



Australian Government



Presentation at Old Junee
by Tina de Jong, Murrumbidgee Landcare Inc,
Wagga Wagga, Wiradjuri Country

PEOPLE LED PREVENTION PROJECT

Landcare NSW's People Led Prevention project empowers communities across regional NSW in developing disaster resilience and preparedness skills. Jointly funded by the Australian and NSW Governments.



Two workshops were held at Old Junee Travelling Stock Reserve in Autumn 2024 to discuss considerations around fire preparedness and the use of right fire to promote woodland health. A demonstration Cultural burn was held on both days thanks to Dean Freeman from Riverina Local Land Services.



Local Land Services
Riverina



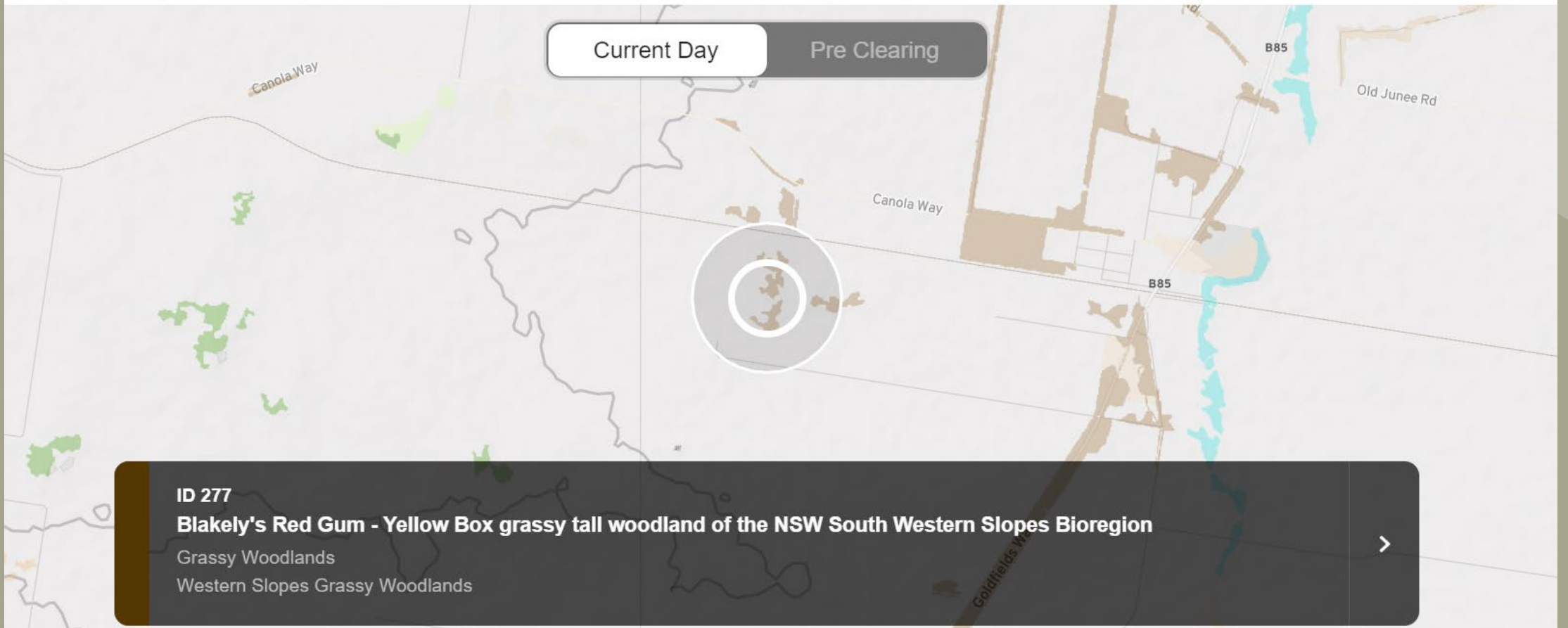
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Date: 30/04/2024 CRS:

Author: Liegh Mathieson.

