

Landcare-led Landscape Resilience

Tools and data for restoration decisions

Active management of River Red Gum Regeneration

OBJECTIVES

Revegetation/Regeneration of a River Red Gum riparian shrub/grassy tall woodland by means of active management of naturally regenerating *Eucalyptus camaldulensis*. The site is along an ephemeral creek line which was previously cleared and cropped. Half of the site was fenced off 10 years ago and unmanaged regeneration of Red Gum has caused a typical over crowded monoculture.

WHAT IS SUCCESS?

Red Gum can produce millions of seeds/ha and germinate prolifically on mass in disturbed areas, making the tree the perfect coloniser. This generally causes mass thickets of gum saplings, which results in overcrowded, unhealthy trees that will never reach maturity.

Success in this trial will see a healthy, well established grassy woodland where the Red Gum is not out competing itself and other species which have been introduced back into the site. This is a great way to compare managed vs unmanaged regeneration of Red Gum and how best to steer that process towards a healthy functioning landscape.



Demonstration of a tree popper taking out woody weeds at Narrandera Wetlands NSW

KEY STEPS

- Figure out the desired density of stems per hectare using PCT data and the Victorian Bioregion Benchmark for Vegetation Quality Assessments a figure of 15 large tree per hectare was decided on.
- When to intervene, it was decided to monitor the site for regeneration events regularly and then manage those events within 6 to 12 months allowing healthier more dominant saplings to stand out from the crowd.
- Remove unwanted saplings to the desired density ensuring to leave some small unmanaged patches which can in this case help to increase biodiversity.
- Repeat until the site is established and self-maintaining.



Healthy Red Gum regeneration at Doodle Coma Swamp Henty NSW

KEY LEARNINGS FROM EXPERIENCE

Regulations: The patch you plan on work will fall under one of 3 Rural Land categories and even though the regeneration you plan on managing hasn't even germinated chances are you might need a permit. There are loads of resources out there to help navigate this.

Long-term Vision: Knowing what you want the site to look like is key, as rehabilitating degraded landscapes towards a natural state is not just set and forget. Knowing where to find bench marking information and reference sites for comparison can be time consuming, especially in areas where revegetation guides did not previously cover.

Sometimes it's not about what we plant but managing what grows

COST CONSIDERATIONS

Although the process is time consuming, the long-term benefit to Biodiversity is worth it. Thinning older regeneration is costly when permits and contractors are involved, with the heavy machinery causing more damage to the site and starting the process of encroachment off again in the disturbance.



*Tumut Ecology Reserve managing encroachment of non-endemic *Acacia decurrens* on the right no intervention. On the left some light thinning and use of cultural fire is opening the landscape up to grassy woodland.*

RESOURCES

Revegetation: There are ample resources available if you are not working in an area covered by a revegetation guide. Contact your Local Landcare Coordinator or Natural Resource Management agency for further details.

- South West Slopes and Riverina Revegetation Guides <https://revegetation.org.au/>
- Trees near me app <https://www.treesnearme.app/explore>
- Landcare NSW <https://landcarensw.org.au/>

Land Management: In New South Wales, Local Land Services consent authority when it comes to Rural Zoned land. Urban and peri Urban fall under your local Government areas environmental plan.

- Local Land service Land management. <https://www.lls.nsw.gov.au/help-and-advice/land-management-in-nsw>
- Native Vegetation Regulatory Map. <https://www2.environment.nsw.gov.au/topics/animals-and-plants/biodiversity/native-vegetation-regulatory-map>