RESTORING OUR LANDSCAPE

A BASIC REVEGETATION GUIDE FOR FIRE-AFFECTED AREAS OF EAST GIPPSLAND

ACKNOWLEDGEMENTS

The Upper Goulburn Landcare Network received funding in 2020 from the Victorian Government's Victorian Landcare Facilitator Program to engage Chris Cobern as a Landcare Bushfire Recovery Facilitator to support bushfire recovery natural resource management activities in the North East and East Gippsland Catchment Management Authority regions.

Compilation and coordination: Chris Cobern and David Wakefield.

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Shelly Nundra @Nundra-scapes photography

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Snowy River Interstate Landcare Committee

Regional Landcare East Gippsland

East Gippsland Landcare Network Inc.

Far East Victoria Landcare Inc

Victorian Landcare Program

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CONTENTS

INTRODUCTION	02
FIRE AFFECTED AREAS	03
TO PLANT OR NOT TO PLANT	04
WHY PLANT?	06
WHERE TO PLANT	08
WHEN TO PLANT	09
HOW TO PLANT	10
WHAT TO PLANT	12
PLANT SELECTION LIST	14
SELECTING YOUR PLANTS	20
INFORMATION	25

INTRODUCTION

The 2019/2020 East Gippsland fires left many landowners in need of information and advice on how best to revegetate their fire- ravaged properties.

While there are revegetation guides already published, they are detailed and comprehensive, do not deal with post-fire recovery and cover a far wider area than that affected by the East Gippsland fires

Local Landcare Facilitators felt there was a need for a simple, concise, free reference guide that landowners could readily turn to when planning revegetation on their property.

This guide is designed to fill that need.

PURPOSE

The purpose of this booklet is to provide landholders with practical advice and guidelines to allow them to make informed decisions on species selection and how, when and where to plant, and even whether to plant at all, on fire-affected land.

The booklet aims to encourage , where appropriate , the planting , retention and protection of local indigenous species.

SCOPE

The guide is primarily directed at landholders in fire-affected rural areas of East Gippsland catchment. It is not intended for garden or home landscaping design.

It is a basic guide only, and designed to complement more detailed publications. Landholders wanting more information are referred to References on page 25, in particular the East Gippsland Catchment Management Authority (EGCMA) Planting Guide.

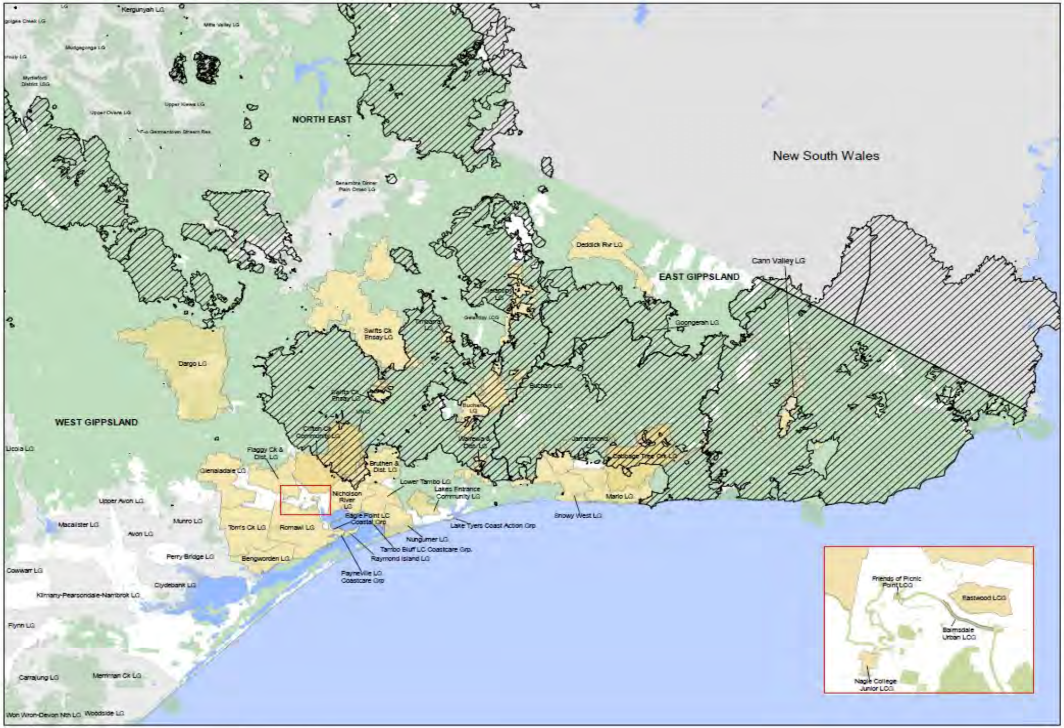
THE ROLE OF LANDCARE

Landcare has had, and will continue to have, an important part in the restoration of our landscape. Revegetation can be a daunting task for individuals working alone.

By working together as a group on both private and public land, Landcare members can achieve a great deal and foster a sense of community.

Landcare facilitators and members have been working since the fires on projects involving fencing, erosion control, weed eradication, installing nest boxes and planting.

Landcare Groups in East Gippsland CMA Region within current fire extent (27/02/2020 - AM)



Legend

- Catchment Management Authority boundary
- Burnt Area 27/02/2020 AM
- Landcare Groups in East Gippsland Region
- Landcare Groups in other CMA Regions
- Public Land

0 5 10 20 30
Kilometers

Disclaimer:
This map is a snapshot generated from Victorian Government data. The State of Victoria does not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for error, loss or damage which may arise from reliance upon it. All persons accessing this information should make appropriate enquiries to assess the currency of the data.

Additional information
Spatial data is sourced from the Victorian Spatial Data Library (VSDL) and Emergency Management Victoria (eMap system)

Map produced by Knowledge and Decision Systems Branch, Biodiversity Division Monday, 2 March 2020
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Landcare group data updated in 2014, 2015 & 2019.

MXD name: P:\p_request\2020\EIS_2050_Fire_KS24\Mxds\Drafting\LG_EG_Fires1920.mxd

TO PLANT OR NOT TO PLANT

After the fires, the instinctive reaction of many people to the blackened wasteland that was once their cherished landscape was that it would never be the same again, and the damage would need repairing by widespread planting.

As we are already seeing, this is not necessarily the case - Australian plants are remarkably resilient.