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Using the Trees near me and local Landcare knowledge this lovely remnant Box Gum Woodland was assessed as being a Blakely's Red Gum- Yellow Box Grassy Woodland. We then used the above categorisation to explore a suitable fire regimes to promote optimal biodiversity (app and webpage [Trees Near Me NSW Vegetation](#)).

Abundance and resilience

Our local natural ecosystems are resilient when there is a diversity of plant and animal species present and an abundance in their numbers. A diversity in the age classes of these species also indicates a healthy and functional woodland, one which can self sustain over different disturbance regimes.

Resilience = ability to bounce back from pressures such as weeds, disturbance, floods, fire and droughts .

Much of our local environment has been simplified in its structure and the abundance of species due to cropping, logging, grazing and other long term disturbances, that are not such a natural part of the cycle.

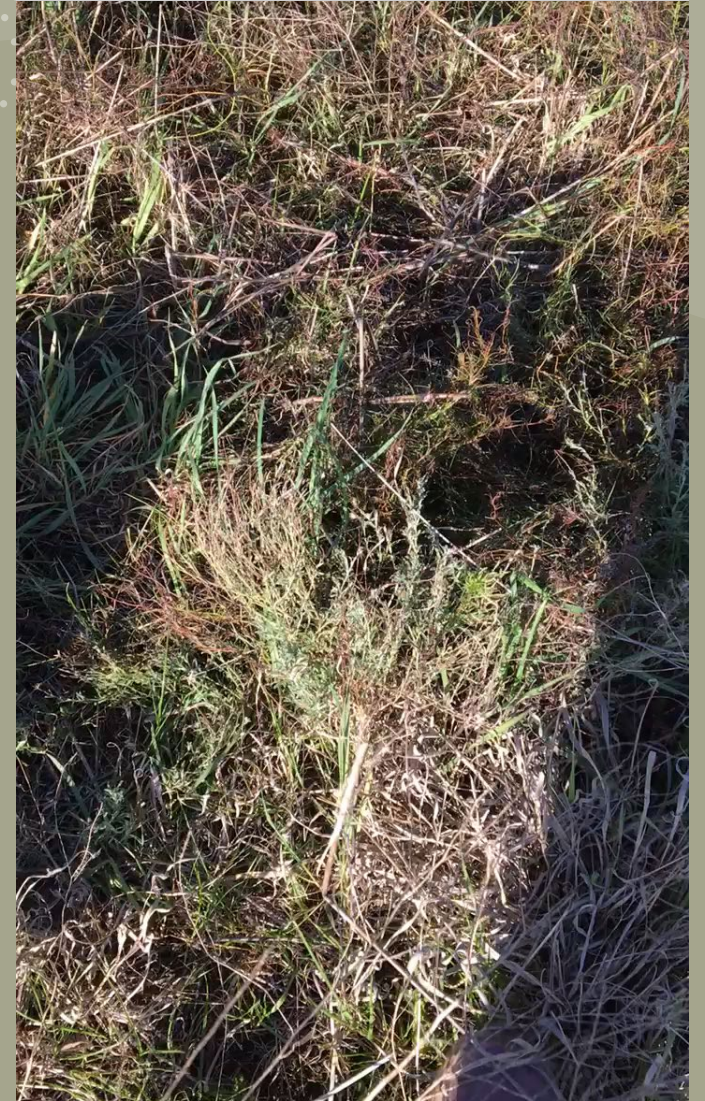
To create more diversity, and thus resilience to more pressures from climate change, our landscape needs a reset.

Taking active management steps and creating small disturbances allows for the introduction of different ages and stages of plant growth through the landscape to break up this simplified, even growth.

Cultural burning, ecological burning, cool burns and even well designed small patchy hazard reduction burns can create a healthy disturbance, to promote fresh growth patterns, in a mosaic style, without damaging biodiversity.

Aswell as restoration and regenerative practices that put back new seed sources and cycles of growth in locked up or heavily weed burdened areas.

Why are we burning?

