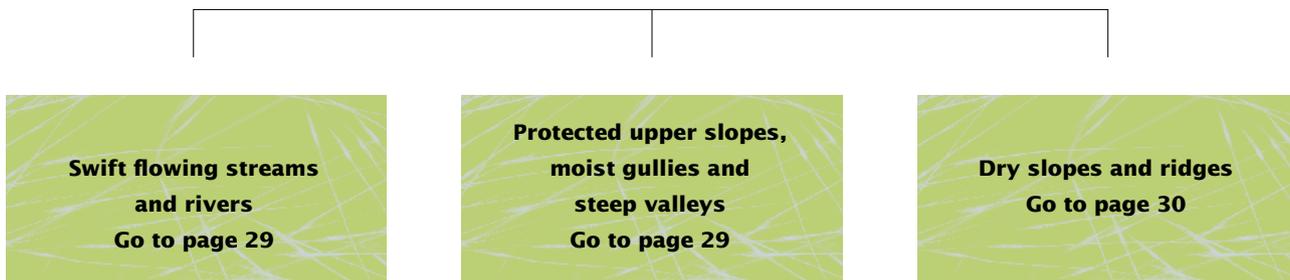
Finally, use the Indigenous Species Selection List on pages 38-55 to select species suitable to your NVG, topography and project needs.



Catchment Description Chart

Which part of the Werribee River or Moorabool River catchment are you in?

Upper Reaches



Mid Catchment



Lower Reaches



Upper Reaches: Swift Flowing Streams and Rivers

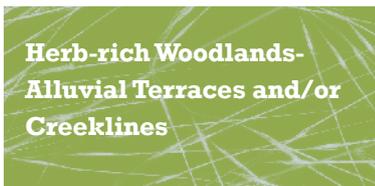
Your site is likely to be in the following Native Vegetation Group:



Includes Riparian Forest EVC.

Upper Reaches: Protected Upper Slopes, Moist Gullies and Steep Valleys

Your site is likely to be in one or more of the following Native Vegetation Groups:



Includes Creepline Herb-rich Woodland EVC.



Includes Herb-rich Foothill Forest, Shrubby Foothill Forest, Valley Grassy Forest EVCs.



Includes Wet Heathland EVC.



Includes Sedge Wetlands EVC.



Upper Reaches: Dry Slopes and Ridges

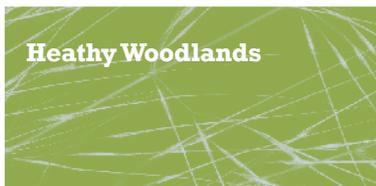
Your site is likely to be in one or more of the following Native Vegetation Groups:



Includes Box Ironbark Forest and Rocky Chenopod Woodland EVCs.



Includes Heathy Dry Forest, Shrubby Dry Forest, Grassy Dry Forest EVCs.



Includes Heathy Woodland EVC.



Includes Plains Woodland EVC.

Mid-Catchment: Valleys and Gentle Slopes

Your site is likely to be in one or more of the following Native Vegetation Groups:

Herb-rich Woodlands- Alluvial Terraces and/or Creeklines



Includes Damp Sands Herb-rich Woodland EVC.

Dry Forests



Includes Herb-rich Foothill Forest, Shrubby Foothill Forest, Valley Grassy Forest, Grassy Forest EVCs.

Lower Slopes or Hills Woodlands



Includes Grassy Woodland EVC.

Lowland Forests



Includes Lowland Forest EVC.

Plains Woodlands or Forests



Includes Plains Grassy Woodland EVC.

Wetlands



Includes Red Gum Swamp EVC.

Mid-Catchment: Streamsides

Your site is likely to be in one or more of the following Native Vegetation Groups:

Herb-rich Woodlands- Alluvial Terraces and/or Creeklines



Includes Creekline Herb-rich Woodland EVC.

Plains Woodlands or Forests



Includes Escarpment Shrubland EVC.

Riparian Scrubs or Swampy Scrubs and Woodlands



Includes Swamp Scrub, Swampy Riparian Woodland, Stream-bank Shrubland EVCs.

Riverine Grassy Woodlands or Forests



Includes Sedgy Riparian Woodland EVC.

Mid-Catchment: Dry Slopes and Ridges

Your site is likely to be in one or more of the following Native Vegetation Groups:

Box Ironbark Forest or Dry/Lower Fertility Woodlands



Includes Box Ironbark Forest and Rocky Chenopod Woodland EVCs.

Dry Forests



Includes Heathy Dry Forest, Grassy Dry Forest, Shrubby Dry Forest EVCs.

Heathy Woodlands



Includes Heathy Woodland EVC.

Plains Woodlands or Forests



Includes Plains Woodland EVC.

Lower Reaches: Valleys and Gentle Slopes

Your site is likely to be in one or more of the following Native Vegetation Groups:



Includes Plains Grassland EVC.



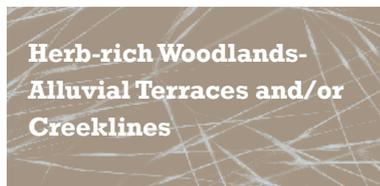
Includes Plains Grassy Woodland, Escarpment Shrubland, and Plains Woodland EVCs.



Includes Red Gum Swamp EVC.



Includes Grassy Woodland and Lowland Forests EVCs.



Includes Damp Sands Herb-rich Woodland EVC.



Includes Grassy Dry Forest, Herb-rich Foothill Forest, Shrubby Foothill Forest, Valley Grassy Forest EVCs.

Lower Reaches: Streamside

Your site is likely to be in one or more of the following Native Vegetation Groups:

**Herb-rich Woodlands-
Alluvial Terraces and/or
Creeklines**



Includes Alluvial Terraces Herb-rich Woodland, Creekline Herb-rich Woodland, Damp Sands Herb-rich Woodland EVCs.

**Plains Woodlands or
Forests**



Includes Plains Grassy Woodland, Escarpment Shrubland and Plains Woodland EVCs.

**Riparian Scrubs or
Swampy Scrubs and
Woodlands**



Includes Swamp Scrub, Streambank Shrubland, Swampy Riparian Woodland EVCs.

**Riparian Forest or
Woodlands**



Includes Swampy Woodland and Riparian Forest EVCs.

**Riverine Grassy
Woodlands or Forests**



Includes Creekline Grassy Woodland and Sedgy Riparian Woodland EVCs.



Lower Reaches: Plains Above Flood level

Your site is likely to be in one or more of the following Native Vegetation Groups:



Includes Plains Grassland EVC.



Includes Plains Grassy Woodland, Escarpment Shrubland, and Plains Woodland EVCs.



Includes Lignum Swamp, Plains Grassy Wetland, Sedge Wetland, Sedge-rich Wetland, Cane Grass Wetland, Red Gum Swamp, Plains Sedgy Wetland, Aquatic Herbland, Spike-Sedge Wetland EVCs.