NATURAL REGENERATION
If you have areas of remnant vegetation, especially high quality remnants, that were burnt, even severely burnt, it is best to delay any thoughts of planting in those areas and wait to see what regenerates naturally.

Where the fire was particularly intense, this regeneration may take some years and supplementary planting may be needed to restore the original complexity of the bushland.

WHAT TO LOOK FOR
Native plants have a range of survival techniques in response to fire:

- **Trunk and branch growth.** Many eucalypts have dormant epicormic buds deep beneath the bark that can readily sprout after fire - you have no doubt noticed the many tufts of new green foliage on burnt tree trunks. Some of these will gradually break off, while others will develop into a new branched canopy. Some plants, such as tree ferns and grass trees, shoot very soon after fire from their dense fibrous trunks.

- **Basal growth.** Often the above-ground part of a plant may not survive a fire, but new growth can shoot from buds at the base of the trunk or stem, eg most eucalypts have a woody swelling partly below ground called a lignotuber that contains buds and food reserves. Grasses can also resprout from basal buds.

- **Suckering.** Regrowth from root suckers can occur up to several metres from the parent plant - many wattle and pea species regenerate this way.

- **Sprouting from bulbs, corms or tubers.** Many lilies and orchids can regenerate this way. In fact, some orchids may only ever be seen after a major fire.

- **Seedlings.** Fire causes many native plants to release seed and take advantage of the more open conditions and nutrient rich ash bed. The heat of fire can also trigger germination by cracking hard seeds in the leaf litter or that have been buried by ants.

DID YOU KNOW...

After the 2009 Black Saturday fires park rangers at Kinglake National Park reported finding plants not recorded for thirty years, and even some never previously recorded.

IDENTIFY AND PROTECT

Now is a good time to try and identify the various native plants you have - there may even be rare or threatened species among them.

For help with identification there are many native plant books available, but with new young growth you may need help from government agency staff or members of your local Landcare or Field Naturalists group.

In the early stages of regeneration after fire, new growth is fragile and susceptible to physical damage, as is the soil and ash bed created by the fire. So it is important to keep stock and vehicles off burnt areas as much as possible.

MANAGING REGROWTH

Unfortunately fire can also trigger germination of many weeds and these also need to be identified and controlled.

Bear in mind that regrowth of some natives can be vigorous and appear weedy, e.g. fireweeds/groundsels (Senecio spp.) and Kangaroo Apple, so correctly identifying indigenous plants is important.

Regrowth can be quite thick after fire, but the density will gradually be reduced as dominant species and individual plants take over.

Depending on the species present, and the intention for the natural regeneration area, there may be a case for some ecological thinning or pruning in the future.

WHY PLANT?

Apart from remnant bushland, which will gradually recover, there are many other areas that will benefit from revegetation, and many reasons to consider planting on your property.

DID YOU KNOW...

Research shows that at least 30% native vegetation cover across the landscape is required to halt the decline in woodland bird species.

WILDLIFE HABITAT

The loss of vegetation cover due to the fires and subsequent clean-up operations represents, at least in the short term, a vast reduction in habitat available for wildlife.

Many old trees with nesting hollows were destroyed, and there was widespread loss of shrubs, ground cover and leaf litter which many animals depend on for shelter and food.

On the positive side, many new tree hollows would have been created, and existing ones enlarged, by the burning process.

Scattered patches of lush new growth in burnt areas are already providing some food sources for wildlife, but it will be some time before many animals return permanently.

Any new revegetation plantings will complement the natural regeneration that has already begun.

WATERWAYS

Fencing off streams and revegetating the banks (riparian zone) with indigenous species can have great benefits in terms of bank stability, water quality and improved biodiversity.

The EGCMA is offering fire recovery assistance grants for this work as well as for alternative livestock water supply. Contact the EGCMA for full details and eligibility requirements (see page 25).

Make sure that woody weeds, such as blackberry, broom, sweet briar and willows, are controlled well before starting any streamside revegetation project.

EROSION

Some areas on your property that may be susceptible to erosion from rain and wind are steep hills and gullies, and ground damaged or left bare during the fires by intense heat and/or heavy machinery.

Fencing off and planting can help stabilise these areas. New plant roots bind the soil, and the plant canopy provides shade and some protection from wind and rain.

Plants also provide leaf-litter on the ground which acts as a physical protective barrier over the soil and allows nutrient cycling to begin again as the litter breaks down.

Depending on available funding, grants may be provided for erosion control by DELWP.

SHELTER

Revegetation plantings can provide shade and shelter that have direct advantages for livestock and crops. Wide shelterbelts of indigenous trees and shrubs, while taking some land out of production, provide net benefits by decreasing wind speed, thereby reducing evapotranspiration and soil erosion.

HANDY HINT...

A woodlot for your own firewood consumption is an excellent idea and reduces the need to use timber from State forests. Choose a mixture of suitable local firewood such as Box, Wattle and She-oak species.

ECONOMIC BENEFITS

Seed orchards or seed production areas offer an opportunity to earn some income from your revegetation by planting selected local understorey species required by indigenous plant and seed suppliers.

Appropriate farm forestry plantings can have commercial value as high quality saw logs, specialty timbers or firewood.

Other commercial opportunities that may be considered are native plants for oil, edible seed or cut flowers and foliage.

AESTHETIC VALUE

The fires and consequent loss of vegetation cover have destroyed much of the natural visual amenity.

As well as the benefits already mentioned, carefully planned revegetation plantings can greatly enhance the appearance of a property and contribute to a landscape that brings enjoyment and satisfaction to the landholder and community at large.

Plantings can also restore a sense of privacy to your block.

WHERE TO PLANT

Before planting make sure you are clear about your revegetation objectives. This will help when deciding where to plant on your property.

HANDY HINT...

With linear plantings, including along waterways, remember to allow access points for control of weeds, vermin and fire, and possibly to permit carefully managed crash-grazing for short periods once plants are established.

PLANNING

It is a good idea to draw up a plan, which can be a simple sketch with proposed planting sites and species marked on it, or a more detailed whole farm plan. Whole farm planning courses are run periodically by DELWP where there is enough interest in a particular area.

PLANTING SITES

Some suggestions for planting include:

- **Streamsides.** If fencing off streams, provide a generous set-back (at least 20m) to allow establishment of a wide dense strip of riparian vegetation which will achieve maximum environmental benefits. It is preferable if both banks can be protected and revegetated - this may need the cooperation of a neighbouring landholder.

