

Minimum Standards for Revegetation and Fencing in the Goulburn Broken Catchment

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Contents

Planning	1
Fencing Standards.....	1
End Assemblies/Strainer Posts	2
Revegetation – Tube stock.....	5
Site preparation	5
Deep Ripping.....	5
Pre-planting Weed Control	5
Species selection.....	6
Planting	6
Guards.....	7
Revegetation - Direct Seeding.....	7
Checklist.....	9

The following minimum standards are to be followed for revegetation and fencing works funded through incentives in the Goulburn Broken Catchment. For more detailed information please refer to [Victorian Investment Framework \(VIF\) Vegetation Works Standards, 2011](#), developed by DSE and the [Goulburn Broken Revegetation Guide](#).

Planning

1. Plan your project well in advance,
2. Arrange a visit from a Project Officer,
3. Work with the Project Officer to negotiate agreed works on your property, map the site and put the project forward to be considered for funding.
4. Consider:
 - how your project fits into your Whole Farm/ Property Plan
 - how your project fits in with broader landscape and Catchment objectives
 - what you want to achieve through your project
 - how your project fits with your fire plan, making sure your site is clear of infrastructure and has good access
 - potential for future projects such as connecting revegetation sites to neighbours' projects, roadsides or public land patches of vegetation
 - potential threats to your project e.g. pest plants and animals, saline site. This may mean selecting a specific type of fence, implementing a pest plant or animal control program, or selecting specialised species to suit your site
 - any cultural heritage significance on or near your site
 - cost, time, commitment, how and when.

Fencing Standards

Fences must be permanent, stockproof and always maintained.

Barbed wire will not be funded, as it can kill or injure native wildlife such as Sugar Gliders, Squirrel Gliders, bats and some birds.

	Standard fence	Electric fence
Maximum spacing between strainer posts	15m with 3 droppers between	7m
Strainer assemblies	Concrete, treated pine or hardwood. Every 400m on flat ground, every 200m in hilly country.	Concrete, treated pine or hardwood
In-line posts	Steel pickets spaced at 3-5m	Steel pickets
Minimum number of wires	Seven plain or an equivalent prefabricated product e.g. ring lock or hinge joint	Five with two live and two earth

End Assemblies/Strainer Posts

- Cement, steel or wooden post cemented, rammed or packed-in and either diagonal stay or box type stay (Figures 1 & 2).
- At least one strainer per 400m length of straight fencing on flat ground.
- For hilly country, a minimum of one strainer per 200m length of fence



Figure 1: Plain wire fence with diagonal stay.



Figure 2: Ring lock or hinge joint and box type stay.

The following table provides more detailed suggestions specific to certain animals:

Beef cattle	Standard 6/70/30 or 7/90/30 ring-lock and plain wire, or a four-strand plain wire with at least two electrified strands, or seven strand plain wire. Height: at least 1.2m is recommended. Posts: 6' (1.8m) treated pine or steel at least 10m apart with two droppers in between Strainers: 7 or 8' (2.1m or 2.4m) at least (6-7") treated pine or railway iron/large diameter steel posts Stays: 10' (3m) treated pine.
Dairy cattle	Standard 6/70/30 or 7/90/30 ring-lock and plain wire, or a three-strand plain wire with at least two electrified strands, or seven strand plain wire (Note: Barbed wire is not recommended as native animals may be adversely affected in some areas). Height: at least 1.2m is recommended. Posts: 6' (1.8m) treated pine or steel at least 10m apart with two droppers in between Strainers: 7 or 8' (2.1m or 2.4m) at least (6-7") treated pine or railway iron/large diameter steel posts Stays: 10' (3m) treated pine.
Sheep	Standard 6/70/30 or 7/90/30 ring-lock and plain wire, or a five-strand plain wire with at least three electrified strands ensuring that the bottom wire is earthed, or seven strand plain wire. Height: at least 1m is recommended. Posts: 6' (1.8m) treated pine or steel at least 10m apart with two droppers in between Strainers: 7 or 8' (2.1m or 2.4m) at least (5-6") treated pine or railway iron/large diameter steel posts Stays: 10' (3m) treated pine.