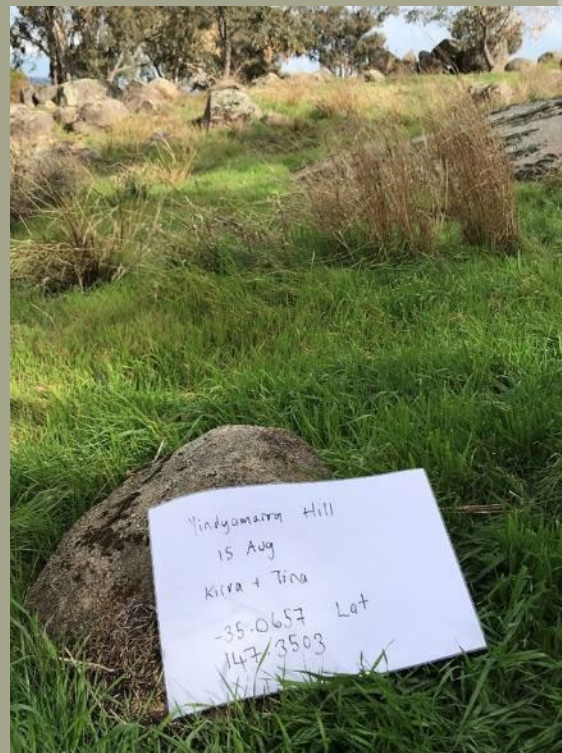


Until recently ecological burns and Cultural burning have not been commonly used in this area, for some time, to promote healthy and resilient woodlands, despite our knowledge that periodic small fire is beneficial.

Picture: One of few ecological burns undertaken in the region, Birdlip reserve, The Rock/Mangoplah circa 2002. Mangoplah Landcare Group



Therefore there has been limited opportunities to monitor what right fire does to our local plant communities in the Riverina/Southwest slopes



Yindyamarra Hill Survey site pre and post fire 2018, Willans Hill cool burn monitoring

There are resources to guide us

[Region | Resources and materials | Hotspots Fire Project](#)

The Nature Conservation Council and Rural Fire Service Hotspots program resources look at Fire in our Landscape , including


- Fire frequency and severity and the drivers
- Fire impact – community, infrastructure, ecological
- Long fire history (cultural), and how our environment and climate are different today
- Our communities resources, vegetation types and fire needs, and legislation


Using the Old Junee Travelling Stock reserve as an example we explore these resources mentioned above. The vegetation classification according to Trees near me is:

PLANT COMMUNITY TYPE ✕

Blakely's Red Gum - Yellow Box grassy tall woodland of the NSW South Western Slopes Bioregion

ID 277

 **FORMATION**
Grassy Woodlands

 **VEGETATION CLASS**
Western Slopes Grassy Woodlands

BIO REGIONS

South Western Slopes ➤

LOCAL GOVERNMENT AREAS

- Albury City
- Boorowa
- Cabonne
- Coolamon
- Cootamundra
- Cootamundra-Gundagai Regional
- Cowra
- Greater Hume Shire
- Harden
- Junee
- Mid-Western Regional
- Tumbarumba
- Tumut
- Upper Lachlan Shire
- Wagga Wagga
- Weddin
- Wellington
- Yass Valley
- Young

DESCRIPTION


Tall woodland to about 20 m high dominated by Blakelys Red Gum (*Eucalyptus blakelyi*) and Yellow Box (*Eucalyptus melliodora*).

Blakelys Red Gum or Yellow Box vary in their dominance and either can be absent in some places grading into areas with more Apple Box (*Eucalyptus bridgesiana*), Long-leaved Box (*Eucalyptus gonicalyx*) and rarely *Eucalyptus microcarpa*. Shrubs are sparse or absent and may include *Acacia dealbata*.

**** The detailed descriptions, and particularly the trees present, help us to identify the plant community, when several options come up**



We also note 'drivers' of the condition these communities exist in.....

The ground cover may be dense to sparse depending on rainfall and is dominated by grass species including *Poa sieberiana*, *Bothriochloa macra*, *Aristida ramosa*, *Themeda australis*, *Austrodanthonia* spp and *Austrostipa* spp. Forbs include *Vittadinia cuneata*, *Chrysocephalum apiculatum* and *Sida corrugata*. 