Native Vegetation Groups within the Shire of Moorabool

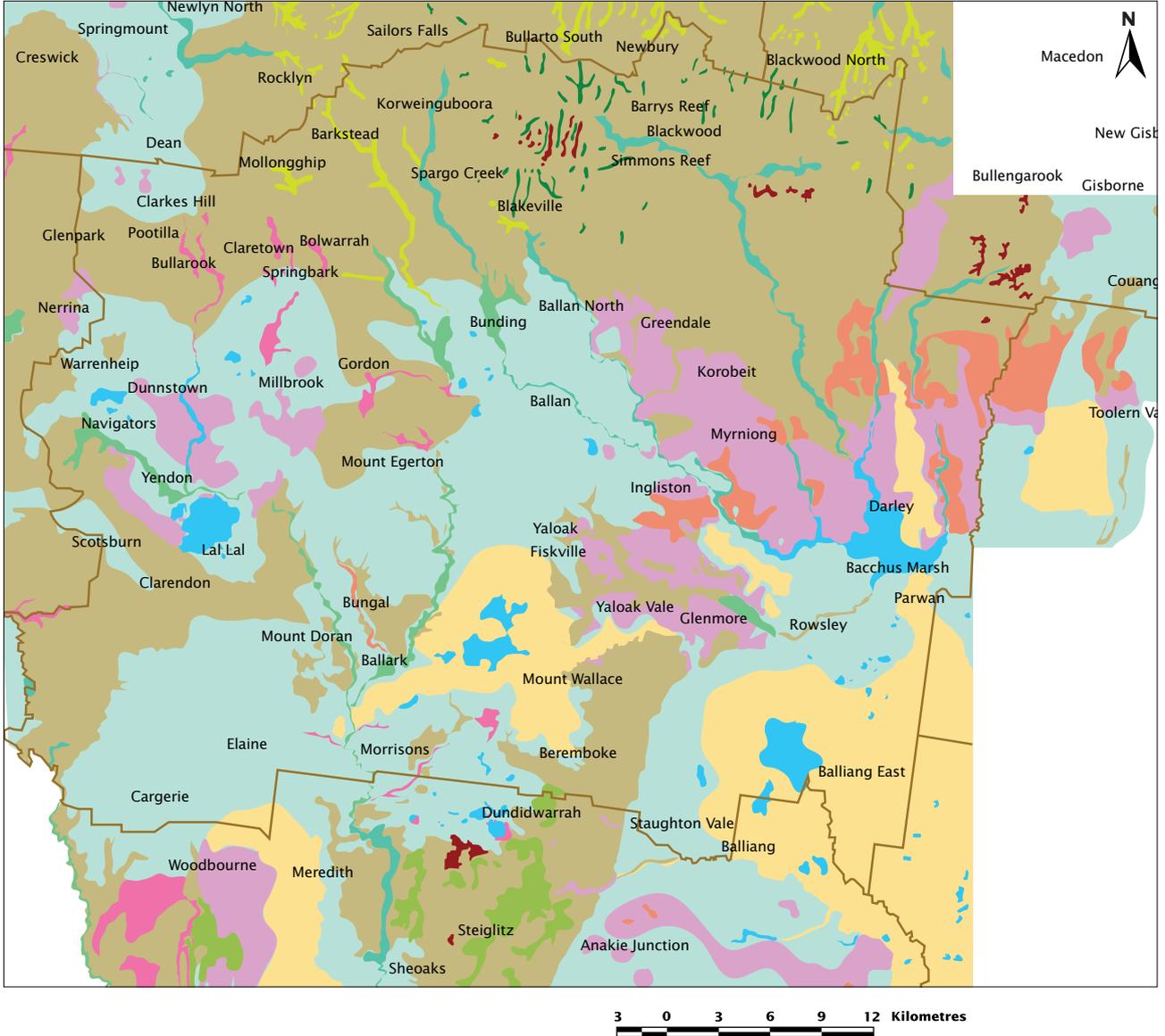


Figure 4 Native Vegetation Groups within the Shire of Moorabool.
Note: At the scale of this map the Heathlands NVG is unable to be represented.

- Heathy Woodlands
- Lowland Forests
- Box Ironbark Forests or Dry/Lower Fertility Woodlands
- Lower Slopes or Hills Woodlands
- Dry Forests
- Wet or Damp Forests
- Riparian Scrubs or Swampy Scrubs and Woodlands
- Riparian Forests or Woodlands
- Plains Grasslands and Chenopod Scrublands
- Plains Woodlands or Forests
- Riverine Grassy Woodlands or Forests
- Herb Rich Woodlands-Alluvial Terraces and/or Creeklines
- Heathlands
- Wetlands
- Shire of Moorabool boundary

					Tolerances, Preferences, Uses, Seed Collection and Establishment	Topography				
Plains Grassy Woodlands or Forests	Riverine Grassy Woodlands or Forests	Herb-Rich Woodlands	Heathlands	Wetlands		Hilly country, open plains, various aspects	Open plains and foothills	Sheltered	Predominantly southern aspect	Aspect and exposure variable
		■			Frost tolerant, prefers open to shady position, dry to moist soils. Collect seed in January. Establish via direct seeding or seedlings. Useful for shelter, erosion control on streamsides and valleys, honey production, butterfly and moth habitat.	■				
■					Drought and frost tolerant, prefers full sun, dry to waterlogged soils. Collect seed late January-early February. Establish via direct seeding or seedlings. Useful for shelter, erosion control on hillsides, plains and drier sites, butterfly and moth habitat.		■			
■	■	■			Drought and frost tolerant, adapts to wide range of conditions. Collect seed January-early February. Establish via direct seeding or seedlings. Useful for shelter, erosion control on hillsides, plains and drier sites, honey production.	■				
■	■	■			Adapts to a wide range of conditions. Collect seed late January-February. Establish via direct seeding or seedlings. Useful for shelter, general erosion control, timber production, butterfly and moth habitat.	■				
					Frost sensitive, prefers half sun to shade, dry to waterlogged soils. Collect seed January-February. Establish via seedlings. Useful for shelter, erosion control on streamsides and valleys.	■				
■		■			Frost sensitive when young, adapts to a wide range of conditions. Collect seed in January. Establish via direct seeding or seedlings. Useful for shelter, erosion control on hillsides, plains and drier sites, honey production, butterfly and moth habitat.		■			
					Drought and frost tolerant, prefers full sun and dry to moist soils. Collect seed late December-January. Establish via direct seeding or seedlings. Useful for shelter, erosion control on hillsides, plains and drier sites.			■		
					Drought and frost tolerant, prefers full sun, dry to moist soils. Collect seed January-December. Establish via direct seeding or seedlings. Useful for shelter, general erosion control.				■	
■					Drought and frost tolerant, prefers full sun, dry to moist soils. Collect seed March-early April. Establish via direct seeding or seedlings. Useful for shelter, erosion control on streamsides and valleys.		■			
■					Drought and frost tolerant, prefers full sun, drier soils. Collect seed January-December. Establish via direct seeding or seedlings. Useful for shelter, erosion control on hillsides, plains and drier sites.					■
■		■			Drought and frost tolerant, mildly salt tolerant, prefers half sun to shade, dry to moist soils. Collect seed April-early May. Establish via seedlings. Useful for shelter, erosion control on streamsides and valleys, honey production, butterfly and moth habitat.					■
					Drought and frost tolerant, prefers full sun, dry to moist soils. Collect seed January-December. Establish via direct seeding or seedlings. Useful for shelter, general erosion control.				■	
					Drought and frost tolerant, prefers full sun, dry to moist soils. Collect seed January-December. Establish via direct seeding or seedlings. Useful for honey production, shelter, erosion control on hillsides, plains, drier sites.				■	



Indigenous Species Selection List

Trees and Tall Shrubs	Common Name	Height	Width	Native Vegetation Group										
				Heathy Woodlands	Lowland Forests	Box Ironbark Forests or Dry/Lower Fertility Woodlands	Lower Slopes or Hills Woodlands	Dry Forests	Wet or Damp Forests	Riparian Scrubs or Swampy Scrubs and Woodlands	Riparian Forests or Woodlands	Plains Grasslands and Chenopod Scrublands		
<i>Eucalyptus baxteri</i>	Brown Stringybark	> 15m	> 6m	■	■				■	■				
<i>Eucalyptus behriana</i>	Bull Mallee	8-15m	> 6m			■								
<i>Eucalyptus camaldulensis</i>	River Red-gum	> 15m	> 6m	■			■				■	■		
<i>Eucalyptus cypellocarpa</i>	Mountain Grey-gum	> 15m	> 6m		■				■	■			■	
<i>Eucalyptus dives</i>	Broad-leaved Peppermint	> 15m	> 6m	■					■	■				
<i>Eucalyptus globulus</i> subsp. <i>pseudoglobulus</i>	Gippsland Blue-gum	> 15m	> 6m						■	■			■	
<i>Eucalyptus goniocalyx</i> s.l.	Longleaf Box	> 15m	> 6m	■	■	■	■	■						
<i>Eucalyptus leucoxylon</i> subsp. <i>connata</i>	Melbourne Yellow-gum	> 15m	> 6m											
<i>Eucalyptus macrorhyncha</i>	Red Stringybark	> 15m	> 6m	■		■			■	■				
<i>Eucalyptus melliodora</i>	Yellow Box	> 15m	> 6m			■	■	■						
<i>Eucalyptus microcarpa</i>	Grey Box	> 15m	> 6m	■		■	■							
<i>Eucalyptus obliqua</i>	Messmate Stringybark	> 15m	> 6m	■	■				■	■			■	
<i>Eucalyptus ovata</i> var. <i>ovata</i>	Swamp Gum	> 15m	> 6m				■							