<p>Kangaroos / Wallabies (Extra cost of these fences are at landholder's expense)</p>	<p>Two reasons for Kangaroo proof fencing:</p> <ol style="list-style-type: none"> 1. For Exclusion plots (10mx10m) to determine grazing pressure, or 2. Larger areas to protect threatened species or specialised native species plantings (i.e. seed production area) where herbivore pressure is a threat. <p>Ring-lock or hinge-joint and corner steel or wooden posts for support. One plain wire above ring-lock/ hinge-joint for support and extra height. Optional rabbit proof netting if required (see Rabbit fence). Support fence to withstand stock or native animal forces. Strain to tension using wire from corner assemblies. To hold fence down tie down pegs/ cut-off star pickets driven into the ground (Figure 3)</p> <p>Height: at least 1.5m is recommended. Other examples include inward leaning electric fence and 2m tall ring lock/ hinge joint/ netting fence (see Figures 4 and 5).</p>
<p>Rabbits (Extra cost of these fences are at landholder's expense)</p>	<p>300 mm width/ 4 cm mesh diameter/ 1.4 mm wire diameter rabbit-proof netting. Height: 0.9m is recommended.</p> <p>Support fence to withstand stock or native animal forces. Rabbit netting fixed so that it reaches at least 900 mm above the ground.</p> <p>Netting buried (to 170 mm depth) or laid down and secured with pegs, rocks or timber.</p>
<p>Deer (Extra cost of these fences are at landholder's expense)</p>	<p>Height: at least 2.1 m high is recommended.</p> <p>Strainers and posts: hardwood or metal set deeply into the ground and no more than 9 m apart.</p> <p>Netting 17/190/15 or 13/190/30 for red deer, supported by well strained top, bottom and belly wires and pegged securely to the ground. Gates need to be of similar standard and height.</p>



Figure 3: Undulations in fence require pegging down to reduce pop outs.



Figure 4: Kangaroo proof inward leaning electric fence.



Figure 5: Kangaroo proof Ring lock/ hinge joint 2m fence with rabbit netting to 900mm.



Figure 6: When existing trees are along a fence line fence around the tree inside the property boundary.

Revegetation – Tube stock

Site preparation

Deep Ripping

- Deep ripping is advised in summer months to prepare for planting projects. This helps to promote moisture intake into the soil (Figures 7 & 8). Ripping the soil in dryer months helps shatter the soil rather than slicing through wet soil.
- **Do not rip** in sandy soils, tunnel erosion sites or fragile slopes at risk of erosion.
- If ripping on steep hills, follow along the contour to reduce potential for erosion. Ensure breaks in the rip line to avoid run off.
- Where terrain permits, rip to a minimum depth of half a metre to allow lateral root development.
- Planting within or outside of the rip line is acceptable.
- Hand planting is acceptable without ripping.
- **Please note:** Deep ripping is not recommended in remnant protection and enhancement works, or within the critical root zone (two lengths of the drip line of remnant trees, including roadside trees), particularly where native understorey, ground covers or native grasses are present.



Figure 7: Mounding of revegetation areas.



Figure 8: Example of a three-tine rip of revegetation area.

Pre-planting Weed Control

Firstly, check for native grass and groundcover species composition on your site. Sites should not be sprayed if the site has native groundcovers, be more selective in your application to protect existing native ground layer species.

Site preparation prior to a revegetation project is often required to reduce competition of exotic grasses and broadleaf weeds. Consult your herbicide retailer for a suitable herbicide for your situation. In high weed infestation sites, a weed control program should be applied 12 months prior to your planting date.

Always follow label recommendations for herbicide application method and rates.

- Spot spray at least half a metre diameter (Figure 9) or strip spray at least 1m width along rip lines or planting area (Figure 10) with a recommended herbicide.
- Alternatively, weed mats (jute mat/ cardboard/ recycled felt materials) or mulch (Figure 11).
 - Must cover an effective area greater than 30cm² around base of plant.
 - Must be demonstrated that weed mat is prevented from blowing away.



Figure 9: Effective spot spraying at least half metre around the base of the plant.



Figure 10: Strip spraying along rip lines.



Figure 11: Weed mat around the base of the plant.

Species selection

Local indigenous species must be used and selected based on the Ecological Vegetation Class. These species should be well adapted to local soils and climatic conditions, should establish quicker and are a suitable resource for local fauna and insect species. See Goulburn Broken Revegetation Guide for lists of local indigenous plants and nurseries in your area, (www.gbcma.vic.gov.au/revegetation) or contact the Project Officer. Local seed can be sourced through Goulburn Broken Indigenous Seedbank (03 5833 9279) or www.dookie.unimelb.edu.au/seedbank/.

Ideally, to ensure suitable indigenous **plants** are grown for your property, it is recommended to **order your plants** with your nursery 18 months prior to your planting date. This will allow quantity of seed to be collected specifically to suit your project site. Alternatively, it is advised to pre-order your indigenous plants at your preferred nursery prior to October for planting in the following year.