A very widespread community on fertile deep, loam or clay soils derived from a range of substrates including fine-grained sedimentary and metamorphic rocks but also volcanics and fine-grained granite. Occurs on flats, footslopes and hillslopes mainly in the upper slopes sub-region of the NSW South-western Slopes Bioregion mainly east of Wagga Wagga.

Grades into White Box (*Eucalyptus albens*) grassy woodland (ID266) on hillslopes and into either ID76 (Western Grey Box woodland) or ID276 (Yellow Box woodland) on parna or alluvial flats. Mainly cleared and subjected to nutrification from fertilizers and associated weed invasion.

SPECIES

Using the RFS codes tell us how often these vegetation communities can be burned without depleting biodiversity (our resilience), note they line up with the categories from Trees near me that we identified earlier

BUSH FIRE ENVIRONMENTAL ASSESSMENT CODE - SUPPORTING DOCUMENT

JANUARY 2022

FIRE INTERVALS FOR STRATEGIC FIRE ADVANTAGE ZONES AND LAND MANAGEMENT ZONES

Introduction

This document is a component of the Bush Fire Environmental Assessment Code (Code). As such, a level of understanding of the Code will assist in comprehending this document, particularly in regard to matters such as terminology. The Code and related documents can be located at www.rfs.nsw.gov.au. The Code provides for a streamlined environmental assessment and approval process for bush fire hazard reduction works under certain circumstances. A Bush Fire Hazard Reduction Certificate (Certificate) is a form of environmental approval that may be issued in accordance with the Code.

Grassy Woodlands			
Coastal Valley Grassy Woodlands	5	8	
Floodplain Transition Woodlands	5	8	
New England Grassy Woodlands	5	8	
Southern Tableland Grassy Woodlands	5	8	
Subalpine Woodlands	5	8	
Tableland Clay Grassy Woodlands	5	8	
Western Slopes Grassy Woodlands	5	8	

Using the Hotspots Resources for our region we can then ask

How often do these areas require fire for optimal health and resilience?

Grassy Box Woodlands

Conclusion The studies outlined above strongly suggest that fire has an important place in Western Slopes Grassy Woodlands. Fire regulates the abundance of the two grasses that originally dominated this vegetation class, provides opportunities for heat and smoke-cued shrubs and grasses to recruit, may help young eucalypts to establish and grow, and can play a part in limiting and reducing the abundance of weeds. In a 2005 article Prober and Thiele bring together what they have learnt from over a decade of research into grassy white box woodlands, and discuss implications for managers seeking to restore them. These authors point out the importance of looking beyond species composition to an understanding of how ecosystems work. They recommend understanding the state before degradation, the reasons for ecosystem change, and the processes which can be used to restore ecosystem function. Fire is one of a suite of strategies which can be used to restore the low nutrient, Themeda- and Poa-dominated woodlands which are likely to favour native over exotic species.

P 38 Fire and vegetation of the Murrumbidgee, A summary of fire and the vegetation in the Murrumbidgee region, M.S. Graham, P. Watson, & D. Tierney, 2015

In reviewing this resource we find a fire regime to support ecological health in Woodlands is recommended between 5- 40 years.

The type of fire is then considered. For example a mosaic Cultural burn would work over different patches of an area over these time frames. Where as one larger patchy burn might only be done periodically. The RFS codes may be designed around more uniform hazard reduction burn patterns.

All important factors to consider before fire is prescribed to an area. It is also healthy to keep some areas as 'Long unburnt'. That is fire excluded, as these areas develop in mature stable communities and there is less and less of them with old hollow bearing trees and complex species arrangements.

The Response of Australia's Woodland Bird community to fire 2021 written by the Threatened Species Recovery Hub , National Environmental Science program finds

- Abundance of different species and healthy numbers of them leads to resilience
- Managing fire for biodiversity = understanding species responses
- Looked across literature to see bird biodiversity was most with time since fire (long intervals)
- Fire type was a huge factor
- Wildfire has a significant negative effect, prescribed fire (hazard reduction) influenced abundance not richness
- Need to incorporate long periods after fire in mosaic burning

HOTSPOTS FIRE PROJECT

Fact Sheet: The Burning Approval Process

hotspotsfireproject.org.au



Bush fire hazard reduction burn © K. Taylor, Nature Conservation Council of NSW.

