Linear Reserves **Grassland News**

Issue #10 June 2023



We made it to 10 editions of the LRP Newsletter!

The end of this financial year sees us wrapping up the Australian Government's National Landcare Programme (NLP 2) projects in partnership with GHCMA and CCMA. These projects have run for five and four years respectively.

The application and project design process for the next round of NLP funding is now underway. However, it's not expected to be finalised until early next year. This means that we don't have any on-ground actions planned for the spring and that my role is not able to continue.

It's been an absolute pleasure working on the linear reserves for the last five and a half years and working with people who genuinely care about the conservation of these special places. It really has been inspiring.

Thank you! Ammie Jackson

Natural Environment Program Officer, DEECA

ammie.jackson@delwp.vic.gov.au

Burning success!

The recent roadside burning season has been very successful on a number of levels. From an ecological perspective, many high quality and high priority grassland sites were burnt, helping to maintain their quality and reduce weed invasion. This is great news because the native grasslands on the Victorian Volcanic Plains are listed as Critically Endangered, and some of the most important and species diverse patches are confined to these road reserves.

There is a long history of CFA burning for fuel reduction, and by no coincidence, this is also where the high-quality grasslands remain. These grasslands require regular burning (every two to three years) to reduce the amount of biomass, and in return they provide crucial habitat for native flora and fauna species and create safe firebreaks across the landscape. In comparison, roadsides that are dominated by introduced grasses (Phalaris) provide little conservation value and are a much higher fire risk. Flame heights are three to five times higher than native grasses, which are smaller and greener throughout the summer.



CFA planned burning on the Mt Mercer - Shelford Rd (March 2023)









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Map of CFA completed planned burns for the 2022.23 season

Different ways of working together have helped the CFA achieve a high number of burns this year. The coordination of a 30-truck strike team saw District 7 achieve hundreds of hectares of burning across multiple sites over two weekends. This amount of burning can be difficult for individual brigades on their own. The Planned Burn Taskforce is continuing to support brigades in need of resources.

Last year DEECA's Linear Reserves Project and CFA Vegetation Management Officers worked together to determine which roadsides were the highest ecological priority for burning. This is based on quality of the native vegetation and duration of time since last burnt. In many cases, these sites have already been identified as strategic fuel management areas.

Of the identified priorities, the following were completed this season:

- Mt Mercer Shelford Road
- Rokewood Shelford Road
- Cressy Shelford Road
- Poorneet Station Road North
- Poorneet Station Road South
- Warrnambool Caramut Road.

Other sites with grasslands values that were burnt this year, and have been regularly burnt include:

- Wickliffe Willaura Road
- Maroona Glenthompson Road
- Woorndoo Streatham Road
- Hamilton Highway
- Hopkins Highway
- Caramut Chatsworth Road
- Chatsworth Woorndoo Road
- Hexham Chatsworth Road
- Dunkeld Cavendish Road.

We acknowledge the hard work of many CFA staff and volunteers for their ongoing efforts to keep communities safe and manage ecological values.

Achievements of the LRP NLP2 Program

Over the last five years or so we have worked closely with a wide range of project partners and stakeholders, including:

- CFA
- CCMA and GHCMA
- Local Government
- Department of Transport and rail authorities
- Traditional Owners
- Parks Victoria
- Contractors and consultants.

A big thank you to all the agencies and individuals who have helped us achieve our outputs. The project has focussed predominately on weed control, burning, assessments, mapping, education and awareness raising events.

Activity	GHCMA region	CCMA region
Weed control	1500 ha	1345 ha
Ecological burning (CFA)	1000 ha	440 ha
Cultural burning (WTOAC)		30 ha

LRP overall project outputs 2018 -2023



Learnings from the "Wiyn Murrup" Monitoring Program

For the past three years, the Wadawurrung Traditional Owners Aboriginal Corporation (WTOAC) has been applying cultural burning (Wiyn Murrup) as part of the VVP Grassy Eucalypt Woodland Project. The most recent burn in May was a re-treatment at the Moranghurk property.