- **Linkages.** Try to plant strips or patches that provide wide links (corridors or "stepping stones") between remnant vegetation on your own and adjacent properties. Connectivity of vegetation is critical for the long-term survival of many wildlife species.

- **Expansion of remnants.** Blocks of plantings added to remnant vegetation patches can enhance the value of the bushland and reduce detrimental "edge effects" such as invasion by weeds or other pest species.

  Fencing off and planting shrubs around isolated paddock trees will help preserve them and increase their potential as habitat for birds, bats and other native fauna.

- **Strategic linear plantings.** Strip plantings along fencelines or laneways can act as windbreaks or shelterbelts, and also provide wildlife corridors. A general rule is the wider the better! Try to persuade your neighbour to have a joint planting to achieve double the width.

- **Paddock corners.** Fencing off and planting out the corners of paddocks is a simple and cost-effective way of creating blocks of habitat and shelter. A 200 metre long fence can provide a 1 hectare block.

WHERE NOT TO PLANT

It is important to understand where not to plant. Here are some examples:

- Under power lines or within easements for any utilities
- Close to buildings
- Too close to fences where stock may be tempted to browse

WHEN TO PLANT

Late autumn and winter are probably the best times to plant in the area covered by this guide.

This allows young seedlings to become established well before the hot dry months of summer.

TIMING

The timing of the "autumn break" will determine how early planting can begin -it is always worth waiting until adequate moisture has penetrated well below the soil surface.

For low-lying areas that become water-logged in winter, planting in spring may be a better option. Spring is also the best time for direct seeding following ground preparation in the previous autumn/winter period.

FROST

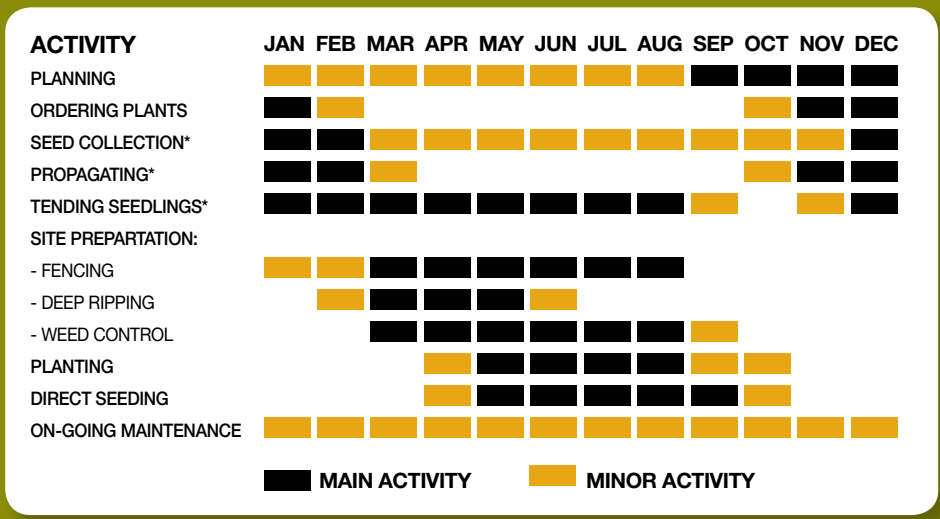
Some areas can experience severe frosts and you may consider delaying planting until early spring. However there is no guarantee that a delayed planting will avoid a late frost.

Most of the plants listed in this guide are frost-hardy but some may be susceptible when young.

Keep in mind that some understorey species can be more prone to frost damage in an open situation compared to their natural environment with protective tree cover.

Planting of frost-tender or shade-dependent species may be better delayed until some tree/large shrub cover is established.

REVEGETATION CALENDAR



* If growing your own seedlings

HOW TO PLANT

Successful seedling establishment requires careful planning and preparation.

PREPARATION
This includes:

- **Grants.** Applying early for any incentive grant that may be available.
- **Supplies.** Order plants, guards, stakes and weed mats well ahead of planting time.
- **Fencing to exclude livestock.** A robust fence is essential around any revegetation project. The fence alignment should be designed to give maximum benefit for minimum cost, eg straight fences along meandering creeklines, and fencing off corners of paddocks.
- **Weed control.** This is a critical requirement for successful revegetation. Spot-spraying with a knock-down herbicide (such as glyphosate) some weeks before planting is probably the most cost-effective option. Other weed control measures at planting time include weed mats, mulch or scalping the soil around the planting hole with a mattock.
- **Deep ripping.** There are advantages in deep ripping the sub-soil, particularly if it has been compacted or cultivated over many years. Ripping is of value on heavier clays to assist root penetration, water infiltration and soil aeration.

  Ripping is best done when the subsoil is reasonably dry. Contour rip on slopes, and avoid ripping highly erodable sites such as stream banks.

HANDY HINT...
Caring for plants. Remember that seedlings in containers can dry out very quickly, so after collecting plants from the nursery, keep them in a sheltered spot and water them thoroughly and regularly until planting.

PLANT DENSITY
The spacing of plants depends on the objective of the planting and the location of the planting site in the landscape. Some tips for general revegetation for creation of habitat are:

- Space trees at least 10m apart to allow them to develop a good spreading growth form rather than spindly poles. This also allows space for some shade-dependent species to be added in later years.
- For calculating plant numbers required, a general rule of thumb for a reasonably dense planting is an average spacing of 4 to 5m or 500 plants per hectare.
- Not all wildlife like dense cover, so in larger plantings leave some open grassy spaces.
- Plant some species in clumps for a more natural effect rather than in evenly spaced rows.
- In potentially weedy areas, plant shrubs and groundcovers more densely.
- For shelterbelts, trees can be planted closer and interspersed with densely planted shrubs of varying heights. If planted in rows, at least 3 and preferably 5 rows are recommended, with a minimum of 10m between fencelines. Wildlife corridors are most effective if they are 40m or more wide.

PLANTING TECHNIQUES AND TOOLS

Seedlings are available from nurseries in a range of containers such as plastic tubes, pots and Hiko trays. In soft or ripped ground, tools such as the Hamilton treeplanter or Potiputki planter are ideal, but in hard or rocky ground, a mattock will be needed to break the ground and dig a planting hole.

When releasing the seedling from the container it is important that there is as little root disturbance as possible.