If you want to conduct a burn on your property you must check to see what approvals are required. This fact sheet provides you with an explanation of what you need to think about and do before you conduct a burn. You can refer to the NSW RFS publication *Before You Light That Fire* for more detailed information.

What is the reason for your burn?

If you are concerned about bush fire hazards or the amount of fuel on your property, then you may be looking at conducting a burn to reduce fuel loads. Before carrying out a hazard reduction burn you will need to get environmental approval. This not only minimises the risk of damage to the environment but also protects you from possible fines or legal action.

The easiest way to obtain an environmental approval is to apply for a free **Bush Fire Hazard Reduction Certificate** from the NSW Rural Fire Service (RFS). It will contain conditions to reduce the impact on the environment or heritage sites. In the majority of cases a Certificate will be issued for essential hazard reduction works, providing the potential environmental impact is not too great.

If the works are beyond the scope of the Certificate process, the RFS will provide advice on alternate environmental approvals. Certain agricultural practices may not require environmental approvals. Stubble burning, burning of sugar cane and diseased crops, generally do not require environmental approval. For a list of "allowable activities" and more information please contact your Local Land Service office at www.lls.nsw.gov.au/

There may be times when fire is needed to maintain or improve the variety of plant and animal species on your property; this means you are looking at conducting a

burn for biodiversity reasons. If this burn is also likely to produce bush fire hazard reduction outcomes, then you should be able to obtain environmental approval with a **Bush Fire Hazard Reduction Certificate**. If not, then other environmental approvals may be required.

There are a range of environmental approvals that may be required under different NSW legislation depending on the nature of the work. The Department of Planning and Environment (DPE) or Council will be able to assist you in working out which approvals may be required.

What is the difference between a Bush Fire Hazard Reduction Certificate and a Fire Permit?

A **Bush Fire Hazard Reduction Certificate** is an environmental approval with conditions about environmental impacts of your works. A **Fire Permit** is a fire safety approval. You will need a Fire Permit all year round if the fire is in close proximity to a dwelling, or if you are in a Fire & Rescue NSW area. There may be conditions attached to the permit to ensure safe burning practices.

If you want to burn during a bush fire danger period, you may need to apply for both a **Fire Permit** and a **Bush Fire Hazard Reduction Certificate**. The NSW Bush Fire Danger Period is from 1 October to 31 March. However, this may start as early as 31st of August. Please note that you are not allowed to burn on Total Fire Ban or No Burn days, and that permits are required all year round in some council areas. Check with your local RFS Fire Control Centre if you are unsure as to whether or not you need a permit.

Who do I need to notify?

Regardless of whether you require a **Bush Fire Hazard Reduction Certificate** or **Fire Permit**, you must always give 24 hour's notice to your immediate neighbours and local Fire Control Centre prior to lighting.

What happens if I conduct a burn without the necessary approvals and it causes damage?

If you do not obtain an approval, you may face considerable penalties. If you are unsure about whether you have obtained the right approvals, please contact your local RFS Fire Control Centre and they will be able to guide you through the burning approval process.

For further information on the Burning Approval Process, please contact your local RFS Fire Control Centre or visit www.rfs.nsw.gov.au.

If you want to conduct a burn on your property you must check to see what approvals are required.

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There are many considerations in implementing a fire regime and many types of fire and seasonal implications.

There are also legislative requirements to protect biodiversity and Cultural heritage.

A Cultural fire is patchy and small and does not burn large areas at one time, it allows animals to move and all species to recolonize as it has smaller disturbances and patterns designed to increase landscape abundance.

For these reasons a Cultural fire was demonstrated at our field days. Most importantly it allows people to connect closely with nature and each other.



More resources from this project can be found here

[People Led Prevention - Natural Hazard Adaption -
Murrumbidgee Landcare Inc \(mli.org.au\)](#)