					Tolerances, Preferences, Uses, Seed Collection and Establishment	Topography				
Plains Grassy Woodlands or Forests	Riverine Grassy Woodlands or Forests	Herb-Rich Woodlands	Heathlands	Wetlands		Hilly country, open plains, various aspects	Open plains and foothills	Sheltered	Predominantly southern aspect	Aspect and exposure variable
	■		■		Drought and frost tolerant, prefers full sun, dry to moist soils. Collect seed January-December. Establish via direct seeding or seedlings. Useful for shelter, erosion control on hillsides, plains and drier sites, honey production.					■
					Drought and frost tolerant, prefers full sun, dry to moist soils. Establish via direct seeding or seedlings. Useful for shelter, erosion control on hillsides and drier sites, honey production.				■	
■	■	■		■	Drought and frost tolerant, mildly salt tolerant, prefers full sun, dry to flooded soils. Collect seed March-September. Establish via direct seeding or seedlings. Useful for shelter, erosion control on streamsides and valleys, honey production, timber production.		■			
					Prefers full sun and moist soils. Collect seed January-December. Establish via direct seeding or seedlings. Useful for shelter, erosion control on hillsides, plains and drier sites, honey production, timber production.			■		
					Drought and frost tolerant, prefers full sun and dry to moist soils. Collect seed January-December. Establish via direct seeding or seedlings. Useful for shelter, erosion control on hillsides, plains and drier sites, honey production.				■	
					Drought and frost tolerant, prefers full sun and dry to moist soils. Establish via direct seeding or seedlings. Useful for shelter, general erosion control, honey production, timber production.				■	
					Drought and frost tolerant, prefers full sun, dry to moist soils. Collect seed August-May. Establish via direct seeding or seedlings. Useful for shelter, erosion control on hillsides, plains and drier sites, honey production.				■	
■					Drought and frost tolerant, mildly salt tolerant, prefers full sun, dry to moist soils. Establish via direct seeding or seedlings. Useful for shelter, general erosion control, timber production.		■			
					Drought and frost tolerant, prefers full sun, dry to moist soils. Collect seed December-February. Establish via direct seeding or seedlings. Useful for shelter, erosion control on hillsides, plains and drier sites, honey production.				■	
■		■			Drought and frost tolerant, prefers full sun, dry to moist soils. Collect seed November-April. Establish via direct seeding or seedlings. Useful for shelter, general erosion control, honey production, timber production.	■				
■		■			Salt tolerant, prefers full sun, dry to moist soils. Collect seed November-May. Establish via direct seeding or seedlings. Useful for shelter, general erosion control, honey production, timber production.	■				
	■	■	■		Prefers full sun and dry to moist soils. Collect seed December-February. Establish via direct seeding or seedlings. Useful for shelter, general erosion control, honey production, timber production.					■
■					Mildly salt tolerant, prefers dry to flooded soils. Establish via direct seeding or seedlings. Useful for general erosion control.					■



Indigenous Species Selection List

Trees and Tall Shrubs	Common Name	Height	Width	Native Vegetation Group																
				Heathy Woodlands	Lowland Forests	Box Ironbark Forests or Dry/Lower Fertility Woodlands	Lower Slopes or Hills Woodlands	Dry Forests	Wet or Damp Forests	Riparian Scrubs or Swampy Scrubs and Woodlands	Riparian Forests or Woodlands	Plains Grasslands and Chenopod Scrublands								
<i>Eucalyptus pauciflora</i> ssp. <i>pauciflora</i>	Snowgum	8-15m	> 6m																	
<i>Eucalyptus polyanthemos</i>	Red Box	> 15m	> 6m			■				■										
<i>Eucalyptus radiata</i> s.l.	Narrow-leaf Peppermint	> 15m	> 6m	■	■					■	■	■	■							
<i>Eucalyptus radiata</i> subsp. <i>radiata</i>	Narrow-leaf Peppermint	> 15m	> 6m	■	■					■	■									
<i>Eucalyptus rubida</i>	Candlebark	> 15m	> 6m				■			■	■	■								
<i>Eucalyptus tricarpa</i>	Red Ironbark	> 15m	> 6m	■		■				■										
<i>Eucalyptus viminalis</i> subsp. <i>cygnetensis</i>	Rough-barked Manna-gum	> 15m	> 6m	■	■															
<i>Eucalyptus viminalis</i> subsp. <i>viminalis</i>	Manna Gum	> 15m	> 6m							■	■				■					
<i>Eucalyptus yarraensis</i>	Yarra Gum	> 15m	> 6m							■										
<i>Leptospermum lanigerum</i>	Woolly Tea-tree	3-6m	2-4m		■						■	■	■	■						
<i>Melaleuca lanceolata</i> subsp. <i>lanceolata</i>	Moonah	6-8m	4-6m			■														
<i>Olearia argophylla</i>	Musk Daisy-bush	6-8m	2-4m		■					■	■				■					
<i>Pomaderris aspera</i>	Hazel Pomaderris	8-15m	2-4m		■					■	■				■					
<i>Prostanthera lasianthos</i>	Victorian Christmas-bush	6-8m	2-4m		■					■	■				■					

					Tolerances, Preferences, Uses, Seed Collection and Establishment	Topography				
Plains Grassy Woodlands or Forests	Riverine Grassy Woodlands or Forests	Herb-Rich Woodlands	Heathlands	Wetlands		Hilly country, open plains, various aspects	Open plains and foothills	Sheltered	Predominantly southern aspect	Aspect and exposure variable
■					Drought and frost tolerant, mildly salt tolerant, prefers full sun, dry to waterlogged soils. Establish via direct seeding or seedlings. Useful for shelter, general erosion control.					■
					Drought and frost tolerant, prefers full sun and dry to moist soils. Collect seed March-June. Establish via direct seeding or seedlings. Useful for shelter, erosion control on hillsides, plains and drier sites, honey production, timber production.				■	
		■	■		Mildly salt tolerant, prefers full sun, dry to moist soils. Collect seed December-February. Establish via direct seeding or seedlings. Useful for shelter, general erosion control, honey production, timber production.			■		
		■			Mildly salt tolerant, prefers full sun, dry to moist soils. Establish via direct seeding or seedlings. Useful for shelter, general erosion control, honey production, timber production.			■		
		■			Mildly salt tolerant, prefers full sun, dry to moist soils. Collect seed February-May. Establish via direct seeding or seedlings. Useful for shelter, general erosion control, honey production.	■				
					Drought and frost tolerant, prefers full sun, dry to moist soils. Collect seed August-February. Establish via direct seeding or seedlings. Useful for shelter, erosion control on hillsides, plains and drier sites, honey production, timber production.				■	
■		■	■		Prefers full sun and moist soils. Collect seed November-December. Establish via direct seeding or seedlings. Useful for shelter, erosion control on streamsides and valleys, honey production.	■				
■					Prefers full sun, moist soils. Establish via direct seeding or seedlings. Useful for shelter, general erosion control, honey production, timber production.	■				
					Salt tolerant, prefers full sun, moist to waterlogged soils. Collect seed January-December. Establish via direct seeding or seedlings. Useful for shelter, erosion control on streamsides and valleys.		■			
	■		■		Salt tolerant, prefers half sun to shade, moist to flooded soils. Collect seed January-December. Establish via seedlings. Useful for shelter, erosion control on streamsides and valleys, honey production.			■		
					Salt tolerant, prefers full sun, dry to waterlogged soils. Collect seed January-December. Establish via direct seeding or seedlings. Useful for shelter, erosion control on streamsides and valleys.					
					Prefers half sun to shade, moist soils. Collect seed late February. Establish via seedlings.			■		
					Prefers full sun to half shade, moist soils. Collect seed January. Establish via seedlings. Useful for erosion control on streamsides and valleys, butterfly and moth habitat.			■		
					Prefers half sun to shade, moist soils. Collect seed late January-early February. Establish via seedlings. Useful for erosion control on streamsides and valleys.			■		



Indigenous Species Selection List

Shrubs	Common Name	Height	Width	Native Vegetation Group										
				Heathy Woodlands	Lowland Forests	Box Ironbark Forests or Dry/Lower Fertility Woodlands	Lower Slopes or Hills Woodlands	Dry Forests	Wet or Damp Forests	Riparian Scrubs or Swampy Scrubs and Woodlands	Riparian Forests or Woodlands	Plains Grasslands and Chenopod Scrublands		
<i>Acacia acinacea s.l.</i>	Gold-dust Wattle	1-3m	1-2m			■								
<i>Acacia aspera</i>	Rough Wattle	1-3m	1-2m			■			■					
<i>Acacia gunnii</i>	Ploughshare Wattle	< 1m	1-2m	■					■					
<i>Acacia mitchellii</i>	Mitchell's Wattle	1-3m	< 1m	■	■				■					
<i>Acacia myrtifolia</i>	Myrtle Wattle	1-3m	1-2m	■	■				■	■				
<i>Acacia oxycedrus</i>	Spike Wattle	3-6m	2-4m	■	■				■					
<i>Acacia paradoxa</i>	Hedge Wattle	3-6m	1-2m	■	■	■	■	■	■					
<i>Acacia stricta</i>	Hop Wattle	3-6m	2-4m		■				■					
<i>Acacia verticillata</i>	Prickly Moses	3-6m	2-4m	■	■				■	■	■	■		
<i>Banksia marginata</i>	Silver Banksia	6-8m	4-6m	■	■	■	■	■	■	■				
<i>Callistemon sieberi</i>	River Bottlebrush	6-8m	2-4m								■	■		
<i>Cassinia aculeata</i>	Common Cassinia	1-3m	1-2m	■	■	■	■	■	■	■	■	■		
<i>Cassinia arcuata</i>	Drooping Cassinia	1-3m	1-2m			■	■	■	■					
<i>Cassinia longifolia</i>	Shiny Cassinia	3-6m	2-4m		■	■	■	■	■					