TREE GUARDS

Browsing by rabbits, hares and wallabies, and destruction by cockatoos can severely affect planting success. The use of plant guards is therefore recommended. A wide range of guards is available, ranging from inexpensive milk cartons to fold-up corflute guards.

Whichever type is used, make sure the guard is anchored securely with stakes or pegs. Plastic sleeve guards are not recommended as they often end up washed or blown into waterways.

WATERING

Many revegetation projects have been successfully established without watering at planting time or subsequently, so it is not an essential requirement. Seedlings should not be dry or stressed at planting, and the soil at the site should be reasonably moist.

Watering at planting time does ensure good root contact with the soil and reduces transplant shock, so this may improve the survival rate.

DIRECT SEEDING

This can be a cost-effective method of revegetation if due attention is paid to site preparation, species selection and timing.

Thorough weed control is critical to success. In fairly flat open areas, a purpose-built seeding machine can be used. On steep or very rough ground, spot seeding by hand may be the only option.

Landcare coordinators can provide information on direct seeding contractors.

FOLLOW-UP MAINTENANCE

After all the effort of planning, preparing and planting, it pays to carry out ongoing maintenance of your plantings:

- Check fences, gates and tree guards regularly
- Keep weeds under control, but remember that young plants are also susceptible to herbicides
- Remove guards before they threaten to strangle the growing plants
- In drought years consider watering thoroughly once or twice if this is feasible

WHAT TO PLANT

There are many good reasons for choosing local indigenous species for revegetation.

WHY PLANT LOCAL SPECIES?

Indigenous plant species:

- have evolved in the region over a very long period and are well adapted to local conditions
- provide suitable habitat for local wildlife
- do not pose a risk of becoming environmental weeds
- if carefully chosen, are hardy, drought-tolerant and mostly long-lived
- help maintain our rich biodiversity heritage
- blend well with the surrounding landscape

THE IMPORTANCE OF UNDERSTOREY

Unless your planting is intended as agroforestry, it is important to select a wide range of local plants, including large and small shrubs, groundcovers, even grasses, rushes and sedges, as well as trees.

A diverse mix of plants provides food and shelter for local wildlife and enhances overall biodiversity on your property.

Problems that can occur in tree-dominant plantings, such as excessive mistletoe or defoliation by insects, can largely be avoided with the complex structure of a mixed species planting.

HANDY HINT...

For general replanting select 70 - 80% shrubs and groundcovers, with the remainder being trees. For restoring sites with remnant trees, select shrubs and groundcovers only and allow trees to regenerate.

GROUNDFLORA

The ground layer is often neglected in revegetation projects. It is difficult to recreate the original diverse groundflora, but specialist nurseries now carry a range of local low-growing plants including prostrate shrubs, herbs, twining plants, lilies, sedges, etc. Many of these fall into the general category of “wildflowers” and can add a splash of colour to your revegetation planting.

NATIVE GRASSES

Native grasses are a valuable component of revegetation projects. They:

- provide seeds for birds and tussocky habitat for a range of species
- help bind the soil and reduce erosion
- are mostly perennial and cope well with drought and fire
- present a lower fire risk compared with introduced grasses because they have a lower biomass and stay greener longer

They may be difficult to establish on more fertile sites with competition from vigorous exotic species, but on harsher sites they can spread by rhizomes or seed dispersal.

Many areas already have native grasses and they should be encouraged, especially on steep hills, by allowing them to set seed over summer.

There may be grants available from DELWP for fencing suitable sites to exclude stock at critical periods?

PLANT AVAILABILITY

Regional nurseries that supply locally indigenous plants are listed on page 25. The range of plants available varies with each nursery, and you may need to search around for rarer or more difficult-to-grow plants mentioned in this guide.

Bear in mind that orders should be placed well in advance of your intended planting time. Some nurseries will grow plants to order, in which case you need to advise the nursery by November so they can plan their seed collection and quantities of required species.

For direct seeding or growing your own plants, local indigenous seed suppliers may be able to supply seed that is from, or is appropriate to, your local provenance.

If collecting your own seed, a permit is required from DELWP for gathering seed or other propagation material from public reserves.

The permit has certain conditions attached to ensure that local seed sources are not over-exploited.

ARE SOME SPECIES FIRE RESISTANT SPECIES?

This is a vexed topic but one lesson learnt from the recent fires seems to be that, given the right conditions, **all vegetation can burn.**

However plants do vary in their readiness to ignite, and the speed and intensity of their burning. For instance foliage with low oil content or high levels of salt may burn less readily and at a slower rate.

This guide does not recommend any particular species that would reliably improve your safety during a bushfire, as such a recommendation could be misleading.

There was, and perhaps still is, a widespread perception that planting exotic vegetation will be much safer in terms of fire protection.

Examples of exotic trees surviving fires largely intact often may have more to do with them being well watered isolated specimens or patches surrounded by lush mown lawn, rather than any intrinsically greater fire resistance.

PLANT SELECTION LIST

TREES

SCIENTIFIC NAME	COMMON NAME	SITE PREFERENCE
Acacia dealbata	Silver Wattle	Along watercourses and on sheltered slopes
Acacia implexa	Lightwood	Hilly sites with well-drained soil
Acacia mearnsii	Black Wattle	Drier slopes. A range of soils and aspects
Acacia melanoxylon	Blackwood	Adaptable. Best in moist well-drained soil
Allocasuarina littoralis	Black She-oak	Adaptable. Best in moist well-drained soil
Allocasuarina verticillata	Drooping She-oak	Well-drained soils. Dry rocky hills
Eucalyptus bridgesiana	Apple Box	Favours heavier alluvial soils.
Eucalyptus camaldulensis	River Red Gum	Low country. Heavy soils. Tolerates inundation
Eucalyptus camphora	Mountain Swamp Gum	Heavy wet soil in upper catchments
Eucalyptus cypellocarpa	Mountain Grey Gum	Prefers deep moist soil. Adaptable
Eucalyptus dives	Broad-leaf Peppermint	Well-drained poor soils on slopes and ridges
Euc. globulus bicostata	Eurabbie/Blue Gum	Moist to dry soil in upper gullies and slopes
Eucalyptus goniocalyx	Bundy/Long-leaf Box	Poorer soil on dry rocky slopes
Eucalyptus macrorhyncha	Red Stringybark	Well-drained soil on slopes
Eucalyptus melliodora	Yellow Box	Fertile well-drained soils
Eucalyptus microcarpa	Grey Box	Heavier soils. Adaptable
Eucalyptus obliqua	Messmate	Moist, well-drained soils on upper slopes
Eucalyptus ovata	Swamp Gum	Poorly drained, seasonally wet sites
Eucalyptus polyanthemos	Red Box	Well-drained soil on ridges and dry slopes
Eucalyptus radiata	Narrow-leaf Peppermint	Best in moist deep soils
Eucalyptus rubida	Candlebark	Well-drained soils. Lower slopes and creeklines
Eucalyptus tereticornis	Forest Redgum	Favours moist alluvial soils
Eucalyptus bosistoana	Coast Grey box	Grows well in rich alluvial flats
Eucalyptus viminalis	Manna Gum	Moist soils in valleys and along streams