Planting

- Ensure the seedling's root system and potting mix is completely buried and fully covered with surrounding topsoil (Figures 12 & 13). This will help the plant retain moisture. The potting mix should not be exposed.
- **Always plant moist seedlings.** It is advised to soak plants in their trays overnight prior to planting, to help reduce air pockets and transplant shock.



Figure 12: Potting mix covered by topsoil. Moisture loss through potting mix greatly reduced.



Figure 13: Potting mix exposed. Plant more prone to desiccation from drying winds.

Guards

- Tree guards will protect plants from pest animals and extreme weather conditions. **It is compulsory to guard plants funded by incentives**, unless an alternative method is pre-arranged with your Project Officer i.e. herbivore proof fencing.
- There are many different guard types on the market to explore. (Figure 14, 15 & 16).
- Single stake guards are only acceptable where the guard cannot pivot around the stake (Figure 15).



Figure 14: Milk Carton.



Figure 15: Fluted plastic single stake construction.



Figure 16: Plastic sleeve type.

Revegetation - Direct Seeding

- If direct seeding into dominant **native grass sites**, minimise herbicide application, or forego spraying altogether.
- **Indigenous seed** collected from similar soil types will be better adapted to suit your local conditions.
- The **Goulburn Broken Indigenous Seedbank (GBIS)** offers an indigenous seed service, including species selection, seed treatment and direct seed contractor referral. Indigenous **seed** should be ordered through GBIS well in advance of your project timeline. For larger projects it is recommended to order before peak collection time in November to ensure strategic collection takes place in your area. If you have not pre-ordered your seed in time, you may be limited in your species selection and volume of seed you require for your project.
- **Effective site preparation is crucial** and must be properly applied before direct seeding occurs. This should be achieved by **strip-spraying** (Figure 17) or **blanket spraying** (Figure 18) with a recommended herbicide from a retailer. It is recommended to prepare your site with 3 well timed herbicide applications, beginning one year prior to your seeding date. This will reduce competition for establishment of seedlings and retain maximum soil moisture for germination and growth.
- Monitor for **Redlegged Earth Mite** numbers as they can damage new growth. A treatment may need to occur to enable the best results from direct seeding.
- **Smoke Water and Wattle Grow** inoculant applications should be considered to improve germination and plant growth, discuss with your direct seed contractor.



Figure 17: Strip sprayed and seeded.



Figure 18: Blanket sprayed and seeded.

Future management actions need to be determined for the best biodiversity outcome for the site. These include:

- Leave dead standing trees, logs, small branches and leaf litter on the ground for birds, reptiles, insects and small mammal habitat.
- Erect nest boxes to standing trees to improve habitat for mammals, birds and reptiles.
- Exclude stock to allow indigenous plants to establish and encourage regeneration of multiple life forms (over storey, under storey and ground layer).
- Strategic grazing may be used as a management tool when plants are established. Short periods of grazing can be implemented to limit damage to native plants and reduce sufficient biomass.
Do not set stock these sites.
- Maintain all **fences** as stock proof.
- Implement an ongoing **pest plant and animal control** program, including linking in with your neighbouring community.

Checklist

Planning	
Has your Project been considered within your Whole Farm Plan?	
What do you want to achieve in the long term from this Project?	
Assess any threats to the project?	
What works do you need to do?	
Seek any funding grants on offer through GB CMA or DELWP. Contact a Project Officer and organise a site visit.	
Identify current site habitat assets and threats, including existing native flora and exotic plant species, pest animals and structural habitat e.g. logs, leaf litter, standing dead habitat trees.	
Construct fence to fencing standards for your needs	
Site preparation i.e. spraying and ripping when appropriate.	
Weed control prior to planting/ direct seeding (depending on native ground layer composition).	
Planting	
Order your plants in the year previous to planting? Use local indigenous seed.	
Ensure seedlings are well watered/ soaked prior to planting.	
Plant indigenous plants correctly with no air pockets, exposed roots, or potting mix?	
Guard trees with an appropriate guard. (If no guard required, discuss this with the Project Officer prior to planting)	
Direct Seeding	
Order local indigenous seed in the year before direct seeding is to occur.	
Implement recommended weed control.	
Consider/ ask the contractor or Seedbank what seed treatments have been applied. (i.e. wattle grow, smoke water).	
Monitor Redlegged Earth Mite numbers.	

Good Luck with your project. Please contact your local Project Officer for any further advice.