					Tolerances, Preferences, Uses, Seed Collection and Establishment	Topography				
Plains Grassy Woodlands or Forests	Riverine Grassy Woodlands or Forests	Herb-Rich Woodlands	Heathlands	Wetlands		Hilly country, open plains, various aspects	Open plains and foothills	Sheltered	Predominantly southern aspect	Aspect and exposure variable
■					Drought and frost tolerant, prefers full sun, dry to moist soils. Collect seed late January. Establish via seedlings. Useful for erosion control on hillsides, plains and drier sites.	■				
					Drought and frost tolerant, prefers half sun to shade, dry to moist soils. Collect seed early January. Establish via seedlings. Useful for shelter, erosion control on hillsides, plains and drier sites.	■				
					Drought and frost tolerant, prefers half sun to shade, dry to moist soils. Collect seed early January. Establish via seedlings. Useful for shelter, erosion control on hillsides, plains and drier sites.	■				
					Prefers half sun to shade, dry to moist soils. Collect seed late December-early January. Establish via seedlings. Useful for erosion control on hillsides, plains and drier sites.	■				
			■		Drought and frost tolerant, prefers half sun to shade, dry to waterlogged soils. Collect seed early January. Establish via seedlings. Useful for shelter, erosion control on hillsides, plains and drier sites.					■
			■		Drought and frost tolerant, adaptable to a wide range of conditions. Collect seed in December. Establish via seedlings. Useful for shelter, erosion control on hillsides, plains and drier sites.	■				
■		■			Drought and frost tolerant, adaptable to a wide range of conditions. Collect seed in early January. Establish via direct seeding or seedlings. Useful for shelter, general erosion control.		■			
		■	■		Prefers half sun to shade, dry to moist soils. Collect seed in January. Establish via seedlings. Useful for shelter, erosion control on hillsides, plains and drier sites.	■				
	■	■	■		Drought and frost tolerant, prefers half sun to shade, moist to waterlogged soils. Collect seed late December-early January. Establish via seedlings. Useful for shelter, erosion control on streamsides and valleys.			■		
■		■	■		Drought and frost tolerant, prefers full sun, dry to moist soils. Collect seed early February. Establish via direct seeding or seedlings. Useful for shelter, general erosion control, honey production.					■
					Mildly salt tolerant, prefers half sun to shade, waterlogged or flooded soils. Collect seed January-December. Establish via seedlings. Useful for shelter, erosion control on streamsides and valleys, honey production.		■			
					Drought and frost tolerant, prefers half sun to shade, moist soils. Collect seed late February-early March. Establish via direct seeding or seedlings. Useful for shelter, erosion control on hillsides, plains and drier sites.					■
■					Drought and frost tolerant, prefers full sun and dry to moist soils. Collect seed May-June. Establish via direct seeding or seedlings. Useful for shelter, erosion control on hillsides, plains and drier sites.		■			■
■					Prefers half sun to shade and dry to moist soils. Collect seed late February-early March. Establish via direct seeding or seedlings. Useful for shelter, erosion control on hillsides, plains and drier sites.					■



Indigenous Species Selection List

Shrubs	Common Name	Height	Width	Native Vegetation Group										
				Heathy Woodlands	Lowland Forests	Box Ironbark Forests or Dry/Lower Fertility Woodlands	Lower Slopes or Hills Woodlands	Dry Forests	Wet or Damp Forests	Riparian Scrubs or Swampy Scrubs and Woodlands	Riparian Forests or Woodlands	Plains Grasslands and Chenopod Scrublands		
<i>Daviesia latifolia</i>	Hop Bitter-pea	1-3m	1-2m		■				■	■				
<i>Daviesia leptophylla</i>	Narrow-leaf Bitter-pea	1-3m	1-2m	■	■	■		■	■					
<i>Daviesia ulicifolia</i>	Gorse Bitter-pea	1-3m	1-2m	■	■	■		■	■					
<i>Eremophila deserti</i>	Turkey Bush	3-6m	1-2m			■								
<i>Eutaxia microphylla</i> var. <i>microphylla</i>	Common Eutaxia	1-3m	1-2m											
<i>Goodenia ovata</i>	Hop Goodenia	1-3m	2-4m	■	■			■	■	■	■			
<i>Hakea decurrens</i> subsp. <i>physocarpa</i>	Bushy Needlewood	1-3m	1-2m					■						
<i>Indigofera australis</i>	Austral Indigo	1-3m	1-2m		■			■	■			■		
<i>Leptospermum continentale</i>	Prickly Tea-tree	3-6m	1-2m	■	■		■	■	■	■	■	■		
<i>Leptospermum myrsinoides</i>	Heath Tea-tree	1-3m	< 1m	■	■		■	■						
<i>Melicytus dentatus</i> s.l.	Tree Violet	3-6m	1-2m								■			
<i>Muehlenbeckia florulenta</i>	Tangled Lignum	1-3m	1-2m											
<i>Olearia lirata</i>	Snowy Daisy-bush	3-6m	2-4m	■	■			■	■	■	■			

					Tolerances, Preferences, Uses, Seed Collection and Establishment	Topography				
Plains Grassy Woodlands or Forests	Riverine Grassy Woodlands or Forests	Herb-Rich Woodlands	Heathlands	Wetlands		Hilly country, open plains, various aspects	Open plains and foothills	Sheltered	Predominantly southern aspect	Aspect and exposure variable
					Prefers half sun to shade and dry to moist soils. Collect seed early January. Establish via seedlings. Useful for shelter, erosion control on hillsides, plains and drier sites, honey production.	■				
					Drought and frost tolerant, prefers half sun to shade and dry to moist soils. Collect seed late December-early January. Establish via seedlings. Useful for erosion control on hillsides, plains and drier sites.				■	
			■		Drought and frost tolerant, prefers half sun to shade and dry to moist soils. Collect seed late December-early January. Establish via seedlings. Useful for erosion control on hillsides, plains and drier sites.	■				
■					Drought and frost tolerant, poisonous to stock, prefers full sun and dry to moist soils. Establish via seedlings. Useful for shelter, erosion control on hillsides, plains and drier sites, butterfly and moth habitat.				■	
■					Drought and frost tolerant, salt tolerant, prefers full sun and moist to waterlogged soils. Collect seed late December-early January. Establish via seedlings. Useful for erosion control on streamsides and valleys, butterfly and moth habitat.		■			
		■	■	■	Drought and frost tolerant, prefers half sun to shade and dry to waterlogged soils. Collect seed late December-early January. Establish via seedlings. Useful for erosion control on streamsides and valleys.					■
			■		Drought and frost tolerant, prefers full sun and dry to moist soils. Establish via seedlings. Useful for erosion control on hillsides, plains and drier sites.	■				
					Drought and frost tolerant, poisonous to stock, prefers full sun and moist soils. Collect seed late January-early February. Establish via seedlings. Useful for general erosion control.				■	
■	■	■	■	■	Prefers full sun and moist to waterlogged soils. Collect seed January-December. Establish via direct seeding or seedlings. Useful for shelter, general erosion control, honey production.					■
■		■	■	■	Drought and frost tolerant, prefers half sun to shade and dry to waterlogged soils. Collect seed in March. Establish via direct seeding or seedlings. Useful for shelter, general erosion control, honey production.		■			
■	■				Drought and frost tolerant, adapts to a wide range of conditions. Collect seed late January-early February. Establish via seedlings. Useful for shelter, general erosion control.		■			
		■		■	Salt tolerant, prefers full sun and moist to flooded soils. Collect seed late January-early May. Establish via seedlings. Useful for shelter, erosion control on streamsides and valleys, honey production.		■			
		■			Prefers half sun to shade and moist soils. Collect seed late November-December. Establish via seedlings.			■		