UNDERSTOREY SHRUBS

Acacia genistifolia	Spreading Wattle	M	Reliable and adaptable as to soil and site
Acacia lanigera	Woolly Wattle	S /M	Well-drained soils. Tolerates some water-logging
Acacia leprosa	Cinnamon Wattle	L	Best in moist, well-drained partially shaded site
Acacia mucronata	Narrow-leaf Wattle	M/L	Adaptable. Best in higher rainfall areas
Acacia paradoxa	Hedge Wattle	M/L	Range of soils and situations
Acacia pycnantha	Golden Wattle	L	Very adaptable.
Acacia rubida	Red-stemmed Wattle	L	Adaptable and hardy
Acacia verniciflua	Varnish Wattle	L	Well-drained shallower soils. Adaptable
Acacia verticillata	Prickly Moses	M/L	Moist soils. Valleys and streamsides. Prefers shade
Banksia marginata	Silver Banksia	L	Adaptable. Not on fertilised sites. Best on flats
Banksia serrata	Saw Banksia	L	Sandy well drained soils

COMMENTS
Fast growing, excellent for habitat and erosion control. Suckers
Tough and long-lived. Good for shade, shelter and gully erosion
Excellent habitat. Fast-growing. Can sucker after disturbance
Useful in riparian plantings, wind/fire breaks and erosion control
Long-lived. Tolerates strong winds. Good for habitat and shelterbelts
Long-lived. Tolerates strong winds. Good for habitat and shelterbelts
Medium-sized tree with short trunk and spreading crown
Large spreading tree for shade, habitat and stream/gully erosion
Useful for gully erosion and boggy areas. Good habitat
Upright with dense canopy. Good habitat tree
Good shade and habitat tree. Useful in shelterbelts
Quick growing large tree for shade, shelter and habitat
For shade, shelterbelts and general habitat planting
Good revegetation tree. Keep fenced off from stock
Attractive. Variable in form. Habitat, shade and soil-stabilisation values
Long-lived. Good for habitat, gully erosion and shelter
Habitat and shelter-belts. Regenerates readily after fire
Plant on creek flats and swampy areas. Good habitat
Hardy. Useful for shade, shelter and habitat
Atttractive upright tree for shelterbelts and habitat areas
Excellent habitat tree with hollows. Attractive white/pink bark
Tall impressive tree with open spreading crown,
Tall straight tree. Smaller on shallow soils and slopes
Excellent habitat. Bark shed in ribbons


Blackwood


Candlebark

Fast-growing open spreading and prickly. Good bird refuge
Low shelterbelt cover. Early flowering - provides colour in winter
Variable. Fast growing. Good for habitat and shelterbelts
Useful in shelterbelts. Straggly. Suckers, especially after fire
Good for bird habitat, erosion control and shelterbelts
For habitat and shelterbelts. Fast growing. Short-lived. Readily self-seeds
Shelterbelt shrub for hills and mountain areas. Soil binder
Attractive shrub for shelter, erosion control and habitat
Fine prickly foliage. Plant for habitat and shelter. Good bird refuge
Large shrub or small tree for shelter and habitat. Good nectar producer
A character filled large shrub or small tree. Wildlife attracting


Spreading Wattle

UNDERSTOREY SHRUBS cont.

SCIENTIFIC NAME	COMMON NAME		SITE PREFERENCE
Bursaria spinosa	Sweet Bursaria	M/L	Well-drained soils on a range of sites
Callistemon citrinus	Crimson Bottlebrush	L	Moist soils along watercourses
Callistemon paludosus	River Bottlebrush	L	Moist soils along watercourses
Calytrix tetragona	Fringe Myrtle	M	Gravelly soils. Rocky ridges
Cassinia aculeata	Common Cassinia	L	Best in moist well-drained soils, part shade. Adaptable
Cassinia longifolia	Shiny Cassinia	L	Moist well-drained soil in semi-shade
Coprosma quadrifida	Prickly Currant Bush	M/L	Moist soil in valleys, creeklines, sheltered slopes
Correa lawrenciana	Mountain Correa	L	Moist heavier shaded soils at higher elevations
Correa reflexa	Common Correa	M	Well-drained soils. Adaptable as to aspect
Daviesia latifolia	Hop Bitter-pea	M	Adaptable to most well-drained soils
Daviesia leptophylla	Narrow-leaf Bitter-pea	M	Well-drained shallow soils
Daviesia ulicifolia	Gorse Bitter-pea	M	Dry well-drained soils in partial shade
Dillwynia cinerascens	Grey Parrot-pea	S/M	Dry soils. Prefers some shade
Dillwynia sericea	Showy Parrot-pea	S/M	Adaptable. Drought- tolerant
Dodonaea viscosa	Hop Bush	M/L	Hardy and adaptable to various sites
Epacris impressa	Common Heath	S	Moist well-drained soil in partial shade
Goodenia ovata	Hop Goodenia	M	Moist sheltered sites but tolerates harsher sites
Grevillea lanigera	Wooly Grevillea	M	Well-drained dry stony soils in part shade
Gynatrix pulchella	Hemp Bush	M/L	Moist soils in sheltered gullies and creeklines
Hibbertia obtusifolia	Grey Guinea-flower	S	Well-drained shallow soils. Dry shady sites
Indigofera australis	Austral Indigo	M	Adaptable to any well-drained soil. Prefers part shade
Leptospermum continentale	Prickly Tea-tree	M/L	Poorly-drained sites. Adaptable
Leptospermum grandifolium	Mountain Tea-tree	L	Wet sites and streamsides. Adaptable
Leptospermum lanigerum	Woolly Tea-tree	M/L	Creek banks and gullies. Wet areas
Leptospermum scoparium	Manuka	M/L	Well-drained soils on a range of sites
Melaleuca parvistaminea	Rough-bark Honey-myrtle	M/L	Moist less fertile soils. Streamsides and gullies
Melicytus dentatus	Tree Violet	M/L	Well drained soils. Riparian and rocky sites
Olearia argophylla	Musk Daisy-bush	L	Moist rich well-drained soils in sheltered sites
Olearia lirata	Snowy Daisy-bush	M/L	Moist well-drained soils in sheltered sites
Olearia phlogopappa	Dusty Daisy-bush	M	Moist well-drained soils
Ozothamnus obcordatus	Grey Everlasting	S/M	Well-drained dryish sites
Platylobium formosum	Handsome Flat-pea	S	Moist well-drained soils. Prefers semi-shade
Pomaderris aspera	Hazel Pomaderris	L	Moist well-drained soil in sheltered sites
Prostanthera lasianthos	Victorian Christmas Bush	L	Moist well-drained soil in sheltered areas
Pultenaea daphnoides	Large-leaf Bush-pea	M	Well-drained soil. Tolerates dryness once established
Spyridium parvifolium	Dusty Miller	M	Well-drained soils in sheltered sites