In 2020, Brad Farmilo from the Arthur Rylah Institute (ARI) led the establishment of the Grassy Eucalypt Woodlands Cultural Burning Rapid Monitoring Program. Since then, representatives from WTOAC, ARI, CCMA and DEECA have conducted pre and post burn monitoring at the three sites.

While this is a relatively short period of time to form conclusions about the effects of Wiyn Murrup on vegetation, it shows that grassy biomass and leaf litter is reduced, and bare ground is increased for up to one year after fire. Longer-term management and monitoring will be required to measure changes in species diversity.



Applying fire with traditional techniques

The social benefits of the program can be harder to measure but more important for Traditional Owners, Country and the wider community.

The report "Grassy Eucalypt Woodlands Wiyn Murrup Monitoring Program (2020-2023)" explores some of learnings and benefits, including (but not limited to):

- increased support, trust and confidence in Wiyn Murrup by government agencies
- increased capability and capacity for WTOAC to lead burns on Country. More WTOAC members have received training and experience with Wiyn Murrup as a result of the program
- Greater access to Country and time on Country leads to health and wellbeing benefits and

passing down of knowledge to family and other Wadawurrung People

• Greater understanding of Wiyn Murrup, fire behaviour, planning process, vegetation and monitoring techniques.

GHCMA Celebrating five years of the VVP Recovery Project!

Grassland superstars Aggie and Ben from the GHCMA recently held an event at the historic Narrapumelap Homestead at Wickliffe to showcase the projects involved in the wider program.



Narrapumelap Homestead entrance

Participants were treated to a Welcome to Eastern Maar Country by Brett Clarke and presentations by a range of experts on:

- grassland monitoring
- wetland monitoring
- the Linear Reserves Project
- Eastern Barred Bandicoot Recovery Program
- Spiny Rice-flower
- Button Wrinklewort.

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Jon Lee from DEECA provides on update on the Eastern Barred Bandicoot project

A grassland case study

From 2014 to 2018, Brad Farmilo and Claire Moxham from ARI conducted research into the effectiveness of weed control (herbicide) on linear grassland remnants. Their paper, titled "The effectiveness of weed control in a threatened plant community; A grassland case study", has recently been published in the journal, *Ecological Engineering*. It can be accessed here:

https://www.sciencedirect.com/science/article/abs/pii/S09 2585742300126X

This paper demonstrates the difficulty in local eradication of weedy perennial grasses. The authors suggest the effectiveness of weed control might be enhanced by strategic and ongoing application of herbicide along with burning. However, a reduction in soil crust cover following herbicide application raises some concerns about the indirect effects of weed control which may require further research.

Woorndoo Grassland celebration!

Here's one for your calendar...

The Woorndoo Chatsworth Landcare Group is planning a celebration! It is 10 years since the Group sowed the first of its multi-species grassland restorations.

Save the date - Friday 27 October 2023

To be held at the Woorndoo Recreation Reserve and associated sites. A program of speakers and site visits (Woorndoo and Wickliffe) will follow nearer the time.

Contact John Delpratt if you'd like to be added to the WCLG mailing list – <u>ceciljd@unimelb.edu.au</u>



Woorndoo restoration in spring Year four (2017)

Serrated Tussock

If anyone has ever had to deal with this weed of national significance, you may be interest in this paper:

An integrated approach for the restoration of Australian temperate grasslands invaded by Nassella trichotoma | Scientific Reports (nature.com)

Incredibly invasive and difficult to control, this paper explores a study into different combinations of herbicide, fire, a second application of herbicide, grazing exclusion, tillage and broadcasting seeds in order to reduce the above and below-ground density of *Nasella trichotoma*.

Overall, the integration of herbicide, fire and broadcasting native seeds was observed to provide the most economically feasible management strategy for the landscape-scale restoration of a degraded temperate grassland dominated by *N. trichotoma*.



Serrated Tussock control via herbicide