Indigenous Species Selection List

Shrubs	Common Name	Height	Width	Native Vegetation Group										
				Heathy Woodlands	Lowland Forests	Box Ironbark Forests or Dry/Lower Fertility Woodlands	Lower Slopes or Hills Woodlands	Dry Forests	Wet or Damp Forests	Riparian Scrubs or Swampy Scrubs and Woodlands	Riparian Forests or Woodlands	Plains Grasslands and Chenopod Scrublands		
<i>Ozothamnus ferrugineus</i>	Tree Everlasting	3-6m	2-4m	■	■		■	■	■	■	■			
<i>Ozothamnus obcordatus</i>	Grey Everlasting	1-3m	< 1m	■	■	■		■						
<i>Pomaderris elachophylla</i>	Small-leaf Pomaderris	1-3m	1-2m						■					
<i>Pomaderris racemosa</i>	Cluster Pomaderris	3-6m	1-2m					■		■				
<i>Prostanthera decussata</i>	Dense Mint-bush	1-3m	1-2m					■						
<i>Pultenaea daphnoides</i>	Large-leaf Bush-pea	1-3m	1-2m	■	■			■	■					
<i>Pultenaea gunnii</i>	Golden Bush-pea	1-3m	< 1m	■	■			■	■					
<i>Pultenaea humilis</i>	Dwarf Bush-pea	< 1m	< 1m	■	■			■						
<i>Pultenaea mollis</i>	Soft Bush-pea	1-3m	1-2m	■	■			■	■					
<i>Pultenaea pedunculata</i>	Matted Bush-pea	< 1m	2-4m	■				■						
<i>Pultenaea scabra</i>	Rough Bush-pea	1-3m	1-2m	■	■			■	■					
<i>Rhagodia parabolica</i>	Fragrant Saltbush	1-3m	1-2m			■								
<i>Sclerolaena muricata</i> var. <i>muricata</i>	Black Roly-poly	< 1m	< 1m					■				■		

					Tolerances, Preferences, Uses, Seed Collection and Establishment	Topography				
Plains Grassy Woodlands or Forests	Riverine Grassy Woodlands or Forests	Herb-Rich Woodlands	Heathlands	Wetlands		Hilly country, open plains, various aspects	Open plains and foothills	Sheltered	Predominantly southern aspect	Aspect and exposure variable
	■	■	■		Salt tolerant, prefers full sun and moist soils. Collect seed late January-February. Establish via direct seeding or seedlings. Useful for shelter, erosion control on streamsides and valleys.	■				
					Drought and frost tolerant, prefers full sun and dry to moist soils. Collect seed in February. Establish via direct seeding or seedlings. Useful for shelter, general erosion control.				■	
					Frost sensitive, prefers half sun to shade and moist soils. Collect seed late January-early February. Establish via seedlings. Useful for erosion control on streamsides and valleys.			■		
					Drought and frost tolerant, prefers full sun and dry to moist soils. Collect seed late January. Establish via seedlings. Useful for shelter, erosion control on hillsides, plains and drier sites.			■		
					Drought and frost tolerant, prefers full sun to half shade and dry to moist soils. Collect seed December-April. Establish via seedlings.	■				
		■			Drought and frost tolerant, prefers full sun and dry to moist soils. Collect seed late December-early January. Establish via seedlings. Useful for shelter, general erosion control.	■				
					Drought and frost tolerant, prefers full sun to half shade and dry to moist soils. Collect seed late December. Establish via seedlings. Useful for shelter, erosion control on hillsides, plains and drier sites.				■	
					Prefers full sun and dry to moist soils. Collect seed in February. Establish via seedlings. Useful for erosion control on hillsides, plains and drier sites.	■				
					Drought and frost tolerant, prefers full sun and dry to moist soils. Collect seed in December. Establish via seedlings. Useful for erosion control on hillsides, plains and drier sites.	■				
■					Drought and frost tolerant, salt tolerant, prefers full sun to half shade and dry to moist soils. Collect seed late January-early February. Establish via seedlings. Useful for general erosion control.	■				
					Drought and frost tolerant, prefers full sun to half shade and moist soils. Collect seed in December. Establish via seedlings. Useful for erosion control on streamsides and valleys.		■			
					Drought and frost tolerant, prefers full sun and dry to moist soils. Collect seed in January. Establish via seedlings. Useful for shelter, erosion control on hillsides, plains and drier sites.				■	
■					Drought, frost, and salt tolerant, prefers full sun and dry to moist soils. Collect seed February-September. Establish via seedlings.		■			

					Tolerances, Preferences, Uses, Seed Collection and Establishment	Topography				
Plains Grassy Woodlands or Forests	Riverine Grassy Woodlands or Forests	Herb-Rich Woodlands	Heathlands	Wetlands		Hilly country, open plains, various aspects	Open plains and foothills	Sheltered	Predominantly southern aspect	Aspect and exposure variable
					Drought and frost tolerant, prefers full sun and dry to moist soils. Collect seed late March-early April. Establish via seedlings. Useful for erosion control on hillsides, plains and drier sites.		■			
■				■	Drought and frost tolerant, prefers half sun to shade and dry to waterlogged soils. Collect seed late March-early April. Establish via seedlings. Useful for erosion control on streamsides and valleys.					■
■					Drought and frost tolerant, prefers full sun and dry to moist soils. Collect seed late January-early February. Establish via seedlings. Useful for erosion control on hillsides, plains and drier sites.					■
					Drought and frost tolerant, prefers full sun and moist soils. Collect seed late January-February. Establish via seedlings.					■
■	■				Drought and frost tolerant, adaptable to a wide range of conditions including waterlogged soils. Collect seed late December-early January. Establish via seedlings.					■
■				■	Drought and frost tolerant, adaptable to a wide range of conditions including waterlogged soils. Collect seed late December-January. Establish via seedlings. Useful for erosion control on streamsides and valleys.		■			
■					Drought and frost tolerant, adaptable to a wide range of conditions. Collect seed late December-early January. Establish via seedlings. Useful for erosion control on hillsides, plains and drier sites.		■			
■		■			Drought and frost tolerant, adaptable to a wide range of conditions. Collect seed late December-January. Establish via seedlings. Useful for erosion control on hillsides, plains and drier sites.	■				
■					Drought and frost tolerant, adaptable to a wide range of conditions. Establish via seedlings. Useful for erosion control on hillsides, plains and drier sites.		■			
■					Drought and frost tolerant, adaptable to a wide range of conditions including waterlogged soils. Collect seed late December-January. Establish via seedlings. Useful for general erosion control.		■			
■					Drought and frost tolerant, adapts to both sunny and shady conditions, prefers moist soils. Collect seed late December-January. Establish via seedlings. Useful for erosion control on hillsides, plains and drier sites.					■
■		■			Drought and frost tolerant, adaptable to a wide range of conditions. Collect seed late December-January. Establish via seedlings. Useful for erosion control on hillsides, plains and drier sites.					■
■		■	■	■	Drought and frost tolerant, adaptable to a wide range of conditions including waterlogged soils. Collect seed late December-January. Establish via seedlings. Collect seed late December-January. Establish via seedlings.					■
■					Drought and frost tolerant, adaptable to a wide range of conditions including waterlogged soils. Collect seed late December-early January. Establish via seedlings. Useful for erosion control on streamsides and valleys.		■			



Indigenous Species Selection List

Grasses and Sedges	Common Name	Height	Width	Native Vegetation Group										
				Heathy Woodlands	Lowland Forests	Box Ironbark Forests or Dry/Lower Fertility Woodlands	Lower Slopes or Hills Woodlands	Dry Forests	Wet or Damp Forests	Riparian Scrubs or Swampy Scrubs and Woodlands	Riparian Forests or Woodlands	Plains Grasslands and Chenopod Scrublands		
<i>Austrostipa mollis</i>	Supple Spear-grass	< 1m	< 1m	■	■	■	■	■						
<i>Austrostipa rudis</i>	Veined Spear-grass	< 1m	< 1m	■	■		■	■						■
<i>Austrostipa scabra</i>	Rough Spear-grass	< 1m	< 1m			■	■	■						■
<i>Austrostipa semibarbata</i>	Fibrous Spear-grass	< 1m	< 1m	■	■		■							
<i>Carex appressa</i>	Tall Sedge	< 1m	< 1m					■	■	■	■			
<i>Carex iynx</i>	Tussock Sedge	< 1m	< 1m					■						
<i>Chloris truncata</i>	Windmill Grass	< 1m	< 1m											■
<i>Ficinia nodosa</i>	Knobby Club-sedge	1-3m	1-2m											
<i>Gahnia sieberiana</i>	Red-fruit Saw-sedge	1-3m	2-4m	■	■			■	■	■	■			
<i>Joycea pallida</i>	Silvertop Wallaby-grass	1-3m	< 1m	■	■	■		■	■					
<i>Juncus flavidus</i>	Gold Rush	< 1m	< 1m											■
<i>Juncus pallidus</i>	Pale Rush	1-3m	< 1m	■	■		■	■	■	■	■			
<i>Juncus procerus</i>	Tall Rush	1-3m	1-2m		■						■			
<i>Juncus sarophorus</i>	Broom Rush	1-3m	< 1m								■			