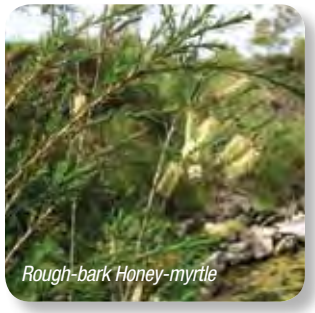
SHRUB SIZES

S. Small up to 1 metre high **M.** Medium 1 to 2.5 m high **L.** Large more than 2.5 m high

COMMENTS
Hardy and adaptable. Prickly. Habitat for birds and butterflies. Erosion control
Hardy streamside shrub. Stabilises banks. Good habitat
Hardy streamside shrub. Stabilises banks. Good habitat
Useful in shelterbelts. Colonises bare ground. Attractive in flower
Fast-growing pioneer species. Colonises bare ground. Good shelter and habitat
Fast-growing easily-established shrub for bare ground, shelter and habitat
Use in riparian plantings. Good habitat - birds eat berries
Long-flowering shrub. Good habitat and shelter. Drought sensitive
Variable in form. Plant local provenance. Long-flowering habitat plant
Interesting foliage and flowers. Plant in clumps. Good habitat and shelter
Useful in habitat and shelter plantings. Plant in clumps
Prickly - good bird habitat. Attractive pea flowers
Low attractive shrub for understorey plantings on dryish sites
Good understorey plant. Does well under established trees. Showy flowers
Excellent habitat for insects and small birds. For shelterbelts and stabilising soils
Open prickly shrub. Good nectar supplier for birds. Victoria's floral emblem
Adaptable, hardy, quick-growing. Suckers readily. For stream/gully erosion
Attractive shrub. Good habitat for honeyeaters
Good soil stabiliser on stream banks. Straggly. Fragrant flowers
Low shrub. Good habitat plant. Showy yellow flowers - long flowering
Attractive mauve flowers. Good habitat. Can be frost-tender in open situation
Excellent plant for habitat, erosion control and shelterbelts
Excellent for habitat, stream and gully erosion, shelterbelts
Excellent for habitat, stream and gully erosion, shelterbelts
Fast-growing pioneer species. Hardy. Useful for habitat.
Valuable for riparian habitat. Controls gully erosion, can form thickets
Hardy. Useful for habitat, erosion control and shelter. Strong floral perfume
Fast-growing large shrub or small tree with profuse flowers in Spring
Soft open shrub. May regenerate prolifically after fire
Fast-growing shrub with profuse showy flowers
Usually an erect slender shrub with shiny foliage. Hardy. For shelter and habitat
Scrambling or prostrate plant. Good habitat. Several bird species eat seeds
Large shrub or small tree for streamsides and dense habitat
Hardy and attractive shrub for streamsides and moist gullies
Hardy. Useful for shelterbelts and general understorey planting
Interesting foliage. Native bees and wasps feed on flowers


Hop Bitter-pea


Austral Indigo


Rough-bark Honey-myrtle


Snowy Daisy-Bush

GROUNDCOVERS AND CLIMBERS

SCIENTIFIC NAME	COMMON NAME	SITE PREFERENCE
Acacia aculeatissima	Thin-leaf Wattle	Well-drained clay soils. Part shaded, rocky sites
Arthropodium milleflorum	Pale Vanilla Lily	Moist soils in dappled shade. Creek banks
Arthropodium minus	Small Vanilla Lily	Moist well-drained soils in full sun or semi-shade
Arthropodium strictum	Chocolate Lily	Well-drained soils. Adaptable
Billardiera scandens	Common Apple Berry	Well-drained soils. Good under established trees
Brachyscome multifida	Cut-leaf Daisy	Moist clay soils. Tolerates dry when established
Bulbine bulbosa	Bulbine Lily	Moist well-drained soils in a range of sites
Calocephalus lacteus	Milky beauty heads	Well-drained soil in full sun
Carex appressa	Tall Sedge	Moist soils, tolerates inundation. Streams and swamps
Carex fascicularis	Tassel Sedge	Moist to wet soil. Creek banks and swamp margins
Chrysocephalum apiculatum	Common Everlasting	A range of well-drained soils
C. semipapposum	Clustered Everlasting	A range of soils
Clematis aristata	Mountain Clematis	Moist well-drained soils in sheltered sites
Clematis microphylla	Small-leaf Clematis	Well-drained soils. Takes full sun
Craspedia variabilis	Variable Billy Buttons	Various soils, even boggy sites
Dianella admixta	Black-anther Flax-lily	Well-drained soils. Does well under established trees
Dianella longifolia	Pale Flax-lily	Moist well-drained soils. Better in semi-shade
Dianella tasmanica	Tasman Flax-lily	Moist shady sites at higher elevations
Glycine clandestina	Twining Glycine	Well-drained soils with some shade
Hardenbergia violacea	Purple Coral-pea	Well-drained soils. Good for embankments
Helichrysum scorpioides	Button Everlasting	Well-drained soils. Prefers higher rainfall areas
Isotoma axillaris	Rock Isotome	Rocky well-drained soils
Kennedia prostrata	Running Postman	Well-drained soils. Drought tolerant
Linum marginale	Native Flax	Well-drained soils in open position. Adaptable
Lomandra filiformis	Wattle Mat-rush	A range of soils and sites
Lomandra longifolia	Spiny-headed Mat-rush	Versatile. Prefers moist well-drained soil, some shade
Microseris lanceloata	Yam Daisy	Well-drained soils, full sun
Pelargonium australe	Austral Stork's-bill	Well-drained soils. Tolerates dry open sites
Pelargonium rodneyanum	Magenta Stork's-bill	Well-drained soils. Tolerates harsh rocky sites
Stylidium graminifolium	Grass Trigger-plant	Moist well-drained soils. Hardy when established
Viola hederacaea	Ivy-leaf Violet	Moist sheltered sites