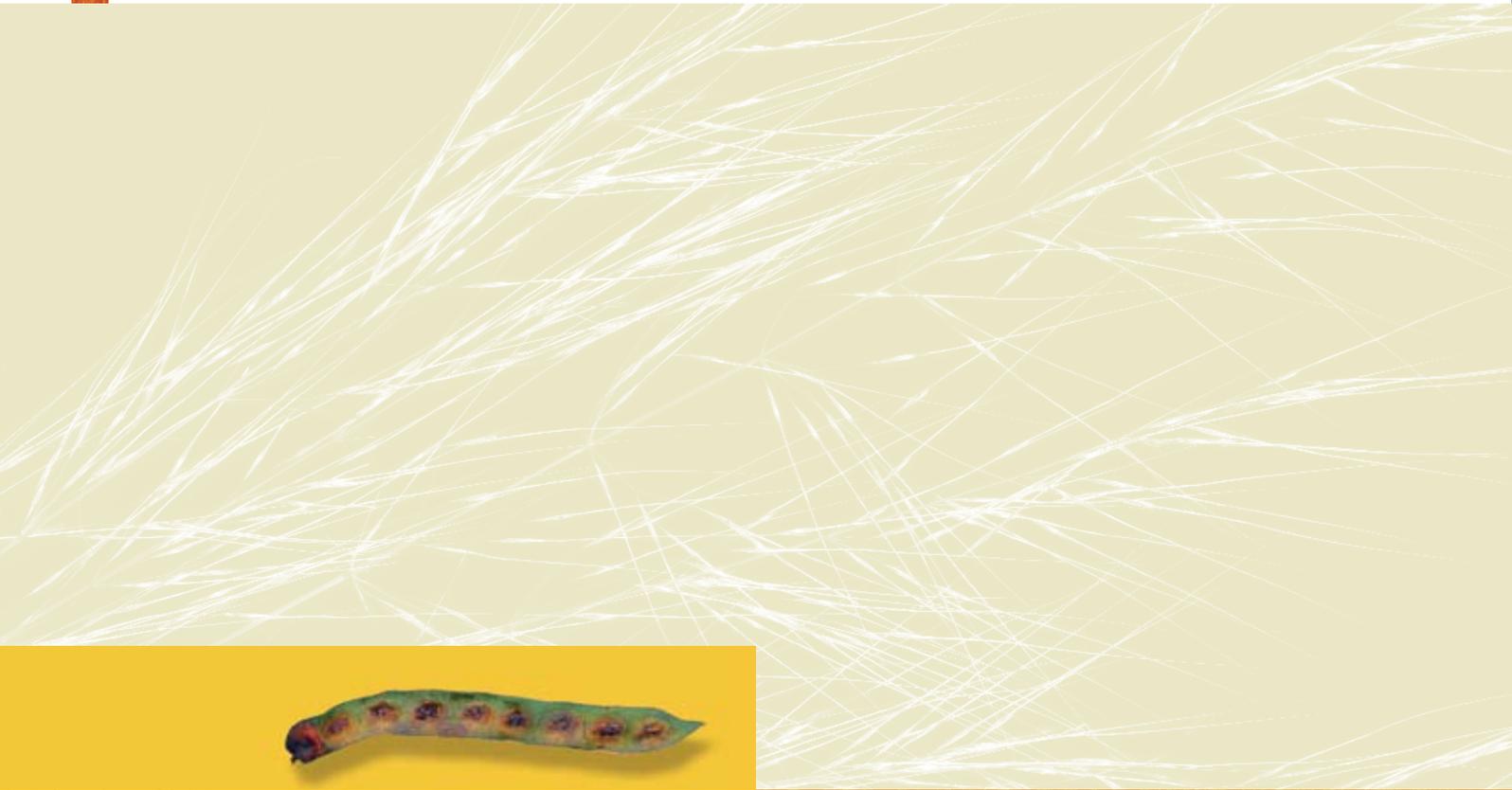
					Tolerances, Preferences, Uses, Seed Collection and Establishment	Topography				
Plains Grassy Woodlands or Forests	Riverine Grassy Woodlands or Forests	Herb-Rich Woodlands	Heathlands	Wetlands		Hilly country, open plains, various aspects	Open plains and foothills	Sheltered	Predominantly southern aspect	Aspect and exposure variable
■		■	■		Prefers full sun and moist soils. Collect seed late December-early January. Establish via seedlings. Useful for erosion control on hillsides, plains and drier sites.					■
■					Drought and frost tolerant, prefers full sun and moist soils. Collect seed late November-early December. Establish via seedlings. Useful for erosion control on hillsides, plains and drier sites.	■				
■		■			Drought and frost tolerant, prefers full sun and dry to moist soils. Collect seed December-early February. Establish via seedlings. Useful for erosion control on hillsides, plains and drier sites.		■			
■					Drought and frost tolerant, prefers full sun and dry to moist soils. Collect seed late January-early February. Establish via seedlings. Useful for erosion control on hillsides, plains and drier sites.	■				
■	■	■	■	■	Prefers full sun and moist to flooded soils. Collect seed late February-March. Establish via seedlings. Useful for erosion control on streamsides and valleys, butterfly and moth habitat.			■		
■					Adapts to both sunny and shady conditions and prefers moist soils. Collect seed December-January. Establish via seedlings. Useful for erosion control on streamsides and valleys.		■			
■					Drought and frost tolerant, prefers full sun and dry to moist soils. Collect seed March-April. Establish via seedlings. Useful for erosion control on hillsides, plains and drier sites.		■			
		■	■	■	Drought, frost and salt tolerant, adaptable to a wide range of conditions including waterlogged soils. Collect seeds in March. Establish via seedlings. Useful for erosion control on streamsides and valleys.					■
	■	■	■		Prefers half sun to shady conditions and moist to waterlogged soils. Collect seed late August-October. Establish via seedlings. Useful for erosion control on streamsides and valleys, butterfly and moth habitat.			■		
					Drought and frost tolerant, prefers full sun and dry to moist soils. Collect seed late February-early March. Establish via seedlings. Useful for erosion control on hillsides, plains and drier sites.				■	
■				■	Drought, frost and salt tolerant, prefers full sun and dry to flooded soils. Collect seed December-February. Establish via seedlings. Useful for erosion control on streamsides and valleys.		■			
■	■	■			Drought and frost tolerant, mildly salt tolerant, adaptable to a wide range of conditions including waterlogged soils. Collect seed late February. Establish via seedlings. Useful for erosion control on streamsides and valleys.		■			■
	■			■	Prefers half sun to shady conditions and moist to flooded soils. Collect seed late December. Establish via seedlings. Useful for erosion control on streamsides and valleys.			■		
■				■	Drought and frost tolerant, prefers full sun and moist to flooded conditions. Collect seed late December-early February. Establish via seedlings. Useful for erosion control on streamsides and valleys.		■			



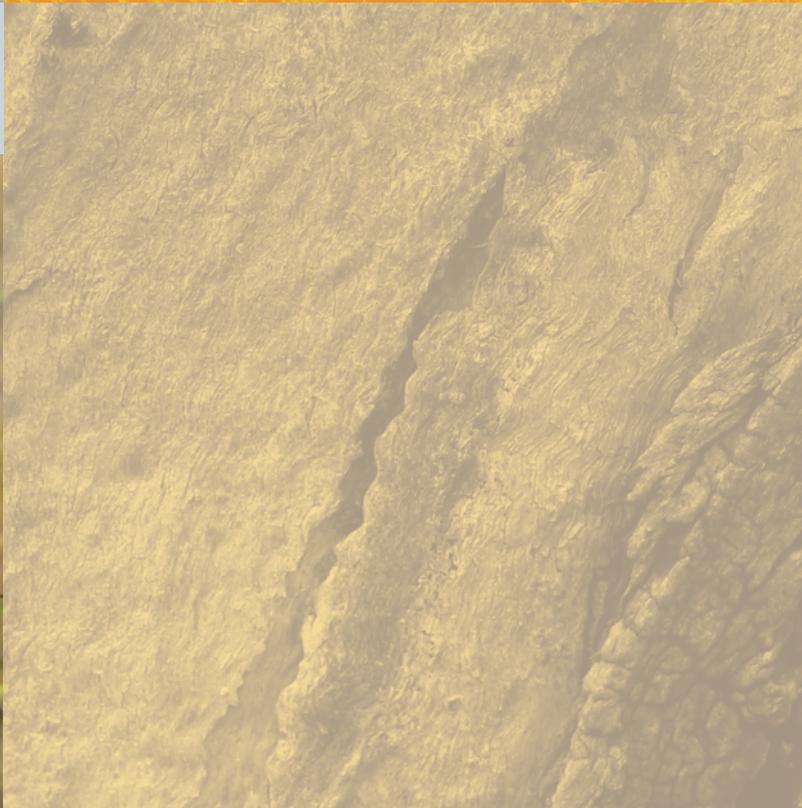
Indigenous Species Selection List

Grasses and Sedges	Common Name	Height	Width	Native Vegetation Group										
				Heathy Woodlands	Lowland Forests	Box Ironbark Forests or Dry/Lower Fertility Woodlands	Lower Slopes or Hills Woodlands	Dry Forests	Wet or Damp Forests	Riparian Scrubs or Swampy Scrubs and Woodlands	Riparian Forests or Woodlands	Plains Grasslands and Chenopod Scrublands		
<i>Juncus subsecundus</i>	Finger Rush	< 1m	< 1m	■		■	■	■						■
<i>Lepidosperma laterale</i>	Variable Sword-sedge	< 1m	< 1m	■	■	■	■	■	■	■	■	■	■	
<i>Lomandra longifolia</i>	Spiny-headed Mat-rush	< 1m	1-2m	■	■		■	■	■	■	■	■		
<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass	< 1m	< 1m	■	■	■	■	■	■	■	■	■	■	■
<i>Phragmites australis</i>	Common Reed	1-3m	< 1m								■	■		
<i>Poa labillardierei</i>	Common Tussock-grass	< 1m	< 1m		■			■	■	■	■	■	■	■
<i>Poa morrisii</i>	Soft Tussock-grass	< 1m	< 1m	■	■	■	■	■	■					■
<i>Poa sieberiana</i>	Grey Tussock-grass	< 1m	< 1m	■	■	■	■	■	■	■	■	■	■	■
<i>Tetrarrhena distichophylla</i>	Hairy Rice-grass	< 1m	< 1m	■	■				■					
<i>Tetrarrhena juncea</i>	Forest Wire-grass	3-6m	1-2m		■				■	■			■	
<i>Themeda triandra</i>	Kangaroo Grass	< 1m	< 1m	■	■		■	■	■	■	■	■		■
<i>Typha domingensis</i>	Narrow-leaf Cumbungi	1-3m	< 1m									■		
<i>Xanthorrhoea australis</i>	Austral Grass-tree	1-3m	< 1m	■	■		■	■						
<i>Xanthorrhoea minor</i> subsp. <i>lutea</i>	Small Grass-tree	< 1m	< 1m	■	■		■	■	■					

					Tolerances, Preferences, Uses, Seed Collection and Establishment	Topography				
Plains Grassy Woodlands or Forests	Riverine Grassy Woodlands or Forests	Herb-Rich Woodlands	Heathlands	Wetlands		Hilly country, open plains, various aspects	Open plains and foothills	Sheltered	Predominantly southern aspect	Aspect and exposure variable
■		■			Adaptable to both sunny and shady positions and prefers moist to waterlogged soils. Collect seed late December-early February. Establish via seedlings. Useful for erosion control on streamsides and valleys.		■			
■		■	■		Drought and frost tolerant, adaptable to a wide range of conditions including waterlogged soils. Collect seed in August. Establish via seedlings. Useful for general erosion control.		■			
■	■	■	■		Drought and frost tolerant, mildly salt tolerant, prefers half sun to shady conditions and dry to waterlogged soils. Collect seed late January-early March. Establish via seedlings. Useful for general erosion control, butterfly and moth habitat.					■
■	■	■	■		Drought and frost tolerant, mildly salt tolerant, prefers half sun to shady conditions and a moist soil. Establish via seedlings. Useful for general erosion control, butterfly and moth habitat.			■		
	■			■	Salt tolerant, prefers full sun to half shade and waterlogged to flooded soils. Collect seed May-early July. Establish via seedlings. Useful for erosion control on streamsides and valleys.		■			
■	■	■		■	Prefers half sun to shade and moist to waterlogged soils. Collect seed late December. Establish via seedlings. Useful for erosion control on streamsides and valleys, butterfly and moth habitat.	■				
■		■			Mildly salt tolerant, prefers half sun to shady conditions and dry to moist soils. Collect seed late January-early February. Establish via seedlings. Useful for erosion control on hillsides, plains and drier sites.		■			
■		■	■		Drought and frost tolerant, prefers full sun to half shade and dry to moist soils. Collect seed late December-early January. Establish via seedlings. Useful for erosion control on hillsides, plains and drier sites, butterfly and moth habitat.				■	
	■	■	■		Prefers half sun to shade and moist soils. Collect seed December-February. Establish via seedlings. Useful for erosion control on streamsides and valleys.		■			
	■	■	■		Drought and frost tolerant, prefers half sun to shade and moist soils. Collect seed late January. Establish via direct seeding. Useful for erosion control on streamsides and valleys, butterfly and moth habitat.			■		
■		■	■	■	Drought and frost tolerant, mildly salt tolerant, adapts to a wide range of conditions. Collect seed in February. Establish via seedlings. Useful for general erosion control, butterfly and moth habitat.	■				
					Salt tolerant, prefers full sun and waterlogged to flooded conditions. Collect seed late January-early March. Establish via seedlings. Useful for erosion control on streamsides and valleys.		■			
			■		Drought and frost tolerant, prefers full sun and dry to moist soils. Collect seed late December-early March. Establish via seedlings. Useful for honey production.	■				
■		■	■		Drought and frost tolerant, prefers full sun and dry to moist soils. Collect seed late October-early April. Establish via seedlings. Useful for general erosion control.	■				



Resources and Contacts Guide



Landcare Groups and 'Friends of ...' Groups

Joining your local Landcare Group is a fantastic way of learning more about sustainable land management from local people. Figure 5 shows the boundaries for the various Landcare Groups in the Shire of Moorabool.

'Friends of ...' groups offer a way of becoming active in the care of publicly owned land. The following Friends Groups are active in the Shire of Moorabool.

- Friends of Werribee Gorge and Long Forest Mallee
- Friends of the Brisbane Ranges
- Friends of the Lerderderg

Contact details for both Landcare and Friends Groups change regularly and so have not been listed here, however details can be obtained by telephoning the Shire of Moorabool Environment Officer on 03 5366 7100 or at www.moorabool.vic.gov.au