NATIVE GRASSES

In addition to the above list, some regional plant nurseries stock a range of native grasses including: Austrodanthonia spp. (Wallaby Grasses), Austrostipa spp. (Spear Grasses), Microlaena stipoides (Weeping Grass), Poa spp. (Tussock Grasses) and Themeda triandra (Kangaroo Grass)

COMMENTS
Hardy prostrate or low sprawling shrub
Tufted perennial herb. Long flowering. Lilies add interest and diversity
Tufted perennial herb. Good for habitat areas. Plant in groups
Tufted perennial herb. Attractive flowers on long stems
Adaptable light climber, bushier out in open. Flowers and berries for birds
Attractive long-flowering daisy. Suckers. Useful soil binder
Tufted succulent perennial herb. Plant in groups - will spread
Sprawling ground-cover. The white flowers attract butterflies
Perennial bright green tufted plant. Use for erosion control
Graceful tussocky sedge. Excellent habitat. Erosion control along streams
Variable dense spreading perennial herb. Long-flowering. Soil binder
Variable in form. Long-flowering with yellow flower clusters
Showy climber. Best planted below trees or beside logs. Habitat for birds
Climber. Often dense with profuse flowers. Good nest sites for birds
Low tufted herb for habitat areas. Attractive yellow globular flowers
Hardy tufting perennial. Spreads by rhizomes. Birds eat berries
Hardy tufting perennial. Dianellas provide good contrast to shrubs
Robust tufting perennial with broad strap leaves
Slender light climber. Hardy once established. Good habitat
Climbing or prostrate scrambler. Showy purple pea flowers. Good habitat
Woolly perennial herb with yellow flowers. Spreads easily
Small bushy perennial herb. Showy star-shaped flowers
Trailing or matting perennial. Scarlet pea flowers. Good habitat
Slender low upright perennial with blue flowers. Plant several together
Hardy low tufting perennial. Often persists in rough paddocks
Tough large tussocky perennial. Good habitat for ground fauna
Tufted perennial herb. Bright yellow flowers.
Hardy soft-foliaged clumping herb. Readily self-seeds. Soil binder
Small perennial herb with soft leaves and showy magenta flowers
Tufted perennial with spikes of pink flowers. Plant in clumps
Small perennial herb. White and purple flowers. Spreads readily


Thin-leaf Wattle


Pale Vanilla Lily


Running Postman


Magenta Stork's-bill

SELECTING YOUR PLANTS

A basic guide such as this can only include a fraction of the large range of plants indigenous to the fire-affected area. Many local plants are difficult to grow from seed or to establish in the harsh open conditions of a revegetation site, and are therefore not generally stocked by nurseries.

PLANT SELECTION

The plant list on pages 14-19 provides a selection of **trees, shrubs and groundflora** that are indigenous to all or part of the region affected by the East Gippsland fires, and which may be available from the local nurseries listed on page 25.

There is a wide diversity of soils, topography, rainfall and vegetation types across the area which presents a challenge in selecting appropriate plants for a particular site.

The Site Preference column gives some guidance as to where to plant the listed species. In addition, try to identify any indigenous plants still remaining in the area.

HANDY HINT...

Local DELWP, EGCMA and Landcare staff are available to visit your planting site and help with plant identification, selection and provide advice on revegetation.

TYPICAL PLANTING SITUATIONS

This section provides some very broadly defined landscape locations that may be encountered and lists examples of plants that would be suitable for those situations.

Study your site and try to describe where the site is in the landscape (e.g. creekline, low hill, upper slope, ridge etc). Look at the aspect, steepness of slope, soil type and presence of exposed rock, and find the best match in the following categories.

Remember, **the listed plants are examples only** – some other plants listed would also be suitable, or at least tolerant of these situations, especially those plants described as “adaptable”.

RIPARIAN AREAS, ALLUVIAL FLATS AND GULLIES

RIPARIAN AREAS, ALLUVIAL FLATS AND GULLIES:
INDICATIVE PROFILE

SOME SUITABLE SPECIES:

TREES
Silver Wattle
Blackwood
Manna Gum
River Peppermint
Forest Red Gum
Apple Box
Coastal Grey Box

SHRUBS
Sweet Bursaria
Prickly Moses
Prickly Currant-bush
Crimson Bottlebrush
Golden Tip
Hop Goodenia
Prickly Tea-tree
Snowy Daisy Bush
Tree Violet
Victorian Christmas Bush

GROUNDCOVERS/ CLIMBERS
Tasman Flax-lily
Common Apple-berry
Kidney Plan
Ivy-leaf Violet
Austral Black-fruit Saw-sedge
Common Tussock Grass
Spiny Headed Mat-rush

GENTLE UNDULATING SLOPES AND VALLEY FLOORS

GENTLE UNDULATING SLOPES AND VALLEY FLOORS:
INDICATIVE PROFILE

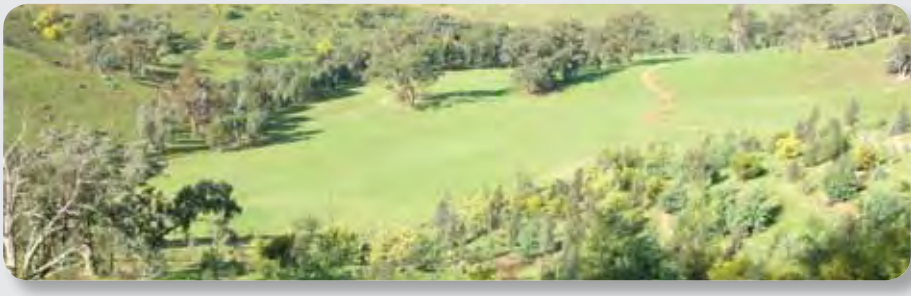
SOME SUITABLE SPECIES:

TREES
Silver Wattle
Black She-oak
Black Wattle
Blackwood
River Peppermint
Coast Grey Box
Yellow Stringybark
Red Box
Manna Gum

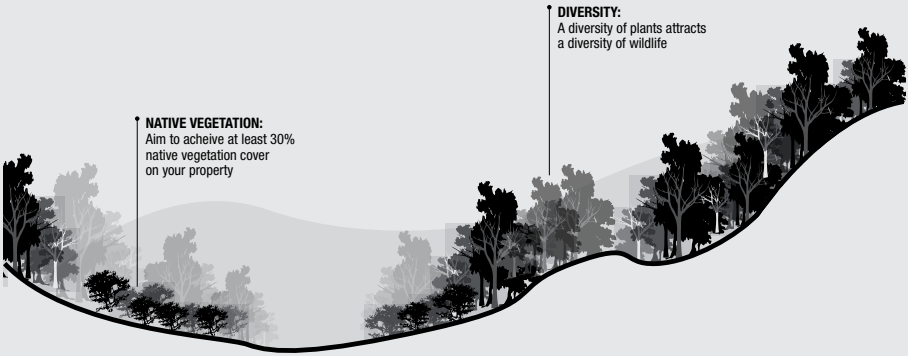
SHRUBS
Sweet Bursaria
Common Cassinia
Golden Tip
Austral Indigo
Manuka
Rough Bush-pea
Guinea Flower
Handsome Bush-pea

GROUNDCOVERS/ CLIMBERS
Bidgee-widgee
Honey-pots
Spiny-headed Mat-rush
Wattle Mat-rush
Common Apple-berry
Tasman Flax-lily
Common Tussock-grass
Kangaroo Grass

SHELTERED SLOPES, HIGHER ALTITUDE AND HIGHER RAINFALL AREAS



SHELTERED SLOPES, HIGHER ALTITUDE AND HIGHER RAINFALL AREAS:
INDICATIVE PROFILE



SOME SUITABLE SPECIES:

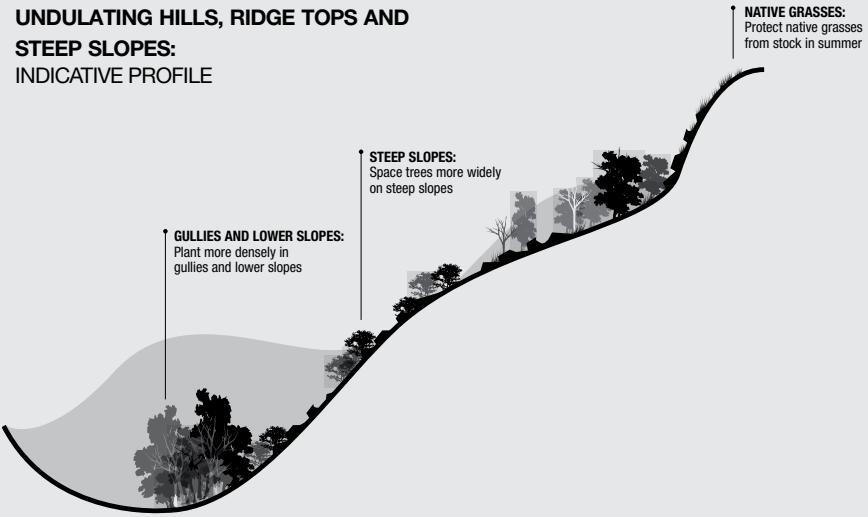
TREES
Silver Wattle
Black She-oak
Mountain Grey Gum
Eurabbie/Blue Gum
Messmate
Silvertop Ash
Yellow Stringybark

SHRUBS
Blue Oliveberry
Common Cassinia
Narrow-leaf Geebung
Prickly Currant Bush
Sweet Pittosporum
Hop Goodenia
Victorian Christmas Bush
Hazel Pomaderris
Snowy Daisy-bush

GROUNDCOVERS/ CLIMBERS
Common Apple Berry
Mountain Clematis
Tasman Flax-lily
Wonga Vine
Ivy-leaf Violet
Handsome Flat-pea
Spiny-headed Mat-rush
Common Tussock Grass

UNDULATING HILLS, RIDGE TOPS AND STEEP SLOPES

UNDULATING HILLS, RIDGE TOPS AND STEEP SLOPES:
INDICATIVE PROFILE



SOME SUITABLE SPECIES:

TREES
Large-leaf Hickory Wattle
Silver Wattle
Black She-oak
Broad-leaf Peppermint
Red Stringybark
Brittle Gum

SHRUBS
Ploughshare Wattle
Handsome Flat-pea
Grey Guinea-flower
Heath Pink-bells
Shiny Cassinia
Hedge Wattle

GROUNDCOVERS/CLIMBERS
Purple Coral-pea
Black-anther Flax-lily
Spiny-headed Mat-rush
Grey Tussock-grass Tall
Bluebell
Honey Pots
Narrow-leaf Bitter-pea

INDIGENOUS PLANT NURSERIES

Moogji Aboriginal Council East Gippsland Inc.
Contact: Chris Allen
E: callen@moogji.com.au
P: (03) 5154 2133
M: 0428 584 246

Riviera Garden Centre
Contact: Anne-Marie Higgins
E: emailrgc@bigpond.com
P: (03) 5156 7466
M: 0412 560 338

Snowy River Riparian Native Plants and Native Seed Suppliers
Contact: Ned Rickard
E: snowyriverriparian@gmail.com
P: (03) 5156 7466
M: 0412 560 338

Wildseed Nursery Gippsland
Contact: Vicki Vuat
E: office.wildseed@gmail. com
M: 0419 099 925

REFERENCES

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egcma.com.au/resources/publications

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Barrett, G. (2000)
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Ecological Management for Agricultural Sustainability
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Hawthorn

CONTACTS

Far East Victoria Landcare:
fevl.org.au

Snowy River Interstate Landcare Committee:
snowyriverinterstatelandcare.net

East Gippsland Landcare Network:
landcarevic.org.au

East Gippsland CMA:
egcma.com.au

DELWP:
delwp.vic.gov.au

East Gippsland Shire Council Environment Department:
eastgippsland.vic.gov.au