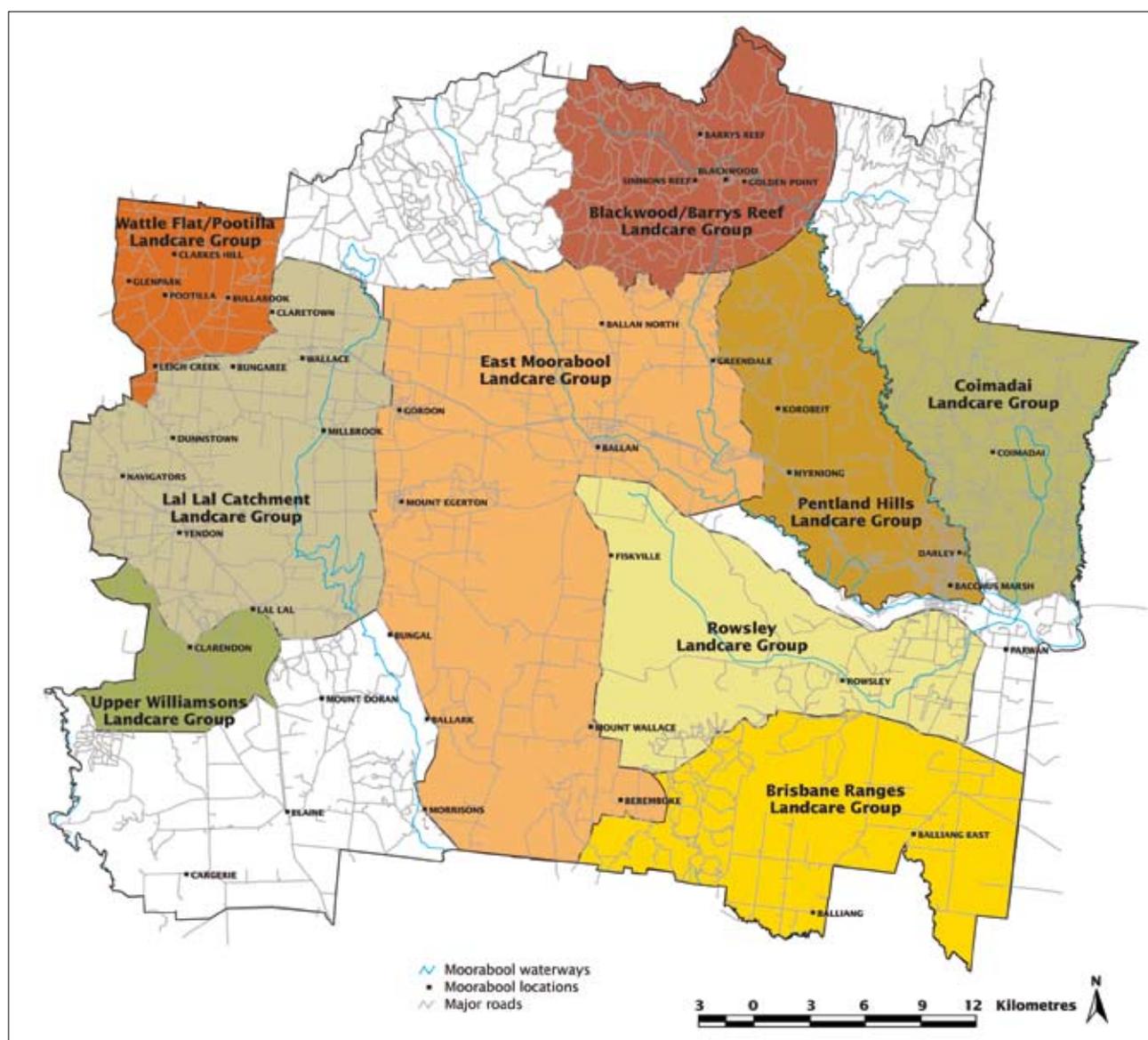


Figure 5 Landcare Groups of the Moorabool Shire



General Contacts

<p>Port Phillip and Westernport CMA www.pppwma.vic.gov.au T (03) 8781 7900</p>	<p>Incentives, grants, catchment management information.</p>
<p>Grow West Project Matt Mooney www.pppwma.vic.gov.au/grow-west T (03) 5366 0015</p>	<p>Grow West's current project work covers revegetation, farm forestry and sustainable land management.</p>
<p>Werribee and Maribyrnong Landcare Co-ordinator, John Robinson John.robinson@ppwma.vic.gov.au T 5421 9629</p>	<p>Local courses, incentives, grants, events, contacts etc.</p>
<p>Shire of Moorabool Environment Unit www.moorabool.vic.gov.au T (03) 5366 7100</p>	<p>General environmental and landcare information, farm forestry, indigenous nurseries contact details, Landcare Group contact details.</p>
<p>Greening Australia www.greeningaustralia.org.au T (03) 9450 5300</p>	<p>Vast range of information, including contact details for indigenous nurseries and seed collectors, fact sheets, tool hire, direct seeder hire, workshops, publications and events etc.</p>
<p>Department of Sustainability and Environment www.dse.vic.gov.au 136 186</p>	<p>Conservation, environment and sustainable living information, seed collection permits, wide range of Information Notes.</p>
<p>Department of Primary Industries www.dpi.vic.gov.au 136 186</p>	<p>Enormous range of information including 'Information Notes' (covering various environmental and agricultural topics), Victorian Resources Online (detailed source of information and maps on Victoria's soils, landforms, water and biodiversity), chemical information.</p>
<p>Trust for Nature trustfornature@tfn.org.au T (03) 9670 9933</p>	<p>A non-profit organisation assisting in the protection of remnant vegetation in private ownership.</p>
<p>Land for Wildlife www.dse.vic.gov.au/landforwildlife T (03) 5336 6722 T (03) 9785 0134</p>	<p>Assistance and support for landholders and land managers who provide habitat for native wildlife on their land.</p>

General Contacts

Ballarat Region Treegrowers Brnt@afg.asn.au	Landholder group for farm forestry: regular meetings, workshops etc.
Native Vegetation Officers Department of Sustainability and Environment. T (03) 5336 6856	Technical information on native vegetation and Ecological Vegetation Classes.
Tree Project www.treeproject.asn.au T (03) 9650 9477	A non-profit organisation which brings together rural landholders with city-based people to undertake revegetation works, including seed collection, growing and planting of seedlings. Opportunity for landholders to purchase cost-price indigenous plants.
Moorabool Gorge Recovery Program ralph.cotter@dpi.vic.gov.au T (03) 52264833	Protection and improvement of the Moorabool River catchment through revegetation, fencing, weed control and erosion control. Incentive program available.
Waterwatch Victoria www.vic.waterwatch.org.au T (03) 9637 9973	Community education on waterway health.
Parks Victoria www.parks.vic.gov.au T (03) 5366 0000	Management of Victoria's system of parks and reserves.
Field Naturalists Club of Victoria www.vicnet.net.au/~fncv T (03) 9877 9860	Very active natural history interest group with regular meetings, field trips, workshops.
Land Information Centre (DSE) www.land.vic.gov.au T (03) 8636 2827	Aerial photographs, maps.
Melbourne Water Lisa Deppeler, Regional Grants Co-ordinator www.melbournewater.com.au T (03) 9235 2636	Waterway management information, grants and incentives programs.
Ballarat Regional Seedbank T (03) 5345 2200	Purchase, sales and collection of indigenous seed.



Books

- Abel, N et al, (1997) *'Design Principles for Farm Forestry'*, Rural Industries Research and Development Corporation, Canberra.
- Australian Plants Society Maroondah Inc. (2001) *'Flora of Melbourne: A guide to the indigenous plants of the greater Melbourne area'*, 3rd Ed, Hyland House, Flemington.
- Barlow, T. (1998) *'Grassy Guidelines: How to manage native grasslands and grassy woodlands on your property'*, Trust for Nature, Victoria.
- Bird, P. R. (2000). *'Farm Forestry in Southern Australia: a focus on clearwood production of speciality timbers'*, NRE.
- Bradley, J. (1997) *'Bringing Back the Bush: The Bradley Method of Bush Regeneration'*, Landsdowne Press, NSW.
- Costermans, L. (1984) *'Native Trees and Shrubs of SE Australia'*, Rigby Publishers, Australia.
- Department of Sustainability and Environment (2006) *'Native Vegetation Revegetation planting standards – Guidelines for establishing native vegetation for net gain accounting'*. Victorian Government, Department of Sustainability and Environment, East Melbourne. (online at www.dse.vic.gov.au)
- Fontana, D. and Williamson, J. (ed) (1995). *'So you thought owning a small farm or property was easy?'* Property Management Planning for Small Farms and Properties, Department of Conservation and Environment.
- Grant, J. (1997). *'The Nest Box Book'*, Gould League of Victoria Inc.
- Lamp, C. and Collett, F. (1996) *'Field guide to Weeds in Australia'*, Inkata Press, Melbourne.
- Lindenmayer, David et al, (2003) *'Wildlife on Farms: how to conserve native mammals'*, CSIRO Publishing.
- Platt, S.J., (2002). *'How to Plan Wildlife Landscapes: a guide for community organisations'*. Department of Natural Resources and Environment, Melbourne. ISBN 0 7311 5037 6 (currently available at www.dse.vic.gov.au or by telephoning 136 186)
- Ralph, M. (1999) *'Seed Collection of Australian Native Plants'*, Bushland Horticulture, Fitzroy, Melbourne.
- Ralph, M. (2003) *'Growing Australian Native Plants From Seed'*, Murray Ralph/Bushland Horticulture, Fitzroy, Melbourne.
- Romanowski, N. (1992) *'Water and Wetlands Plants for Southern Australia'*, Lothian Publishing Company, Port Melbourne.

- Romanowski, N. (1998) *'Planting Wetlands and Dams'*, UNSW Press, Sydney.
- Whyte, S, (Ed) (2003) *'Revegetation Techniques: a guide for establishing native vegetation in Victoria'*, Greening Australia. ISBN 1 875345 67 1

Internet-based Resources

Florabank Guidelines

Notes series on all aspects of seed collection, storage, and management. www.florabank.org.au

Farm Forestline

Vast array of information regarding all aspects of farm forestry. www.farmforestline.com.au

National Riparian Lands Program

Excellent series of factsheets on riparian zone management. www.rivers.gov.au/publicat/factsheets.htm

Victorian Resources Online

Detailed source of information and maps on Victorian soils, landform, water and biodiversity. www.dpi.vic.gov.au/vro

Viridans Biological Databases

Titles include *'Wild Plants of the Ballarat Area'*, *'Wild Plants of Victoria'* (2001), and *'Wild Animals of Victoria'* (2002). www.viridans.com.au

Footnotes

- ¹ Funicle: tissue attaching seed to seed pod or other fruiting body.
- ² It is recommended to collect seed from at least 20 individual, randomly selected plants. To protect the remnant, no more than 10% of the available seed should be collected from any one plant.
- ³ DSE's 'Bushbroker' program assists in this process whereby developers wishing to remove native vegetation may gain permission to do so by paying private landholders to maintain and improve existing vegetation.
- ⁴ White Throated Treecreeper, photo © The State of Victoria, Department of Sustainability and Environment/McCann.
- ⁵ Department of Sustainability and Environment (2006) *'Native Vegetation Revegetation Planting Standards – Guidelines for establishing native vegetation for net gain accounting'*. Victorian Government, Department of Sustainability and Environment, East Melbourne. (online at www.dse.vic.gov.au)
- ⁶ Dependant upon timing, planting date, weed species and weed density.